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RESTORING SIGHTS: A STUDY OF SIX EYECARE PROJECTS  
IN BANGLADESH



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## INTRODUCTION

The Canadian International Development Agency (CIDA) recently moved to a multi-year funding arrangement with Operation Eyesight Universal (OEU), a Canadian non-government organisation. Before finally committing, CIDA wanted OEU to make an independent evaluation of their programmes in Bangladesh - and the name of Bangladesh Rural Advancement Committee (BRAC) was suggested as a possible evaluator. BRAC agreed to release Dr. A.M.R. Chowdhury, a senior research demographer, for the purpose and the actual evaluation took place during 16-28 October 1986 in collaboration with Mr. Harold R. Cowie, Assistant Director (Overseas Development), OEU. Mr. Shams Mustafa, a staff economist of BRAC, was later inducted to assist the above in the evaluation of Chittagong programmes. The terms of reference of the evaluation is given in Appendix 1.

## OPERATION EYESIGHT UNIVERSAL (OEU)

The Operation Eyesight Universal (OEU) is a registered charity in Canada. Founded in 1960 to assist eyecare programmes in India, OEU has now grown into a large non-governmental organisation and its sponsored programmes can now be seen in more than 16 developing countries of Asia, Africa and Latin America. With support from OEU, their local partners treat over half a million people and restore sight to over 90,000 individuals every year. The annual budget is 4.25 million Canadian dollars of which nearly 90 percent are spent

overseas. The sources of funding are mainly individual private donors and the Canadian International Development Agency (CIDA). OEU has its headquarters in Calgary, Alberta, Canada. More details about OEU are available in Appendix 2.

OEU involvement in Bangladesh dates back to 1973 when a mobile eye unit was donated to the Bangladesh National Society for the Blind (BNSB). Since then the involvement has grown fast and Bangladesh is now the second largest recipient of OEU funds, after India. At present OEU has an annual commitment of approximately C\$530,000 to five eye care projects (see map in Appendix 3). Besides, instruments and transports are occasionally donated to other projects upon specific requests.

Table 1: OEU assisted projects with approximate annual commitments.

Name of Project	Annual commitment (Canadian dollars)
BNSB Hospital, Khulna	225,000
Lions Hospital, Chittagong	160,000
Assistance for Blind Children	23,000
Royal Commonwealth Society for the Blind	110,000
Christian Hospital, Chandraghona	10,000

As in other countries, OEU works through partners in Bangladesh such as the Bangladesh National Society for the Blind, Lions Foundation or the Royal Commonwealth Society for the Blind. Relevant staff of OEU based in their headquarters make annual visits to monitor the activities of the assisted projects. On their part, the local partners send quarterly activity report and annual audited financial statements to OEU.

## EVALUATION METHODOLOGY

The evaluation of the OEU-supported projects was carried out during 16-28 October, 1986. This schedule was fixed long before in March 1986 by OEU and hence there was hardly any choice left for the evaluation methodology. OEU sent a list of questions to each of their partners in Bangladesh (see Appendix 4 with answers) asking specific questions on their respective projects. These questions were drafted in light of the terms of reference of the evaluation (see Appendix 1). Because of postal "irregularities" copies of these questionnaires and the terms of reference reached the evaluator in Dhaka only during the first week of October 1986. Because of the lack of time, the evaluator (first author) decided to build his evaluation on the answers provided to the OEU questions by individual projects. Along with OEU representative, the evaluators visited the projects, saw some of the activities being done, asked questions pertinent to the particular activity or policy, looked at books, collected different statistics and discussed problems. Unstructured interviews were carried out with different people including programme organisers, management committee members, clients, local government officials and elites and ordinary villagers. No systematic survey of clients could be undertaken. The report presented here thus reflects more impressions than actual statistics.

The evaluators were aware of the time constraints within which they had to accomplish their tasks. Not all the important issues could be dealt with in a satisfactory manner. Some of these points should be dealt with in a future evaluation.

## BANGLADESH: THE PROBLEM OF BLINDNESS AND THEIR PROGRAMMES

### The Problem

In reviewing the problem of blindness in Bangladesh, one is struck by the serious lack of our knowledge about the problem. Except for a recent study on nutritional blindness(10), no consistent information is available on the prevalence or extent of different types of eye conditions.

Martin(13) informed that there were about 2 million "economically blind" people in Bangladesh who are unable to "count fingers shown at 3 metres distance". Out of these, half are "totally blind". A person is called "totally blind" if he does not have any "perception of light in any one of his eyes"(13). Of the one million totally blind in Bangladesh, approximately 400,000 are estimated to suffer from cataract blindness. Other causes of blindness are xerophthalmia, injuries, glaucoma, corneal ulcer, etc. Unfortunately the prevalence of these or their relative share in the total picture is not known except for xerophthalmia. A recent survey (10) has shed light on the prevalence of nutritional blindness or xerophthalmia in Bangladesh. It has been found that xerophthalmia is by far the most important preventable cause and its prevalence is over 3 times in excess of World Health Organisation (WHO) danger level. By the age of 6 years, about 4% of all rural children have serious corneal lesions - erosion, ulceration or keratomalacia. Vitamin A deficiencies together with protein-energy malnutrition is responsible for 35,000 pre-school age children being needlessly blinded each year. Many of these blinded children die and about 15,000 surviving children become irreversibly



blind. Supplementation of Vitamin A only can save thousands of children from blinding and if the results of a recent trial in Indonesia are any guide, such a supplementation can reduce childhood mortality by upto 34 percent(17).

Preliminary results from a small survey in a village in Chittagong conducted by a local ophthalmologist present even a more disastrous picture. About 0.8% of the people had cataract and the proportion with immature cataract was unbelievably high - 4.6%(7). The scientific validity/representativeness of this study is, however, not known as yet. It may be mentioned here that Bangladesh has a population of about 100 millions.

#### **Eyecare Programmes in Bangladesh**

In Bangladesh, programmes for eyecare can be broadly divided into two groups: public and private. We will discuss each by referring to both curative and preventive programmes.

**Public Sector Programmes:** The core of the public sector eyecare programmes are the eye departments of the eight medical colleges, and the Institute of Post-Graduate Medicine & Research. The National Institute of Ophthalmology in Dhaka is a recent addition to provide post-graduate training in ophthalmology. Services are available from these through outdoor and provision of indoor beds. Almost all the trained ophthalmologists of the country are associated with this sector. There are general hospitals in each district headquarter and approximately 5 beds are earmarked for eye patients. There is no

eyecare service below this level, not even at the upazila\* health complex (UHC).

There is a programme of distributing Vitamin A capsules of 200,000 i.u. for the prevention of xerophthalmia. These capsules are being distributed to children between 6 months and 6 years of age through the UHCs. The nutritional blindness study(10) found a low coverage of children which was also variable between different geographical areas of the country. In the Third Five Year Plan document of Bangladesh, Vitamin A distribution was the only eyecare component mentioned(9). There is no other significant prevention or promotive health care programmes of the government.

**Private Sector Programmes:** Major eyecare programmes in Bangladesh are being organised on a private basis. We will consider them now.

**Bangladesh National Society for the Blind:** The East Pakistan Society for the Prevention of Blindness (EPSPB) was formed in 1969 under the patronage of the then governor of East Pakistan Vice Admiral S. M. Ahsan. Soon the liberation war started and this society could not make much headway. Following liberation the Bangladesh National Society for the Blind (BNSB) was reconstituted and started functioning from 1973 with its headquarters in Dhaka. Because of the lack of initiative, the BNSB in Dhaka became isolated and several other local BNSBs were formed without any functional link with the Dhaka BNSB. The Royal Commonwealth Society for the Blind (RCSB) also started its

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\* The 100 million people of Bangladesh live in 64 districts of the country. An Upazila is a sub-district with an average population of 200,000.

Bangladesh activities from 1973. With the active initiative of RCSB, the building of several base hospitals in areas with BNSB committees were started. At present there are 8 such hospitals in Dhaka, Chittagong, Mymensingh, Khulna, Sirajganj, Maulvi Bazar, <sup>Dinajpur</sup> ~~Bahara~~ and Chandpur (see Appendix 3). Another one is planned for Patuakhali. With funds raised locally and from overseas donors such as Andheri Hilfe of West Germany and Operation Eyesight Universal of Canada these self equipped base hospitals are supposed to take the lead and provide all eyecare services to their population.

Although the ultimate aim of BNSB is to remove and prevent blindness, the major present activities are designed to clear the backlog of cataract cases which are estimated to be in the excess of 400,000 with 40,000 new cases being added every year. Except for treating cataract cases through operations in hospitals themselves and in eye camps conducted by the staff of these hospitals, there is hardly any other activity. It should, however, be noted that of all existing eyecare activities in the private sector, BNSB's role is quite significant.

✓ Royal Commonwealth Society for the Blind: This is an England based society with branches in several commonwealth countries including Bangladesh. Their major activities are in funding the eye camps conducted by different organisations. For more details, please see later in this report.

Assistance for Blind Children: This is a Bangladeshi non-governmental organisation formed with the objective of helping exclusively the blind children of Bangladesh. Their activities include: restoration

of sight, rehabilitation of blind children, stipend to blind students, etc. More details about ABC are available later in this report.

**Lions, Rotary, Apex Clubs:** These are widely known international clubs. Their Bangladesh branches also take part in different eyecare activities particularly in the organisation of eye camps. The Lions Club has also two large eye hospitals in Dhaka and Chittagong more details of which are available later in this report.

**Heled Kellar International (HKI):** It is a Newyork-based international organisation with branches in many developing countries including Bangladesh. HKI is one of the very few organisations working for the preventive aspects of eyecare in Bangladesh. Their achievement to date has been in the conduct of a large nutritional blindness study, the first and only of its kind ever undertaken here. Their effort now is mostly at influencing the policies of public and private sectors for preventive programmes.

**BRAC and other NGOs:** Several non-government organisations (NGOs) including the Bangladesh Rural Advancement Committee (BRAC) are taking up programmes either directly by themselves or in supporting the existing government programmes of distributing Vitamin A capsules to children. The local branch of Worldview International Foundation (WIF) has recently completed a pilot educational project on preventing nutritional blindness with local household resources(14).

**Training of Ophthalmologists:** There are about 120 foreign trained ophthalmologists in the country(4) most of whom are based in large

cities such as Dhaka and Chittagong. Specialised ophthalmological education is now available in Bangladesh. The Institute of Post-graduate Medicine and Research and the National Institute of Ophthalmology, both in Dhaka, give post-graduate specialisation in ophthalmology. Besides these, the Eye Infirmary and Training Complex (EITC), a venture of Chittagong BNSB, has started a two-year diploma course in community ophthalmology. This diploma, given by the University of Chittagong, is yet to be recognised by the Bangladesh Medical Council. The EITC also provide one-year training to paramedics.

Coordination of Eyecare Activities: Because of internal rivalries and lack of appreciation for prevention programmes, the BNSB is failing to play its due role of coordinating the eyecare activities in Bangladesh. The RCSB through its funding of eyecamps is doing some coordination of eyecamps and BNSB hospitals. This is also due to the personal initiative of the present country director of RCSB in Bangladesh. But there appears to be no coordination between the RCSB linked eyecare activities and those promoting the preventive programmes such as HKT. The Bangladesh National Council for the Blind (BNCB) was formed, with the Minister of Health and Family Planning as the Chairman, with a particular aim of coordinating these activities. But this council has not been very active.

## EVALUATION RESULTS FROM SOME EYESIGHT RESTORATION PROJECTS

As mentioned previously, a quick evaluation of some eyecare activities, most of which received funds from Operation Eyesight Universal (OEU), Canada, was done during October 16-28, 1986. We now discuss these projects. As will be seen, there is no uniform system followed in reporting the projects. The scale of OEU involvement was, however, an important factor in deciding on the length of the report.

### **BNSB Eye Hospital, Khulna**

**A Brief:** The BNSB eye hospital in Khulna was started in 1976 as a base hospital for the districts of greater Khulna, Jessore, Faridpur and Kushtia. The population of these districts is 17 million which is about 77% of the whole Canadian population. Andheri Bilfe of the Federal Republic of Germany supported the hospital for the first five years which was initially housed at a rented building in Khulna town. On a plot of land donated by the late President Ziaur Rahman at Shiromoni, 9 miles north of the town; the hospital started to build its own complex in 1981. OEU agreed to finance the construction of the complex.

**Construction:** During the past years, the building of the main hospital has been completed (see photographs at the end of the report). During our trip we walked round the hospital complex and was impressed by the quality of work. The director of the hospital, who has been on the job since 1976, informed that it was done at a much lower cost because of his and others' personal initiatives, interests and care. The construction of the following have been completed:

1. Multi-storied hospital building
2. Boundary wall around the hospital complex
3. Multi-storied residential building for fourth class employees such as watchman, service staff, etc.
4. Multi-storied residential building for paramedics and other similar staff
5. Residential building for doctors (under construction).

The construction of the residential quarter for the director of the hospital will be started soon. Although most of the construction work has been financed out of OEU grant, the contribution of several other philanthropic organisations of Canada are visible. These included:

- a. Operation Theatre: donated by the Rotary Club of Hamilton, Ontario.
- b. Female Ward: donated by the Council for the Blind, Canada.
- c. Auto glove: donated by the Blue Water Club for the Blind, Canada.
- d. Hospital microbus: donated by OEU and Midland Rotary Club, Canada.

Plaques showing their contributions are prominently displayed all over the hospital (see photographs later in the report).

Beds: There are 44 beds available to patients. Their distribution is as follows.

Beds	No. of beds	
	Male	Female
General Ward	9	7
Paying Ward	9	7
Septic Ward	4	4
Cabin	2	2
	24	20

As for the utilisation, we collected information on the occupation of the beds on the day of our visit. There were 28 patients or 64% of available beds. Female occupancy was less than 50%. Most patients appeared to be of poorer socio-economic class and from rural areas. All the patients had cataract operations except the 2 in male septic ward who had other eye conditions. Normally the operations are carried out once in a week. The last day on which operations were done was on 16 October 1986, 3 days before our visit. On that day, 10 cataract operations were carried out, 9 of whom were males.

As for the fees in different type of beds, there is no charge for those in general wards. Taka 100 is charged for 'paying beds' and Taka 500 for cabins.

Outdoor: Outdoor is a major activity for the hospital. Patients are registered between 8 in the morning and 12 noon. There are separate examination facilities for males and females. Upon arrival, a patient has to buy a ticket for Taka 2 which ensures free treatment for the subsequent 3 months. If a patient is too poor to pay this token fee, he/she is treated free of charge. During our tour of the outdoor department, we met many patients most of whom were from Khulna town and adjacent areas. As the hospital is close to Khulna, people from all walks of life take its services.

Eye Camps: Recognising the difficulty of serving all patients directly by the hospital facilities, eye camps in different rural areas have been conducted since 1976 by the hospital staff. With the help of the local community and often financially supported by other



organisations such as Lions or Rotary Clubs, eye camps are conducted during the dry months of October to April. We visited one such camp in Jessore district, about 50 miles north of Khulna town. It was organised by a local youth club called Progati Sangh (meaning Progressive Club) which was supported by the Rotary Club of Khulna North through a grant of Tk. 5000. The local elites provided rice for the patients. The camp was held in a local high school which has been the site of such eye camps every year since 1976. Such an eye camp normally continues for 10 days and we went there on the third day. It was the day for operations. A total of 102 cataract operations were conducted on that day, out of which 60 were males. We watched several operations. As there was little bleeding, this probably did not scare the evaluator who for the first time in life was observing such operations on human body. It was a very swift and efficient operation (readying, pushing anaesthetic, bringing to 'operation table', operating, removing the lens, dressing and putting back to bed). The whole show was impressive. Two things, however, did not go unnoticed. There were too many people in the operation room - at least 20, half of whom were volunteers from the Progati Sangh. This could easily be brought to half which would have given more "sanctity" and hygiene to the room and make the movement of the doctors and paramedics much easier. The other thing was the cleanliness of the operating room. Although cleaned in the morning, the throwing of the cotton buds on the floor after each operation made the floor and the room look very untidy and unhygienic. These cotton buds could easily be thrown on baskets kept under each operation table.

As the evaluator visited only on a particular day in the 10-day life of an eye camp, no impression on other aspects such as the management of incoming patients on the first two days (there were 712 of them, we were told) or the type of care taken in post-operation days could be assessed. Future research should look into more details of these and probably beyond.

#### Management:

The BNSB hospital in Khulna is registered with the Department of Social Welfare. There is a general body of members who elect a 7-member executive committee. The present members of this committee are:

1. Mr. A.R. Siddique, Country Director, Royal Commonwealth Society for the Blind (President)
2. Dr. Munir Ahmed, a paediatrician (Secretary)
3. Mr. Siddique Ahmed, an Officer of the State General Insurance Corporation (Member)
4. Dr. A.Q. Joardar, a private medical practitioner (Member)
5. Mr. Ghous Reza, a banker (Member)
6. Mr. Razaque Ali, an advocate (Member)
7. Dr. J.N. Nala, a private medical practitioner (Member).

The present director of the hospital, Dr. B. Malik, is soon to be coopted as a member of this committee. This committee formally sits quarterly but may be called any time if an urgent matter arises. The members whom we met (5 of them) were found enthusiastic and keen on the hospital's welfare. Most of them are also associated with other voluntary organisations such as the Diabetic Association and National

T.R. Association. On the other hand, the director, who along with the secretary runs the day-to-day business of the hospital, was also pleased with his committee.

Regarding financial control, two major bank accounts are maintained. The hospital account is operated by the director and the secretary while the other central account is operated by the secretary and any one member of the executive committee.

**Staffing:** There are a total of 41 staff on the pay roll. Out of them 6 are doctors. The director of the hospital is an eye specialist who has had a post-graduate diploma in ophthalmology from Vienna, Austria. Another doctor had a post-graduate diploma in community ophthalmology from the Chittagong University. There is also a field officer whose task is to organise eye camps. There are 7 paramedics and paramedic assistants. The evaluators were told of the problem of a high turnover of doctors but the number of doctors seemed to be more than their paramedics could assist.

**Financial Regularity:** We looked for the audited statements of income and expenditures. These were available until June 30, 1985 for the hospital, until December 31, 1985 for hospital construction accounts, until December 31, 1982 for NMSB, Khulna. The auditors found the books and accounts satisfactory. There were, however, some backlog in clearing the recent accounts of NMSB, Khulna and eye camps. This has been caused, according to the Director of the hospital, by a lack of appropriate staff in the accounts department. Typical report of an auditor is given in Appendix 7.

**Statistics:** Between 1980-85, a total of 2,351 operations were conducted or 392 per year. Out of these 2,095 or 90% were cataract operations. As cataract is an aging disease, children could hardly be benefited by these efforts. In the absence of appropriate data the proportion of females availing this source cannot be ascertained. However, if the trend on the day of our visit (19 October 1986) is any guide, one-third of admitted patients are probably female. Year-wise distribution of different type of operations are given in Appendix 5.

Until April 1986, a total of 239 eye camps were conducted by BNSB, Khulna. During this period the following were done:

No. examined	-	280,303
No. treated	-	261,246
No. cataract operated	-	36,947
No. blindness prevention operations	-	1,315
Other operations	-	3,363

From the above, it appears that of the examined, 93% are treated and of the treated, 16% are operated of which cataract consisted of the 87% operations. The above figures are closer to what we observed in the eye camp we visited. The year-wise statistics of eye camps is given in Appendix 6. As regards the age-sex distribution, nothing is known. But it is clear that the operations are highly age-biased. The sex distribution may be better in eye camps as these are held closer to the patients' houses and as sex-biasness in family attention (8) may be less. This is supported by the distribution of operations in the eye camps we visited where more than 40 percent were females. Regarding the economic status of the patients, nothing is known. However, the patients in the eye camp we visited were mostly poor

rural people. Other people connected with eye camps agree that mostly the poor are served by these camps.

**The Future:** The future looks comfortable for the BNSR Hospital, Khulna, with the expected financial support from OEU in running the hospital. The leadership seemed concerned about what would happen as OEU or other external donors withdraw. They have several plans such as bed-selling to well-to-do Bangladeshis, investment in profit-generating activities, etc. The hospital director is also keen in raising the bed strength to 150 and in making more in-house residential accommodation for doctors and other staff. We will discuss the appropriateness of increasing the bed-strength in the hospital but provision of in-house residential accommodation seems reasonable.

#### **Lions Charitable Hospital, Chittagong**

The Lions Charitable Hospital in Chittagong is a project of the Chittagong Lions Foundation (CLF). Although established in 1965, the OEU came in a big way much later. The current OEU annual commitment is approximately 160,000 Canadian dollars which ensures nearly 80 percent of the hospital's total yearly expenditure. Other donations are received from patients, individual philanthropists and the Royal Commonwealth Society for the Blind (RCSR). The latter reimburses Taka 100 per patient operated at the eye camps organised by the hospital.

It was in 1975 that Ben Gullison, a pioneer of eyecare programmes in South Asia and a founder of OEU visited Chittagong and attended an eye camp where he himself took part. OEU involvement with Chittagong

Lions Foundation started from that visit.

**Beds and Patients:** There are 100 beds available to patients. On the day of our visit (23 October 1986), there were 93 patients of which 40 percent were females and only 3 of them were under 20 years of age. They came mostly from Chittagong district but some of them also came from far-flung areas such as Hymensingh and Feni. About 80 percent of the patients had cataract operations.

When analysing the monthly statistical reports for the past year compiled by the hospital, the above picture appeared representative.

**Maintenance:** The hospital building and the grounds looked well maintained, clean and tidy. The lighting at the operation theatre seemed outdated. There was only one set of cataract surgery equipments which is used both in hospital and eye camps. Provision of closets/wardrobe space for patients seem to be necessary as there is no such facility in existence.

**Outdoor:** Patients in outdoor are seen for six hours in two daily sittings six days of the week. The latter sitting (3 p.m. to 5 p.m.) has been introduced to facilitate examination of patients who come from distant places.

**Eye camps:** Along with providing services through hospital facilities, eye camps have also been organised in rural areas. Of the total patients served in 1985-86, proportion served through eye camps were: 25% in examination and treatment and 31% operations.

We visited an eye camp organised by the Lions Club - Karnaphuli in

Baozan, about 20 miles east of Chittagong. As we were told, about 700 patients turned up out of which 113 were finally operated.

The eye camps are held in collaboration with different Lions Clubs of Chittagong. There is some collaboration with RNSB, Chittagong, in organising these camps so as to avoid duplication.

**Management:** The management of the hospital is looked after by the Chittagong Lions Foundation (CLF) through a 19-member governing body (GB). The GB elects a chairman who appoints the honorary secretary and the treasurer. The honorary secretary of CLF is the overall coordinator and link between the Foundation and medical and administrative sides of the project. An administrative officer supervises the administrative work and a medical superintendent is entrusted with medical aspects.

The overall decision making responsibility lies with the Chairman of CLF. The day-to-day business of the hospital is dealt by the medical superintendent. The accounting and financial control procedures are fairly detailed and standard. Statements of income and expenditures are prepared and audited. Periodic activity and financial reports are also submitted to ORU.

**Staffing:** Total staff strength is 48. There are two full-time and one part-time doctors. There are also 12 paramedics to provide assistance to doctors.

**Statistics:** Between 1978-79 and 1985-86, a total of 113,360 patients were examined and treated in the hospital. More than 8,000 children

were treated for Vitamin A deficiency. Just over 9,000 operations were conducted during the same period of which 73 percent were cataracts. Details of these statistics are given in Appendix 8.

During the above period, 93 eye camps were organized. In these, 41,086 patients were examined and treated. Number of children treated for Vitamin A deficiency were 6,151. A total of 7,094 operations were conducted of which 6,151 or 87% were cataracts. More details about the eye camps statistics are available in Appendix 9.

The achievement of CLP does not seem insignificant in view of the limited equipments and staff shortage (The nearby Eye Infirmary and Training Complex of RNSR, Chittagong, has 70 beds and 12 doctors).

#### **Christian Hospital - Chandraghona**

Chandraghona is a small town about 20 miles east of Chittagong. The ground work for a hospital here was started in 1913 with leprosy rehabilitation and by now it has evolved into a general hospital with nine departments including eye, leprosy and tuberculosis. The eye department in Chandraghona Christian Hospital was started in 1960 and with a visit here by Dr. & Mrs. Ben Gullison in 1975, the OEU started its involvement. The present annual commitment from OEU is approximately 10,000 Canadian dollars which meets 8 percent of the total hospital expenditures. Most of the hospital's income come from the patients themselves as fees. There are some other private and organizational donors also.

The hospital is managed by Bangladesh Baptist Sangha, Dhaka. Local



management is provided by an executive committee which is headed by the medical superintendent. The medical superintendent also looks after the day-to-day business of the hospital in collaboration with heads of various departments.

The eye department has no beds which are earmarked/reserved for its patients only. Of the total bed strength of the hospital, on an average 8 are occupied by eye patients. During our visit to the hospital, there were five eye patients with some other beds lying unused.

Eye camp involvement of the hospital is minimal. The eye surgeon who is also the medical superintendent of the hospital is time constrained to perform more than 2-3 eye camps. Another reason for organising this small number of camps is transportation of the area which is less developed even compared to Bangladeshi standard. These camps are held in collaboration with BNSB, Chittagong, who bear half of the expenses and takes the responsibility for publicity. It could not be ascertained whether BNSB pays the money from its own fund or reimburses it from RCSB in Dhaka.

There is no separate accounting procedure for the eye department as such. Income and expenditures are audited every year. The hospital also sends yearly statements to the Bangladesh Baptist Sangha in Dhaka.

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\* Because of a communication gap, the visit by the evaluator to the Christian Hospital, Chandraghona, had to be very brief - for two hours only. However, the evaluator requested certain information from the hospital which was not received until the time of writing this report on 10th November 1986. That is why no statistical information is provided here, which is very much regretted.

### Royal Commonwealth Society for the Blind (RCSB)

The Royal Commonwealth Society for the Blind (RCSB) was established in the United Kingdom in 1950, with the objective of prevention and cure of blindness and education and rehabilitation of the blind(16). With headquarters in Haywards Heath in England, RCSB has funding programmes in 38 countries.

The RCSB involvement in Bangladesh began in 1973. Although primarily a funding agency for eye camps, RCSB has established itself as the centre of eye care activities in Bangladesh. This is due mainly to its country-director Mr. A.B. Siddique who finds himself actively involved in almost all eyecare programmes. He is the country-director of RCSB, President of Khulna DNSD, Vice Chairman of ABC, Deputy Governor of Lions District 315, Vice Chairman of BLP and many others. As Joint Secretary of the Bangladeshi National Council for the Blind, he has set up the Secretariat of BNBCB in the RCSB office in Dhaka.

Unlike other partners of OEU in Bangladesh, RCSB receive OEU funds through its U.K. headquarters. Present yearly OEU commitment for Bangladesh RCSB is approximately 110,000 Canadian dollars and all these money are used in funding eye camps.

RCSB has set up a system of organising an eye camp. At the end of such camps, the camp organisers send a "camp completion Report" (See Appendix 10 for a specimen copy) to RCSB, Dhaka, for reimbursement of expenditures. RCSB pays according to the following rates:

For each cataract operation	-	Taka 100
For each other operation	-	Taka 29
For each treatment	-	Taka 10

Apart from the above report to RCSR, the camp organisers also need to send the patient register. To monitor the activities of the camps in respect of treatment, surgery and camp management, RCSR in collaboration with BNSB has formed four teams, one for each administrative division of the country. They are supposed to make occasional visits to monitor the camp activities. But as the team members are very busy people, and may be living in distant towns, such visits hardly take place. RCSR may do well to form its own teams from amongst its salaried staff and include in its check list the veracity of the request for reimbursements.

As mentioned earlier, RCSR's main involvement in Bangladesh is at the eye camp level for restoration of sight to the curably blind. Under the sponsorship of RCSR, Bangladesh National Society for the Blind (BNSB), Lions, Rotarians, etc. organise eye camps. With RCSR assistance, a total of 2,640 eye camps have been organised since 1973. Through these camps, 2,333,702 eye patients have been given treatments and 287,262 cataract operations have been carried out. Details of RCSR sponsored eyecare statistics are given in Appendix 11.

Apart from funding the eye camps, RCSR is also involved in funding several other activities which include assistance in setting up BNSB base hospitals and training institute for doctors and paramedics, provision of mobile eye units to BNSB, stipend to blind children through DNER and ABC, construction of hostels for blind children, provision of braille educational equipments to blind students and the rehabilitation of blind children through ARC.

Looking at the future, RCSB has drawn up a plan of action for completely clearing the cataract backlog by 1995 (see Appendix 12).

### **Assistance for Blind Children (ABC)**

**Brief History:** Unlike other eye care activities in Bangladesh, the Assistance for Blind Children (ABC) work specifically for the children. Formed in 1978 as a non-governmental organisation (NGO) by a group of social workers under the leadership of Dr. Michael Irwin, the then UNICEF boss in Dhaka, ABC has grown steadily extending its assistance to blind children in a variety of ways. These included restoration of sight to blind children, monthly stipends to blind children, hostels for blind students, rehabilitation of the blind children through the provision of milking cows, she-goats, etc. Apart from them, an 'ABC complex' has been started recently to provide training to the blind as well as to workers for the blind. More details about ABC are provided in Appendix 13.

ABC is managed by an 11-member executive committee which is elected by a general body of members. The activities are coordinated by its honorary general secretary, Mr. Monsur Choudhury. Himself a blind, Mr. Choudhury spends half of his daily time with ABC, the rest being spent in looking after family businesses. An executive officer looks after the head office which is situated in Dhaka and a programme officer is responsible for overseeing different programmes. There are a total of 61 staff currently on ABC's pay roll, nearly 90 percent of them are based in different field units.

With an estimated budget of 8 million Taka for 1986, OEU provides about 5% of it.

**OEU Involvement with ABC:** The Operation Eyesight Universal (OEU) got involved with ABC in 1981 by sponsoring its eyesight restoration programme. Present annual commitment is approximately 23,000 Canadian dollars.

**The Programme:** Approximately 17,000 children go blind every year in Bangladesh due to malnutrition, Vitamin A deficiency, continued untreated eyes, congenital cataract, etc., which is being added to an estimated one million already blind (2). The situation is further aggravated by the inability of the parents of these children to take adequate steps towards restoring their sights for a variety of reasons such as poverty and lack of facilities. ABC has been taking steps to help in treating the curably blind children. ABC arranges for the admission of blind children in public or private hospitals, pays the cost of the surgery, other expenses in hospital and the subsistence of an attendant and actual transportation costs for the patient and his/her attendant.

Most of these operations are conducted at the National Institute of Ophthalmology (NIO) in Dhaka where Dr. Modasser Hasan, a life member of ABC and an associate professor at the Institute, carries out most of the operations. For each operation done, the hospital concerned fills in a structured form giving details of the child and the costs incurred (Appendix 14), pins in a photograph of the operated child on top of that form and sends it to the ABC office in Dhaka for

reimbursement. ABC on the other hand fills in a separate form designed by OEU (Appendix 15) and sends that on to OEU in Calgary. OEU reimburses 25 Canadian dollars for each child operated. As often admitted by ABC, OEU probably pays more than what is needed per operation but the excess (approximately 100 Taka or 5 dollars) is used in meeting the administrative costs of the programme. As for the monitoring of this programme, ABC did not appear to have a sound system and all the reports sent in by the hospitals are entertained in good faith.

**Statistics:** So far more than 1,800 children have been treated/operated through this programme (1). During 1985, 481 children were helped of which 65% were males (3). The actual age distribution of the children could not be assessed but blind children aged 16 years or below are normally covered by this programme. The geographical distribution (urban/rural) of the patients could not be studied because of the lack of time. (It may be mentioned that 90 percent of the people in Bangladesh live in rural areas).

#### **Lions Eye Hospital, Dhaka**

Lions Clubs International, District 315, Bangladesh, was created in 1972, soon after the liberation of Bangladesh. At present there are 83 Lions clubs in different towns of Bangladesh (11). There are also 42 Lioness and several Leo clubs in Bangladesh. Total approximate membership of these clubs are as follows:

Lion	-	3,000
Lioness	-	1,300
Leo	-	2,200

Though prominently known as the 'Affluent club', the Lions have

demonstrated some concern for the poorer & neglected sections of the community. The Bangladesh Lions Foundation (BLF) was created to facilitate a greater Lions involvement in the services to the society. The Lions Eye Hospital in Dhaka is a step towards that direction. Although originally not planned to house a hospital, the Lions Hospital is now in service on a four-storied building in Sher-e-Bangla Nagar, north-west corner of Dhaka city. The hospital started to admit patients from September 1984.

From October 1986, the bed-strength of the hospital has been raised from 40 to 60 with a future plan to 80 by December '86(5). The construction of the top floor of the hospital is still in progress.

The hospital is run entirely on donation from Lions members. There are about 1500 life members who each donated between 500 to 1000 taka. The beds were also sold at Taka 25,000. Moreover, incomes were received from the proceeds of a lottery draw. Reimbursements from RCSB for eye camps were of particular help. The construction was started without much planning which resulted in a deficit budget of Taka 1,700,000(5). The hospital still needs more funds to the tune of Taka 1,300,000. Efforts are now underway to raise these money both locally and from external sources.

The hospital is managed by the Bangladesh Lions Foundation which is constituted with a 21-member committee. The committee chairman is the immediate past governor of District-315 and the whole committee is elected for a year. Such a quick change in the composition of the committee creates problem particularly in planning the future.

Creation of a trust for the hospital is now being canvassed for adoption by the next year's Lions Convention. The RLF incomes and expenditures are audited regularly.

The RLF has been conducting eye camps since 1984 and so far they have organised 29 such camps. But the local clubs have done 418 until June 1986. As most of the eye specialists of the country are associated with Lionism (the present district governor is also an eye specialist), the Lions clubs take the advantage and utilise their services. But it has its other side also. As these services are rendered purely on voluntary basis, the specialists make themselves available for a few hours of a day which renders the post operative care at risk. The value of a permanent base hospital may be justified from that point. But whether the present bed and personnel strength of all base eye hospitals of the country are more than necessary is yet another question.

#### **SUMMARY, DISCUSSION AND CONCLUSION**

This evaluation study of some eyesight restoration projects in Bangladesh was done at the request of the Canadian International Development Agency (CIDA). Because of time constraint (Oct. 16 - 28, 1986), the study could not be a true scientific study. However, every effort was made to make best use of the available time. Some information were also collected after this evaluation period.

In reviewing the literature on the problem of blindness in Bangladesh, a serious gap is encountered. Except for a recent nutritional



blindness study, no other notable study has been done on other blindness problems such as cataract or glaucoma. Unconfirmed report suggests 2 millions "economically blind" people, out of which one million are "totally blind". Number of matured cataract are thought to be about 400,000, to which about 40 thousands new cataract cases are being added every year. A recent survey in a village in Chittagong area indicate a even higher prevalence(7). There is a clear need for further research on this.

The major eyesight restoration programmes in Bangladesh appeared to be organised by the private sector. Most of the work is being done by the Bangladesh National Society for the Blind (BNSB). Hospitals run by the eight local committees of BNSB in different parts of the country are taking the lead in clearing the backlog of cataract cases. Compared to the hospitals, the eye camps are the real vehicle through which this massive operation is being carried out. With financial assistance from the Royal Commonwealth Society for the Blind (RCSB), 287,262 cataract operations were carried out between 1973 and 1985 (16). With the increase in the number of camps during the coming years RCSB estimates that the entire backlog will be cleared by 1995 (15). If the eyecare programme means restoration of sight through cataract operations, Bangladesh is doing well; we will come back to that soon. In looking at the organisation of these activities, however, one finds a serious lack of coordination. There is no coordination even between the different local committees of BNSB and there is no central BNSB in real existence.

The funds from the Operation Eyesight Universal (OEU) in the region of approximately 530,000 Canadian dollars per annum are being channeled into a number of projects. These include the construction of BNSH hospital in Khulna and Lions Charitable hospital in Chittagong, the support to the Royal Commonwealth Society for the Blind for eye camp activities, the sponsorship of the restoration of eyesight project of the Assistance for Blind Children and a small grant to the eye department of the Christian Hospital, Chandroghona in Chittagong. Apart from these, OEU has provided transport and equipments to several other eyecare projects. It appeared that the OEU funds were being used for a noble cause and it was being utilised, as far as could be determined, efficiently. However, the evaluators would point out some minor items which the projects concerned should consider in future planning. These may also comprise as guidelines for future OEU evaluations. We will discuss them now.

**Sex bias:** The programmes we visited showed a little bias towards men both in the hospital and eye camp settings. In a predominantly male dominated society such as Bangladesh, such a bias is not unexpected. Similar bias was observed in India during the early years of their programme but the picture there has been reversed now (6).

**Age bias:** The programme in Bangladesh is seriously biased towards the older people. Except for a few instances where children are treated exclusively such as in ABC programmes, all the eyecare activities are for the older people. This will continue to be so until the programme reverts its emphasis on curative care through cataract operations to a more rationalised mix of curative-preventive programme. The programme

of ARC should be strengthened. Last year ARC restored the sight of 481 children which is only 3 percent of children going blind every year.

**Curative bias:** The curative nature of the programme is exemplified by the proportion of cataract operations carried out. Almost all of eye camp operations and a vast majority (80+) of hospital operations are cataract operations. Except for an insignificant school eyesight testing programme, there is hardly any preventive component. If preventive and promotive components are included, this will reduce the future load on our health service systems.

**Hospital bias:** It appeared that the programme had a bias towards hospital-based services. In almost all the hospitals that the evaluators visited, there were empty beds. More importantly, almost 90% of inpatients were cataract patients and it has been shown in hundreds of thousand cases that such cataract operations can be safely carried out in eye camps. The few cases which really need hospitalization such as serious injuries and septic cases, the incidence are really low to warrant keeping huge hospitals. There is hardly any reason to support any plan which calls for an increase in the number of existing beds. The tendency of our doctors towards hospital-based health systems should not be encouraged. The resources available for eyecare are really limited and these should be utilised with utmost efficiency. The resources needed to cover the costs of 100 cataract operations in eye camps is less than one-fourth of what is needed for doing the same operations in hospital. The planners may

seriously think of a new outreach dispensary-based system by which eye dispensaries manned by trained paramedics would operate in remote areas with operation facilities only for very minor eye conditions. Only serious patients would be referred to hospitals. Cataract patients would only be referred to eye camps. The presence of such dispensaries would instal a self-screening system at the local level by which the huge influx of patients at the eye camps during the first two days would be contained and help solve a formidable management problem. The eye camps are now mostly held during the dry winter months. It is, however, not impossible to organise them round the year as has recently been shown in Hymensingh where an eye camp was successfully organised during the month of August. If such a system is followed, the backlog of cataract patients can possibly be cleared well before 1995 and probably at a lower cost. A most important job that the suggested rural eye dispensary would be able to do is in the preventive aspect of eyecare.

**Doctor bias:** One problem often mentioned by hospital administrators is the shortage of trained ophthalmologists. There is probably a real shortage of such persons in the country but it appeared that there was too much dependence on them. There are several treatments which can safely be done by a well trained paramedic (12). Training of paramedics at the Eye Infirmary and Training Complex (EITC) in Chittagong should be increased and their appointment at more responsible positions should be promoted and encouraged. Ophthalmologists should be left for referral and complicated cases.

**Monitoring by Projects:** There appeared a lack in the monitoring of the

activities by the projects. In a few places where there is some monitoring such as in BCSB, the system can be further improved which would ensure a better and fairer use of resources.

**Monitoring by OED:** At present, OED monitors its-funded projects in Bangladesh by receiving activity reports and through occasional visits by its Calgary-based staff. The same system is true for all OED-funded projects in different countries. As OED's major funding is in South Asia (viz. India, Bangladesh and Nepal), there may be a field office for these countries. As the posting of a Canadian or any other expatriate may be too expensive, local staff may be recruited for the purpose. Alternatively, organisations with good reputations may be requested to oversee the OED-funded projects.

**Foreign dependence:** Most projects are over-dependent on foreign funds. Few projects would survive should the foreign donors withdraw their support. The projects should have firm plans of becoming self-sustainable within a few years. This can be ensured by starting commercial projects. The donors will need to play an important role here as well.

**Future research:** The need for a study to know the prevalence of different eye diseases other than nutritional blindness has been emphasised earlier. Detailed studies need to be done on the optimum need for eye hospitals. Eye camps have been held in this country since 1973 and it is time that we go for a follow-up study of the eye camp patients. We do not have any firm idea about the socio-economic demographic background of these patients. Such a study will help

reassess our strategy. Eye camps are big occasions in the areas where they are held. Unfortunately, there is no case study- documentation of such camps. There should be action researches to determine the most appropriate mix of curative - preventive eye care in a project. Such action research should also be done to find out how best the local resources can be used in preventive eye care. Future research should also look at the effect of Vitamin A supplementation on morbidity and mortality.

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### KEY PERSONS INTERVIEWED

Dr. Bahauddin Malik, BNSB, Khulna  
Dr. Humir Ahmed, BNSB, Khulna  
Mr. Abu Baker Siddique, PCSB, Dhaka  
Mr. Honour A. Choudhury, ABC, Dhaka  
Mr. G. Mohiuddin, ABC, Dhaka  
Dr. K. Zaman, BNSB, Mymensingh  
Dr. Rabiul Hussain, BNSB, Chittagong  
Ln. H.I. Khan, CLP, Chittagong  
Dr. S. Mahmud, CLP, Chittagong  
Dr. S.H. Chowdhury, CHC, Chittagong  
Ln. Honbarraf Hossain Chowdhury, BLF, Dhaka  
Ln. A.S. Roy, BLF, Dhaka  
Mr. Anthony E. Drexler, HKI, Dhaka  
Mr. Anish K. Barua, WIF, Dhaka  
Mr. H.A. Mannan, WIF, Dhaka.