

**ESTIMATES COMMITTEE
(1977-78)**

(SIXTH LOK SABHA)

ELEVENTH REPORT

**MINISTRY OF HEALTH AND FAMILY WELFARE
(DEPARTMENT OF HEALTH)**

PREVENTION AND CONTROL OF BLINDNESS

Presented to Lok Sabha on 4 APR



**LOK SABHA SECRETARIAT
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The Eleventh Report of the Estimates Committee on the Ministry of Health and Family Welfare - Prevention and Control of Blindness.

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(1977-78)

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**SUB-COMMITTEE OF THE ESTIMATES COMMITTEE (1977-78)
ON PREVENTION AND CONTROL OF BLINDNESS**

1. Shri Satyendra Narayan Sinha—*Chairman*
2. Shri K. P. Unnikrishnan—*Convener*
3. Shri Yashwant Borole
4. Shri Basant Singh Khalsa
5. Shri Amrit Nahata
6. Shri Shankersinhji Vaghela
7. Shri Mritunjay Prasad.

INTRODUCTION

I, the Chairman of Estimates Committee, having been authorised by the Committee to submit the report on their behalf, present this 11th Report on the Ministry of Health and Family Welfare (Department of Health)—Prevention and Control of Blindness.

2. This subject was taken up for examination by the Estimates Committee (1976-77). Necessary information was obtained and evidence of non-officials and representatives of the Ministry of Health and Family Welfare (Department of Health), Ministry of Industry (Department of Industrial Development), Planning Commission and Dr. Rajendra Prasad Centre for Ophthalmic Sciences, New Delhi, was taken by them. The Committee, however, could not finalise their report due to the dissolution of the Lok Sabha on 18th January, 1977.

3. The Estimates Committee (1977-78) appointed a Sub-Committee to finalise the report on the subject. On the basis of evidence tendered before the previous Committee (1976-77) and before the Sub-Committee of the Estimates Committee (1977-78) on Prevention and Control of Blindness, and on the basis of additional information obtained by the Sub-Committee The Sub-Committee finalised the report at their sittings held on 2, 3, 8 September and 13 December, 1977. The report of the Sub-Committee was considered and adopted by the Estimates Committee at their sitting held on 20 December, 1977.

4. The Committee place on record their appreciation of commendable work done by the Chairman and members of the Estimates Committee (1976-77) in taking evidence and obtaining information for this report.

5. The Committee wish to express their thanks to the officers of the Ministry of Health and Family Welfare (Department of Health) for placing before them material and information which they desired in connection with the examination of the subject and for giving evidence before the Committee.

6. The Committee also wish to express their thanks to Dr. L. P. Aggarwal, Chief Organiser, Dr. Rajendra Prasad Centre for Ophthalmic Sciences, New Delhi, Dr. J. M. Pawha, Chief Medical Officer, Gandhi Eye Hospital, Aligarh, Dr. Sushila Nayar President, National Society for the Prevention and Control of Blindness, Dr. Rajendra T. Vyas, Royal Commonwealth Society for Blind, Bombay, Dr. P. Sadashiva Reddy, Director of Ophthalmology, Institute of Medical Sciences & Sarojini Devi Eye Hospital, Hy-

derabad, and Dr. I. S. Goel, Research Professor Nehru Institute of Ophthalmology, Research & Eye Hospital, Sitapur, for furnishing memoranda to the Committee and also giving evidence and making valuable suggestions.

7. The Committee also wish to express their thanks to all the institutions, associations and individuals who furnished memoranda on the subject to the Committee.

8. For facility of reference the observations/recommendations of the Committee have been printed in thick type in the body of the Report. Serial number of each observation/recommendation has also been indicated at the end. A summary of the observations/recommendations is appended to the report (Appendix XIII).

SATYENDRA NARAYAN SINHA,
Chairman,

NEW DELHI;

January 11, 1978.

Estimates Committee.

Pausa 22, 1899 (S).

CHAPTER I

INTRODUCTORY

A. Historical Background

1.1. Blindness is the worst of the disabilities that a human being can suffer from. Apart from human suffering visual impairment and blindness has serious social and economic implications.

1.2. The first ever action taken for the prevention of visual impairment was in 1931, when the National Institute for the Blind, London, set up a special committee on India, which addressed a memorial to the Secretary of the State for India, concentrating especially upon the known facts of preventable blindness in India, and expressing the hope that some action might be taken by the Government. The memorial was referred by the Secretary of State to Local Governments and Administrations for their consideration. In a subsequent letter the Committee desired that an Advisory Committee might be set up in India, consisting of persons actively engaged in work for the blind. In 1933, the Secretary of State reported to the Committee the failure of the proposals to form Advisory Committee by the local Governments and Administrations, and he observed that this failure or inability to form Advisory Committee indicated an inadequate appreciation of facts and lack of realization by the Governments of their responsibilities.

1.3. In 1942, the Union Braille Code Committee in their report stressed the urgent need for action and recommended that the Central Advisory Boards of Education and Health should jointly consider the problem of prevention of blindness in this country at an early date.

1.4. In January, 1943, the Department of Education, Health and Lands of Government of India appointed Lieut. Col. Sir Clutha Mackenzie "as a special officer to investigate the extent of blindness in India and its causes and to carry out a survey of the existing societies for the education of the blind children and of the means of employing trained blind men and women in the sheltered industries and to prepare a scheme for the creation of National Organisation for the blind of India." Sir Clutha Mackenzie was himself totally blinded in action in 1915. The special officer so appointed immediately started action to collect necessary information and data and on April 7, 1943, he submitted an interim report to the Department of Education, Health and Lands which was considered by the Central Advisory Board of Health in New Delhi on October, 4—6, 1943. Sir Gordon Jolly, the then Director General, India Medical Services observed, "the problem of the blind in India is a subject that might

well have engaged the attention of the Central Advisory Board of Health earlier. If the definition of blindness is widened so as to include persons who are so blind as to be unable to perform any work for which eye sight is essential, the figure for the number of blind in India has been estimated as somewhere between one and two millions. It is, therefore, evident that here exists an immense field for the amelioration of suffering and of poverty and for turning helpless dependents into socially useful citizens and an economic asset to the Community."

1.5. The Central Advisory Board of Health considered the report as submitted by Sir Clutha with the observations made by the then Director General of IMS, Sir, Gordon, and members expressed their keen support to the proposals to set up a special Joint Committee. The following resolution to that effect was recorded:

"The Central Advisory Board of Health notes the wish of Central Advisory Board of Education that a Joint Committee of both Boards should consider the problem of prevention of blindness. It also noted with appreciation the valuable interim report on Blindness in India by Lieut. Col. Sir Clutha Mackenzie and requested the Chairman to appoint a Joint Committee of the Central Advisory Boards of Health and Education to examine the subject with special reference to the causes and prevention of blindness in India and to Sir Clutha Mackenzies recommendations and their practicability. The Joint Committee should report to the two parent Boards."

1.6. A special Joint Committee of Blindness was eventually set up. It consisted of seven members nominated by the Central Advisory Board of Education and seven by the Central Advisory Board of Health. These two groups resolved themselves into two Sub-Committees, the Education Sub-Committee and the Medical Sub-Committee, for purposes of discussing the technical details of their respective fields, meeting as the Joint Committee to deliberate on problems of interest to both end to agree upon the text of the final report.

1.7. In pre-independence period, there was enumeration of the blind in the country at the time of the decennial census, which continued till 1931 only. As per 1931 census, the incidence of blind people was recorded as 172 per 100,000. At the same time, a special count was made in Uttar Pradesh (the then United Province), it was found that not less than 900 per 100,000 were blind. In Bombay Presidency, the Blind Relief Association made accurate counts of the blind, and the figures were three-fold of the census returns *i.e.* about 260 per 100,000.

1.8. These conflicting figures were considered by the Joint Committee and it was of the opinion that the figures obtained during the decennial census could not be much relied upon due to various factors such as absence of well defined definition of blind, the large number of lay personnel involved in the census and general apathy of the people in giving out true information to the enumerators about the blind in the family, specially in respect of the females and unmarried girls.

1.9. The Committee made no survey or counts itself, but taking all these factors into consideration and also the observations made during specific counts in Uttar Pradesh, Bombay, Bengal, the members observed that the figures have been arrived at on a general definition amounting to total blindness; and with the assumption that for every totally blind person, there is at least one patient blind whose sight is so damaged that he cannot earn his living without the special assistance of the blind welfare services. The Committee felt justified in believing that 250 per 100,000 represented the probable ratio of the totally blind, with a similar ratio of partially blind needing welfare services, giving the total figures of 500 per 100,000. The ratio when applied to the then approximate population of 400 million in India gave the figures of 2 million blind in the country, against 5 million estimated blind in the world at that time.

1.10. The Joint Committee even at this data considered blindness to be a major problem and made several recommendations for control and prevention of blindness. The major one included:

- (i) Appointment of special Adviser in Ophthalmology in India in the office of the Director General, Indian Medical Services and setting up an Indian Council of Blindness at the Centre; the Advisor also acting as the Secretary to that Council.
- (ii) Appointment of advisor in Ophthalmology at Provincial and State levels and formation of Committees of Indian Council of Blindness.
- (iii) The Committees' functions were defined:
 - (a) Publicity and Health Education
 - (b) Collection of funds for mobile eye units etc.
 - (c) Recommend to the Governments for the passage of legislation etc.
- (iv) To develop additional eye hospitals and eye wards attached to the general hospitals in the country;
- (v) Provision of eye health care services at village Dispensaries with district hospital serving as referral centres;
- (vi) Passing of an act to prohibit couching by unqualified persons.

1.11. The Health Survey and Development Committee under Sir J. Bhore, constituted in 1946 also deliberated on the subject of the diseases of eye and blindness and observed:

"The subject was fully discussed and comprehensive proposals were made in 1944 by a Joint Committee of the Central Advisory Boards of Health and of Education. Its reports deal with problem both in its medical and rehabilitation aspects, and as the ground has been amply covered by this Committee in 2 fields, we need do no more than commend its recommendations to the earnest considerations of Government and all organisations—public and private, which are interested in promoting the welfare of the blind and in organising preventive and curative health work who are afflicted with eye diseases."

1.12. In spite of such strong recommendations of the two Committees, no action was taken by the then alien Government of this country and exhaustive reports and recommendations of the committees remained practically shelved. In 1954, the National Government was seized of the problem and the Indian Council of Medical Research was entrusted to define the magnitude of the problem of blind. The ICMR formed a Committee which met on 22, 23 and 24 November, 1954 at Baroda under the Chairmanship of Dr. K. C. K. E. Raja. During the deliberations, the Committee observed "in many parts of India, and particularly in North, Trachoma constitutes the major problem in eye diseases and is the principal cause of total and partial blindness." While making the statement the Committee included the infections of the eye as associated conditions of Trachoma. They deliberated only the on preventable factors and did not consider factors like Cataract as a cause of blindness, because such a blindness was curable. Based on that committee's recommendations, the Government of India established a Trachoma Control Pilot Project. The project took up country-wide random survey to study the geographical distribution of trachoma, and during the process also did the survey on prevalence of blindness in the country. The definition of the blind used in the study was "inability to count fingers at two metres distance with each eye." Based on the findings of the project during the period 1959—63, the number of blind were estimated to be about 4.5 million in a population of 450 million i.e. 1000 per 100,000 or 1 per cent of the population.

1.13. The National Government appointed the Health Survey and Planning Committee in August 1959 under Dr. A. Lakshmanaswamy Mudaliar. This Committee deliberated in detail on the various aspects of the eye diseases and blindness and made very exhaustive and practical recommendations. Relevant recommendations of the Committee are given at Appendix I.

In 1960, the Indian Council of Medical Research established a Working Group for Prevention of Blindness and Research in ophthalmic problems. This Working Group watched the development and encouraged new research projects in the field of ophthalmic science and also worked as a watch-dog on the performance of the Trachoma Control Pilot Project established in 1956. Recently, a positive attitude has been adopted by the ICMR in identifying the real needs of these problems.

Recent Developments

1.14. WHO has also been seized with the various ophthalmological problems including blindness and have considered them through various Expert Committees, scientific groups and seminars. The organisation intensified its activities at the behest of Twenty-Second World Health Assembly 1969 which adopted a resolution requesting the WHO "to undertake a study on the information which is at present available at the extent and all the census of the preventable and curable blindness." In pursuance of this request, the Director General, WHO submitted to the Twenty-Fifth World Health Assembly (in May, 1972) a report which included an analysis of the data collected from various member states on the prevalent causes of blindness.

1.15. As a result of the discussions, the Health Assembly adopted a new resolution in which the Director General WHO was requested to obtain additional data on visual impairment and blindness, to promote further studies on the most efficient and economic means of preventing blindness, to assist member states in educational programmes related to blindness and to intensify technical assistance to national programme particularly those against trachoma, on onchocerciasis cataract and Xerophthalmia.

1.16. As a first step in the development of a co-ordinated programme against blindness, an Inter-Secretariat Working Group was established at WHO headquarters, in which several technical units participated. The Study Group was convened to provide further guidance for the development of the WHO programme in the field of preventable blindness and to recommend measures for further action. The Group understood that the WHO should be involved as implied in the resolution adopted by the Twenty-Second World Health Assembly (1969) not only in measures related to the primary prevention of blindness but also in the early detection and treatment of potentially blinding conditions.

1.17. According to the report of Director-General, WHO to the Twenty-Fifth World Health Assembly 1972, the number of blind persons in the whole world has been estimated at 10 to 15 million. This figure is based on fragmentary data and is believed an under estimate. Because of increase in population and life expectancy, the number of blind will be

even greater in the future, and unless active measures are taken to prevent blindness, it is expected that by the year 2000 the number of blind will rise to over 30 million.

1.18. In response to the Twenty-Fifth World Health assembly 1972 Resolution, the Government of India directed the Indian Council of Medical Research to take up studies to enumerate the number of the visually handicapped and the blind in the country. Accordingly, the ICMR initiated surveys through 7 centres in the country at Srinagar, Delhi, Varanasi, Cuttack, Indore, Ahmedabad and Madurai. With the activities applied for urban, semi-urban and rural population alongwith the density of the population in areas of study, it was calculated that there were about 9 million blind in the country, which need either preventive or curative measures. In addition, about 45 million people were estimated as having visual disability, short of blindness.

1.19. As part of the WHO assistance to the country in the field of prevention of blindness, a WHO consultant Dr. B. Nizetic visited India from 14-4-75 to 22-5-75. He visited many ophthalmic centres in the country and had detailed discussions with the experts. During his visits and discussions, he assessed the facilities for training services and research in relation to the prevention and control of blindness, to advise in the development of ophthalmic services, integrated into the existing public health delivery system, for management and prevention of blindness, with special reference to Cataract, to review the training of health and allied personnels, to meet the needs of public health ophthalmic services, to advise on epidemiological investigations into visual impairment and blindness, to prepare a draft National Plan for Comprehensive community based ophthalmic services. Salient recommendations made in the report submitted by him on his visits are given in Appendix II.

1.20. In order to draw world attention, mobilise resources and stimulate world-wide co-ordinated and concerted action, the WHO adopted the theme for World Health Day 1976 as "Foresight Prevents Blindness."

1.21. The National Society for the Prevention of Blindness organised a National Symposium on "Community Ophthalmology"—An Integrated Approach on the 8-9 March, 1975, ophthalmologists of repute, representative of the Ministry of Health and Family Planning, representatives from the Ministry of Education and Social Welfare, Dte. General of Health Services, World Health Organisation, Royal Commonwealth Society for Prevention of Blindness, National Association for the Blind and the Indian Council of Medical Research etc. Recommendations made at the symposium are given in Appendix III.

1.22. The Government accepted the need for a comprehensive plan of Action for Prevention and Control of Blindness and visual impairment. A Working Group was set up under the Chairmanship of Dr. J. B. Srivastava the then Director General of Health Services. The Group was required to examine the various aspects of the problem of blindness in the country and recommend a plan of action for prevention and cure of blindness including creation of infrastructure and work out financial implications thereof. The Working Group met on 4th April, 1975 and after a thorough review of the problem and detailed discussions on the subject submitted its reports alongwith a suggested plan of operation and financial implications. This was subsequently put up to the Joint Meeting of Central Council of Health and Family Planning held in April, 1975.

1.23. The Joint Meeting while deliberating upon the problem recognised: "that basic human rights must include the right to see; the right of any citizen not to go blind needlessly; or being blind not remain so, if by reasonable deployment of skill and resources his sight can be restored."

1.24. The meeting noted with concern the magnitude of the problem of visual impairment and blindness and the extent of drain on the national economy and the social dependence of blind persons on the community.

1.25. The meeting resolved that the Government of India should adopt a National Policy and evolve a comprehensive plan of action and take preventive and curative measures against visual impairment, blindness and for rehabilitation of purpose of control and prevention of visual impairment of blindness as recommended by the Joint Meeting is contained in Appendix IV.

1.26. The National Society for the Prevention of Blindness again held a National Symposium on 22-23 March, 1976 at Aligarh on the subject of "EVALUATION OF NATIONAL PLAN FOR PREVENTION OF BLINDNESS". It was attended not only by the Ophthalmologists but also by the general practitioners, Educationists, Social Workers, Industrialists and Representatives of Social Organisations like Lions Club, Rotary Club and Representatives of the National Association for the Blind and the recommendations made at 1975 Symposium were reiterated.

1.27. Following this National Symposium, the WHO convened a South East Asia Regional Consultative Meeting on Prevention of Visual Impairment and Blindness at New Delhi on 24—26 March, 1976. The meeting was represented by the representatives from Bangla Desh, Burma, Indonesia, Sri Lanka and Thailand alongwith those from India. There were representatives from various International Agencies in India and abroad and WHO Experts. This problem of visual impairment and blindness was again discussed threadbare keeping in mind the regional priorities. The meeting identified the causative factors of blindness in the region as Trachoma and other

infections, Cataract, Mal-nutrition, Injuries and Glaucoma. The meeting further emphasised that the large percentage of the blind occurring in the countries in this region is preventable and curable. It urged the priority action:

- (a) to develop plan and Programme for Community-oriented basic eye-health services, including prevention through a multi-disciplinary and multi-sectoral approach at the peripheral level with the adequate referral services at the Intermediate, regional and Central level;
- (b) to enhance the regional and national potential for training of health and allied personnels in eye-health care at all levels;
- (c) to organize facilities at the Regional and National levels for training of health and allied personnels for community oriented eye-health services; and
- (d) to establish school health programme with an eye-health care component and wherever possible supply low vision aids to those who need them.

1.28. The meeting realised the need to involve the community in all stages of planning, programming and implementation of activities with built-in evaluation and feed-back systems. The recommendations of this meeting are given in Appendix V.

1.29. This South East Asia Regional Meet was followed by inter-regional meeting on the prevention of blindness held at Baghdad from 29th March to 1st April, 1976. At this meeting, the problem of blindness was discussed at the global level and many important and useful observations and recommendations were made. The three main causative factors responsible for visual impairment and blindness in the countries of the South East Asia Region were identified as (i) Trachoma and acute ophthalmia; (ii) Xerophthalmia; and (iii) Cataract. The meeting also deliberated upon man power requirements and development of eye-health services and stressed on the necessity of eye health education. The various observations and recommendations made on specific points and the guidelines and general recommendations are given in Appendix VI.

Measures adopted by the Government for its control

1.30. The various committees, National and Inter-national bodies having reviewed the problem of visual impairment and blindness in the country, identified Trachoma and infections of the eye as the major preventable factor responsible for visual impairment, followed by xerophthalmia and ocular lesions due to small pox. Cataract was also identified as responsible for more than 50 per cent of the visually impaired and the blind, mostly in the

age group about 45 years, and recognised this cause as curable by surgery. After identification of the problem, the following measures have been adopted by the Government:

- (i) The Government has established an apex organisation under the name of Dr. Rajendra Prasad Centre for Ophthalmic Sciences in year 1967 as a centre of excellence to provide national leadership. By virtue of the range of activities which it undertakes at present, it is partially discharging the functions of a National Institute of Ophthalmology. It is being developed in a phased manner to fully provide leadership in areas of service, training and research related to the National problem of Visual impairment and blindness.
- (ii) The departments of the Ophthalmology of some of the medical colleges in various states have been upgraded and provided with financial inputs to raise the standards.
- (iii) Various State Governments have been urged to post eye-specialists in district hospitals, and if possible sub-divisional hospitals. Action in some of the States in this regard has already started.
- (iv) Voluntary organisations are being assisted by grants both from the Central Government and State Governments and are being encouraged to hold eye camps in various districts and rural areas.
- (v) About 20 per cent of all blindness is due to trachoma and associated infections. The Government of India, after assessing the magnitude of the problem during 1956—63 through a pilot project, launched a National Trachoma Control Programme in 1963. The Scheme has already produced results reflecting in reduction of cases suffering from potentially blinding effects due to this disease and has also resulted in reduction of prevalence and incidence of lesions due to trachoma and bacterial infections. This programme has been able to demonstrate that without eradication of a disease, it is possible to control blindness due to complications and sequelae of the disease.
- (vi) The Government of India has launched a small-pox eradication programme and has been able to achieve a zero level in May, 1976. Result of control of Smallpox is that blindness due to Smallpox in future is eliminated.
- (vii) The Govt. of India has also launched a scheme for distribution of Vitamin 'A' as part of Maternity and Child Health Programmes. About 100 million children are at risk, out of which only

3.75 m. would be covered by the end of March, 1976. Under the scheme 2,00,000 units of Vitamin 'A' are orally administered twice a year.

- (viii) There are other supplementary feeding programme which have been launched for the children and the pregnant and nursing mothers. Since these programmes on mass scales have only recently been launched, it will be too early to assess their impact on prevention of visual impairment and control of blindness. It is, however, anticipated that it will give definite and favourable trend in due course of time.
- (ix) In the field of blindness due to cataract, operations are being performed in 100 and odd medical colleges and other ophthalmic institutions and by a large number of eye hospitals in States run by voluntary, social and philanthropic bodies which are receiving aid from the Government under the voluntary agency scheme.

1.31. International agencies like Royal Commonwealth Society the Prevention of Blindness, the Operation Eye Sight Universal of Canada and others, have also come in the field for surgical intervention for Cataract and are also financially supporting the campaign. Various National voluntary bodies like National Society for the Prevention of Blindness, Social Clubs like Rotary and Lions and Charitable Organisations sponsor eye camps mainly for cataract. Some State Governments have also launched the scheme of camps for cataract and other diseases through established hospitals and medical colleges.

1.32. However, considering the magnitude of the problem of visual impairment and blindness in the country due to various identified major causes, the present efforts fall far short of requirements and need manifold augmentation. The efforts have to aim at not only reducing the number of blind persons as far as possible, but also to lay a permanent infra-structure so that blindness does not emerge again as a major public health problem. The infrastructure should be able to deal with the problem and the various causative factors so that they are duly controlled and brought down to a level below the thresh-hold level.

1.33. In the light of the guidelines issued by the Joint Meeting of the Central Council of Health and Family Planning and taking into consideration the various recommendations made by the international and National Forums, including these made by the National Society for the Prevention of Blindness, a draft of National Plan has been developed. The Plan has since been cleared by the Expenditure Finance Committee and will be taken up for implementation from 1976-77.

1.34. It is well known that sight is the most precious gift of nature and deprivation of sight is the worst of the disabilities that a human being can suffer from. Human suffering apart visual impairment and blindness has also serious social and economic implications. It has been rightly said that not the least important among the human rights surely is the right of any man to see. As to the number of persons in India who do not have this right to see, the Committee note that no proper assessment has so far been made but a random sampling survey has revealed a staggering estimate of about 9 million blind, needing either preventive or curative measures and in addition there were about 45 million, having visual impairment short of blindness. The Committee also note that the number of blind of India forms the highest proportion of the total blind population in the world. Even allowing for errors incidental in sampling estimates, the Committee have no doubt that the problem of blindness in the country is serious both on account of its magnitude and the inadequacy of remedial efforts made so far. The implications of such a large number of blind and visually disabled in terms of human suffering, social disability and economic wastage are serious and the imperativeness of undertaking preventive measures need hardly to be emphasised. It is evident that the problem poses a formidable challenge and calls for well directed sustained and meaningful organisational efforts for carrying out preventive and curative measures on a commensurate scale so that light may be brought into the lives of millions of people and eye-health of the community is safeguarded from any further erosions of the dreadful disease of blindness and visual disability.

1.35. From the chronology of the steps taken for prevention of blindness in the country, the Committee regret to note that the efforts made, have been incommensurate compared to the magnitude of the problem. The first step stated to have been taken was in 1931 when proposal was made to form Advisory Committee consisting of persons actively engaged in the work for the blind. The proposal failed because of inadequate appreciation of facts and lack of realisation by the then provincial Governments of their responsibilities. The next step was taken in 1943 to appoint a Special Officer to investigate the extent of blindness in India and its causes. As a sequel to the Report of the Special Officer, a Special Joint Committee consisting of 7 Members each from the Central Advisory Boards of Education and Health was constituted in 1944 which made several recommendations for prevention and control of blindness. The Health Survey and Development Committee under Sir J. Bhore, constituted in 1946, endorsed the recommendations of the Joint Committee. The Committee regret to note that 'exhaustive reports and recommendations of the Committees remained practically shelved'.

1.36. After Independence, it was only in 1954 that Government asked the Indian Council of Medical Research to define the magnitude of the

problem of the blind. The ICMR constituted a Committee which identified trachoma as the major problem in eye disease. As a result a Trachoma Control Pilot Project was set up in 1956. The Committee have dealt in a subsequent chapter with the measures taken to reduce the incidence of trachoma. The Committee cannot, however, help in remarking that much valuable time was allowed to lapse from 1947 to 1954 without any concrete action being taken on the recommendations of the Joint Committee of the Central Advisory Boards and the Health Survey and Development Committee (1946).

1.37. The Committee note that the next phase of the efforts against blindness was undertaken in 1959 when the Health Survey and Planning Committee under Dr. A. Lakshamanaswamy Mudaliar, which was appointed, made very exhaustive and practical recommendations on various aspects of eye diseases and blindness. In 1960, the Indian Council of Medical Research established a Working Group for Prevention of Blindness and research in Ophthalmic problems. The Committee feel that had adequate follow up action being taken to implement the recommendations of the Working Group etc., the problem of blindness, particularly in the rural areas and the weaker sections of society would not have been as it is at present.

1.38. The Committee note that the World Health Organisation intensified their activities against blindness from 1972 onwards. In response to the World Health Assembly (1972) Resolution the Indian Council of Medical Research initiated survey through centres in the country on the basis of which it has been intimated that there are about 9 million blind in the country and in addition there are about 45 million persons who are estimated as having visual disability, short of blindness. A WHO consultant who visited India in 1975 gave his recommendations for prevention of blindness. Recommendations were also made at a National Symposium organised in April, 1975 by the National Society for Prevention of Blindness. The Ministry of Health set up a Working Group to recommend a plan of action for prevention and control of blindness. The report of the Working Group was considered at the Joint meeting of Central Council of Health and Family Planning in April, 1975 who recommended a strategy for the purpose of control and prevention of blindness known as the National Plan for Prevention of Blindness.

1.39. Another National Symposium was held in March, 1976 and a South East Asia Regional Consultative Meeting was also convened by WHO in March 1976 followed by Inter-Regional Meeting at Baghdad from 29th March to 1st April, 1976. In the light of the guidelines issued by the Joint Meeting of the Central Council of Health and Family Planning and

taking into consideration the various recommendations made at international and national forums, a draft of National Plan has been developed and approved and is stated to have been taken up for implementation from 1976-77 after clearance by the Expenditure Finance Committee. The Committee are glad to note that at least now there is not only a growing awareness of the problem but the need for planned effort to combat the disease has been recognised and action initiated to implement it.

1.40. The Committee note that Trachoma and infections of the eye have been identified as the major preventable factor responsible for visual impairment, followed by Xerophthalmia and ocular lesions due to smallpox. Cataract has also been identified as responsible for more than 50 per cent of the visually impaired and the blind, and as curable by surgery. Some of the important aspects of the campaign for prevention of blindness are development of community oriented basic eye health services including prevention, development of education on eye health etc. The Committee have dealt with in subsequent chapters the adequacy of the steps taken or proposed to be taken in respect of prevention of blindness.

1.41. The Committee are constrained to observe that no concrete measures in real terms were taken for a long time for creating an infrastructure for the prevention and control of blindness. The Committee trust that now with the launching of the National Plan on Blindness, vigorous and sustained efforts will be made to implement the plan within a time bound programme.

(b) Magnitude of the Problem

(i) *Magnitude of the problem in the World*

1.42. In 1969, the World Health Assembly requested the Director General, *vide* its resolution No. WHA 22.29, "to undertake a study on the information which is at present available on the extent and all the causes of preventable and curable blindness." In order to collect the required information WHO sent a questionnaire on the prevalence and causes of blindness to the National Health authorities of all members states, and associate members of WHO in March, 1970. WHO received about 78 replies of which 56 contained relevant data.

1.43. The replies so received were analysed and submitted to the 25th World Health Assembly. According to the report submitted, the number of blind persons in the whole world were estimated at 10 to 15 million. This figure was based on the fragmentary data and was believed to be an underestimate. It has been stated that on screening through the data presented by the WHO it seems that most of the countries of the World have not assessed the problem of blindness in the recent years. It has also

been revealed that many countries employ different definition for categorization of blind and the figures therefore cannot be taken as comparable.

1.44. The estimates of blinds in some countries are based on surveys held as far back as 1931, and in one or two countries even in the beginning of the century. The information points out that blindness in Asian, Middle eastern, South eastern and South American regions range from 400 to 3,000 per 100,000 of population. The figures quoted by WHO are not adequate for any purpose. The data based on certain surveys and on the basis of 1970 questionnaire which gives the criteria of blindness adopted by different countries is not fully defined, and not standardised.

1.45. While looking at the figures for India it is stated that in 1962, the blindness in India was 460 per hundred thousand of population. The ICMR figures for India in 1963 were 1000 per hundred thousand primarily because of different definitions used. The figures of 460 per hundred thousand or population may be related to the definition given by this country *i.e.* as "no preception of light," which has been considered to be of no use in modern surveys.

1.46. In recent consultative meeting of the WHO South East Region in Delhi and Inter-Regional Meeting of Baghdad it seemed that the blindness figures in the world may be in the neighbourhood of 27-30 millions.

(ii) Magnitude of the problem in India

1.47. In assessing the disability caused by visual impairment and blindness, different parameters in which it occurs have to be considered. The loss of vision including the most severe stage of blindness may be congenital, may occur in children and at other different ages. It may develop suddenly or there may be a gradual progressive loss of vision. It may affect one eye or both eyes. In short, it may be said that it may develop as a consequence of number of conditions and environments which if detected and corrected in time may lead to prevention of blindness. The loss of vision may be curable or may not be curable. The disability caused by loss of vision is also influenced by social, cultural, educational and economical factors, and by the capacities and the personality of the affected individuals. From the point of view of National Programme of Action, the basic information that was considered necessary in decision making and setting of priorities in this field included the incidence and prevalence of persons affected as well distribution according to the causes of loss of vision and blindness.

1.48. The definition of blindness taken is vision 6/00 or less in the better eye with best possible spectacle correction from this criterion. The number of blinds in the country are about 9 million, out of which 5.5

million are curable if services can be made available to the people in time. The common causes for visual impairment and blindness in India are:—

“(i) Cataract (55 per cent), Trachoma (5 per cent), infection of the eye (15 per cent) Small Pox (3 per cent), Malnutrition (2 per cent), Injuries (1.25 per cent), Glaucoma (0.5 per cent), and others (which include cognital disorders, Uveitis, detachment, Tumors, Diabetes, Hypertension and nervous system diseases etc.) (18.25 per cent).”

1.49. In a report of the working party of the Indian Council of Medical Research on pre-school children, it has now been estimated that 14,000 of such children suffer from Vitamin ‘A’ deficiency eye problem at any one point.

1.50. The number of people with visual impairment in the country is about 45 million which does not take into account all those who need prescription for glasses. The definition of visual impairment that has been employed is that the vision is 6/24 in the better eye with the best possible spectacle correction.

1.51. It has been stated by the Ministry of Health that:

“It is the considered view of the Govt. of India that prevention of blindness programmes should not be diseases oriented, as seems to be implied in identification of 4 major causes of blindness that is onchocerciasis, trachoma and communicable diseases, cataract and Vitamin ‘A’ deficiency; but that blindness should be treated as a problem oriented programme and greater stress should be laid on creating a machinery which would take care of not only the so called identified disease patterns in the developing countries but also to be able to simultaneously take care of the causes of blindness that have been identified for the developed countries. To us it looks that the strategy should be to develop three more important areas *i.e.*,

- (i) Intensive health education and dissemination of information;
- (ii) Manpower development;
- (iii) To deliver eye health care immediately to the needy population through mobile units; efficacy of which have been amply demonstrated by a camp approach adopted by India and neighbouring countries, and simultaneously create a permanent infra-structure of eye health services at the peripheral, intermediate, and central levels.”

1.52. In a number of memoranda submitted to the Committee on the question of the magnitude of blindness in India the following facts have been brought out:

- (i)It is said that one out of every three blind persons in the world is an Indian. According to one estimate, if the blindness is defined as visual acuity below 6/60 the conclusion is that 2.5 per cent of the Indian population is blind and 1.7 per cent of the population suffers from treatable conditions requiring urgent ophthalmic care. Another estimate reveals that there are approximately 45 million people suffering from visual impairment exclusive of 9 million totally blind people of whom 5 million blind people can be cured of their blindness by surgery....”
- (ii) According to the coordinated survey of the Indian Council of Medical Research....it is estimated that there are 9 million blind, out of which at least 5 million are curable by proper surgical intervention. Besides this by using the multiplier derived from earlier study it is estimated that there are 45 millions visually handicapped....”
- (iii)the magnitude of the problem of blindness in India is not only serious, but can be controlled by taking proper steps. Unfortunately the number of people becoming blind is on the increase due to several factors....”
- (iv)magnitude of the problem of the blindness in our country is unimaginable, depending on which type of blind people we turn will be, at least 1 per cent of our population. Though the ICMR Survey Project during the year 1970-73 gives the figure of 1.4 per cent. But if we have to think of one-eye blind persons as well, the figure will go upto 2 per cent of general population at least....”

1.53. The Committee note that the number of blind in the country is about 9 million out of which 5.5 million are curable if medical services can be made available to the people in time. The common causes for visual impairment and blindness in India are—Cataract (55 per cent), Trachoma (5 per cent), infection of eye (15 per cent) and others (25 per cent) which include Small Pox, malnutrition, injuries, glaucoma, congenital disorders, diabetes etc. The Committee have been informed that the situation has developed as there is lack of general ophthalmic care due to paucity and maldistribution of ophthalmic personnel. Even in the training of basic doctors, the environmental and other conditions in India have been completely ignored. Moreover there are not sufficient resources in finance, physical services and manpower. The Committee note the strategy for dealing with the problem is not to have disease oriented programmes but to

develop intensive health education and dissemination of informations, manpower development, and to deliver eye health care immediately to the needy population through mobile units and to create a permanent infrastructure of eye health services at the peripheral, intermediate and central levels.

1.54. The Committee trust that expeditious efforts will be made to implement the strategy so that beneficial results accrue in the shortest possible time.

1.55. The Committee note that the figures of blindness in the world are apparently in the neighbourhood of 27—30 million and that 1/2 or 2/3 of the cases of blindness could have been prevented if they had been detected and prevented in time. It is noted that a common feature of the problem of countering blindness in all countries is the need for better ophthalmic services and a large number of ophthalmic consultants. The Committee trust that the technical know-how and the organisational techniques of the various countries will be pooled and meaningful efforts made to achieve satisfactory results by a coordinated campaign against blindness.

(c) Survey and data collection

1.56. The random sample surveys carried out by the Trachoma Control Project in 1956, under the Indian Council of Medical Research, in 15 States, revealed that on an average 1000 people for 100,000 of population were economically blind. They used the definition of economic blindness as "any persons who cannot count fingers beyond 2 metres with both eyes open". The validity of this definition of economic blindness is debatable. By and large, vision less than 6/60 in the better eye with best possible spectacle correction, is considered as economic blindness. On this basis, the average figure for the country is found to be 1040 economically blind per 100,000 of population. The lowest prevalence of 410 is seen in Jammu & Kashmir and highest 2400 is seen in Mysore. There are no geophysical factors to account for this varied distribution of blindness in the various States, and the cause must be found elsewhere in socio-economic factors.

1.57. In 1965, the National Society for the prevention of Blindness conducted a limited sample survey for the "Early Detection of Visual Defects and its effect on the Rehabilitation of such persons." Very early in this programme, it was realised, that there does not exist any reliable data either on the prevalence or incidence of blindness in any cross section of the population. The investigations were carried out by an ophthalmic surgeon and other professional staff in Sinhi and Dayalpur villages near Delhi and it was revealed that more than 23.4 per cent of the population were suffering from visual defects and 2.49 per cent of them were blind.

Out of this, curable blindness constituted about 1.66 per cent and 0.83 per cent of the population were permanently blind. Another 3.90 per cent had one eye blindness, of whom 2.15 per cent were not curable and 1.79 per cent were curable. The problem as highlighted by the above survey, led to the project being extended upto 31st December, 1969. It was revealed by this survey that the prevalence of blindness in our country is one of the highest in the world. The most disturbing factor was that it was on the increase.

1.58. Again the National Society for the Prevention of Blindness made special surveys to study the pattern of blindness in rural areas. The results indicated that there were 2500 economically blind individuals, with vision less than 6/60 in the better eye without glasses, per 1,00,000 of population, more than half (1930) of these individuals could be helped to regain useful vision by proper ophthalmic care.

1.59. Dr. Madan Mohan of Dr. Rajendra Prasad Centre for Ophthalmic Sciences, New Delhi surveyed blind schools in Northern India and found conjunctival infections and trachoma responsible for 32 per cent of blindness in children. This was followed closely by small-pox. Congenital abnormalities were responsible for 8 per cent and Keratomalacia for 2 per cent of blindness in children in Northern India, though this figure was much higher in the South. Similar surveys carried out by Dr. Venkataswamy in Southern India revealed that nearly 40 per cent of blindness was due to Keratomalacia. Thus it is seen that conjunctival infections and Trachoma are the major causes of blindness in children in North, whereas Keratomalacia takes the biggest toll in the Southern States and in West Bengal.

1.60. Recently in 1972 ICMR had conducted a Coordinated survey which has revealed that about 9 million people in our country are blind, out of whom at least 5 million are curable with proper ophthalmic care and surgical interference. About 45 million were estimated to be visually handicapped, who need ophthalmic services.

1.61. In different memoranda submitted to the Committee, it has been represented that:

- (i) "Unlike the developed countries, India does not have a system of recording the number of blind people or those suffering from severe impairment of vision. It is, therefore, difficult to give a very correct incidence of the....."
- (ii) "...there does not exist any reliable data on the prevalence or incidence of blindness in any cross section of the people..."

One limited survey undertaken in 1969 however, revealed that prevalence in our country is one the highest in the world. The most disturbing factor is that it is on the increase....”

- (iii) “....At present special surveys are conducted periodically for surveying the population on a long term basis covering a small percentage of population in a region or area. This method of survey and data collection leads to a very rough estimate of the prevalant situation and is highly inadequate....”
- (iv) “....Surveys should be undertaken from time to time to determine the status of the incidence and prevalance of ocular morbidity and serious visual impairment....”
- (v) “....Conducting survey is a gigantic task and requires detailed planning in advance, elaborate arrangements and a strict schedule of operations. A team consisting of an Ophthalmologist, Optometrist or a trained compounder including a statistician to work as Supervisor, may be deputed for this purpose. This team, with the help of social workers, staff of Nagar Palikas, where they exist, Pradhans of Gram Panchayats, make door to door survey more or less on the pattern of census operations.”

1.62. During their evidence, before the Committee the non-official witnesses gave their views as follows on the question of system of surveys and data collection for recording the number of blind people or those suffering from visual impairment:

“....There is no need of setting up a special and separate machinery for this purpose. The normal revenue machinery, from village level upwards, should be utilised for compulsory registration of blind people and of those suffering from visual impairment. This machinery can be employed for maintaining statistical details. The bureaus of economics and statistics in all the States and the Central Bureau of Economics and Statistics located in Calcutta should be entrusted with the responsibility of collecting statistical data on scientific lines. These bureaus should prescribe forms and distribute them to the revenue machinery for collecting information. On receipt of which they should be tabulated.”

- (ii) “....the revenue machinery has been used for collecting vital statistics, but they are thoroughly unreliable. I do not think that will serve the purposes. You will have to envolve the Primary Health Centres and Basic Health Centres if we want correct information in this regard....”

(iii) “....The survey and data collection for recording the number of blind people can go hand in hand with rendering services at the peripheral level. It may be possible to develop or establish centres for the registration of blind but this can only succeed if social benefit schemes are formulated at the same time which in the present financial constraints it will not be possible. Even with the registration system the number of blind may not be correctly enumerated as has been the experience of the countries like UK and USA. Mass surveys without service are also difficult. Hence the two should be combined. Random surveys combined with good eye care services is the only method which will yield reliable and accurate data at all levels of services....In my view collection of data through untrained and laymen as through the agency of revenue machinery is not only unproductive but many a time counter productive. In such laborious and many a time monotonous task unless there is a social commitment and that too of a trained worker, results are unreliable as was evident in 1931 census operations so much so that in subsequent census operations the effort was given up.”

(iv) “....data collection is a gigantic task and probably random surveys are not to my mind to be taken as accurate data. But for this, I will suggest that we should consult some experienced statistician so that we may get a correct picture of the total number of blind people in our country....Recently surveys were carried by the Indian Council of Medical Research in 6 places and I think it was a random survey. One was done in the North, one in the East and the others in other parts of the country may have given some figures and they are reliable. We can rely upon them.”

1.63. When asked as to what precise system of survey and data collection for recording the number of blind people or those suffering from visual impairment of vision the Government proposed to adopt on a nation wide basis, the Secretary, Ministry of Health and Family Planning stated during evidence:—

“....we have done this survey in 7 States of the country in the various zones in order to arrive at a representative sample of the number of blinds in the country. In this task we did not like to waste resources. At the same time we have deployed mobile health units which will take care of the eye health of the people. Side by side they will do the survey work also so that as the plan progresses we will be able to get more reliable data. The second point that has been raised is with

regard to the revenue authorities trying to do the enumeration of the blinds. The revenue authorities are untrained people and usually they record the number of blinds according to what people tell them. When we had conducted this survey in 1931, a figure of two million was arrived at. But when this figure was judged against the scientific background, it was found to be more inadequate. So we did not find the revenue officials suitable for this job...the other solution we are now trying is to train all our Primary Health Centres in Ophthalmology or community eye care and are also trying to equip them with certain equipment and train them so that they will be able to treat the eye patients and refer serious cases to medical colleges or district hospitals. It will take a little time but the programme has been prepared...."

1.64. In a written note furnished by the Ministry it has been stated that the figures of 9 million blind people, out of which 5 million blind were curable by surgical interference, had been arrived at after surveying a population of 3.95 lakhs at 7 centres of the country both in rural and urban areas. The seven centres being Delhi, Cuttack, Varanasi, Madurai, Ahmedabad and Srinagar. These surveys were conducted under the auspices of the Indian Council of Medical Research and they represented a fair projection. It has been stated that in future, surveys would be conducted along with service through mobile units.

1.65. In October, 1977 the Sub-Committee of the Estimates Committee (1977-78) enquired whether any further survey and data collection had been done regarding blindness and if so, what were the latest figures on blindness in the country. The Ministry in their written reply (November 1977) stated that no further survey had been done but it was proposed to conduct surveys as the mobile units got into operation, and it might be in another five years that the impact of the programme as well as the magnitude of blindness existing would be known.

1.66. As regards the point raised whether voluntary efforts had been mobilised and coordinated and what machinery had been evolved for evaluation of the survey and data collection on blindness, the Ministry in reply further stated thus:—

"A Central Coordination Committee consisting of the representatives of the Government of India, the representatives of the voluntary donor agencies, the National Association for the Blind, the National Society for Prevention of Blindness and as well as the representatives of the Indian Medical Association, and the Indian Ophthalmic Society have been formed. This

committee meets regularly and data collection and survey of blindness as well as eye relief is being monitored in a coordinated manner in consultation with this committee."

1.67. The Committee note that there is no system of recording the number of blind people or those suffering from impairment of vision in the country and that there is no reliable data on the prevalence or incidence of blindness in any cross section of the people. Some limited sample surveys which have been made by the National Society for the Prevention of Blindness and the Indian Council of Medical Research have revealed the prevalence of blindness in our country as the highest in the world. The latest coordinated survey by the ICMR in 7 different centres has led to an overall estimate of 9 million blind and 45 million visually handicapped. The Committee have been informed during evidence that Government did not consider it necessary to waste resources in physical enumeration but had deployed mobile health units which will take care of the eye health of the people and side by side will do the survey work. Enumeration by revenue officials was not considered suitable having regard to the technical nature of the work involved. The Ministry of Health in their latest submission before the Committee (November 1977) have stated that it was proposed to conduct surveys as the mobile units got into operation and it might be in another five years that the impact of the programme as well as the magnitude of blindness would be known. The Committee agree that data collection is a gigantic task. The Committee, however, feel that an overall survey regarding the prevalence of blindness in the country is basic for a coordinated and meaningful campaign against the disease. They would, therefore, stress that the surveys should be undertaken without any further loss of time and completed expeditiously so that the impact of the programme of Action on Blindness and precise magnitude of blindness are known and necessary timely remedial measures could be taken. The Committee feel that random sampling technique may not be applied in collection of data in rural areas where due to the smallness of population it is possible to collect statistics about the number of blind persons from village panchayats, village officers and other village institutions.

(A) Definition of Blindness

Definition as recommended by the World Health Organisation

1.68. According to WHO blindness and visual impairment may be classified as given in the following table:—

Category of visual impairment	Visual acuity (with both eye using the best possible correction)		
	Max. less than	Minimum equal to or better than	Visual fields
1.	6/18 3/10(0.3) 20/70	6/60 1/10(0.1) 20/200	Not specified
2.	6/60 1/100(0.1) 20/100	3/60 1/20(0.05) 20/400	Not specified
3.	3/60 1/20(0.5) 20/400	1/60 (Finger counting at 1 meter) 1/50(0.02) 5/300 (20/1200)	Less than 10 but more than 5 around central Fixation
4.	1/60 (Finger counting Light Perception at 1 meter)		Less than 50 Central Fixation
5.	Not light perception		
6.	Undetermined or unspecified		

1.69. The WHO also recommended that near vision should be taken into account while defining blindness but had not made any specific recommendations in this regard. The WHO recognised the need for an internationally accepted definition of blindness for the purpose of compiling international statistical data. It recommended that all nations should prepare statistics according to the categories defined in the table on page and that definition of blindness should include categories 3, 4 and 5. As a result of discussions for international strategy, study group set up by WHO submitted a report which identified that there was a need for a universal definition of visual impairment and blindness. In its report, however, the group did not give any clear guidelines. It however stated:—

“While each country must define blindness in relation to its own social and economic conditions (preferably using the standard categories given in this report), there is need for an internationally accepted definition of blindness for the purpose of compiling international statistical data.”

"It is hoped that eventually all nations will prepare statistics according to the categories defined in the table. Until this is done, countries using different definitions might submit their national statistics for the level of vision laid down by their own authorities, with adjustments where possible to conform to international practice."

1.70. The WHO recommended that this definition of blindness should include three categories:

"1. 3/60 but not less than 1/60 in the better eye with the best correction.

1/60 but not less than perception of light in the better eye with the best correction.

1.71. In the recommendation of the group, it did not take into consideration, the minimum visual performance required by an individual in this highly industrialised and technological world.

1.72. The WHO also had not given the parameters with regard to the field of vision but stated that if the extent of the visual fields was also to be considered, patient with a field of less than 10 but more than 5 around central fixation should be placed in category I and the patients with a field less than 5 around central fixation, in category II even if the central acuity of vision was not impaired.

1.73. It has been stated by Government that the statement of the WHO which was contained in its technical report series No. 518 published in 1973 from Geneva, had given rather a broad definition of blindness and had left considerable latitude to the nations to adopt a definition of their own. The recommendations of the WHO therefore, should be regarded as suitable for categorising a degree of visual impairment, rather than providing a definition of blindness. The WHO categorization also did not mention any field reductions in categories 1 and 2.

1.74. The Ministry have stated that in view of the various lacunae, the Health Ministry had devised its own definitions for the purposes of categorising blindness. These had been accepted by the Ministry of Social Welfare and were being currently utilised for giving social assistance to the blinds. A person was considered to be blind if he was having:

1. Vision 6/60 or less with the best possible spectacle correction;
2. Diminution of field of vision to 20° or less in the better eye;
3. One eye has vision of 6/60 or less with the best possible spectacles correction and other has a visual field of 20° or less.

1.75. It has been stated that the definition of visual impairment had also been adopted by the Ministry of Health in as much as visual impairment was considered to be a visual acuity of 6/24 or less with the best spectacle correction in the better eye. According to the WHO this definition needs to be revised to a visual acuity of 6/18 or less in the better eye with the best possible spectacle correction.

1.76. On the question of devising and adopting a new definition for the purposes of categorising blindness *i.e.*, a definition contrary to the internationally accepted and standardised definition of blindness as recommended by the WHO, the Secretary, Ministry of Health and Family Planning stated during evidence:—

“....The Govt. of India has not adopted the definition from the WHO. The WHO has listed five categories of visual impairment and they have asked various nations to prepare statistics according to the defined categories. We have utilised all the five grades for our own assessment.”

1.77. When asked as to whether it would not have been more appropriate and advantageous to conform to the internationally accepted and standardised definition of blindness as recommended by W.H.O., the Ministry of Health in a written note (November, 1977) stated:—

“W.H.O. has not recommended any standardised definition of blindness but has only recommended categories of vision which we have also adopted and therefore the question does not arise.”

1.78. The Committee note that the WHO has recognised the need for internationally accepted definition of blindness for the purpose of compiling international statistical data. In its technical report series number 518 published in 1973 from Geneva the WHO has given a definition of blindness which according to the Ministry is rather broad and leaves considerable scope to the nations to adopt a definition of their own. The Committee are informed that the Ministry of Health have devised their own definitions for the purpose of categorising blindness. It is also noticed that the definition of visual impairment adopted by the Ministry of Health needs to be revised according to the WHO. The Committee are definitely of the view that there is a need for adopting an internationally acceptable definition of visual impairment and blindness for the purpose of collecting statistical data as without such a standardised definition it would not be possible to have a meaningful comparison about the incidence of this affliction in the country vis-a-vis other countries and to conduct a coordinated campaign against blindness. The Committee, therefore, stress that in order to avoid any difficulty at the international level in the fight against blindness the

Government should review the definitions of blindness and visual impairment with a view to ensuring that the definition adopted by them should be as close to the internationally accepted definitions as possible.

(e) Socio Economic Cost

1.79. As earlier stated apart from human suffering, visual impairment and blindness has serious social and economic implications. A visually impaired or blind person contributes less to, and consumes more of, the national wealth and products that a comparable person with full eye sight. In terms of national value, the sum of this 'deficit' in production and 'excess' in consumption is the national cost which arises from the fact that the person is visually impaired or blind. This problem is particularly more in the underdeveloped and developing countries which need all manpower to contribute in their national development and can ill-afford to either maintain the visually handicapped or suffer loss of production on that account.

1.80. Sir John Wilson, President International Agency for the Prevention of blindness in his speech delivered at the special working group on the Prevention of Visual Impairment and Blindness organised by the WHO Regional Office for South East Asia held in New Delhi from 24th to 26th March, 1976 observed this with regard to the Socio-economic cost of a blind person to the nation:

"In economic terms, the problem is as destructive and as expensive, as a major war. A billion dollars is spent on rehabilitation of the blind. If you do another calculation, just imagine that it costs only one rupee a day to provide basic food and shelter for the curable blind people we are talking about this morning, the 8 million. That represents a cost of only something over 300 million dollars a year, to say nothing of preventing the loss of production....Behind the economic facts there are human facts; the blind Ghanaian farmer in one of those river-blindness villages, unaware that there are communities where sight and not blindness is normal; the Bedouin Arab blinded by trachoma for lack of a tube of ointment in a region with billions of petro-dollars; the infant I met last week in Southern India, one of thousands brought every year to the clinics and the temples, gaily dressed in ribbons and trinkets as though going to a Children's party, facing a lifetime of blindness for lack of a few pennyworth of vitamins. Mr. Chairman, blindness, needless blindness, on this scale, and with these consequences, is a grotesque anachronism, and it is not just as a formality that we have ventured to say that not the least im-

portant among the human rights, surely, is the right of any man to see.

1.81. In a statement issued by the Ministry of Health and Family Planning at the time of the WHO meeting in New Delhi on the 22nd March, 1976, on the aspect of the magnitude of blindness it was stated as follows:—

“....The Government of India has contributed to the thought that one of the basic human rights is the right to see. We have to ensure that no citizen goes blind needlessly or, being blind, does not remain so if, by reasonable development of skill and resources, his sight can be prevented from deteriorating or, if already lost, can be restored.

It is fully realised that blindness costs the nation a huge sum of money in terms of capital wastage. Its economic drain is further aggravated by the social dependence of the blind persons on the community. The Government, therefore, has noted with concern the magnitude of the problem the inadequacy of prevention and control of blindness, the extent of drain on the national economy and the social dependence of the blind on the community. To remedy the situation, the Central Health Council of India in April, 1975 adopted a resolution recommending measures to prevent visual impairment and to control blindness.”

1.82. During evidence when asked whether any assessment of the socio-economic cost of a blind persons to the community had been attempted, the Advisor Ophthalmology, Ministry of Health and Famly Planning stated:—

“....Let us take 30 paise as the cut off point for people below the poverty line and let us give 30 paise to every blind per day. Even then we need about Rs. 9 per month and for 9 million blind we need Rs. 81 million or Rs. 8.1 crores to be distributed to the blind without any productivity. If we take them on a proper feeding basis, they will require Rs. 100 each per month in which case we require Rs. 90 crores per month. Besides that, they have to be dependent on other people to guide them therefore, the socio-economic costs are very heavy.

1.83. In a subsequent note furnished to the Committee Government has worked out the socio-economic cost of a blind person to the community as follows:—

“....A rough estimate has been on the basic of feeding an individual at the cost of Rs. 100/- per month. By this parameter, the socic-economic cost to the nation is Rs. 90 crores a month Loss of productivity is greater.”

1.84. On the question of taking this problem on an emergent basis the Ministry have stated:—

“....We are now taking this up on an emergent basis. We would like to accelerate the programme but there are financial, man-power and material constraints. If, however, higher outlays can be made, acceleration of the programme is possible.”

1.85. It is a well known fact that blindness apart from human suffering costs the national a huge sum of money in a capital wastage and that the economic drain is further aggravated by the social dependence of the blind person on the community...The Committee have been informed that a rough estimate of the socio-economic cost of blind population to the community is Rs. 90 crores without counting the loss of productivity which is greater. The Committee need, therefore, hardly stress the urgency of measures to prevent visual impairment and to control blindness so as to reduce human suffering and to reduce the extent of drain on the national economy and the social dependence of the blind on the community.

CHAPTER II

CAUSES OF VISUAL IMPAIRMENT AND BLINDNESS

2.1. The causes of visual impairment and blindness vary from country to country, depending on topographic climatic, social, economic and cultural features. The common causes for visual impairment and blindness in India are stated as under:

“Cataract (55 per cent), Trachoma (5 per cent), Infection of the eyes (15 per cent), Smallpox (3 per cent), Malnutrition (2 per cent), Injuries (1.25 per cent), Glaucoma (0.5 per cent), and other (which include congenital disorders, Uveitis, detachment, Tumors, Diabetes, Hypertension and nervous system diseases etc.) (18.25 per cent).”

2.2. Some of the important diseases, Cataract, Trachoma and malnutrition are dealt with below.

(I) Cataract

2.3. Cataract is a common eye disease of old age. It may, however, affect young persons, children and even new borns. Eye is like a camera. Just as a camera has powerful lens that condenses the light coming from an external object and casts its image on a photosensitive plate, the eye has transparent powerful lens which helps to cast the image of an external object on sensitive coat of the eye; the retina, from where the image is transmitted through the nerve of the eye (optic nerve) to the brain. This is how we perceive the image of any object seen by the eyes.

2.4. When this lens loses its transparency due to any cause, and becomes opaque, it is known as cataract. The process by which the lens becomes opaque can be compared to the formation of curd from milk. Just as the process of conversion of milk into curd is irreversible, in the same way, once the cataract has started forming in the lens, it cannot be checked by any means whatsoever. Cataract is one of the few eye diseases, which if treated properly in time, can be completely cured and a patient can have full vision to see and read even the minutest prints.

Causes of Cataract

2.5. The exact cause of cataract is not fully known. Among the known factors may be counted old age, deficiency of different dietetic factors

such as proteins, Vitamins A, B, C, sunrays and some toxic drugs. General diseases like diabetes and congenital syphilis are other important contributory factors. Inflammation within the eye and injuries can also cause cataract at any age.

Signs and Symptoms of Cataract.

2.6. Gradually and progressively the eye sight is affected for distant objects though the near vision may improve in the beginning. There is no headache, pain or redness of the eyes. In the beginning an object such as lamp or light or moon appears more than one and often the patient complains of some watering. In the course of years the eye sight is considerably affected and the patient finds it difficult to move out for his daily routine. Due to poor sight he often strikes against objects. A time comes when he can see only the light of a lamp or torch. This condition is known as mature cataract. If untreated the mature cataract may cause irritation and increase the pressure in the eye, or produce inflammation of the interior or both.

2.7. It is very important to understand that deterioration of eye sight in old age is not always a cataract but may be one of the more serious diseases like glaucoma or atrophy of the nerve of eye. The eyes should always be got examined by a qualified doctor in the beginning and several times, subsequently, to detect the possibility of such diseases and to treat them, if present. Many patients do not consult an eye doctor but are satisfied with the advice of an old person who considers every loss of vision in old age as cataract. Patients are advised to wait till the cataract becomes mature. In a number of such patients, it is actually glaucoma or some other eye disease. The patient waits till he loses his sight completely and when he consults a specialist, he finds to his horror that he is incurably blind because of glaucoma.

2.8. Following precautions should be followed to prevent or at least delay the onset of cataract.

- (i) Take good and nourishing diet which is rich in proteins and vitamins.
- (ii) Protect the eyes from excessive exposure to sun rays, intensive heat, X-rays and injuries.
- (iii) Diseases such as diabetes and syphilis should be effectively treated. These diseases not only lead to cataract but also are responsible for many complications during the cataract operations.
- (iv) Cataract cannot be cured by application of any medicine to the eye or by taking medicine orally. In the beginning eye-sight can be improved with glasses. Suitable glasses should

be obtained after getting the eyes tested. The power of glasses changes with the progress of cataract. These are required to be changed every six months or so till no glasses are found useful.

- (v) The only treatment of cataract known so far is operation. If there is marked deterioration of vision and disability in going about one should undergo such operation without waiting for maturity of cataract.

2.9. Cataract operation means removal of cataractous lens from the eye. It ensures full vision after operation. Such operation is simple. Operation should be performed by a qualified eye specialist in eye hospital or eye camp organised by such agencies. It should never be got done by quacks, who go about in rural areas.

2.10. The Inter-Regional meeting of the World Health Organisation held at Baghdad from 29 March to April, 1976 discussed the problems of blindness on global level and *inter alia* identified cataract as one of the causes responsible for visual impairment and blindness. Some of the various observations/recommendations were as follows:

Observations

- (i) Cataract as a disease is widely prevalent in India and neighbouring countries, so much so that in India it constitutes about 55 percent of all blindness and 5.5 million people need operations. The incidence of blindness is said to be much higher in these countries than in other parts of the world. Precise incidence rates have not been worked out but it is roughly estimated 8 eyes per 10,000 eyes. What precise factors are responsible for this high incidence are not known, presuming that there is high incidence. Whether it is nutrition, heredity, senility or ultraviolet rays surveys conducted in different areas of the region cannot pinpoint any one of the cause to be singly or jointly responsible. There is scope for epidemiological and biomedical research on this problem.
- (ii) Cataract as a disease cannot be prevented in the present state of our knowledge nor can it be medically treated. It needs surgical intervention to restore sight.
- (iii) Yet another difficulty arises in trying to sort out cataract from glaucoma as both are occurring in the same age group. General physicians and auxiliary personnel are not able to do this with accuracy. Simple parameters need to be devised for this distinction.

Recommendations

- (i) Statistical evaluation be conducted to determine if there is greater incidence of cataract in India, and if the reason for this early onset is related to early senility, hereditary or nutritional factors;
- (ii) Since cataract cannot be prevented, it is a problem more complex than control of preventable eye diseases hence an effective delivery of eye care needs to be developed;
- (iii) Mobile units including eye camps should be established for eye health education, medical treatment and surgical intervention in cataracts and other eye conditions.

2.11. A leading ophthalmologist in the country, in a Memorandum submitted to the Committee has stated:

“....Cataract in India essentially occurs at a comparatively early average age of 45 to 58 as against at the age of 65 or 70 years in the western countries. It is believed that out of the estimated number of nine million blind people, five million are suffering from curable cataract. To this number is added a considerably large number of cataract blinded people each year. The hundred and odd medical colleges and the scores of eye camps held by the voluntary organisations only take care of about 5,00,000 cataract operations....”

2.12. During his evidence before the Committee, the witness stated:

“....cataract is nothing but the opacity of lense in our eye, the lens.....become opaque. What causes opacity, no one knows. Just as our hair gets grey, the lense in the eye also becomes opaque. One conjecture is that certain types of enzymes in the Indian race cause early cataract. But no conclusive reasons have been found out. It, has, however, been definitely proved that we Indians are prone to cataract at an early working age. When it happens to a villager working as a farm labour at the age of 40 or 45 years, he loses his job and wages.....there is, however, no preventive action for cataract any where in the world..... If the entire nation is taken into account, 10% of the outdoor patients in hospitals have cataract....”

2.13. Amplifying the point further, the witness in a written note furnished to the Committee, explained the position as follows:

“The genesis of cataract is still unknown to medical science. It is essentially a disease of old age. Probably due to biological,

economic and nutritioinal factors, cataract occurs at much earlier age in the Indian community. As long as cataract occurs, measures will have to be devised to obviate it."

2.14. On the question as to the number of cataract operations which could be undertaken by an Eye Surgeon in an Eye Camp, another non-official witness who appeared before the Committee gave his views as follows:

"....we should have mobile units and a planned scheme of Eye Camps work every year. If we take one million cases per year, it will mean doing a good job....personally I think we have the capacity to do it and we can do it. In these camps normally a surgeon can operate 60 cases per hour...."

2.15. To a point raised by the Committee as to what was the number of operations which an average Eye Surgeon could attempt, the witness amplified his views as under:

"....He can do 100 cases a day. He should be able to do 200 in every camp. If one Eye Surgeon can manage to attend 10 camps per year or do 2000 operations, you can multiply this number by the number of surgeons available in the country. If there are 4000 Eye Surgeons in the country, the figure of Eye operations would be 2000 multiplied by 4000 per year. 2000 operations can be done per year by one eye surgeon. There should be 200 per camp and ten camps. It is not difficult at all....most of the camps do 400 to 500 operations. 200 in an eye camp is not difficult...."

2.16. To a point whether mass surgery of cataract cases say 200 operations a day could be attempted by an Eye Surgeon, the ophthalmic Adviser stated during evidence thus:—

"....200 operations a day, even if we work for all the 24 hours, it comes to 8 operations an hour and 7 minutes per operation. It obviously looks fantastic."

2.17. On the question of as to how the major backlog of 5.5 million cataract operations were proposed to be attempted, the Adviser in Ophthalmology stated:

"....the major backlog can be cleared in a decade.... for a proper and scientific operation to be done and at the same time guarding against temporary blindness being converted into permanent blindness, I would not hasten the programme in an attempt to do something which would not stand on its own feet...."

2.18. Elaborating his point further, the witness stated that to this backlog of 5 million cataract operations, another 1 million every year were also to be added. At present 6 lakhs operations a year including the voluntary efforts were being attempted, and out of this, 2% of the attempted operations were unsuccessful

2.19. To a point whether the Government was considering of having any crash programme for cataract operations for the prevention and cure of this disease within a time bound programme so as to restore sight to a large number of people suffering from this disease, the Ministry in a written note furnished to the Committee, have stated the position as follows:

- (i) Lack of resources and lack of manpower prevented the taking up of this programme on a crash programme basis. The trachoma & malnutrition programmes contributed about 22% of all blindness and did not require the same degree of skilled manpower for assessment and delivery of eye health care in this direction. Hence these programmes were immediately started.
- (ii) Efforts are being made to launch a cataract programme compatible with manpower availability and other resources through mobile units. Facilities are being augmented at district hospitals and medical colleges. Voluntary agencies are also being encouraged to increase their programmes. If the programme is unduly pushed, many eyes may be lost as scientific care would not be possible. This will lead to increase in incurable blindness which would be undesirable. It is, therefore, proposed to proceed steadily and surely. The aim is maximum possible in the shortest possible time compatible with scientific requirements and at the same time create a permanent infrastructure so that when temporary services are withdrawn gradually in a phased manner the infrastructure that is being created should be able to take care of the problem on a permanent basis. The whole programme will take 20 years. At least this is the projection. It may be possible to accelerate the process to 15 years provided financial resources can be made available.”

2.20. During evidence, the Secretary, Ministry of Health admitted:

“.....the entire thinking of the Government of India in the past had been that the Planning Commission was laying more emphasis on the prevention of communicable diseases. Trachoma

is a communicable disease, that is it spreads from man to man. Therefore, the entire emphasis was on trachoma control programme unfortunately, this important aspect, socio economic aspect, of prevention and control of blindness was not given the attention that it deserved.....”

2.21. To a point raised by the Committee that when Cataract accounted for 55% of the eye disease in India, why this fact was not taken note of by the Government, the adviser in Ophthalmology in the Ministry of Health, stated the position as follows:

“....there was no proper definition of blindness that was evolved by the Government in the past. Cataract was not considered as part of blindness. Anything that was curable was not considered as part of blindness, and cataract was supposed to be curable. Therefore, they did not take that into account. It was recently that we started thinking on the lines of curable blindness and that is how it was taken up....when realisation came that a large number of cases of blindness were due to cataract lying unoperated, this crash programme was started....”

2.22. Subsequently the Sub-Committee of the Estimates Committee (1977-78) enquired whether the incidence of Cataract was more in the desert areas of Rajasthan and Haryana and if so, what precise steps had been taken to combat the challenge of Cataract in the desert areas. The Ministry of Health in a note (November, 1977) stated:—

“In the surveys conducted by 7 centres under the Indian Council of Medical Research and also from the general impression that has been received in discussion at the National Implementation Committee Surgeons from Rajasthan, Haryana and Punjab, etc., no regional differences have been found in the incidence of Cataract. As far as care of Cataract is concerned, mobile units have been commissioned. One Mobile unit has already been sent to Rajasthan, which is located in Bikaner division. Haryana has also accepted the programme and will shortly collect the mobile unit allotted to that State. It is proposed to locate this unit in Rohtak. In the meantime, the Unit located at the Dr. Rajendra Prasad Centre for Ophthalmic Sciences will conduct camps in the district of Sonepat and Gurgaon.”

2.23. The Committee note that cataract is widely preventtd in the country and accounts for about 55 per cent. of all cases of visual impairment. Out of the estimates 9 million persons with visual impairment in the

country, over 5 million are stated to be suffering from cataract which is curable by surgical operation. The Committee regret to note that while a special programme for the control of trachoma which accounts for about 5 per cent of the total cases of visual impairment was launched by Government in 1956 first on a pilot basis and later on as a regular programme, no specific efforts were made to restore eye sight to the large number of persons suffering from cataract. According to the representatives of the Ministry the emphasis on trachoma programme was placed because it was a communicable disease and no particular attention was given to cataract which being curable was originally "not considered as part of blindness". It is thus obvious that the priorities accorded by the Ministry in the matter of eye care were not well conceived in as much as the gravity of the problem of cataract which is widely prevalent and is curable but has serious socio-economic consequences was not given the attention that it deserved, resulting in the continuance of the wide spread and avoidable misery among a very large section of the population suffering from this disease.

2.24. The Committee note that there is a backlog of about 5 million cataract operations to which another one million are added every year. Against this, only 0.6 million operations are stated to have been attempted annually in the country including the operations through voluntary effort. The Committee are distressed to note that there is no crash programme for conducting these operations on the plea of lack of resources and lack of manpower. Government are planning to complete the backlog of operations in 20 years which could at best be accelerated to 15 years provided financial resources could be made available. The Committee are surprised at the manner in which this grave problem is being handled at present. Considering the enormity of the prevalence of this disease and the human misery caused by it, the Committee strongly feel that Government should find and allocate the necessary resources for this task. The Committee consider that with the existing number of eye surgeons which are stated to be about 3,500 in the country, it should be possible to conduct about 1 million operations every year if detailed plans of undertaking such operations through hospitals, mobile units and eye-camps etc. are prepared in advance and implemented meticulously in the field. The Committee have no doubt that with the expertise available in the country and dedicated of the concerned authorities, the backlog of cataract operations could be completed within a shorter period of say 7 to 10 years. The Committee would like Government to enlist the cooperation of voluntary operations in this humanitarian venture and prepare a crash time bound programme of cataract operations to restore sight to about 5.5 million people suffering from this disease and ensure that the same is implemented in the field. The Committee would like to be informed in specific terms within six months about the action

taken in pursuance of these recommendations to increase the facilities for cataract operations on scientific lines including proper post operation care and the results expected to be achieved.

(ii) Trachoma

2.25. TRACHOMA is an infectious eye disease. It is called Kukre in Punjab, Kheel in Gujarat, Ku'haie and Rohe in Uttar Pradesh and some other parts of the country. The disease is passed on the healthy eyes, mostly through different types of contacts to the infected eyes. If not attended to in time, the infected persons may become blind. No age, sex or race seems to be immune to trachoma infection. Hence, every one is susceptible to this disease. In north India, it has been observed that children, whether they are toddlers or of school going age, are the worst victims of the disease. Trachoma has been found very early in life. Even children of two to three months of age suffer from it. Females suffer for longer period of years with active infection than the males.

Causes of Spread of Trachoma

2.26. Trachoma spreads mostly by direct contact of healthy eyes of one person with the infected eyes of another person. It also spreads through the contact of the healthy eyes with the infected discharge from the eyes of a trachoma patient by the use of a common towel in a family or the use of a common pillow which has been soiled by the discharge from a sore eye. Trachoma is also unconsciously contracted by children in various games, such as hide and seek where the fingers may get soiled with the discharge from the eyes of an infected child, when the eyes are closed in the play.

2.27. In communities where the custom of applying Kajal or Surma to the eyes is prevalent, the disease may be transmitted through the use of a common applicator (salai or finger) by more than one person, without properly cleaning it. Flies also play an important role in carrying the infected discharge from a sore eye to a healthy one. The disease may also be transmitted to a healthy person who sleeps with a person having trachoma infection. Dust, dirt smoke and use of dirty water from village ponds may predispose a person to trachoma infection or aggravate the infection.

Various Measures Taken

2.28. The Ministry of Health and Family Planning have stated that Trachoma and infections have always been considered to constitute major public health problem in eye disease and one of the principal causes of visual impairment, even leading to total blindness in various under-developed and developing countries including India. The prob-

lem did not attract attention of the Government of India till 1944 when the Joint Committee appointed by the Central Advisory Board of Health and of Education deliberated upon it and submitted their report to the then Government of India. While defining the causes of visual impairment and blindness, the Joint Committee observed:

“We also note that chief among the causes stand the complication of inflammatory disease of the conjunctive and cornea, including Trachoma, and that other prominent causes include small pox, venereal diseases, nutritional deficiency, glaucoma and cataract. We are aware, too, that the specific causes vary from province to province influenced mainly by climate, diet and the living conditions of the people. Blindness reaches its peak in the northern and northern-western plains where relentless sun, frequent dust storms and intensity of the dry “hot weather” heat put the greatest strain on the eye and its mechanism and where, too, there are innumerable flies to spread infection.....”

The Joint Committee further observed:

“Trachoma has, from ancient times, been an important cause of blindness. In Egypt, where the disease is particularly prevalent, the treatment has passed into the hands of the public health worker, who had dealt with it by segregation with excellent results. in this disease, many eyes are lost by the application of the too irritant remedies. The comparison between the spread of Trachoma in Napoleon’s army in Egypt in the early part of the 19th Century and the absence of any out-break amongst the British Expeditionary Force during the late war, is very remarkable and speaks for itself. Trachoma is rife in Northern India but in Bengal it is of interest to note, it is found almost entirely amongst the people from other provinces, and notably amongst the Marwaris from Rajputana, the Muslims from N.W. Frontier tribes and Sikhs from Punjab.”

2.29. Unfortunately this report remained shelved and no concrete steps were taken for control of the disease. The Bhore Committee which met in the year of 1946 also deliberated on the subject of diseases of eye and blindness and only reiterated the observations and recommendations made by the Joint Committee of Central Advisory Board of Health and of Education and recommended immediate action. Unfortunately, all these recommendations did not stimulate any action. In 1954, the Indian Council of Medical Research formed a Committee which met in November, 1954. During the deliberations, the Committee observed “In many

parts of India, and particularly in North, Trachoma constitutes the major problem in eye diseases and is the principal cause of total and partial blindness." Based on that Committee's recommendations, the Government of India established Trachoma Control Pilot Project in 1956 which continued upto 1963.

National Trachoma Control Programme

2.30. On 30th March, 1963 the Government of India took over the Trachoma Control Pilot Project from the Indian Council of Medical Research, and launched National Trachoma Control Programme as a centrally sponsored project with cent per cent central assistance in the States of erstwhile Punjab, Rajasthan and Uttar Pradesh. In the States of Bihar, Madhya Pradesh, Jammu and Kashmir and Gujarat, however, it was approved as centrally assisted project with 50 per cent central assistance. A total number of 53 field units were initially sanctioned for different States. By the end of March, 1976, the programme was in operation in 26 States/U.Ts of Andhra Pradesh, Assam, Bihar, Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Punjab, Rajasthan, Uttar Pradesh, Andaman and Nicobar Islands, Chandigarh, Dadar and Nagar Haveli, Delhi, Goa, Daman and Diu, Mizoram, Arunachal Pradesh, Lakshadweep, Pondicherry and Tripura.

Physical Targets and Achievements of the National Trachoma Central Project

2.31. The physical targets and achievements of the National Trachoma Control Programme have been as follows:—

Plan Year	Blocks PHCs/	Targets Population (in millions)	Blocks/PHCs	Achievements Population (in millions)
1963-66 .	88	5·54	88	6·81
1966-67 .	214	17·98	204	17·01
1967-68 .	378	31·70	221	18·24
1968-69 .	343	28·42	263	21·08
IV Plan				
1969-74 .	1314	110·66	1041	86·71
V Plan				
1974-79 .	3586	296·63 (Till March 1975 only)	2575	215·43

2.32. It is projected that by the end of Vth Plan period, the total population at risk would be brought under the umbrella of control scheme. It has been stated quantitatively, the scheme has already made much strides bringing the total coverage within sight in very near future, even qualitatively the activities have been rewarding.

2.33. It has, however, been stated that no assessment or evaluation had been done in respect of the field activities of the National Trachoma Control Programme.

Financial Budget Allocations and Actual Expenditure

Plan & Years	Provisions made (Rs. in lakh)	Actual Exp. (Rs. in lakhs)
III Plan	88.00	61.79
1966-67	32.94	29.24
1967-68	51.36	38.84
1968-69	50.00	48.70
IVth Plan	195.00	66.34
1969-70	3.64	3.77
1970-71	5.75	2.63
1971-72	15.00	9.86
1972-73	39.00	34.35
1973-74	34.00	15.73
Vth Plan .	275.00	
1974-75	20.00	15.21
1975-76	20.00	12.06
1976-77	40.00	..

2.34. It has been stated that though the IVth Plan budget provision was for Rs. 195.00 lakhs, only Rs. 66.34 lakhs was utilised. Initially the Plan provision was for Rs. 95.00 lakhs only, but when UNICEF withdrew their assistance in June, 1970, additional provision of Rs. 100.00 lakhs was made for procurement of material and equipment. The amount provided could not be utilised since yearly allocations made were not proportionate to the total plan provision. In the year 1973-74, though there was provision of Rs. 34.00 lakhs but the utilisation was of Rs. 15.73 lakhs. This was on account of the fact that the control strategy was under review and it was being contemplated to integrate the same with the general health

services during the Vth Plan period and no appointments were made under this plan as could have been done according to the control strategy followed during the preceding years.

2.35. It has been stated that the physical targets too, therefore, had to be contained within the financial resources made available each year, as per details explained below:—

- (i) The Vth Plan provision for National Trachoma Control Programme was Rs. 275.00 lakhs but the yearly allocations are not in proportion to that. However, with integration of the programme for Prevention of Blindness with Trachoma Control, Planning Commission has approved the total plan allocation of Rs. 345.00 lakhs. The actual performance picture will emerge only at the end of the plan period.
- (ii) In the year 1963, when the scheme was initiated it was taken up as Centrally sponsored with 100 per cent Central assistance to the States of Punjab, Haryana, Rajasthan and Uttar Pradesh. It was taken up as Centrally assisted with 50 per cent central assistance in the States of Bihar, Madhya Pradesh, Jammu and Kashmir, Karnataka and Gujarat. The case of Gujarat was reviewed and it was subsequently included under the centrally sponsored scheme with 100 per cent central assistance.
- (iii) In the year 1967, the pattern of assistance was reviewed and it was decided to have the scheme as centrally sponsored in all the States; but the central assistance limited to 75 per cent only; the remaining 25 per cent to be met by the State Governments concerned. From the IVth Plan and onwards, the pattern of central assistance was again reviewed and made centrally sponsored with 100 per cent central assistance.
- (iv) The pattern of central assistance was again reviewed and the Planning Commission decided to continue the scheme as centrally sponsored scheme with the central assistance limited to provision of material and necessary equipment in kind to the participating States. The operational cost, if any, was to be borne by the State Governments. This decision was taken in view of the revised control strategy under which no separate staff was recommended in States/U.Ts and the scheme was integrated with the general health services.

(v) As for the international assistance, the necessary equipments, antibiotic drugs alongwith the transport were available as part of UNICEF assistance till June, 1970, UNICEF withdrew from the programme from that date.

(iv) With the decision of Government of India, to launch National Programme for Prevention of Blindness the Planning Commission has revised Vth Plan allocation from Rs. 275.00 to Rs. 345.00 lakhs for the National Trachoma Control Programme and for the programme for Prevention of Blindness, since both these schemes will now be taken up as integrated National Programme during the remaining years of the current plan period; and has indicated Rs. 30.00 lakhs for prevention of blindness in purely central sector.

2.36. Further elaborating the precise reasons for not utilisation of the allocated funds fully during the Third Plan, Fourth Plan and in the Fifth Plan periods (years 1974-75 and 1975-76) on the Trachoma Control Programme, the Ministry of Health in their note (November, 1977) explained as follows—

“The scheme of National Trachoma Control Programme was taken up from March, 1963 during the 3rd Plan period. The Plan allocation was Rs. 88 lakhs but the yearly allocations and actual expenditure during the period 1963—66 were as follows:—

	Yearly allocation	Actual expenditure
1963-64 .	Not indicated	Rs. 8.64 lakhs
1964-65 .	Rs. 22.50 lakhs	Rs. 23.74 lakhs
1965-66 . .	Rs. 31.31 lakhs	Rs. 29.41 lakhs
Total	Rs. 53.81 lakhs	Rs. 61.79 lakhs

Thus it will be noted that the utilisation of the budget provision was very much in proportion to the allocations made.

During the 4th Plan the budget provision was of Rs. 195 lakhs. This included Rs. 100 lakhs for procurement of antibiotic ointment tubes on account of withdrawal of UNICEF assistance to the programme. The amount provided for the Plan period could not be utilised fully since yearly allocation made were not proportionate to the total plan provision. The

actual allocation were of Rs. 97.31 lakhs for the period 1969—74 and the expenditure was Rs. 66.34 lakhs i.e. roughly 66 per cent of the allocation. The main reason for non-utilisation was that the budget provisions made for production of health education material could not be utilised on account of decision taken that the concerned States should produce their own material. For the year 1973-74 the actual expenditure was only Rs. 15.73 lakhs against the budget provision of Rs. 34 lakhs. This under-utilisation was on account of the fact that the control strategy was under review and it was being contemplated to integrate with general health services during the 5th Plan. As such no fresh appointments were made of the staff which would otherwise have been appointed according to the control strategy followed in preceding years.

In the 5th Plan during the period 1974-75 the actual provision was of Rs. 40 lakhs but only 27.27 lakhs (15.21+12.06) could be utilised in both these years. Provision of Rs. 10.00 lakhs (1974-75 Rs. 4.00 lakhs and 1975-76 Rs. 6.00 lakhs) was made for health education material but this could not be utilised."

2.37. A number of leading ophthalmologists in the country in their memoranda submitted to the Committee have put forth their views thus on the National Trachoma Control Programme:

- (i) ".....the National Trachoma Programme has not succeeded to the extent expected. Perhaps it was a mistake to take up a single disease, Trachoma Control, instead of launching a programme for fighting eye infections in general. Perhaps emphasis of full time employed personnel instead of mobilising voluntary effort, was responsible for the poor results....."
- (ii) "National Trachoma Control Programme has been able to publicise antibiotic eye infections to a certain extent Personal hygiene e.g. washing face with soap and water before going to bed should be emphasised more...."
- (iii) "Although the occurrence of Trachoma has been greatly reduced since the Government of India launched the Trachoma Control Project in 1963, trachoma and allied infections still cause considerable blindness. Necessary steps should be taken to prevent this by a systematic all embracing rural areas oriented programmes...."

(iv)National Trachoma Control Project was launched by the Government of India in 1963 with a view to control the disease in the area where it was prevalent. According to the information available, the population which was surveyed shall be covered by the programme by the end of V Plan and that follow up will then be taken up by the States. Unfortunately, during the past 13 years, this programme has not been evaluated by any Committee of experts. The general impression, however, is that the blinding complications from Trachoma have been considerably lowered and that through this programme, it has been possible to demonstrate that incidence and prevalence of blindness from this cause can be effectively lowered without eradicating the disease. Vigilence, however, need to be kept up so that the country does not relapse into the situation which prevailed before 1963. It would, therefore, be desirable to survey the areas which have not been surveyed earlier and also to appoint an expert Committee to evaluate the impact of this programme for prevalence and incidence of disease, its blinding complications and ocular infections which could have had beneficial effects due to this campaign."

2.38. During his evidence before the Committee, one of the non-official witnesses stated thus:

"....Trachoma could be cured by giving a simple dose of terramycin ointment....while the Trachoma control Project sponsored by the Government of India has covered plains villages, which are easily accessible, in other places like the Himalayan villages where it is difficult to go, we have not gone. We must see that such areas which are not covered due to one reason or another are covered, otherwise there is no problem in preventing trachoma.

2.39. Amplifying the point further the witness in a written note furnished to the Committee, explained the position as follows:

"The Trachoma Control Project initiated by the Government of India, must concentrate its activities and also intensify the same in the areas where pockets of trachoma still exist. These areas are Rajasthan, Kutch, Uttar Pradesh, parts of Maharashtra and some areas in the Eastern States of our country. Trachoma is completely curable by timely action and treatment which is inexpensive and well known."

2.40. During evidence, the Adviser in Ophthalmology, Ministry of Health stated:

“Trachoma.

“....Trachoma is very much prevalent in areas where there is a dry, dusty, sandy climate. Therefore, its incidence is more in the north. In the South on the other hand, there is a greater prevalence of nutritional disorder because of their dietary habits, enough Vitamin A is not taken. The other things are largely dependent on the general hygienic conditions of the people and do not show any marked differential between the various regions.”

2.41. On the question of evaluation of the Trachoma Control Programme the witness further stated:

“....Trachoma programme has been going on for the last 13 years. In order to get the results at least 10 years period is necessary. The complications take 8 to 10 years to develop only then it can be said as to what is the result....”

2.42. Amplifying the point further, the Secretary Ministry of Health stated during evidence:

“....the entire thinking in the past of the Government of India, the Planning Commission has been to lay emphasis on the prevention of communicable diseases. Trachoma is a communicable disease, that is it spreads from man to man. Therefore, the entire emphasis was on Trachoma Control Programme. Unfortunately, this important aspect, socio-economic aspect of prevention and control of blindness was not given the attention that is deserved.”

2.43. On the question of allocation and expenditure on the National Trachoma Control Programme, the Joint Secretary in the Ministry of Health and Family Planning observed thus:

“....In the Third Plan allocation was Rs. 88 lakhs and the expenditure was Rs. 61.70 lakhs. In the Fourth Plan out of an allocation of Rs. 195 lakhs, the expenditure was Rs. 66.34 lakhs. Out of the allocation of Rs. 40 lakhs for the years 1974-75 and 1975-76 the expenditure was Rs. 27.6 lakhs.”

2.44. Regarding the introduction of Trachoma Control Programme, a non-official witness gave his views thus during evidence:

“....I was associated with the programme in 1958 when WHO started it in Aligarh. They had one Czech doctor incharge

of it. They were interested in surveying the incidence of trachoma in India. They were not interested in the local method of treatment....They arranged for the free distribution of achromycin in the schools to start with. The idea was, once you distribute it, free, afterwards they will buy it. It was more business oriented. They did not consider whether treatment with achromycin would prevent the disease for a long period. Washing the eyes with soap and water is the local solution of the problem....The Trachoma control project has succeeded in focussing attention on the eye infection but beyond that it has not helped to solve the problem below:—

2.45. On the question of use of tetracycline in the Trachoma Control Programme, the Ministry have in their written note furnished to the Committee, stated as follows:—

“Before launching National Trachoma Control Programme, a Trachoma Control Pilot Project was established by the Government of India in 1956 which was placed under ICMR. This Pilot Project continued till 1963. During this period 3,33,000 tetracycline eye ointment tubes were used. They were gifted by the UNICEF as part of their assistance to the Programme. According to the UNICEF voucher, the cost of these tubes was Rs. 3,84,196.00.

The National Trachoma Control Programme was launched in 1963 and the UNICEF assistance was available till June, 1970. During this period i.e. 3/63 to 6/70, UNICEF provided 73,71,400 tetracycline eye ointment tubes which according to their voucher costs Rs. 37,29,000. This was also a gift from UNICEF as part of their assistance for the programme. From 1971, till to-date, Government of India is procuring the tetracycline eye ointment tubes from indigenous sources. So far, 82,28,900 tetracycline eye ointment tubes have been procured by the end of March, 1976.”

2.46. As regards achieving of self sufficiency in the matter of availability of tetracycline, the Ministry of Chemicals and Fertilisers have stated the position thus:

“During the year 1974-75, Tetracycline was imported by STC from Poland, USSR, Bulgaria and Hungary. Requirements for the year 1975-76 were contracted in the year 1974-75 itself from the said sources. During 1976-77 50 tonnes of tetracycline

is expected to be imported from Bulgaria. Details regarding production and units manufacturing this drug are indicated below:—

S. No.	Name of the Unit	Name of the foreign collaborator if any (source of technology)	PRODUCTION DURING		
			1974	1975 (Jan. to Oct.)	1976
1. M/s. IDPL		This public sector unit is operating with technical collaboration from USSR.	32.4	66.7	76.98
2. M/s. Symbiotics		From Squibb Sarabhai Chemicals.	10.6	22.5	16.75
3. M/s. Pfizer		No specific agreement or this product was approved. The Co. is operating in collaboration with Pfizer Corp. of Panama.	1.0	2.1	2.93
4. M/s. Cynamid		No specific agreement or this produce was approved. The Co. is operating with collaboration with Cynamid of USA.	6.3	5.0	16.67
TOTAL			50.3	91.3	113.34
Imports (Tonnes)			1974-75	1975-76	1976-77
			65	78	50

M/s. IDPL is the only public sector unit manufacturing this drug at present and they account for major portion of production in the country. In 1974, the public sector unit accounted for about 64 per cent of the production in the country and in 1975 the share of public sector unit was about 74 per cent. In early 1976-77, indications were available that M/s. IDPL will be able to stabilise the strain and products adequate quantity with a view to eliminate imports. However, the efforts to expand capacity by stabilising strain and increasing strain potency are continuing in this unit and is expected that from the year 1977-78 imports of this drug may not be necessary. In the meantime, the demand of the country for tetracycline is also increasing.”

2.47. The Committee note that incidence of trachoma accounts for about 5 per cent of the cases of visual impairment and blindness in the country. They further note that following the recommendations made by a Committee appointed by the Indian Council of Medical Research, 1954, Government established a Trachoma Control Pilot Project which continued till 1963. The Pilot project has been extended to a National Trachoma Programme as a centrally sponsored project since 1963. Till the end of the 4th Plan against the projected coverage of 1314 Blocks/PHCs, covering a population of 86.71 million only, are stated to have been covered. Thus there has been a shortfall in the coverage of 273 blocks comprising a population of 23 million.

2.48. The Committee further note that there have been shortfalls in expenditure on the National Trachoma Control Programme during the First and Fifth plan period and the Government failed due to various reasons. In the Fourth Plan (1969-74) against the actual allocation of Rs. 97.31 lakhs, the expenditure was Rs. 66.34 lakhs which is roughly 66 per cent. During the years 1974-75 of the Fifth Plan, the actual provision was of Rs. 40 lakhs out of which only Rs. 27.27 lakhs i.e. about 67 per cent could be utilised. As against the allocation of Rs. 40 lakhs for 1974-75 and 1975-76, the expenditure is no more than Rs. 27.6 lakhs. The lack of utilisation of the allotted funds for fight against trachoma shows that the implementation of the various projects under the National Trachoma Control Programme has to be taken more seriously than is being done at present. The Committee would therefore stress that Government should review the position in depth and take corrective measures to see that the allocated funds are fully used in the interest of relieving suffering of the people from Trachoma and to check the spread of this disease.

2.49. The Committee regret to note that no evaluation of National Trachoma Control Programme, on which considerable expenditure has been incurred, has been undertaken so far. It is normally expected that an evaluation of a programme is undertaken periodically to identify shortcomings and take timely remedial measures. It is unfortunate that no evaluation of this programme has been taken up so far though the programme has been in operation for over 20 years. According to a former Health Minister "perhaps it was a mistake to take up a single disease—Trachoma control, instead of launching a programme for fighting eye infections in general". The Committee are in full agreement with this view. They feel that if an evaluation of this programme had been undertaken in the early stages, this aspect would have come to light in the beginning and corrective measures taken. The Committee note that at long last this programme will now be integrated in the National Programme for Prevention of Blindness during the remaining years of the current Plan period.

(iii) (a) **Malnutrition**

2.50. A population which is habitually used to a diet which is sufficient in both quality and quantity will have a store of general health and vitality, which will enable it both to resist the onset of disease and successfully combat it, when it arises on the other hand, faulty nutrition is directly and indirectly responsible for a large amount of ill health in the community. A continued insufficiency of specific food factors in the diet is associated with special conditions known as deficiency diseases. In the case of eyes, diseases like Keratomalacia, xerophthalmia, vitamin A deficiency are common causes of blindness and are due to protein calorie malnutrition. In India there are both under nutrition and mal-nutrition existing widely. It has also been stated that mal-nutritional blindness is widely prevalent in various States of India.

Nutrition for expectant and nursing mothers

2.51. Child bearing imposes a great strain and it is important that the would be mothers lead a healthy life throughout pregnancy. One of the major factors that promotes health and well living, both of the mother and the baby is wholesome nourishing food. Similarly breast feeding is a greater strain on the mother than pregnancy, because the woman nourishes a "fully developed" and "rapidly growing" baby whose food need increase day by day. If the mothers' diet is satisfactory during pregnancy she will have accumulated a store of nutritions in readiness for satisfactory breast feeding. If the mother is known to have gone through pregnancy successfully on a faulty and insufficient diet, it means she has freely drawn upon her own reserves to build her baby and she will continue to do so as long as she nurses her child. In such cases it is imperative that the defects in maternal diet are rectified forthwith, in order that she and her baby may be saved from malnutrition and its consequences.

2.52. It is well known that the maintenance of health is greatly dependant on adequate nutrition. Extensive diet and nutrition surveys carried out in different parts of the country have indicated the wide prevalence of malnutrition in mothers and children specially of the poor socio-economic group. Ensuring adequate nutrition to expectant and nursing mothers and to infants and children is of utmost importance and should, therefore, receive the highest priority in any public health programme. The improvement of nutrition of our people calls for a co-ordinated action in many fields.

Nutrition Programmes

2.53. In a note furnished to the Committee, the Ministry of Health and Family Welfare have stated that the health services play a unique role in the fight against malnutrition through the net work of medical and

health centres. State Nutrition Divisions were established in the Health Directorates of 18 States and 2 Union Territories, as per recommendation of the Ministry of Health. These Divisions assess the diet and nutritional status in various groups of population, conduct nutrition education campaigns, supervise supplementary feeding programmes, other nutritional ameliorative measures and also conduct baseline surveys and evaluation of the Applied Nutrition Programme. These State Nutrition Divisions are also responsible for monitoring the nutritional status of the population in areas affected by natural calamities such as floods and drought. On the recommendation of the Central Co-ordination Committee for Nutrition Programmes, action is being taken to establish State Nutrition Divisions in the remaining 5 States and 7 Union Territories.

2.54. The Nutrition Cell of the Directorate General of Health Services coordinates the nutrition work carried out by the Nutrition Divisions in the different States and Union Territories. It compiles and publish the data on the work done by the State Nutrition Divisions. It is also responsible to coordinate the health aspects of all nutrition programmes, nutrition education and orientation training to medical and para-medical staff engaged in nutrition programmes and provide technical guidance and liaison to different Government Departments/International Agencies implementing nutrition programmes.

2.55. In order to start any nutrition intervention programme, it is necessary to assess the nature, magnitude and areas where under-nutrition or mal-nutrition is prevalent while there have been several studies in the past aimed at determining the nutritional status and dietary intake of population groups, there has so far been no organised study to determine the effects of changing society on the nutritional status of people. The Indian Council of Medical Research has, therefore, set up units of the National Nutrition Monitoring Bureaus in 9 States, namely, Andhra Pradesh, Gujarat, Kerala, Madhya Pradesh, Maharashtra, Mysore, Tamil Nadu, Uttar Pradesh and West Bengal. Each State unit is under the control of the State Nutrition Officer and is responsible for collection and processing information on nutritional status and dietary habits of different segments of population in India, making use of standardised procedures and techniques. The data collected is being analysed and published by the National Institute of Nutrition, Hyderabad. In the year 1975, the National Nutrition Monitoring Bureau carried out diet and nutrition surveys in these States. The pattern of food and nutrient intake in these States is given in Tables 1 and 2. The main observations with respect of calories and proteins are as follows:—

Calories: The average intake of calorie per consumption unit per day ranged from 1926 in Kerala to 2911 in Karnataka.

Excluding the States of Andhra Pradesh and Karnataka, which met their calorie requirements, the calorie deficit of less than 10 per cent was observed in the States of Maharashtra, Gujarat, West Bengal and Uttar Pradesh. However, a maximum deficit of 20 per cent was observed in the State of Kerala.

Protein: The average daily intake of protein per consumption unit was found to be well above the recommended (ICMR, 1968) levels of 55 g. in all the states except in Kerala, which showed an intake of 45 g.

2.56. Nutritional status was assessed in a total of 16032 subjects. The most commonly observed nutritional disorders were protein calorie malnutrition (PCM), Vitamin A and B complex deficiencies and deficiency of essential fatty acids. The signs of protein calorie malnutrition were seen more frequently in infants and pre-school children. 0.2 to 1.4 per cent prevalence of both types of PCM, namely, marasmus and kwashiorker were seen.

Vitamin and other deficiency signs

2.57. Per cent prevalence of ocular signs like Xerosis and Bitot's spot suggestive of Vitamin A deficiency among children ranged from 0.8 to 7.0 while per cent prevalence of oral and lingual lesions of B Complex deficiency such as angular stomatitis, cheilosis, glossitis, etc. ranged from 0.7 to 18.3.

2.58. Vitamin A and B-Complex deficiency signs were seen in almost all the States.

2.59. Prevalence of phrynodermia was observed in almost all the States. The peak prevalence of 9.4 per cent of this deficiency sign was seen in Kerala among children between the ages of 5—12 years.

2.60. Varying degree of dental mottling and carries were observed in different States.

2.61. In order to overcome the menace of malnutrition, a number of Departments of the Government of India are implementing nutrition programmes, the details of which are given below:—

- (i) *Mid-day Meal Programme:* This programme is implemented by the Ministry of Education and Social Welfare to meet the nutritional needs of primary school children. The programme is being implemented with free food and given by CARE. The cost of transport from the nearest port to the school is borne by the Education Department. C.S.M. (Corn Soya Mil) and Butter Oil or Salad Oil are invariably used. In some places, Balahar is also used and in other places, even

locally available foods are prepared and distributed to the children. The children are fed for 200 days in a year. The meat is expected to provide about 1/3 rd of their daily needs and approximately contains 400 calories and about 15 grams of protein. In the Fourth Five Year Plan, about 12 million children were covered in the programme and in the Fifth Five Year Plan, an additional 5 million are expected to be covered. It is a programme of the State Sector and the Fifth Plan outlay is Rs. 112 crores.

- (ii) *Applied Nutrition Programme*: The programme is being implemented by the Community Development Department with assistance from UNICEF, WHO and FAO. The objective of the programme is to meet the nutritional needs of the vulnerable segments, namely women and pre-school children through increased production and consumption of protective foods like green vegetables, fruit, eggs, fish and poultry. School gardens, community gardens, kitchen gardens, poultry units and development of fisheries are the main components of production. Training is provided for all workers implementing the programme. Nutrition education is imparted on a community basis. Demonstration feeding with the locally produced foods is implemented for the benefit of selected pre-school children, pregnant and lactating mothers. The programme involves coordinated effort of various Departments of Agriculture, Animal Husbandry, Health, Education, Social Welfare etc. In the Fourth Plan about 1180 C.D. Blocks were covered under the programme. In the Fifth Five Year Plan, an additional 700 blocks are expected to be covered. It is centrally sponsored programme with an outlay of Rs. 20 crores. The Directorate General of Health Services through the State Nutrition Divisions is responsible for the health aspects of this programme, namely, baseline diet and nutritional surveys, selection of beneficiaries, nutrition education and training.
- (iii) *Special Nutrition Programme*: The programme is implemented by the Department of Social Welfare as a Central Programme. The beneficiaries includes pre-school children, pregnant and lactating mothers in the city slums (over 1 lakh population) and tribal areas. In the city slums, invariably bread and milk are being supplied. In the tribal areas, locally available foods such as mixtures of cereals and pulses, Balchar, etc. are being distributed. The food supplement provides about 300 calories and 15 grams of proteins. In the Fourth Plan about 4 million children were covered and in the Fifth Five Year Plan an additional 6 million are expected to be covered.

It is a programme of the State Sector with an outlay of Rs. 218 crores in the Fifth Plan. The PGMS through the State Nutrition Divisions provides technical advise and help in selection of beneficiaries.

(iv) *Prophylaxis against blindness in Children caused by Vitamin A deficiency:* The programme is being implemented by the Ministry of Health and Family Planning (Department of Family Planning). It covers the vulnerable segments of pre-school children between 1 to 6 years of age. A massive dose of 200,000 I.U. of vitamin A solution is given orally to children once in every six months. In the Fourth Plan about 14 million children were to be benefited by the programme. In the Fifth Plan, it is expected to cover about 60 million children. The programme was initially started in areas where vitamin A deficiency was predominant like the States of Andhra Pradesh, Bihar, Kerala, Mysore, Orissa, Tamil Nadu, West Bengal and L.M.A. and later it was extended to Haryana, Gujarat, Maharashtra, and Rajasthan, Madhya Pradesh and U.P. In the current year the programme is being extended throughout the country.

(v) *Prophylaxis against Nutritional Anaemia:* It is being implemented by the Department of Family Planning, Ministry of Health and Family Planning for the benefit of pregnant and lactating mothers and children. Iron and Folic Acid tablets are being distributed through health agencies. The Fourth Plan target was to cover 180 lakh beneficiaries and in the Fifth Plan it is expected to cover about 500 lakhs.

Both the above prophylaxis Programme are centrally Sector Programmes and the Fifth Plan outlay is Rs. 5 crores.

(vi) *Feasibility Testing of Fortified Staples and high Protein Foods:* A field Testing Unit has been set up at the Nutrition Cell of the PGMS to conduct accertability trials and assess the impact of nutritional status of children supplemented with fortified staples or processed foods prepared by Government or private agencies. A number of these foods have been tried in the community. Currently, this unit is attached to the Paediatric Department of Safdarjang Hospital to evaluate various types of locally available foods in the management and prevention of protein calorie malnutrition.

So far about 16190 children under 5 years of age have been screened for the prevalence of malnutrition, of which 67.25 per cent were found to be suffering from various grades of malnutrition. These children were given 70 gms. of wheat pulse mixture and a regular record of their height

and weight was kept. A preliminary analysis of this data has indicated that 77.4 per cent of children showed an increase in weight, providing the efficacy of locally available resources. This scheme is also supplemented with intensive nutrition education and it is envisaged to be extended to field situation like urban slums in Delhi.

(vii) *Integrated child development services*: In the current year a scheme known Integrated Child Development Services (ICDS) has been introduced. Under this scheme a package of services such as supplementary nutrition, immunisation, health care, health and nutrition education, referral services and safe drinking water supply will be provided to vulnerable groups in 33 selected blocks including urban, rural and tribal areas. Though the Department of Social Welfare will be overall incharge of this programme, the major inputs are the health services and this will be the responsibility of the State Health Directorate.

(viii) *India Population Project*: The World Bank is assisting the Ministry of Health and Family Planning in a programme known as the India Population Project. This is in operation in the States of Karnataka and Uttar Pradesh. Under this project, integrated family planning and nutrition services are being implemented and due to the nutritional component which is the distribution of precooked high protein food packet as a take home method for both pregnant and lactating mothers and pre-school children started with an idea of reduction of infant and maternal mortality has demonstrated a feasible system of nutrition delivery to the community through the Auxiliary Nurse Midwife which, in turn has improved the rapport of the preferral health worker and her effectiveness of implementing family planning services.

(ix) *Lathyrism*: In certain parts of the country like Madhya Pradesh and parts of UP and Bihar, the occurrence of Lathyrism, a neurological disorder due to excessive consumption of lathyris sati (Kesari dal) is widely prevalent. The causation of the disease is due to the neuro toxin present in the pulse. The National Institute of Nutrition, Hyderabad has developed a method of removing the toxin through simple means and both commercial and home processing methods are available. The Food Corporation of India is contemplating a large scale processing of the pulse for removal of the toxin. In addition, in the endemic areas, the health agencies are demonstrating the home processing method to the communities.

(x) *Fluorosis*: In certain parts of the country, like Andhra Pradesh, Punjab, Rajasthan, etc. fluorosis which affects the skeletal system of the body is caused by excessive fluorine levels in the water. Defluro-
rition methods for the removal of the excessive fluorine in the water are available both on a commercial scale as well as on a household scale. These are being currently tested in Rajasthan and Andhra Pradesh.

(xi) *Training Programme*: The Indian Council of Medical Research through the National Institute of Nutrition, Hyderabad is the principal organisation in India for nutrition research and training of nutrition workers.

The National Institute of Nutrition, Hyderabad conducts two courses for giving high level training to health and other personnel connected with nutrition programmes as well as teachers in the medical institutions. The candidates come from India as well as South East Asian countries. The UNICEF provides stipends of or the Indian National and the WHO provides facilities for foreign candidates. A certificate course in Nutrition for medical officers and a certificate course in Nutrition for graduates of Agriculture, Veterinary Science, Home Science, etc. are available. In addition, M.Sc. Degree Course in Applied Nutrition is available for Medical personnel. The All India Institute of Hygiene and Public Health, Calcutta conducts the course of Diploma in Nutrition for Health personnel.

Central Coordination Committee on Nutrition Programmes

2.62. In the course of evidence, the representative of the Ministry of Health informed the Committee that

“Unfortunately nutrition programme is not in the Health Ministry; it is partially in the Ministry of Health; the Ministry of Education is doing it partly, the department of Social Welfare is also doing it; it is also being handled to a very considerable extent by the department of food. Therefore, when the difficulties of coordination arose, a meeting of secretaries was called by the Cabinet Secretary and it was decided that the Department of Food will coordinate this activity; but there is not much of coordination and there is a crying need that this programme which affects the health of the people should be entered in the Health Ministry. The view of the department of food is that since it involves handling of food, they should do it. But our view is, may be we are partial to ourselves, that the health ministry is best equipped to do it because we have the staff in the primary health centres, we know whom to give, who are the people who are suffering. There are various types of nutrition programmes; we used to get food from CARE, American agency and we were getting, previously, food of various types to the extent of Rs. 50—60 crores per annum. That has been curtailed and my impression is that it is now of the order of Rs. 30—40 crores and it is going down every year; that is distributed through various social welfare agencies and schools and primary health centres. There is the midday meal programme that is done by the ministry of Edu-

cation in the schools mostly in the South, and in the North also; but is popular in the South. There is another programme which aims at distributing balahar and other nutritious food to children below the age of 5. But there are some difficulties. Women have to travel with their children for about 5 miles. The food is given for a week but if the mother has 4 or 5 children, naturally it is shared by all of them. The mother cannot say to the other children, "it is not meant for you." So, it does not go to the target child. Feeding at the place for a week is also not possible. You cannot expect the woman to go every week to collect it. Problems of transportation and storage are there. We made a study through the Indian Institute of Nutrition, Hyderabad. Our information is 40 per cent of the expenditure is on procurement, transportation storage and distribution. It is very large. So while it has served a useful purpose, it is not wholly productive.

Then there is the programme for distribution of Vitamin A through the maternity and child health organisations. It has been found that children below 5 years tend to lose their eye sight in stages through Vitamin A deficiency. Our advisers say, if heavy dose of Vitamin A are given once in 6 months, it is stored in the liver and released in stages as when required by the body. Therefore, we have launched this programme. I do not say we are fully satisfied with it. The point is, it was introduced only 3 years ago and is yet to attain the full pace. Ever since the realisation of prevention of blindness came, the realisation dawned on me and my colleagues that this is the basic programme. Therefore, we have issued strict instructions to the lower staff in primary health centres and sub-centres that the Ministry is very keen to see that this programme is given due importance. We are also distributing iron and folic acid tablets to expectant and lactative mothers and anemic children. We are getting the figures. We are not cent per cent satisfied. Once or twice I visited some primary health centres without notice. I found that if the dosage prescribed for iron and folic acid is 120 tablets for four months, the workers will give it for a month and when the patient starts improving, they switch it on to others. This is wrong. I noticed it in Srinagar. The intention is, it should be given with a view to cure the deficiency. These are distributed through State agencies. We do our best. We hope that with the tightening of discipline things will improve further.

2.63. Giving his reaction to a suggestion whether these schemes should not be under one Ministry, the representative of the Ministry stated:

"It is very difficult to give an answer. My impression is—I give it in my personal capacity—the best solution would be to combine together the Ministries of Health, Education and Social Welfare."

2.64. Regarding coordination of the various nutrition programmes, the representatives of the Ministry of Health stated:

"Coordination is very important issue. The line of demarcation between what is treatment and what is not is very thin. Prevention of blindness and its cure is under Health Ministry, but the rehabilitation of the blind is not with us; it is with the Department of Social Welfare. Leprosy is cured by us, but leprosy patients are trained for a job by the Department of Social Welfare. These problems of coordination are bound to occur, because one is linked with the other. Keeping this in mind, we have a coordination Committee with representatives of the Departments of Education and Social Welfare on it. This Committee meets once in six months. I have attended three or four meetings and useful decisions are taken there. The Department of Social Welfare has launched a programme called Integrated Child Development Scheme—ICDS. They have sanctioned 33 projects. In each State there may be 1 or 2. UP has 2. In other States, it is 1.

This comes under two Ministries—one Ministry deals with the children and the other Ministry administers the services. 70 per cent of the input is in the field of health and yet the entire administrative control is with the Ministry of Education and Social Welfare."

2.65. The Ministry of Health and Family Planning subsequently furnished a detailed note on the coordination achieved between the Ministries of Health and Family Planning and Education, and Social Welfare, they have stated that a Central Coordination Committee on Nutrition Programmes was set up by a Notification No. 34-4/73- NS dated 6 August, 1973 in order to maintain appropriate liaison with the State Governments and to provide a forum for the purpose of coordination of nutrition programmes being implemented in Fifth Plan by the State Governments and those being undertaken directly by the various Departments of the Central Government. The functions of the Committee are (i) to ensure adequate and overall coordination among the concerned Ministries/Departments at the Centre and between the Centre and the States/UTs; (ii) to set up adequate

monitoring and evaluation machinery to watch progress of the programmes; (iii) to resolve problems pertaining to training and education in nutrition; (iv) to consider matters conducive to attainment of adequate nutrition level of the nations population etc. The Committee consists of 12 members representing the concerned Departments of the Central Government with Secretary, Department of Social Welfare as its Chairman. A copy of notification setting up the Committee and a List of members are enclosed.

2.66. The Central Coordination Committee has held three meetings so far. The first meeting was held on 11-9-1975. At this meeting the main item on the agenda was to approve a National Policy on Nutrition. As decided at this meeting an inter-ministerial Working Group was set up to prepare a draft of such policy. The draft of policy was placed at the third meeting of the Committee and it is being further revised as per directions given by the Committee. The second meeting of the Committee was held on 6-2-1976. The Committee here recommended *inter alia* that the Ministries etc. administering the programmes should (i) write to States for making use of services of State Nutrition Officers, (ii) to set up State-level co-ordination Committee where such committees have not been set up and should set up at the Centre appropriate cells to monitor their nutrition programmes etc. The third meeting of the Committee was held on 10-6-1976. The Committee reviewed the progress made in regard to implementation of its earlier recommendations and decided *inter alia* that the National Nutrition Monitoring Bureau under ICMR should undertake evaluation and to begin with evaluate the programmes in Karnataka and West Bengal. The Committee also considered a new scheme of giving a prospect of life to severely malnourished children and decided that this may be implemented by the Ministry of Health and Family Planning. The functions of the Committee were also reviewed.

2.67. As per practice followed at present the action taken on the recommendations of the Central Coordination Committee on Nutrition Programmes by the Departments concerned is brought to the notice of the Committee at subsequent meetings. The following three important points were considered by the Committee at its third meeting held on 10-6-76.

- (i) It was decided to compile and keep upto date information in respect of each programme on nutrition.
- (ii) While reviewing the functions of the Committee, it was decided that the work of monitoring the evaluation functions

should be kept in the Department of Health i.e. National Monitoring Bureau and that a machinery and guidelines may be prepared to achieve the goal of pooling resources for the programme.

(iii) Preparation of the National Nutrition Policy.

2.68. Asked to state the latest position in regard to the implementation of these recommendations, the Ministry of Health in their note (November, 1977) have stated as follows:—

“The Coordination Committee for Nutrition Programme was set up by the Department of Social Welfare with representatives from other Ministries. The Coordination Committee meeting held on 10-6-76 decided to collect information in respect of each nutrition programme implemented by various departments of Government of India. As desired by the Department of Social Welfare, the information available on nutrition programmes with the DGHS was forwarded to the Department of Social Welfare. The Coordination Committee has not met after June, 1976 to review the information so collected from various sources.

The third meeting of the Coordination Committee held on 10-6-76, partly reviewed the draft proposal on the National Nutrition Policy which was prepared by a Sub-group constituted for the above purpose, and as per the opinion expressed by the representatives of the Planning Commission, the draft was to be reviewed in consultation with the Planning Commission. The appropriate revision has not yet taken place and the draft on the National Nutrition Policy has not yet been discussed in any meeting of the Coordination Committee after 10-6-76.”

2.69. In recognition of the supreme importance of children as a national asset, the Government of India adopted the Resolution on August, 22, 1974 on the National Policy for Children. This Resolution urges that the programmes for the development of children should be a prominent part of our national plans and that all children should receive equal opportunities for their growth and development. Through such programme of action there will emerge in due course, generations of citizens endowed with mental and physical qualities to build and strengthen the country. Para 5 of the said Resolution emphasises the need for a focus and a forum for planning, review and coordination of a multiplicity of services striving to meet the needs of children and stipulates the constitution of a National Children's Board to provide this focus and such a forum.

2.70. The National Children's Board has been constituted under the Presidentship of our Minister and consists of 31 members in all. The functions of the Board are given below:

- (i) to create and sustain public awareness of the needs of children, in general;
- (ii) to coordinate and integrate the efforts made by different governmental and private agencies engaged in implementing programmes for the welfare of children;
- (iii) to review periodically the progress made in the different programmes;
- (iv) to locate gaps in the existing services and suggest measures of eliminating such gaps; and
- (v) to suggest from time to time any changes needed in the priorities accorded to the different programmes.

2.71. The Board will normally meet once a year. It will have a Standing Committee which will normally meet twice a year. The Board reviews to coordinates the various welfare programmes for children including nutrition. The meetings of the National Children's Board and Standing Committee were held on 15-9-75 and 25-10-76 respectively.

2.72. The Committee note that the malnutrition and blindness are widespread in our country. The Committee would like to point out that at the core of malnutrition lies the problem of poverty, particularly the rural poverty and therefore, national efforts should be oriented towards improving the lot of rural masses through effective rural development strategy, in the formulation of which health and nutrition objective must receive due consideration.

2.73. The Committee note that a number of nutritional programmes have been launched by Government and some with the cooperation and assistance of international agencies. These programmes are being administered, depending upon the nature of the programme, by different Ministries like Health and Family Welfare, Education and Social Welfare and Agriculture—(Departments of Food and Rural Development). The Committee learn that for coordination of these programmes a Central Co-ordination Committee consisting of 12 members representing the concerned Departments of the Central Government was set up in August, 1973. The Committee note that two of the important points considered by this Coordinating Committee were:

- (i) to compile and keep upto date information in respect of each programme on nutrition.**
- (ii) preparation of the National Nutrition policy.**

2.74. The Committee regret to note that the Coordination Committee for Nutrition Programme which was entrusted with the tasks of compiling and keeping upto date information in respect of various Nutrition Programmes on nutrition has not met after June 1976 to review the information collected from various sources. Also the draft proposal on the National Nutrition Policy prepared by a Sub-Group of the Coordination Committee constituted for the purpose, which was to be reviewed in consultation with the Planning Commission, has not yet been reviewed and the draft on the National Nutrition Policy has not even been discussed at any meeting of the Coordination Committee after 10th June, 1976. Considering the widespread malnutrition problem in our country with its concomitant deleterious effect on general health and vision of the affected people, the Committee would stress that the meeting of the Coordination Committee for the Nutrition Programme be convened early without any further loss of time and the data compiled and collected in respect of various Nutrition Programmes reviewed expeditiously. The Committee would also emphasise the urgent need of reviewing and finalising the draft of the National Nutrition Policy, by the Coordination Committee.

2.75. The Committee would also urge Government to examine whether the implementation of such a policy should not be brought under the control of a single Department so that the areas of coordinated effort are minimum necessary and the policy implemented smoothly and vigorously. The Committee would also recommend that as an important preventive measure against malnutrition blindness, greater resources should be allocated for nutrition programmes. The Committee would also like Government that great efforts are made to enlist the active cooperation and assistance of international agencies such as UNICEF.

(b) *Availability and Population of Cheap Nutritious Foods like Satoo, Green Vegetables, Carrots, Peanuts and Jaggery etc.*

2.76. A population which is habitually used to a diet which is sufficient in both quality and quantity will have a store of general health and vitality, which will enable it both to resist the onset of the disease and successfully to combat it, when it arises. The nutritional problems and deficiencies leading to blindness, can be effectively met by popularising the extensive use of leafy vegetables, carrots, drumsticks etc. among the population in general and the children of mothers in particular.

2.77. In a number of memoranda submitted to the Committee it has been represented that:

“ . . . In most part of the country diets can be devised which would be cheap enough for the pockets of even the poor and which would be from eatables available in the localities e.g. leafy vegetables, carrots, drumsticks, tomatoes and similar

cheap foods. The children can also be given potential foods containing protein in many parts of the country where malnutrition has posed a problem, mixed with the flour or rice, and given to the children. They can also be given our mixed with groundnut cakes which would be relished by children. More than money, imagination and education is necessary....”

(ii) There is urgent need for launching intensive nutrition education programmes to make the people aware that leafy vegetables tomatoes, carrots, drumsticks, oranges are rich sources of Vitamin 'A', which is essential for the health of eyes. Sprouted grams, and groundnuts are rich sources of proteins and vitamins and should be used as nutrition supplements. Vitamin 'A' and proteins are both necessary for the health of eyes. Even the poorest persons can afford to take these inexpensive but nutritionally rich foods and in the interest of their general health and health of their eyes. What is required is an imaginative approach and education of the people so that they will produce these productive foods and ensure their utilisation by the vulnerable groups *i.e.* pre-school children and expectant and nursing mothers in order to protect their eye sight, the groups that need most urgent attention and is most vulnerable to develop symptoms of malnutrition....”

2.78. On the question of cheaper foods and leafy vegetables, the representatives of Ministry of Health and Family Planning stated during evidence:

“. . . . With regard to the use of cheap food and leafy vegetables, studies have been made and literature is there and we have been able to do not much in this regard; a lot has to be done to educate people with regard to the use of cheap vegetables that are already available in their own homeland. About sato also some publicity has been done in the drought affected areas, in Bihar and Maharashtra and people had been educated about Vitamin A deficiency. Programme for Vitamin A had been launched in 1970-71 and it covered children in 1-5 age group it covers all the states and union territories in the country....”

2.79. Subsequently in a written note furnished to the Committee, the Ministry have explained the position as follows:—

“. . . . Health education is being given through all mass media, through the mobile centres and through multipurpose health workers. Besides this, the education is being included in physical and health education and life sciences courses. Inten-

sive nutritional educational efforts are being made in the States through State Nutrition Divisions to popularise cheap sources of Vitamin 'A' mainly green leafy vegetables and yellow fruits, Pamphlets and nutrition education material prepared by the National Institute of Nutrition, Hyderabad and the Directorate General of Health Services have been forwarded to States which are being translated in regional languages and used through the nutrition education channels as well as the Health Education Bureaus of the States. The State Nutrition Divisions are also making pamphlets, charts and other audio-visual materials for nutrition education purpose. Under Applied Nutrition Programme, Intensive nutrition education is being imparted to the rural communities through Mahila Mandals and Women's camps being organised at block level. The Food and Nutrition Board, through their Mobile Extension Divisions in all the States are also making efforts for popularisation of cheap sources of nutrient rich materials for inclusion in their diets. A film on eye care has been released on 7 April, 1976 which includes nutrition education. Several other films and posters have been prepared and exhibited particularly showing the balanced diet."

2.80. In reply to another question whether any study had been made to make available cheap and inexpensive foods like satoo which was full of Vitamin 'A' the Ministry have explained the position as follows:—

"....Yes, at Bangalore Groundnut cakes after extraction of oil cannot be used generally for mixture with flour of rice to be given to children because of the danger of aflotoxin, a fungal toxin is prevalent in groundnut. So, groundnut cakes being used at the moment in food mixtures for children especially for Balabhar and products that are used in India population Project etc. are carefully screened for the absence of aflotoxin, Mixture of gur, groundnut flour and wheat flour is already being tried in U.P. under the India Population Project and it is well accepted to children. Various efforts in these directions use locally available cheap sources of high protein and iron vitamin content foods are being made. Foods like satoo and foods which have traditional acceptance where there is a mixture of cereal and pulse protein is always encouraged in the nutrition programme. The question of introduction of these foods on mass scale for consumption in general public has not been taken up by the Government because of various logistic problems but it is en-

couraged at the village level mainly for the consumption of the vulnerable group, pregnant and lactating mothers and pre-school children.

2.81. To a question whether it was possible to introduce such as inexpensive food like Satoo on a mass scale for general consumption, it has been stated that the matter was being studied with a view to popularising it. The programme was also likely to be extended to other areas.

2.82. The Committee note that leafy vegetables, carrots, drumsticks, tomatoes, oranges, "papayas" and similar cheap foods were rich sources of Vitamin 'A' and were essential for the health of eyes. These eatables are easily available in the country and are cheap. Sprouted grams and ground-nuts are also equally rich sources of supplements. In this connection the Committee were informed during evidence that ".....with regard to the use of cheap food and leafy vegetables studies have been made and literature is there and we have been able to do not much in this regard, a lot has to be done to educate people with regard to the use of cheap vegetables that are already available in their own homeland. . . .about "satoo" also some publicity has been done in the drought affected areas in Bihar and Maharashtra" The Committee consider that since nutritional deficiencies, particularly among expectant mothers and children were to a great extent adding to blindness in the country, urgent steps were called for on the part of Government for launching an intensive nutritional education programmes in the country and popularising the extensive use of leafy vegetables, carrots drumstikes, tomatoes, oranges, papayas and similar cheap foods like "satoo" sprouted grams and groundnuts.

2.83. The Committee suggest that Government should take effective action to include "satoo" and other nutritional foods like sprouted grams, groundnuts etc., in the programme for mid-day meals of children. Steps should also be taken to standardise the quality and quantity of ingredients which should go into "satoo", improve its packing, arrange for its sale through Super Bazars and other Fair Price shops and use audio-visual means to bring the value of "satoo" and other cheap and readily available foods which are good for eye health to the notice of the people particularly those with fixed incomes and hailing from weaker sections of society as they are particularly susceptible to ailments of the eyes.

CHAPTER III

EYE HEALTH DELIVERY SYSTEM

(i) Eye Camps—Mobile Units

3.1. The concept of delivering eye care by establishing eye camps especially in countries like India and some of the other countries with excessive ocular morbidity, and cataract problems, had come to stay. Eye camps with community participation had wide popular acceptance. They brought the service almost to the doors of the people's homes. It had been stated that these camps were providing more comprehensive eye health care and seemed to be the best solution to the problem for the time being, until a permanent effective infra-structure could be developed. It had been claimed that the results of operations conducted in the Eye Camps had shown to be as good as those performed in large eye hospitals and that the eye camp approach was the only possible approach for reaching and serving the community and would have to stay for a number of years to come. The Eye Camps, it had been stated, as planned now will not only undertake cataract operations, but providing total eye care in the following spheres:

- (i) general surveys for early detection of visual defects;
- (ii) education of the masses;
- (iii) necessary treatment;
- (iv) help in rehabilitation of the blind in their own environments.

3.2. In a number of memoranda furnished to the Committee, it has been represented:

"More than 80 per cent of our people live in rural areas and another 10 per cent in semi-urban areas. The people living in urban areas have access to some sort of ophthalmic service thought it is by no means of a uniformly high order. The people living in rural and semi-urban areas have hardly any facilities for the treatment of eye diseases. Some of the rural areas are far removed from civilisation and lack of communications and transport takes them still more remote. It may take a patient from a day to over a week to reach an ophthalmologist or an eye hospital. People living in such communities suffer from eye diseases and have no means of relief, except to resort to the services of the quacks. It is

for this reason that the rural areas account for the major portion of blind population in India. Illiteracy and ignorance, poor personal hygiene, poverty and malnutrition, poor general sanitation, flies, lack of facilities for proper treatment and quackery, all are responsible for this sad state of affairs. It is not uncommon to come across a village with every member suffering from Trachoma, many of whom have become economically blind. It has been reported that there are villages where every one is blind. Infants in such communities, acquire trachoma in the first few weeks of their life and tragic consequences. Besides trachoma many other diseases, *i.e.* small pox, cataract, glaucoma, eye infections resulting in mucopurulent and purulent conjunctivitis and corneal ulcers, account for a sizeable portion of blindness.

In the past and even now, eye relief work in such areas is carried out by voluntary organisations in the form of eye relief camps. In some areas substantial relief has been given by the eye camps to the needy population. But these efforts are usually sporadic, not always well planned and in many cases post operative care is short and follow-up inadequate. Some of the organisations are conducting eye camps hundreds of miles away from the base hospital and may not be able to transport the cases with complications requiring prolonged care, to the base hospital.

The most logical solution of such a gigantic problem would be the establishment of Mobile Eye Units in all parts of the country. Mobile units should be attached to Medical Colleges, ophthalmic institutes and eye hospitals and selected district hospitals. Each unit should confine its activities in a certain zone within 50 to 80 kms. radius, as far as possible and not encroach in to the territory of another unit, unless specially requested to do so."

(ii) "For the mobile units to be successful, the surgical work must be of the highest order. There must be good arrangement for sterilisation and for carrying out operative procedures. The emphasis must be laid on the quality of work. The community must be involved in the organisation of the camps.

We should be able to create at least one mobile unit for every 5 districts. These mobile units should work in a coordinated and well organised manner according to standards laid down. Each unit should have a target of 20—30 eye camps and 3000 and 3500 operations in a year."

(iii) "It has been fully demonstrated that it has been feasible to deliver specialised services in eye care to the peripheral areas through a camp approach utilising mobile ophthalmic units. These camps and units for the time being are not being run in an organised manner though they are rendering a useful service. These need to be augmented considerably for rendering good ophthalmic care in most peripheral areas and these need to be supported by a permanent infrastructure of eye care services at the peripheral, intermediate and central level. The concept of mobile units and eye camps also needs considerable revision so that they can play a vital role in the promotion of ocular health, prevention of eye diseases and cure of the curable blind including surgical intervention wherever necessary.

It should be feasible to create at least one mobile ophthalmic unit for each revenue division catering for a population of 7.5 to 12.5 million of thickly populated or thinly populated. Besides this, these mobile units should form a coordinated network of activity rather than sporadic unorganised and unplanned method of work. Each mobile unit should give a target of holding 20—30 eye camps and performing 3000 to 3500 operations per year. Thus it will help to create an additional capacity of 2.5 to 3 lakh operations every year. If they are adequately supported by the services at the intermediate and central level, it should be possible to augment the services to the level of requirements of the nation."

(iv) "Eye camps must be encouraged. The Central Government must pay handsome honorarium in such camps to Senior Ophthalmic Surgeons so that poor can get best surgery. Completely free service from senior surgeons is not good."

(v) India is predominantly an agriculture country and about 80 per cent population lives in villages. Most of the population is poverty stricken. The village folk mostly illiterate, conservative and ignorant do not realise the benefits of hospital treatment and care of their eyes. They do not like to leave their native villages for the dread of known and untried. Due to ignorance and superstitions, they prefer to entrust their patients to local quacks and ojhas. The means of communication and transport are so poor in the rural areas that these people have to give up the idea of taking patients to the town for fear of worsening the patients' condition or affliction in transit. As a result, they lose their sight and become blind.

"In these conditions obtaining in India, there was no better and appropriate method for providing eye relief to thousands of rural folk at their very doors except through the audio visual means and media of eye relief camps to be organised and conducted by Mobile Ophthalmic Units which provide treatment on scientific and upto date lines and give the rural folk an insight into the benefits of modern system of medicine and thus creating in them a desire to avail themselves of the opportunities existing at eye hospitals. The Mobile Ophthalmic Units of the eye relief camps play a very important part towards the prevention, control and cure of blindness."

3.3. A leading Ophthalmologist during his evidence before the Committee when asked whether it would be advantageous for the Central/ State Governments themselves to create mobile Ophthalmic Units and organise eye camps in the remote rural areas and areas which had not been covered already, gave his views as follows:

"The prevention of visual impairment and control of blindness should not be considered as a purely government programme as otherwise it is likely to fail because people will not regard it as their own programme. People's participation is very essential in the development and implementation of the National Plan of Action for the magnitude of which we are concerned. It is, therefore, suggested that while the Central Government/State Governments will create mobil units and organise eye camps in the remote rural areas and areas which have not so far been covered yet it will not be possible for the Government alone to create facilities for more than half a million or so operations every year which cannot meet the total requirement. The voluntary agencies and clubs like Rotary Clubs, Lions' Club, National Society for the Prevention of Blindness, Chakshudan Samitis, Sight Saving Societies and several other voluntary organisations should be encouraged to organise camps and should be given some grants for such camps on performance basis. It will be desirable to encourage the assistance of some of the international agencies in this direction like R.C.S.B., Christotel Blindenmission. This will prove much cheaper to the Government than create all units by itself."

3.4. It has been represented to the Committee that:

"Upto now the eye camps supported/aided by Government have not been effective, as the organisational set up is not geared for an effective approach. The eye camps have to be plan-

ned and executed with the same zeal as the family planning camps. The present facilities of eye camps are a hotch-potch. If permitted to say so, some have made it a money earning business in the name of charity (Netra Yagna) the accounts of the eye camps *in toto* must be submitted to the Government for each eye camp separately, at district levels. All aid to the eye camps must be channelised through the National Plan of Government of India."

Another view has been expressed that 'Eye Camps' and 'Mobile Ophthalmic Units' can effectively help in preventing and control of blindness and the Central/State Governments should set aside adequate funds to enable voluntary service clubs such as Rotary Clubs, Lion Clubs and other voluntary organisation to organise such camps."

3.5. The Committee enquired what views the Government held on the functioning of the Eye Camps and what precise measures had been taken by Government to make the functioning of Eye Camps effective and purposeful. The Ministry of Health in a written note furnished to the Committee have explained the position as follows:

"The Government is aware of the difficulties and inadequacy of eye camps in our country which are being conducted at present. It has, therefore, devised guidelines for converting these eye camps into Mobile Eye Care Units. These guidelines are to be observed in full. These will be created by the Government in this Plan in addition to the efforts of the voluntary agencies.

- (ii) For any voluntary agency to get any grant for Mobile Health Units it will have to follow the pattern proposed for the governmental unit.
- (iii) As a preliminary step, Mobile Ophthalmic Care Units will be established in areas which have not so far been covered.
- (iv) In general it is re-emphasised that all eye relief, including assistance for eye camps, will be channelised through co-ordination committees set up at District/Taluka and Divisional levels involving the profession and the people as a cooperative enterprise. All accounts will be maintained and each division will be required to submit audited statement of accounts."

3.6. Pointing out that under the national Plan of Action, Government propose to set up 30 mobile units upto the 5th Plan which would be increased to 80 by the end of the Sixth Plan and the annual recurring expenditure per unit including the salaries of staff, TA/DA etc., had been

assessed as Rs. 1.5 lakhs and non-recurring expenditure for equipment, vehicles etc., at Rs. 4 lakhs per unit, the Committee enquired whether all the equipment for the mobile units will be indigenous or imported, if imported what would be the import content for each unit and whether any such unit had been functioning at present and if so, what was the experience about the working and expenditure of such unit. The Ministry of Health in a written note have indicated the position as follows:—

- (i) Most of the equipment for mobile units will be indigenous. Whatever imported components are required, shall be met from the external assistance that is being negotiated under the Plan. Roughly speaking 20-30 per cent of equipment will need to be imported for each mobile unit.
- (ii) An organised unit of this type has not been functioning at present but periodically camps on the lines suggested are held by the National Society for the Prevention of Blindness—India and Dr. Rajendra Prasad Centre for Ophthalmic Sciences and based on this experience, it has been observed that the arrangements as suggested in the Plan are on the experience gained through these camps.
- (iii) Each mobile unit is expected to carry on about 3000 operations every year.

3.7. It has been stated in the preliminary material that 80 mobile units will be created all over the country and that their objectives will be broad-based. In a number of memoranda submitted to the Committee, it had, however, been stated that the number is too small and that at least each district should have a mobile unit. It had also been stated that in one of the memorandum that each eye surgeon in mobile units could perform 200 operations in a day and that by this method all backlog could be cleared in 5 years. The Committee enquired as to what were the views of the Government regarding the increase in number of mobile units and what would be its financial implications. Whether the present eye camps were being held under scientific conditions and if not, what steps were being envisaged to see that eye camps were scientifically organised and conducted and how the Government proposed to prevent quackery in the wake of massive eye relief campaigns. The Ministry have given their views as follows:

- “(i) The view expressed that in each mobile unit one surgeon may perform 200 operations in a day is not a correct assessment. It has been the experience of experts working in the field that at an eye camp not more than a total of 200 cases should be operated, otherwise complications are more frequent. If these operations are not conducted under scientific conditions, infec-

tions increase with the number of operations in each camp. The quantum of operations should be 150 but should in no case exceed 200. Besides, this mobile unit should not only be concerned with the operations but should also look after the total eye health care of the population during the period of their stay in the area.

- (ii) It will be unrealistic to create more than 80 mobile units as neither the manpower will be available nor the materials. The financial implications of mobile units working for about 3 to 5 years period is nearabout 4 lakhs of non-recurring and 4-5 lakhs recurring expenditure. Considering that we have nearly 400 districts, the cost will be tremendous and the benefit will not be commensurate. Besides this, when the mobile units are withdrawn, the problem will arise again. The Government has, therefore, planned to provide only temporary services through mobile units and at the same time create a permanent infrastructure. Though by this method, the relief will be slower, the benefit shall be of permanent nature.
- (iii) The Government is aware that the eye camps that are being conducted are not under scientific conditions. It has, therefore, prepared certain guidelines to be followed by agencies indulging in eye camp activities by converting them into mobile ophthalmic care units so that the eye camps are scientifically organised and conducted and at the same time other benefits of eye health care are extended to the population.
- (iv) It is proposed to introduce a licencing system for eye relief camps in order to prevent quackery i.e. who hold eye camps without licence will be prosecuted.”

3.8. When asked whether the Government had any precise information on the total number of Eye Camps held every year and the total number of eye operations performed per year, the Ministry have stated thus:

- “(i) The Government has no information on the total number of eye camps held per year but it is considering to ask the State Governments to issue licences for holding camps as a token of their permission. The person who obtains a licence would be required to give the detailed information with regard to the camps held and whether they were conducted according to the guidelines given to them.
- (ii) The total number of operations performed per year is approximately 6-7 lakhs but the exact figures are not known.”

3.9. The Sub-Committee of Estimates Committee (1977-78) on 'Prevention and Control of Blindness' enquired as to how many mobile units had since been established and where they were located. The Ministry of Health in their note (November 1977) explained the position as follows:—

"9 mobile units have been established so far and 6 will be established within a month and a half. The units located so far are:

Assam	2 (Gauhati and Silchar)
Orissa	2 (Cuttack and Behrampur)
Delhi	1 (Dr. Rajendra Prasad Centre for Oph. Science)
Gujarat	1 (Surat)
Madhya Pradesh	1 (Bhopal)
Himachal Pradesh	1 (Kangra)
Rajasthan	1 (Bikaner)

The units that are going to be established very shortly are:

Maharashtra	1 (Aurangabad)
Haryana	1 (Rohtak)
Punjab	1 (Amritsar) or (Patiala)
Bihar	1 (Darbhanga)
Uttar Pradesh	1 (Jhansi)
Jammu & Kashmir	1 (Jammu) or (Srinagar)

3.10. As to the question of the precise programme of setting up of mobile units in subsequent years and the exact location of the mobile units, it has been further stated by the Ministry of Health:

"In the next year, 15 units will be added. In the year 1979-80, another 15 units will be added and in 1980-81 there will be an addition of 15 more units. In 1981-82 the remaining 20 units will be added. The mobile units are being distributed on the basis of 1 mobile unit for five districts.

The exact locations of these units have not been decided but will be in a revenue divisional headquarters in consultation with the State Governments concerned."

3.11. The Sub-Committee of the Estimates Committee (1977-78) on 'Prevention and Control of Blindness' further enquired whether the Central Ministry of Health had taken any steps to collect and pool information regarding (i) total number of Eye Camps held per year; (ii) total

number of eye operations performed per year; (iii) total number of cataract operations performed per year; (iv) total number of Glaucoma operations performed; (v) total number of eye beds per district; (vi) total number of doctors, Eye specialists available in each State. The Ministry of Health in their note (November 1977) indicated the position as follows:

(i) *Total Number of Eye Camps held per year.*

Government has no information on the total number of Eye Camp held per year but it has requested various State Governments to create District Coordination Committees who will allow holding of eye camps. In the absence of such committees, the organisers are to get permission to hold eye camps from the District Magistrate or the Civil Surgeon or the District Ophthalmic Surgeon.

(ii) *Total number of eye operations performed per year:*

The total number of eye operations performed per year is approximately 6-7 lakhs but the exact figure is not available. In this Plan, the Government proposes to collect this data and to create the Central Information system by obtaining information from various agencies engaged in the work by asking them to fill up a proforma.

(iii) *Total number of cataract operations performed per year:*

The total number of cataract operations performed are in the neighbourhood of 5-6 lakh but the exact information is not available and will be collected as per reply in (ii) above.

(iv) *Total number of Glaucoma operations performed per year:*

The total number of Glaucoma operations performed is not available but the same will be collected as proposed in (ii) above.

(v) *Total number of eye-beds per district:*

The total number of eye-beds is about 12,000. District-wise data is not available but is being collected through the State Governments.

(vi) *Total number of eye hospitals per district:*

The total number of eye hospitals per district is not known but the same is being collected through State Governments.

(vii) *Total number of doctors, eye specialists in each State:*

As per rough information, there are about 3600—3700 eye doctors in the country. Statewise information is not precisely available. The same is being collected through the State Governments.

3.12. The Committee note that Eye Camps have an important role to play not only in undertaking eye operations but also in providing total eye care. Eye camps with community participation have found wide popular acceptance. Such camps have an undoubted value in bringing Ophthalmological treatment to the doors of the people, 80 per cent of whom live in rural areas with hardly any ophthalmological services for the treatment of eye diseases.

3.13. The Committee have been informed that Government are aware of the difficulties and inadequacies of Eye Camps which are conducted at present and have, therefore, devised guidelines for converting these Eye Camps into Mobile Eye Care Units. As a preliminary step Mobile Ophthalmic Units will be established in areas which have not been covered. The Committee would like Government to implement the proposed measures under a time bound plan.

3.14. The Committee would also urge Government to ensure that the voluntary agencies which are already doing useful work in the field receive proper encouragement and purposeful direction for augmenting and accelerating their efforts.

3.15. The Committee note that under the National Plan of Action, Government propose to set up 30 Mobile Units by the end of 1978-79 which would be increased to 80 by the end of 1983-84. The Committee understand from knowledgeable non-officials that the number is too small and that at least each district should have a Mobile Unit. They have been informed by the Government that it will be unrealistic to create more than 80 Mobile Units in relation to the availability of manpower and equipment and in view of the financial constraints and Government have, therefore, planned to provide only temporary services through Mobile Units and at the same time create a permanent infrastructure. Seeing the magnitude of the problem, the Committee, however, feel that Government should find ways and means to set up not less than 120 Mobile Units by the end of the year 1983-84 with particular emphasis in backward districts tribal and Hill areas falling in arid zones in the country. The Committee stress the need for efficient functioning of the Mobile Units which are being set up. They stress that these Mobile Units should be well equipped and adequately manned to take care of post-operative complications and to undertake their

activities in a coordinated manner and should avoid sporadic, unorganised and unplanned methods of work, as has often been the case in voluntary Eye Camps.

3.16. The Committee would also like the Government to explore all possibilities of running more Eye Camps with the help and cooperation of private agencies wherever necessary. For this purpose it would be necessary to revise the concept of Mobile Units and Eye Camps to demarcate their roles and to organise their functioning on scientific lines so as to give optimum benefit to the large number of people within the resources that are available which could further be developed under meaningful plans with precise time bound targets.

3.17. The Committee would also urge Government to introduce some regulations for holding Eye Camps in order to prevent quackery and to ensure that these camps are run by qualified ophthalmologists and take due care of post-operative complications. The Committee note that at present Government do not have reliable information about the total number of eye camps held, eye operations performed, eye hospitals and eye beds available in each district and the total number of eye specialists in each State. They feel that it is absolutely necessary to have complete and upto-date information in regard to all these matters in order to plan and execute the campaign against blindness systematically throughout the length and breadth of the country. The Committee, therefore, recommended that Government should establish a scientific information system to collect all the relevant information in regard to the incidence of blindness and the progress of work done under the National Plan of Action for the Prevention and Control of Blindness, analyse this information critically and take such measures as are considered necessary in the light of the information received to ensure effective action against blindness on all fronts in the country.

(ii) Primary Health Centres

3.18. Eye diseases are being attended to in various institutions of which some are specialised and in others as part of the general health care. Ordinary eye diseases at the periphery are being attended to at the Primary Health Centre (PHC) and rural dispensaries, but so far specialised attention is not available. The patients needing specialist care are either referred to or attended at the nearest hospitals at the Taluka/Sub-Divisional or District Hospitals. Unfortunately, there too the specialists services for the eye are not available in a larger number of the Districts and Sub-Divisions. This results in the patients left without any specialised care in time. Those who can afford, attend the nearest eye hospital whether maintained by Government or by voluntary organisations, or to go to the nearest Medical College or hospital or Ophthalmology. The percentage of such people is very small.

3.19. Under the National Plan of Action on Blindness it has been stated that at present there are hardly any facilities available in the rural and taluka and even district hospitals for diagnostic and treatment purposes. It is proposed that all the Primary Health Centres in the country should be so equipped in phases so as to (a) provide a base for ophthalmic health education in the field of eye care; (b) screening the cases requiring specialised ophthalmic care; (c) render treatment for minor ailments of the eye; and (d) provide for ophthalmic health services, particularly to the pre-school and school going children. The Primary Health Centres doctors will have to be given 4 to 6 weeks training in various medical colleges. Every PHC will have to be provided with an ophthalmoscope and other essential equipment costing about Rs. 3000 per centre. Sufficient number of beds are already available at every PHC and the existing beds can be used in emergencies. It is estimated that the expenditure for equipment in the Primary Health Centres would come to about Rs. 33.00 lakhs for 1100 units in V Plan and the remaining will be upgraded in VI Plan.

3.20. In a number of memoranda submitted to the Committee it has been presented:—

“The adequate arrangements for examination of the eyes and eye diseases, at PHCs and Taluk Hospitals must be provided. Tonometer Ophthalmoscope and Trial Case must be in every P.H.C. and Taluk Hospitals.”

“At present, there is no arrangement for diagnosis and treatment of eye diseases in Taluk Hospitals and Primary Health Centres except minor external infections. A refresher course can be conducted for the doctors of Primary Health Centres and Taluk Hospitals. They should be able to diagnose early cases of glaucoma, they should be able to prevent and treat the malnutritional eye diseases and take care of the immediate treatment of eye injuries.

Generally speaking, the Primary Health Centres and Taluk Hospitals do not have a full time ophthalmic surgeon attached to them. The PHCs in some cases have a referral service of ophthalmic surgeons who either visit the PHCs or to whom patients are referred at a district hospital eye department. It would go a long way if the Taluka Hospitals and the PHCs have the services of Ophthalmic surgeons at least twice or thrice in a week if not full time.”

“....Arrangements for care of eye and the problem of eye diseases at PHCs and Taluka Hospitals are highly inadequate. They are being carried out through basic doctors who are

incharge of these PHCs and Taluka Hospitals. These doctors are usually ill informed and need knowledge about eye care and the problem of eye diseases....The situation can, however, be remedied by proper refresher courses for the basic doctors at the PHCs...."

3.21. During evidence (on 16th November 1976), the Adviser in Ophthalmology, Ministry of Health, stated:

"....At the Primary Health Centre level there was no ophthalmic service available now except the general practitioners. By upgrading them we will be providing the essential services for diagnostic and minor treatment purposes and also provide a fully trained ophthalmic Assistant. We are going to do it in a planned manner."

3.22. Amplifying the point further the Adviser in Ophthalmology stated that there were at present 5314 Primary Health Centres in the country and all of them would be covered within a period of seven years, 300 in 1976, 400 in 1977 and in each of the succeeding year and thus all the Primary Health Centres would be covered within a period of seven years.

3.23. To a point raised by the Committee as to whether the number of Primary Health Centres would remain constant or would go on increasing the Secretary, Ministry of Health, elaborated the point thus during his evidence (on 16th November 1976):

"....The intention is that every extension service block must have a Primary Health Centre, and in the country we have about 5700 or 5800 National Extension Service blocks. We have covered 5400 blocks and another 200 remain to be covered. We are requesting the State Governments to extend these services to them. At the same time, in the backward areas, particularly tribal areas, the intention is to provide a Primary Health Centre for a population of not 80,000 to one lakh but a population of 25,000. We have requested the Planning Commission to agree to the provision of one lakh because of the spare population, the difficulties of communication and the special problem of tribal areas, and they have promised to look into it sympathetically. That means, on an average for a population of one lakh, there should be about 6000 Primary Health Centres. That means, on an average, there would be 6000 Primary Health Centres in course of time, and some of the Primary Health Centres may cover a population of more than a lakh and some less than a lakh...."

He further added:

“. . . . there will be an ophthalmic assistant posted to each Primary Health Centre and this PHC will be given equipment of a minimum value of Rs. 1300 for treatment purposes and the general practitioners working in the Centre will be given training programme in Ophthalmology.”

3.24. To a point as to what linkages were envisaged to be established with the PHC and Taluka Hospitals, the Adviser stated:

“. . . . In this seven year Plan we are envisaging that every district hospital will at least have an eye specialist and an ophthalmic assistant. At the same time we are having mobile units so that there may be regular visits to the District Hospitals and Taluk Hospitals. Then many of the camps we are proposing to hold will be held at the level of the Primary Health Centres so that all the ophthalmic problems can be attended to.”

3.25. In a written note furnished to the Committee, Ministry of Health stated thus on the working of Primary Health Centres:

“. . . . the services at the periphery can be adequately covered by Ophthalmic Assistants and general practitioners oriented for the delivery of eye health care. These services will be supervised by the Eye Specialists at the District and Taluka level.”

3.26. It had been represented to the Committee that some of the general hospitals were being run by personnel which were not fully qualified and the hospitals were not adequately equipped with technical skills in ophthalmology to run ophthalmic services. It had also been brought to the notice of the Committee that the Primary Health Centres and Taluka Hospitals did not have full time ophthalmic surgeons and that services of ophthalmic surgeons should be provided at least twice or thrice a week. In this regard, it had been suggested that the situation could be remedied through refresher courses in ophthalmic care for the basic doctors posted at PHCs. The Committee enquired as to how the situation could be remedied to provide at least the basic ophthalmic care services at all hospitals, PHCs and Taluka Hospitals. The Ministry of Health in a written note explained the position as follows:

“During the present phase of development of eye health services to provide basic eye health care, ophthalmic assistants, are proposed to be posted in areas where eye specialists cannot be posted and where beds are not available or cannot be created for the reasons stated earlier.

It is also proposed to give continuing education in the form of refresher courses in ophthalmic care units for the basic doctors posted at these levels. The areas are also proposed to be covered through the mobile units. It would be wise to proceed steadily and create services at the medical colleges, district hospitals, PHCs and at the central level in this phase of seven and a half years and in the next phase the same extended to Taluka Hospitals—fully strengthen the district hospitals—upgrade a few more medical colleges and in the third and final phase to provide facilities to all areas. In the interim measure temporary yet effective coverage should be provided through mobile units and referrals.”

3.27. The Committee note that ordinary-eye-diseases at the periphery are being attended to at the Primary Health Centres and rural dispensaries where specialised attention for these diseases is not available. Patients needing specialist care are referred to the Taluka or District Hospitals. At present there are hardly any facilities in rural and Taluka and even district hospitals for diagnostic and treatment purposes. The Committee note that it has been proposed that all Primary Health Centres in the country should be equipped in phases so as to provide a base for ophthalmic health education, to screen cases requiring specialised eye care and for providing ophthalmic health services, particularly to the pre-school and school going children. It is also proposed to give 4 to 6 weeks training to Primary Health Centres doctors in various medical colleges. The Committee need hardly emphasise the importance of strengthening the Primary Health Centres in the field of ophthalmic care so that the PHCs can play a meaningful role in attending to the ophthalmic problems of the Community.

3.28. The Committee consider that the institution of refresher courses for the PHC doctors is a step in the right direction. The Committee would, therefore, like Government to have the refresher courses so planned that the doctors gain requisite experience and are in a position to diagnose and treat eye ailments in an effective manner.

3.29. The Committee need hardly stress the importance of providing the PHCs and Taluka|District Hospitals with the necessary basic equipment and personnel which would relieve the community of hardships of going long distance to specialised institutions. The Committee note that every PHC will be provided with an Ophthalmoscope and other essential equipment, (costing about Rs. 3000/- per centre). Ophthalmic Assistants are proposed to be posted in areas where eye-specialist cannot be posted and that the areas are proposed to be covered by Mobile Units.

3.30. The Committee also note that it is the intention that every Block must have a Primary Health Centre and that 5400 Block have been covered, leaving 700 to be covered. At the same time in the backward areas parti-

cularly tribal areas intention is to provide a Primary Health Centre for a population of 25,000 as compared to 80,000 to one lakh elsewhere. It is also the intention to strengthen the services at the Sub-Centres. The Committee would like Government to work out the institutional and supporting managements in details in the light of experience and take concerted measures to implement them in the field.

(iii) Taluka/District Hospitals

3.31. A large number of eye diseases are prevailing in the country, amongst them the most important ones are infections bacterial, fungal, viral ker or glaucoma both congenital and acquired; cataract; squint; refractive errors; corneal ulcers; nutritional disorders; lid deformities optic nerve inflammations and atrophy, tumours of the eye; involvement of the eye in general diseases like diabetes; blood pressure; thyroid diseases and eye involvement in nervous diseases like brain tumours and inflammations of brain. It has been stated that unfortunately treatment facilities of eye diseases at district level hospitals and primary health centres are very inadequate. These are being rendered by general practitioners and it has not been possible yet for the State Governments or Central Government to create specialised ophthalmic services at the district level or in the sub-divisions. Very recently some State Governments have initiated steps to provide these services by appointment of specialists but the measures are only in the initial stages. Most of the time the services in the periphery and at the district level are being delivered through an eye-camp approach mostly by voluntary organisations.

3.32. Operative facilities for ophthalmic operations at the district level are almost non existing. The Medical Officers I/c of district hospitals, who are not trained in Ophthalmology, are, by force of circumstances and pressure of demand, made to render medical and surgical treatment of ophthalmic patients with very indifferent results. The immediate attention needs to be paid to these levels of services in order to lessen the incidence of blindness in the country. The unwary public not knowing that the district hospital doctors are not equipped to deal with medical or surgical treatment of ophthalmic patients in the field of eye care, often get themselves treated by these doctors and many a time end up with ocular morbidity.

3.33. The Government of India, in its plan of action, is laying considerable stress on the development of services as a permanent infrastructure at the primary health centres, Taluka|Sub-divisional|Tehsil hospitals and district hospitals where ordinary care of the eye with facilities in minor surgical operations will be available at the primary health centres; and of general ophthalmic care including operative interference in non-complicated cases shall be available at Taluka|Tehsil|Sub-divisional hos-

pitals and district hospitals. To achieve these objectives the development of services is being taken up in a phased manner spread over a period of 20 years. In the next 8 years all district hospitals and all primary health centres are expected to be fully equipped for the services mentioned above. In the remaining 12 years the attention shall be concentrated on the development of Taluka|Tehsil|Sub-divisional hospitals and new primary health centres that may spring up as the medical and health services develop. For the present, in this plan of action as stated elsewhere as a temporary measure, specialised care of Ophthalmology shall be delivered to the most peripheral areas of the country by mobile units through an eye camp approach. In the next 8 years all the districts of the country will be covered by this method.

3.34. At present ophthalmic services are available in all the medical colleges, a few eye hospitals some institutes of ophthalmology and the national institute of ophthalmology at the apex. The technical expertise in the country is adequate but further development of manpower both in the pre-medical field and in the specialised fields needs to be stepped up and the plan is taking care of these requirements. The country is likely to become self-sufficient if continued efforts are made. At the national and regional levels facilities for all types of ophthalmic work are available though to a limited extent, and the plan envisages development of these services further to make the nation self-sufficient in this sphere.

3.35. The Committee enquired as to what was the number of district hospitals in each State which had no eye specialists at present and what special efforts had been made by Government to ensure that eye specialists were posted in all the district hospitals at least and what had been the response of various State Governments in this regard. The Ministry of Health in a written note explained the position as follows:

"Precise information with regard to the number of district hospitals in each State which have no eye specialists at present is not available with the Ministry. The State Governments are being requested to post an eye-specialist in each district to begin with. Later on the plan envisages that such district will have two eye specialists in each taluka hospital there will be one eye specialist. But all depends on the availability of finance and the general economic development of the nation. However, Bihar, Orissa, Rajasthan, Delhi, Punjab, Haryana, U.P.—all have informally intimated to post at least one eye specialist in each district. Other States have also agreed in principle and they are likely to take similar actions. It is also hoped that by the end of 20 years the projected aim of an eye specialist at Taluka level will be achieved.

3.36. During evidence the Secretary, Ministry of Health informed the Committee on 15th November, 1976, that the treatment and medical services were in the State Sector. Every now and then they had emphasised that the State Governments should provide ophthalmic departments in every district hospital and there should be one trained Eye Specialist in every district hospital. There were 3500 Eye Specialists at present and there were 380 districts. He added that is was not a big problem if the will was there.

3.37. The Ministry of Health stated that the total number of Eye Beds was about 12,000 beds. The ultimate aim was to provide one bed for 10,000 to 15,000 of population. As the implementation of the programme progresses the imbalance, if any, will be corrected.

3.38. The Ophthalmic Adviser in the Ministry of Health stated during evidence on 15th November, 1976, that at the end of 20 years period, about 60,000 eye beds would be needed. Present availability was 12,000 beds and another 48,000 beds would be needed.

3.39. On the question of provision of eye beds in district hospitals, the Ministry have stated the position thus:—

“In the phased programme each district will have about 175 beds which will be equitably distributed between the taluka and district hospitals depending upon the population to be covered. To begin with the equipment worth Rs. 50,000 will be sufficient as that is the level envisaged for taluka hospitals. For district hospitals, after evaluation of the scheme, the equipment is proposed to be augmented to double of the level envisaged during this phase, for district hospitals. If however more resources are available the equipment ultimately desired to be provided to district hospitals will be provided immediately. All depends upon funds.....”

3.40. Referring to the Eight Year Service Plan, wherein it had been stated that the taluka hospitals would not be taken up for development, but those would be considered subsequently, the Committee enquired what were the precise difficulties in developing taluka hospitals in the next eight years and what would be the financial outlay involved if the development of ophthalmic services in the taluka hospitals was taken up. The Ministry of Health in a written note explained the position as follows:

“Difficulty in developing taluka hospitals in the next 8 years is essentially due to lack of material and manpower besides financial resources. Development of eye health services alone will not be conducive to a balanced health care facilities. It is, therefore, proposed to take up taluka hospitals

at a later date. Since it would also mean provision of adequate beds and manpower in the absence of adequate general health services even if finances were available, it will not be possible to develop them immediately. Non-recurring expenditure per taluka hospital would approximately be 8 lakhs besides there shall be recurring expenses. The whole project will become extremely costly. It would also be out of tune of the general economic development. It may not be possible for the nation to bear this economic burden at the present state of its economy."

3.41. The Committee regret to note that treatment facilities of eye diseases at district level hospitals and primary health centres are very inadequate and that hardly any specialised Ophthalmic services have been created at the district level or in the sub-divisions. Most of the time the services in the periphery and at the district level are being delivered through an eye camp approach, mostly by voluntary organisations. The Committee note that the Government in its Plan of Action have laid considerable stress on the development of the eye care services at the Primary Health Centres; Taluka/Sub-divisional/Tehsils hospitals and dis'rt level hospitals as a permanent infrastructure in a phased manner spread over a period of 20 years ..

3.42. The Committee have also been informed during evidence that the State Governments are being requested to post eye specialists in each district to begin with and that later on the plan envisages that each district hospital will have 2 eye specialists and in each Taluka Hospital there will be one eye specialist. The Committee would like that concerted efforts should be made so that the Eye Specialists numbering 3500 are suitably deployed and that the hospitals at district and taluka level are well equipped for proper eye care.

3.43. The Committee also note that the total number of eye beds is about 1200 and that at the end of 20 years period about 60,000 beds would be needed, which means an addition of about 40,000 beds in a phased manner. The Committee would like the Government to implement the plan for increasing the number of beds according to well thought out programme so that the fight against the growing problem of blindness is carried on to a successful conclusion. The Committee would stress that higher priority be given in areas before incidence is higher.

(iv) Medical Colleges

3.44. There are 106 Medical Colleges in the country and they are all engaged in teaching of ophthalmology at the undergraduate and many of them at the post-graduate level. A list of the colleges in the University which are approved by the Indian Medical Council is at Appendix VII.

3.45. There are Institutes of Ophthalmology for more sophisticated eye care and super-specialisation. At present these Institutes are established at Aligarh and Sitapur (UP), Ahmedabad (Gujarat), Hyderabad (Andhra Pradesh), Bangalore (Karnataka), Calcutta (West Bengal). Recently Uttar Pradesh Government has established a State Institute of Ophthalmology at Allahabad. Dr. Rajendra Pradeh Centre for Ophthalmic Sciences at All India Institute of Medical Sciences, New Delhi, is a national centre of excellence for ophthalmic services combining—preventive, promotive and curative ophthalmic science. In addition, it carries on research in the various aspects of ophthalmic sciences.

3.46. In the States and Union Territories, the respective Governments have provided eye care facilities at the Civil Hospitals at a few places. In hospitals, where this speciality is not in position, the patients are attended to as part of the general health care.

3.47. The Medical Colleges, Institutes of Ophthalmology, Eye Hospitals and the Ophthalmic departments of the hospitals at district|taluka levels which are under the administrative control of their respective Governments are financed by the Governments.

3.48. It has been stated that under the National Plan of Action on Blindness the Central level of services are proposed to be provided through upgraded medical colleges, institutes, regional and national Institute of Ophthalmology. It is proposed to set up 12 regional institutes—6 of which already exist and which will be upgraded during the first seven years. The cost of the regional institutes over the whole period shall be about Rs. 9 crores including the setting up of 6 new institutes. Under the National Plan the State Government would be required to upgrade the Ophthalmic Department and staff and to convert them into Community Ophthalmic Care Units.

3.49. It had been represented to the Committee that except the few groups of hospitals which may not exceed 100 to 175 in number, it would be correct to state that facilities for curing eye diseases in our country on a nation-wide basis were few and far between. Another view had been expressed that “there are some big, some medium sized and some small sized eye hospitals in the country but they are poorly equipped and badly organised. Some of the hospitals were being run by personnel without the requisite qualifications and skill in Ophthalmology. Many of them exist in name only and cannot be considered to be delivering eye health care on any specific basis.” The Committee enquired what precise plans the Government had in view for augmenting the existing eye care facilities and also developing well-integrated and well organised ophthalmic care

services in the country. The Ministry of Health in a written note informed the Committee as follows:

"It has been stated in the National Plan that the Government is creating facilities for eye health care at the peripheral (PHC and Mobile Units). Intermediate (Taluka and District Hospitals and Medical Colleges) and central level (regional and National Institutes). It is proposed to create about 175 beds in each district in a phased manner over a period of twenty years. The deficiencies in existing hospitals are proposed to be removed and their effective functioning is the desirable end. Efforts will be made to do the same."

3.50. There are 106 Medical Colleges in the country all of which teach Ophthalmology at the undergraduate level and many at post-graduate level. There are 6 Institutions of Ophthalmology for more sophisticated eye care at Aligarh, Sitapur, Ahmedabad, Hyderabad, Bangalore and Calcutta and one more has been established recently at Allahabad. Besides Dr. Rajendra Prasad Centre is a national centre of excellence for ophthalmic service. The Committee note that under the National Plan of Action, the central level of services are proposed to be provided through upgraded medical colleges, institutes, regional and national institute of Ophthalmology. It is proposed to set up 10 regional institutes, 6 of which already exist and which will be upgraded. The Ophthalmic Department of the various medical colleges are to be upgraded by providing equipment and staff for conversion into Community Ophthalmic Care Units. The Committee have no doubt that the plans drawn up will be implemented effectively so that the level of achievement in taking the problem of blindness gets progressively higher and higher. The Committee would stress the need for greater linkage of Medical Colleges/Regional Institutes to the various District/Taluka hospitals and primary Health Centres and would urge that greater emphasis should be laid on preventive and promotive aspects. They also desire the Medical Colleges should act not as ivory towers in majestic isolation but should take upon themselves the responsibility for providing total eye health care in their respective regions. The Committee would suggest the steps should be taken by the Medical College/Institutes to provide extension services in the regions to make arrangements to monitor the progress concurrently so as to review and improve the services provided by them for prevention and control of blindness in the country. The Committee learn from the memoranda received from knowledgeable non-officials that many hospitals where eye care facilities are already provided are poorly equipped and badly organised and run by personnel without the requisite qualifications and professional skill in Ophthalmology. The Committee have been informed during evidence that in the National Plan of Action Government is creating facilities for eye Health Care at the peripheral,

intermediate and central levels and that it is proposed to create, about 175 beds in each district in a specified manner over a period of 20 years. The Committee feel that the period of 20 years to achieve the largest is rather long and needs to be reduced.

3.51. The National Plan Committee would like Government to undertake immediate improvements in regard to effective functioning of the eye care facilities provided in the hospitals where they exist so that available facilities are put to best use. The Committee would also urge that the plans drawn up for upgrading and improvement of the various institutions may be implemented according to a phased programme so that the maximum benefit is derived at every point of time for tackling the problem of visual impairment and blindness.

(v) Voluntary Organisations

(a) National

3.52. It has been stated by the Ministry that a large number of voluntary organisations, big and small are trying to do their best to develop eye care programmes but such efforts were sporadic, un-coordinated and lacked direction, though well motivated. Some organisations had also established eye hospitals which are doing useful service to the community. In addition to having base hospitals, these voluntary organisations had also developed their branches in remote areas and conducted Eye Camps through mobile units. The Gandhi Eye Hospital at Aligarh and Jawaharlal Nehru Institute of Ophthalmology at Sitapur were the results of voluntary efforts. At the National level, the National Society for the Prevention of Blindness had taken up activities in a big way, (i) for education of the masses, (ii) provision of curative facilities through eye camps, (iii) detection of early visual defects in school children and industrial workers; and (iv) highlighting of various aspects and causes in the field of prevention of blindness by holding seminars and symposia. The society had been able to persuade philanthropists to donate funds for establishment of Eye Hospitals especially for the rural areas and for economically backward section of the community.

3.53. It has been stated that hospitals put up by the voluntary organisations received grants-in-aid from the respective Governments. This aid was only a part of their budget. The balance was to be provided for by collecting donation from public and the fee from well-to-do patients. The Central Government also helped them by providing non-recurring grants. This grant was available for purchase of essential hospital equipments and instruments etc. Those institutions/organisations engaged in the treatment

of eye diseases and blindness were also entitled to 100 per cent grant-in-aid for additional construction of Operation theatre, X-ray and/or laboratory blocks and wards for the poor.

(b) *International*

3.54. It has been stated that the State Governments or the Central Government at present were not carrying out any projects in collaboration with the International Organisations, nor at present were they taking any measures for the prevention and control of blindness. International organisations like DANIDA, SIDA, WHO, UNDP and other had, however, shown keen interest in the plan of action for prevention of visual impairment and control of blindness and were likely to offer substantial assistance in terms of materials and supplies. Negotiations were being conducted and nothing had yet been finalised.

For international collaboration the whole scheme was being divided into five sections:

- (i) Health education and dissemination of Information;
- (ii) Mobile units and primary health centres (peripheral sector);
- (iii) Taluka|Tehsil|Sub-division hospitals and Districts Hospitals (Intermediate Sector);
- (iv) Medical colleges, Regional Institutes and State Institutes (Central Sector); and
- (v) National Institute of Ophthalmology (Appex sector).

3.55. The International agencies might collaborate in any of the sectors and it was proposed to seek international assistance sector-wise. The apex sector and health education might not need any international assistance as it might be funded by the Central Government itself. A few fellowships may be required for training in very highly specialised fields and then they will be developed both for service and training in India.

3.56. International assistance that might be required in each sector over a period of 20 years or so had been listed as under:—

I. Peripheral Sector

Mobile units and Primary Health Centres

- (a) For materials and supplies, the requirement shall be Rs. 112 million.
- (b) The recurring expenditure on these shall be borne by the State and the Central Governments.

II. Intermediate Sector

The total requirement for this sector will be:—

- (a) Material and supplies—Rs. 120 million over 20 years will be required for equipping sub-divisional hospitals.
- (b) The expenditure on creation of beds and recurring expenditure shall be borne by the Central & State Governments.

III. Central level

The total requirements for the Central level shall be:—

- (a) Material and supplies—Rs. 117 millions will be required over a period of 20 years.
- (b) The recurring expenditure and the expenditure on strengthening of services in terms of physical facilities, buildings and manpower shall be borne by the Central and State Governments.

3.57. At present several International voluntary agencies were rendering assistance to individuals, voluntary organisations, hospitals and private institutions on mutual agreement basis. Some of the agencies involved were International Agency for the Prevention of Blindness, Royal Commonwealth Society for the Blind, Christoel Blinden Mission, Oxfam etc. which were rendering the assistance. It was proposed to dovetail these activities with the National Plan of Action.

3.58. Noting that at present several international voluntary agencies were rendering assistance to individuals, voluntary organisations, missions, hospitals and private institutes on mutual agreement basis, the Committee enquired:—

- (a) the name of international agencies which were at present rendering assistance in the matter of prevention and control of blindness and the conditions, if any, of such assistance;
- (b) the quantum of the assistance received from these agencies; and
- (c) how were these activities proposed to be dovetailed with the National Plan of Action which had recently been formulated,

3.59. The Ministry of Health in a written note furnished to the Committee have explained the position as follows:—

- (a) Several international agencies are at present rendering assistance in the matter of prevention and control of blindness particularly the Royal Commonwealth Society for the Blind, the Christofel Blinden Mission, Indo-German Social Society etc.

- (b) The Government is not fully posted with quantum of assistance received from these agencies.
- (c) Their activities will be dovetailed with the Plan of Action.

3.60. It has been represented to the Committee that the "Voluntary organisations like Royal Commonwealth Society for the Blind, Lions Club, Rotary Clubs, Red Cross and other social organisations were doing good work. They must be further encouraged. Another view had been expressed that foreign funds coming by way of grants to the voluntary organisations through Royal Commonwealth Society for the Blind and International Agency for Prevention of Blindness, however, need to be carefully disbursed and utilised. In yet another representation made to the Committee, it had been stated that "the voluntary organisation could play a very significant and constructive role in Prevention and Control of Blindness, if they were given incentive and encouragement to work in collaboration with Eye Hospitals which were dedicated to the Prevention, Control and cure of Blindness." The Committee enquired: (a) how far was the Government satisfied with the role being played by these voluntary organisations in the prevention and cure of blindness and whether any assessment had been made in this regard; (b) what incentives and encouragements had been given to the voluntary organisations to enable them to play an effective role in the prevention and cure of blindness; and (c) whether the Government had been exercising any control over the foreign funds coming by way of grants to the voluntary organisations through Royal Commonwealth Society for the Blind and International Agency for Prevention of Blindness and if not, whether such a control was desirable to ensure an effective functioning of these organisations. The Ministry of Health in a written note furnished to the Committee have explained the position as follows:—

- (a) The Government is not fully satisfied with role being played by the voluntary organisations in the field of prevention and control of blindness. They are doing some work till such time the arrangements were worked out.
- (b) The voluntary agencies are being given grants to enable them to play an effective role in the control and cure of blindness. Their efforts are proposed to be coordinated through the setting up of coordination Committees.
- (c) The Government has not so far been exercising any control over the foreign funds coming by way of grants to the voluntary organisations. While we agree that the foreign funds should be controlled and unnecessary restrictions are not

durable. It is expected that the provisions of Foreign Contribution Regulations Act of 1976 will ensure adequate safeguards.

3.60. The Committee pointed out that a large number of voluntary organisations big and small were trying to do their best to develop eye care programme but such efforts were sporadic, uncoordinated and lacked directions though well motivated and enquired what steps Government proposed to take to achieve the greater degree of coordination between the various voluntary organisations working in the field of eye care. The Government in a written note furnished to the Committee have stated thus:

“Government is considering the setting up of coordination committees at various levels to achieve greater degree of coordination between the voluntary organisations working in the field and the State and Central efforts for eye health care and help them wherever necessary. Duplication of efforts will be avoided.”

3.61. During evidence, the Secretary, Ministry of Health gave his views thus the role of voluntary organisations in the prevention and control of blindness:—

“Number of voluntary organisations are really doing good work. You know about the work of Dr. Mohan Lal. You know about the work done by Dr. M. P. Mehra of Sitapur. They approached various State Governments, trade unions, various voluntary organisations for donations and subscriptions and so on. A number of voluntary organisations are doing very good work. They get assistance from the State Governments in the field of eye-care, leprosy and other health services and medical services. There is a scheme under which we have got Rs. 35 lakhs per annum. That is directly under the Central Government. This is for the whole country. I requested the Planning Commission and the Government to raise this amount to at least one crore.

We have every year got to give a grant of Rs. 35 lakhs and sometimes Rs. 40 lakhs. That is the maximum per year that is given to the voluntary organisations by the Government of India. And they are not only doing work in the field of eye-care but also in leprosy and in various other fields and the total amount of assistance that we give is Rs. 35 lakhs or so. It does not mean that we are not aware of the problem; it does

not mean that we are not sympathetic to the problem. But constraint is there and you are very right that we should do more."

3.62. It had been stated by the Ministry of Health that the details of the voluntary organisations working for Eye diseases and the quantum of assistance received by them from various sources were not available with them. The Committee accordingly enquired as to why no steps had been taken to maintain such statistics in the Central Ministry of Health and in the absence of this vital information, how coordination for effectively tackling the problem of prevention and control of blindness in the country was being maintained and whether the Government had any proposals to collect this information and coordinate the activities of these voluntary organisations.

3.63. The Ministry of Health in a written note furnished to the Committee have stated the position as follows:—

- (i) So far as the eye relief work was being cordinated and the voluntary organisations were left free to render this social service in a manner they like and therefore it was not considered necessary to maintain any statistics. In the present plan, however, all voluntary agencies will be required to take licence for holding mobile ophthalmic care camps and therefore will be required to register themselves with local authorities so that such statistics will become automatically available.
- (ii) This is being done in view of the fact that the ready availability of such information with the Central Ministry of Health will be vital for short term and long term planning for tackling the problem of prevention of visual impairment and control of blindness."

3.64. The Sub-Committee of the Estimates Committee (1977-78) on Prevention and Control of Blindness' desired to know the names of the International agencies, who had given assistance or had promised assistance and also the stage of getting this assistance from the various voluntary agencies. The Ministry of Health in their note (November, 1977) stated:—

"DANIDA has approved of an assistance of 60 million Danish Kroners spread over a period of next 7 years. Rs. 2.5 crores will be given during the period 1977-78 and the remaining Rs. 6.0 crores will be given in 1978-79 to 1983-84. Only a formal agreement remains to be signed.

For the development of a computerized Centre, request is proposed to be made to SDIA in view of the Fact that DANIDA is not interested in assisting the Central Sector of the Programme.

W.H.O. has provided some consultancy and some fellowships. It is also thinking of providing some material and supplies which is of a marginal nature.

UNDP has been requested to provide for fellowships within the country for training of various types of persons. The applications are still being processed.

The various voluntary agencies have already given substantial and assistance to the voluntary organisations in India which are organising eye camps. The Royal Commonwealth Society for the Blind has also shown interest in the establishment of small eye hospitals in the sub-divisional/Taluka levels.

The whole assistance from the voluntary organisations is being co-ordinated through the Central Co-ordinating Committee."

3.65. The Committee note that a large number of voluntary organisations, both national and international, are rendering assistance in the prevention and control of blindness. These organisations have not only established hospitals of eminence through their voluntary efforts but have also set up their branches in remote areas and conducted Eye Camps through mobile units. The Committee had been informed that through the efforts of these organisations were well motivated, these had been sporadic uncoordinated and lack direction.

3.66. The Committee realised that voluntary agencies can and should play a vital role in the prevention and control of blindness. The voluntary organisations are well-suited to stimulate community interest and mobilise community resources and efforts. They organise and hold Eye Camps for medical and surgical treatment of eye diseases and restoration of vision to curative blind. Since the problem of prevention and control of blindness is colossal, it is of the utmost importance that active assistance of voluntary organisations is sought by Government in this humanitarian task. The Committee stress that voluntary organisations should be encouraged and helped to play an increasing role not only curative work by concentrating on eye camps but should also be oriented to take up promotive and preventive work in regard to eye care and visual impairment.

3.67. The Committee need hardly stress that in order to achieve greater degree of coordination and cooperation as also to avoid duplication of efforts between the various voluntary organisations, State and Central agencies in

the field of eye care, it is imperative that effective coordination committees are organised in each State. It would also be desirable if a system is devised to appreciate the role and good work done by the voluntary organisations.

3.68. The Committee note that the voluntary organisations are getting grant-in-aid from Government. Besides, the international agencies are also rendering assistance to these organisations. It is a matter of regret that Government are not fully aware either of the particulars of the voluntary organisations or of the quantum of assistance received by them from the international agencies. The Committee would stress Government should maintain comprehensive information about these voluntary organisations and the assistance received by each one of them from various sources and the work done by them in the field. They consider that ready availability of such information with the Central Ministry of Health would be helpful for short-term and long-term planning for tackling the problem of prevention of visual impairment and control of blindness.

3.69. The Committee note that several international agencies like Royal Commonwealth Society for the Blind, Christian Blindness Mission, Oxfam etc. were rendering assistance to individuals, voluntary organisations, hospitals and private institutions on mutual agreement basis. Assistance in terms of funds, material and supplies was also expected to be received from International Organisations like DANIDA, SIDA, WHO and UNDP which had shown keen interest in the plan of action for prevention of visual impairment and control of blindness. The Committee are informed that the assistance from the voluntary organisations is being coordinated through the Central Coordinating Committee. The Committee would stress that negotiations with them which were being conducted be brought to a fruitful conclusion and greater international assistance secured with a view to augmenting the voluntary efforts in the crusade against the prevention and control of blindness.

Manpower

I. Availability of Ophthalmologists/Eye Specialists.

3.70. It has been stated by the Ministry of Health and Family Planning that no regular studies or assessment of manpower requirement with regard to ophthalmic services in the country have been made. Some norms are, however, available from other countries of the world. In USA there is one ophthalmic surgeon for 8000 of population. In Japan one ophthalmic surgeon for 15,000 of population, the number of ophthalmologists on population basis varies from 8 to 20 thousand. Considering Indian condition, however, where eye diseases are common, it seems that the norms of one eye surgeon for 15,000 of population should be adequate. According

to this norm the total requirement of eye surgeons on population basis shall be 57,000 when we approach the population of India in 1995 as 850—900 million. At the moment the country has about 3500 eye surgeons. A minimum of 53,500 eye surgeons have to be trained in the next 20 years, while the training capacity at present is only 300 eye surgeons a year. It, therefore, seems that the training facilities will have to be increased 8 to 10 folds in order to achieve our targets. It is for this purpose that in the twenty year perspective plan it has been suggested to upgrade medical colleges in a phased manner and setting up of the regional and State Institutes of Ophthalmology and setting up of a National Institute of Ophthalmology. If we are to consider the Government employment only, the requirement of eye surgeons in the next 8 years is as under:

Mobile Units :

District	$80 \times 2 = 160$
Hospitals	$400 \times 2 = 800$

Sub-division hospitals and taluka hospitals:

To be taken in VII Plan onwards	$2000 \times 1 = 2000$
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Medical colleges:

(At the faculty level Sr. resident level)	$106 \times 13 = 1378$
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Existing Regional Institutes and additional likely to be created as:

State institutes: 21×30 at Senior resident and faculty level	$= 630$
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National Institutes	$= 50$
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3.71. The total requirement works out to 5018 ophthalmic surgeons to be employed under State and Central Government. The training potential as exists today will not be able to meet the demand. This, therefore, needs to be augmented.

3.72. In a number of memoranda submitted to the Committee, it has been represented:

“(i) . . . there is great shortage of eye specialists or ophthalmologists . . . these shortages could be met by setting up an apex, state and regional ophthalmic institutes for training specialists improving ophthalmic teaching in medical colleges and organising training and orientation courses for general practitioners

- (ii)The number of Eye specialists in India is estimated at 3500 and they are mainly available in big cities. There must be an Eye doctor in district headquarters and in Taluka headquarters. More institutions must be started for training the Eye Specialists. Apart from the teaching hospitals, other Eye hospitals with sufficient beds should be encouraged to start post-graduate training programmes.
- (iii)Ophthalmologists are by and large adequate in large and small cities but in villages they lack the opportunities to practise as specialists and hence villages do not have eye specialists.
- (iv)The number of ophthalmologists/Eye Specialists needed in country on the basis of norms prevalent in the developed countries is one ophthalmologist for 10,000 of population *i.e.*, by the end of 1995 when the projected population of the country will be 850 million the requirement will be 85,000 specialists. In view of the fact that this be an unachievable target, it may be better to plan for a more meagre target of 60,000 eye specialists. At present according to the rough estimates available, there are about 3500 eye specialists in the country. Need therefore is to train about 57000 more eye specialists. After proper phasing has been done the targets can be achieved in 20 years."

3.73. The Committee enquired as to how far in the present stage of development of the country, it would be possible for a country like India to adopt the norms prevalent in developed countries, which are very liberal and how and in what way the targets of 57,000 more eye specialists were proposed to be achieved. The Ministry of Health in a written note furnished to the Committee, have explained the position as follows:

"At present stage of development of the country, it would not be possible for India to adopt the norms prevalent in developed countries, howsoever desirable they may be. They are by no means liberal but it is hoped that under the 20-Point programme of Prime Minister, our economic development will lead to more demand for eye health care services. It is on the long term basis that these targets have been fixed. These are realistic targets and need to be achieved. However, everything will depend upon the financial resources available and the response of the doctors and the people in this regard. The matter will be reviewed from time to time.

The targets of 57,000 or otherwise more specialists are proposed to be achieved by training of specialists in all medical colleges, regional institutes and the apex body. It is also proposed to utilise big eye hospitals for training of ophthalmic personnel."

3.74. To another point raised by the Committee as to whether any assessment of the requirements of ophthalmologic surgeons had been made by Government, to cater to the requirements of eye care in the country and whether the Government had formulated any programme to meet these requirements within a specified time, the Ministry have stated thus:

“The Government propose to augment the availability of ophthalmic surgeons—one eye surgeon for 15 to 20 thousand population and in order to do so, intake of trainees at the apex body, at the regional Institutes and at medical colleges is proposed to be augmented. With better employment facilities available in the National Plan, it is hoped that these will be fully utilised.”

3.75. One of the non-official witnesses who appeared before the Committee, gave his views thus on the best utilisation of available manpower of ophthalmic surgeons in the country to tackle the problem of blindness effectively:

“It has been found that very often Distt. Medical Officers or senior surgeons who have qualified as ophthalmologists are posted in posts whom they cannot make use of their ophthalmic knowledge. Specialists should not be saddled with administrative responsibilities where their specialists knowledge cannot be put to good use.”

3.76. To a point raised by the Committee as to what steps the Government should take to increase the number of ophthalmic surgeons the witness stated:

“Schools of Ophthalmology should be opened in smaller towns where a one year course in ophthalmology after MBBS should be instituted. Apart thirty medical men should be trained at such schools to be opened at 10/15 centres in the country which will give an additional number of 300/450 qualified ophthalmic surgeons.”

3.77. On the question of as to how the targets of 47,000 more Eye Specialists were proposed to be achieved, another non-official witness, who appeared before the Committee, gave his views thus:

“In the first 3 years of Plan, it should be possible for us to set up the training programmes in a manner so as to be able to produce about 1100 eye specialists against the present rated capacity of 900. In VI Plan, the rated capacity can be raised to 100 per year and it should be possible to produce 3700 eye surgeons. In the VII Plan, this capacity can be raised

further to 2000 and we should be able to produce 6000 eye specialists, by further augmenting the capacity in VIII Plan we should be able to produce 9000 in IX Plan, 15,000 and in X Plan the remaining. Annual requirement of eye surgeons due to attrition and migration, we will be near about 2500 a year and the capacity of training in various institutions can then be lowered to reduce the number of specialists to be trained. What is needed at present is an accelerated production of eye surgeons to serve our nation. The training programmes can be stepped up at the National Institute of Ophthalmology, the Regional Institutes and all the upgraded Medical Colleges. Since it is our desire to gradually upgrade all 106 medical colleges by the end of 12 years of this programme, it should be possible to produce the number of eye specialists required.”

3.78. Pointing out to the fact that there were about 3500 qualified eye specialists in the country and most of them were clustered in the urban areas where only 20 per cent of the population lived, the Committee enquired whether any consideration had been given to the training of eye specialists in such a way as would serve the rural and semi-urban areas where the need for such surgeons was the greatest.

3.79. The Ministry of Health in a written note have stated as follows:

“The Government of India have, therefore, included training of Ophthalmologists in rural areas as an important part of the training programmes. Two different levels of eye specialists are being trained—one would be able to do general Ophthalmic care in the country and the other will be of specialised cadre looking after complicated eye problems. The training capacities are being augmented in medical colleges, regional institutes and apex body. The curricula has been finalised and guidelines have been issued to various organisations.”

3.80. The Sub-committee of the Estimates Committee (1977-78) on Prevention and Control of Blindness enquired as to how the Ministry of Health proposed to produce 57,000 eye surgeons in the country to meet the needs of the country’s population. The Ministry, in their note (November 1977) stated:

“In the remaining term of this Plan it should be possible for the Government to set up training programmes in a manner so as to be able to produce about 1100 eye specialists against the present rated capacity 900. In the Sixth Plan, the capacity can be accordingly raised to 1500 surgeons per year. In the Seventh Plan, this can be raised to 2000. By gradual aug-

menting the capacity in subsequent Plan, it should be possible to produce the number of required eye surgeons due to attrition and migration the requirement shall be about 2500 a year and the capacity of training in various institutions once the targets are achieved can be lowered to reduce the number of specialists to be trained. What is needed at present is an accelerated number of eye surgeons to serve the nation. This is exactly what this plan aims at."

3.81. The Ministry further informed the Sub-Committee (November 1977) that the precise number of eye surgeons available at present was not known. Roughly speaking, there would be available near about 3600-3700 eye surgeons presuming that about 200 eye surgeons had been added since the time of last submission of the Health Ministry before the Estimates Committee.

3.82. As regards the basis on which one eye surgeon for 15,000 to 20,000 of population had been considered to be adequate in the case of Indian population, the Ministry have, in November 1977, stated:

"From the targets suggested the norms prevalent in the European countries have not been adopted for the norms in this country in view of the inadequate economic support that will be available to the large number of Ophthalmologists if they are produced. Keeping this in view, 2/3rd of the targets of what is available in the developed countries have been suggested. The rate of development has to keep pace with the development of physical services and better economic conditions of the people and the nation. The manpower is not to be utilised in the Government Sector but also to be utilised by voluntary agencies, hospitals in the private sector and also as self-employment by the eye specialists. The requirement of the Government Sector can only be about 15 per cent of the total requirement. Unless a gradual development of manpower takes place at the rate suggested by the Government, it will not be possible for the economy of the country to absorb the personnel produced and give them adequate employment in spite of prevalence of eye diseases."

3.83. One of the important problems in the fight against blindness is stated to be the shortage of Eye Specialists or Ophthalmologists. As stated by the Ministry, at the moment the country has about 3600-3700 Eye Surgeons. The Committee, however, note that no regular studies or assessment of manpower requirements for Ophthalmic services have been attempted so far. In USA there is one Ophthalmologist Surgeon for 8,000 of

population. In Japan there is one for 15000 of population. Considering Indian conditions, the norm of one Eye Surgeon for 15,000 to 20,000 of population has been considered to be adequate by Government. According to this norm, total requirements in 1995 are estimated at 57,000.

3.83. The Committee are informed that it should be possible for the Government to set up training programmes to be able to produce about 1100 eye specialists by the end of 1978-79 as against the present rated capacity of 900. In the period 1979—84 the capacity could be raised to 1500 surgeons per year and in the following 5 years this number could be raised to 2000. By gradually augmenting the capacity in subsequent Plan periods it should be possible to produce the number of required eye surgeons to meet the needs of the country's population. The manpower so created were to be utilised not only in the Government Sector, but also for voluntary agencies, hospitals in private sector and also as self-employment by the eye-specialists.

3.84. The Committee would like the Government to carefully assess the total number of eye surgeons required keeping in view the conditions prevailing in India and augment the training facilities in the medical institutions in a phased manner as to ensure that the campaign against blindness does not suffer for lack of adequate number of ophthalmologists.

3.85. The Committee further note that by and large the eye specialists/ophthalmologists are clustered in large and small cities. The people living in rural and semi-urban areas are thus denied the facilities of ophthalmic services.

3.86. The Committee hope that by making the ophthalmologists to work in rural areas as an important part of their training programme, it may be possible that more ophthalmologists may opt for service in the rural and semi-urban areas and thereby the needs for ophthalmic services of the people of these areas may be met in greater measure. The Committee would, however, like Government to review the position periodically in the light of the Rural Health Plan formulated recently and bring about necessary changes in the curricula and take other suitable measures so as to ensure the availability of adequate number of ophthalmologists for service in semi-urban and rural areas, so that the needs of vulnerable sections of the population including the urban poor are increasingly met.

(ii)—Availability of Ophthalmic Assistants/Nurses Optometry Technicals and Orthoptic Technicians

3.87. It has been stated that the requirement of para-medical personnel who are proposed to be trained as Ophthalmic Assistants has been roughly

estimated at the rate of one Ophthalmic Assistant for 10,000 of population. At the end of 20 years therefore, we would require near-about 85,000 ophthalmic assistants, both for private sector and public sector. The present capacity is to train 100 optometrists in various optometric schools in the country. This number is highly inadequate and requires to be considerably increased to fulfil the manpower requirement. It might be necessary to start this training programme in each of the medical colleges and the institutions of ophthalmology that are proposed to be upgraded under the Plan. The large eye hospitals even if they are in the private sector should be required to take up training of Ophthalmic Assistants so that the training capacity of about 3,500 to 4,000 every year is created. The efforts required are considerable and immediate action needs to be taken. Dr. Rajendra Prasad Centre for Ophthalmic Science has already decided to start a B.Sc. (Hons.) course in Ophthalmic Technology to train Ophthalmic Assistants who in turn would be capable of taking up training positions in other schools and organisations. During the remaining period of this plan this training has to be immediately instituted in 13 upgraded medical colleges, 6 regional institutes besides some of the already upgraded departments of ophthalmology. With the ophthalmic manpower indicated for medical colleges and institutes of Ophthalmology, no additional input be provided for them and this training programme can almost be started at no cost basis except for the stipend that may be provided for the students.

3.88. Till such time when all personnel can be trained as Ophthalmic Assistants, training of lower level workers as junior technician may be taken up by exploiting the opportunities under the 10+2 scheme of education that has been launched by the Government of India. Such training can be given in primary health centres and district hospitals.

3.89. The part of the cost of the training of ophthalmic assistants which should be required for working in various optical establishments, industries engaged in this field may be required to bear the cost of stipend and other contingencies that may be required. A phased programme on development of manpower has been drawn up and is being scrutinised for finalisation so that the country becomes self-sufficient in ophthalmic manpower needs.

3.90. In order to fulfil the needs of health educators in ophthalmic field, it is proposed to introduce short term training courses for multipurpose health workers already functioning in the field of general health programmes and this should be sufficient for meeting the needs at the periphery.

Training of Workers to Provide Necessary Manpower

3.91. With a view to provide the required manpower for the National Plan, it is necessary to organise the training of ophthalmic assistance as follows:—

3.92. The objective of training of the ophthalmic assistants is to provide intermediate technology for ophthalmic relief with a view to post them in mobile units, Taluka/Tehsil/Sub-divisional hospitals, district hospitals as a support to the Chief Medical Practitioner and Ophthalmologists and gradually to the Primary Health Centres where in the beginning it is proposed to post already trained optometrists. These optometrists gradually will be afforded an opportunity to further qualify as Ophthalmic assistants. There are several schools of Optometry in the country where courses will be streamlined and upgraded. Fresh schools for the training of Ophthalmic Assistants will be started in upgraded medical colleges with a view to evolve a uniform pattern of education whose admission criteria, duration of the course and detailed curriculum have been worked out. The course has the following objectives so that at the end of the training, the ophthalmic assistants will have the following achievements:

- (i) Achieve understanding of the basic sciences as related to the chosen course (Physics, Chemistry, Zoology, Statistics and Electronics);
- (ii) Achieve basic understanding of the aspects of human biology (anatomy, physiology and biochemistry);
- (iii) To be able to assist the specialists and practice as an ancillary personnel in the field of optometry;
- (iv) To be able to practice as a high grade dispensing opticians;
- (v) To be able to render assistance to general practitioners in the community in Optometry with a view to help him in tackling day-to-day visual problems;
- (vi) To be able to carry out investigations as ordered by the specialists in the field of visual works;
- (vii) To be able to maintain the optometry in common use in the science of vision;
- (viii) To be able to render guidance in manufacture and maintenance of other optical instruments;
- (ix) To be able to treat minor eye diseases and refer other to Ophthalmologists.

3.93. To achieve these objectives intensive theoretical clinical and practical training will be given.

3.94. Pointing out to the Mudaliar Committee (1959) observations wherein it had been recommended that an Orthoptic Training Centre to train the ancillary Ophthalmic personnel should be immediately started and Orthoptic sections should be instituted in all institutions, the Committee enquired whether such a centre and sections had been started and if not, what were the reasons therefor. The Committee also enquired what was the number of training centres for the training of such persons in the country and what was their annual capacity. The Ministry of Health in a written note furnished to the Committee have explained the position as follows:—

“....a comprehensive two-tier system of training of ancillary ophthalmic personnel has been drawn up by the Government. Instead of getting para-medical personnel training in optometry and orthoptics separately, it is considered desirable to have multipurpose eye health workers. Plus 2 stage of the vocational education is to be utilised for training the multipurpose health workers. The training of senior technicians has already been started leading to B.Sc. (Hons). degree in Ophthalmic techniques. This has been introduced at Dr. Rajendra Prasad Centre for Ophthalmic Sciences where it will be pre-tested and if found successful will be extended to many more medical colleges and regional institutes. At present there are 10 training centres for optimetry in the country but the courses are not considered sufficient and therefore the above revision.”

3.95. During the visit to the Gandhi Eye Hospital, Aligarh on 31 October 1976, the Committee was informed that Gandhi Eye Hospital was conducting courses for para-medical personnel in Optometry and Orthoptics, the Committee enquired the capacity of this hospital for training para-medical personnel in optometry annually and the number of students passing out of this hospital every year; names of other hospitals and institutes in the country which were conducting such courses and how far the requirements of such personnel were being met from the existing facilities. The Ministry of Health in a written note furnished to the Committee have stated the position as follows:

“The capacity of Aligarh Eye Hospital for training Optometry technicians annually is not fully utilised. Exact number of students passing out of this Hospital has not been supplied during the visit of the Estimates Committee to Aligarh. Several other institutions including Sitapur Eye Hospital, Dr. Rajendra Prasad Centre for Ophthalmic Sciences, New Delhi, Sarojini Devi Eye Hospital, Hyderabad, Medical College, Trivendrum and some other are also running these courses. The requirements of such personnel cannot be met from the existing facilities and that is why it is being augmented.”

3.96. A leading ophthalmologist in a memorandum submitted to the Committee represented as follows:

“The position with regard to ophthalmic assistants and ophthalmic nurses is worse. For every eye surgeon at least one ophthalmic assistant and for every 3 beds at least one ophthalmic nurse is required. On these standards the need of the nation is to produce 60,000 ophthalmic assistants a category not existing at present. What we have in the country is a few hundred optometrists but they are not going to be sufficient for our requirement. Calculating on the basis of 60,000 beds in ophthalmology, the requirement for Ophthalmic Nurses will be 20,000. Considering that about half the number can be provided by general nurses, at least the other half will have to be given special ophthalmic training after the general nursing training. This will also require considerable efforts if the targets are to be achieved in the next 20 years.”

3.97. The Committee enquired as to what were the views of Government for the development of training facilities for Ophthalmic Assistants and Ophthalmic Nurses so that the country's needs in this behalf are adequately met. The Ministry have stated the position thus:

“Adequate steps are being taken to augment the training programmes. In order to remedy the deficiency of ophthalmic assistants as well as post-certificate and post-degree courses may have to be introduced for training of Ophthalmic nurses. The course to be introduced will be one year duration and details are being worked out at Dr. Rajendra Prasad Centre for Ophthalmic Sciences where the course will be pre-tested and then introduced in the rest of the country.”

3.98. Referring to the requirements of Ophthalmic assistants within the next 20 years which had been assessed as 85,000 at the rate of one for 40,000 of population both for private and public sectors, the Sub-Committee of the Estimates Committee (1977-78) on Prevention and Control of Blindness enquired as to how far in the Ministry's view, the above figures were realistic. The Ministry of Health in their note (November 1977) stated:

“The Government of India has circulated a proposal to the States for enactment of legislation whereby prescription and dispensing of Ophthalmic lenses and glasses shall be regulated. In view of this no optician shop will be allowed to function without a trained ophthalmic assistant, as well as independent practice by Ophthalmic assistants will be regulated as it has to be under supervision of a competent practitioner. This is

essential in view of preserving the visual status of the individuals and detect early curable defects of the patients going in for prescription of glasses while the diseases may be more serious. Considering the above factors; the assessment of the requirement of the ophthalmic assistants is realistic."

3.99. The Committee note that para-medical personnel are now proposed to be trained as Ophthalmic Assistants who would provide intermediate service for ophthalmic relief and would work in mobile units/Taluka/Tehsil/Sub-Division/District Hospitals as a support to the Chief Medical Practitioner and Ophthalmologists and gradually in the primary Health Centres. The Committee also note the proposal initiated by Government to enact a legislation whereby prescription and dispensing of ophthalmic lenses and glasses would be regulated and under this legislation, when enacted, no optician shop will be allowed to function without a trained ophthalmic Assistant. Taking all these factors into consideration, the requirements of Ophthalmic Assistants within the next 20 years are assessed as 85,000 at the rate of one for 10,000 of population both for the private and public sectors. A phased programme for the training of this manpower is stated to have been drawn up and is being finalised so that the country becomes self-sufficient in Ophthalmic manpower needs. The Committee would like that a realistic assessment of the requirements of Ophthalmic Assistants, consistent with the financial resources available for this purpose, may be made, in the context of comprehensive medicare plan enunciated by Government recently and arrangements made to expand and streamline the existing facilities for training of Ophthalmic Assistants in a phased manner so that the requirements are met within a time bound programme.

3.100. In the case of Ophthalmic nurses, the Committee note that requirements have been estimated at 20,000 and that considerable efforts would be needed if the targets are to be achieved in the next 20 years. The Committee would stress that urgent and adequate steps be taken to augment the training programmes for ophthalmic nurses without any further loss of time.

(iii) Role and Training of Multipurpose Health Workers

3.101. The Government of India have decided to utilise multipurpose health workers for spreading eye health care in the periphery. The education about eye care has been included in the curriculum of these workers. They are being trained along with other general health care programmes. It has been stated that role of different level general health workers will be to disseminate information on eye health edu-

tion at the periphery and at the same time to detect early the visual defects and direct such patients at the primary health centres for proper health care.

3.102. Further it has been stated that the Government is considering the requirement of para-medical workers to assist the eye specialists as well as to look after the despensing of glasses and it has come to the conclusion that at least one multi-purpose para-medical eye personnel will be required for 10—15 thousands of population. The availability of such personnel in the country is highly inadequate. It has been further stated that it is proposed to train the required number of such personnel by utilisation of +2 general education system under vocational education and it is also proposed that the medical colleges, regional institutes and the apex body will be utilised for training of such personnel. If necessary such personnel will be trained in big hospitals and district hospitals in future. It has further been stated that the training of multipurpose workers is arranged at the various Health and Family Planning centres established in different States and at the Selected Primary Health Centres. There are 45 Health and Family Planning Centres functioning at present, and some are likely to be established during the current plan period. About 750 Primary Health Centres are selected every year to function as training centres. The training at the Health and Family Planning Centre is given to the multipurpose workers, both male and female, belonging to the supervisory tier, while the training to the workers of the low level is given at the selected primary health centres. During the period 1974 to 30 June 1976 training has been imparted to 2084 personnel of Health supervisory tier and 1956 workers of lower level. It is projected that by the end of the current plan, 7000 supervisors and 38,000 lower level workers will get training. The course for the supervisors is of about 16—18 weeks duration and that of the lower level workers is that of 10—12 weeks duration.

3.103. The training curricular for the multi-purpose workers includes the following component with regard to eye care:

1. Identification of children suffering from Vitamin A deficiency scheme for prevention of blindness caused by Vitamin A deficiency and implementation of the scheme; Referral of cases; Health Education.
2. Signs and symptoms of Trachoma; Recognition of the diseases; General Principles of control; Health Education.
3. Conjunctivitis—Identification of cases; Administrating prescribed treatment and referring cases beyond their competence to PHC/Hospital for treatment.

4. Foreign body in the eye and eye injury—identification; First hand treatment and Referral; Health Education.
5. Early detection of visual defects and visual disturbances—Early Referral to PHC/Hospital.

3.104. The Committee desired to be furnished with the following information:—

- (a) Comprehensive note giving the number of Multipurpose Health Workers trained so far for the Primary Health Centres and the District Hospitals etc. in the matter of Eye Health Care indicating the number of centres of training, duration of the training and the type of syllabus that had been prescribed and the extent of cooperation that was being received in this matter from the State Governments.
- (b) Number of such centres in the country where training of the Multi-Health Workers was being imparted and their location; and
- (c) Whether the number of workers trained so far will be adequate enough to meet the further needs.

3.105. The Ministry of Health in a written note furnished to the Committee, have explained the position as follows:

“Multipurpose Health Workers included both male and female health workers. Male health workers are drawn from the unipurpose workers like Malaria Workers, F. P. Health Assistants, Trachoma Workers, and Small-pox vaccinators, Female Health Workers and the Auxillary Nurse Midwives (ANMs).

These ANMs undergo two years basic training after 7th class pass. Their syllabus includes fundamentals for Nursing, MCH, Family Planning, Nutrition, personal and environmental hygiene, control of communicable diseases and Medical care including treatment of minor ailments. Eye Health care is one of the units in these subjects. Besides, during their training period, practical training also is given both in the hospitals and community sitting in the care of eyes.

Under the multipurpose workers scheme, both male and female health workers are given in service training. Main subjects included are, MCH, Family Planning, nutrition, environmental sanitation, control of communicable diseases, medical care, including treatment of minor ailments and health education with proper emphasis to care of eyes. Opportuni-

ties are given to gain practical experience in terms of curative, preventive and promotive aspects of health care. These health workers function at the primary health centre and sub-centre levels and usually they are not posted at the district hospitals. However, in these hospitals, besides medical officers, nursing staff provide eye health care to the patients. They are fully trained in this area also.

The inservice training to the health workers (M & F) is given at the PHC level. At present training is conducted at 618 selected PHCs in all the States as per list at Appendix I. Besides another 750 PHCs will be selected for training the HW(M&F) during 1977-78. The prescribed duration of the training is twelve weeks for the male health workers and 10 weeks for the female health workers. Basic training programme for the AMMS(HW) is conducted in the 328 existing ANM schools in the country. The total number of health workers (M&F) undergone inservice training under the MPW Scheme upto June 1976 is 1958. The total number of ANMs/health workers (f) who have undergone basic ANM training of two years duration and functioning at the sub-centres and PHCs is about 37200. Under the scheme, the States are extending their cooperation to implement the programme.

- (b) To provide orientation/inservice training to various categories of health personnel under MPW scheme, there are seven central training institutes, forty-six health and family planning training centres, eighteen rural health training centres and selected PHCs (*Appendix II*).
- (c) The number of workers trained so far will not be adequate enough to meet the future need. But it is envisaged that by the end of Vth Five Year Plan there will be at least one trained ANM/HW(f) for every 8000 rural population in most of the States besides the W(M) for every 6,000—7,000.

3.106. The Committee note that Government are assessing the requirements of para-medical workers to assist the eye specialists. According to them, at least one multipurpose para-medical person will be required for 10—15 thousand of population. The Committee note that it is proposed to train these personnel by utilisation of +2 general education system under vocational education and also to utilise medical colleges, Regional Institutes and the apex body for training.

3.107. The Committee need hardly stress the importance of giving training to multipurpose workers both male and female in eye care. They would like that a time bound programme for giving training to these workers may be formulated and implemented so that the campaign against blindness gets momentum with the help of trained workers.

(iv) *Ophthalmic Education*

3.108. It has been stated that there are 105 medical colleges in the country out of which 50* colleges provide specialised courses in ophthalmology and their outturn was about 300 students every year. According to the norms laid down by the Indian Medical Council all recognised institutions are permitted to take one post graduate students per year per post graduate teacher. No reliable figures with regard to the number of ophthalmologists are available but on a rough estimate it seems that about 300 eye surgeons are being trained every year from these medical colleges. in the eye colleges under the Central Government; Dr. Rajendra Prasad Centre for Ophthalmic Sciences is training 12 post-graduates every year, the Maulana Azad Medical College, Delhi University-6 (including Lady Hardinge and Safdarjang, Willingdon Hospitals). The Pondicherry Medical College and the Goa Medical College are also training candidates for post graduates qualification. The Committee enquired :

- (i) the reasons for this low out-turn of ophthalmologists by the 50 colleges;
- (ii) the capacity of intake for the specialised course in Ophthalmology of these 50 colleges and the reasons why all the available seats in this course were not filled; and
- (iii) the reasons as to why specialised courses in Ophthalmology cannot be started in most of the existing medical colleges in the country to meet the requirements.

3.109. The Ministry in a written note have stated the position thus:

“On an average not more than 6 students at degree level and not more than 10 students both at degree and diploma levels can be taken for training, taking into consideration the beds available in medical colleges and staff capacity of these colleges. By upgrading of medical colleges, and increasing their bed capacity, the situation is being corrected.

*The Ministry of Health in their written note dated 11.11.1977 have stated that now there are 55 Medical colleges in India where the specialised course in ophthalmology was being offered as a separate subject (see Appendix VIII)

So far there was lack of employment facilities, lack of ophthalmic equipment for practice and the equipment if available were so expensive for ophthalmic practice. Attempts are made to persuade the Ministry of Finance to exempt the essential equipment from customs duty. It is also the intention of the Government to encourage indigenous manufacturers to manufacture instruments—diagnostic and other. A large number of surgical instruments in this field are now being manufactured in the country. Attempts are being made to lay down the standards for such surgical instruments. Indian Standard Institutions Collaboration has been sought for the purpose. It is hoped that this will help in more and more doctors joining ophthalmic practice and also because of increased employment opportunities that will be created in the National Plan, the field of Community Ophthalmology, would become more attractive."

110. In a number of memoranda submitted to the Committee, it has represented that:

"In the field of undergraduate medical education in the past, ophthalmology formed a separate discipline of training and examination in many parts of the country while it was combined with ENT in some of the medical colleges and universities and was a minor part of surgery in a very few medical colleges or universities. Recently, however, a tendency has been noticed where the quantum of training in the discipline of ophthalmology is having lesser attention and that its assessment is being merged with surgery. The thinking in the Indian Medical Council has also been in the same direction. On the contrary in many parts of the world, which are more developed the subject is attracting greater attention. The Mudaliar Committee noted with concern this tendency and made strong recommendations for correcting situation but inspite of this, it seems that adequate steps are not being taken to provide remedial measures. If the National Plan of Action has to succeed in preventing visual impairment and controlling blindness it is imperative that ophthalmic education at the undergraduate level has to be tackled and that the skills and knowledge developed by an undergraduate student during the period of training is adequately assessed at the final examination."

"... the facilities for ophthalmic education need to be expanded, improved and standardised at all levels, from the specialist to the ophthalmic assistant, as well as the orientation of basic

health workers, school teachers and volunteer emphasis on promotive and preventive aspects of eye care."

.. Ophthalmic education needs complete reorientation. Ophthalmic education is necessary for village level workers and multipurpose workers. They can prevent blindness due to trachoma, malnutritional eye diseases and infection, deficiencies will need more stress in the south and east. The Mudaliar Committee have already expressed their concern on the down grading of the subject of ophthalmology as recommended by the Medical Council and have made strong recommendations for correcting situations."

In addition to the training of under-graduate, the training of post-graduates in ophthalmology also needs due attention. The country does not require half baked specialists. They should have thorough grasp of the subject and of the needs of the country they serve. To achieve this, the professors and the teachers of the medical colleges will have to leave the precincts of the ivory towers of their departments in the medical colleges and mix with the community to identify the needs of the common man and serve. Then only the trainees will follow their teacher, learn and prepare themselves for field services."

3.111. One of the leading ophthalmologist who appeared before the Committee, gave his views thus on the question of adequacy of ophthalmic education:

"The training of undergraduates need to be reoriented. It is also necessary that the trainees assessed in ophthalmology as a separate discipline at the university level."

3.112. The Ministry of Health in a written note gave their views thus on the adequacy of ophthalmic education in the country:—

(i) The Ophthalmic education in the country in respect of all the categories is inadequate. The Government has been able to persuade the Indian Medical Council to include ophthalmology and E.N.T. as a separate subject at the undergraduate level. These recommendations have been circulated to various universities and it is hoped that all universities will now have ophthalmology and ENT as special subjects at the MBBS level. The Government has also devised a detailed curriculum of study at the undergraduate level, same has been sent to the Indian Medical Council for deliberations and finalisation. The

highlight of this course is the inclusion of community ophthalmology and eye diseases prevalent in the rural areas in the curriculum.

- (ii) The objectives of the training programme for the degree courses at postgraduate level have been finalised and are being circulated to the various universities for adoption. In this programme also community ophthalmology and rural eye health care are special areas of training.
- (iii) The training at diploma level is being reviewed and will be forwarded soon to the various universities for their consideration and adoption.
- (iv) For the training of auxiliary ophthalmic personnel it is proposed to utilise plus two level of vocational education for a junior level technician. The courses for which has been finalised and have been forwarded to the Central Board of Secondary Education Research and Training.
- (v) For the senior level of technician the courses have been evolved and started at Dr. Rajendra Prasad Centre for Ophthalmic Sciences. After pretesting these courses will be sent for adopting to the various regional institutes and medical colleges for adoption. These steps are being taken to provide necessary manpower.

The Government is aware of the requirements of the general Ophthalmic care of the people and general medical practitioners who are properly trained in attending to minor ailments can provide ophthalmic care also. It is with this in view that the syllabus has been revised and continuing education programmes for basic doctors have been drawn up."

- (vi) The contents of continuing ophthalmic education programme for various levels of workers have been devised. That for the specialists are already in operation at Dr. Rajendra Prasad Centre for Ophthalmic Sciences and institutions in Ahmedabad, Aligarh and several other places which are to function as regional institutes are also conducting such courses. They are being coordinated and rationalised."

3.113. Pointing out to the observations of the Mudaliar Committee (1959) wherein it had been recommended that the students at undergraduate level should be adequately trained in the subject of ophthalmology and should be assessed separately with regard to their fitness in the subject,

the Committee enquired whether this recommendation had been fully implemented. If not, what were the reasons thereof. The Ministry of Health in a written note have explained the position as follows:

"The medical council has been persuaded to accept the training standards of Ophthalmology in conjunction with ENT. At the undergraduate level, the whole course has been redrafted for the approval of the Medical Council, taking into consideration the changes that have taken place since Mudaliar Committee submitted its report in 1959."

3.114. The Committee note that out of 105 medical colleges in the country, only 55 colleges are offering specialised courses in Ophthalmology and their outturn is about 300 eye surgeons every year. In addition, post-graduate course in Ophthalmology is available at the All India Institute of Medical Sciences, the Maulana Azad Medical College, Pondicherry and Goa Medical Colleges etc. The outturn of ophthalmic surgeons has been attributed to lack of employment facilities and lack of ophthalmic equipment which is very expensive. The Committee have in a paragraph of this Report urged the Government to undertake a realistic assessment of the requirements of ophthalmic surgeons in the country to meet the growing need in this specialised field. It is evident that with the implementation of the National Plan of Action there would be more employment opportunities in the field of ophthalmology and the requirements of eye surgeons would increase considerably. The Committee would like Government to take effective steps not only to suitably increase the capacity of the 50 medical colleges which are offering specialised courses in ophthalmology but also to provide these facilities in other medical colleges so as to meet in full the requirements of eye surgeons in the country. They further desire that arrangements may also be made to provide adequate facilities for training of post-graduates in ophthalmology to meet future requirements.

3.115. The Committee further stress that facilities for ophthalmic education should be suitably expanded and improved and a complete re-orientation may be given to ophthalmic education by placing greater emphasis on promotive, preventive, curative and rehabilitation aspects.

3.116. The Committee note that ophthalmology which formed a separate discipline of training and examination in the field of under-graduate medical education in the past, is being given less attention and its assessment is being merged with surgery. The Committee find that Mudaliar Committee (1959) had recommended that students at under-graduate level should be adequately trained in the subject of ophthalmology and should be assessed separately with regard to their fitness in the subject. The Committee are not aware of the considerations under which ophthalmology has not been include as a separate subject in the syllabus for under-graduate course for

medical education and why the recommendations of the Mudaliar Committee have not been implemented in letter and spirit so far. They would like the Government to critically review the position and bring about necessary changes in the curriculum of the under-graduate courses for medical education so as to include ophthalmology as a separate subject, in consultation with the Medical Council.

3.117. It is pertinent to recall in this connection that the problem of eye ailments in our tropical country runs into gigantic proportions and that as per estimates available, there are as many as 9 million blind people in the country. With Government's plans to extend health care to rural areas and for manning of primary health centres by medical practitioners, it would obviously be an aspect if the under-graduates are imparted knowledge and practice in depth of Ophthalmic discipline so that they may be able to detect and provide timely treatment to the people living in rural and remote areas of our country. The Committee would like the preventive and promotive aspects of community eye health care to be specially included in the curricula for under-graduates.

(V) *Continuing Education*

3.118. It has been stated that the general pattern of training programmes for continuing education of general practitioners and Primary Health Doctors in Ophthalmic cases are as detailed below:

"In order to orient general practitioners and PHC doctors it is proposed to start training programme in the form of refresher courses of 2—4 weeks duration in various medical colleges—Vocational exposure to ophthalmology during their under-graduate training. Like other branches of medical sciences, Ophthalmology has made great strides in the diagnostic and therapeutic techniques. Despite great advancement in the field of Ophthalmology the morbidity pattern and incidence of blindness has hardly shown any significant change in this country. To be able to diagnose early and treat common ailments and diseases of the eye, it is essential that a programme of continuing education, i.e., reorientation of the doctors working at the Primary Health Centres and General practitioners should be instituted with the following objectives:

Aims and Objectives

- (a) To improve the rural ophthalmic services in the villages.
- (b) To improve the ophthalmic first aid in ocular emergencies.
- (c) To coordinate and involve the PHC in the mobile comprehensive eye care programme.

- (d) To screen children for early detection of visual defect and eye diseases.
- (e) To screen all ophthalmic cases and refer only those who require specialist treatment.
- (f) To impart education and information to promote ocular health prevention of blindness and rehabilitation of the blind.

Methodology

Each Eye Hospital/District Hospital, Teaching Institution shall provide training to 10 to 12 doctors in every course which will be conducted round the year.

The duration of the course for the (1) PHC doctors shall be two weeks full time course. (2) For the local general practitioners half day (afternoon) for four weeks. (3) The course shall be organised and supervised by the Ophthalmologists Incharge of their respective eye hospital section or department.

The following curriculum has been recommended:

(1) Didactic teaching	20 hours.
(2) Clinical demonstration	30 hours list or clinical & practical.
(3) Practicals	30 hours demonstration & practice.

3.119. On the aspect of continuing education in Ophthalmology it has been represented:

"Continuing medical education programme need to be instituted for vocational training of the general practitioners who would be supervising the work of their ophthalmic assistants at the peripheral level and would also be rendering medical ophthalmic care to the population in general practice. In order to orient general practitioners and PHC doctors, training for personnel should be started in the form of refresher course for 2—4 weeks of duration as vocational programme presuming that they had adequate exposure to ophthalmology during their under-graduate training. This can be conducted in various upgraded medical colleges. As part of continuing education programmes, refresher course should also be instituted for ancillary ophthalmic personnel so that their knowledge and skills are upgraded frequently and at regular intervals. This should be possible at the level of district hospitals when ophthalmic services develop there. Till such time as this happens, this may be done in all the medical colleges of the coun-

try. As continuing medical education programme for the specialists and semi-specialists in Ophthalmology, it will be desirable that the regional and state institutes as well as National Institute hold regular workshops on various ophthalmic problems facing the country so as to exchange information from their experiences, upgrade the knowledge of all those who have not read the ophthalmic literature and also to plan for the future strategies for the programme. These workshops should be able to create a bias in a large number specialist towards sub-specialities of Ophthalmology so as to provide future personnel or the regional, state and national institutes."

3.120. One of the non-official witnesses, who appeared before the Committee, observed:

".....in the case of continuing education programme for all categories of ophthalmic personnel, the efforts are sporadic and unorganised. Need for taking up in an organised manner. Training courses could be started for General Practitioners and PHC doctors at many teaching centres in the country...."

3.121. The Committee note that Government propose to start training programme for general practitioners and PHC doctors by organising refresher courses of 2 to 4 weeks' duration in various medical colleges. The Committee consider these refresher courses to be very important in the campaign for the prevention and control of visual impairment and blindness in the country. They would like Government to prepare a detailed programme for these courses so as to cover all the PHC doctors within a time bound programme.

3.122. The Committee are glad to note that these refresher courses are open to the general medical practitioners also. The Committee would like that wide publicity should be given to these refresher courses to enable the general medical practitioners to avail themselves of these courses in the interest of rendering comprehensive medical care to the community.

3.123. The Committee would like that refresher courses should also be provided for ophthalmic surgeons to enable them to update and upgrade their knowledge and skills so as to keep abreast of the latest advancements in this field.

CHAPTER IV

EYE HEALTH EDUCATION

(i) Dissemination of information on Prevention of Blindness

4.1. Health Education of the community is of utmost importance for an effective planning of the National Programme for Prevention and Control of Blindness. The Ministry of Health have stated that they have brought out the following material for dissemination of information on the subject of Prevention and Control of Blindness:—

(i) *Folders*

- (a) "Hamari Ankhe" (in Hindi)
- (b) "Rohe" (in Hindi)
- (c) "You can prevent Trachoma" (English & Hindi)
- (d) "A Pictorial"—Beware of Trachoma—The Enemy of the Eye (in five regional languages).

(ii) *Posters*

Three posters were brought out which depicted (a) "Trachoma" if not treated in time, how it may lead to blindness; (b) Factors which help spread of Trachoma; (c) Factors which aggravate the condition.

Another set of poster was prepared not only to educate the community on trachoma and infections, but it also included material for education on general eye health care and prevention of causes which if not taken precaution of, may lead to visual impairment and even loss of sight.

(iii) *Film*

A film titled "TRACHOMA" was made in collaboration with the Film Division, Government of India in 1959. A documentary entitled 'Out of Fog' was also released in the country in various Cinema Houses. The Film Division of Uttar Pradesh Government Department of Information prepared a film "NAIAN HAMARE" in Hindi.

(iv) *Filmstrip*

A filmstrip has been prepared in black white having caption "Tale of Trachoma".

(v) *Hand Bills*

A good number of hand bills in English and Hindi giving much needed information about trachoma and infections were distributed throughout the country.

(vi) *Radio Spot*

A Radio spot educating the people to consult the nearest Health Centre in case of trachoma or eye infections was on the air on five channels in 1974-75. 2 fresh Radio Spots have been released from all the channels of the country advising the people to contact the nearest Health Centres/ Dispensary at the first sign of the eye trouble; and exhorting the people above 40 years of age to get the eyes regularly checked up by eye specialists so as to exclude much dangerous diseases i.e., Glaucoma and others.

(vii) *Cinema Slides*

A set of three slides was prepared in all regional languages on eye care and released through D.A.V.P. in all Cinema Houses, throughout the country.

(viii) *Press Release and Publications*

(i) From time to time necessary educational information was released through the press. It was published in the regional languages in various Newspapers. Useful articles to various health journals.

A bulletin "NEWS AND VIEWS" was started in 1963 for circulation amongst the field staff engaged in National Trachoma Control Programme. This continued only upto 1976 and had to be stopped on account of the pressure of other works due to expansion of the Programme and difficulty in procuring necessary papers etc.

(iii) In the year 1975-76 with the proposals for launching National Programme for Prevention of Blindness, simultaneous action for Health Education has also been taken up. Incidentally, WHO had "FORESIGHT PREVENTS BLINDNESS" as the theme for observation of the World Health Day during the year 1976. This film prepared in collaboration with the Directorate of Advertising and Visual Publicity is titled "OUR EYES" and depicts the various factors responsible for visual impairment and blindness. A bulletin in English and Hindi has also been brought out for the care of the eyes.

(iv) 30,000 metalic tables have been prepared for display at the various PHCs in the country.

Recently the Govt. of India has produced one film on eye care. Copies of this film in 16 mm. are still not available for exhibition on a large scale....Unfortunately, the film has deviated considerably from the script that was prepared so much so that it has lost most of its mass impact during production and editing.

More films for T.V. and general information for public exhibition need to be produced with imaginative script written and equally imaginative production and editing is required. It will be better that the cell for community ophthalmology (that is being created at the Ministry of Health) in association with the Central Health Education Bureau, takes up the task of procuring a large number of scripts for film production for screening in cinema houses as general information films, in schools and colleges as educative films and on T.V. and Satellite both for education and dissemination of information.

The health education part also needs to be included as a part of school training in the primary and secondary stages on the subject of health and physical education. A book needs to be introduced in the teachers' training programme for orienting the teachers in various methods of promotion of ocular health and prevention of blindness as also for giving adequate information with regard to ocular health situation in the country. Parents and teachers, community leaders, social workers and sociologists also needs to be educated in measures of dissemination of information and in eye health care and for this purpose also a small book needs to be written giving relevant data, information, advice and guidance.

It is suggested that many more suitable films should be produced and shown on T.V. Films Division, using imaginative scripts on Prevention of Blindness, can produce films for universal exhibition in schools, clubs and in cinema halls. It will also be useful if chapters on eye health care can be included in the school text books and health education for eye care incorporated in the teachers training programme.

... Bulk of blindness of preventable type in our country essentially arises out of ignorance, use of so called native remedies and neglect. Educational Programmes through audio visual aids can go a long way in disseminating information on the care of the eyes which would ultimately prevent blindness. The Blind Relief Association, and some other organisations

have effectively demonstrated the use of posters in this connection. Since the incidence of illiteracy in our country is very high, a poster can convey the message more effectively by depicting the story pictorially. The cinema and the TV programmes deemed especially for rural area should be supplied audio visual material for display. It is absolutely essential to launch a big campaign through mass media about ocular health of children both of pre-school and school going age, as also of other groups.

4.3. On the question of bringing out books and pamphlets on the aspects of prevention and control of blindness, the Ophthalmic Adviser to the Central Ministry of Health stated during evidence:

“...Some of the pamphlets are in different languages. Some have been prepared in English and Hindi and are being translated through the State Central Educational Bureaus. The National Society for the Prevention of Blindness has its branches in every State and it is also preparing translations. They have been translated into all languages and distributed to primary health centres. Besides, we have prepared placards and metallic plates which are being fixed in every primary school.”

4.4. The Secretary, Ministry of Health amplifying the point stated:—

“We have got what is known as the Central Health Education Bureau which prepares pamphlets not only on eye care but about malaria, small pox etc. It is meant for doing this work and we have got it functioning in almost all the States.”

4.5. On the question of specific programmes of Health education or dissemination of information, the Ministry of Health in a written note furnished to the Committee have stated the position as follows:—

“It has been rightly surmised that the Government of India use blindness programme as problem oriented and not as disease oriented. All material with regard to health education or dissemination of education through mass media and education media is prepared in consultation with the Ministry of Information and Broadcasting. State Governments have not been consulted in this regard and if necessary they will also be consulted.”

4.6. The Sub-Committee of the Estimates Committee (1977-78) on 'Prevention and Control of Blindness' enquired as to what precise steps had been taken to ensure that there was extensive and intensive publicity on Radio and Television and through Newspapers, posters pamphlets,

Recently the Govt. of India has produced one film on eye care. Copies of this film in 16 mm. are still not available for exhibition on a large scale....Unfortunately, the film has deviated considerably from the script that was prepared so much so that it has lost most of its mass impact during production and editing.

More films for T.V. and general information for public exhibition need to be produced with imaginative script written and equally imaginative production and editing is required. It will be better that the cell for community ophthalmology (that is being created at the Ministry of Health) in association with the Central Health Education Bureau, takes up the task of procuring a large number of scripts for film production for screening in cinema houses as general information films, in schools and colleges as educative films and on T.V. and Satellite both for education and dissemination of information.

The health education part also needs to be included as a part of school training in the primary and secondary stages on the subject of health and physical education. A book needs to be introduced in the teachers' training programme for orienting the teachers in various methods of promotion of ocular health and prevention of blindness as also for giving adequate information with regard to ocular health situation in the country. Parents and teachers, community leaders, social workers and sociologists also needs to be educated in measures of dissemination of information and in eye health care and for this purpose also a small book needs to be written giving relevant data, information, advice and guidance.

It is suggested that many more suitable films should be produced and shown on T.V. Films Division, using imaginative scripts on Prevention of Blindness, can produce films for universal exhibition in schools, clubs and in cinema halls. It will also be useful if chapters on eye health care can be included in the school text books and health education for eye care incorporated in the teachers training programme.

...Bulk of blindness of preventable type in our country essentially arises out of ignorance, use of so called native remedies and neglect. Educational Programmes through audio visual aids can go a long way in disseminating information on the care of the eyes which would ultimately prevent blindness. The Blind Relief Association, and some other organisations

have effectively demonstrated the use of posters in this connection. Since the incidence of illiteracy in our country is very high, a poster can convey the message more effectively by depicting the story pictorially. The cinema and the TV programmes deemed especially for rural area should be supplied audio visual material for display. It is absolutely essential to launch a big campaign through mass media about ocular health of children both of pre-school and school going age, as also of other groups.

4.3. On the question of bringing out books and pamphlets on the aspects of prevention and control of blindness, the Ophthalmic Adviser to the Central Ministry of Health stated during evidence:

“....Some of the pamphlets are in different languages. Some have been prepared in English and Hindi and are being translated through the State Central Educational Bureaus. The National Society for the Prevention of Blindness has its branches in every State and it is also preparing translations. They have been translated into all languages and distributed to primary health centres. Besides, we have prepared placards and metallic plates which are being fixed in every primary school.”

4.4. The Secretary, Ministry of Health amplifying the point stated:—

“We have got what is known as the Central Health Education Bureau which prepares pamphlets not only on eye care but about malaria, small pox etc. It is meant for doing this work and we have got it functioning in almost all the States.”

4.5. On the question of specific programmes of Health education or dissemination of information, the Ministry of Health in a written note furnished to the Committee have stated the position as follows:—

“It has been rightly surmised that the Government of India use blindness programme as problem oriented and not as disease oriented. All material with regard to health education or dissemination of education through mass media and education media is prepared in consultation with the Ministry of Information and Broadcasting. State Governments have not been consulted in this regard and if necessary they will also be consulted.”

4.6. The Sub-Committee of the Estimates Committee (1977-78) on 'Prevention and Control of Blindness' enquired as to what precise steps had been taken to ensure that there was extensive and intensive publicity on Radio and Television and through Newspapers, posters pamphlets,

hoardings etc. on the various aspects of prevention and control of blindness. The Ministry of Health in their note (November 1977) explained the latest position in this regard as follows:—

- "(i) Letters have been addressed to the directors of All India Radio and various Television Centres who have assured to help. The local ophthalmologists and social workers in the field have promised to advise, contact the mass media for giving them adequate time to utilise the same for broadcasting and telecasting. National Implementation Committee has urged the Chairman of the Committee to address letters to the Information and Broadcasting Ministry to direct the Radio & Television Centres to give this programme atleast 10 minutes every week from every station. Posters and pamphlets have been produced in the large numbers in the various regional languages. Hoardings have been erected at various places but it will take some time to evaluate their effectiveness. Pamphlets exhorting public to adopt measures for prevention and control of blindness, and talking points on the causes of blindness have been prepared in various languages and sent to all the Primary Health Centres and the sub-primary health centres.
- (ii) Meeting has also been held between CHEB and DAVP along with the programme officer where the programme for the whole year is chalked out, which includes pamphlets, booklets, cinema slides, flash cards folders etc.
- (iii) Private Sector and Public Sector concerns have been approached for production of quickies and documentaries with a commentaries in different Indian languages and in English. Information and Broadcasting Ministry has also been requested to produce documentaries and exhibit them.
- (iv) Every mobile unit is being supplied with adequate publicity material to be exhibited in the camp and distributed. The mobile units are also being supplied with quickies, films and slides to show in the areas of their activities. These units are provided with necessary projectors.
- (v) Compressed tape recorded speech will also be played to the audience at camps and various social and other gatherings.

4.7. As regards the amount of funds allocated for effective dissemination of information on the problem of prevention and control of blindness, it has been stated that during the period 1977—79, a sum of Rs. 6.00 lacs per year had been allocated for the publicity.

4.8. The Committee note that the Ministry of Health have been taking steps for the dissemination of information regarding the Prevention and Control of Blindness and have brought out folders, posters, film scripts, cinema slides, radio talks etc., over the years. It is a matter of regret that in spite of the various steps taken in this regard, the problem of visual impairment and eye ailments has been increasing and the number of blind people in the country has gone upto 9 million. It is thus obvious that the dissemination of information on this vital subject has not been wide-spread and has been very inadequate compared to the requirements. There is much that needs to be done in this regard. It is well known that dissemination of information for eye care and simple inexpensive treatment of eyes is of the utmost importance for the prevention and control of blindness in the country. The Committee would, therefore, like Government to undertake a study in depth of the inadequacies of the steps taken in this behalf so far and undertake well informed and effective measures so that the message of eye care reaches particularly the vulnerable sections of the society.

4.9. In the Committee's view there is an urgent need for intensive and extensive publicity on radio and television and through newspapers, periodicals magazines, posters, pamphlets and hoardings in the class rooms of the school children, in ladies clubs and poor localities, slum areas, primary health centres and local Government offices regarding the promotion of health of eyes, common eye diseases prevalent among pre-school and school children, pregnant women and nursing mothers, with simple advice for their early treatment and prevention of complications and blindness.

4.10. The Committee hope that the various measures recently taken and proposed to be taken by the Ministry of Health for arranging intensive and extensive publicity to the various aspects of prevention and control of blindness over the All India Radio and Television Centres and through publication of posters in various regional languages, erection of hoardings at various places, cinema slides, production of documentaries with commentaries in different languages, playing of compressed tape recorded speeches to the audience at Eye Camps, various social and other gatherings etc., preparation and distribution of talking points on causes of blindness to PHC's and Sub-Primary Health Centres would bring the desired results in making the gravity and magnitude of the problem of blindness and the recommended measures for the prevention and control of blindness known to the general public. The Committee would like that the Government should review the publicity measures from time to time with a view to ensuring that the message for the prevention and control of blindness reaches all sections of people particularly the weaker sections and all part of the country effectively and produces the desired awakening against this disease.

4.11. The active cooperation of voluntary organisations working in the field of eye care health may be enlisted in a greater measure so as to reach the people in all walks of life.

(ii) Participation of Teachers, Social Workers and Community Workers

4.12. In a number of memoranda submitted to the Committee, it has been represented:

- (i) "....the teachers, social workers, students, community leaders, sociologists and the population in general can be actively made to participate in measures of prevention of blindness. Besides this, it should be possible to introduce chapters in the text books of primary and secondary level of studies in the subject of physical and health education so that they can be educated about common eye diseases, the methods of preventing them and when to seek medical aid for their treatment..."
- (ii)....Teachers are in close touch with the school going children and if they can be associated with the programmes of prevention of blindness and actively participate in it, they can prove a great help. They can detect children with defective vision and advise them to consult qualified ophthalmologists. They can also teach the children habits of cleanliness and give them and their parents nutrition education so that they take foods required for the health of their eyes. They can also be entrusted with a few sample medicines to treat minor eye ailments at an early stage. The teachers can also ensure proper follow up and full treatment in cases of Trachoma and other eye infections, not only for the children in school, but also for their families. They can also help in the organisation of eye camps and health education of the community. Social workers can be trained to help the teachers and make the adult population aware of common eye diseases effecting older age groups, such as Cataract, Glaucoma, effects of ocular injuries etc. They can also impart to them health education regarding the care of their own eyes and the eyes of their children, proper nutrition and use of fruits and vegetables, milk and eggs etc., for the protection of eye sight, with regard to follow up in cases of eye infections and correction of errors of refraction. They can also help in arranging and conducting visual screening programmes for school children, college students industrial workers and drivers of motor vehicles and general adult population in cities and villages....

Students, teachers and social workers, can all be involved in assisting and organising eye camps in their own areas, and in educating the general public to give up superstitions and prejudices, leading to unhealthy practices. They can make them visit the eye camps and eye clinics for eye check up treatment and necessary follow up.

Publicity material can be and should be produced in various regional languages for the use of teachers and social workers. The students can distribute leaflets with the "does and don'ts" for eye health care.

4.13. On the question of association of teachers, social workers, community leaders and sociologists and the population in general in the measures for prevention and control of blindness, some of the non-officials who appeared before the Committee observed thus during their evidence:

"(i) . . . The best way in which these persons can play their role according to their capacity is to arouse in them the consciousness about the magnitude of the problem and how to promote ocular health, detect visual defects at any early date prevent ocular diseases by day to day inexpensive and small measures like knowledge about proper food, knowledge about preventing infection and when to seek assistance of qualified people. They should also be encouraged to organise themselves into prevention of blindness clubs for raising local manpower and financial resources and holding eye camps. Eye camps held at the request of local population and their participation are most successful than Governmentally organised eye camps. Sociologists can also be instrumental in pointing out ill effects of consanguineous marriages *i.e.*, marriage with first cousin and other near relatives which lead to congenital and hereditary ocular defects and blindness. With such marriage counselling Japan has been able to reduce blindness from this cause from 0.6 to 0.3 per cent. . . ."

(ii) . . . a lesson on the hygiene of the eye for students studying in standard IV and upwards will be very useful. The teacher training courses should also contain information on the hygiene of the eye and the teachers could be given elementary training in detecting deficient vision, by periodic use of the eye charts. If they detect the visual impairment in a particular student he could then be referred to a specialists.

4.14. In a written note furnished to the Committee the Ministry of Health and Family Planning have explained the position thus:

“....The Government of India regards participation of teachers, social workers and students as most important and as an essential part of this programme. The suggestion for including a book on ocular health for the prevention of blindness, teachers' training programme has had appreciative response. Instead of a book on ocular health, 20—30 page material has been devised which has overlap with course on life sciences etc. It will, therefore, not be a considerable burden on the teachers. The matter has been taken up with the Ministry of Education and is receiving their favourable consideration.

The teachers and social workers and students, community leaders and sociologists and the population in general would be actively made aware to participate in the eye health care programmes as well as in early detection of visual defects. They will become aware of the possibilities of early detection of defects in themselves and pass on this information to others in general. Similarly, if they practice preventive measures themselves and demonstrate their efficacy to others, they will follow them. This will be a mass movement in favour of good ocular health. This methodology is likely to have maximum impact on the population.”

4.15. The Committee consider that prevention and control of blindness is a gigantic task. Government machinery alone cannot tackle the problem of eradication of blindness in the country. The Committee, therefore, consider it imperative, that Government should solicit the active cooperation and help of the community leaders, sociologists, teachers and students who could be effectively trained in the fields of health education, particularly in promotive, preventive and curative aspects of eye care. This, in the Committee's view, would have a greater impact in promoting better vision and preventing blindness. The Committee in this connection note that the teachers have close association with the school going children. They would thus be useful in detecting children with defective vision and advising them and their parents to seek the advice of the qualified ophthalmologists. Similarly, the social workers and community leaders could make the adult population aware of the common eye diseases. They could impart health education to the population in general regarding the care of their own eyes, the eyes of their children and also propagate the nutritive value of inexpensive food like Satoo, carrots, leafy vegetables, milk, fruit and eggs for the protection of the eye sight. In this context the Committee welcome the assurance of Government that they regard the participation of teachers, social workers and students as most important and an essential part of their programme of prevention and control of blindness. They would,

therefore, stress the urgent need to orientate teachers, social-workers and community leaders on the problem of eye health care with a view to rendering assistance as a first-aid measure and to taking promotive steps for eye health care.

4.16. The Committee would also urge for an expeditious decision on the part of the Ministry of Education for an early inclusion of suitable material on ocular health in the Primary and Secondary schools level text books so that school going children could be educated about common eye diseases and methods of preventing them.

(iii) School Eye Health Services

4.17. One of the basic strategies listed in the National Plan of Action envisages Eye Health Education of the people. The Committee enquired as to what steps had the Government taken in this direction to educate the people. The Ministry of Health in a written note furnished to the Committee have explained the position as follows:-

- (i) The National Plan envisages Eye Health Education to the people. The Ministry of Health and National Society for the Prevention of Blindness through its centres and State branches, Dr. Rajendra Prasad Centre for Ophthalmic Sciences have started to disseminate information with regard to the problems of eye health and their solution. It has resulted in creating an awareness in the public about the eye health, taking important steps to prevent blindness and to take care of eyes.**
- (ii) Discussions have taken place with the Ministry of Education and the National Council of Educational Research and training for inclusion of relevant material in the school text books at different stages and in the text books for the teachers training programmes. The Ministry of Education and the National Research Council have taken keen interest in this proposal and are willing to include enough material in the curricula of various levels for the students and teachers. The material is being prepared and is being sent to the National Council of Educational Research for further assessment.**
- (iii) A book is being prepared for educating public with regard to the general problems of the eyes and the care of the eyes. The National Society for the Prevention of Blindness has already issued leaflets prepared posters so as to educate the public. Ministry of Health through the National Trachoma Programme has also made attempts to bring out posters.**

pamphlets, booklets and information material for educating people. The results of such education material have been very good.

- (iv) A fully coordinated programme in the field of health education is being drawn up in consultation with the National Society for the Prevention of Blindness and other national and international voluntary agencies; the help of World Health Organisation is also being sought in devising such material.

4.18. The WHO in its report (May 1976) observed that there was lack of School Eye Health Services in many countries of South-East Asia region and suggested that such services should include the following eye care components for:—

- (i) early detection of refractive errors;
- (ii) treatment of squint and amblyopia; and
- (iii) detection and treatment of infections such as trachoma.

4.19. It was further stated in the Report that school health programmes could subsequently serve the population by being gradually integrated into the permanent health delivery system.

4.20. The WHO in its report has rightly pointed out that there is lack of School Eye Health Services in many areas of world and that there is an urgent need for inclusion of eye care components such as (i) early detection of reflective errors, treatment of squint and amblyopia and detection and treatment of infections such as trachoma, in the School Eye Health Education. The Committee are glad to note that the National Plan for the prevention and control of blindness formulated by the Ministry of Health envisages Eye Health Education for the people. The Committee are also gratified to note that the Central Ministry of Health, National Society for Prevention of Blindness through its centres and state branches, Rajendra Prasad Centre for Ophthalmic Sciences and many other voluntary agencies have started to disseminate information with regard to the problems of eye health and their solution. The Committee hope these efforts will result in creating an awareness in the general public about the eye health.

4.21. The Committee note that the Ministry of Health have held discussion with the Ministry of Education and the National Council of Educational Research and Training for inclusion of relevant material in the school text books at different stages and in the text books for teachers' training programme and the material is under preparation in consultation

with the National Council of Educational Research and Training. The Committee urge that determined efforts should be made to process and finalise the material to be included in the text books expeditiously and it should be ensured that this material is made available to the state Governments for inclusion in the text books of the schools and text books for the teachers' training programme at an early date.

CHAPTER V

RESEARCH

5.1. It has been stated that a large number of medical colleges and ophthalmic Institutions are carrying out research in Ophthalmology. Research in Ophthalmology particularly in the field of nutrition has been carried out by Madurai Medical College, and Sarojini Devi Institute of Ophthalmology, Hyderabad in collaboration with the National Institute of Nutrition, Hyderabad. As a result of this study two important factors has emerged:

- (i) That administration of 200,000 units of Vit. 'A' once in 6 months gives enough protection to children from developing keratomalacia;
- (ii) That Keratomalacia is not a single deficiency syndrome but a multiple deficiency diseases involving proteins and Vit. 'A' and that for curative measures the administration of both if necessary, it is now agreed that for prophylaxis administration of Vit. 'A' is quite sufficient.

5.2. The research on Trachoma has been carried out extensively by Dr. R.P. Centre for Ophthalmic Sciences and earlier at Agra Medical College, by the National Trachoma Control Programme and Trachoma Research Centre at Aligarh. These researches have indicated that:—

- (i) Among all the therapeutic measures sulphacetamide is the best drug available, though broad spectrum antibiotics are also effective against the TRIC agent. For mass control of trachoma sulphacetamide is unsuitable because of side hazards and local application of tetracycline eye-ointment following a certain regimen is quite sufficient.
- (ii) That Trachoma by itself is not a blinding condition but it is the secondary infection, super added on Trachoma, which leads to sequelae and complications leading to blindness. The good hygiene of the eye and timely treatment can prevent the secondary infection and adequately control the blinding complications.
- (iii) The use of 'Kajal' and 'Surma' by themselves are not harmful but the use of common sticks or fingers for application of

these for various members of the family or using the same container for these cosmetic agents for all members of the family spreads the infection and needs to be avoided.

- (iv) That to prevent blindness or trachoma it is not necessary to eradicate the disease. It is possible to control blindness by adequate therapeutic measures which may not result in total cure but be able to prevent blindness complications.
- v) That trachoma vaccine as developed today is an inefficient tool for controlling the diseases. It also seems that the trachoma vaccine does not have a bright future unless a major breakthrough comes during research.
- (vi) That it has been possible to isolate the causative agent of trachoma and conduct bilogival study.
- (vii) That trachoma is not limited to eye alone.
- (viii) Through the N.T.C.P. and earlier through T.C.P.P, the epidemiological pattern of the disease has been fully worked out as well as knowledge has been acquired with regard to its natural life history.

5.3. Research has also been carried out at Dr. Rajendra Prasad Centre for Ophthalmic Sciences for fungal diseases and ill effects of the abuses in the use of corticosteroids and anti-biotics which leads to aggravation of condition. Fundamental research on detachment of retina, galucoma, biochemical and pathological studies of various ocular diseases including cataract and trachoma neuro-ophthalmic disorders, uveitis, corneal grafting and many other fields have made significant contribution to the development of ophthalmic sciences in the world as a whole. Investigating tools like fluorescian angiography and ultrasonography has been also exploited to the full in conducting research particularly at Maulana Azad Medical College.

5.4. It has been stated that in the research field of Ophthalmology both experimental and clinical, India is far behind the Western World, yet in the field of community ophthalmology and operational research, India has provided leadership to the world. Attempts are being made in this plan to upgrade regional and national institutes with a view to step up the research potential so that they may be able to undertake fundamental and clinical research and make significant contribution in the field of ophthalmology. Among medical colleges Maulana Azad Medical College, New Delhi, Moti Lal Nehru Medical College, Allahabad, S. N. Medical College, Agra, Medical College, Madurai, P.G.I. Chandigarh, have made significant contribution in the field of research. The Regional Institutes of Ophthalmology and the National Institute of Ophthalmology (Dr. R.P. Centre for

Ophthalmic Sciences have provided technical and research leadership. Dr. R.P. Centre for Ophthalmic Science has developed a good nucleus for experimental research set up and this needs to be created in the country so that outstanding contribution can be made. In order to give importance to such research activities a second look may have to be taken at the personal policy which when formulated may help in augmenting the potential.

5.5. On the question of effectiveness of research carried out in Ophthalmology in the country, a number of leading ophthalmologists in their non-official memoranda submitted to the Committee have stated their views as follows:—

- (i) The research efforts by various hospitals, medical colleges and institutions has been sporadic. The original research has been very little and its effectiveness in the field has not been fully evaluated.
- (ii) There has not been a great deal of original research in ophthalmology and so far, though a few contributions of our specialists have been internationally recognised. What is urgently needed is applied research and wide spread application of research. A great deal of good can be done for the preservation of sight and prevention of blindness, if what we know is put into practice.

The emphasis should shift from the laboratory to field research and reduction of the gap between research findings and their utilisation. Community ophthalmology is the crying need of the day and there are many questions which can be answered through field research only.

- (iii) Whatever research is carried out in India is mostly a reduplication of work already done in the west and about which details are already well-known. Moreover there is very little reward for genuine research workers.

5.6. One of the leading non-official witness during his evidence before the Committee observed thus on the question of research in ophthalmology:—

“....field research can be very valuable, but it is a complicated thing. It has not been properly planned. Preventive and Social Health Department and the Deptt. of ophthalmology and perhaps of nutrition will have to join together and make common programmes of research, for this purpose we know what is necessary for preventive blindness. We do not need to carry on research, if it is not applied. It does not

reach the people. People are not aware. The gap between research and application must be bridged and this has to be done by intensive use of mass media....

5.7. One of the non-official witness in his post evidence replies have stated his views thus on the question of research in ophthalmology:—

“I think that we should pick up really good young doctors who are interested in research and want to make this as their career. The Government should look after their interest well, give them good pay scales and some other incentive like free house, free education to their children and medical facilities etc., to them, so that they could devote their whole-hearted energies, time and interest for conducting real basic research and other biochemical techniques in carrying out such research. I also suggest that at present in regional institutions and later on in every Medical College and big eye centres, separate posts of Research Scientists or Associate Professor of Experimental Research in Ophthalmology should be created.”

5.8. With regard to the measures that had been taken by Government with a view to accelerate result oriented applied research in Ophthalmology in the country, the Ministry of Health have stated that the research that was envisaged by the Ministry of Health was of applied nature and related to the problems of the country. Basic fundamental aspects of research were not being ignored.

5.9. When asked as to whether the Government had formulated any programme of research in the field of Ophthalmology in the indigenous system of medicines such as Ayurveda, Unani etc., the Ministry of Health in a written note has stated the position as follows:—

“No specific programme has been formulated for research in the field of ophthalmology to find out an effective remedy for eye diseases available in the indigenous system of medicine. However, the Ministry will consider the possibility of initiating such research.”

5.10. On the question of national priorities on medical Research specially on the subject of ophthalmology fixed by the Indian Council of Medical Research, the Ministry of Health in a written note furnished to the Committee have stated the position as follows:—

(i) The ICMR has been carrying out research in the field of Ophthalmology from its very inception as and when concrete research proposals were submitted to it by scientists interested in this speciality. Realising, however, the

great public health importance of trachoma as one of the major causes of blindness in the country, the Council was actively involved in this field. In 1954, the Council convened a meeting of leading Ophthalmologists of India to discuss this problem in its totality and formulate specific proposals for its control. Based on its recommendations, the Government of India initiated a Trachoma Control Pilot Project in 1956 at Aligarh under the administrative control of the Council. After initial survey, a Trachoma Research Centre was established in 1960 at the same place. The work on trachoma was later on transferred to the Government of India and was renamed as National Trachoma Control Programme.

- (ii) In 1961-62, the Council set up a sub-Committee on Blindness which later in 1964, was renamed as Expert Group on Ophthalmology for furtherance of research in several aspects of eye diseases. The main objective of this group has been to define priority areas of research in the field of ophthalmic sciences and also to evaluate the on going research programme.
- (iii) Realising the importance of the problem of blindness, and the lack of precise information on this, the Council initiated a co-ordinated study* on the prevalence of blindness in 1970 at the following seven centres located in different geographical regions of the country: (i) M&J Institute of Ophthalmology, Ahmedabad, (ii) M.G.M. Medical College, Indore, (iii) College of Medical Sciences, Banaras Hindu University, Varanasi, (iv) Madurai Medical College, Madurai, (v) Dr. R.P. Centre for Ophthalmic Sciences, All India Institute of Medical College, Cuttack, (vii) Government Medical College, Srinagar.
- (iv) Extensive data has been collected under this scheme which is under process. From the information available from the multi-centred study of blindness, the Council has also initiated some new research schemes, based on the recommendations of the Expert Group on Ophthalmology which met in November, 1975.
- (v) In all, the Council has so far undertaken 49 research schemes in Ophthalmology during the last five years. The main areas of study have been blindness, corneal diseases, cataract, malnutrition and eye disease, glaucoma keratoplasty retino-

*The Ministry of Health in their note dated 11-11-77 have stated that the data collected after processing was under final publication by the ICMR.

pathies, visual disturbances, trachoma, ocular changes in Leprosy, Eales, disease, herpetic keratitis etc. A national programme for the prevention of nutritional blindness arising from deficiency of Vitamin A in children below five years, has been in operation based on studies carried out by the Council. Massive oral dose 2 lac i.e. unit of Vitamin A is given once in six months to prevent the sever form of Vitamin A deficiency. Besides this the Council is also supporting a few fellowships devoted to research in this speciality.

5.11. During evidence the Adviser in Ophthalmology Ministry of Health stated thus:—

“... This Expert Group meets every year and identifies the problems. Last year they identified four areas of research work Cataract, Glaucoma, Malnutrition and Trachoma. Every year we have a report from the Expert Group. It is reviewed and further directions are given....”

5.12. Subsequently in a written note furnished to the Committee the Ministry of Health have stated the position as follows:—

“The Expert Group in Ophthalmology meets every year and reviews programmes in areas of research in the field of Ophthalmic Sciences. It has already allocated research projects in the field of Trachoma, Cataract, Glaucoma, Cornea, Nutritional Deficiencies. Last year for a three years period, the progress of research in this direction is considered to be satisfactory and the final report will only be available at the end of 1979. In the meantime, more areas are being considered by the Expert Group.”

5.13. The Estimates Committee while examining the Estimates of the AIIMS, in its 122 Report (5th Lok Sabha) had *inter alia* recommended:—

“Considering the magnitude of the problem of the visual impairment and incidence of blindness in this country, it is apparent that the work at Dr. R. P. Centre for Ophthalmology Sciences has to be stepped up considerably to make a perceptible impact on these problems. The Committee therefore, suggest that short term plans may be prepared in order to enable the centre to intensify research in preventive and curative ophthalmology and create facilities for training of more ophthalmic personnel etc.”

5.14. When asked as to what steps the Government had taken to implement this recommendation, the Ministry of Health stated:—

“The recommendations of the Estimates Committee with regard to training of ophthalmic personnel at Dr. R. P. Centre for Ophthalmic Sciences and stepping up of its activities to make a perceptible impact on these problems is being considered by the Ministry, and short and long term plans will be prepared to find out how the activities of the Centre can be stepped up. During the next 2 years about Rs. 30 lakhs is proposed to be allocated to the Centre for increasing its activities. This amount is being earmarked from the likely to be made available to the Centre from external resources.”

5.15. The Committee note that the Indian Council of Medical Research has been carrying out research in the field of Ophthalmology from its very inception and that the Council had met up a Sub-Committee on Blindness in 1961-62 which, in 1964, was renamed as an Expert Group on Ophthalmology for furtherance of research on several aspects of eye diseases. This Group is stated to be responsible for identifying priority areas of research in the field of ophthalmic sciences and also evaluating the ‘on going’ research programmes. The Council also initiated a coordinated study on the prevalence of blindness in 1970 at seven different centres. The data collected under this scheme after processing is stated to be under final publication by the ICMR. During the last 5 years, the Council has undertaken 49 research schemes in ophthalmology and the main areas of study are trachoma, cataract, glaucoma, malnutrition etc.

5.16. The Committee have been informed that research in ophthalmology is carried out at the National Institute of Ophthalmology, Regional Institutes of Ophthalmology and various Medical Colleges like Maulana Azad College, New Delhi, Motilal Nehru Medical College, Allahabad, S. N. College, Agra, Medical College Madurai, P.G.T. Chandigarh etc. It has been admitted by the Ministry that in the research field of ophthalmology—both experimental and clinical, India is far behind the Western countries. A number of knowledgeable persons have also stated that research efforts made by various hospitals, medical colleges and institutions had been sporadic and that original research in the country has been very little and its effectiveness has not been fully evaluated. According to a non-official “whatever research is carried out in India, is mostly a reduplication of work already done in the West and about which details are already well-known”.

5.17. It is thus evident that the research conducted in ophthalmology in the country has not been able to achieve tangible results of any practical value. The Committee consider that in view of the enormity of the

problem of blindness and eye-diseases prevalent in the country, it would not suffice if the various problems requiring research are identified. What is really required, is to identify the institutions with the requisite expertise and facilities to undertake research in these problems and find solutions with the maximum possible expedition. The Committee would therefore like to stress that immediate steps should be taken to identify the areas requiring research on a priority basis and prepare time-bound programmes for conducting these researches so that the results of research are expeditiously available for being applied in the field and a meaningful impact is made in reducing the magnitude of the problem of blindness in the country. It is also important that in selecting research projects top priority is given to those eye diseases which are widely prevalent among the poor and weaker sections of society.

5.18. The Committee would further like to stress that detailed estimates for the completion of research projects in terms of time and money should be prepared in the beginning itself so as to encourage cost-consciousness and purposeful utilisation of time and scarce resources in the research faculty. It is also necessary that the progress of research projects is reviewed periodically at least once a year, so that in the light of progress made, decision could be taken to provide additional inputs of necessary, with a view to accelerate the progress or to give up unrewarding projects to obviate infructuous expenditure.

5.19. The Committee expect the R.P. Centre of Ophthalmology to provide the necessary lead by having a meaningful result oriented research programmes.

5.20. The Committee need hardly stress that the research projects in ophthalmology should aim at devising and developing inexpensive and appropriate techniques for eye-care, in keeping with the socio-economic condition in the country.

5.21. The Committee regret to note that no specific programme has been formulated for conducting research in the field of ophthalmology to find out an effective remedy for eye diseases available in the indigenous systems of medicine. The Committee would like to stress that it is high time that the various remedies available in the indigenous systems of medicine are utilised for meaningful advance in the campaign against prevention and control of blindness. There are a large number of inexpensive and effective local remedies which are utilised by villagers in all regions of the country to prevent and cure eye-diseases. The Committee would like Government collect and collate all those common folk remedies from all parts of the country and organise research in a systematic way in their utility and effectiveness so as to assimilate the knowledge available therein

and provide inexpensive home remedies for eye health care to the vast majority of the people in the country. The Committee would like to be informed of the concrete action taken in this regard within three months.

5.22. The Committee also desire that full use should be made of the beneficial effects of yoga exercises on eye-care and wide publicity should be given to those exercise which are found useful in maintaining eye health and curing eye diseases.

CHAPTER VI

OPHTHALMIC EQUIPMENT

6.1. A number of leading ophthalmologists in a memoranda submitted to the Committee have stated:—

- (i) "A fairly expensive equipment will be needed for developing services in Ophthalmology and for continued improvement in available technology. If the country has to be self-sufficient immediate steps should be taken to set up a Research and Development Wing for Ophthalmic instruments at the Apex Organisation with the following purposes:—
 - (a) Maintenance and repair of existing equipment;
 - (b) for import substitution of parts;
 - (c) for distribution of knowledge about manufacture of instruments for commercial exploitation with a view to supply equipment at low cost and saving of foreign exchange;
 - (d) improvements in known technology with a view to improve the quality of instruments; and
 - (e) devising new equipment which may become foreign exchange earner.
- (ii) "....existing eye hospitals should be encouraged to do better work by giving them equipment and more physical facilities and by making it easy to import needed Eye equipments and special suture needles from abroad...."
- (iii) "....there should be no undue restriction on import of ophthalmic surgical and diagnostic equipment. The percentage rate of duty which is 75 per cent is very high. Any equipment which cost a certain sum in West is available for 3-4 times its value in India. Further import of such items be liberalised."

6.2. One of the non-official witnesses, who appeared before the Committee when asked as to what percentage of imported ophthalmic equipment was being used in the country, stated during evidence:—

".... In price structure 80 per cent is being imported. If we spend Rs. 3 crores on these goods, the import is to the extent of Rs. 2.4 crores...."

6.3. On the point whether India could develop its own technology for the indigenous manufacture of ophthalmic equipment the witness added:—

“....I entered into dialogue with the Ministry of Health, NPC, CSIR, Central Scientific Industrial Organisation, III, in trying to co-ordinate our efforts to develop our technology. An equipment for cataract extraction is being manufactured. This is being done by NPL. The cost will be 10 times less than what we have been importing. If we can manufacture radar, if we can duplicate all defence equipments, I see no reason why we should not be able to fabricate these instruments. All that is required is the national spirit and the will to act.”

6.4. When asked as to what would be the approximate cost of setting up an organisation for production, the witness clarified the point thus:—

“I am thinking in terms of research and development and passing on technology to the private entrepreneurs to do the job. If at any time they do not do justice to the people by hiking the price we can enter into the market because the technology is ours. For R&D minimum inputs are necessary. We have laboratories.”

6.5. When asked as to what precise measures would be required so that the country becomes self-sufficient in ophthalmic equipment in not too distant a future, the non-official witness in his post evidence written note furnished to the Committee stated as follows—

“At the present moment I have not thought of precise steps. What is necessary is to accept in principle that this is our ultimate goal. At that stage, it may be possible to have dialogue with Indian industrialists interested in manufacturing or already manufacturing ophthalmic equipment, various ministries of the Govt. of India, international industrial houses willing to set up plants and factories in India, on their own or in collaboration with the local manufacturers or the government for the manufacture of ophthalmic equipment. Involvement of national laboratories like NPL, and the CSIR for the development of technical expertise which can then be passed on to those interested in manufacturing equipment will be beneficial. Setting up of industry in the public sector as a market discipline procedure will be desirable. Involvement of IITs and Biomedical engineering departments of various institutions for the collaborative efforts shall also be helpful. Defence Science Laboratories which are engaged in fabricating the electronic devices can also help. It may be possible

to have collaboration with the Department of Science and Technology for development of technical knowledge in the field of electronics and other projects."

6.6. During evidence, the Adviser in Ophthalmology, Ministry of Health, explained the position thus on the question of availability or otherwise of the Ophthalmic Equipment in the country:—

"When we embark upon the international programme we have to have a large component of ophthalmic equipment which we will have to import. Therefore, in order to minimise the foreign exchange costs, negotiations are being conducted by us presently with various firms. That is we will purchase such and such a thing from you for a certain period of time. But, in the meantime, let us step up the production of these equipments indigenously as a collaborative enterprise with one firm. That is agreed in principle. The second important condition that we have laid down is that it is they who will have to put up the maintenance workshop in this country which shall be under the surveillance of Government of India so that we can send for their technicians here. Any-way, if the equipment is out of order, efforts are made preliminary steps are taken by us at the same time to get certain things manufactured indigenously. These are being done by the firms like Baliwala in Bombay and Jaggi Singh of Allahabad. We are trying to negotiate with them and we do make them to go in for the production of the instruments. For that, collaboration comes up. If they agree, then we may be able to call these people for the collaboration talks across the table on how to step up their production as well as their collaboration. Production is thus being taken care of in the National Plan. But, certainly, if the public sector or other enterprises start their production, may be we may be better off."

6.7. To a question whether the necessary raw material and technical know-how were available in the country, the witness stated thus:—

All the raw materials are available here.....technical knowhow is not fully available, that is why collaboration is necessary especially in the preparation of optics....Ultimately we may collaborate with the Japanese industries. I have asked them to give us their specific terms. I have to see that those terms are to our advantage and not to our disadvantage. May

be, import may be more advantageous. It is very difficult to know at this stage, what will be the ultimate picture that might merge."

6.8. When specially asked as to what were the ophthalmic equipments required for community ophthalmic activities, which were being indigenously produced and the Ophthalmic equipments on which the country was dependent on imports, the Ministry have in a written note furnished to the Committee, stated the position as follows:—

"For most of the diagnostic equipment required for community ophthalmic activities, only eye testing equipment like charts and lenses are indigenously produced. The rest of the equipment is imported. Attempts are being made to encourage indigenous entrepreneurs to manufacture diagnostic ophthalmic equipment so that the country becomes self-sufficient in this area as early as possible. Efforts are also being made to explore the possibility of manufacturing such equipment in the public sector."

6.9. In another note, furnished to the Committee, it has been stated by the Ministry of Health that in the execution of the National Plan of Action, assistance had been sought from the various international agencies.

6.10. The WHO had been able to persuade some of the donor countries and the latest position in this behalf was as follows:—

"Our National Plan and our requirements have been brought to the notice of several international agencies like SIDA, DANIDA, UNICEF and also of Federal Republic of Germany. All have shown keen interest in our programme and are expected to support us in all fields of our activities. It is quite assistance or more will be available in the next two years."

6.11. Subsequently the Ministry of Health, in their written note (November, 1977) have stated thus on the question of speeding up the indigenous manufacture of Ophthalmic Instruments and Equipment:—

"Since the last submission it has been possible to get some of the ophthalmic equipment which would be required at the district and sub-divisional level manufactured in the country. One through a public sector undertaking and the other through the private sector undertaking. Technical know-how will be provided through the Dr. Rajendra Prasad Centre for Ophthalmic Sciences for the manufacture of this equipment

where it will also be tested for quality and standard. In a meeting of the Indian and GDR Delegations, one of the items in the Agenda to be considered is the development of a public sector undertaking for the manufacture of optical equipment on a progressively Indianized basis reaching the cent per cent in 5 years. The outcome of this will be awaited with interest. This item is being included with the request from GDR.”

6.12. As regards the plans for development, maintenance and repairs facilities so that the costly ophthalmic equipment and instruments are kept at all time in a proper state of efficiency, the Ministry have informed the Committee that no elaborate plan has been drawn up but service contracts have been arranged through suppliers for supply and maintenance. The Government would however, look into the possibility of development, maintenance of these workshops in subsequent plans.

As regards the total value of imports of ophthalmic equipments during the last 5 years, the Ministry of Health have stated that the exact figure of the imports year-wise or even in the last 5 years was not available, yet it was true that bulk of the ophthalmic equipments were imported. The Ministry have further stated that they might put these figures as about Rs. 2 crores per year.

6.13. The Committee have elsewhere in the Report identified the magnitude of the problem of Blindness and eye disease and suggested emergent and long term measures to be taken to alleviate the suffering of the people. It is evident that for undertaking such a far ranging programme ophthalmic instruments and other equipments would be required on a large scale. The Committee are concerned to find that at present only eye testing equipment like charts and lenses are indigenously produced, while most of the diagnostic instruments and equipment, roughly 80 per cent or more in value (Approximately Rs. 2 crores per year) are required to be imported. The Committee would like Government to critically review the position in depth in consultation with the leading ophthalmic Research Institutions, Research Laboratories under the Ministries of Science & Technology and Defence as also the Departments of Industry and Technical Development etc. with a view to formulate and implement the project for indigenous manufacture of ophthalmic instruments and equipment specially when all the raw materials required for manufacture are stated to be already available in the country.

6.14. The Committee also stress the need for developing adequate maintenance and repair facilities preferably on decentralised basis, so that the costly ophthalmic equipment and instruments are kept at all times in a proper state of efficiency.

Production and availability of Ophthalmic Glass in the Country

6.15. In a written note furnished to the Committee, the Ministry of Industry (Department of Industrial Development) have stated that ophthalmic glass blanks are the raw material for production of spectacle lenses and sunglasses. Earlier the entire requirement of ophthalmic glass blanks was being met through imports. Messrs. Bharat Ophthalmic Glass Limited was set up in the Public Sector at Durgapur with Russian collaboration, and it started commercial production in November, 1968. At present, it is the only manufacturer of ophthalmic glass blanks in the country. The production of ophthalmic blanks achieved by the Company year-wise since commencement of commercial production is as follows:—

	Year	Production	(In tonnes)
	1968-69 .	1.49	
	1969-70 .	3.08	
Note from Ministry Industry	1970-71 .	15.93	
	1971-72 .	26.63	
	1972-73 .	63.00	
	1973-74 .	28.98	
	1974-75 .	48.97	
	1975-76 .	112.94	
	1976-77 .	112.77	

6.16. Subsequently, the Ministry of Health in another note furnished to the Committee amplified the position as follows:

The quantity and value of imports and indigenous production at the Bharat Ophthalmic Glass Limited, Durgapur, during the last five years are given below:—

Year	Indigenous production		Imports	
	Quantity (in tonnes)	Value Rs. (in lakhs)	Quantity (in tonnes)	Value Rs. (in lakhs)
1971-72	26.63	5.31	391.23	51.22
1972-73	63.00	14.20	343.09	44.45
1973-74	28.98	11.48	161.10	28.35
1974-75	48.97	22.46	196.27	36.81
1975-76	112.94	61.50	300.00	67.00
1976-77	112.77	N.A.		

6.17. On the basis of the above figures, the requirement of ophthalmic glass met out of indigenous production and also imports have been worked out on percentage basis, which is as follows:—

Year	Percentage of requirement met from indigenous supply at BOGL	Percentage of requirements met out of imports	
		Quantity	Value
1971-72	6.37%	9.40%	93.63%
1972-73	15.20%	24.20%	84.50%
1973-74	15.25%	28.82%	84.75%
1974-75	20.00%	37.90%	80.00%
1975-76	27.35%	47.86%	72.65%
			52.14%

6.18. It will be seen from the above that with the increase in indigenous production over the years, the requirements of ophthalmic glass, in the terms of value, met out of imports has come down from 90 per cent in 1971-72 to 52 per cent in the year 1975-76. It is expected that approximately 50 per cent of the requirement of ophthalmic glass will be met out of imports until BOGL are able to increase their production by developing the continuous process technology for manufacture of ophthalmic glass.

6.19. In regard to the availability of ophthalmic glass in the country, the representative of the Ministry of Industrial Development during evidence in October, 1977 informed the Sub-Committee of the Estimates Committee (1977-78) on Prevention and Control of Blindness as follows:

“We have conducted a survey for ophthalmic glasses and according to that, in the current year, in round figures, the country's requirements, would be of 800 tonnes. We have one public sector company—Bharat Ophthalmic Glass Company at Durgapur and they produce at the moment, a little over 100 tonnes. The balance of our requirement has to be imported. We are quite willing to do this. In fact, the Bharat Ophthalmic Glass Company is the canalising agency for importing ophthalmic glasses. But the real problem is that there is unhealthy competition from people who are illegally making ophthalmic glasses and ophthalmic lenses out of glass sheet. The sheet glass is just an ordinary glass. For eye glasses we require a glass which ought to be homogeneous in character so that there are no reflections. Last year, in order to meet the country's ophthalmic requirement, we had imported 300 tonnes so that we have total 400 tonnes, thus meeting 50 per cent of our requirement.”

6.20. To a point raised by the Sub-Committee as to why full requirements of ophthalmic glass were not imported, the witness further stated:

“What we imported last year that could not be sold. At the end on the year, 100 tonnes remained unsold. This is because of the unhealthy competition with the sheet glass manufacturers which is very cheap. The only answer to this is to ban the use of sheet glass and to make stringent provision to prosecute those who indulge in this. These glasses can easily be tested. We can find out whether the glass in the spectacle is sheet or ophthalmic glass:

Ophthalmic dealers ought to be licensed.”

6.21. When asked whether there was any coordination between the Ministries of Health and the Industrial Development in regard to the supply of ophthalmic glass, the Secretary, Ministry of Health informed the Sub-Committee that “in this matter there has been no coordination.”

6.22. Elaborating the point further the representative of the Dr. Rajendra Prasad Centre for Ophthalmic Sciences, New Delhi further stated thus during evidence:

“We have already projected our demand to the Ministry of Industry and we have requested them to increase the licensing capacity either in the private sector or in the public sector or in both the sectors.”

“In five years, our demand will go up from 800 tonnes to 1,081 tonnes. There is an increase of 5 per cent every year.”

“As a matter of fact, we have also advised them to see our installed and production capacity and import the rest of it. That is how we will be able to eliminate the sheet glass. The imported blanks are not much more costly than the sheet glass. But the Durgapur blanks are very costly as compared to sheet glass. Therefore, we have advised them to import more glass till the time we have installed capacity to meet our needs. We have already sent this advice to the Ministry of Industry.”

6.23. Regarding the measures that have been taken to eliminate the use of sub-Standard glasses which are stated to be prepared from the sheet glass, the Ministry in their reply have further stated as follows:—

“The Government of India has finalised a legislative bill for using ophthalmic lenses with ISI specifications. This legislation aims at banning the use of any other lenses. The bill has been approved by the Law Ministry and is being circulated amongst

the States for concurrence as well. As soon as the concurrence of the States is obtained, the same will be introduced in the Parliament. It is hoped that the concurrence will be obtained by the middle of November this year."

6.24. On the question of switching over to continuous process technology, the representative of the Ministry of Industrial Development further informed the Sub-Committee of the Estimates Committee (1977-78) in October, 1977 during evidence as follows:

"The real problem would be to switch over from the batch technology to the continuous process technology. We do not have this technology within India. Our effort to locate this and purchase from abroad has so far failed. Currently we are discussing this matter with a firm in GDR. During the recent discussion, the technical representatives of this firm from GDR came to India and they had promised a detailed report on this. This is now awaited. When we switch over to continuous process technology, our cost of production will be comparable with international standard and we would be able then to supply more of this. But until then we assure the Ministry of Health and yourself that we will co-operate with them in importing whatever is required because this is a health accessory and there should be no problem. The real problem is the competition from the sheet glass people. This has to be stopped. Our appreciation is different. In spite of importing 300 tonnes, we are not able to sell them. If the price of that sheet glass is the same, then we should be able to sell. But the real problem is how to stop the manufacture from sheet glass and making this available to the people. That can only be done by banning the use of sheet glass and take stringent action against those who violate the law."

"It is not so much the problem of glass. As far as even our present glass is concerned, there is no problem about its quality, but our output is very little. We have hardly 45 per cent recovery from the raw material. Now it is this which makes our cost of production more than $2\frac{1}{2}$ times the international price, as you have pointed out."

6.25. On the question of technology the witness added:—

"We have come to a conclusion that the technology taken over by us from the Soviet Union is obsolete. All the world over, there is another technology which is called the continuous

process technology. The difference between the two is that in the case of batch process technology, the recovery is only 45 per cent whereas in the case of continuous process technology, the recovery is about 90 per cent. It is this thing which explains the difference in the cost of production about which you remarked a little while ago. We have been trying to get continuous process technology. But we have not been able to evolve it indigenously."

6.26. When asked as to what was the range of price of imported ophthalmic glass per tonne, the representative of the Ministry of Industry stated during evidence:—

"practically double of that. We produced 112 tonnes and that cost us Rs. 61.50 lakhs...."

6.27. Asked about the production cost of BOGL, the witness added:

"Last year, we spent Rs. 66 lakhs for importing 300 tonnes. The price per tonne would be Rs. 22,300 per tonne."

6.28. Subsequently Ministry of Industry (Department of Industrial Development) in their note dated 29th November, 1977 have *inter-alia* submitted as follows on the working of M/s. Bharat Ophthalmic Glass Ltd., Durgapur:—

"M/s. Bharat Ophthalmic Glass Limited originally known as Ophthalmic Glass Project, was set up in 1964 as a part of the National Instruments and Ophthalmic Glass Limited. The project was set up with technical and financial assistance from USSR under 500 million Roubles Credit Agreement to manufacture the following products:—

- 1. Ophthalmic Glass Blanks 300 tonnes
- 2. Ophthalmic Lenses 10.3 million pieces

The initial estimated cost of the project in 1964 was Rs. 260 lakhs. Due to various reasons the erection and commissioning of the plant was delayed. Due to this delay, devaluation of rupee in 1966 and additions of other equipments, not originally included in the Project and Housing Colony, the cost of Project increased to Rs. 547.41 lakhs. It may be added that even in the initial stage of approving the Project based on the cost of Rs. 260 lakhs, Finance Ministry apprehended that the Project would be uneconomical. However, the Project was approved by the government with a view to provide Ophthalmic Blanks and the Lenses as an important public health measure.

A new company, namely M/s. Bharat Ophthalmic Glass Limited was incorporated on 1-4-1972 to take over the Plant with a view to have a better administrative control. As the company was incurring losses since its inception, a Techno Economic Committee was appointed in 1972, to study the working of the company and to suggest the measures for making the company a viable unit. The Committee came to the conclusion that with the existing equipment, maximum production achievable would be only 200 tonnes of Ophthalmic Blanks and 4 mln. pieces of Ophthalmic Lenses per annum. Commercial production of this plant was established at the end of 1968—in the Glass Department from 1-9-1968 and in the Lens Department from 1-11-1968.”

6.29. Giving the production trends and production cost *vis-a-vis* imported price, the Ministry have stated:—

Taking 150 tonnes as the Operating capacity, the production trends are indicated below for the years 1974 to 1977 and for the current financial year.

Year	Weight	Production As per cent of capacity	Value (Lakhs)
1974-75	51.5	34.4	28.52
1975-76	128.2	85.5	75.53
1976-77	130.7	87.0	68.34
1977-78	43.34	57.8	30.94
(April to Sept. 1977)			

V Cost of production and selling prices as compared to cost of imported glass and their selling prices for different varieties:—

Item	Cost of production per kg.	Selling price in- digenous per kg.	c.i.f. im- ported per kg.	Landed Duty paid prices im- ported per kg.	Selling prices imported per kg.
White Rough Blanks*	Rs. 38.00	19.00	33.73	35.75	
Blank Tinted*	Rs. 70.00	30.00	53.25	56.45	
Flint Buttons*	Rs. 120.00	98.00	173.95	184.40	

*Cost of production of White and Tinted Rough Blanks and Flint Buttons is not calculated separately. However average cost of production for the year 1975-76 is calculated and is Rs. 85.82 per kg.

6.30. As regards the reasons for low capacity utilisation and poor economic performance, the Ministry of Industry in their note stated that the main reasons for under-utilisation of capacity have been erratic thermal behaviour of Ceramic Pots, erratic supply of coke oven gas, labour unrest, low productivity and the present batch technology which is highly labour and capital intensive. Certain steps are stated to have been taken to make the unit economically viable, such as, capital restructure, improvements in thermal stability of Ceramic Pots, diversification.

6.31. The Ministry have in their note added that:—

“As the present batch process technology for the manufacture of Ophthalmic Glass has proved to be out-moded and uneconomical, it was recognised that BOGL should shift to the modern technology namely Continuous Process Technology. Since the efforts made to obtain overseas collaboration of this technology has not been successful, the company has decided to develop this technology of its own in collaboration with CGCRI and with financial participation by the National Development Research Corporation on 50:50 basis. Government has approved the company taking up the experimental project involving an investment of Rs. 49/- lakhs for development of this technology and for production of 300 tonnes of Ophthalmic Lenses by this process. The Technical Team went abroad in February, 1977 in search of suitable equipment for the development of this technology and also to try if some technical collaboration is available. The company was able to get an offer from M/s Glasswork Schott and Gen. Jena, a GDR firm for foreign collaboration. It was also possible for the technical team to locate suitable electric furnace, feeder and press to develop this technology in case the proposed foreign collaboration does not materialise.

BOGL is now further in correspondence with G.D.R. authorities in regard to the details of the proposal for foreign collaboration.”

6.32. With regard to the efforts made to boost domestic output of Lenses Blank and discourage their imports in order to save foreign exchange, the Minister of Industry stated in reply to Lok Sabha Starred Question No. 217, dated 30-11-1977 that BOGL was allowed to enhance its capacity from 300 M. Tonnes to 600 M. Tonnes per annum in 1976. The company was making efforts to import the latest continuous process technology, or, in the alternative, develop the technology indigenously in collaboration with Central Glass and Ceramic Research Institute to increase the domestic production. It was expected that after the adoption of the continuous process technology, BOGL would be able to meet the anticipa-

ted demands of Ophthalmic Blanks in the country. Till then the gap between demand and supply would be met through imports. During the last three years only one application from a foreign majority company was received in 1975, for the manufacture of Ophthalmic Blanks in the country. Since the item of manufacture was not included in Appendix I of the Licensing Policy, 1973, and was, therefore, not open to foreign companies, the proposal of the company was not approved.

6.33. The Committee note that the entire requirements of ophthalmic glass blanks were met through imports till 1968-69 when Bharat Ophthalmic Glass Limited, a public sector company, started commercial production with Soviet collaboration. The indigenous production which constituted 6.37 per cent of the total requirements in 1971-72 rose to 27.35 per cent in 1975-76. The Committee are informed that in absolute terms as against the country's requirement of 800 tonnes of ophthalmic glass during the current year (1977), the indigenous production accounts for only a little over 100 tonnes. During 1976, in order to meet the country's requirements, of ophthalmic glass, 300 tonnes of ophthalmic glass had been imported but out of that quantity at the end of the year 100 tonnes remained unsold because of the unhealthy competition from sheet glass which is also at present being used for the production of eye glasses. The Committee have further been informed that to eliminate the use of sheet glass and other sub-standard glasses for production of ophthalmic lenses Government have finalised a bill providing for the use of ophthalmic lenses with ISI specifications and banning the use of any other glass for the purpose. The bill, it is stated, is being circulated amongst the States for their concurrence and as soon as their concurrence is received, it will be introduced in Parliament. The Committee would stress that special efforts may be made to process the necessary legislation in this regard through various stages expeditiously so that the use of the sub-standard glass for the manufacture of ophthalmic lenses is eradicated from the country at the earliest.

6.34. The Committee are concerned to note the wide gap between the demand and availability of ophthalmic glass in the country. As against the installed capacity of 300 tonnes in the Bharat Ophthalmic Glass Limited (BOGL), the Committee find that the operating capacity of this undertaking is now taken to be only 150 tonnes and the production is even less than reduced capacity, it being of the order of 112 tonnes. The main reason for under-utilisation of the capacity of BOGL are stated to be *inter alia* erratic thermal behaviour of ceramic pots, erratic supply of coke oven gas, labour unrest and low productivity. The Committee are informed that certain steps have been taken by the Government to improve the capacity utilisation to make this undertaking economically viable. In view of the heavy dependence of the country on imports for meeting its requirements of ophthalmic glass, the Committee cannot over emphasise the importance of maximising production of ophthalmic glass in this under-

taking and would stress that Government should earnestly look into the various constraints on production and take concerted measures to remove them at the earliest so as to raise its production to the maximum level.

6.35. The Committee are informed that the present batch process technology is another serious constraint on production of this undertaking. This technology is admitted to be now "out moded and uneconomical" and it has been recognised by the Government that BOGL should switch over to modern technology, namely continuous process technology, for the manufacture of ophthalmic glass. The Committee are informed that Government have already approved an experimental project for this undertaking involving an investment of Rs. 49 lakhs for the development of the modern technology and for production of 300 tonnes of ophthalmic lenses by this process. A technical team, it is stated, was also sent abroad to negotiate for technical collaboration with foreign manufacturers for this purpose. The Committee, however, were informed during evidence in October, 1977 by a representative of the Ministry of Industry that "we have not been able to evolve it (continuous process technology) indigenously." The Committee also note that during the last three years one application received from a foreign majority company in 1975 for the manufacture of ophthalmic blanks in the country was not approved as this item of manufacture according to the licencing policy, 1973, was not open to foreign companies. In view of the facts that the gap between demand and supply of ophthalmic glass is steadily widening, the indigenous production capacity is woefully inadequate and indigenously available technology is outmoded and uneconomical, and that the country is heavily dependent on imports for meeting its requirements which resulted in an outgo of foreign exchange amounting to Rs. 37 lakhs in 1974-75 and Rs. 67 lakhs in 1975-76, the Committee would like Government to examine the various aspects of this matter critically and acquire the latest technology and to augment the indigenous capacity without any further delay to produce adequate quantity of ophthalmic glass indigenously in the larger and long-term interests of the country.

6.36. The Committee note that the selling prices of indigenously produced ophthalmic glass are higher than the prices of the corresponding qualities of imported glasses. They were informed during evidence that the production cost of BOGL was nearly double that of the imported glass. The reason for this high production cost of BOGL also is stated to be, among other things, the obsolescent technology being used by the undertaking. The Committee feel that pending switching over to the continuous process technology Government should make all possible efforts to bring down the cost of production of ophthalmic glass by BOGL. The high cost of production at BOGL makes it all the more necessary for the Government to arrange to have the latest technology for the production of ophthalmic glass by the undertaking at the earliest.

CHAPTER VII

FUTURE PLANS FOR PREVENTION OF BLINDNESS

(i) National Policy Statement on Blindness

7.1. The Joint meeting of the Central Council of Health and Family Planning held in April 1975 resolved:—

“That the Government of India should adopt a National Policy and evolve a comprehensive plan of action and take preventive and curative measures against visual impairment, blindness and for rehabilitation of persons afflicted thereby.”

7.2. Subsequently as a part of assistance to the country in the field of prevention of blindness, a WHO consultant Dr. B. Nizetice visited India from 14 April, 1975 to 22 May, 1975. In his report submitted to WHO, he also advocated for a National Policy on Blindness as under:—

“Any action in the field of public health, ophthalmology should stem from a national policy statement on the implementation of the general welfare policy of the Government and on the strengthening of professional expertise. The statement should be comprehensive, should have a long term plan approach, provide for a phased programme and introduce multi-disciplinary action. It should be endorsed jointly by the health, social welfare and educational authorities.”

7.3. The National Society for the Prevention of Blindness organised a National Symposium on “community ophthalmology” on 8-9 March, 1975, which was attended by members of the society, ophthalmologists of repute, representatives of the Ministry of Health and Family Planning, representatives from the Ministry of Education and Social Welfare, Director General of Health Services, World Health Organisation, National Association for the Blind and the Indian Council of Medical Research etc. The recommendation made at the symposium on National Policy on Blindness was as follows:—

“The Government of India may be urged to adopt a comprehensive National Policy Resolution encompassing all aspects of Community Ophthalmology. The draft of the statement proposed by the Secretary General of the National Society for the Prevention of Blindness, mentioned therein the actions designed was adopted.”

7.5. One of the eminent ophthalmologist who appeared before the Committee in his evidence gave his views thus on the question of formulation of National Policy on Blindness:—

“It is for the first time that the Nation has drafted a clear plan of action and is attempting to make an organised effort within its limited resources. The efforts of local bodies, state governments, the central government, the international agencies and the voluntary agencies need to be dovetailed in a manner that all resources are pooled and efforts are complementary to each other. The Govt. needs to issue a national policy statement fully committing itself to the Prevention of Visual Impairment and Control of Blindness. It is in this connection that I mooted the suggestion of an autonomous National Board....”

7.6. When asked whether the Government had any plans for bringing out a white paper on the prevention and Control of blindness, the Secretary, Ministry of Health and Family Planning during evidence stated:—

“The programme and plan of action is before us. Beyond that we do not propose to have any white paper. Our plan of action as envisaged, for which the funds exist, has already been made public and people know it. A number of questions have also been answered in Parliament.”

7.7. In a subsequent written note furnished by the Ministry of Health, Government views on the formulation of a National Policy have been stated as under:—

“The National Programme of Action as formulated by the Ministry of Health represents the National Policy. This National programme has not been formally placed before the Parliament yet and there does not seem to be any necessity of placing the same in the Parliament itself. However, through answers to various questions on this subject, the Parliament is aware of this Programme.”

7.8. The Committee note that the question of formulating a National Policy on the control and Prevention of Visual Impairment and Blindness has been advocated at various forums from time to time. They have, however, been informed that the National Plan of Action on Blindness formulated by the Ministry of Health, represents the National Policy. The Committee recommend that National Policy on Visual Impairment and Prevention of Blindness be formulated in depth and laid on the Table

of the House to enable the Members to express their views on this matter of National importance and provide a firm guideline for perspective planning and action.

(ii) National Plan for the Control and Prevention of Visual Impairment and Blindness

7.9. The Ministry of Health has formulated a long term perspective plan for blindness, provision of adequate ophthalmic care, curative, preventive, promotive and rehabilitative services. The Plan has been approved for implementation in phases, commencing from the financial year 1976-77. The programme will be centrally sponsored to start with. The salient and essential features of the National Plan are as under:—

Provision of Diagnostic and Treatment Facilities

“At present there are hardly any facilities available in the rural and taluka and even district hospitals for diagnostic and treatment purposes. It is proposed that all the Primary Health Centres in the country should be so equipped in phases so as to (a) provide a base for ophthalmic health education in the field of eye care; (b) screening the cases requiring specialised ophthalmic care; (c) render treatment for minor ailments of the eye; and (d) provide for ophthalmic health services, particularly to the pre-school and school going children.

The Primary Health Centres doctors will have to be given 4 to 6 weeks training in various medical colleges. Every PHC will have to be provided with an ophthalmoscope and other essential equipment costing about Rs. 3,000 per centre. Sufficient number of beds are already available at every PHC and the existing beds can be used in emergencies. It is estimated that the expenditure for equipment in the Primary Health Centre would come to about Rs. 33.00 lakhs per 1100 units in V Plan and the remaining will be upgraded in VI plan.”

II STRENGTHENING OF DISTRICT/TALUKA HOSPITALS

The intermediate level of services

“Every District and Taluka hospital in the country will have to be strengthened to provide ophthalmic care services. In course of time, at least one ophthalmic surgeon and one or two ophthalmic technicians will be permanently posted in such hospitals as do not have them already. The States will be persuaded to open Eye Departments in all the hospitals

and no additional expenditure by the Government of India is likely to be incurred under this head except for providing one time assistance for equipment at Rs. 50,000/-per hospital i.e. a total of Rs. 75 lakh in this plan period (150 units) the remaining will be taken up in subsequent plan period."

Mobile Ophthalmic Units

It is proposed to establish 80 mobile ophthalmic units by the end of the 6th Plan of which 30 units will be established by the end of this Plan. Each mobile unit will cover about 5 districts. The main purpose of these units would be:—

- (i) to provide medical and surgical treatment for the prevention and control of eye disease;
- (ii) to detect early visual defects;
- (iii) to provide for general survey for prevalence for various eye diseases;
- (iv) to educate people in the method of prevention of eye diseases and proper care of the eyes in order to preserve eyesight; and

These mobile units will function under the control of the Regional Director of Health of the division where they are located and who will be responsible for holding eye relief camps in various places. Recurring and non-recurring cost on these mobile units is proposed to be met by the Central Government during 5th Five Year Plan. These mobile units will also oversee the implementation of National Programme for Prevention of Blindness in the Primary Health Centre. It is expected that through the agencies, of these mobile units, it will be possible to perform about 50,000 operations in the next three years. The cost on these mobile units during the 5th Five Year Plan period will be Rs. 120 lakhs—non-recurring and Rs. 75 lakhs, recurring i.e. a total of Rs. 195 lakhs

The Central Level of Services

(i) Medical Colleges

The State Governments will be requested to upgrade the ophthalmic Departments of various medical colleges by providing proper equipment and staff and to convert them into Community Ophthalmic Care Units. 50 per cent of the cost of equipment will be met by the Government of India. The

total expenditure is estimated to be of the order of about Rs. 2 crores (one crore for the Govt. of India) out of which Rs. 65 lakhs will be required in this Plan. The operational costs will be met by the State Governments as non-plan expenditure including staff and beds.

(ii) *Regional Institutes*

It is also proposed to strengthen and equip 6 Institutes for technical and other services and to convert them into Regional Institutes. The main objectives of these Institutes would be:—

- (i) to evolve and demonstrate the methods of rendering a high effective community ophthalmic service through an integrated approach of promotive, preventive, curative and rehabilitative measures with environmental and other local factors.
- (ii) to provide for refresher courses to practising ophthalmologists and for the training of ancillary ophthalmic personnel in the field of community ophthalmology.
- (iii) to stimulate and provide facilities for research in ophthalmology at a high level of competence.
- (iv) to train ophthalmic specialists; and
- (v) operate eye banks.

The operational costs will be met by the State Governments as non-plan expenditure.

(iii) *National Institute*

In order to provide technical leadership and undertake long term planning and evaluation of the programme, undertake ophthalmological investigations and develop training patterns in ophthalmology both in para-medical and ophthalmic specialists and conducting research, it is proposed to strengthen Dr. Rajendra Prasad Centre for Ophthalmic Sciences at A.I.I.M.S. It will act as an apex organisation for referral services for the whole country and provide training at a very high level. It has already 120 beds which will require to be augmented. The total expenditure on strengthening the Centre would be of the order of about Rs. 170 lakhs including equipment, out of which Rs. 40 lakhs will be provided during V Plan.

Financial Assistance from abroad

Various international agencies have evinced keen interest in the programme for Prevention of Blindness. The World Health Organisation's theme for 1976 is "Foresight Prevents Blindness". In view of

this, substantial international aid is likely to be available for the implementation of the programme. The International Agency for the Blind and Royal Commonwealth Society for the Blind have indicated in informal observations that according to their present resources they may be able to give assistance of a higher order. The UNDP has also promised to help and as seed money has offered an assistance of 15,000 dollars in this year and substantially larger sums about 1.5 million dollars in the next three years. W.H.O. is taking keen interest in the development of such programmes in the region and substantial assistance can be expected from them. They have already indicated that assistance of 2.8 lakhs dollars will be available in the year 1977-78 onwards. The International agencies like SIDA, DANIDA have also shown keen interest in the National Programme for Prevention of Blindness in India and are likely to extend financial assistance in a big way. The Oxfam, West Germany, Catholic Guild, Lions International and Rotary International etc. are also likely to help.

It is estimated that Rs. 150 lakhs will be met from the existing allocations of Trachome programme and another Rs. 100 lakhs will be required as additional plan allocation. In addition the remaining amount of Rs. 250 lakhs will be met from International assistance specially earmarked for the purpose.

7.10. The rough Plan estimate on the various activities are given in the table below:—

V Plan Period

Year	(Rs. in lakhs)
	Total
1976-77	
Non-recurring	89.00
Recurring	18.05
1977-78	
Non-Recurring	142.00
Recurring	33.15
1978-79	
Non-recurring	162.00
Recurring	55.00
Total	
Non-recurring	393.00
Recurring	107.00
TOTAL	Rs. 500.00

VI Plan

Year	(Rs. in lakhs)
1979-80	
Non-recurring	165.00
Recurring	58.85
1980-81	
Non-recurring	174.00
Recurring	70.90
1981-82	
Non-recurring	174.00
Recurring	100.95
1982-83]	
Non-recurring	99.00
Recurring	101.00
1983-84	
Non recurring	95.00
Recurring	106.00
TOTAL	
Non-recurring	727.00
Recurring	417.25
TOTAL	Rs. 1144.25 lakhs

7.11. The broad details of the plan estimates activity-wise are at Appendix IX and X.

7.12. The National Plan received the approval of the Ministry of Finance (Department of Expenditure) in March 1976.

7.13. When asked during evidence whether the actual implementation of the National Plan had started the Secretary, Ministry of Health stated:-

“We will write to the State Governments. They will be requested to select the medical colleges for giving financial assistance and also the districts which they would like to be provided with equipments etc. so that we know their reactions. While the plan for giving assistance to these district hospitals and the medical colleges has been approved, we want to know whether the State Governments are prepared to give the other extra inputs required for them. We will go about setting up mobile teams in selected districts. The primary health centres would also be selected in consultation with the State Governments. Now we have got the Plan approved, we will be able to implement at least a portion of it within the next six weeks to two months. That is the minimum time required for consultation with the State Governments.”

7.14. Asked how coordination at the National and Regional level will be ensured, the Secretary, Ministry of Health observed:—

“Actually, quite a few details are to be worked out after the implementation of the programme is taken up in hand. Then the difficulties come to you face to face and then you know what is to be done to overcome a particular difficulty. For instance, in the field of leprosy, we have already got a National Advisory Committee, of which the Union Health Minister is the Chairman, with which the various Ministries, organisations and experts are associated. That gives us an occasion to find out the difficulties in the field and find out solutions therefor. Similarly, one idea could be that at the National level we might have an Advisory Committee for implementing the plans for prevention of blindness. At the State level also we could advise the State Governments to have advisory councils. The Adviser on Ophthalmology has already told you of our intention to have coordination committees at the district level with the district magistrate as the Chairman. He should coordinate the activities of the Government and the voluntary organisations at the district level so that there is no duplication of effort.

7.15. Amplifying the point further the Secretary, Ministry of Health stated:—

“We have taken some sort of advance action. We wrote a letter to the States asking them what they feel about the National Plan. . . . We have received favourable replies from a number of State Governments. . . . The States which have replied are

Assam, Gujarat, Maharashtra, Meghalaya, Sikkim, Nagaland, Mizoram, Tamil Nadu, U.P., Pondicherry, Chandigarh, Andaman and Nicobar, Tripura, Delhi and Arunachal Pradesh. They all are in agreement."

7.16. From the above details of the National Plan the Committee noted that for developing permanent three tier infrastructure for eye health care, the State Governments were required to provide manpower for the ophthalmic services at those levels which would have financial involvement to a great extent at the State level. The Committee enquired whether the State Governments had been sounded and their concurrence obtained and in case of these States which had expressed difficulties in finding budget allocations to implement the services as desired what action the Central Government proposed to take. The Ministry of Health in a written note furnished to the Committee have explained the position as follows:—

"The State Governments are being sounded and some of them have conveyed their concurrence to play their role in developing the permanent three tier infrastructure for eye health care. As the approval of E. F. C. has been received for incurring the expenditure on this plan, further negotiations will be done with the remaining State Governments to agree to these proposals;

The Ministry of Health is not envisaging any difficulty in this regard in view of the fact that the central Health Council has already unanimously accepted the implementation of this plan and at that time the State Governments responsibilities will be fully explained to them. Since the Council has Health Ministers of various State Governments as its members, the Ministry is hopeful that there shall not be any bottleneck in the implementation of this plan."

7.17. The Sub-Committee of the Estimates Committee on Prevention and Control of Blindness enquired about the progress made in the implementation of the National Plan of action on the Prevention and Control of Blindness. The Ministry of Health in a note (November 1977) have explained the position thus:—

"Since the last sittings of the Estimates Committee the plan has received the approval of the Planning Commission and Finance Ministry. During 1976-77, preparatory steps were taken to implement the programme for 1977-78. 9 Mobile Units have

already been released to the various recipients i.e.

1. Orissa .	.	.	.	two
2. Assam	.	.	.	two
3. Gujarat	.			one
4. M.P. .				one
5. Rajasthan .	.	.	.	one
6. H.P. .				one
7. Delhi .	.	.	.	one

Material for supply to the Primary Health Centres, the district hospitals and the mobile units are being purchased and the process is likely to be completed by November. The DANISH National Agency has approved the grant of Rs. 2.5 crores and the formal agreement is likely to be signed shortly. The Danish National Agency has also approved a further sum of Rs. 6.00 crores in period 1979-80 to 1983-84."

7.18. When asked to name the States which had accepted the implementation of the programme and those which had not concurred, the Ministry of Health have clarified (November, 1977) the position thus:—

"Except for Haryana, Punjab and Bihar, all other States have accepted to implement the Plan. In these States the matter is being followed up and their concurrence is likely to be received very soon. Further, officers and Ministers are contacting their counter-parts in these States and no difficulty is envisaged in getting this acceptance."

7.19. On being asked about the policy of the new Government towards the implementation of the National Plan of Action on Prevention and Control of Blindness, the Ministry have stated that "the new Government is very enthusiastic towards the implementation of this Plan."

7.20. The Sub-Committee further enquired as to how the National Programme on Blindness was likely to be dovetailed with the Rural Health Service Programme which had been enunciated by the new Government recently. The Ministry of Health in a note (November 1977) have explained the position thus:—

"In the new programme it is envisaged that there will be a community health worker selected by the community for over 1000 of population in villages. These community health workers will

NOTE : Since the submission of this note Haryana, Punjab and Bihar have communicated their acceptance in principle.

be given in their kits two or three medicines which are accepted for the common eye ailments. They will also be given training adequate enough for detection of visual difficulties at an early stage and for treating minor ailments. This has been included in their curriculum for training that is being imparted at the primary health centres.

Second tier of the programme envisages the employment of multipurpose workers for the delivery of health care services to the population. In this also adequate training in eye diseases is being imparted. Multi-purpose workers will be able to help in the delivery of Vitamin 'A' to the vulnerable age group to prevent blindness due to this deficiency, training minor ailments, detect at an early stage the visual disabilities, guide the rural health worker, help in the arrangement of eye camps and give eye health education to the public. They will also be able to advise when and where to send the referrals."

7.21. In view of the proposed termination of the Fifth Plan in 1977-78, the Sub-Committee of the Estimates Committee (1977-78) further enquired what proposals had been made or were being made in the proposed Sixth Plan for prevention and control of blindness and whether any rolling plan was being prepared for the National Programme on Blindness. The Ministry of Health in their note (November, 1977) have stated:—

"The provision made for the National Plan of Action for Prevention and Control of Blindness in the Fifth Plan is Rs. 625.00 lakhs including Trachoma and not Rs. 500 lakhs because Rs. 500 lakhs represents a figure excluding for trachoma.

A provision of Rs. 1144.25 lakhs was made in the Sixth Plan which has been revised to Rs. 1469.40 lakhs because it is proposed to meet the recurring cost of the 30 mobile units created during the period of 1976—79 in the Sixth Plan, and also because Rs. 100.00 lakhs has been included for continuing activities of Trachoma.

It has been decided that the Fifth Plan will be terminated in 1977-78. A Rolling Plan is being prepared for the National Plan on Blindness. Allocations required have not been finalised. In the original submission it was stated that the Plan will be reviewed at the end of Vth Plan i.e. 1977-78 but since the Plan is terminated in 1977-78 the experience gained will be too little for any evaluation at the end of the Fifth Plan. Since the concept of Rolling Plan is evolved, there will be an automatic review at the end of each year of the next Plan and, therefore the original decisions to review the Plan at the end of 1978-79 will still hold good."

7.22. As regards the point whether any long-term perspective plan had been drawn up to tackle the problem of Prevention and control of blindness on long-term basis, it has been stated as follows:—

“A long-term perspective plan is being drawn up to tackle the problem of prevention and control of blindness spread over a period of 20 years. In this it is too early to say what will be the non-recurring requirements but the Plan has been divided into 3 sectors:—

- (i) Peripheral Sector—It is estimated that for materials and supplies, the requirement will be in the neighbourhood of Rs. 120.00 millions.
- (ii) Intermediate Sector—The requirements for materials and supplies in this Sector will be Rs. 120 millions for equipping district and sub-divisional hospitals.
- (iii) Central Sector—The requirement for material and supplies for strengthening medical colleges, regional institutes and the national institute shall be another Rs. 120.00 millions. The capital cost for the regional institutes shall be near about Rs. 252.00 millions. These provisions are proposed to be included in the Plan on Long-Term perspective basis.”

7.23. The Committee note that a National Plan for the Control and Prevention of visual impairment and blindness, formulated by the Ministry of Health. The National Plan envisages the Provision of diagnostic and treatment facilities at the peripheral level of services; strengthening of District/Taluka Hospitals; establishment of Mobile Ophthalmic Units; the strengthening and provision of Central Level of Services viz., Medical Colleges, Regional Institutes and strengthening of the Dr. Rajendra Prasad Centre for Ophthalmic Sciences at A.I.I.M.S. New Delhi. The Committee further note that for implementation of the National Plan, a provision of Rs. 625 lakhs had been proposed for the Fifth Five Year Plan (1974—79) and Rs. 1469.40 lakhs had been proposed for the Sixth Five Year Plan (1979—84). The Committee have been informed that substantial international assistance is also likely to be available for the implementation of the programme. Now that the National Plan on Blindness had received the approval of the Planning Commission and the Ministry of Finance and all the State Governments had communicated their acceptance of the National Plan the Committee desire that vigorous and sustained efforts should be made to implement the plan as per a time bound programme, and the various programmes undertaken as part of the National Plan and

the results evaluated at the end of each year with a view to learning lessons and taking such remedial measures in the light of experience as may be found necessary.

7.24. The Committee would recommend that an effective mechanism for regular monitoring and evaluation of the various programmes under the National Plan may be set up to keep a close watch over implementation of the Plan and achievement of the desired goals and to effect timely improvements in the implementation of the programme in the field.

7.25. The Committee note that a long term perspective plan is being drawn up to tackle the problem of prevention and control of blindness spread over a period of 20 years. The plan has been divided into three sectors namely Peripheral Sector involving an outlay of Rs. 12 crores, Intermediate Sector involving an expenditure of Rs. 12 crores for equipping district and sub-divisional hospitals and Central Sector involving an expenditure of Rs. 12 crores for strengthening medical colleges, regional institutes and the national centres. Besides, the capital cost for the regional institutes was estimated to be near about Rs. 25 crores.

7.26. As already stated that elsewhere in the report, the Committee feel that a period of 20 years is too long for tackling the problem of prevention and control of blindness. They would like the Government to review the proposed long term perspective plan so as to reduce the period of the plan. The Committee would also like the Government to draw the detailed schemes for each of the three sectors of the plan and take necessary steps to ensure that the progress of each sector is well co-ordinated with the other sectors and optimum results are achieved most economically and speedily within the time frame of the plan.

(iii) Dr. Rajendra Prasad Centre for Ophthalmic Sciences, New Delhi

Status and Administrative Powers

7.27. Giving the status, administrative powers and the role of Dr. Rajendra Prasad Centre for Ophthalmic Sciences, New Delhi, the Ministry of Health in a written note have stated that the question of setting up of a National Institute of Ophthalmology was initiated by the professional bodies like All India Ophthalmic Society, Expert Group of Ophthalmology under the Indian Council of Medical Research and the National Society for the Prevention of Blindness in India and take up by the Government of India for consideration as early as 1963. An informal Committee was constituted at the suggestion of the Director General of Health Services. The Committee decided that this Institute should be named as

Dr. Rajendra Prasad National Institute of Ophthalmology and should be autonomous body. The matter was considered by the Government of India and it was decided that the proposed Centre should be located in the campus or in close proximity of All India Institute of Medical Sciences. The following administrative and financial proposals emerged :—

- (1) That the name for the proposed institutes will be Dr. Rajendra Prasad Centre for Ophthalmic Sciences which will be a constituent unit of All-India Institute of Medical Sciences and that the department of Ophthalmology of AIIMS will merge with this Centre.
- (2) That the Centre will be governed by the rules, regulations and act of the AIIMS as a constituent Unit.
- (3) That a Standing Committee of the Institute body consisting of seven members will be created to look after the affairs of this Centre.
- (4) An Officer Incharge, called the Coordinator will be appointed for the purpose. The Director, AIIMS will be the Chief Executive Officer.
- (5) That the Coordinator of the Centre will be invited to attend all the meetings of the Standing Committee for this Centre. He will also be invited to attend all the meetings of the Selection, Building, Finance Committee, Governing Body and Institute Body when matters of this Centre are discussed.
- (6) That the budget of this Centre will be formed on the recommendation of the Standing Committee for this Centre as a separate item in the overall budget of the AIIMS. An account in respect of this Centre will be maintained by the Institute.
- (7) That in the matter of day-to-day administration the co-ordinator of the Centre will exercise power of the Director, AIIMS that can be delegated to him under the rules of AIIMS.
- (8) That the powers of all disciplinary actions under Director, CCS (CCA) Rules will be exercised by the Director, AIIMS and other competent authorities under the rules and regulations of the Institute.
- (9) That the basic sciences staff of the Centre for Ophthalmic Sciences and staff of other Branches of the Centre like Preventive Ophthalmology, rehabilitation etc. will be under the control of the Coordinator of the Centre under the overall jurisdiction of the Director, AIIMS.

- (10) That the other departments of the AIIMS will give as far as feasible facilities existing in those departments to the staff of the Centre for Ophthalmic Sciences for the performance of their work. If due to work load in these departments it is not possible to accommodate these workers, the Centre will be permitted to purchase such equipment, funds permitting.
- (11) That the Centre will have 200 beds to begin with to be expanded to 300 by the end of the Fourth Plan besides private wards for its effective functioning. One of the professors of the Centre for Ophthalmic Sciences will be its Medical Superintendent.
- (12) That the Centre for Ophthalmic Sciences will have advisory body appointed by the Director which will be constituted as under:
 - (a) Director, AIIMS (Chairman).
 - (b) Co-ordinator of the Centre.
 - (c) One of the three Professors who are proposed to be appointed in the Centre by rotation (Secretary).
 - (d) Dean, AIIMS.
 - (e) One Professor or Associate Professor of the AIIMS in basic sciences by rotation *inter se*.
 - (f) One of the Professors or Associate Professors of the Pathological Sciences in AIIMS by rotation *inter se*.
 - (g) One representative of Pathological Sciences from the Staff of the Centre for Ophthalmic Sciences by rotation *inter se*.
 - (h) One Professor from clinical disciplines of the AIIMS, *i.e.*, either Professor Medicine or Professor of Surgery by rotation.

The Advisory Committee will be constituted every year.

- (13) The Co-ordinator of the Centre will be a permanent member of the staff-council of the AIIMS.

Background to the issue of orders of President, AIIMS

7.28. Giving the background of the orders of the President, AIIMS, dated 10 January, 1975 which was issued to facilitate its working, the Ministry of Health in a written note have stated that the Chief Organiser and Professor Ophthalmology of Dr. R. P. Centre had been representing that the Centre should have autonomy in administrative, financial and other matters. The Institute and its various committees had from time to time,

considered various aspects of decentralisation of powers to facilitate day-to-day working of the various departments. It was felt that all these matters should be reviewed afresh in a comprehensive manner preferably by a Sub-Committee of the Institute so as to lay down guidelines for the smooth functioning of the Departments including the Hospital and Centres like Dr. R. P. Centre consistent with the Rules and Regulations of the Institute with a view to make rapid progress and achieve objectives of the Institute. It was, however, emphasised that the Centre will continue to remain as integral part of the Institute, just like other Departments and specialised units, for the Institute and to progress as an organic whole and promote an inter-disciplinary course to the study of the problem. While in certain matters, the Centre may have to be given enough powers to discharge day-to-day functions in keeping with general policies of the Institute and in achieving excellence in creating academic and scientific endeavour, at the same time, it should not be burdened with administrative and financial routine. It has also to be considered that in an Institution of this type, certain uniformity had to be observed for the implementation of the policies and therefore, there is to be a certain degree of centralised control in some of the administrative and financial matters. At its meeting held on the 29th May, 1974, the Institute Body constituted a Group under the Chairmanship of Shri Kartar Singh to examine in depth the whole question of working relationship with the main Institute and Dr. R. P. Centre and suggest a suitable pattern. The status of Dr. R. P. Centre was clarified and the legal opinion obtained from the Ministry of Law. According to the opinion given by the Ministry of Law, the All India Institute of Medical Sciences as a corporate body is a single entity and the AIIMS as the Institute is engaged in teaching research and medical care. Dr. R. P. Centre is thus an integral part of the AIIMS. However, in view of the special status given to it Dr. R. P. Centre for Ophthalmic Science should be given reasonable autonomy within the overall provisions of the AIIMS Act, 1956, and rules and regulations thereunder so that it may function in an effective manner to achieve the objectives with which it has been set up. The Committee recommended that Dr. R. P. Centre is a constituent unit of the corporate body of the AIIMS. It is a special unit of the corporate body for the overall development of high grade ophthalmic sciences at the National level which was the basic objective of the original proposal of National Institute of Ophthalmology. The Centre shall be governed by the Standing Committee of the Institute. For day to day working in respect of matters concerning general administration, stores, accounts, etc. the Centre will have staff of its own.

7.29. The report of the study group was considered by the Institute. After considerable discussions, the Institute decided to authorise the President of the Institute to finalise the working arrangements based on the recommendations of the study group and the comments thereon. In

accordance with the aforesaid decision of the Institute, the President of the Institute issued an order dated the 10 January, 1975 (*vide Appendix—XI*) indicating the arrangements for the functioning of Dr. R. P. Centre *vis-a-vis* AIIMS which stipulated as follows:—

“Whereas the Dr. Rajendra Prasad Centre for Ophthalmic Sciences has acquired an identity of its own, and with a view to facilitate and improve its working, it is necessary to ensure effective autonomy to the Centre within the overall provisions of the All India Institute of Medical Sciences Act, 1956 and rules and regulations framed thereunder;

Now, therefore, the following arrangements are ordered for the functioning of the Rajendra Prasad Centre for Ophthalmic Sciences *vis-a-vis* the All India Institute of Medical Sciences:—

- (1) The budget of the Institute shall be in two parts namely, (i) the budget of the main Institute and (ii) the budget of the Centre. The budget of the Centre shall be prepared and operated upon by the Head of the Centre.
- (2) The development plans of the Institute shall be prepared into two parts namely (i) the development plan of the main Institute and (ii) the development plan of the Centre and the allocation shall be so made that they shall not adversely affect each other.
- (3) The agenda items relating to the Centre shall be prepared by the Head of the Centre and sent to the Member-Secretary for inclusion in the agenda. The copies of the agenda papers and proceedings of the Standing Committee shall also be supplied to the Head of the Centre who shall be specially invited to attend meetings of the Standing Committees and Governing Bodies in respect of the items concerning the Centre. The draft minutes in respect of the items concerning the centre shall be prepared by the Head of the Centre and sent to the Chairman of the Standing Committee concerned for approval through the Member-Secretary.
- (4) The Centre shall continue to use to the maximum extent the common hospital facilities like the laundry, the animal house, the kitchen, the sterilisation room, blood-bank, clinical pathology, library etc. For the use of such facilities, no debits shall be raised against the Centre. Where such

facilities are required to be augmented for the Centre or the Institute, the expenditure shall be shared by the two in proportion to the utilisation made by each.

- (5) For the day-to-day working of the Centre in matters relating to administration, stores, accounts etc., the Centre may have separate staff of its own.
- (6) The Director of the Institute shall delegate to the Head of the Centre all financial and administrative powers which vest in the Director and are shown in the schedules of the Regulations of the Institute and those delegated by the Institute and Institute Bodies to the Director from time to time so far as the Centre is concerned (as in Appendix attached).
- (7) The Head of the Centre may address communications to the Ministries of the Government of India and International Organisations and send copies thereof for the information of the Director. In matters of policy, however, the Head of the Centre shall do so with the prior approval of the Director.
- (8) The Deputy Director and the Accounts Officer attached to the Director's office shall be available to the Head of the Centre for advice in matters concerning administration and accounts.

Aims and Objectives

7.30. The aims and objectives of the Centre are:

- (1) To develop patterns of teaching and training in postgraduate ophthalmic education and in all its branches.
- (2) To stipulate research in Ophthalmology as visual research; clinical research, experimental research, research in instrumentation, epidemiological research and research in developing patterns of services of Ophthalmology at all levels including the community level to its highest level of efficiency.
- (3) To create facilities for the training of ophthalmologists and ancillary ophthalmic personnel like ophthalmic assistants.
- (4) To create facilities of training of health personnel in community ophthalmology and rehabilitation of the blind.

- (5) To evolve patterns of rehabilitation of the blind at the national level and in the socio-economic and cultural milieu of the country.
- (6) To evolve new instruments in the field of ophthalmology.
- (7) To provide facilities for refresher course in Ophthalmology to teachers and specialists in Ophthalmology and allied sciences.
- (8) To undertake technical long term planning.
- (9) To undertake evaluation of programmes and services.
- (10) To plan and programme epidemiological investigations.
- (11) To develop training patterns in community ophthalmology for undergraduates and post-graduates and continuing medical education and allied personnel.

7.31. When asked as to how far the Centre had been able to realise its aims and objectives, the representative of the Dr. Rajendra Prasad centre who appeared before the Committee gave his views thus:—

“Unfortunately in the last nine years of its existence the Centre has made very slow progress primarily because it is tagged to a much bigger organisation like the All India Institute of Medical Sciences which is worked on a unitary concept and where its requirements become of minor importance and are not given the attention required for an apex organisation. The Centre suffers in allocation of fund, in its attempts to improve courses of study—an eminent example is the difficulties the Centre had in getting its B.Sc. (Hons.) course approved. It had difficulty and still has in (i) increasing the number of residents for training, (ii) increasing the beds, (iii) improving hospital facilities, (iv) administration of hostels, (v) holding refresher courses, etc. In the present set up I do not think that the Centre can achieve its objectives in the foreseeable future.

The whole project was conceived to be completed in 7 years, while it has taken nine years already and has not even achieved 1/2 of its conceived developments of status. Sections of Community Ophthalmology rehabilitation and development of instruments have not even been started nor it seems likely that this will happen in the near future. Development of research support laboratories are far below the level of what they were conceived and hospital beds have reached only 120 instead of 325—350.

If the nation is really serious about developing eye care services—this apex organisation should have much greater freedom in its work and programmes. It must be developed as an autonomous statutory organisation.

7.32. It has been represented to the Committee that:

“In order to play an effective role the Dr. Rajendra Prasad Centre for Ophthalmic Sciences, New Delhi should be freed from obstructive role of All India Institute of Medical Sciences. It should also not be bogged down by the delays involved in Government procedures. If this Centre has to play a role of a leader in the National Plan of Action it should have complete autonomy with statutory power and functions—Most important of which are to undertake technical long term planning, evaluation of programmes and services, plan and programme for epidemiological investigations and to make mid-course corrections. These functions cannot be performed unless assigned to it statutorily.”

7.33. The Committee enquired the views of Government for strengthening the Centre and making it autonomous with statutory powers and functions under an act of Parliament. The Ministry of Health in a written note furnished to the Committee explained the position thus:

“The Government of India feels that Dr. Rajendra Prasad Centre for Ophthalmic Sciences should function as a constituent unit of the All India Institute of Medical Sciences and that such a situation helps in cross fertilization of ideas in the medical disciplines. Certain difficulties have been brought to the notice of the Ministry of Health in the functioning of the Centre. The Ministry is examining how to overcome these difficulties. Institute has already agreed to give a fair degree of autonomy to Dr. Rajendra Prasad Centre for Ophthalmic Sciences. Eye Centre has budget of its own, its development plan and its own administration, stores and accounts. If there are a few minor points that remain to be solved, it is hoped that they will be solved in the near future. The Government does not propose to make it an autonomous unit with statutory powers and functions under an Act of Parliament separate from the All India Institute of Medical Sciences.”

The Government propose to complete the development of the Centre by the end of the VIth Plan but this does not mean that the Centre will not perform the task assigned to it under the National Plan for Prevention of Visual Impairment and Con-

trol of Blindness till then. As a matter of fact, the Centre will be an apex organisation which 'will provide the technical leadership right from the initiation of the Plan."

7.34. During the evidence the 'Secretary, Ministry of Health gave his views thus on the question of strengthening the Centre and making it autonomous with statutory powers and functions under an Act of Parliament:

"Permit me to be frank with you. The Rajendra Prasad Centre has a limited role to play. It is not our intention that the implementation of the entire programme should be done by them. The role of that Centre is advisory and they will be entrusted with advice, evaluation, training facilities and such other things and of course in the matter of education also they have to play an important part. So far as evaluation is concerned, apart from this Centre, there are also bodies like the Indian Council of Medical Research and various other organisations which will also have to be entrusted with it. The leadership of the Indian Council of Medical Research in the field of research even in the problem of blindness will have to be maintained because this is the apex organisation so far as research in the field of medicine and health is concerned."

7.35. To a point raised by the Committee that the Centre should be entrusted with the implementation of the National Programme of Action, the Secretary, Ministry of Health amplified the position as under:

"Every day planning cannot be left to an organisation. It has to be done in the Ministry and that is why we have created a cell and we have an adviser. For the time being, Dr. Agarwal from the Rajendra Prasad Centre is the Adviser of Ophthalmology in the Ministry. When the work develops, we may have a whole time Adviser to implement the plan. The role of an organisation like the Rajendra Prasad Centre is three fold. They will advise Government in the field of training, set patterns, improved the training and supervise the training in the field. We have a larger number of experts, the Director-General of Health Services and the Advisers are there, we inter-act with each other. So, the main policy is decided at the Ministry level."

7.36. The Committee pointed out that when the All India Institute of Medical Sciences had been made autonomous, on the same grounds the Dr. Rajendra Prasad Centre should be given such autonomy to tackle the gigantic problem of blindness. The Committee also pointed out that the order of the President of All India Medical Institute dated 10 July, 1975 had also

not been implemented. The Secretary, Ministry of Health explaining the position during evidence stated:

"I suppose it is being implemented. If you have any doubt, we can further discuss the matter.

I am placing before you the view point of the Government. I am of the view that this is being implemented. This is what the Director of All India Medical Institute says. Of course, there is some difference of opinion between him and the Chief Organiser."

7.37. The witness promised that a meeting of Director, All India Institute of Medical Sciences, the Head of the Dr. Rajendra Prasad Centre for Ophthalmic Sciences and Secretary, Ministry of Health would be convened to evolve a plan of action to strengthen the R.P. Centre and necessary measures would be taken to make it autonomous with statutory power and functions.

7.38. During the visit of the Committee to the Dr. Rajendra Prasad Centre for Ophthalmic Sciences on the 8th December, 1976 the Committee was informed that ever since the creation of this Centre, the functioning of the Centre had been hampered by non-implementation of the basic fundamental decisions regarding Dr. Rajendra Prasad Centre for Ophthalmic Sciences having an identity of its own as a special constituent unit of the AIIMS and to enjoy an effective autonomy in its functioning. Several attempts had been made to formalise these arrangements. Each time after certain decisions had been taken, they had not been implemented in letter and spirit. Last administrative arrangements contained in the orders of the President of the Institute dated 10 January, 1975 had also not been implemented.

7.39. The Centre had an independent budget but accounts were common. It was stressed that the Centre should be allowed to operate a separate bank account so that it could keep a careful watch on the progress of expenditure. The Centre should also be allowed to prepare its separate annual report so that it could project its activities before the Parliament and public in its true perspective.

7.40. The Ministry of Health in their subsequent written reply furnished to the Committee on 9-6-77 explained the position thus:—

"A meeting was convened by Secretary, Ministry of Health and Family Welfare on 2-6-77, as promised before the Estimates Committee, to discuss the difficulties in the implementation of the order of the President of the Institute dated January 10,

1975. In the course of discussions it was felt that the implementation of the order of the President was by and large satisfactory and that the difficulties experienced are being resolved from time to time. In the meeting it was further decided that in future also the difficulties may be discussed and resolved as and when they arise."

7.41. On the question of giving autonomous status to the Dr. Rajendra Prasad Centre for Ophthalmic Sciences, New Delhi, the Ministry of Health have stated as follows:

"The question of giving autonomous status to Dr. R. P. Centre for effective implementation of the national programme for Prevention of Visual Impairments and Control of Blindness will be taken up for consideration by the Review Committee proposed to be set up in terms of the recommendations of the hundred and second (102) report of the Estimates Committee (1975-76) on AIIMS."

7.42. When asked as to what were the precise difficulties for the Government in appointing an independent body of experts to give appropriate status and powers to the centre so that it could effectively implement the National Plan on blindness, the Ministry of Health in their note (November 1977) informed the Sub-Committee of the Estimates Committee (1977-78) on Prevention and Control of Blindness, as follows:—

"Since Dr. Rajendra Prasad Centre for Ophthalmic Science is a Constituent Unit of the Institute and a Review Committee for the Institute is being appointed which will also be asked to look into the working of Dr. R. P. Centre, the Government does not think it desirable to appoint two review committees in the same organisation. If necessary a working group of ophthalmologists will be appointed to go over the functioning and status the centre should be given and its view placed before the review committee."

7.43. On the 6th October, 1977, the Sub-Committee of the Estimates Committee (1977-78) on Prevention and Control of Blindness further took the evidence of the Chief Organiser Dr. Rajendra Prasad Centre for Ophthalmic Sciences, New Delhi. In a note furnished to the Committee on October, 1977, the Chief Organiser has brought out the following points:—

"The discussion took place with regard to the status and position of the Dr. R. P. Centre for Ophthalmic Sciences, particularly, on the following points:—

- (i) whether the centre should remain as a constituent unit as at present;

- (ii) whether it should become an autonomous college? If so, how;
- (iii) should its name be changed to Dr. R. P. National Institute of Ophthalmology?

Explaining briefly the status, administrative status, and administrative powers of Dr. R. P. Centre for Ophthalmic Sciences, I had pleaded that ever since the creation of the Centre, it had been hampered by non-implementation of the basic fundamental decisions regarding the R. P. Centre having an identity of its own as a special constituent unit of AIIMS and enjoying an effective autonomy in its functioning. The word 'constituent unit' was grossly mis-interpreted and the Centre had many difficulties in its functioning particularly with regard to service matters of Class I and Class II officers and processing of papers for and recording of proceedings of various committees including Governing Body and the Institute Body. A solution of this impasse lay in the fact that the Centre should become a constituent college under Section 14(F)(i) read with Section III (2) of AIIMS Act and the Head of the Centre could be assigned functions and powers to the same level as Director AIIMS have for matters concerning the Centre under section 11(4) of the Act. In this connection minor amendments to the Act and some changes in rules would be necessary so that the Head of the Centre becomes a Member of the Institute, ex-officio under Section 4 and could be the member Secretary of the Standing Committee and in matters relating to the Centre. He could also be the Member of all Standing Committees, ex-officio. I would urge that the Centre should not be completely separated from the Institute as it was neither feasible nor desirable due to its location in the campus of AIIMS. I would also suggest that the R. P. Centre for Ophthalmic Sciences should be re-named as Dr. R. P. National Institute of Ophthalmology to reflect its real status as an apex organisation and project its clear image nationally and internationally particularly when the 6 Regional Institutes were being created."

7.44. Giving his views about the status and position of the R. P. Centre and conferring it a constituent status within the ambit of the AIIMS Act, the Secretary, Ministry of Health, who appeared before the Sub-Committee of the Estimates Committee (1977-78) on Prevention and Control of Blindness, on the 7th October, 1977, during evidence stated:—

"The question of the relationship of the Centre with the AIIMS which forms an integral part has been occasioning considera-

ble thought for some time and because of certain differences of opinion, the then President of the AIIMS, Dr. Karan Singh went into this question very carefully and in January 1975, passed a set of orders defining the functioning of the Centre, *vis-a-vis* the Institute. Certain difficulties were experienced and then this hon. Committee desired that I should hold a meeting with the Director of AIIMS and the Chief Organizer of the Centre. We had that meeting. There were certain differences of opinion, but we felt that even so, it would be possible to work this arrangement, but certain other issues like separation of banking accounts etc., were decided upon. Certain differences of opinion do continue and I would be the last person to say that everything is smooth sailing. But it is felt that within the existing framework, it should be possible to resolve these as and when they arise. This came up before the meeting of the governing body on the 29th August and there was a lot of discussion as to whether the Centre should be altogether separated from the Institute, or if it is not separated, what should be the future relationship. The governing body authorised me that within 45 days, I should submit a series of recommendations to them as to whether the Centre should be separated or should continue as a part of the AIIMS. I am working on it and I would submit my recommendations within the next week or ten days and then the governing body will go into the whole matter. But the consensus of opinion seems to be that it would be a great pity if the Centre had to be separated from the AIIMS."

The witnesses further added:—

"The principle is that there should be sufficient autonomy in its working so that it can work unhampered by the interference of the main Institute. The problem is that the Institute says that sufficient autonomy has been given and the Chief Organizer feels that is not there. Dr. Karan Singh's suggestions were, I think, the best that could have been devised in those circumstances, but in the working thereof, difficulties came up because of the mutual lack of confidence."

7.45. On the question of making the R. P. Centre as a constituent college of AIIMS, the Secretary, Ministry of Health stated:—

"Since I have to submit my recommendations to the governing body, I will look into your valuable suggestion and whether

it would be possible to introduce this within the ambit of the AIIMS Act..... In the recommendations that I have to make, I have to say whether any amendment of the Act is required to give effect to my recommendations. The governing body would consider those and take a decision. So all these aspects I am examining and the very valuable suggestion Chairman has made in regard to the relationship between the University and the constituent colleges, we can see whether it can be brought within the ambit of the Act..... I will put it before the governing body. If they decide to adopt it, then the Act will have to be amended. So far as the thinking of the AIIMS goes, it is that it is a body whose integrated nature should be kept up and it will be a pity if it is broken up."

7.46. The Secretary, Ministry of Health, promised to furnish a note to the Committee after the Governing Body had met and taken a decision on the status and powers of the R. P. Centre. The note is still awaited. On the question of nomenclature of the R. P. Centre, the Secretary, Ministry of Health, gave his views thus:—

"As I said, this question of nomenclature can be decided as soon as the relationship of the Centre with the Institute is decided upon. Then the question of nomenclature will also be automatically decided upon. As I have already submitted, I will bring the views expressed to the notice of the Governing Body. Once the relationship of the Centre with the All India Institute of Medical Sciences is determined, this question of nomenclature will also be settled."

7.47. The Committee enquired as to what were the precise points of differences subsisting between the Dr. R. P. Centre and the AIIMS. The Ministry of Health, however, in their written replies furnished on the 11th November, 1977, have kept silent over this point. As regards the measures which the Government had in view in putting an end to the unhappy state of affairs, the Ministry of Health, in their subsequent note (November 1977) informed the Sub-Committee of the Estimates Committee (1977-78) as follows:—

"President's order by and large is being satisfactorily implemented. A separate bank account of the Centre's fund had been formed and suitable provisions for the administration of hostels by the centre have also been made. Any differences or problems that may arise from time to time will be settled by mutual consultation."

7.48. In reply to the point raised by the Sub-Committee as to what would be the implications if the R.P. Centre was totally separate from the AIIMS, the Ministry of Health have further stated on 11th November, 1977, as follows:—

“In the meeting of the Governing Body of the Institute held on 29th August, 1977, the question of separation of the two organisations was discussed and Secretary, Ministry of Health and Family Welfare had been entrusted with the examination of the issue. This is being done but no decisions have been arrived yet. Earlier a sub-committee of the Institute examined the question which found that a sum of Rs. 250 lakhs would be required for this total separation. I did not consider this as desirable.”

7.49. As regard the naming the R. P. Centre as Rajendra Prasad National Institute of Ophthalmology the Ministry of Health have informed the Sub-Committee of the Estimates (1977-78) thus:—

“In view of its location in the campus of AIIMS and in view of its being a constituent unit of AIIMS which is governed by the All India Institute of Medical Sciences Act 1956, the Government does not contemplate to change its name and call it Dr. Rajendra Prasad National Institute of Ophthalmology. If it is separated, such a change will be considered.”

7.50. The Committee note that Dr. Rajendra Prasad Centre for Ophthalmic Sciences was set up in 1969 for developing excellence in the field of Ophthalmic Sciences and providing the highest grade of ophthalmic services at the national level. The Committee further note that the Committee appointed by the Institute to go into the administrative and financial arrangements of the R. P. Centre vis-a-vis AIIMS recommended that the Centre should enjoy an effective autonomy in its functioning and should be a constituent unit of AIIMS.

7.51. The President of the All India Institute of Medical Sciences (Dr. Karan Singh) in his order dated the 10th January, 1975 further formalised the status and administrative powers of the R. P. Centre and the AIIMS to facilitate and improve the working of the Centre with a view to ensuring effective autonomy to the Centre within the overall provisions of the All India Institute of Medical Sciences Act, 1956. The order inter-alia stipulated:—

(i) “The budget of the Institute shall be in parts namely (i) the budget of the main Institute and (ii) the budget of the Centre. The budget of the Centre shall be prepared and operated upon by the Head of the Centre.

- (ii) The development plans of the Institute shall be prepared into two parts namely (i) the development plan of the main Institute and (ii) the development plan of the Centre and the allocations shall be so made that they shall not adversely affect each other.
- (iii) The Centre shall continue to use to the maximum extent the common hospital facilities like the laundry, the animal house, the kitchen, the sterilisation room, blood bank, clinical pathology, library, etc. For the use of such facilities etc. no debits shall be raised against the Centre. Where such facilities are required to be augmented for the Centre or the Institute, the expenditure shall be shared by the two in proportion to the utilisation made by each.
- (iv) The Director of the Institute shall delegate to the Head of the Centre all financial and administrative powers which vest in the Director.....
- (v) For day to day working of the Centre in matters relating to administration, stores, accounts etc., the Centre may have separate staff of its own."

7.52. The Committee regret to note that inspite of the various measures taken to formalise the status and administrative powers of the Rajendra Prasad Centre vis-a-vis AIIMS in such clear and unambiguous terms, considerable difficulties were stated to have been experienced in the day to day functioning of the R. P. Centre and the actual implementation of the orders of the President of the Institute. The Committee were informed during the evidence that though the Centre had been in existence for over nine years, it had made very slow progress primarily because it was tagged to a much bigger organisation like the AIIMS which worked on a unitary concept and the requirements of the Centre were not given the close and prompt attention needed for an apex organisation. The Centre suffered in the matter of training, funds and had difficulties in the matter of training; increasing the beds, improving the hospital facilities administration of hostels and holding refresher courses, the result being that according to the evidence tendered by the representative of the R. P. Centre in the present set up there was hardly any possibility of the Centre achieving its objectives in the foreseeable future. During the visit of the Committee to Dr. Rajendra Prasad Centre, the Committee were further informed that the functioning of the Centre had been hampered by non-implementation of the basic decision regarding the Centre having an identity of its own as a special Constituent Unit of AIIMS and the denial of effective autonomy in its functioning.

7.53. The Committee further note that during a meeting convened on 2 June, 1977 by the Health Secretary in pursuance of the assurance given

by the representatives of the Ministry of Health before the Estimates during the evidence, to discuss the implementation of the order of the President of the Institute dated 10 January, 1975, it was felt that the implementation of the order of the President was by and large satisfactory and that the difficulties experienced were being resolved from time to time and that in future also the difficulties might be discussed and resolved as and when they would arise. So far as the question of giving autonomous status to Dr. R. P. Centre, the Committee are informed that this aspect will be taken up for consideration by the Review Committee proposed to be set up in terms of recommendations of the Estimates Committee contained in its 102nd Report (1975-76) on AIIMS.

7.54. During evidence before the Sub-Committee of the Estimates Committee (1977-78) in October, 1977 the Chief Organiser of the R. P. Centre stated that a solution out of this impasse lay in the fact that the Centre should become a Constituent College under Section 14(F)(i) read with Section III(2) of AIIMS Act and the Head of the Centre could be assigned functions and powers to the same level as Director AIIMS have for matters concerning the Centre under Section 11(4) of the Act. In this connection, the Chief Organiser of the Centre suggested some amendments to the Act and changes in the rules. The Chief Organiser of Dr. Rajendra Prasad Centre for Ophthalmic Sciences further stated that he was of the view that the Centre should be renamed as Dr. Rajendra Prasad National Institute of Ophthalmology in order to reflect its real status as the apex organisation to project its clear image nationally and internationally particularly when the 6 Regional Institutes were being created. The Secretary of Ministry of Health informed the Sub-Committee (1977-78) during evidence that the "consensus of opinion seems to be that it would be a great pity if the Centre had to be separated from the AIIMS." In a written reply subsequently the Ministry also stated that "earlier a sub-Committee of the Institute examined the question which found that a sum of Rs. 250 lakhs would be required for its total separation. It did not consider this as desirable." He further informed the Sub-Committee that the question whether the Centre should be separated from the Institute and if not, what should be its future relationship with the Institute had come up before the Governing Body of the Institute at its meeting held on 29 August, 1977 and he had been asked to examine all the aspects of the matter and to submit his recommendations to the Governing Body on the status and powers of the Centre. He stated that during this examination he would also look into the suggestion to give the status of a Constituent College to the Centre, as proposed above and whether it could be brought within the ambit of AIIMS Act. As regards the nomenclature of the Centre the Ministry in a note stated that once the relationship of the Centre with the AIIMS is determined, the question of nomenclature will also be settled."

7.55. The Committee are not happy over the persistent lack of harmony in the working relationship between Dr. Rajendra Prasad Centre of Ophthalmology and AIIMS. They are afraid that the existing state of relationship between the two, if not improved immediately, might affect the implementation of the National Plan of Action adversely. They feel that it is absolutely necessary in the interest of effective implementation of the Plan that the question of giving suitable status and powers to Dr. Rajendra Prasad Centre vis-a-vis AIIMS is settled without any further loss of time.

The Committee feel that in order to enable Dr. Rajendra Prasad Centre to function as an apex organisation for the execution of the National Plan in all the States and also for bringing about the desired coordination in the working of the regional institutes set up as part of the National Plan, it is necessary to give the Centre a nomenclature befitting its national status and responsibilities. They would like the Government to consider naming it as Dr. Rajendra Prasad National Centre of Ophthalmology.

7.56. The Committee note that Dr. Rajendra Prasad Centre has come to acquire two distinct roles to play—(1) as a constituent unit of AIIMS for the purpose of organising under-graduate and post-graduate education research etc., and (2) as an apex organisation to execute and coordinate the National Plan of Action. The Committee feel that in order to enable the head of the Centre to discharge the responsibilities which the National Plan has placed on him, he should be invested with sufficient operational autonomy to plan and carry out his activities without any hinderance, which he may consider necessary for the efficient execution of the National Plan consistent with his duties to ensure efficient functioning of the Centre as a constituent unit of the Institute for the purpose of education, research etc.

7.57. The Committee would also like to suggest that in order to give the Centre a sense of participation in the decisions taken by the Governing Body of AIIMS, the head of Dr. Rajendra Prasad Centre should be invited to participate in discussions in the Governing Body and also in the Academic or Finance Committees of the Institute whenever any item concerning the Centre comes up for consideration before them.

7.58. The Committee would stress that the Governing Body of the Institute should address itself to these questions of status and powers of Dr. Rajendra Prasad Centre and its head earnestly and find a suitable solution to these long standing issues most expeditiously in the larger interest of the Institute and the Centre.

(iv) Regional Institutes

7.59. Under the National Plan of Action on Blindness it is proposed to strengthen and equip the following six Institutes for technical and other

services to convert them into Regional Institutes:

- (i) Institute of Ophthalmology and Gandhi Eye Hospital, Aligarh
 - (a) Director, Institute of Ophthalmology, Aligarh
 - (b) Secretary, Gandhi Eye Hospital, Aligarh
- (ii) Nehru Institute of Ophthalmology and Research, Sitapur
- (iii) Institute of Ophthalmology New Civil Hospital, Ahmedabad
- (iv) Sarojini Naidu Institute of Ophthalmology, Hyderabad
- (v) Institute of Ophthalmology Minto Eye Hospital, Bangalore
- (vi) Institute of Ophthalmology, Eye Infirmary Medical, College, Calcutta

7.60. As regards the Dr. Rajendra Prasad Centre for Ophthalmic Sciences at All India Institute of Medical Sciences, New Delhi, it has been stated that it is a National Centre of Excellence for ophthalmic services combining preventive, promotive and curative ophthalmic services.

7.61. The Regional Institutes of Ophthalmology form part of central tier of ophthalmic services along with the upgraded medical colleges and the National Institute. The main purpose of strengthening the post-graduate Institutes is to provide technical support in the zone of their activity. It is, therefore, intended to support one or more existing ophthalmic institutes in the States to bring them up-to-date. Their main objectives shall be:—

- (1) to evolve and demonstrate the methods of rendering a highly competent ophthalmic service to the community through an integrated approach of promotives, preventive, curative and rehabilitative concept with the full back-ground of socio-economic environmental and other local factors.
- (2) to provide facilities for refresher course in ophthalmology for the practicing ophthalmologists with a view to keep their knowledge up-to-date.
- (3) to disseminate widely, in coordination with the National Institute, information with regard to recent advances in ophthalmology which have an applied bias.
- (4) to provide opportunities for training of health personnel in the field of community ophthalmology.
- (5) to provide facilities for the training of personnel for the rehabilitation of the blind.
- (6) to provide facilities for training of Ophthalmologists and ancillary ophthalmic personnel like ophthalmic assistance.

- (7) to provide facilities for the training to demonstrate the organisation and research in Eye Bank procedures including implantation of grafts.
- (8) to stimulate and provide facilities in research in Ophthalmology at a high level of competence.
 - (i) visual research;
 - (ii) Clinical research;
 - (iii) Experimental Ophthalmic research;

Each Regional Institute shall have:

- (a) A hospital with about 250 beds including Private Wards;
- (b) A community Ophthalmology Wing including the mobile units;
- (c) A rehabilitation Wing to act as demonstration centre and evaluation of pattern of zone;
- (d) A regional eye bank; and
- (e) A teaching and research centre including
 - (i) Basic Science Laboratories
 - (ii) Para-clinical laboratories
 - (iii) Visual Science laboratories.

7.62. The Expenditure on beds staff and other recurring expenditure is to be met by the respective administrative State Governments. Most of these centres have already got the required bed strength. The Central Government will assist them with the equipments to complete the deficiencies. Before such an assistance is offered, it must be ensured that all these institutions shall have only whole-time staff which would be non-practicing. These institutes should have sufficient latitude in functions and governed by the respective Governing Bodies created for the purpose.

7.63. The Regional Institutes would develop several sub-specialities in their own Institutes to provide and demonstrate services to medical colleges and other institutes working in their zone. The Regional Institutes will be supplied with a model post-graduate training programme both at diploma and at degree level and they should adopt their curricula, syllabi and evaluation in the framework of the objectives provided. They should also hold continuing education programmes for all grades of workers from time to time for specialists working in their zone. They would also be required to depute two eye surgeons for each workshop being conducted by the National Institute to develop specialisation in Ophthalmology.

7.64. During evidence giving his views on the proposed strengthening and equipping of the Regional Institutions, the Adviser in Ophthalmology during evidence stated:

“.....the number of the Regional Institutes which exist in the country today is six; they are at Aligarh, Sitapur, Ahmedabad, Bangalore, Hyderabad and Calcutta. These very institutions are proposed to be upgraded into Regional Institutes. After a preliminary experience of seven years, we will be able to come to a conclusion whether we need more than six and at that time a proper decision will be taken whether further strengthening of these Institutes is necessary or fresh one need to be created. In this plan period we are strengthening them by equipment worth Rs. 10 lakhs each because they have the necessary beds and they have the necessary manpower.”

7.65. Amplifying the point further, the Secretary, Ministry of Health stated thus:

“The problems of eye care vary from region to region as you have remarked yesterday and even taking into account nutrition in relation to blindness, this also varies from place to place. The living habits of the people, their cultural and educational standards and the availability of certain facilities and the food they take so on and so forth all vary from place to place and, therefore, it is but natural that there will be some regional institutes to develop and impart training.”

7.66. To a question whether any guideline for the Regional Institutes had been laid down the Ophthalmic Adviser in the Ministry of Health further stated:

“As a matter of fact, we have already drawn up the guidelines as to how they will work in field training, in the field of research and in the field of community health care, zonal relationship, etc. They will now be sent to them for their comment and modification.”

7.67. In reply to a point whether the Regional Institutes had already been formed or whether these were in the process of formation, the Secretary, Ministry of Health stated:

“They are already there. They are actually being strengthened to work as Regional Institutes. For instance, the Sitapur Eye Hospital is already there. The Sarojini Naidu Eye Hospital

in Hyderabad is doing very good work. These institutes are there and we want to make use of them.

* * * *

The Eye Infirmary in Calcutta is there. It has already got 200 beds. All that we need to do is to strengthen it. If we start a new institute, it will involve a huge amount of money.”

(v) Visit of the Committee to Aligarh Complex

7.68. On the 31st October, 1976, the Committee visited the Gandhi Eye Hospital and the Institute of Ophthalmology, Aligarh for an on the spot study. During the visit the Committee was informed that while the Gandhi Eye Hospital was run by a trust the Institute of Ophthalmology, Aligarh was a unit under the Muslim University, Aligarh. Further while the Institute of Ophthalmology, Aligarh was conducting a diploma and a degree course for training practising ophthalmologists and specialists, the Gandhi Eye Hospital was conducting courses for paramedical personnel in Optometry and Orthoptics. These courses were proposed to be suitably modified when the National Plan of Action of Blindness was put in operation.

7.69. It was also stated that for the funding of the Aligarh Complex, four agencies were involved:

- (i) University of Aligarh;
- (ii) Gandhi Eye Hospital Trust;
- (iii) Uttar Pradesh Government; and
- (iv) Central Government through the UGC and the Ministry of Health.

7.70. It was stated that under the National Plan of Action one of the Regional Institutes envisaged was the Institute of Ophthalmology, Aligarh, with its associated Hospital i.e., part of Gandhi Eye Hospital governed by a trust. It was further stated that in the proposals currently under discussion it had been suggested that Gandhi Eye Hospital as a whole should become the associated Hospital of the Institute of Ophthalmology. It was represented to the Committee that now since it was being proposed to set up a Regional Institute of Ophthalmology at Aligarh, the following points might be kept in view:

- “(i) when the Regional Institution is established, the trust must retain its autonomy.....

- (ii) the wishes and ideals of the Founder the late Dr. Mohan Lal be kept in view.
- (iii) The staff of the Gandhi Eye Hospital particularly senior medical staff, given adequate status in the Regional Institute. The Regional Institute should be headed by the Chief Medical Officer of the Hospital and the Director of the Institute in rotation for a year or couple of years to ensure complete collaboration with utmost co-operation. This will be consistent with the schemes and plan of University Grants Commission where the Professors used to be the head in rotation. The Hospital should be upgraded and the required staff should be provided so as to bring it to the level of a teaching hospital. It should continue to render eye relief work in rural areas as here-to-fore. The Hospital will provide 250 beds for being utilised by the Institute for the purposes of teaching and research. This will ensure full technical collaboration of both the hospital and the Institute."

7.71. During discussions with the representatives of the Gandhi Eye Hospital, Aligarh, the Institute of Ophthalmology and the Adviser in Ophthalmology in the Central Ministry of Health the following points emerged:

- (i) It was stressed upon that Aligarh Complex could be developed as the only good centre of Ophthalmology and that it should become a Centre of Excellence in the matter of Eye care. The Gandhi Eye Hospital and the Institute of Ophthalmology should play its rightful role and achieve commanding heights in this field.
- (ii) Under the National Plan the Institute of Ophthalmology, Aligarh, with Gandhi Eye Hospital as at present governed by the trust could become the regional Institute of Ophthalmology.
- (iii) To achieve all this, possibilities should be explored and administrative and financial arrangement be struck between Central Government, U.P. Government, the Gandhi Eye Hospital Trust and the Aligarh Muslim University.
- (iv) It was the Committee's view that every possible endeavour should be made between the representatives of the Health Ministry, the Institute of Ophthalmology and the representatives of Gandhi Eye Hospital to evolve a common approach whereby the identity of the Institute and the Hospital is kept and also the Aligarh Complex becomes a Centre of Excellence in the matter of Eye care.

7.72. The Sub-Committee of the Estimates Committee (1977-78) enquired what administrative machinery had been proposed for the Regional Institute and what was the coordination proposed? Explaining the position the Ministry of Health in their note (November 1977) stated:—

“A Board of Management has been suggested. The composition of the Board of Management for the Institutes governed by various State Governments consists of three representatives of the State Governments, two representatives of the University, two representatives of the Institute i.e., the Director and the Medical Superintendent, and two representatives of the Central Government i.e., the Secretary, Health or his nominee and the Ophthalmic Adviser.

For Aligarh Eye Hospital, three representatives of the Trust have been suggested i.e., the President of the Trust, the Secretary of the Trust and the Chief Medical Officer who should also act as Medical Superintendent for the Hospital. The plan envisages no change in the identity, status or philanthropic activities of the Trust which are being conducted, but it stresses on the improvement in the quality, as its quantitative work is likely to get limited because of the projected zonal eye camps i.e. 6 camps in each district, to be conducted by the Mobile Units sponsored by the Government for this Division, under the National Plan.

For Sitapur Eye Hospital, only one representative of the Trust has been suggested as two representatives of the Institute are essentially the representatives of the Sitapur Eye Hospital Trust.”

7.73. As regards the point as to how far the question of converting these Institutes into the Regional Institutes had progressed, it has been further explained by the Ministry of Health as follows:—

“The four State Governments who are governing the Institute of Ahmedabad, Calcutta, Hyderabad and Bangalore have given their concurrence to the establishment of these Regional Institutes and for the creation of the Board of Management, Sitapur Eye Hospital Trust in a meeting with the representatives of the Ministry of Health. Government of U.P. on 30th September, 1977, have agreed to pass necessary resolution for the constitution of the Board of Management as well as to convert this hospital and its Institute into the Regional Institute of Ophthalmology.

As far as Aligarh is concerned, Shri Surender Kumar, Secretary of the Gandhi Eye Hospital Trust, in a personal discussion has assured that Gandhi Eye Hospital Trust will pass the resolution accepting the proposal; and the University is also taking steps to pass the resolution accepting creation of the Regional Institute and agreeing to the formation of the Board of Management. It is hoped that in a month or so machinery for the creation of Regional Institutes by managing bodies of existing Institutes will be completed."

7.74. As regards the question raised by the Sub-Committee of the Estimates Committee (1977-78) as to what were the considered views of the Central Government for combining the Gandhi Eye Hospital and the Aligarh Institute of Ophthalmology into a Regional Institute, the Ministry of Health have further stated that negotiations with Gandhi Eye Hospital were still going on and it was hoped that they would agree to act as Regional Institute.

7.75. The Committee note that under the National Plan of Action on Blindness it was proposed to strengthen and equip six Regional Institutes at Aligarh, Sitapur, Ahmedabad, Hyderabad, Bangalore and Calcutta. It has been stated that these institutions would develop several sub-specialities and provide and demonstrate services to the medical colleges and other Institutes in their Zone. They would also be supplied with model post graduate training programme both at the diploma and degree level and they would adopt their curricula, syllabi and evaluation in the framework of the objectives provided. The Institutes would also hold continuing education programmes from time to time for specialists in their zones and would also be required to depute two eye surgeons for each workshop at the National Institute to develop a specialisation in Ophthalmology. The Committee further note that under the National Plan of Action each of these Regional Institutes is to be strengthened by providing them equipment worth Rs. 11 lakhs. Considering the magnitude of the problem of visual impairment and the incidence of blindness in the country, the Committee would stress that short term and long term plans in respect of these Regional Institutes be formulated to enable them to intensify their activities to provide preventive, promotive and curative ophthalmic services to the millions of the blind in the country without any further loss of time.

7.76. The Committee hope that the Board of Management for the six Regional Institutes with broad based composition giving representation to the concerned interests would be constituted at the earliest.

7.77. The Committee note that at Aligarh, there are two Eye Hospitals at present i.e. the Gandhi Eye Hospital, Aligarh and the Institute of Ophthalmology, Aligarh. The Gandhi Eye Hospital was founded by late

Dr. Mohan Lal an eminent Ophthalmologist and is at present being run by a trust. The Institute of Ophthalmology is a unit under the Aligarh Muslim University. The Committee further note that under the National Plan of Action, the Gandhi Eye Hospital and the National Institute of Ophthalmology were proposed to be combined and converted into a Regional Institute. During their visit to the Aligarh complex, the Committee gathered the impression that the representatives of the Gandhi Eye Hospital had certain reservations about the proposed move. They felt as if the decision was being thrust on them by the Central Health Ministry. The Committee would, therefore, stress that before finally deciding to merge the two institutes to form a Regional Institute, the Central Ministry of Health, should discuss the matter with the representatives of Gandhi Eye Hospital, Aligarh, Institute of Ophthalmology, Aligarh, Aligarh Muslim University and the U.P. Government with a view to evolving an arrangement under which the wishes and ideals of the founding father of Gandhi Eye Hospital in regard to its autonomy and separate entity are respected and the Aligarh Complex is made a centre of excellence in the matter of eye care.

CHAPTER VIII

GENERAL

(i) Rehabilitation of the Blinds

8.1. It has been stated by the Department of Social Welfare that the recent study carried out by the Indian Council for the Medical Research suggests that India has close to 9 million blind persons. All of these are not totally blind. Indeed, the great majority of them retain some vision though not of such economic value. In 1947, in implementation of the 'Report on Blindness in India' the Ministry of Education set up a unit to deal with the education, training and rehabilitation of the blind. Since that time, the work has considerably expanded. The Ministry of Education (Department of Social Welfare) in their written note furnished to the Committee have listed the following important programmes which are now in operation for the rehabilitation of the Blind.

I—*Braille*

Before the advent of independence, India had more than 8 blind codes. Today there is a single code called Bharati Braille for all major Indian languages. We have no estimates of the number of blind persons reading Braille. The National Library for the Blind has about 1200 members on its roll. Certain other Libraries also have blind persons on their roll that is Delhi Public Library. Today, apart from the Central Braille Press at Dehra Dun, functioning as a part of National Centre, for the blind, there are 3 regional braille presses at Madras, Bombay and Calcutta. The press at Madras is run by the Government of Tamil Nadu. The presses in Bombay and Calcutta are managed by voluntary organisations and the Government of India pays 75 per cent of the expenditure. The Government is committed to pay this expenditure upto the end of the Fifth Plan period. Machinery and equipment were supplied by UNICEF.

II—*Scholarships*

(i) Since 1952, the Government of India have been giving scholarships to blind students. The object is to encourage them to study in ordinary schools side by side with sighted children. The comparative figures given

below show the steady rise in the number of beneficiaries:—

Sl. No.	Period	Number
1.	1955-56	35 (Figures pertaining to earlier years are not readily available).
2.	Second Plan	185
3.	Third Plan	534
4.	1966-67 to 1968-69	282
5.	Fourth Plan	2759
6.	1974-75	909
7.	1975-76	1225

(ii) Currently nearly 2,000 blind students are studying in various parts of the country with scholarships from the Department of Social Welfare. At the sitting of the Estimates Committee held on 17-11-1976, the Department representative had indicated that the total number of scholarship holders was around 6000. This figures includes scholarships awarded to other physically handicapped students like the deaf and the Orthopaedically handicapped.

(iii) In accordance with the Government's policy of giving children more work orientation, the Department has since 1975 been allowing a stipend of Rs. 100 per month for a period not exceeding one year to blind persons between 14 and 40 years of age if they are placed as implant trainees in approved industrial or commercial establishments. The awards made in the two years are as follows:—

1975-76	25
1976-77 (upto 31-10-76)	10

III—Grants *

Work for the blind in the country was pioneered by the voluntary organisations. Even today, about 80 per cent of the schools and training establishments in the country are functioning under voluntary auspicious. Since 1961, the Government of India were offering upto 75 per cent of the estimated expenditure on approved development projects submitted by the voluntary organisations for the blind. The scheme was liberalised in March, 1975 and now upto 90 per cent of the estimates expenditure is offered as grant-in-aid. The following figures will show the uninterrupted growth of

this programme:—

S. No.	Period	Amount	No. of institutions
1.	1974-75	17,42,000	27
2.	1975-76	21,35,000	38
3.	1976-77	2,99,530	13 Fresh applications, are being received.

IV—*Training of Teachers*

To improve the quality of education imparted to blind children, 4 centres for the training of teachers of the blind have been sponsored in Delhi, Bombay, Madras and Calcutta. Run by voluntary organisations in Delhi, Bombay and Calcutta and the Government of Tamil Nadu in Madras, the Government of India pays the entire expenditure. A uniform syllabus has been prescribed and a common examination is conducted. The centres turn out about 50 teachers annually. Clearly they are adequate to meet the requirements of the various schools for the blind.

V—*Integrated Education*

(i) It is evident from the study carried by the Indian Council of Medical Research that the number of blind or partially seeing children in the country is quite substantial though the precise number is not known. The minimum number is likely to be of the order of 2 lakhs. On this basis not more than four to five per cent of blind children study in schools.

(ii) The majority of schools for the blind in the country offer free board, lodging, clothes, tuition and even pocket money. This means, education of blind children in special schools is very expensive. Moreover, blind children tend to be isolated from the community permitting prejudice in the community to grow stronger.

(iii) The Government of India have, therefore, in the Fifth Plan, evolved a scheme for placing handicapped children including blind children in ordinary schools. Apart from being less expensive this form of education offers very substantial social and psychological advantages to blind children. They continue to remain with the family and benefit from the affection and security that goes with living in the family. With other children they stand a better chance of being accepted when they grow up.

(iv) The Government of India have been trying to persuade all the State Governments to take up projects to place handicapped children

including blind children in ordinary schools. So far the following States have agreed to take up schemes:—

1. Maharashtra
2. Orissa
3. Kerala
4. Delhi
5. Himachal Pradesh
6. Rajasthan

(v) Efforts are underway to persuade others. Large scale expansion of educational opportunities for blind children appears possible only in ordinary schools. Indeed, even in United States over 61 per cent of blind children are believed to be studying in ordinary schools with some assistance of specialised teachers appointed to assist these children with special problems. Similar arrangements are proposed in the scheme of integrated education formulated by the Government of India.

VI—*Employment*

The most pressing problem before the blind at the present time is that they have a very serious difficulty in securing work consistent with their qualifications and experience. This is not particularly due to the nature of the limitations of blindness but largely to considerable prejudice against the employment of the blind. The measures taken by the Government include:—

- (i) Social Employment Exchanges for the physically handicapped have been set up in different parts of the country. They register physically handicapped persons including the blind.
- (ii) The first Exchange was set up in Bombay in 1959. By 1965, 7 more Exchanges were set up. The scheme was set up in the Fourth Plan. With its being converted into a Centrally sponsored scheme in the Fifth Plan, 8 more Exchanges are come into being. Steps are being taken to set up more special Exchanges to serve the physically handicapped including the blind.
- (iii) The registration and placements of these Exchanges are as follows:—

Sl. No.	Total number of registration	Number of placements
I.	5,902	1,058

- (iv) It is realised that as compared to the orthopaedically handicapped, the placements of the blind persons are far fewer. Towards the end of 1975-76, therefore, some organisations for the blind like the National Association for the Blind, Bombay; the National Federation of the Blind, Delhi, and the Blind Relief Association, Delhi have been given assistance to appoint their own placement officers to secure work for trained blind persons. Preliminary reports show that these agencies have had reasonable amount of success.
- (v) The Department also encourages through the Grant-in-aid programme voluntary organisations to set up workshops where all types of handicapped people including the blind are employed. About half a dozen organisations have been given substantial assistance for setting up workshops of this nature. Further assistance will be given after watching the results of the experiment.
- (vi) The Department have requested the State Governments to consider placing orders for departmental supplies on workshops for the physically handicapped including those for the blind. This is likely to keep the workshops functioning effectively. The State Governments have also been requested to allow upto 15 per cent price preference to workshops for the handicapped as is admissible to Small Scale Industries.
- (vii) To promote self-employment, the State Governments have been asked to instruct municipalities and other local bodies to allot some shops or kiosks to physically handicapped persons including the blind or the partially sighted in various markets. This, combined with the loans advances by the nationalised banks at preferential rates of interest to physically handicapped persons may enable some blind persons to take up work on their own account.
- (viii) Experience in the United States shows that it is possible for blind persons to operate kiosks or vending stands effectively. By law in the United States all vending stands in the federal buildings are expected to be allotted only to blind.
- (ix) The Government of India are also examining the possibility of reserving a percentage vacancies in the public services. Four States namely, Andhra Pradesh, Gujarat, Rajasthan and West Bengal have already reserved vacancies in the public services for the physically handicapped including the blind. The question of reservation for the handicapped in Central Services and Public Sector Organisations is under consideration.

National Centre for the Blind

8.2. The Government have already set up a National Centre for the Blind at Dehra Dun. Some of the services it provides are:—

- (1) It offers craft training to 150 adult blind men and 35 adult blind women. Since its establishment on 1st January, 1950, 2,000 blind persons have received training.
- (2) It manufactures simple braille appliances and sells them at subsidized prices both to institutions and blind individuals. Before the establishments of these workshops, all the appliances had to be imported.
- (3) A National braille library for the blind has been set up. It circulates braille literature to blind readers throughout the country. Currently, over 1200 blind persons from various parts of the country are members of the library.
- (4) The Central Braille Press produces braille literature chiefly in Hindi. It also publishes a monthly Journal entitled 'Nayn Rashmi'. A quarterly journal for children called 'Sishu Alok' is also published.
- (5) The Centre has a sheltered workshop employing 45 blind persons.
- (6) The school for Blind and Partially Sighted Children of the Centre is currently offering education to about 65 children.

8.3. In the Fifth Plan, it is proposed to convert this into a national institute for the physically handicapped. The main object of the institute will be to sponsor and carry out research designed to develop new techniques, technologies and strategies for dealing more effectively with the education, training and rehabilitation of the blind and the visually handicapped. It will also provide certain national level services like the production and distribution of braille appliances, talking books and braille literature. The teachers and other personnel required for operating services for the blind will be trained at the institute.

Concession

8.4. Some important concessions allowed to the blind have been listed by the Department of Social Welfare as follows:—

- (1) A blind person travelling on the railways may pay only one-fourth of the normal fare. If he is accompanied by a sighted escort, both of them may travel on a single ticket.
- (2) The Indian Airlines charge from a blind passenger half the normal fare.

- (3) Braille Books are carried throughout India by post free of cost.
- (4) A blind person is allowed rebate on a sum of Rs. 5,000/- while computing his income tax.
- (5) Gifts received by institutions for the blind from abroad are allowed duty free entry.
- (6) Braille watches imported into the country are charged an import duty only of 10 per cent ad valorem. To promote the indigenous manufacture of braille watches a similar concession has been extended for the components of braille watches imported from abroad.
- (7) Blind persons are allowed relaxation by 5 years in the upper age limit for the purpose of entry into Group 'C' and 'D' posts under the Central Government. They are also given priority No. 3 by the National Employment Service for the purpose of submission against vacancies.
- (8) A number of States charge reduced fares on State roadways.

8.5. Dr. A. Lakshmanaswami Mudaliar Committee in its Report (1959) observed:—

“A random sample survey carried out in Delhi indicates that nearly 4 per cent of the families residing in Delhi had a handicapped member, blindness being the most common cause followed by orthopaedic handicaps. The Government of India run a National Centre for the Blind Children. A similar Centre for the adult blind is also being run where workshop facilities are also available for training in crafts. There are understood to be about 100 schools for the blind in the country mostly run by the voluntary agencies. Out of the estimates 2 million blind persons, only about 50,000 can read Braille.”

8.6. The symposium on Community ophthalmology—an integrated approach held on 8th-9th March 1975, organised by the Society for the Prevention and Control of Blindness, made the following observations:—

“The Society noted with concern that very little is being done to rehabilitate the blind and urges the Ministry of Social Welfare to mobilise its efforts and those of voluntary agencies to substantially augment the programme in this regard. The industrialists and philanthropists be requested to support apprenticeship and placement programme of the blind.”

8.7. On the rehabilitation services for the Blind the WHO in its Report of the Special Working Group on Prevention of Visual Impairment and Blindness (May 1976) made the following observations:—

“...In the development of rehabilitation programmes the abilities of the visually handicapped should be harnessed so as to provide the maximum services to society. The programmes prepared should be those which would best suit the conditions in the country concerned, cultural, religious etc. Community resources should be mobilised for this purpose and as some seedmoney might come from the Governments, there should be well-developed coordinating machinery to plan for the most effective use of the various inputs.”

8.8. It recommended as follows:—

“Programme for the education training and rehabilitation of the incurably blind should be established and existing programmes should be strengthened with the specific objective of fully integrating the incurably blind as dignified partners in social development in the countries of the region.”

8.9. The Committee pointed out that in the entire National Plan of Action on Blindness no mention had been made with regard to the rehabilitation of the incurable blind. When asked as to what schemes were being formulated by the Ministry of Health for the rehabilitation of the incurable blind and whether any coordination had been planned with the Ministry of Social Welfare for the rehabilitation of the blind. The Ministry of Health in a written note have stated thus:—

“As the Plan is for Prevention of visual impairment and control of blindness and is not for rehabilitation of the Blind, during out preliminary discussions with the Ministry of Social Welfare, it was suggested to them that they should draw up a comprehensive Plan for the rehabilitation of Blind.”

8.10. The Committee note that the following measures for the rehabilitation of blind are being taken by Government:—

- (i) training in Braille;
- (ii) provision of Scholarship to blind students;
- (iii) integrated education for blind or partially seeing children;
- (iv) provision of employment opportunities.

8.11. As regards the provision of scholarships, the Committee note that while in the Fourth Plan 2759 scholarships were offered. In the years 1974-75 and 1975-76, 909 and 1225 scholarships were offered to the blind stu-

dents. Considering the number of blind children in the country, it is evident that these scholarships are inadequate to meet the magnitude of the problem. The Committee would like Government to take concrete measures to increase number of scholarships for the education of the blind.

8.12. The Committee also note that Government have in the Fifth Plan evolved a scheme for placing handicapped children including blind children in ordinary schools. It has been stated that apart from being less expensive, this form of education affords substantial social and psychological advantages to blind children. The Committee would like the scheme to be extended after watching its working.

8.13. As regards the Braille facilities, the Committee note that a single code called Bharati Braille code for all the major Indian Languages has been evolved. Although the National Library for the Blind had about 1200 members on its roll, the Government have no statistics of the number of blind persons reading Braille. Apart from collecting the statistics, training facilities imparting knowledge in Braille reading should be augmented and a perspective plan drawn up (State-wise) in this regard. The Committee stress that adequate measures should be taken to popularise the Braille Code and publicity given to the training facilities available for learning this code.

8.14. The Committee urge that undertakings both in the private and the public sector should provide liberally gainful employment to the blind who have acquired the necessary skills. The Committee would like the Directorate General of Employment to render assistance in this behalf.

8.15. The Committee further note that the National Centre for the Blind has been set up at Dehra Dun. The Centre besides offering craft training to adult blind men and women, manufactures simple braille appliances which were previously imported, and provides braille literature in Hindi. Besides, this, the Centre has a sheltered workshop employing 65 blind or partially sighted children. The Committee would like to lay stress the crucial importance of effective functioning of this Centre on the right lines so as to broaden the facilities available for the rehabilitation of the blind. The Committee feel that Centres like the one at Dehra Dun should also be set up in Eastern, Western and Southern regions.

8.16. The Committee would also stress that since the National Plan of Action of Blindness makes no mention of the rehabilitation of incurable blind, the Ministry of Education (Department of Social Welfare) who are primarily concerned with the rehabilitation of the blind may draw up a perspective plan for the rehabilitation of blind in consultation with the Action of Blindness makes no mention of the rehabilitation of incurable

(ii) Eye Banks

8.17. Millions of people in our country are handicapped on account of total or partial blindness. A major cause of this blindness is corneal capacity. The latest surveys conducted by the Indian Council of Medical Research indicate approximately 30 per cent of blindness is due to corneal diseases and opacities following infections of the cornea (Trachoma, acute conjunctivitis, small-pox), malnutrition, injuries, and degenerated diseases. According to rough estimates, over a million persons can benefit by corneal grafting operation. To be able to meet the requirements of these blind persons a net work of eye banks and many corneoplasty units will have to be created.

Objectives of Eye Banks

8.18. The objectives of Eye Banks are to provide facilities for corneal transplantation operation at peripheral level for the benefit of the poor who cannot afford to come to big cities for their treatment. At present there are 43 eye banks (Appendix XII) functioning in the country. The activities of majority of these eye banks are limited to a collection and utilisation of 5—10 pairs of eyes per year. Extensive clinical keratoplasty research in corneal preservation, search for corneal substitutes and improvements of operative techniques and training of specialists and technicians is being carried out in very few centres.

8.19. These eye banks are located at the capitals of the States and in major cities. Unfortunately there is no coordinating agency to regulate the publicity drive and channelling of the donated eyes for proper utilisation of the cornea and other components of the eye. Attempts are being made to develop this agency in the National Plan of Action.

Corneal Grafting Act

8.20. The Corneal Grafting Act has been passed in various States; Uttar Pradesh (1954), Madhya Pradesh (1964), Punjab (1963), Delhi (1964), Karnataka (1965), Maharashtra (1957), Andhra Pradesh (1963), Gujarat (1957), Haryana (1963), Chandigarh (1963), which makes it possible to collect the eyes (1) of those eye donors who have pledged their eyes to the eye bank and whose next of kin do not object to such removal (2) whose next of kin agree to donate the eyes of the deceased to the eye banks for therapeutic purpose.

8.21. The eyes from the unclaimed bodies under the existing act (except the Karnataka Corneal Grafting Act) does not provide for removal of such eyes till 48 hours have elapsed since death. The eyes at the end of 48 hours are not suitable for any therapeutic use for corneal grafting. The Anatomy Act and the Post Mortem Acts in various states to

not have any explicit provision for the removal of eyes. As a result of these limitations in the existing provision of the various Acts, the quantum of the eyes being received by the various eye banks is far below the local needs of the corneo-plasty units and Eye Banks. Their distribution, therefore, to the neighbouring eye hospitals is almost negligible. Many eye hospitals and institutions though equipped to perform corneal grafting operations are hampered in their activities largely because of inadequate supply of the donor eyes. In order to meet the problem, establishments of a well organised net work of eye banks is essential with the following objectives:—

- (i) Eye Banks will be established at the eye departments of the district hospitals to collect the eyes from the entire district in this action programme. Corneoplasty units will gradually be created in upgraded medical colleges where facilities and expertise will be made available. Attempts would be made to develop peripheral collection centres in all general hospitals, mortuaries and primary health centres of the district. The staff of these hospitals would be given training for purposes of removal of the eyes, preliminary treatment and temporary packing for transportation to the eye bank. Information regarding eye donations and their utility will be the part of Dissemination of Information and Health Education programmes under this plan of action.
- (ii) Each district eye bank will be under the charge of Ophthalmologist of the district Hospital, who shall be responsible for
 - (i) organising local education programmes in regional language in addition to Hindi and English for popularising eye donation.
 - (ii) registering voluntary eye donors, i.e. those who wish to pledge their eyes to the eye banks.
- (iii) Train all new PHC doctors in technique of removing the eye from the deceased person and technique of preservation.
- (iv) Shall organise the collection of the eyes from all over the district through its various peripheral collection centres located at PHCs (PHC takes all the medico-legal cases).
- (v) Shall preserve eyes.
- (vi) Shall arrange proper transmission of the donor material to the centres where keratoplasty will be done.
- (vii) Shall supply the donor material to qualified trained Ophthalmologists of the district registered with the eye bank provided they are fully qualified to perform such operations.

Regional/State Eye Banks

8.22. It is proposed that each State will have a State level Eye Bank at the Medical College, at Regional Institute, preferably located at the capital with the following objectives:—

- (i) To act as a coordinator, for proper distribution of the donor material amongst the various eye banks in the State.
- (ii) To regulate the publicity drive to raise eye donations within the State.
- (iii) To organise training of Ophthalmologists and eye bank technicians in the State as part of the training programmes run by Medical College/Regional Institute.
- (iv) To organise short-term training programme for general practitioners working in the collections centres in the art of collection and short-term preservation for transportation of the eyes to the eye banks.
- (v) To conduct research in the preservation techniques and surgical application of cornea transplantation.
- (vi) To create facilities for proper supervision of collection centres, quick communication information and transportation of donor material to the eye banks.
- (vii) They shall coordinate their activities with the other State and Regional Eye banks through the National Eye Banks.

8.23. In bigger States, regional Eye Banks should be started for a cluster of 30 districts to regulate the distribution of the eyes of the neighbouring districts. They shall have the same responsibilities and objectives as of the State Eye Bank and shall maintain a direct liaison and coordination with the State eye Banks.

National Eye Bank

8.24. It has been stated that as at present, National Eye Bank should continue to form part and parcel of the apex organisation i.e. Dr. R. P. Centre for Ophthalmic Sciences. It will act as the organisation to coordinate the activities of all the eye banks in the country. It will, in addition to the objectives laid for the State Eye Banks, organise and regulate the following through the State/Regional Eye Banks and other government agencies:—

- (a) Publicity
- (b) Collect data on the progress of the eye bank movement and eye donation and number of operations performed.

- (c) Shall formulate policy for ethical implementation of the objectives of eye banks.
- (d) It shall conduct research on fundamental aspects of corneal preservation, corneal substitutes, transplantation techniques, development and trial of newer instruments used for keratoplasty.
- (f) Shall coordinate the Eye bank movement in the country with the help of Ministry of Health, Civil Aviation, Railways, Social Welfare, Law and Information and Broadcasting.

8.25. To achieve the targets, it has been stated :

- (a) The targets of establishment of eye banks need to be phased in a period of 20 years as an integral part of the development of the Ophthalmic Services.
- (b) Publicity at the National and State level will be intensified to raise voluntary eye donations.
- (c) Collection centres will be opened at all district hospitals and these will be affiliated to the nearest established eye banks.

8.26. The Act that is being proposed for the Union Territory of Delhi can serve as the Model Corneal Grafting Act. It has the provision of collection of eyes from the unclaimed bodies within 1/4 to 2 hours after death. Provision for collection of eyes in pathological and medico-legal postmortems has also been incorporated.

8.27. The National Committee for implementation of plan will bring about a coordination of the various existing eye banks in the country and those to be created in the future.

It shall -

- (i) ensure ethical functioning of the eye banks.
- (ii) lay out standard minimum requirements for starting a collection centre and district eye banks.
- (iii) avoid competition amongst eye banks.
- (iv) ensure that each district established only one eye bank with many collection centres and corneo-plasty units where qualified ophthalmologists can perform keratoplasty operations.

8.28. A number of leading Ophthalmologists in different memoranda submitted to the Committee have stated:-

“There are at least 4,00,000 blinds amongst those which can be cured by the corneal grafting operations but facilities for the same are totally inadequate. There are about 43 eye banks functioning in the country. While these are called eye banks their main activity is to do corneal grafting immediately after the receipt of the eye. To facilitate the removal of the eyes, corneal grafting act has been passed in various States like Madhya Pradesh, Uttar Pradesh, Punjab and Delhi, Karnataka, Maharashtra, Andhra Pradesh, Gujarat, Haryana and Chandigarh. The eyes are removed from the unclaimed bodies after death or from the bodies of those who have donated their eyes before death, provided next of kin do not object. There is a great paucity of donor material. At one time a suggestion was offered that any person who dies in the hospitals, his eyes should belong to the hospital, in view of the fact that these persons have already availed of considerable social benefits by free treatment.

The Union Territory of Delhi, has prepared a draft legislation for corneal grafting for the removal of eye from the dead which is considerable improvement over the existing acts. Though it may ease the situation yet may not prove fully adequate... The Indian Government should enact model legislation where in it should be possible to get the eye from medico-legal postmortems, from pathological postmortems and from patients dying in the hospitals”

- “(ii) It is estimated that nearly half a million blind persons in India can be helped to regain vision through corneal grafting. Eye Banks, therefore, have an important role to play. Unfortunately, most of the eye banks in the country are ineffective staffed as they are not well equipped or well staffed. Lack of Public education to donate eyes and lack of facilities to collect eyes, when donated soon after death before they begin to deteriorate and lack of prompt transportation and adequate storage of the eyes collected, add to the problems of eye banks. Legislative measures are being taken in some of the States, but a great deal remains to be done if the eye banks in India are to fulfil the expectations realised by the success of corneal transplants.”
- “(iii) “So far eye banks in the country, have been able to contribute only a very minute fraction in prevention of blindness. Keratoplasty is done in only a few centres and in a very

limited number of cases which does not exceed about a 1000 cases for whole of India per year. There is no proper legislation for donation of eyes after death because of which there is shortage of donor eyes. Moreover keratoplasty will only solve a minor (corneal) aspect of the problem which will not amount to much for the immediate present as cause of preventable blindness are many. However, keratoplasty operation should be done in every medical college Hospital and trained staff encouraged to do these operations."

8,29. A number of non-official ophthalmic specialists who appeared before the Committee, gave their views thus on the functioning of Eye Banks in the country:—

"(i) I am not fully aware as to how many eye banks are in our country but I think that effective and well-functioning eye banks are very few. There is definite need for more, at least two in every State..... Their function should not merely be to collect donated material but also to conduct research on various corneal blinding diseases and for prolonged storage of donated material. I agree that enactment of model legislation is necessary. We need a little persuasion; we need to educate the people and a little modification is necessary. Somebody gives his will saying that his eye is donated, but after he dies, the body does not belong to him; it belongs to the immediate kith and kin. If the wife or son does not want to give it, she or he creates all sorts of problems and you can't go to court for this thing. The immediate kith and kin may refuse or put obstacles in your way. As you know eye after death. Some people fancy, they have donated the eye, but this is what happens. People die in hospitals and in such cases the eye can be removed and made use of. In order that there may not be any hue and cry in having such model to create some sort of awareness among the persons."

..

(ii) An eye bank consists of a refrigerator, a thermos and a knife to remove the eyes of a dead man. The moment the Eye Bank gets a telephone call from the relatives of the dead man for donation of the eyes, they send their technicians to remove the eyes of that dead man. After that, these eyes are put in a flask and then that flask is put in the refrigerator. The next step is that these eyes have to be transplanted into the eye of the blindman. Our medical people here have failed in this regard.

(iii) Half a million people can be made to see if eyes are available and if storage facilities are available and if surgeons are available to do the corneal grafting. There is so much ignorance with regard to the eye donation. A very intensive effort is necessary to educate the public.

Then, a workable legislation is necessary in this regard. Things are delayed very much; you have to wait for the relatives, you have to wait for this and that. I personally am absolutely willing to take out the eyes of anybody dying in a hospital and am prepared to commit the sin, if it is sinful to do that. But most people are not prepared to do that. You have to give them protection legally for taking out the eyes and giving them to the eye banks. There is no reason why after death, the eyes should not be taken out when the same can give vision to somebody and the body is going to be cremated or buried. Legislation is, therefore, absolutely necessary to enable people to take out these eyes freely; secondly education of the public in this regard is important. Thirdly there should be facilities for taking out the eyes. These should be available readily, so that if 'X' telephones that his mother or father had died and you can take out his eyes, I should have necessary facilities to take out the eyes within six hours. Then somebody must be there who takes and properly preserves them and proper storage place should be available. Transportation may be required, so that the eyes can be transported to the eye bank without delay, otherwise they would degenerate in our weather.

(iv) Since 1961, we have started an eye bank in Hyderabad. Of course, it is very difficult to start with it in this country. It takes a lot of time. There were seven cases where we had failed. We were successful in the 8th case. There are more cases of Corneal grafting waiting for the operation. What I have suggested to the Government is that 24 hours must elapse before a doctor touches a patient for removal of the eye ball in any Government institution. Now the eye ball has to be removed within six hours. That is coming in our way. We should study what other countries have done about it."

8.30. During evidence, the Ophthalmic Adviser, to the Government of India, Ministry of Health, gave his views thus on the question of Eye Banks:—

"The problem of eye banks is the problem of donors. Even if we increased number of Eye Banks, the donors available are too small. The eye banks are functioning from hand to mouth.

Whenever we get a donation of eyes, we have patients ready. So, they are bankrupt banks with nothing inside to offer to others. The need is very great. We need 4,00,000 eyes. We go on adding to it. We have mounted a propaganda for donation. The first person is to be enlisted after this propaganda was our Prime Minister herself who has willingly donated her eyes. Many Ministers and public leaders have now been enrolled as donors. Things are improving. When the body goes to the hospital for post mortem examination, we remove the eyes. We are also having people who are willing to ask the relatives to allow the eyes to be taken out from the deceased. So, the position is satisfactory; we have continuously to make efforts. The second thing is that once there is social awareness in the people, things will improve a lot. And with the addition of one of the social duties in the Constitution, to help others may be I can get more eyes."

8.31. On the question of enactment of model legislation the Adviser in Ophthalmology, stated this:

"After 48 hours of death, the eyes are not useful, therefore, we have drawn a model act for Delhi and it has been adopted by the Delhi Metropolitan Council in which it has been provided that if the body is not claimed within two hours, its eyes will be removed. Suppose a person dies in a hospital but his relatives do not allow the eyes of the deceased to be removed, in this case it has been provided in the Act that the authority of removal of eyes shall vest with the person who has the custody of the body at that time. That means if he is in the hospital and we know for certain that relatives will have no objection. But the question of compulsory removal of eyes from medico-legal postmortem, pathological postmortems and from patients dying in the hospital is very important political question and I think this should be decided at the political level rather than at the administrative level."

8.32. As to the adequacy of the Eye Banks in the country and how far these were well equipped and well staffed, the Ministry of Health have in a written note stated the position as follows:

(i) "The number of eye banks is not adequate but with the provision of services at medical colleges and regional institutes, the number of eye banks will be increased to about 112 for which no extra expenditure is required. Each medical college, regional institute and the apex organisation is supposed to have an Eye Bank. The number will be quite adequate."

(ii) Eye Banks are fairly equipped and the staffing position is satisfactory. There is no necessity to increase the equipment and the staff in these areas as the upgradation of colleges, regional institutes and apex organisation will take care of them."

8.33. On the question of a model legislation to get the eyes from medico-legal postmortem, pathological postmortems and patient dying in hospitals, the Ministry have stated that:

"A model Legislation is being prepared by the Ministry of Health for Delhi, which will help in removal of eyes from unclaimed bodies and for those who have given consent for the removal of eyes after death. The time after which a body can be declared as unclaimed so far is 48 hours—but at the end of this period, the eyes are not utilisable.

In the new act the time after which a body can be declared as unclaimed has been reduced to two hours—well within the utilisable period of 6 hours. The Government has taken no decision with regard to enactment of legislation for removal of eyes from medico-legal postmortem, pathological postmortem and from patients dying in the hospitals. The pros and cons for such a step are being studied and no formal ideas have yet been formulated in this connection. The Government of India is utilising all means of mass media for encouragement of donation of eyes by people after death."

8.34. The Committee note that approximately 30 per cent of blindness is due to corneal diseases and opacities following infections of cornea and that roughly over a million persons can benefit by corneal grafting operations. It is noticed that there are at present only 43 Eye Banks functioning in the country. The majority of the eye banks collect and utilise 5-10 pairs of eyes per year. Considering that a million persons can benefit by corneal grafting operations, it is evident that the existing rate of collection and utilisation of eyes is woefully inadequate. The Committee consider that if any perceptible improvement is to be effected in restoring eye sight by corneal grafting, intensive efforts are called for, for organising and collection of eyes of persons after death and for ensuring effective utilisation of the eyes so available.

8.35. The Committee note that the problem of eye banks is the paucity of donors. The number of donors is very small. It has been stated that publicity has been started for donation of eyes and that Government is utilising all means of mass media for encouraging donation of eyes by people after death. The Committee need hardly emphasise the urgency of continuous and concerted efforts through education and effective publicity

to create social awareness in the community regarding the humanitarian aspects of the problem of blindness so as to encourage a large number of people to donate their eyes after death.

8.36. The Committee understand from certain eminent non-official ophthalmologists who gave evidence before the Committee that most of the eye Banks in the country are ineffective as they are not well equipped or well staffed. It need hardly be stressed that especially when the number of eyes available for transplantation is very small, it is of the utmost importance that even the few which are available, should be utilised properly. The Committee would, therefore, like Government to review the working of the eye banks so as to ensure that the Eye Banks are run efficiently and not a single eye donated, is wasted because of ineffective storage and faulty utilisation.

8.37. The Committee understand that there are lacunae in the legislation pertaining to corneal grafting which stand in the way of prompt collection and proper utilisation of unclaimed eyes of dead bodies. It has been stated that after 48 hours of death, the eyes are not useful for grafting and that a model act is being prepared for Delhi which will permit the removal of eyes from a dead body if it is not claimed within specified hours. The Committee need hardly observe that the legislation pertaining to corneal grafting in the various States should be reviewed in the light of the model legislation so as to bring about desired amendments in the Acts in the interest of utilisation of the eyes for the benefit of the blind.

8.39. The Committee note that the National Plan for the prevention and control of blindness provides for establishment of a net work of Eye Banks at the district level, regional level, state level as also a National Eye Bank at the Dr. Rajendra Prasad Centre for Ophthalmic Science, New Delhi. The plan also provides for increased facilities for collection of eyes, training of doctors in the associated techniques and preservation of eyes. The State and National Eye Banks will be responsible for coordination and supervision of the work and also for research in the various techniques of preservation and transplantation of eyes. The Committee have no doubt that the Plan for the setting up of a net work of Eye Banks would be implemented, according to a time bound programme.

CHAPTER IX

ORGANISATIONAL SET UP

9.1. The Joint Committee of the Central Advisory Board of Health and Education in their report submitted to Government in 1943, recognising blindness to be a major problem, made several recommendations for the control and prevention of blindness which *inter-alia* included:—

- (i) Appointment of special Adviser in Ophthalmology in India in the office of the Director General, Indian Medical Services and setting up an Indian Council of Blindness at the Centre, the Adviser also acting as the Secretary to that Council;
- (ii) Appointment of Adviser in Ophthalmology at Provincial and State levels and formation of Committees of Indian Council of Blindness.

9.2. The Health Survey and Development Committee under Sir J. Bhore constituted in 1946 also commended the recommendations of the Joint Committee for earnest consideration of Government. Inspite of such strong recommendations of the two Committees no action was taken by the then alien Government of this country and exhaustive reports and recommendation of the Committee remaind practically shelved.

9.3. Subsequently the Central Council of Health and Family Planning at its meeting held in April 1975 had provided for taking steps to give technical and administrative support for Community Ophthalmology at Central and the States. As a first step towards the implementation of this resolution, an apparatus for technical and administrative support in Central Government has been provided by appointing an Ophthalmic Adviser at the National level and by creating a Cell in the Directorate General of Health Services for implementation of the National Trachoma Control Programme and prevention of Blindness. This Cell has been entrusted with the responsibility of looking after all the problems of Community Ophthalmology.

9.4. It has further been stated by the Ministry of Health that to expedite decisions within the Ministry of Health an Intra-ministerial group was also proposed to be set up. It has also been stated by the Health Ministry that at present there does not exist any organised machinery of cooperation with the State Governments for rendering Ophthalmic services and for any health programmes in the field of eye health care. The only machinery of consultation with these governments is the Central Health

Council in which if any time a problem regarding the eye health care needs to be discussed, the matter is put as an item for discussion and resolutions are adopted. The Central Government does not have any powers for ensuring the implementation of the recommendations or resolution of the Council. This Council only acts as general Advisory body spotlighting the problems of health where action is needed.

9.5. Since health is a state subject, Central Government can only offer advice and guidance. In the National Plan of Action, coordination is proposed with the State Governments by consultation with their administrators and technical personnel from time to time. In this connection the State Governments are being urged to appoint honorary ophthalmic advisers in their directorates or ministries, so that they can have direct link and dialogue with the honorary ophthalmic adviser in the Ministry of Health at the Central level. It is also proposed to hold periodic meetings of Health Secretaries, Directors and Ophthalmic Advisers at appropriate levels depending upon the requirement of the programme.

9.6. The Secretary Ministry of Health, holds periodic meetings with the Secretaries of the Health of State Governments and in these meetings it is proposed to regularly raise issues with regard to prevention of blindness programme that are proposed and have to be implemented. The Government of India is also thinking of a better coordination between the apex organisation, i.e., Dr. Rajendra Prasad Centre for Ophthalmic Sciences and the regional institutes in the technical and academic fields. It is also the intention of the Central Government to hold periodic seminars and symposia to spotlight the problems that spring up during the implementation of these programmes and find their solutions.

9.7. During evidence, the Secretary Ministry of Health stated that there was a coordination Committee with the Department of Social Welfare and it was proposed to set up National Advisory Committee on Ophthalmology so that the expert Member of Parliament and also representatives of the Voluntary organisations and of the regional Committees could be associated with it. These interests represented on the National Advisory Committee will be able to tell us what was good and what was wrong in the programme. At the District level the District Magistrates would be Chairmen of these Committees.

9.8. The Ministry of Health in a written note furnished to the Committee have explained the position thus with regard to securing of cooperation.

"The Government of India has appointed a National Committee for the implementation of the programme which will also serve as a coordinating agency. The Member-Secretary of the National Committee is the Adviser in Ophthalmology in

the Government of India who will hold regular consultation with the States. This consultation will lead to a coordinated approach in the matter of rendering ophthalmic services.”.

9.9. The Composition and functions of the Central Council of Health are given below:—

1. Organisation of the Central Council of Health.

(i) The Council consist of—

(a) The Union Minister for Health & Family Planning . . . Chairman

(b) The Deputy Ministers in the Ministry of Health and Family Planning Members

(c) The Ministers and incharge of the Ministries of Health in the States Members

(ii) Expert and technical advisers to the Central Government and State Governments are not members of the Council and do not have any right to vote when any decision is taken by it but shall, if so required by the Council, be in attendance at its meetings.

2. Nature of the duties performed by the Council.

The Council is an advisory body and in the capacity performs the following duties namely:—

- (a) to consider and recommend broad lines of policy in regard to matters concerned health in all its aspects, such as the provision of remedial and preventive care, environmental hygiene, nutrition, health education and the promotion of facilities for training and research;
- (b) to make proposals for legislation in fields of activity relating to medical and public health matters, laying down the pattern of development for the country as a whole;
- (c) to examine the whole field of possible cooperation on wide basis in regard to inter-state quarantine during times of festivals, outbreaks of epidemic diseases and serious calamities such as earthquakes and famines and to draw up a common programme of action;
- (d) to make recommendations to the Central Government regarding distribution of available grants-in-aid for health purposes to the States and to review periodically the work accomplished in different areas through the utilisation of these grants-in-aid; and

(e) to establish any organisation or organisations invested with appropriate functions for promoting and maintaining cooperation between the Central and State Health administrations.

9.10. It has been stated that all policy decisions taken by this Council with regard to rendering of Ophthalmic services are proposed to be accepted for implementation. Special attention will be given to review the progress of the programme every year and outline the targets for the next year. Detailed discussions can also be held with State Health Secretaries before the meetings of the Central Council of Health and at frequent intervals as and when necessary.

9.11. It has further been stated that in 1977 a National Committee for Blindness had been set up by the Ministry of Health and its composition was as follows:—

1.	Minister of State in the Ministry of Health & Family Planning	Chairman
2.	Shri J. S. Bali, Additional Secretary, Ministry of Health & Family Planning Deptt. of Health.	Vice-Chairman
3.	Dr. P. P. Goel Director General of Health Services, D.G.H.S., New Delhi.	Member
4.	Shri Shravan Kumar Joint Secretary, Ministry of Health and Family Planning.	Do.
5.	Shri Prem Nath Joint Secretary, Ministry of Health and Family Planning.	Do.
6.	Director Sarojini Devi Institute of Ophthalmology, Hyderabad.	Do.
7	Director Institute of Ophthalmology, Aligarh.	Do.
8.	Director Jawahar Lal Institute of Ophthalmology, Sitapur.	Do.
9.	Director Institute of Ophthalmology, Ahmedabad.	Do.
10.	Chief of Minto Eye Hospital, Bangalore.	Do.
11.	Director and Chief Eye Infirmary, Government Medical College, Calcutta	Do.
12.	Secretary All India Ophthalmological Society, Bombay.	Do.
13.	President National Society for the Prevention of Blindness, New Delhi.	Do.
14.	Executive Officer National Association for the Blind, Bombay.	Do.

15. Shri Lal Adwani Officer on Special Duty, Department of Social Welfare Government of India New Delhi.	Member
16. & 17. One representative each from Department of Education and Department of Social Welfare	Do.
18. Dr. L. P. Agarwal Honorary Adviser (Ophthalmology) Dte. G.H.S., New Delhi.	Do.

9.12. Following are the broad functions of the Committee:—

- (i) assist in evolution of policy and long term Planning;
- (ii) recommend annual plans;
- (iii) recommend measures towards coordination in various zones;
- (iv) help in monitoring and evolution of programme; and
- (v) review annual proposals.

9.13. Pointing out to the fact that the Special Joint Committee on Blindness (1944) had recommended the appointment of special adviser in Ophthalmology at the Centre and adviser in Ophthalmology at Provincial and State levels, the Committee enquired the reasons for not taking expeditious effective action on those recommendations even after 29 years of Independence. The Ministry of Health in a written note explained the position as follows:—

“The recommendations of the Special Joint Committee on Blindness were not implemented because of lack of resources. Since there was no planned programme of action for prevention of blindness, the appointment of adviser at Centre and in States was not made and the recommendations were not taken into consideration. However, since the time the Government decided to launch the national programme for prevention of visual impairment and control of blindness, a Hon. adviser has been appointed at the Centre; and within this financial year (1977) the rest of the work is expected to be completed. As far as the Committee on blindness is concerned, a National Committee has been set up instead of a Council.”

9.14. With regard to the ophthalmic set up in the States it has been stated that the Central Ministry of Health had advised the State Government to create Cells of Community Ophthalmology and appoint Honorary Ophthalmic Advisers so as to coordinate the activities at the State and National level. The State Government had also been advised to appoint State Implementation Committees. Similarly in order to look into day to day matters, the State Governments had been requested to appoint an Inter-ministerial Groups on the lines of Central Group to expedite the deci-

sions. On the question of creation of cells in the States to look after the problems of Community Ophthalmology, the Ministry of Health have state:—

“It is understood that U.P. has created a Cell of Community Ophthalmology. Rajasthan, Punjab and Haryana have accepted the idea in principle. Negotiations with other States are under way and they will be persuaded to do so as soon as the Plan is launched. No difficulty in this regard is anticipated.”

9.15. On the question of appointment of Inter-ministerial Groups and constitution of Implementation Committees, the Ministry have stated thus:—

“The Government is of the view that the question of appointing Inter ministerial Group be considered after the plan is under implementation for sometime. The States are expected to constitute Implementation Committees when the Plan is taken up for implementation.”

9.16. The Sub-Committee of the Estimates Committee (1977-78) on Prevention and Control of Blindness enquired as to what was the co-ordinating machinery existing at present in the States for implementation of National Plan for Prevention and Control of Blindness and if no machinery had been set up so far, what should in their view be the ideal machinery at the level of the States for co-ordinating their activities with the Central Government for the effective implementation of the National Plan for the Prevention and Control of Blindness. The Ministry of Health, in a written note (November, 1977) stated the position as follows:—

“There is no machinery in an organised manner for implementation of this programme, but in some States district eye relief societies exist and they try to render services through eye camps and through creation of small eye hospitals in the districts. The existing machinery of the Central Council of Health is being utilised for co-ordination with the States. The National Implementation Committee has been formed with a view to give direction for the implementation of the programme in which representatives of organisations working at the national level and the Director of the Regional Institutes to be set up are represented. They should be able to co-ordinate the activities. It is also envisaged that the zonal implementation committees will be formed with the Regional Institutes as the base and they should be able to look after the co-ordination in their respective zones and through them the co-ordination of the

States will be achieved. There also exists now a Central Co-ordination Committee which looks after the co-ordination of the Governmental efforts with the voluntary organisations that are being done in an organised manner.

9.17. As to whether any State Implementation Committees and District Co-ordination Committees had been set up, as was originally envisaged, the Committee were informed thus:—

“No committee as yet (November, 1977) has been formed but the States who have accepted the Plan have already taken up the question of forming these States Implementation Committees.

The District Co-ordinating Committees are also being formed and efforts are being made through the voluntary sectors and Governmental sectors to expedite the formation of these Committees. It is hoped that in the 75 districts where this Plan will be immediately implemented through 15 mobile units, these Committees will come into existence by the end of November, 1977”.

9.18. On a suggestion that the representatives of the Department of Health, Social Welfare, Labour, Industry (Small Scale Industry), Commerce, Agriculture should be represented on the National Board to give it a multi-centre approach to the problem. The Ministry of Health in a written note (November, 1977) gave their views as follows:—

“In this respect it is stated that a National Committee for the Prevention and Control of Blindness under the Chairmanship of Minister of State for Health and Family Welfare is already in existence. We agree to co-opt members from the concerned Ministries on this Committee wherever the need arises.”

9.19. The Committee note that the Joint Committee of the Central Board of Health and Education in their Report submitted to Government in 1943 had recommended the appointment of Special Adviser in Ophthalmology at the Centre and also at the State levels. These recommendations were also at the State levels. These recommendations were also commended for earnest consideration of Government by the Bhore Committee constituted in 1946. It is unfortunate that no action was taken by the then Government of the country on these recommendations which remained practically shelved. The Committee note that it was only in 1975 that an Ophthalmic Adviser at the Centre was appointed in pursuance of the resolution adopted by the Central Council of Health and Family Planning. As the National Programme on Blindness has been approved and is being taken up for implementation the Committee would like Government to

ensure that Advisers in Ophthalmology of well known standing and organisational ability are appointed at the earliest at the State levels as well for co-ordination and expeditious implementation of the National Programme.

9.20. The Committee regret to note that so far there did not exist any organised machinery for consultation with the State Governments for providing Ophthalmic services and for undertaking programmes in the field of eye health care. The only machinery for consultation with the State Governments was the Central Health Council which acts as a general advisory body regarding various health problems, and which was being utilised for coordination with the States. The Committee further note that Government of India have recently appointed a National Committee on Blindness for the implementation of the programme for the prevention and control of Blindness. The National Committee will act as a coordinating agency and will hold regular consultations with the States in the matter of rendering Ophthalmic services.

9.21. In view of the crucial importance of the National Programme of Action and the imperative need for concerted action for the implementation of the programme, they would urge the National Committee to undertake expeditiously the implementation of the programme on sound lines and closely review the progress from time to time so as to remove bottlenecks in the effective and timely execution of the programme. They have no doubt that this Committee enlist the active cooperation of all the States in the programme and would ensure effective monitoring so as to take immediate action where necessary. The Committee would also stress that the representatives of Departments of Social Welfare, Labour, Industry (Small Scale Industries), Commerce, Food, Defence Production etc., should be co-opted as Members of the National Committee for Blindness, to achieve a greater degree of coordination among the different agencies concerned with the various aspects of the implementation of the National Plan of Action for the Prevention and Control of Blindness.

9.22. The Committee further note that the Zonal Implementation Committees and the Central Coordination Committees are proposed also to be formed to look after the coordination work in their respective zones and achieve coordination of Government efforts with the voluntary organisations respectively. The Committee hope that these bodies will play their rightful role in achieving the tasks set before them.

9.23. The Committee are glad to note that Inter-ministerial Group is also proposed to be set within the Ministry of Health to expedite decisions. The Committee hope that similar Inter-ministerial groups would also be set up at the State levels in due course of time.

9.24. The Committee further note that no State Implementation Committees had been formed till November, 1977 but the States who had accepted the National Plan of Action on Blindness had already taken up the question of forming these State Implementation Committees. They hope that the formation of these Committees in the various States would be expedited. The Committee also trust that the District Coordinating Committees in the 75 districts where the National Plan of Action on Blindness is to be implemented through the mobile units would have been formed at least by the close of the month of November, 1977, as promised by the Ministry of Health and help in the speedy and systematic implementation of the National Plan of Action on Blindness.

9.25. The Committee note that a Cell has been created in the Ministry with the responsibility of looking after all the problems of Community Ophthalmology. The Committee stress that the working of the Cell should be reviewed from time to time so as to ensure that the Cell effectively fulfils the purpose for which it has been constituted.

9.26. The Committee further note that cells of Community Ophthalmology had been set up in the States of Rajasthan, Punjab and Haryana. The Committee hope that similar cells would soon be set up in all the States as well and concerted measures taken to establish and develop Community Ophthalmology services in the field.

New Delhi;

January 11, 1978

Pausa 22, 1889 (S)

SATYENDRA NARAYAN SINHA,

Chairman,
Estimates Committee..

APPENDIX I

(Vide para 1.13)

Observations/recommendations made by the Health Survey and Planning Committee relating to Prevention and Control of Blindness.

The Committee observed "The incidence of eye diseases in this country is considerably higher as compared to the incidence of similar diseases in foreign countries. In some areas, the incidence is as high as ten percent of the total population. Besides this there is a dearth of ophthalmic specialists who can take adequate care of these patients. This high incidence of eye diseases has resulted in an appalling rate of blindness. On a rough estimate, the figures of blindness in India are 1.5 persons per thousand of population. This figure does not include the partially blind population. Thus about 1 million people are totally blind and at least double the number partially blind, and showing ocular morbidity. The figures exclude cases of Cataract which can be cured by an operation. Comparing these figures of 2,500 blind persons per million population to data in some of the countries in the West which are highly industrialised, the inadequacy of ophthalmic services in the country becomes evident. With the exception of Egypt, India has the highest proportion of blind population. This country has yet to be industrialised and with the development of heavy industries there is going to be an increase in ophthalmic hazards, which will further accentuate the problem of blindness. Some of the more important causes of blindness are simple glaucoma, couching, dense corneal leucoma, trachoma, ophthalmic necatoram, nystagmus and smallpox.

Prevention of Blindness is thus a problem of great magnitude in this country. This can be achieved in the following ways:—

Preventive and Social Medicine personnel should be properly instructed with regard to the incidence of these diseases and the measures necessary for preventing them so that they can carry out mass propaganda regarding the incidence and the hygienic measures necessary for the prevention of the same. Smallpox, Trachoma, infectious diseases and accidents fall in this group.

An intensive ophthalmic service should be developed throughout the country. At the present rate of development, it will not be possible to provide enough semi-specialists in the ophthalmology in spite of our best efforts. Special ophthalmic services, at least in each district head-quarters and adequate number of the beds in the district hospitals for the treatment of ophthalmic diseases are necessary. The hospital should be given *ad hoc* grants to equip themselves for *diagnosis and treatment* of ophthalmic diseases.

In view of the fact that inspite of the best efforts of the country, it does not seem possible to provide the adequate number of specialists and semi-

specialists in the subject, the Committee viewed with great concern the tendency of some of the universities and Indian Medical Council to reduce the period of training at the under-graduate level in this course and in some others the tendency to completely abolish the assessment of the candidates. If this attitude is encouraged, the ophthalmic services even for minor ailments will become hopelessly in-adequate. This will adversely affect the *ocular morbidity and blindness*, thereby increasing the size of the problem. The Committee, therefore, considers that at the under-graduate level, the students should be adequately trained in the subject of ophthalmology and should be assessed separately with regard to his fitness in this subject. The combination of this subject with surgery for assessment must be deprecated. It is felt that the students should be given at least 50 lectures-demonstrations and should be posted to the wards and Out-patients Department for a period of not less than 13 weeks.

In order to encourage the students to take up ophthalmology as a career, a careful watch would be kept on the methods of teaching and the degrees and diploma to be awarded. Ophthalmic training suffers further from lack of facilities for the treatment of squint. The facilities for ophthalmic research are also limited and specialised sections like ocular pathology are wanting in most of the teaching institutions. We tried to find out if the depts. of general pathology in these institutions can handle ophthalmic pathology efficiently and the general pathologists heading these departments made no secret of the fact that they could not do so. In these circumstances, the Committee feels that an orthoptic training centre to train the ancillary ophthalmic personnels should be immediately started and orthoptic sections should be instituted in all teaching institutions. Similarly, a specialised section in ocular pathology should be established in various teaching institutions so that ophthalmic research does not suffer. The orthoptic centres and ophthalmic research will considerably help in the reduction of ocular morbidity figures. Drug research in ophthalmology is also in-adequate and efforts should be made to give impetus to research in this direction. The prevention of blindness and reduction of ocular morbidity can only be achieved by the following measures:—

- Training of personnel for propaganda and mass therapy in rural India;
- Starting mass campaigns against diseases like trachoma, smallpox, corneal ulcers etc;
- Opening of Ophthalmic clinics and Hospitals at least at the district level;
- Continuance and intensification of mobile ophthalmic units; but these units should be equitably distributed and become really effective rather than remain so in name only;
- Inclusion of adequate training and adequate assessment of medical student in ophthalmology at the under-graduate level. A minimum of 50 lectures-demonstrations and 13 weeks training is desirable;
- Ensuring uniformity of standard at the diploma level by the constitution of a central examining board so that the practicing ophthalmologists are trained to a satisfactory standard;

—Institution of a specialised school for the training and care of visually handicapped persons with regard to vocation and rehabilitation.

(a) *Ophthalmic Hospitals*

There should be one ophthalmic hospitals for each State 300 to 500 beds. Each district hospital should have 10—15 ophthalmic beds with a specialists to visit the hospitals in the districts and organise eye camps. Every regional hospital i.e., medical college centre should have 50 to 100 ophthalmic beds.

(b) *Rehabilitation of the blind*:

A random sample survey carried out in Delhi indicates that nearly 4 per cent of the families residing in Delhi had a handicapped member, blindness being the most common cause followed by orthopaedic handicaps. The Government of India run a National Centre for the Blind Children. A similar centre for the adult blind is also being run where workshop facilities are also available for training in crafts. There are understood to be about 100 schools for the blind in the country mostly run by the voluntary agencies. Out of the estimated 2 million blind persons, only about 50,000 can read Braille".

They further recommended:—

- “27. In regard to blindness those concerned with preventive and social medicine should be properly instructed about the aetiology and incidence of eye diseases and the measures necessary for preventing them. Special surveys and provision of adequate number of beds are necessary. At the under-graduate levels, the students should be adequately trained in ophthalmology. This will encourage them to take up Ophthalmology as a career.
- 28. Mass campaigns against disease like trachoma, and other diseases causing blindness like Smallpox etc. should be conducted.
- 29. There should be one Ophthalmic Hospital for each State with 300 to 350 beds besides the provision made in the District Hospitals.
- 30. Centres for rehabilitation of the adult blind should be established”.

APPENDIX II

(Vide para 1.19)

Report of W.H.O. Short Term Consultant visited the country in April-May, 1975

1. National Policy:

- (i) Any action in the field of public health ophthalmology should stem from a national policy statement on the implementation of the general welfare policy of the Government and on the strengthening of professional expertise. The statement should be comprehensive, should have a long term plan approach, provide for a phased programme and introduce multi-disciplinary action. It should be endorsed jointly by the health, social welfare and educational authorities.
- (ii) The active implementation of such a National Policy could best be achieved through the establishment of unit for public health ophthalmology at the appropriate level in the Ministry of Health or by entrusting this function to another defined unit. The objective of the unit should be to deal with the legislative and administrative aspects of the national policy and eye health programme, coordinate relevant activities amongst different Ministries, States of the Union and non-governmental organisations, and also be responsible for mobilisation of international assistance and the resources at the national level.

2. Technical Leadership, Establishment of a National Institute:

The strengthening and promotion of national technical leadership, are usually achieved by establishing a centre of excellence in country in this case by forming such a body as a national institute of public health ophthalmology. It should be stated that Dr. Rajendra Pd. Centre for Ophthalmic Sciences, in New Delhi by virtue of the range of the activities which it undertakes, is at present acting in this capacity. By strengthening its present activities, this should be able to provide technical leadership in the areas of service, and research related to the national problem of visual impairment and blindness. More specially, its activities should cover:—

- technical long term planning;
- evaluation of programme and services;
- the planning and programming of epidemiological investigations; and
- the development of training patterns in public health ophthalmology for under-graduates, post-graduates and continuing medical and allied health personnel.

As a specific proposal, a full time Epidemiologist and a Statistician should be provided at the above centre as a priority.

3. Strengthening of Existing Institutions:

As a medium term objective, existing ophthalmological institution in the country should be developed in a manner as Regional or State institutions of public health ophthalmology.

4. At the community level:

- (i) as a long term programme, a comprehensive eye-health care unit should be developed at the district level. It is understood that the detailed proposals have already been submitted to the Government. Specialised service units should be established and should cater for all eye-health problems of the population referred from periphery. Further selected primary health centres in each district should be up-graded to offer integrated eye-health care services within the existing public health delivery system.
- (ii) As a short-term measure, the existing "eye-camps" should receive full support of expansion and development. The shortage of personnel and other resources could be temporarily overcome by these camps. The following measures might be considered in order to improve the efficiency at the periphery:—
 - (a) Increased use of community resources through active participation of voluntary service agencies;
 - (b) Including the work of the mobile unit health educational activities and programmes, school surveys and preliminary training of teachers in the education of the visual defects;
 - (c) Organisation and expansion of service through mobile units "(eye-camps)". Units for comprehensive eye-health care instead of unipurpose cataract eye camps should be operationally considered. A multi-disciplinary team, including a health educator and a rehabilitation worker, could substantially contribute to the collection of the data related to visual impairment and blindness;
- (iii) The possibility of integrating eye-health care activities for the prevention and control of visual impairment and blindness (especially due to trachoma, nutritional and corneal defects) and smallpox should be considered. Pending the availability of the necessary funds sufficient quantities of eye ointment and Vitamin 'A' capsules, such a measure would enhance the over impact of such activities.

5. Trachoma Control:

The trachoma control programme need reappraisal and reactivation. In this context, reactivating the disease progress would call for epidemiological studies supported by laboratory investigations. As it may not be possible to organise such study/investigations on national scale, a pilot

study should be arranged, for which, as the results might be of international interest, the availability of resources and scientific personnel from advanced centres interested in this field should be explored.

6. Prevention of Occupation Eye Hazards:

- (i) The pattern of injuries to the eyes and measures for prevention need epidemiological study.
- (ii) Adequate measures should be taken to protect the eyes of workers.
- (iii) Agricultural workers should be educated to protect their eyes from trauma due to flying grains and husk during the harvest season.
- (iv) Eye-health education employing mass media should be given to prevent this kind of blindness.

7. Research in Public Health Ophthalmology:

The magnitude of the eye-health problem in the country necessitates the strengthening of applied research activities for the prevention and control of blindness. Particular attention should be paid to the study of factors precipitating cataract, which appear in earlier age groups in Indian population, adding annually substantial numbers to the already existing large number of patients awaiting surgical restoration of sight.

On his subsequent visit in April-May, 1975, the Consultant made the following recommendations:—

A. Basic eye health care services should be organized by stages in a phased manner, at the primary health centre level. Action may be initiated from some pilot demonstration areas. The following aspects requires attention in this context:

1. Establishing a pattern of basic eye-health referral services integrated into the primary health care system.
2. Training para-medicals in simple techniques for the early detection of potentially blinding conditions and in simple vision testing (10 to 15 days in service training).
3. Setting up one demonstration area per college for the purposes mentioned under 1 & 2 above.
4. Planning the supply of basic facilities and equipment for the above purposes and for each primary health centre.
5. Parallel to (1), planning for integrating the school eye-health programme into the general health programmes; and
6. Organising inservice training in basic eye health care for medical officers as well as integrated team training with para-medicals.

B. Referral Ophthalmic services at the Intermediate level (Taluk/Tehsils) and District Hospitals.

Referral facilities for comprehensive ophthalmic services should be organised at Taluk/Tehsil and district hospitals. The following aspects require consideration:—

1. Inservice training in the basic eye health care for medical officers and integrated team training with para-medicals should also be organised at this level.
2. An eye-health care referral system should be developed and physical facilities (beds, supplies, equipment, staff) provided. This would be the level at which it would be most appropriate to carry out integrated team teaching, training and research.
3. Under-graduate and post-graduate training in Public Health Ophthalmology in Medical Colleges.

C. Training in Public Health Ophthalmology should be organised with a view to:

1. Broadening the emphasis in ophthalmology, *from purely clinical to including public health approach* (Seminars at the state level).
2. Including Ophthalmology in the undergraduate curriculum as a compulsory subject, with an examination.
3. Including the public health aspects of ophthalmology in the post-graduate curricula.
4. Organization and Administration of Public Health Ophthalmology at the Centre level.

D. To ensure adequate planning, management, establishment of services and evaluation of activities, the following measures should be taken:

1. A permanent multi-disciplinary structure should be established at both state and national level to ensure proper *planning, management and evaluation of activities*.
2. Efforts should be made to stimulate the local production of as much technical equipment required for community ophthalmic activities in this field as possible.
3. Efforts should be made to complete the inventory of national resources (facilities, equipment, staff, programmes, both present and potential) for national programme.

In order to draw world attention, mobilize resources and stimulate world-wide co-ordinated and concerted action, the WHO adopted the theme for World Health Day-1976 as "Foresight Prevents Blindness".

APPENDIX III

(vide para 1.21)

***Recommendations made at the symposium "Community Ophthalmology"
An Integrated Approach, 8th-9th March, 1975.***

1. The Government of India may be urged to adopt a comprehensive National Policy Resolution encompassing all aspects of Community Ophthalmology. The draft of the statement proposed by the Secretary General of the National Society for the Prevention of Blindness, mentioned therein the actions designed was adopted.

2. The Government of India should establish a Cell for Public Health Ophthalmology (community ophthalmology) at an appropriate level in the Ministry of Health and that it should be headed by an Ophthalmologist.

3. The Government of India should establish a National Institute of Ophthalmology to provide technical leadership in all the aspects of the ophthalmic problems in the country. The Society took note of the observations made by the World Health Organisation Experts that Dr. Rajendra Pd. Centre for Ophthalmic Sciences in view of its diverse activities is performing such a function that its activities be strengthened to the originally conceived targets. To its objectives, the following be added:—

- (i) Long term planning of technical service and Ophthalmic education.
- (ii) Evaluation of National Programme & Service.
- (iii) Planning and programming of ophthalmological investigations.

4. The Government of India and the State Government should develop existing ophthalmological Institutions and Eye Hospitals as Regional and State Institutes and Hospitals and establish new ones in the states where they do not exist.

5. Concentrated attention be given to vulnerable groups, the pregnant women, the nursing women and pre-school children. Nutritional programme so as to provide fortified food, Protein and Vitamin 'A' should be launched with the help of social welfare agencies as well as the authorities of Agricultural and Food supplies. The Government of States and the Govt. of India should utilise existing health services in National Programmes for distribution of Vitamin 'A' capsules and fortified foods. The meeting was of the view that the simple administration of Vitamin 'A' alone is not likely to lessen the incidence of Keratomalacia.

6. The Society noted with concern the state of eye departments of medical colleges which are ill equipped and under staffed; and impresses upon the authorities concered to take steps, in a phased manner to upgrade these departments into Eye Health Care Units. To begin with the at least one medical college in each state should be so upgraded and this medical college

should demonstrate the delivery of eye health care system in the whole district where district hospitals and Taluka Hospitals and Primary Health Centres may also need upgradation.

7. It is mentioned that 50 lakhs of the blind eye can get back sight with surgical treatment. At present 3 lakhs operations are being done in the country every year. The meeting suggested that this number be raised to 6 lakhs (additional 3 lakhs) every year during the remaining part of the Vth Five Year Plan.

8. The Government of India should urgently adopt measures to provide mobile units in this plan as comprehensive eye care units. To begin with the Ministry of Health may attach mobile units to 10 to 15 major ophthalmological Institutions in the country during the current year. In order to involve other medical colleges as well as ophthalmic surgeons in District Hospitals or even in private practice, the Government should provide Rs. 30 per operation to cover the cost fully or in part and Rs. 2/- for examination of every patient in Eye Camps that may be organized in this context. This sum of money may not be sufficient and the local resources will have to be mobilised with the help of voluntary agencies to supplement them wherever possible. It will be useful if National Society for Prevention of Blindness which is an all India Organization, is asked to undertake, organize and activise such work in every state and district.

The Government of India should launch short term, intermediate and long term programmes concerning prevention of blindness *achieving the targets within a period of 20 years.*

10. The Government of India and the voluntary organisations should take steps to train teachers, social workers, para-medical personnels and community leaders in the *assessment of visual defects and delivery of eye health care.*

11. For prevention aspects, the major emphasis may be laid on the eye examination for detection and correction of ophthalmic defects among school children. This should not only include first examination but follow up to ensure that correction of defects is carried out and glasses are provided wherever necessary. The training of school teachers for preliminary eye examination was considered most important.

12. The Society recommended that there should be more services oriented programme than surveys and *data collection should be a part of the delivery of Eye Health care system.*

13. The Society noted with concern that very little is being done to rehabilitate the blind and urges the Ministry of Social Welfare to mobilise its efforts and those of voluntary agencies to substantially augment the programme in this regard. The industrialists and philanthropists be requested to support apprenticeship and placement programme of the blind.

14. The Society urges the Government to adopt in a big way training of ophthalmic assistant as multi-purpose ophthalmic workers to lessen the burden of the Ophthalmologists.

15. The Society urges upon the Government local bodies and voluntary organizations working in the field of social services and prevention of blindness to widely disseminate information concerning care of eye through all media of mass communication. A Chapter on structure of Eye ball, its care, prevention and detection of eye diseases be introduced in school books, and train teachers in this field while undergoing teachers training programmes."

APPENDIX IV

(Vide para 1.25)

**Strategy recommended for the purpose of Prevention of Blindness by
Joint Meeting of Central Council of Health and Family Planning
(April, 1975)**

(1) Health Education:

Steps should be taken to disseminate widely the information about eye care through all media of mass communication with particular emphasis on ocular health of children—both pre-school and school-going and all other vulnerable groups and orient teachers, social workers, community leaders on the problem of eye health care and proper nutrition.

(2) Strategy:

Steps be taken to augment ophthalmic services in a manner that relief can be given to the community in the shortest possible time and simultaneously establish a permanent infrastructure for comprehensive community oriented eye-health care unit.

- (a) Provision of kit and equipment to the PHC and training of all PHC doctors in Eye-Health Care;
- (b) Provision of at least one Ophthalmologist at each district hospital and Tehsil/Taluk Hospitals having 100 or more beds and providing minimum facilities for comprehensive ophthalmic services with adequate equipments and appropriate number of beds;
- (c) Establishing of full-fledged community ophthalmic eye care units in the medical colleges and involving post graduate students and college teachers in eye-health care programme;
- (d) Developing and Strengthening of Institutes and Deptts. of Ophthalmology, one in each State or region to function as centres of community (Public Health) Ophthalmology and provide necessary training and other facilities;
- (e) Setting up mobile units at district levels;
- (f) Augmenting resources of voluntary organizations by giving incentives on performance basis for cataract operation through a camp approach and for establishing peripheral eye hospitals;
- (g) Utilisation of existing health, social welfare and educational services for distribution of Vitamin 'A' in heavy doses to cover all children below 6 years of age in the economically vulnerable population and eye ointment tubes to the population affected;
- (h) Setting up of Eye Banks;
- (i) To take steps to prevent occupational hazards.

APPENDIX V

(Vide Para 1.28)

Recommendations of South East Asia Regional Consultative Meeting on Prevention of Blindness at New Delhi (March 1976)

1. National programme for the visual impairment and blindness should be formulated and implemented in coordination with the different ministries and departments such as health, education, social welfare and labour, and related institutions, including voluntary and other non-governmental organisations;
2. Basic eye-health services should be provided at the peripheral level, integrating within the existing general health services with additional inputs in men and material, if necessary. These services should be linked with the comprehensive ophthalmic referral facilities available or to be organised at the intermediate and central levels;
3. A programme should be established (or improved) for the education, training and rehabilitation of the incurably blind with the specific objectives of integrating them fully as dignified partners in social development in the countries of the Region.
4. Training facilities should be established (or improved) at the regional and national levels for the education and training of community; and health & allied personnels to meet the needs of community-oriented national programme for the prevention of visual impairment and blindness, and the existing regional facilities should be fully utilised for this purpose;
5. Research should be fostered to solve problems, such as those related to Vitamin 'A' deficiency, Cataract and eye infections, including trachoma. In this context, operational research into various approaches to the delivery of eye-health services through camps, mobile eye-care units, domiciliary and institutional care, and rehabilitation programme for the incurably blind, should receive priority;
6. National and regional information systems for the exchange of knowledge and skills should be established, based on international standards;
7. The resources of the community, voluntary organisations, local and national governments, international bilateral and non-governmental agencies should be mobilized and co-ordinated at the regional and national level for optimum use;
8. International assistance should be provided for supplies and equipments man-power development, subsidies to local costs for prevention of blindness consultancy services and evaluation according to priority determined by each member country;
9. For enhancing the potential and speedy delivery of national programmes a machinery should be established at the regional and national official levels for co-ordinating activities.

APPENDIX VI

(Vide Para 1.29)

General Recommendations of the Inter-regional (WHO) meeting on Prevention of blindness held at Baghdad (March/April, 1976)

1. Trachoma & Acute Ophthalmia:

Trachoma, the chronic ophthalmia, and bacterial conjunctivitis, the acute ophthalmia, together contribute the single but complex entity that is still the dominant cause of ocular morbidity and blindness in the Middle East and climaticall similar zones further east and in Africa and Australia.

The division of trachoma into blinding and non-blinding trachoma on the basis of population-based surveys of rural areas now enables the location and magnitude of preventable blindness to be determined.

To prevent this blindness, it is not necessary completely to eradicate these infections. Trachoma is a multicycle infection, the severity of diseases and visual damage being determined by the pressure and duration of exposure to reinfection. The severity of disease and the incidence of blindness can be controlled by the delivery of topical chemotherapy to a community, with a tetracycline ointment. Alternative methods of chemotherapy require evaluation.

The eye-seeking flies have recently been shown, by flourescein-tracing, to transport material from eye to eye with remarkable speed and precision, in the form of flyvomits, and to carry the agent of trachoma as well as the bacteria. Abundance of these flies appears to provide the additional dimension to transmission of infection that converts non-blinding trachoma into blinding trachoma. Blinding trachoma is thus the result of living in a community with **open disposal of faeces and rubbish, with poor personal cleanliness and close interpersonal distance**. Effective improvement in personal and community sanitation should therefore prevent this blindness. There is an urgent need to evaluate the practicability and the effect of various methods of fly control on communicable ophthalmia.

Government action should also provide for continuing research through studies of **animal models** and **theapeutic trials**, field studies and operational research into the best methods of **community education, personal hygiene and fly control**.

Recommendations

It is recommended that countries with blindness from trachoma and acute ophthalmia should undertake the following:

- (i) Maintain surveillance of the causes of eye diseases and of blindness in patients attending hospitals clinic;
- (ii) **Carry out population based surveys of rural communities** for the prevalence and causes of blindness and for prevalence of blinding trachoma;

- (ii) Implement preventive programmes of topical chemotherapy with provision of lid and other eye survey to high risk communities identified in these surveys. These programmes should include evaluation of the effect and the efficiency of the programmes, and as the first step in the introduction of primary rural eye health care.

It is recommended that effective action be taken to evaluate the practicability and the impact of fly control including improvement in personal and community situation, on trachoma and acute ophthalmia.

It is recommended that operational research be supported to compare the efficacy of various methods of preventive chemotherapy, on the pilot-control programme scale.

2. *Xerophthalmia*

Xerophthalmia due to Vitamin 'A' deficiency is the commonest cause of blindness in young children. It is of high prevalence in rice-dependent regions of Asia and is also importance in parts of the Middle East, Africa and the Americas. The severest form, keratomalacia, carries a high mortality, and is invariably associated with generalized malnutrition and frequently with gastro-enteritis or measles.

Provitamin A carotene in green leaves is often abundant but these fail to be incorporated into the diet of weanling.

The early stages are difficult to recognise, medical intervention occurs too late and hospital statistics fail to reflect the extent of the problem.

Recently, a commendable upsurge in worldwide concern has been achieved Vitamin 'A' to meet a child's requirements costs only a few cents. The WHO's first technical report on Vitamin 'A' deficiency and Xerophthalmia published in 1976, details the nature and magnitude of the problem, introduces a Classification and Criteria for Community Diagnosis and diseases control methods.

Recommendations:

That in all technologically underdeveloped countries:

- (i) Case records in hospitals and clinics be maintained in accordance with the WHO Xerophthalmia Classification;
- (ii) These records be analyzed centrally and surveillance be instituted;
- (iii) Treatment and prophylaxis in hospitals and clinics be instituted according to the WHO (1976) Recommendations, and Vitamin 'A' ampoules and capsules be provided for those purposes;
- (iv) Where a public health problem is suspected, preliminary national data on child food and nutrition situation in relation to eye diseases be obtained;
- (v) If this investigation is positive a joint prevalence survey be carried out using WHO methodology and clinical and biochemical criteria;

- (vi) If these criteria are met, a casual analysis in high endemicity locations be made;
- (vii) Based on these results, an intervention or combination thereof be chosen, following guidelines of IVACG (International Vitamin 'A' Consultative Group of USAID). These interventions include:
 - Intermittend massive dose programme
 - Nutritification of appropriate foodstuff (e.g. sugar)
 - Nutrification education (especially dark green leafy vegetables)
- (viii) Evaluation of intervention;
- (ix) Continuing Surveillance.

3. Cataract

Cataract as a disease is widely prevalent in India and neighbouring countries, so much so that in India it constitutes about 55 per cent of all blindness, and 5.5 million people need operations. The incidence of blindness is said to be much higher in these countries than in other parts of the World. Precise incidence rates have not been worked out but it is roughly estimated to be 8 eyes per 10,000 eyes. What precise factors are responsible for this high incidence are not known, presuming that there is high incidence. Whether it is nutrition, heredity, senility or ultraviolet rays, surveys conducted in different areas of the Region cannot pinpoint any one of the causes to be singly or jointly responsible. There is scope for epidemiological and biomedical research on this problem.

Cataract as a disease cannot be prevented in the present state of our knowledge nor can it be medically treated. It needs surgical intervention to restore sight.

Yet another difficulty arises in trying to sort out cataract from glaucoma as both are occurring in the same age group. General physicians and auxiliary personnel are not able to do this with accuracy. Simple parameters need to be devised for this distinction.

Surgical interference presents problems of delivery of eye health care; in this connection it has been possible to demonstrate the practicability of utilising mobile units both for health education and surgical intervention (eye camp approach).

Three tiers of eye health care services are being developed for this delivery of eye health care in India:—

- (i) Peripheral services—
 - community oriented
 - primary health centres.
- (ii) Intermediate referral services for general ophthalmic care and surgical intervention.
- (iii) Higher and central levels for specialists care and technical leadership besides evaluation of programmes.

(iv) Biomedical research is continued at the basis level to find out the factors responsible for production of cataract.

Recommendations:

- (i) Statistical evaluation be conducted to determine if there is a greater incidence of cataract in India, and if the reason for its early onset is related to early senility, hereditary or nutritional factors;
- (ii) Since cataract cannot be prevented, it is a problem more complex than control of preventable eye diseases hence an effective delivery of eye care needs to be developed;
- (iii) Mobile units including eye camps be established for eye health education, medical treatment and surgical intervention in cataracts and other eye conditions;
- (iv) Three levels of services be developed:
 - peripheral level for distinguishing between cataract and glaucoma which appear at the same age group in India, and to provide post operative cares a support to mobile units;
 - intermediate level for surgical and medical intervention (sub. divisional and district hospitals) and first level of referral services;
 - central level for technical leadership and biomedical research in determining the best method of delivery of eye health care and developing technical excellence.
- (v) That inputs be provided in order of 2.5 million dollars a year for restoration sight to half a million eyes every year;
- (vi) That cost-benefit ratio be emphasized to the planners, administrators and community for this programme;
- (vii) That biomedical research be conducted for factors causing cataract.

Manpower requirements and development of eye health services

In many countries of the world, the concept of eye health care is consistently associated with services of eye specialists or "eye-surgeons". As a consequence of this idea, we see only a minority of general practitioners trying to diagnose and treat at an early enough stage some of the more common eye ailments. Therefore, patients from distant and isolated areas are often required to travel far (in kilometers and days) to seek the appropriate advice and treatment. The Blindness rate in these cases is obviously rather high, inspite of the existing medical knowledge and professional expertise.

In planning a national programme for the prevention of visual impairment and control of blindness, due consideration has to be given to the concepts of:—

- comprehensive eye health care, which includes in a continuous prevention, cure and rehabilitation.

- gradual integration of eye health care activities into the system of basic health services in each country;
- a flexible approach to planning, management and evaluation of the lowest possible administrative level, depending on the circumstances and priority problems in each.

In providing eye health care for the population two different approaches are possible. The first is the 'horizontal approach', by which the over-all eye health problems are tackled on wide front and on a long-term basis through the creation of a system of permanent institutions and/or services (ophthalmological 'infrastructure'). The second, or 'vertical approach' is that through which the solution of a given eye health problem is sought through the application of specific measures by means of single-purpose machinery. These kinds of activities are well illustrated by effective steps taken against the excessive prevalence of certain endemo-epidemic eye diseases, such as trachoma and seasonal conjunctivitis which in many areas of the world still constitute a real burden on the population and hamper its economic and social progress.

The two approaches 'vertical' and 'horizontal' are not mutually exclusive. In general; mass campaigns are based on a schedule of successive stages (phases) each of them with well-defined operations and purposes. In the case of communicable eye diseases, the control programmes in their early stages have to be directed, supervised and executed, either wholly or to a greater extent, by a specialised service utilising health workers exclusive to the task.

In the later stages, 'consolidation and maintenance' (phases) incorporation into the general health services becomes increasingly important in strengthening epidemiological 'surveillance'.

The culmination of the process whereby a particular disease ceases to be the subject of the vertical approach of a special programme of mass campaign and becomes incorporated in the horizontal approach of the general health services and ophthalmological infrastructure and referral system, often goes under the term of 'integration of mass campaign into general health services'. This integration usually applies to the peripheral and regional levels of health services, but likewise affects the structural arrangement at central level, at which the maintenance of an efficient though somewhat smaller, group of highly skilled specialized personnel is clearly warranted.

While the short and medium-term measures lean basically on:

- (i) special *ad hoc* programmes,
- or (ii) efforts to bring highly specialized personnel and services closer to patients and vulnerable population groups,
- or (iii) Strengthening of (mostly urban based) specialized ophthalmic services, the planning, organization and development of permanent eye health care infrastructure requires a long-term approach as well as an implicit assumption and acceptance from all those concerned of few basic concepts.

The first of which implies that eye health care does not require necessarily the services of a fully qualified ophthalmologist. Medical officers (general practitioners) could and should be able, with an appropriate training, to properly diagnose and treat a great deal of common ocular disorders and emergencies. Equally auxillary personnel should be increasingly trained for early detection of many binding conditions and for simple ocular and vision testing and emergency measures.

Finally, the proper education of the population should improve the most important component of the eye health care, the so-called self-care. In other words, it is the appropriate knowledge and corresponding skill which have to be properly imparted and distributed in the long run at different professional and para-professional levels in order to ensure the smooth functioning of such a referral system.

Eye Health Education

Health Education and involvement of the public are essential factors for the control of blindness as for any other public health activity. Programmes can fail because of failure of individuals and communities to participate. This may be because they do not find the programme acceptable or because of apathy, ignorance or a combination of these. These obstacles can be overcome by health education. People must be informed of the causes of blindness, of what can be done about it and what they can do for themselves.

Too often the support given to health education turns out to be only "lip service" and this must be avoided in programmes to control blindness. When planning the programme, health education must be remembered and involved in the early planning stages. Provision should be made for health education manpower and for the training of health workers in health education. Finally, when considering finance, funds should be budgeted specifically for health education activities. Development Support Communication (DSC) is a method of informing people which can be applied to the control of blindness. For example, large numbers can be reached simultaneously by radio, and the message can be re-inforced by group discussions in listening groups organized in advance.

Recommendations :

- (i) That health education, including health information of the people, be given a high priority in blindness control programmes;
- (ii) That provision be made in the programmes for health education manpower and for training of health, and health related workers in health education;
- (iii) That when budgeting the programmes, funds be provided specifically for health education activities.

Close liaison with 'information units' is essential. In planning, resources and budgeting provision needs to be made for health education activities. A set of strategies has been evolved by UNESCO for illiteracy, by WHO for agricultural workers and in different fields, including health by UNICEF".

Guidelines and General Recommendations

The participants noted that:

1. The World Health Organization is committed to the prevention of blindness;
2. The World Health Organization through its intensive programmes against communicable eye diseases over many years has demonstrated that **control of blinding sequelae can be achieved without total eradication of the disease**;
3. The prevention of blindness on a continuing large scale demands the identification of underserved communities which require urgent attention, particularly those **being by-passed by social economic development**.
- 4. A large percentage of blindness is preventable and curable.**
5. Health education including dissemination of information can produce impact at individual, family, village, community, administrative and planning levels; this requires official budgeting;
6. Attention of decision-makers and planners should be drawn to the fact that services for prevention and cure of blindness are of economic advantage and highly productive cost-benefit ratio should be emphasized;
7. Continuous efforts to improve technology are laudable but **enough technical knowledge already exists for delivery of the eye-health care**;
8. In many countries there is inadequacy of eye health services which requires correction.
9. In many countries there is inadequacy of manpower at all levels which requires correction;
10. Priority action is needed for community oriented basic eye health services.

Two alternative models were discussed:

- (a) To create tiers of temporary and permanent services to deal with eye diseases;
- (b) To start temporary services for controlling the most important preventable and curable diseases and using this structure as a base to build up a peripheral, intermediate and central structure of services and manpower development. Whichever model is followed the peripheral services need to be integrated with general health care programmes and should be delivered through a multi-disciplinary approach. Determination of priorities for action is a national responsibility.
11. Community involvement is essential in all stages of planning, programming and implementation of these activities;
12. These programmes should include feedback systems for planned evaluation to determine continued financial support.

13. The value of mobile units (including eye camps) has been fully demonstrated;
14. There is need for adequate referral services at intermediate and central levels;
15. There is need for exploitation of residual vision through the delivery of low vision aid technology;
16. In the field of research, collaboration and co-ordination at national and international levels is essential for an adequate assessment of priorities;
17. Constraints of physical, manpower and financial resources require ways and means of mobilizing that at community levels. In addition, there is a need to supplement these resources from international, bilateral and non-governmental sources;
18. There is a need for drawing up detailed and specific projects in order to secure assistance from donors through voluntary agencies in association with the World Health Organization, the International Agency for the Prevention of Blindness, and from other philanthropic agencies.

Besides the specific recommendations made under different problems identified which appear elsewhere, the group also recommended as follows:—

1. A national policy and a national plan of action should be formulated by each Government in coordination with various ministries and departments and other related institutions including voluntary, non-government organizations, to fulfil the requirements of the multi-disciplinary approach.
2. Eye health education including information should be widely disseminated through all media of communication including workers, community leaders, nutritionists, sociologists and social workers. This requires specific budgeting;
3. Basic eye health services should be delivered at the peripheral level, and be integrated with the existing general health services with additional inputs of manpower and material as required. Specialist services may require delivery through mobile units. These services should be linked with general and specialized ophthalmic referral facilities organized at intermediate and central levels;
4. Training facilities should be established and strengthened at national, regional and international levels for the education and training of personnel at all levels. The training programme should make provision for the development of the intermediate technology appropriate to local needs;
5. National, regional and international information system for exchange of knowledge and skills, should be established;
6. Biomedical research for improvement of existing knowledge is required in the field of xerophthalmia onchocerciasis, trachoma and other communicable eye diseases, cataract, and low cost delivery system;

7. The resources of community, voluntary organizations, local and national governments, international agencies and bilateral agencies, non-governmental agencies affiliated with WHO and the other voluntary organizations, should be coordinated at various levels for optimal utilization. The coordinating role of the International agency for the Prevention of Blindness was noted in this connection.
8. Countries should be urged to give voluntary donations earmarked for a Special Fund for the Prevention of Blindness within the WHO Voluntary Fund for the Health Promotion.
9. International assistance should be given for:
 - supplies and equipment
 - manpower development
 - subsidies for local costs
 - consultancy services
 - assessment and evaluation of the programmes.

The priorities among these elements should be determined at the national level.

10. Machinery should be developed at regional levels for urgent action and coordination of programmes for the prevention of blindness."

APPENDIX VII

(Vide para 3.41)

LIST OF MEDICAL COLLEGES IN INDIA

1. ANDHRA PRADESH

1. Andhra University, Waltair

1. Andhra Medical College, Vishakapatnam.
2. Guntur Medical College, Guntur.
3. Rangaraya Medical College, Kakinada.

2. Osmania University, Hyderabad

4. Osmania Medical College, Hyderabad.
5. Gandhi Medical College, Hyderabad.
6. Kakatiya Medical College, Warrangal.

3. S. V. University, Tirupati

7. Kurnool Medical College, Kurnool.
8. S. V. Medical College, Tirupati.

2. ASSAM

4. Gauhati University, Gauhati

9. Gauhati Medical College, Gauhati.
10. Silchar Medical College, Silchar.
11. Regional Medical College, Imphal.

5. Dibrugarh University, Dibrugarh

12. Assam Medical College, Dibrugarh.

3. BIHAR

6. Mithila University, Darbhanga

13. Darbhanga Medical College, Lahirisarai.

7. Patna University, Patna

14. Patna Medical College, Patna.

8. Ranchi University, Ranchi

15. Rajendra Medical College, Ranchi.
16. M. G. M. Medical College, Jamshedpur.

9. Bhagalpur University, Bhagalpur

17. Medical College, Bhagalpur.

10. Bihar University

18. Sri Krishna Medical College, Muzaffarpur.

11. Magadh University

19. Nalanda Medical College, Patna.

20. Patliputra Medical College, Patna.

21. Magadh Medical College, Gaya.

4. DELHI

12. 22. All India Institute of Medical Sciences, New Delhi.

13. Delhi University, Delhi

23. Lady Hardinge Medical College, New Delhi.

24. Maulana Azad Medical College, New Delhi.

25. College of Medical Sciences, University of Delhi, Delhi.

5. GUJARAT**14. Gujarat University, Ahmedabad.**

26. B. J. Medical College, Ahmedabad.

27. Municipal Medical College, Ahmedabad.

15. M. S. University of Baroda, Baroda.

28. Medical College, Baroda.

16. Saurashtra University, Rajkot

29. M. P. Shah Medical College, Jamnagar.

17. South Gujarat University, Surat

30. Govt. Medical College, Surat.

6. JAMMU & KASHMIR**18. Kashmir University, Srinagar**

31. Govt. Medical College, Srinagar.

32. Medical College, Jammu.

7. KERALA**19. Kerala University, Trivandrum**

33. Medical College, Trivandrum.

34. Medical College, Kottayam.

35. T. D. Medical College, Alleppey.

20. Calicut University, Calicut

36. Medical College, Calicut

8. MADRAS & PONDICHERRY

21. Madras University, Madras

- 37. Madras Medical College, Madras.
- 38. Stanley Medical College, Madras.
- 39. Christian Medical College, Vellore.
- 40. Hilpauk Medical College, Vellore.
- 41. Thanjavur Medical College, Thanjavur.
- 42. Medical College, Chinglepur.
- 43. Medical College, Coimbatore.
- 44. Jawahar Lal Institute of Post-graduate Medical Education & Research, Pondicherry.

22. Madurai University, Madurai

- 45. Madurai Medical College, Madurai.
- 46. Tirunelveli Medical College, Tirunelveli.

9. MADHYA PRADESH

23. Jabalpur University, Jabalpur

- 47. Medical College, Jabalpur.

24. Jiwaji University, Gwalior

- 48. G. R. Medical College, Gwalior.

25. Indore University, Indore

- 49. M. G. M. Medical College, Indore.

26. Bhopal University, Bhopal

- 50. Gandhi Medical College, Bhopal.

27. Ravishanker University, Raipur

- 51. J. L. N. Medical College, Raipur.

28. A. P. Singh University, Rewa

- 52. S. S. Medical College, Rewa.

10. MAHARASHTRA

29. Bombay University, Bombay

- 53. Grant Medical College, Bombay.
- 54. Seth G. S. Medical College, Bombay.
- 55. T. N. Medical College, Bombay.
- 56. L. T. M. Medical College, Sion, Bombay.
- 57. Goa Medical College, Panaji.

30. Poona University, Poona

- 58. B. J. Medical College, Poona.
- 59. Armed Forces Medical College, Poona.

31. Shivaji University, Kolhapur

- 60. Miraj Medical College, Miraj.
- 61. Dr. V. M. Medical College, Sholapur.

32. Marathwada University, Aurangabad

- 62. Government Medical College, Aurangabad.

33. Nagpur University, Nagpur

- 63. Medical College, Nagpur.
- 64. Indira Gandhi Medical College, Nagpur.
- 65. M. G. College of Medical Sciences Sewagram (Wardha).

11. MYSORE**34. Mysore University, Mysore**

- 66. Mysore Medical College, Mysore.
- 67. Kasturba Medical College, Manipal.
- 68. J. J. M. Medical College, Davangere.

35. Bangalore University, Bangalore

- 69. Bangalore Medical College, Bangalore.
- 70. St. John's Medical College, Bangalore.

36. Karnataka University, Dharwar

- 71. Karnataka Medical College, Hubli.
- 72. J. L. N. Medical College, Belgaum.
- 73. Mahadevappa Rampure Medical College, Gulbarga.
- 74. Medical College, Bellary.

12. ORISSA**37. Utkal University, Bhubaneshwar**

- 75. S. C. B. Medical College, Cuttack.

38. Sambalpur University, Sambalpur

- 76. V. S. S. Medical College, Burla.

39. Berhampur University, Berhampur

- 77. M. K. C. G. Medical College, Berhampur.

13. PUNJAB & HARYANA**40. Punjabi University, Patiala**

- 78. Government Medical College, Patiala.
- 79. Guru Gobind Singh Medical College, Faridkot.

41. Punjab University, Chandigarh
 80. Christian Medical College, Ludhiana.
 81. Dayanand Medical College, Ludhiana.
 82. Government Medical College, Rohtak.

42. Guru Nanak University, Amritsar
 83. Medical College, Amritsar.

14. HIMACHAL PRADESH

43. 84. H. P. Medical College, Simla.

15. RAJASTHAN

44. Rajasthan University, Jaipur
 85. S. M. S. Medical College, Jaipur.
 86. S. P. Medical College, Bikaner.
 87. H. N. T. Medical College, Udaipur.
 88. Dr. S. N. Medical College, Jodhpur.
 89. J. L. N. Medical College, Ajmer.

16. UTTAR PRADESH

45. Agra University, Agra
 90. S. N. Medical College, Agra.
46. Allahabad University, Allahabad
 91. M. L. N. Medical College, Allahabad.
47. Aligarh Muslim University, Aligarh
 92. J. L. N. Medical College, Aligarh.
48. Banaras Hindu University, Varanasi
 93. Institute of Medical Sciences, Varanasi.
49. Kanpur University, Kanpur
 94. G. S. V. M. Medical College, Kanpur.
 95. M. L. B. M. Medical College, Jhansi.
50. Lucknow University, Lucknow
 96. K. G. Medical College, Lucknow.
51. Meerut University, Meerut
 97. L. L. R. M. Medical College, Meerut.
52. Gorakhpur University, Gorakhpur
 98. B.R.D. Medical College, Gorakhpur.

17. WEST BENGAL

53. Calcutta University, Calcutta

- 99. Medical College, Calcutta.
- 100. R. G. Kar Medical College, Calcutta.
- 101. N. R. S. Medical College, Calcutta.
- 102. Calcutta National Medical College, Calcutta.
- 103. B. S. Medical College, Bankura.

54. North Bengal University

- 104. North Bengal Medical College, Rajaram Mohunpur.

55. Burdwan University

- 105. B. U. Medical College, Burdwan.

N. B.: As in 1968: Fifty Colleges provided specialised courses in ophthalmology in different States/U.Ts., Annual outturn is about 300 as all seats are not full.

APPENDIX VIII

LIST OF MEDICAL COLLEGES IN INDIA WHERE THE SPECIALISED COURSE IN OPHTHALMOLOGY IS BEING OFFERED AS A SEPARATE SUBJECT

ANDHRA PRADESH

1. Andhra Medical College, Visakhapatnam.
2. Guntur Medical College, Guntur.
3. Kurnool Medical College, Kurnool.
4. Institute of Medical Sciences, Osmania Medical College, Hyderabad.

ASSAM

5. Assam Medical College, Dibrugarh.
6. Medical College, Gauhati.

BIHAR

7. Patna Medical College, Patna.
8. Darbhanga Medical College, Laberia-sarai.
9. Rajendra Medical College, Ranchi.

GUJARAT

10. Medical College, Baroda.
11. B. J. Medical College, Ahmedabad.
12. K. M. School of Post-Graduate Medicine and Research, Ahmedabad.

HARYANA

13. Medical College, Rohtak.

MADHYA PRADESH

14. M. G. M. Medical College, Indore.
15. G. R. Medical College, Gwalior
16. Gandhi Medical College, Bhopal.
17. S. S. Medical College, Rewa.
18. Medical College, Jabalpur.

TAMIL NADU

19. Madras Medical College, Madras.
20. Madurai Medical College, Madurai.

MAHARASHTRA

21. L. T. M. Medical College, Bombay.
22. Grant Medical College, Bombay.
23. Seth G. S. Medical College, Parel Bombay.
24. Topiwala National Medical College, Bombay.
25. College of Physicians and Surgeons, Bombay.
26. Medical College, Aurangabad.
27. B. J. Medical College, Poona.
28. Medical College, Nagpur.

KARNATAKA

29. Kasturba Medical College, Manipal.
30. Govt. Medical College, Mysore.
31. Bangalore Medical College, Bangalore.
32. Karnataka Medical College, Hubli.

ORISSA

33. S. C. B. Medical College, Cuttack.
34. Burla Medical College, Burla.
35. A. M. K. C. G. Medical College, Behrampur (Cuttack).

PUNJAB

36. Medical College, Amritsar.
37. Christian Medical College, Luhdiana.
38. Govt. Medical College, Patiala.

RAJASTHAN

39. S. M. S. Medical College, Jaipur.
40. S. P. Medical College, Bikaner.
41. Medical College, Udaipur.

UTTAR PRADESH

42. K. G. Medical College, Lucknow.
43. G. S. V. M. Medical College, Kanpur.
44. Institute of Ophthalmology, Aligarh.
45. Banaras Hindu University, Varanasi.
- 45(a). S. N. Medical College, Agra.

WEST BENGAL

46. University College of Medicine, Calcutta.

DELHI

47. Lady Hardinge Medical College, New Delhi.
48. All India Institute of Medical Sciences, New Delhi.
49. Maulana Azad Medical College, New Delhi.
50. Willington Hospital, New Delhi.

PONDICHERRY

51. Jawaharlal Institute of Post-Graduate Medical Education & Research, Pondicherry.

GOA

52. Goa Medical College, Goa.

CHANDIGARH

53. P. G. Institute of Medical Education & Research, Chandigarh.

KERALA

54. Medical College, Calicut.
55. Dental College, Trivandrum.
56. Medical College, Trivandrum.

APPENDIX IX

(Vide para 7-10)

Budget Estimates for the period 1976-79 for National Programme for Prevention of Blindness

6TH PLAN PERIOD

(Rs. in Lakhs)

Year	Mobile Units	Institu-tions Regional and National	Voluntary Organisa-tions	PHCs	District Hospitals	Upgra-dation of Ophthal-mic Dept. of Medi-cal colleges	Provision for strengthen-ing the Central cell for implem-nation of Scheme	Total
1976-77	.	.	.	5	50	3	0·55	89·00
N. R.	.	.	.	20·00	20·00	9·00	15·00	89·00
R.	.	.	.	7·50	10·00	..	..	18·05
1977-78	.	.	.	10	400	50	5	42·00
N. R.	.	.	.	40·00	40·00	12·00	25·00	42·00
R.	.	.	.	22·50	10·00	..	..	33·15
1978-79	.	.	.	15	400	50	5	62·00
N. R.	.	.	.	60·00	40·00	12·00	25·00	62·00
R.	.	.	.	45·00	10·00	..	..	55·80
TOTAL		30	1100	150	13	..	..	..
N. R.	.	120·00	100·00*	33·00	75·00	65·00	..	393·00
R.	.	75·00	..	30	..	..	2·00	107·00
Rs. 40·00 Lakhs								(Rs. in lakhs)
Rs. 60·00 Lakhs								139·00
(i) From Trichoma								250·00
(ii) Expected International Assistance								100·00
(iii) Required.								500·00

*National Institute
Regional Institutes

We have the following provision available :
(Rs. in lakhs)

(i) From Trichoma
(ii) Expected International Assistance
(iii) Required.

APPENDIX X

(Vide para 7.10)

Budget Estimates for the period 1979-84 for National Programmes for Prevention of Blindness

Note.—The recurring expenditure on the maintenance of the mobile units established during 5th Five Year Plan shall become committed expenditure for VI Five Year Plan.

APPENDIX XI

(Vide para 7.21)

ALL INDIA INSTITUTE OF MEDICAL SCIENCES ORDER

WHEREAS the Dr. Rajendra Prasad Centre for Ophthalmic Sciences has acquired an identity of its own, and with a view to facilitate and improve its working, it is necessary to ensure effective autonomy to the Centre within the overall provisions of the All-India Institute of Medical Sciences Act, 1956 and rules and regulations framed thereunder.

NOW, therefore, the following arrangements are ordered for the functioning of the Rajendra Prasad Centre for Ophthalmic Sciences *vis-a-vis* the All-India Institute of Medical Sciences:—

- (1) The budget of the Institute shall be in two parts namely, (i) the budget of the main Institute and (ii) the budget of the Centre. The budget of the Centre shall be prepared and operated upon by the Head of the Centre. ..
- (2) The development plans of the Institute shall be prepared into two parts namely (i) the development plan of the main Institute and (ii) the development plan of the Centre and the allocations shall be so made that they shall not adversely affect each other.
- (3) The agenda items relating to the Centre shall be prepared by the Head of the Centre and sent to the Member-Secretary for inclusion in the agenda. The copies of the agenda papers and proceedings of the Standing Committees shall also be supplied to the Head of the Centre who shall be specially invited to attend meeting of the Standing Committees and Governing Bodies in respect of the items concerning the Centre. The draft minutes in respect of the items concerning the Centre shall be prepared by the Head of the Centre and sent to the Chairman of the Standing Committee concerned for approval through the Member-Secretary.
- (4) The Centre shall continue to use to the maximum extent the common hospital facilities like, the laundry, the animal house, the kitchen, the sterilisation room, blood-bank, clinical pathology, library etc. For the use of such facilities, no debits shall be raised against the Centre. Where such facilities are required to be augmented for the Centre or the Institute, the expenditure shall be shared by the two in proportion to the utilisation made by each.
- (5) For the day-to-day working of the Centre in matters relating to administration, stores, accounts etc., the Centre may have separate staff of its own.
- (6) The Director of the Institute shall delegate to the Head of the Centre all financial and administrative powers which vest in the Director and are shown in the schedules of the Regulations of the

Institute and those delegated by the Institute and Institute Bodies to the Director from time to time so far as the Centre is concerned, (as in Appendix attached).

- (7) The Head of the Centre may address communications to the Ministries of the Government of India and International organisations and send copies thereof for the information of the Director. In matters of policy, however, the Head of the Centre shall do so with the prior approval of the Director.
- (8) The Deputy Director and the Accounts Officer attached to the Director's office shall be available to the Head of the Centre for advice in matters concerning administration and accounts.

Sd/-

(KARAN SINGH
President, AIIMS.

NEW DELHI;

January 10, 1975.

APPENDIX XII

(Vide para 8.18)

LIST OF EYE BANKS IN INDIA

State	No. of Eye Banks	Location of the Eye Banks
1	2	3
Andhra Pradesh	2	(a) Sarojini Devi Eye Hospital, Hyderabad. (b) S.V.R.R. Hospital, Eye Bank, Tirupati.
Assam	2	(a) Assam Medical College, Dibrugarh. (b) State Eye Bank Gauhati Medical College, Gauhati.
Bihar	1	Medical College, Patna.
Delhi :	2	(a) Delhi Admn. Eye Bank, Irwin Hospital, New Delhi. (b) National Eye Bank, A.I.I.M.S. New Delhi.
Gujarat	4	(a) Central Eye Bank M & J Instt. of Opth. New Civil Hospital, Ahmedabad-16. (b) Irwin Group of Hospitals, M. P. Shah Medical College, Jamnagar. (c) Shri C. N. Nagari Mini Eye Hospital Ellis Bridge, Ahmedabad-6. (d) The Govt. Eye Bank Medical College and S.S.G. Hospital, Baroda.
Haryana	1	Rohtak Medical College, Rohtak.
Karnataka	3	(a) K. M. College, Hubli. (b) Kasturba Medical College, Manipal. (c) Minto Ophthalmic Hospital, Bangalore.
Maharashtra .	6	(a) King Edward Vii Memorial Hospital, Parel, Bombay. (b) B.Y.L. Nair Charitable Hospital, Bombay-8. (c) J.J. Group of Hospitals, Eye Bank Byculla, Bombay-5. (d) K.B. Haj Bachooalli Free Ophthalmic Hospital, Pibawadi, Parel, Bombay. (e) Medical College Hospital, Aurangabad. (f) L.T.M. Hospital, Bombay.

1	2	3
Madhya Pradesh	4	(a) Regional Eye Bank M.Y. Hospital, Indore, M.P. (b) J.A. Group of Hospitals, Gwalior. (c) D. K. Hospital, Raipur. (d) Medical College Hospital, Jabalpur.
Orissa	1	Karnataka Medical College, Hospital, Hubli.
Punjab	2	(a) Ram Lal Eye Hospital, Majith Road, Amritsar. (b) Rajendra Hospital, Patiala.
Rajasthan	5	(a) Central Eye Bank S.M.S. Hospital, Jaipur. (b) R.N.T. Medical College, Udaipur. (c) J.L. Nehru Hospital, Ajmer, Udaipur. (d) S. Patel Medical College, Bikaner. (e) Medical College, Jodhpur.
Tamil Nadu	2	(a) Govt. Ophthalmic Hospital, Madras. (b) Govt. Erskin Hospital, Madurai.
Uttar Pradesh	6	(a) Govt. M.D. Eye Hospital, Allahabad. (b) Kanpur Eye Hospital, G.T. Road, Kanpur. (c) Gandhi Eye Hospital, Aligarh. (d) Sitapur Eye Hospital, Sitapur. (e) S.N. Medical College, Agra. (f) K.G.'s Medical College, Lucknow.
Union Territory of Chandigarh.	1	P.G.I., Chandigarh.
West Bengal	1	Eye Infirmary Medical College, Calcutta.

APPENDIX XIII

(Vide Introduction para 8)

Summary of Recommendation/Conclusions contained in the Report

S. No.	Reference to Para No. of the Report	Summary of Recommendations/conclusions
(1)	(2)	(3)
1	1,34	<p>It is well known that sight is the most precious gift of nature and deprivation of sight is the worst of the disabilities that a human being can suffer from. Human suffering apart, visual impairment and blindness has also serious social and economic implications. It has been rightly said that not the least important among the human rights surely is the right of any man to see. As to the number of persons in India who do not have this right to see, the Committee note that no proper assessment has so far been made but a random sampling survey has revealed a staggering estimate of about 9 million blind, needing either preventive or curative measures and in addition there were about 45 million, having visual impairment short of blindness. The Committee also note that the number of blind of India forms the highest proportion of the total blind population in the world. Even allowing for errors incidental in sampling estimates, the Committee have no doubt that the problem of blindness in the country is serious both on account of its magnitude and the inadequacy of remedial efforts made so far. The implications of such a large number of blind and visually disabled in terms of human suffering, social disability and economic wastage are serious and the imperativeness of undertaking preventive measures need hardly to be emphasised. It is evident that the problem poses a formidable challenge and calls for well directed sustained and meaningful organisational efforts for carrying out preventive and curative measures on a commensurate scale so that light may be brought into the lives of millions of people and eye-health of the community is safeguarded from any further erosions of the dreadful disease of blindness and visual disability.</p>
..		

(1)	(2)	(3)
2	1.35	<p>From the chronology of the steps taken for prevention of blindness in the country, the Committee regret to note that the efforts made, have been incommensurate compared to the magnitude of the problem. The first step stated to have been taken was in 1931 when proposal was made to form Advisory Committee consisting of persons actively engaged in the work for the blind. The proposal failed because of inadequate appreciation of facts and lack of realisation by the then provincial Governments of their responsibilities. The next step was taken in 1943 to appoint a Special Officer to investigate the extent of blindness in India and its causes. As a sequel to the Report of the Special Officer, a Special Joint Committee consisting of 7 Members each from the Central Advisory Boards of Education and Health was constituted in 1944 which made several recommendations for prevention and control of blindness. The Health Survey and Development Committee under Sir J. Bhore, constituted in 1946, endorsed the recommendations of the Joint Committee. The Committee regret to note that 'exhaustive reports and recommendations of the Committee remained practically shelved'.</p>
3	1.36	<p>After Independence, it was only in 1954 that Government asked the Indian Council of Medical Research to define the magnitude of the problem of the blind. The ICMR constituted a Committee which identified trachoma as the major problem in eye disease. As a result a Trachoma Control Pilot Project was set up in 1956. The Committee have dealt in a subsequent chapter with the measures taken to reduce the incidence of trachoma. The Committee cannot, however, help in remarking that much valuable time was allowed to lapse from 1947 to 1954 without any concrete action being taken on the recommendations of the Joint Committee of the Central Advisory Boards and the Health Survey and Development Committee (1946).</p>
3	1.37	<p>The Committee note that the next phase of the efforts against blindness was undertaken in 1959 when the Health Survey and Planning Committee under Dr. A. Lakshmanaswamy Mudaliar, which was appointed, made very exhaustive and practical recommendations on various aspects of eye diseases and blindness. In 1960, the Indian Council of Medical Research established a Working Group for Prevention of Blindness and research in Ophthalmic problems. The Committee feel that had adequate follow up action been taken</p>

(1)	(2)	(3)
		to implement the recommendations of the Working Group etc., the problem of blindness, particularly in the rural areas and the weaker sections of society would not have been as it is at present.
4	1.38	<p>The Committee note that the World Health Organisation intensified their activities against blindness from 1972 onwards. In response to the World Health Assembly (1972) Resolution the Indian Council of Medical Research initiated survey through centres in the country on the basis of which it has been intimated that there are about 9 million blind in the country and in addition there are about 45 million persons who are estimated as having visual disability, short of blindness. A WHO consultant who visited India in 1975 gave his recommendations for prevention of blindness. Recommendations were also made at a National Symposium organised in April, 1975 by the National Society for Prevention of Blindness. The Ministry of Health set up a Working Group to recommend a plan of action for prevention and control of blindness. The report of the Working Group was considered at the Joint meeting of Central Council of Health and Family Planning in April, 1975 who recommended a strategy for the purpose of control and prevention of blindness known as the National Plan for Prevention of Blindness.</p>
5	1.39	<p>Another National Symposium was held in March, 1976 and a South East Asia Regional Consultative Meeting was also convened by WHO in March 1976 followed by Inter-Regional Meeting at Baghdad from 29th March to 1st April, 1976. In the light of the guidelines issued by the Joint Meeting of the Central Council of Health and Family Planning and taking into consideration the various recommendations made at international and national forums, a draft of National Plan has been developed and approved and is stated to have been taken up for implementation from 1976-77 after clearance by the Expenditure Finance Committee. The Committee are glad to note that at least now there is not only a growing awareness of the problem but the need for planned effort to combat the disease has been recognised and action initiated to implement it.</p>
6	1.40	<p>The Committee note that Trachoma and infections of the eye have been identified as the major preventable factor responsible for visual impairment, followed by Xerophthalmia and ocular lesions due to</p>

(1)

(2)

(3)

smallpox. Cataract has also been identified as responsible for more than 50 per cent of the visually impaired and the blind, and as curable by surgery. Some of the important aspects of the campaign for prevention of blindness are development of Community oriented basic eye health services including prevention, development of education on eye health etc. The Committee have dealt with in subsequent chapters the adequacy of the steps taken or proposed to be taken in respect of prevention of blindness.

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The Committee are constrained to observe that no concrete measures in real terms were taken for a long time for creating an infrastructure for the prevention and control of blindness. The Committee trust that now with the launching of the National Plan on Blindness, vigorous and sustained efforts will be made to implement the plan within a time bound programme.

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The Committee note that the number of blind in the country is about 9 million out of which 5.5 million are curable if medical services can be made available to the people in time. The common causes for visual impairment and blindness in India are—Cataract (55%), Trachoma (5%), infection of eye 15% and others (25%) which include Smallpox, malnutrition, injuries, glaucoma, congenital disorders, diabetes etc. The Committee have been informed that the situation has developed as there is lack of general ophthalmic care due to paucity and maldistribution of ophthalmic personnel. Even in the training of basic doctors, the environmental and other conditions in India have been completely ignored. Moreover there are not sufficient resources in finance, physical services and manpower. The Committee note that the strategy for dealing with the problem is not to have disease oriented programmes but to develop intensive health education and dissemination of information, manpower development, and to deliver eye health care immediately to the needy population through mobile units and to create a permanent infrastructure of eye health services at the peripheral, intermediate and central levels.

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The Committee trust that expeditious efforts will be made to implement the strategy so that beneficial results accrue in the shortest possible time.

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10	1.55	<p>The Committee note that the figures of blindness in the world, are apparently in the neighbourhood of 27—30 million and that 1/2 or 2/3 of the cases of blindness could have been prevented if they had been detected and prevented in time. It is noted that a common feature of the problem of countering blindness in all countries is the need for better ophthalmic services and a larger number of ophthalmic consultants. The Committee trust that the technical know-how and the organisational techniques of the various countries will be pooled and meaningful efforts made to achieve satisfactory results by a coordinated campaign against blindness.</p>
11	1.67	<p>The Committee note that there is no system of recording the number of blind people or those suffering from impairment of vision in the country and that there is no reliable data on the prevalence or incidence of blindness in any cross section of the people. Some limited sample surveys which have been made by the National Society for the Prevention of Blindness and the Indian Council of Medical Research have revealed the prevalence of blindness in our country as the highest in the world. The latest coordinated survey by the ICMR in 7 different centres has led to an over all estimate of 9 million blind and 45 million visually handicapped. The Committee have been informed during evidence that Government did not consider it necessary to waste resources in physical enumeration but had deployed mobile health units which will take care of the eye health of the people and side by side will do the survey work. Enumeration by revenue officials was not considered suitable having regard to the technical nature of the work involved. The Ministry of Health in their latest submission before the Committee (November 1977) have stated that it was proposed to conduct surveys as the mobile units got into operation and it might be in another five years that the impact of the programme as well as the magnitude of blindness would be known. The Committee agree that data collection is a gigantic task. The Committee, however, feel that an overall survey regarding the prevalence of blindness in the country is basic for a coordinated and meaningful campaign against the disease. They would, therefore, stress that the surveys should be undertaken without any further loss of time and completed expeditiously so that the impact of the programme of Action on Blindness and precise magnitude of blindness are known and neces-</p>

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sary timely remedial measures could be taken. The Committee feel that random sampling technique may not be applied in collection of data in rural areas where due to the smallness of population it is possible to collect statistics about the number of blind persons from village panchayats, village officers and other village institutions.

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The Committee note that the WHO has recognised the need for internationally accepted definition of blindness for the purpose of compiling international statistical data. In its technical report series number 518 published in 1973 from Geneva the WHO has given a definition of blindness which according to the Ministry is rather broad and leaves considerable scope to the nations to adopt a definition of their own. The Committee are informed that the Ministry of Health have devised their own definitions for the purpose of categorising blindness. It is also noticed that the definition of visual impairment adopted by the Ministry of Health needs to be revised according to the WHO. The Committee are definitely of the view that there is a need for adopting an internationally acceptable definition of visual impairment and blindness for the purpose of collecting statistical data as without such a standardised definition it would not be possible to have a meaningful comparison about the incidence of this affliction in the country vis-a-vis other countries and to conduct a coordinated campaign against blindness. The Committee, therefore, stress that in order to avoid any difficulty at the international level in the fight against blindness the Government should review the definitions of blindness and visual impairment with a view to ensuring that the definition adopted by them should be as close to the internationally accepted definitions as possible.

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It is a well known fact that blindness apart from human suffering costs the nation a huge sum of money in a capital wastage and that the economic drain is further aggravated by the social dependence of the blind person on the community. The Committee have been informed that a rough estimate of the socio-economic cost of blind population to the community is Rs. 90 crores without counting the loss of productivity which is greater. The Committee need, therefore, hardly stress the urgency of measures to prevent visual impairment and to control blindness so as to reduce human suffering and to reduce the extent of drain on the national economy and the social dependence of the blind on the community.

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14	2.23	<p>The Committee note that cataract is widely prevalent in the country and accounts for about 55 per cent. of all cases of visual impairment. Out of the estimates 9 million persons with visual impairment in the country, over 5 million are stated to be suffering from cataract which is curable by surgical operation. The Committee regret to note that while a special programme for the control of trachoma which accounts for about 5 per cent of the total cases of visual impairment was launched by Government in 1956 first on a pilot basis and later on as a regular programme, no specific efforts were made to restore eye sight to the large number of persons suffering from cataract. According to the representatives of the Ministry, the emphasis on trachoma programme was placed because it was a communicable disease and no particular attention was given to cataract which being curable was originally "not considered as part of blindness". It is thus obvious that the priorities accorded by the Ministry in the matter of eye care were not well conceived in as much as the gravity of the problem of cataract which is widely prevalent and is curable but has serious socio-economic consequences was not given the attention that it deserved, resulting in the continuance of the wide spread and avoidable misery among a very large section of the population suffering from this disease.</p>
15	2.24	<p>The Committee note that there is a backlog of about 5 million cataract operations to which another one million are added every year. Against this, only 0.6 million operations are stated to have been attempted annually in the country including the operations through voluntary effort. The Committee are distressed to note that there is no crash programme for conducting these operations on the plea of lack of resources and lack of manpower, Government are planning to complete the backlog of operations in 20 years which could at best be accelerated to 15 years provided financial resources could be made available. The Committee are surprised at the manner in which this grave problem is being handled at present. Considering the enormity of the prevalence of this disease and the human misery caused by it, the Committee strongly feel that Government should find and allocate the necessary resources for this task. The Committee consider that with the existing number of eye surgeons which are stated to be about 3500 in the country, it should be possible to conduct about 1 mil-</p>

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		<p>lion operations every year if detailed plans of undertaking such operations through hospitals, mobile units and eye-camps etc. are prepared in advance and implemented meticulously in the field. The Committee have no doubt that with the expertise available in the country and dedication of the concerned authorities, the backlog of cataract operations could be completed within a shorter period of say 7 to 10 years. The Committee would like Government to enlist the cooperation of voluntary operations in this humanitarian venture and prepare a crash time bound programme of cataract operations to restore sight to about 5.5 million people suffering from this disease and ensure that the same is implemented in the field. The Committee would like to be informed in specific terms within six months about the action taken in pursuance of these recommendations to increase the facilities for cataract operations on scientific lines including proper post operation care and the results expected to be achieved.</p>
16	2.47	<p>The Committee note that incidence of trachoma accounts for about 5 per cent of the cases of visual impairment and blindness in the country. They further note that following the recommendations made by a Committee appointed by the Indian Council of Medical Research, 1954, Government established a Trachoma Control Pilot Project which continued till 1963. The Pilot project has been extended to a National Trachoma Programme as a centrally sponsored project since 1963. Till the end of the 4th Plan against the projected coverage of 1314 Blocks/ PHCs, covering a population of 86.71 million only, are stated to have been covered. Thus there has been a shortfall in the coverage of 273 blocks comprising a population of 23 million.</p>
17	2.48	<p>The Committee further note that there have been shortfalls in expenditure on the National Trachoma Control Programme during the First & Fifth plan period and the Government failed due to various reasons. In the Fourth Plan (1969-74) against the actual allocation of Rs. 97.31 lakhs, the expenditure was Rs. 66.34 lakhs which is roughly 66 per cent. During the years 1974-76 of the Fifth Plan, the actual provision was of Rs. 40 lakhs out of which only Rs. 27.27 lakhs i.e. about 67 per cent could be utilised. As against the allocation of Rs. 40 lakhs for 1974-75 and 1975-76, the expenditure is no more than Rs. 27.6 lakhs. The lack of utilisation of the</p>

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		<p>allotted funds for fight against trachoma shows that the implementation of the various projects under the National Trachoma Control Programme has to be taken more seriously than is being done at present. The Committee would therefore stress that Government should review the position in depth and take corrective measures to see that the allocated funds are fully used in the interest of relieving suffering of the people from Trachoma and the check the spread of this disease.</p>
18	2.49	<p>The Committee regret to note that no evaluation of National Trachoma Control Programme, on which considerable expenditure has been incurred, has been undertaken so far. It is normally expected that an evaluation of a programme is undertaken periodically to identify short-comings and take timely remedial measures. It is unfortunate that no evaluation of this programme has been taken up so far though the programme has been in operation for over 20 years. According to a former Health Minister "perhaps it was a mistake to take up a single disease—Trachoma control instead of launching a programme for fighting eye infections in general". The Committee are in full agreement with this view. They feel that if an evaluation of this programme had been undertaken in the early stages, this aspect would have come to light in the beginning and corrective measures taken. The Committee note that at long last this programme will now be integrated in the National Programme for Prevention of Blindness during the remaining years of the current Plan period.</p>
19	2.72	<p>The Committee note that the malnutrition and blindness are widespread in our country. The Committee would like to point out that at the core of malnutrition lies the problem of poverty, particularly the rural poverty and therefore, national efforts should be oriented towards improving the lot of rural masses through effective rural development strategy, in the formulation of which health and nutrition objective must receive due consideration.</p>
20	2.73	<p>The Committee note that a number of nutritional programmes have been launched by Government and some with the cooperation and assistance of international agencies. These programmes are being administered, depending upon the nature of the pro-</p>

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gramme, by different Ministries like Health and Family Welfare, Education and Social Welfare and Agriculture—(Departments of Food and Rural Development). The Committee learn that for coordination of these programmes a Central Coordination Committee consisting of 12 members representing the concerned Departments of the Central Government was set up in August, 1973. The Committee note that two of the important points considered by this Co-ordinating Committee were:

- (i) to compile and keep upto date information in respect of each programme on nutrition.
- (ii) preparation of the National Nutrition policy.

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The Committee regret to note that the Coordination Committee for Nutrition Programme which was entrusted with the task of compiling and keeping upto date information in respect of various Nutrition Programmes on nutrition has not met after June 1976 to review the information collected from various sources. Also the draft proposal on the National Nutrition Policy prepared by a Sub-Group of the Co-ordination Committee constituted for the purpose, which was to be reviewed in consultation with the Planning Commission, has not yet been reviewed and the draft on the National Nutrition Policy has not even been discussed at any meeting of the Co-ordination Committee after 10th June, 1976. Considering the widespread malnutrition problem in our country with its concomitant deleterious effect on general health and vision of the affected people, the Committee would stress that the meeting of the Co-ordination Committee for the Nutrition Programme be convened early without any further loss of time and the data compiled and collected in respect of various Nutrition Programmes reviewed expeditiously. The Committee would also emphasise the urgent need of reviewing and finalising the draft of the National Nutrition Policy, by the Coordination Committee.

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The Committee would also urge Government to examine whether the implementation of such a policy should not be brought under the control of a single Department so that the areas of coordinated effort are minimum necessary and the policy implemented smoothly and vigorously. The Committee would also recommend that as an important preventive measure against malnutrition blindness, greater resources should be allocated for nutrition programmes. The

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		Committee would also like Government that great efforts are made to enlist the active cooperation and assistance of international agencies such as UNICEF.
23	2.82	<p>The Committee note that leafy vegetables, carrots, drumsticks, tomatoes, oranges, "papayas" and similar cheap foods were rich sources of Vitamin 'A' and were essential for the health of eyes. These eatables are easily available in the country and are cheap. Sprouted grams and groundnuts are also equally rich sources of supplements. In this connection the Committee were informed during evidence that "...with regard to the use of cheap food and leafy vegetables studies have been made and literature is there and we have been able to do not much in this regard, a lot has to be done to educate people with regard to the use of cheap vegetables that are already available in their own homeland.....about "satoo" also some publicity has been done in the drought affected areas in Bihar and Maharashtra...." The Committee consider that since nutritional deficiencies particularly among expectant mothers and children were to a great extent adding to blindness in the country, urgent steps were called for on the part of Government for launching an intensive nutritional education programmes in the country and popularising the extensive use of leafy vegetables, carrots, drumsticks, tomatoes, oranges, papayas and similar cheap foods like "satoo" sprouted grams and groundnuts.</p>
24	2.83	<p>The Committee suggest that Government should take effective action to include "satoo" and other nutritional foods like sprouted grams, groundnuts etc., in the programme for mid-day meals of children. Steps should also be taken to standardise the quality and quantity of ingredients which should go into "satoo" improve its packing, arrange for its sale through Super Bazars and other Fair Price shops and use audio-visual means to bring the value of "satoo" and other cheap and readily available foods which are good for eye health to the notice of the people particularly those with fixed incomes and hailing from weaker sections of society as they are particularly susceptible to ailments of the eyes.</p>
25	3.12	<p>The Committee note that Eye Camps have an important role to play not only in undertaking eye operations but also in providing total eye care. Eye camps with community participation have found wide</p>

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popular acceptance. Such camps have an undoubtedly value in bringing Ophthalmological treatment to the doors of the people, 80 per cent of whom live in rural areas with hardly any ophthalmological services for the treatment of eye diseases.

27 3.13 The Committee have been informed that Government are aware of the difficulties and inadequacies of Eye Camps which are conducted at present and have, therefore, devised guidelines for converting these Eye Camps into Mobile Eye Care Units. As a preliminary step Mobile Ophthalmic Units will be established in areas which have not been covered. The Committee would like Government to implement the proposed measures under a time bound plan.

28 3.14 The Committee would also urge Government to ensure that the voluntary agencies which are already doing useful work in the field receive proper encouragement and purposeful direction for augmenting and accelerating their efforts.

29 3.15 The Committee note that under the National Plan of Action, Government propose to set up 30 Mobile Units by the end of 1978-79 which would be increased to 80 by the end of 1983-84. The Committee understand from knowledgeable non-officials that the number is too small and that at least each district should have a Mobile Unit. They have been informed by the Government that it will be unrealistic to create more than 80 Mobile Units in relation to the availability of manpower and equipment and in view of the financial constraints and Government have, therefore, planned to provide only temporary services through Mobile Units and at the same time create a permanent infrastructure. Seeing the magnitude of the problem, the Committee, however, feel that Government should find ways and means to set up not less than 120 Mobile Units by the end of the year 1983-84 with particular emphasis in backward districts, tribal and hill areas falling in arid zones in the country. The Committee stress the need for efficient functioning of the Mobile Units which are being set up. They stress that these Mobile Units should be well equipped and adequately manned to take care of post-operative complications and to undertake their activities in a coordinated manner and should avoid sporadic, unorganised and unplanned methods of work, as has often been the case in voluntary Eye Camps.

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30	3.16	The Committee would also like the Government to explore all possibilities of running more Eye Camps with the help and cooperation of private agencies wherever necessary. For this purpose it would be necessary to revise the concept of Mobile Units and Eye Camps to demarcate their roles and to organise their functioning on scientific lines so as to give optimum benefit to the large number of people within the resources that are available which could further be developed under meaningful plans with precise time bound targets.
31	3.17	The Committee would also urge Government to introduce some regulations for holding Eye Camps in order to prevent quackery and to ensure that these camps are run by qualified ophthalmologists and take due care of post-operative complications. The Committee note that at present Government do not have reliable information about the total number of eye camps held, eye operations performed, eye hospitals and eye beds available in each district and the total number of eye specialists in each State. They feel that it is absolutely necessary to have complete and upto-date information in regard to all these matters in order to plan and execute the campaign against blindness systematically throughout the length and breadth of the country. The Committee, therefore, recommend that Government should establish a scientific information system to collect all the relevant information in regard to the incidence of blindness and the progress of work done under the National Plan of Action for the Prevention and Control of Blindness, analyse this information critically and take such measures as are considered necessary in the light of the information received to ensure effective action against blindness on all fronts in the country.
32	3.27	The Committee note that ordinary eye-diseases at the periphery are being attended to at the Primary Health Centres and rural dispensaries where specialised attention for these diseases is not available. Patients needing specialist care are referred to the Taluka or District Hospitals. At present there are hardly any facilities available in rural and Taluka and even district hospitals for diagnostic and treatment purposes. The Committee note that it has been proposed that all Primary Health Centres in the country should be equipped in phases so as to provide a base for ophthalmic health education, to screen cases requiring specialised eye care and for providing

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		<p>ophthalmic health services, particularly to the pre-school and school going children. It is also proposed to give 4 to 6 weeks training to Primary Health Centres doctors in various medical colleges. The Committee need hardly emphasise the importance of strengthening the Primary Health Centres in the field of ophthalmic care so that the PHCs can play a meaningful role in attending to the ophthalmic problems of the Community.</p>
33	3.28	<p>The Committee consider that the institution of refresher courses for the PHC doctors is a step in the right direction. The Committee would, therefore, like Government to have the refresher courses so planned that the doctors gain requisite experience and are in a position to diagnose and treat eye ailments in an effective manner.</p>
34	3.29	<p>The Committee need hardly stress the importance of providing the PHCs and Taluka/District Hospitals with the necessary basic equipment and personnel which would relieve the community of hardships of going long distance to specialised institutions. The Committee note that every PHC will be provided with an ophthalmoscope and other essential equipment, costing about Rs. 3,000 per centre. Ophthalmic Assistants are proposed to be posted in areas where eye-specialist cannot be posted and that the areas are proposed to be covered by Mobile Units.</p>
35	3.30	<p>The Committee also note that it is the intention that every Block must have a Primary Health Centre and that 5,400 Block have been covered, leaving 200 to be covered. At the same time in the backward areas particularly tribal areas intention is to provide a Primary Health Centre for a population of 25,000 as compared to 80,000 to one lakh elsewhere. It is also the intention to strengthen the services at the Sub-Centres. The Committee would like Government to work out the institutional and supporting managements in details in the light of experience and take concerted measures to implement them in the field.</p>
36	3.41	<p>The Committee regret to note that treatment facilities of eye diseases at district level hospitals and primary health centres are very adequate and that hardly any specialised Ophthalmic services have been created at the district level or in the sub-divisions.</p>

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	3.02	Most of the time the services in the periphery and at the district level are being delivered through an eye camp approach, mostly by voluntary organisations. The Committee note that the Government in its Plan of Action have laid considerable stress on the development of eye care services at the Primary Health Centres; Taluka/Sub-divisional/Tehsils hospitals and district level hospitals as a permanent infrastructure in a phased manner spread over a period of 20 years.
37	3.02	The Committee have also been informed during evidence that the State Governments are being requested to post eye specialists in each district to begin with and that later on the plan envisages that each district hospital will have 2 eye specialists and in each Taluka Hospital there will be one eye specialist. The Committee would like that concerted efforts should be made so that the Eye Specialists numbering 3,500 are suitably deployed and that the hospitals at district and taluka level are well equipped for proper eye care.
38	3.43	The Committee also note that the total number of eye beds is about 1,200 and that at the end of 20 years period about 60,000 beds would be needed, which means an addition of about 40,000 beds in a phased manner. The Committee would like the Government to implement the plan for increasing the number of beds according to well thought out programme so that the fight against the growing problem of blindness is carried on to a successful conclusion. The Committee would stress that higher priority be given in areas before incidence is higher.
39	3.50	There are 106 Medical Colleges in the country all of which teach Ophthalmology at the undergraduate level and many at post-graduate level. There are 6 Institutions of Ophthalmology for more sophisticated eye care at Aligarh, Sitapur, Ahmedabad, Hyderabad, Bangalore and Calcutta and one more has been established recently at Allahabad. Besides, Dr. Rajendra Prasad Centre is a national centre of excellence for ophthalmic service. The Committee note that under the National Plan of Action, the central level of services are proposed to be provided through upgraded medical colleges, institutes, regional and national institute of Ophthalmology. It is proposed to set up 10 regional institutes, 6 of which already exist and which will be upgraded. The Ophthalmic Department of the various medical colleges are to be up-

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graded by providing equipment and staff for conversion into Community Ophthalmic Care Units. The Committee have no doubt that the plans drawn up will be implemented effectively so that the level of achievement in tackling the problem of blindness gets progressively higher and higher. The Committee would stress the need for greater linkage of Medical Colleges/Regional Institutes to the various District/Taluka hospitals and primary Health Centres and would urge that greater emphasis should be laid on preventive and promotive aspects. They also desire the Medical Colleges should act not as ivory towers in majestic isolation but should take upon themselves the responsibility for providing total eye health care in their respective regions. The Committee would suggest that steps should be taken by the Medical Colleges/Institutes to provide extension services in the regions to make arrangements to monitor the progress concurrently so as to review and improve the services provided by them for prevention and control of blindness in the country. The Committee learn from the memoranda received from knowledgeable non-officials that many hospitals where eye care facilities are already provided are poorly equipped and badly organised and run by personnel without the requisite qualifications and professional skill in Ophthalmology. The Committee have been informed during evidence that in the National Plan of Action Government is creating facilities for eye Health Care at the peripheral, intermediate and central levels and that it is proposed to create about 175 beds in each district in a specified manner over a period of 20 years. The Committee feel that the period of 20 years to achieve the largest is rather long and need to be reduced.

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The National Plan Committee would like Government to undertake immediate improvements in regard to effective functioning of the eye care facilities provided in the hospitals where they exist so that available facilities are put to best use. The Committee would also urge that the plans drawn up for upgrading and improvement of the various institutions may be implemented according to a phased programme so that the maximum benefit is derived at every point of time for tackling the problem of visual impairment and blindness.

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The Committee note that a large number of voluntary organisation, both national and international,

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are rendering assistance in the prevention and control of blindness. These organisations have not only established hospitals of eminence through their voluntary efforts but have also set up their branches in remote areas and conducted Eye Camps through mobile units. The Committee had been informed that though the efforts of these organisations were well motivated, these had been sporadic, uncoordinated and lack direction.

42 3.66 The Committee realise that voluntary agencies can and should play a vital role in the prevention and control of blindness. The voluntary organisations are well-suited to stimulate community interest and mobilise community resources and efforts. They organise and hold Eye Camps for medical and surgical treatment of eye diseases and restoration of vision to curative blind. Since the problem of prevention and control of blindness is colossal, it is of the utmost importance that active assistance of voluntary organisations is sought by Government in this humanitarian task. The Committee stress that voluntary organisations should be encouraged and helped to play an increasing role not only curative work by concentrating on eye camps but should also be oriented to take up promotive and preventive work in regard to eye care and visual impairment.

43 3.67 The Committee need hardly stress that in order to achieve greater degree of coordination and cooperation as also to avoid duplication of efforts between the various voluntary organisations, State and Central agencies in the field of eye care, it is imperative that effective coordination committees are organised in each State. It would also be desirable if a system is devised to appreciate the role and good work done by the voluntary organisations.

44 3.68 The Committee note that the voluntary organisations are getting grant-in-aid from Government. Besides, the international agencies are also rendering assistance to these organisations. It is a matter of regret that Government are not fully aware either of the particulars of the voluntary organisations or of the quantum of assistance received by them from the international agencies. The Committee would stress Government should maintain comprehensive information about these voluntary organisations and the assistance received by each one of them from various sources

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and the work done by them in the field. They consider that ready availability of such information with the Central Ministry of Health would be helpful for short-term and long-term planning for tackling the problem of prevention of visual impairment and control of blindness.

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The Committee note that several international agencies like Royal Commonwealth Society for the Blind, Christian Blindness Mission, Oxfam etc. were rendering assistance to individuals, voluntary organisations, hospitals and private institutions on mutual agreement basis. Assistance in term of fund, material and supplies was also expected to be received from International Organisations like DANIDA, SIDA, WHO and UNDP which had shown keen interest in the plan of action for prevention of visual impairment and control of blindness. The Committee are informed that the assistance from the voluntary organisations is being coordinated through the Central Coordinating Committee. The Committee would stress that negotiations with them which were being conducted be brought to a fruitful conclusion and greater international assistance secured with a view to augmenting the voluntary efforts in the crusade against the prevention and control of blindness.

46 3.82

One of the important problems in the fight against blindness is stated to be the shortage of Eye Specialists or Ophthalmologists. As stated by the Ministry, at the moment the country has about 3600—3700 Eye Surgeons. The Committee, however, note that no regular studies or assessment of manpower requirements for Ophthalmic services have been attempted so far. In USA there is one Ophthalmologist Surgeon for 8000 of population. In Japan there is one for 15000 of population. Considering Indian conditions, the norm of one Eye Surgeon for 15,000 to 20,000 of population has been considered to be adequate by Government. According to this norm, total requirements in 1995 are estimated at 57,000.

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The Committee are informed that it should be possible for the Government to set up training programmes to be able to produce about 1100 eye specialists by the end of 1978-79 as against the present rated capacity of 900. In the period 1979—84 the capacity could be raised to 1500 surgeons per year and in the following 5 years this number could be raised to 2000. By gradually augmenting the capacity in subsequent

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	3.84	Plan periods it should be possible to produce the number of required eye surgeons to meet the needs of the country's population. The manpower so created were to be utilised not only in the Government Sector, but also for voluntary agencies, hospitals in private sector and also as self-employment by the eye-specialists.
48	3.84	The Committee would like the Government to carefully assess the total number of eye surgeons required keeping in view the conditions prevailing in India and augment the training facilities in the medical institutions in a phased manner as to ensure that the campaign against blindness does not suffer for lack of adequate number of ophthalmologists.
49	3.85	The Committee further note that by and large the eye specialists/ ophthalmologists are clustered in large and small cities. The people living in rural and semi-urban areas are thus denied the facilities of ophthalmic services.
50	3.86	The Committee hope that by making up ophthalmologists to work in rural areas as an important part of their training programme, it may be possible that more ophthalmologists may opt for service in the rural and semi urban areas and thereby the needs for ophthalmic services of the people of these areas may be met in greater measure. The Committee would, however, like Government to review the position periodically in the light of the Rural Health Plan formulated recently and bring about necessary changes in the curricula and take other suitable measures so as to ensure the availability of adequate number of ophthalmologists for service in semi-urban and rural areas, so that the needs of vulnerable sections of the population including the urban poor are increasingly met.
51	3.99	The Committee note that para-medical personnel are now proposed to be trained as Ophthalmic Assistants who would provide intermediate service for ophthalmic relief and would work in mobile units/ Taluka/Tehsil/Sub-Division/District Hospitals as a support to the Chief Medical Practitioner and Ophthalmologists and gradually in the primary Health Centres. The Committee also note the proposal initiated by Government to enact a legislation whereby prescription and dispensing of ophthalmic lenses and glasses would be regulated and under this legislation, when

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enacted, no optician shop will be allowed to function without a trained ophthalmic Assistant. Taking all these factors into consideration, the requirements of Ophthalmic Assistants within the next 20 years are assessed as 85,000 at the rate of one for 10,000 of population both for the private and public sectors. A phased programme for the training of this manpower is stated to have been drawn up and is being finalised so that the country becomes self-sufficient in Ophthalmic manpower needs. The Committee would like that a realistic assessment of the requirements of Ophthalmic Assistants, consistent with the financial resources available for this purpose, may be made, in the context of comprehensive medicare plan enunciated by Government recently and arrangements made to expand and streamline the existing facilities for training of Ophthalmic Assistants in a phased manner so that the requirements are met within a time bound programme.

52 3.100 In the case of Ophthalmic nurses, the Committee note that requirements have been estimated at 20,000 and that considerable efforts would be needed if the targets are to be achieved in the next 20 years. The Committee would stress that urgent and adequate steps be taken to augment the training programmes for ophthalmic nurses without any further loss of time.

53 3.106 The Committee note that Government are assessing the requirements of para-medical workers to assist the eye specialists. According to them, at least one multipurpose para-medical person will be required for 10—15 thousand of population. The Committee note that it is proposed to train these personnel by utilisation of +2 general education system under vocational education and also to utilise medical colleges, Regional Institutes and the apex body for training.

54 3.107 The Committee need hardly stress the importance of giving training to multipurpose workers both male and female in eye care. They would like that a time bound programme for giving training to these workers may be formulated and implemented so that the campaign against blindness gets momentum with the help of trained workers.

55 3.114 The Committee note that out of 105 medical colleges in the country, only 55 colleges are offering specialised courses in Ophthalmology and their outturn is about 300 eye surgeons every year. In addition,

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post-graduate course in Ophthalmology is available at the All India Institute of Medical Sciences, the Maulana Azad Medical College, Pondicherry and Goa Medical Colleges etc. The outturn of ophthalmic surgeon has been attributed to lack of employment facilities and lack of ophthalmic equipment which is very expensive. The Committee have in a paragraph of this Report urged the Government to undertake a realistic assessment of the requirements of ophthalmic surgeons in the country to meet the growing need in this specialised field. It is evident that with the implementation of the National Plan of Action there would be more employment opportunities in the field of ophthalmology and the requirements of eye surgeon would increase considerably. The Committee would like Government to take effective steps not only to suitably increase the capacity of the 50 medical colleges which are offering specialised courses in ophthalmology but also to provide these facilities in other medical colleges so as to meet in full the requirements of eye surgeons in the country. They further desire that arrangements may also be made to provide adequate facilities for training of post-graduates in ophthalmology to meet further requirements.

56 **3.115** The Committee further stress that facilities for ophthalmic education should be suitably expanded and improved and a complete reorientation may be given to ophthalmic education by placing greater emphasis on promotive, preventive, curative and rehabilitation aspects.

57 **3.116** The Committee note that ophthalmology which formed a separate discipline of training and examination in the field of under-graduate medical education in the past, is being given less attention and its assessment is being merged with surgery. The Committee find that Mudaliar Committee (1959) had recommended that students at under-graduate level should be adequately trained in the subject of ophthalmology and should be assessed separately with regard to their fitness in the subject. The Committee are not aware of the considerations under which ophthalmology has not been included as a separate subject in the syllabus for under-graduate course for medical education and why the recommendations of the Mudaliar Committee have not been implemented in letter and spirit so far. They would like the Government to critically review the position and bring

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about necessary changes in the curriculum of the under-graduate courses for medical education so as to include ophthalmology as a separate subject, in consultation with the Medical Council.

58 3.117 It is pertinent to recall in this connection that the problem of eye ailments in our tropical country runs into gigantic proportions and that as per estimates available, there are as many as 9 million blind people in the country. With Government's plans to extend health care to rural areas and for manning of primary health centres by medical practitioners, it would obviously be an aspect if the under-graduates are imparted knowledge and practice in depth of Ophthalmic discipline so that they may be able to detect and provide timely treatment to the people living in rural and remote areas of our country. The Committee would like the preventive and promotive aspects of community eye health care to be specially included in the curricula for under graduates.

59 3.121 The Committee note that Government propose to start training programmes for general practitioners and PHC doctors by organising refresher courses of 2 to 4 weeks' duration in various medical colleges. The Committee consider these refresher courses to be very important in the campaign for the prevention and control of visual impairment and blindness in the country. They would like Government to prepare a detailed programme for these courses so as to cover all the PHC doctors within a time bound programme.

60 3.122 The Committee are glad to note that these refresher courses are open to the general medical practitioners also. The Committee would like that wide publicity should be given to these refresher courses so as to enable the general medical practitioners to avail themselves of these courses in the interest of rendering comprehensive medical care to the community.

61 3.123 The Committee would like that refresher courses should also be provided for ophthalmic surgeons to enable them to update and upgrade their knowledge and skills so as to keep abreast of the latest advancements in this field.

62 4.8 The Committee note that the Ministry of Health have been taking steps for the dissemination of information regarding the Prevention and Control of

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Blindness and have brought out folders, posters, film scripts, cinema slides, radio talks etc. over the years. It is a matter of regret that in spite of the various steps taken in this regard, the problem of visual impairment and eye ailments has been increasing and the number of blind people in the country has gone upto 9 million. It is thus obvious that the dissemination of information on this vital subject has not been wide-spread and has been very inadequate compared to the requirements. There is much that needs to be done in this regard. It is well known that dissemination of information for eye care and simple inexpensive treatment of eyes is of the utmost importance for the prevention and control of blindness in the country. The Committee would, therefore, like Government to undertake a study in depth of the inadequacies of the steps taken in this behalf so far and undertake well informed and effective measures so that the message of eye care reaches particularly the vulnerable sections of the society.

63 4.9 In the Committee's view there is an urgent need for intensive and extensive publicity on radio and television and through newspapers, periodicals magazines, posters, pamphlets and hoardings in the class rooms of the school children, in ladies clubs and poor localities, slum areas, primary health centres and local Government offices regarding the promotion of health of eyes, common eye diseases prevalent among pre-school and school children, pregnant women and nursing mothers, with simple advice for their early treatment and prevention of complications and blindness.

64 4.10 The Committee hope that the various measures recently taken and proposed to be taken by the Ministry of Health for arranging intensive and extensive publicity to the various aspects of prevention and control of blindness over the All India Radio and Television Centres and through publication of posters in various regional languages, erection of hoardings at various places, cinema slides, production of documentaries with commentaries in different languages, playing of compressed tape recorded speeches to the audience at Eye Camps, various social and other gatherings etc., preparation and distribution of talking points on causes of blindness to PHC's and Sub-Primary Health Centres would bring the desired results in making the gravity and magnitude of the problem of blindness and the recommended measures for the prevention and control of

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blindness known to the general public. The Committee would like that the Government should review the publicity measures from time to time with a view to ensuring that the message for the prevention and control of blindness reaches all sections of people particularly the weaker sections and all parts of the country effectively and produces the desired awakening against this disease.

65 4.11 The active cooperation of voluntary organisations working in the field of eye care health may be enlisted in a greater measure so as to reach the people in all walks of life.

66 4.15 The Committee consider that prevention and control of blindness is a gigantic task. Government machinery alone cannot tackle the problem of eradication of blindness in the country. The Committee, therefore, consider it imperative, that Government should solicit the active cooperation and help of the community leaders, sociologists, teachers and students who could be effectively trained in the fields of health education, particularly in promotive, preventive and curative aspects of eye care. This, in the Committee's view, would have a greater impact in promoting better vision and preventing blindness. The Committee in this connection note that the teachers have close association with the school going children. They would thus be useful in detecting children with defective vision and advising them and their parents to seek the advice of the qualified ophthalmologists. Similarly, the social workers and community leaders could make the adult population aware of the common eye diseases. They could impart health education to the population in general regarding the care of their own eyes, the eyes of their children and also propagate the nutritive value of inexpensive food like Satoo, carrots, leafy vegetables, milk, fruit and eggs for the protection of the eye sight. In this context the Committee welcome the assurance of Government that they regard the participation of teachers, social workers and students as most important and an essential part of their programme of prevention and control of blindness. They would, therefore, stress the urgent need to orientate teachers, social-workers and community leaders on the problem of eye health care with a view to rendering assistance as a first-aid measure and to taking promotive steps for eye health care.

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67	4.16	The Committee would also urge for an expeditious decision on the part of the Ministry of Education for an early inclusion of suitable material on ocular health in the Primary and Secondary schools level text books so that school going children could be educated about common eye diseases and methods of preventing them.
68	4.20	The WHO in its report has rightly pointed out that there is lack of School Eye Health Services in many areas of world and that there is an urgent need for inclusion of eye care components such as (i) early detection of refractive errors, treatment of esquint and amblyopia and detection and treatment of infections such as trachoma, in the School Eye Health Education. The Committee are glad to note that the National Plan for the prevention and control of blindness formulated by the Ministry of Health envisages Eye Health Education for the people. The Committee are also gratified to note that the Central Ministry of Health, National Society for the Prevention of Blindness through its centres and state branches, Rajendra Prasad Centre for Ophthalmic Sciences and many other voluntary agencies have started to disseminate information with regard to the problems of eye health and their solution. The Committee hope these efforts will result in creating an awareness in the general public about the eye health.
69	4.21	The Committee note that the Ministry of Health have held discussion with the Ministry of Education and the National Council of Medical Research and Training for inclusion of relevant material in the school text books at different stages and in the text books for teachers' training programme and the material is under preparation in consultation with the National Council of Medical Research. The Committee urge that determined efforts should be made to process and finalise the material to be included in the text books expeditiously and it should be ensured that this material is made available to the state Governments for inclusion in the text books of the schools and text books for the teachers' training programme at an early date.
70	5.15	The Committee note that the Indian Council of Medical Research has been carrying out research in the field of Ophthalmology from its very inception and that the Council had met up a Sub-Committee on Blindness in 1961-82 which, in 1964, was renamed

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as an Expert Group on Ophthalmology for furtherance of research on several aspects of eye diseases. This group is stated to be responsible for identifying priority areas of research in the field of ophthalmic sciences and also evaluating the 'on going' research programmes. The Council also initiated a co-ordinated study on the prevalence of blindness in 1970 at seven different centres. The data collected under this scheme after processing is stated to be under final publication by the ICMR. During the last 5 years, the Council has undertaken 49 research schemes in ophthalmology and the main areas of study are trachoma, cataract, glaucoma, malnutrition etc.

71 5.16 The Committee have been informed that research in ophthalmology is carried out at the National Institute of Ophthalmology, Regional Institutes of Ophthalmology and various Medical Colleges like Maulana Azad Medical College New Delhi, Motilal Nehru Medical College Allahabad, S. N. Medical College, Agra, Medical College Madurai, P.G.T. Chandigarh etc. It has been admitted by the Ministry that in the research field of ophthalmology—both experimental and clinical, India is far behind the Western Countries. A number of knowledgeable persons have also stated that research efforts made by various hospital, medical colleges and institutions had been sporadic and that original research in the country has been very little and its effectiveness has not been fully evaluated. According to a non-official "whatever research is carried out in India, is mostly a reduplication of work already done in the West and about which details are already well-known".

72 5.17 It is thus evident that the research conducted in ophthalmology in the country has not been able to achieve tangible results of any practical value. The Committee consider that in view of the enormity of the problem of blindness and eye-diseases prevalent in the country, it would not suffice if the various problems requiring research are identified. What is really required, is to identify the institutions with the requisite expertise and facilities to undertake research in these problems and find solutions with the maximum possible expedition. The Committee would therefore like to stress that immediate steps should be taken to identify the areas requiring research on a priority basis and prepare time-bound programmes for conducting these researches so that

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		the results of research are expeditiously available for being applied in the field and a meaningful impact is made in reducing the magnitude of the problem of blindness in the country. It is also important that in selecting research projects top priority is given to those eye diseases which are widely prevalent among the poor and weaker sections of society.
73	5.18	The Committee would further like to stress that detailed estimates for the completion of research projects in terms of time and money should be prepared in the beginning itself so as to encourage cost-consciousness and purposeful utilisation of time and scarce resources in the research faculty. It is also necessary that the progress of research projects is reviewed periodically at least once a year, so that in the light of progress made, decision could be taken to provide additional inputs of necessary, with a view to accelerate the progress or to give up unrewarding projects to obviate infructuous expenditure.
74	5.19	The Committee expect the R.P. Centre of Ophthalmology to provide the necessary lead by having a meaningful result oriented research programmes.
75	5.20	The Committee need hardly stress that the research projects in ophthalmology should aim at devising and developing inexpensive and appropriate techniques for eye-care, in keeping with the socio-economic conditions in the country.
	5.21	The Committee regret to note that no specific programme has been formulated for conducting research in the field of ophthalmology to find out an effective remedy for eye diseases available in the indigenous system of medicine. The Committee would like to stress that it is high time that the various remedies available in the indigenous systems of medicine are utilised for meaningful advance in the campaign against prevention and control of blindness. There are a large number of inexpensive and effective local remedies which are utilised by villagers in all regions of the country to prevent and cure eye-diseases. The Committee would like Government collect and collate all those common folk remedies from all parts of the country and organise research in a systematic way in their utility and effectiveness so as to assimilate the knowledge available therein and provide

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		inexpensive home remedies for eye health care to the vast majority of the people in the country. The Committee would like to be informed of the concrete action taken in this regard within three months.
76	5.22	The Committee also desire that full use should be made of the beneficial effects of yoga exercises on eye-care and wide publicity should be given to those exercises which are found useful in maintaining eye health and curing eye diseases.
77	6.13	The Committee have elsewhere in the Report identified the magnitude of the problem of Blindness and eye disease and suggested emergent and long term measures to be taken to alleviate the suffering of the people. It is evident that for undertaking such a far ranging programme ophthalmic instruments and other equipments would be required on a large scale. The Committee are concerned to find that at present only eye testing equipment like charts and lenses are indigenously produced while most of the diagnostic instruments and equipment, roughly 80 per cent or more in value, (Approximately Rs. 2 crores per year) are required to be imported. The Committee would like Government to critically review the position in depth in consultation with the leading ophthalmic Research Institutions, Research Laboratories under the Ministries of Science & Technology and Defence as also Departments of Industry and Technical Development etc. with a view to formulate and implement the project for indigenous manufacture of ophthalmic instruments and equipment specially when all the raw materials required for manufacture are stated to be already available in the country.
78	6.14	The Committee also stress the need for developing adequate maintenance and repair facilities preferably on decentralised basis, so that the costly ophthalmic equipment and instruments are kept at all times in a proper state of efficiency.
79	6.33	The Committee note that the entire requirements of ophthalmic glass blanks were met through imports till 1968-69 when Bharat Ophthalmic Glass Limited, a public sector company, started commercial production with Soviet collaboration. The indigenous production which constituted 6.37 per cent of the total requirements in 1971-72 rose to 27.35 per cent in 1975-76. The Committee are informed that in abso-

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lute terms as against the country's requirement of 800 tonnes of ophthalmic glass during the current year (1977). the indigenous production accounts for only a little over 100 tonnes. During 1976, in order to meet the country's requirements, of ophthalmic glass, 300 tonnes of ophthalmic glass had been imported but out of that quantity at the end of the year 100 tonnes remained unsold because of the unhealthy competition from sheet glass which is also at present being used for the production of eye glasses. The Committee have further been informed that to eliminate the use of sheet glass and other sub-standard glasses for production of ophthalmic lenses Government have finalised a bill providing for the use of ophthalmic lenses with ISI specifications and banning the use of any other glass for the purpose. The bill, it is stated, is being circulated amongst the States for their concurrence and as soon as their concurrence is received, it will be introduced in Parliament. The Committee would stress that special efforts may be made to process the necessary legislation in this regard through various stages expeditiously so that the use of the sub-standard glass for the manufacture of ophthalmic lenses is eradicated from the country at the earliest.

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The Committee are concerned to note that wide gap between the demand and availability of ophthalmic glass in the country. As against the installed capacity of 300 tonnes in the Bharat Ophthalmic Glass Limited (BOGL), the Committee find that the operating capacity of this undertaking is now taken to be only 150 tonnes and the production is even less than the reduced capacity, it being of the order of 112 tonnes. The main reason for under-utilisation of the capacity of BOGL are stated to be *inter alia* erratic thermal behaviour of ceramic pots, erratic supply of coke oven gas, labour unrest and low productivity. The Committee are informed that certain steps have been taken by the Government to improve the capacity utilisation to make this undertaking economically viable. In view of the heavy dependence of the country on imports for meeting its requirements of ophthalmic glass, Committee cannot over emphasise the importance of maximising production of ophthalmic glass in this undertaking and would stress that Government should earnestly look into the various constraints on production and take concreted measures to remove them at the earliest so as to raise its production to the maximum level.

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81	6.35	<p>The Committee are informed that the present batch process technology is another serious constraint on production of this undertaking. This technology is admitted to be now "out moded and uneconomical" and it has been recognised by the Government that BOGL should switch over to modern technology, namely, continuous process technology, for the manufacture of ophthalmic glass. The Committee are informed that Government have already approved an experimental project for this undertaking involving an investment of Rs. 49 lakhs for the development of the modern technology and for production of 300 tonnes of ophthalmic lenses by this process. A technical team, it is stated, was also sent abroad to negotiate for technical collaboration with foreign manufacturers for this purpose. The Committee, however, were informed during evidence in October, 1977 by a representative of the Ministry of Industry that "we have not been able to evolve it (continuous process technology) indigenously." The Committee also note that during the last three years one application received from a foreign majority company in 1975 for the manufacture of ophthalmic blanks in the country was not approved as this item of manufacture according to the licencing policy, 1973, was not open to foreign companies. In view of the facts that the gap between demand and supply of ophthalmic glass is steadily widening, the indigenous production capacity is woefully inadequate and indigenously available technology is outmoded and uneconomical, and that the country is heavily dependent on imports for meeting its requirements which resulted in an outgo of foreign exchange amounting to Rs. 37 lakhs in 1974-75 and Rs. 67 lakhs in 1975-76 the Committee would like Government to examine the various aspects of this matter critically and acquire the latest technology and to augment the indigenous capacity without any further delay to produce adequate quantity of ophthalmic glass indigenously in the larger and long-term interest of the country.</p>
82	6.36	<p>The Committee note that the selling prices of indigenously produced ophthalmic glass are higher than the prices of the corresponding qualities of imported glasses. They were informed during evidence that the production cost of BOGL was nearly double that of the imported glass. The reason for this high production cost of BOGL also is stated to be, among other things, the obsolescent technology being used by the undertaking. The Committee feel that pending switching over to the continuous process technology Government should</p>

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		make all possible efforts to bring down the cost of production of ophthalmic glass by BOGL. The high cost of production at BOGL makes it all the more necessary for the Government to arrange to have the latest technology for the production of ophthalmic glass by the undertaking at the earliest.
83	7.8	The Committee note that the question of formulating a National Policy on the control and Prevention of Visual Impairment and Blindness has been advocated at various forums from time to time. They have, however, been informed that the National Plan of Action on Blindness formulated by the Ministry of Health, represents the National Policy. The Committee recommend that National Policy on Visual Impairment and Prevention of Blindness be formulated in depth and laid on the Table of the House to enable the Members to express their views on this matter of National importance and provide a firm guideline for perspective planning and action.
84	7.23	The Committee note that a National Plan for the Control and Prevention of visual impairment and blindness, formulated by the Ministry of Health. The National Plan envisages the Provision of diagnostic and treatment facilities at the peripheral level of services; strengthening of Distt./Taluka Hospitals; establishment of Mobile Ophthalmic Units; the strengthening and provision of Central Level of Services viz., Medical Colleges, Regional Institutes and strengthening of the Dr. Rajendra Prasad Centre for Ophthalmic Sciences at A.I.I.M.S. New Delhi. The Committee further note that for implementation of the National Plan, a provision of Rs. 625 lakhs had been proposed for the Fifth Five Year Plan (1974—79) and Rs. 1469.40 lakhs had been proposed for the Sixth Five Year Plan (1979—84). The Committee have been informed that substantial international assistance is also likely to be available for the implementation of the programme. Now that the National Plan on Blindness had received the approval of the Planning Commission and the Ministry of Finance and all the State Governments had communicated their acceptance of the National Plan, the Committee desire that vigorous and sustained efforts should be made to implement the plan as per a time bound programme, and the various programmes undertaken as part of the National Plan and the results evaluated at the end of each year with a view to learning lessons and taking such remedial measures in the light of experience as may be found necessary.

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85	7.24	The Committee would recommend that an effective mechanism for regular monitoring and evaluation of the various programmes under the National Plan may be set up to keep a close watch over implementation of the Plan and achievement of the desired goals and to effect timely improvements in the implementation of the programme in the field.
86	7.25	The Committee note that a long term perspective plan is being drawn up to tackle the problem of prevention and control of blindness spread over a period of 20 years. The plan has been divided into three sectors namely Peripheral Sector involving an outlay of Rs. 12 crores, intermediate Sector involving an expenditure of Rs. 12 crores for equipping district and sub-divisional hospitals and Central Sector involving an expenditure of Rs. 12 crores for strengthening medical colleges, regional institutes and the national centre. Besides, the capital cost for the regional institutes was estimated to be near about Rs. 25 crores.
87	7.26	As already stated that elsewhere in the report, the Committee feel that a period of 20 years is too long for tackling the problem of prevention and control of blindness. They would like the Government to review the proposed long term perspective plan so as to reduce the period of the plan. The Committee would also like the Government to draw the detailed schemes for each of the three sectors of the plan and take necessary steps to ensure that the progress of each sector is well co-ordinated with the other sectors and optimum results are achieved most economically and speedily within the time frame of the plan.
88	7.50	The Committee note that Dr. Rajendra Prasad Centre for Ophthalmic Sciences was set up in 1969 for developing excellence in the field of Ophthalmic Sciences and providing the highest grade of ophthalmic services at the national level. The Committee further note that the Committee appointed by the Institute to go into the administrative and financial arrangements of the R. P. Centre <i>vis-a-vis</i> AIIMS recommended that the Centre should enjoy an effective autonomy in its functioning and should be a constituent unit of AIIMS.
89	7.51	The President of the All India Institute of Medical Sciences (Dr. Karan Singh) in his order dated the 10th January, 1975 further formalised the status and

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administrative powers of the R. P. Centre and the AIIMS to facilitate and improve the working of the Centre with a view to ensuring effective autonomy to the Centre within the overall provisions of the All India Institute of Medical Sciences Act, 1956. The order <i>inter-alia</i> stipulated:—		
		(i) "The budget of the Institute shall be in parts namely (i) the budget of the main Institute and (ii) the budget of the Centre. The budget of the Centre shall be prepared and operated upon by the Head of the Centre.
		(ii) The development plans of the Institute shall be prepared into two parts namely (i) the development plan of the main Institute and (ii) the development plan of the Centre and the allocations shall be so made that they shall not adversely affect each other.
		(iii) The Centre shall continue to use to the maximum extent the common hospital facilities like the laundry, the animal house, the kitchen, the sterilisation room, blood bank, clinical pathology, library, etc. For the use of such facilities etc. no debits shall be raised against the Centre. Where such facilities are required to be augmented for the Centre or the Institute, the expenditure shall be shared by the two in proportion to the utilisation made by each.
		(iv) The Director of the Institute shall delegate to the Head of the Centre all financial and administrative powers which vest in the Director . . .
		(v) For day to day working of the Centre in matters relating to administration, stores, accounts etc., the Centre may have separate staff of its own."

90 7.52 The Committee regret to note that in spite of the various measures taken to formalise the status and administrative powers of the Rajendra Prasad centre *vis-a-vis* AIIMS in such clear and unambiguous terms, considerable difficulties were stated to have been experienced in the day to day functioning of the R. P. Centre and the actual implementation of the orders of the President of the Institute. The Committee were informed during the evidence that though the Centre

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had been in existence for over nine years, it had made very slow progress primarily because it was tagged to a much bigger organisation like the AIIMS which worked on a unitary concept and the requirements of the Centre were not given the close and prompt attention needed for an apex organisation. The Centre suffered in the matter of training, funds and had difficulties in the matter of training, increasing the beds, improving the hospital facilities administration of hostels and holding refresher courses, the result being that according to the evidence tendered by the representative of the R. P. Centre in the present set up there was hardly any possibility of the Centre achieving its objectives in the foreseeable future. During the visit of the Committee to Dr. Rajendra Prasad Centre, the Committee were further informed that the functioning of the Centre had been hampered by non-implementation of the basic decision regarding the Centre having an identity of its own as a special Constituent Unit of AIIMS and the denial of effective autonomy in its functioning.

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The Committee further note that during a meeting convened on 2 June, 1977 by the Health Secretary in pursuance of the assurance given by the representatives of the Ministry of Health before the Estimates during the evidence, to discuss the implementation of the order of the President of the Institute dated 10 January, 1975, it was felt that the implementation of the order of the President was by and large satisfactory and that the difficulties experienced were being resolved from time to time and that in future also the difficulties might be discussed and resolved as and when they would arise. So far as the question of giving autonomous status to Dr. R. P. Centre, the Committee are informed that this aspect will be taken up for consideration by the Review Committee proposed to be set up in terms of recommendations of the Estimates Committee contained in its 102nd Report (1975-76) on AIIMS.

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During evidence before the Sub-Committee of the Estimates Committee (1977-78) in October, 1977 the Chief Organiser of the R. P. Centre stated that a solution out of this impasse lay in the fact that the Centre should become a Constituent College under Section 14(F)(i) read with Section III(2) of AIIMS Act and the Head of the Centre could be assigned function and powers to the same level as Director AIIMS have for matters concerning the Centre under

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Section 11(4) of the Act. In this connection, the Chief Organiser of the Centre suggested some amendments to the Act and changes in the rules. The Chief Organiser of Dr. Rajendra Prasad Centre for Ophthalmic Sciences further stated that he was of the view that the Centre should be renamed as Dr. Rajendra Prasad National Institute of Ophthalmology in order to reflect its real status as the apex organisation to project its clear image nationally and internationally particularly when the 6 Regional Institutes were being created. The Secretary of Ministry of Health informed the Sub-Committee (1977-78) during evidence that the "consensus of opinion seems to be that it would be a great pity if the Centre had to be separated from the AIIMS". In a written reply subsequently the Ministry also stated that "earlier a sub-Committee of the Institute examined the question which found that a sum of Rs. 250 lakhs would be required for its total separation. It did not consider this as desirable." He further informed the Sub-Committee that the question whether the Centre should be separated from the Institute and if not, what should be its future relationship with the Institute had come up before the Governing Body of the Institute at its meeting held on 29 August, 1977 and he had been asked to examine all the aspects of the matter and to submit his recommendations to the Governing Body on the status and powers of the Centre. He stated that during this examination he would also look into the suggestion to give the status of a Constituent College to the Centre, as proposed above and whether it could be brought within the ambit of AIIMS Act. As regards the nomenclature of the Centre the Ministry in a note stated that once the relationship of the Centre with the AIIMS is determined the question of nomenclature will also be settled."

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The Committee are not happy over the persistent lack of harmony in the working relationship between Dr. Rajendra Prasad Centre of Ophthalmology and AIIMS. They are afraid that the existing state of relationship between the two, if not improved immediately, might affect the implementation of the National Plan of Action adversely. They feel that it is absolutely necessary in the interest of effective implementation of the Plan that the question of giving suitable status and powers to Dr. Rajendra Prasad Centre vis-a-vis AIIMS is settled without any further loss of time.

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The Committee feel that in order to enable Dr. Rajendra Prasad Centre to function as an apex organisation for the execution of the National Plan in all the States and also for bringing about the desired co-ordination in the working of the regional institutes set up as part of the National Plan, it is necessary to give the Centre a nomenclature befitting its national status and responsibilities. They would like the Government to consider naming it as Dr. Rajendra Prasad National Centre of Ophthalmology.

94 7.56 The Committee note that Dr. Rajendra Prasad Centre has come to acquire two distinct roles to play—(1) as a constituent unit of AIIMS for the purpose of organising under-graduate and post-graduate education research etc., and (2) as an apex organisation to execute and coordinate the National Plan of Action. The Committee feel that in order to enable the head of the Centre to discharge the responsibilities which the National Plan has placed on him, he should be invested with sufficient operational autonomy to plan and carry out his activities without any hindrance, which he may consider necessary for the efficient execution of the National Plan consistent with his duties to ensure efficient functioning of the Centre as a constituent unit of the Institute for the purpose of education, research etc.

95 7.57 The Committee would also like to suggest that in order to give the Centre a sense of participation in the decisions taken by the Governing Body of AIIMS, the head of Dr. Rajendra Prasad Centre should be invited to participate in discussions in the Governing Body and also in the Academic or Finance Committees of the institute whenever any item concerning the Centre comes up for consideration before them.

96 7.58 The Committee would stress that the Governing Body of the Institute should address itself to these questions of status and powers of Dr. Rajendra Prasad Centre and its head earnestly and find a suitable solution to these long standing issues most expeditiously in the larger interest of the Institute and the Centre.

97 7.75 The Committee note that under the National Plan of Action on Blindness it was proposed to strengthen and equip six Regional Institutes at Aligarh, Sitapur, Ahmedabad, Hyderabad, Bangalore and Calcutta. It has been stated that these institutions would develop several sub-specialities and provide and demonstrate

services to the medical colleges and other Institutes in their Zone. They would also be supplied with a model post-graduate training programme both at the diploma and degree level and they would adopt their curricula, syllabi and evaluation in the framework of the objectives provided. The Institutes would also hold continuing education programmes from time to time for specialists in their zones and would also be required to depute two eye surgeons for each workshop at the National Institute to develop a specialisation in Ophthalmology. The Committee further note that under the National Plan of Action each of these Regional Institutes is to be strengthened by providing them equipment worth Rs. 11 lakhs. Considering the magnitude of the problem of visual impairment and the incidence of blindness in the country, the Committee would stress that short term and long term plans in respect of these Regional Institutes be formulated to enable them to intensify their activities to provide preventive, promotive and curative ophthalmic services to the millions of the blind in the country without any further loss of time.

98 7.76 The Committee hope that the Board of Management for the six Regional Institutes with broad based composition giving representation to the concerned interests would be constituted at the earliest.

99 7.77 The Committee note that at Aligarh, there are two Eye Hospitals at present i.e. the Gandhi Eye Hospital, Aligarh and the Institute of Ophthalmology, Aligarh. The Gandhi Eye Hospital was founded by late Dr. Mohan Lal an eminent Ophthalmologist and is at present being run by a trust. The Institute of Ophthalmology is a unit under the Aligarh Muslim University. The Committee further note that under the National Plan of Action, the Gandhi Eye Hospital and the National Institute of Ophthalmology were proposed to be combined and converted into a Regional Institute. During their visit to the Aligarh complex, the Committee gathered the impression that the representatives of the Gandhi Eye Hospital had certain reservations about the proposed move. They felt as if the decision was being thrust on them by the Central Health Ministry. The Committee would, therefore stress that before finally deciding to merge the two institutes to form a Regional Institute, the Central Ministry of Health, should discuss the matter with the representatives of Gandhi Eye Hospital, Aligarh, Institute of Ophthalmology, Aligarh.

Muslim University and the U. P. Government with a view to evolving an arrangement under which the wishes and ideals of the founding father of Gandhi Eye Hospital in regard to its autonomy and separate entity are respected and the Aligarh Complex is made a centre of excellence in the matter of eye care.

100 8.10 The Committee note that the following measures for the rehabilitation of blind are being taken by Government:

- (i) training in Braille;
- (ii) provision of scholarships to blind students;
- (iii) integrated education for blind or partially seeing children;
- (iv) provision of employment opportunities.

101 8.11 As regard the provision of scholarships, the Committee note that while in the Fourth Plan 2759 scholarships were offered, in the year 1974-75 and 1975-76, 809 and 1225 scholarships were offered to the blind students. Considering the number of blind children in the country, it is evident that these scholarships are inadequate to meet the magnitude of the problem. The Committee would like Government to take concrete measures to increase number of scholarships for the education of the blind.

102 8.12 The Committee also note that Government have in the Fifth Plan evolved a scheme for placing handicapped children including blind children in ordinary schools. It has been stated that apart from being less expensive, this form of education affords substantial social and psychological advantages to blind children. The Committee would like the scheme to be extended after watching its working.

103 8.13 As regards the Braille facilities, the Committee note that a single code called Bharati Braille code for all the major Indian Languages has been evolved. Although the National Library for the Blind had about 1200 members on its roll, the Government have no statistics of the number of blind persons reading Braille. Apart from collecting the statistics, training facilities imparting knowledge in Braille reading should be augmented and a perspective plan drawn up (State-wise) in this regard. The Committee stress that adequate measures should be taken to popularise the Braille Code and publicity given to the training facilities available for learning this code.

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104	8.14	The Committee urge that undertakings both in the private and the public sector should provide liberally gainful employment to the blind who have acquired the necessary skills. The Committee would like the Directorate General of Employment to render assistance in this behalf.
105	8.15	The Committee further note that the National Centre for the Blind has been set up at Dehra Dun. The Centre besides offering craft training to adult blind men and women, manufactures simple braille appliances which were previously imported, and provides braille literature in Hindi. Besides, this, the Centre has a sheltered workshop employing 65 blind or partially sighted children. The Committee would like to lay stress the crucial importance of effective functioning of this Centre on the right lines so as to broaden the facilities available for the rehabilitation of the blind. The Committee feel that Centres like the one at Dehra Dun should also be set up in Eastern, Western and Southern regions.
106	8.16	The Committee would also stress that since the National Plan of Action of Blindness makes no mention of the rehabilitation of incurable blind, the Ministry of Education (Department of Social Welfare) who are primarily concerned with the rehabilitation of the blind may draw up a perspective plan for the rehabilitation of blind in consultation with the State Government and other authorities and bodies concerned.
107	8.34	The Committee note that approximately 30 per cent of blindness is due to corneal diseases and opacities following infections of cornea and that roughly over a million persons can benefit by corneal grafting operations. It is noticed that there are at present only 43 Eye Banks functioning in the country. The majority of the eye banks collect and utilise 5-10 pairs of eyes per year. Considering that a million persons can benefit by cornea grafting operations, it is evident that the existing rate of collection and utilisation of eyes is woefully inadequate. The Committee consider that if any perceptible improvement is to be effected in restoring eye sight by corneal grafting, intensive efforts are called for, for organising and collection of eyes of persons after death and for ensuring effective utilisation of the eyes so available.
108	8.35	The Committee note that the problem of eye banks is the paucity of donors. The number of donors is

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		very small. It has been stated that publicity has been started for donation of eyes and that Government is utilising all means of mass media for encouraging donations of eyes by people after death. The Committee need hardly emphasise the urgency of continuous and concerted efforts through education and effective publicity to create social awareness in the community regarding the humanitarian aspects of the problem of blindness so as to encourage a large number of people to donate their eyes after death.
109	8.36	The Committee understand from certain eminent non-official ophthalmologists who gave evidence before the Committee that most of the Eye Banks in the country are ineffective as they are not well equipped or well staffed. It need hardly be stressed that especially when the number of eyes available for transplantation is very small, it is of the utmost importance that even the few which are available, should be utilised properly. The Committee would, therefore, like Government to review the working of the Eye Banks so as to ensure that the Eye Banks are run efficiently and not a single eye donated, is wasted because of ineffective storage and faulty utilisation.
110	8.37	That Committee understand that there are lacunae in the legislation pertaining to corneal grafting which stand in the way of prompt collection and proper utilisation of unclaimed eyes of dead bodies. It has been stated that after 48 hours of death, the eyes are not useful for grafting and that a model act is being prepared for Delhi which will permit the removal of eyes from a dead body if it is not claimed within specified hours. The Committee need hardly observe that the legislation pertaining to corneal grafting in the various States should be reviewed in the light of the model legislation so as to bring about amendments in the Acts in the interest of utilisation of the eyes for the benefit of the blind.
111	8.39	The Committee note that the National Plan for the prevention and control of blindness provides for establishment of a net work of Eye Banks at the district level, regional level, state level as also a National Eye Bank at the Dr. Rajendra Prasad Centre for Ophthalmic Sciences, New Delhi. The plan also provides for increased facilities for collection of eyes, training of doctors in the associated techniques and preservation of eyes. The State and National Eye Banks will be responsible for coordination and supervision of the work and also for research in the various

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112	9.19	<p>techniques of presercation and transplantation of eyes. The Committee have no doubt that the Plan for the setting up of a net work of Eye Banks would be implemented, according to a time bound programme.</p>
113	9.20	<p>The Committee note that the Joint Committee of the Central Board of Health and Education in their Report submitted to Government in 1943 had recommended the appointment of Special Adviser in Ophthalmology at the Centre and also at the State levels. These recommendations were also commended for earnest consideration of Government by the Bhore Committee constituted in 1946. It is unfortunate that no action was taken by the then Government of the country on these recommendations which remained practically shelved. The Committee note that it was only in 1975 that an Ophthalmic Adviser at the Centre was appointed in pursuance of the resolution adopted by the Central Council of Health and Family Planning. As the National Programme on Blindness has been approved and is being taken up for implementation the Committee would like Government to ensure that Advisers in Ophthalmiology of well known standing and organisational ability are appointed at the earliest at the State levels as well for coordination and expeditious implementation of the National Programme.</p>
114	9.21	<p>The Committee regret to note that so far there did not exist any organised machinery for consultation with the State Governments for providing Ophthalmic services and for undertaking programmes in the field of eye health care. The only machinery for consultation with the State Governments was the Central Health Council which acts as a general advisory body regarding various health problems, and which was being utilised for coordination with the States. The Committee further note that Government of India have recently appointed a National Committee on Blindness for the implementation of the programme for the prevention and control of Blindness. The National Committee will act as a coordinating agency and will hold regular consultations with the States in the matter of rendering Ophthalmic services.</p> <p>In view of the crucial importance of the National Programme of Action and the imperative need for concerted action for the implementation of the programme, they would urge the National Committee to undertake expeditiously the implementation of the programme on sound lines and closely review the</p>

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		<p>progress from time to time so as to remove bottlenecks in the effective and timely execution of the programme. They have no doubt that this Committee would enlist the active cooperation of all the States in the programme and would ensure effective monitoring so as to take immediate action, where necessary.</p>
		<p>The Committee would also stress that the representatives of Departments of Social Welfare, Labour, Industry (Small Scale Industries), Commerce, Food, Defence Production etc., should be coopted as Members of the National Committee for Blindness, to achieve a greater degree of coordination among the different agencies concerned with the various aspects of the implementation of the National Plan of Action for the Prevention and Control of Blindness.</p>
115	9.22	<p>The Committee further note that the Zonal Implementation Committees and the Central Coordination Committees are proposed also to be formed to look after the coordination work in their respective zones and achieve coordination of Government efforts with the voluntary organisations respectively. The Committee hope that these bodies will play their rightful role in achieving the tasks set before them.</p>
116	9.23	<p>The Committee are glad to note that Inter-ministerial Group is also proposed to be set up within the Ministry of Health to expedite decisions. The Committee hope that similar Inter-ministerial groups would also be set up at the State levels in due course of time.</p>
117	9.24	<p>The Committee further note that no State Implementation Committees had been formed till November, 1977 but the States who had accepted the National Plan of Action on Blindness had already taken up the question of forming these State Implementation Committees. They hope that the formation of these Committees in the various States would be expedited. The Committee also trust that the District Coordinating Committees in the 75 districts where the National Plan of Action on Blindness is to be implemented through the mobile units would have been formed at least by the close of the month of November, 1977, as promised by the Ministry of Health and help in the speedy and systematic implementation of the National Plan of Action on Blindness.</p>
118	9.25	<p>The Committee note that a Cell has been created in the Ministry with the responsibility of looking after all the problems of Community Ophthalmology.</p>

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		<p>The Committee stress that the working of the Cell should be reviewed from time to time so as to ensure that the Cell effectively fulfils the purpose for which it has been constituted.</p>
119	9.26	<p>The Committee further note that cells of Community Ophthalmology had been set up in the States of Rajasthan, Punjab and Haryana. The Committee hope that similar cells would soon be set up in all the States as well and concerted measures <u>taken</u> to establish and develop Community Ophthalmology services in the field.</p>
