I. BACKGROUND INFORMATION

1.1. Blindness situation and main causes of blindness in Vietnam today:

Blindness prevention activities have been launched on large scale since 1986 under the leadership and support of Ministry of Health (MoH), the management of Vietnam Institute of Ophthalmology (VNIO), support of WHO, UNICEF, and other NGOs such as FHF, CBM, HKI, ORBIS, ITI, Sight First, Task Force Sight and Life, Mekong Eye Doctor, etc. as well as local charities such as the Ho Chi Minh Sponsoring Association for Poor Patients, Sponsoring Association for The Invalids and Orphans, etc. After 20 years of incessant implementing and striving, the Blindness Prevention (BP) Program has become the Ministry’s program that gained remarkable results, interest and support from leaders, confidence from public and support from international friends despite not yet being considered a national program. The blindness prevalence in 1995 was reduced by half by 2002 according to the national epidemiology survey. Leading causes of blindness in Vietnam today is cataract, post segment pathology, glaucoma and trachoma.

Tab.1: Prevalence and Blindness and Low Vision in Vietnam today:

<table>
<thead>
<tr>
<th>Year</th>
<th>Source</th>
<th>Sample size</th>
<th>Prevalence of bilateral Blindness</th>
<th>Prevalence of bilateral low vision</th>
<th>Population (&gt;50) in million</th>
<th>Magnitude of blindness in thousand</th>
<th>Magnitude of low vision in thousand</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>RACSS</td>
<td>13,896</td>
<td>4.76% (in the elderly &gt;50)</td>
<td>21.27% (in the elderly &gt;50)</td>
<td>11,046</td>
<td>519</td>
<td>2,350</td>
</tr>
<tr>
<td>2007</td>
<td>RAAB</td>
<td>28,033</td>
<td>3.1% (in the elderly &gt;50)</td>
<td>13.6% (in the elderly &gt;50)</td>
<td>12,286</td>
<td>381</td>
<td>1,671</td>
</tr>
</tbody>
</table>
### Tab. 2 Main causes of Blindness in Vietnam today:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Cataract</td>
<td>71.3%</td>
<td>66.1%</td>
<td>251,000</td>
</tr>
<tr>
<td>2. Post segment pathology</td>
<td>11.5%</td>
<td>10.1%</td>
<td>38,500</td>
</tr>
<tr>
<td>3. Glaucoma</td>
<td>5.7%</td>
<td>6.5%</td>
<td>24,800</td>
</tr>
<tr>
<td>4. Trachoma corn. opacity</td>
<td>2.7%</td>
<td>1.7%</td>
<td>6,500</td>
</tr>
<tr>
<td>5. Refractive error</td>
<td>0.8%</td>
<td>2.5%</td>
<td>9,500</td>
</tr>
<tr>
<td>6. Uncorrected Aphakia</td>
<td>1.7%</td>
<td>0.1%</td>
<td>380</td>
</tr>
<tr>
<td>7. Surgical complication</td>
<td>1.8%</td>
<td>4.1%</td>
<td>15,600</td>
</tr>
<tr>
<td>8. Other corneal opacity</td>
<td>2.3%</td>
<td>5.7%</td>
<td>21,700</td>
</tr>
<tr>
<td>9. Phthysis</td>
<td>2.3%</td>
<td>3.2%</td>
<td>12,200</td>
</tr>
<tr>
<td>Total</td>
<td>(2000.999)%00.0%</td>
<td>(2006)00.0%00.0%</td>
<td>380,800</td>
</tr>
</tbody>
</table>
1.2. Quantity and quality of current Eye care personnel:

<table>
<thead>
<tr>
<th>Categories</th>
<th>Number (by Oct., 2005)</th>
<th>Ratio per 1 million population</th>
<th>Additional trained output per year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professors and PhD</td>
<td>33</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Masters in Ophthalmology</td>
<td>117</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>Ophthalmologists</td>
<td>509</td>
<td></td>
<td>50</td>
</tr>
<tr>
<td>Basic Eye Doctors</td>
<td>424</td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>Total of Eye Doctors</td>
<td>1,083</td>
<td>13.03</td>
<td>150</td>
</tr>
<tr>
<td>Cataract Surgeons</td>
<td>555</td>
<td>6.67</td>
<td>20</td>
</tr>
<tr>
<td>Ophthalmic Nurses and Assistants</td>
<td>1,208</td>
<td>14.53</td>
<td>100</td>
</tr>
<tr>
<td>Primary Eye Care Village and Commune Health Workers</td>
<td>15,158</td>
<td>182.3</td>
<td>1000</td>
</tr>
</tbody>
</table>
1.3 Blindness Prevention and Eye care structure:

Scheme of Eye care system in Vietnam is as following:

- **Ministry of Health**
  - Provincial Health Department
  - **VNIO**
    - Provincial Eye Centres (in 12 provinces)
    - Centres for Social Diseases Control (in 28 provinces)
    - Preventive Medicine Centres (in 2 provinces)
  - Eye Dept. of provincial Hospitals (in 64 provinces)
  - Provincial Eye Hospitals (in 12 provinces)
  - Eye Dept. of District Hospitals
  - District Health Departments
  - District Preventive Medicine Centres
  - Commune Health Stations
  - Village Health Workers

- Primary Eye Care (PEC) system: exists in 317 districts out of 668 districts (= 47.45%)
- Secondary Eye Care system: There are ophthalmologists working at in 211 out of 668 districts (= 31.6%)
- Tertiary Eye care: There are 68 Eye Departments in all Provincial Hospitals in 64 provinces (100%), 12 Provincial Eye Hospitals, 30 Provincial Eye Centres in Social Disease Control Centres or Provincial Preventive Medicine Centres.

The weak point is that there are still 10 provinces without any Eye Centres or Social Disease Control Centres, namely: Ben Tre, Dong Thap, Dong Nai, Hau Giang, Kon Tum, Kien Giang, Khanh Hoa, Long An, Quang Nam, Tra Vinh.

- BP management system in Vietnam
VNIO, the leader Eye care system in Vietnam, is assigned the mission of Eye care and BP in Vietnam by MoH. VNIO is in charge of:

- Make annual BP plan with its implementing phases to submit to MoH for approval. The plan thereafter was forwarded to Provincial Dept. of Health, Provincial Eye Care units to co-ordinately implement.
- Supervise, monitor, and evaluate the plan implementation and the performance of main BP objectives in all provinces nationwide.
- Periodically conduct special workshops, annual or biannual conferences to summarize experiences and modify the implementation of the plan.
- Provide inferior level at provinces with training, techniques and finance support in order to fully perform all aspects of the BP plan via international cooperative projects.

1.4 Development need and missions undertaken in the new phase:

Blindness is now an important health issue and drew a great attention of WHO, Governments, international organizations, NGOs, local and international charities. According to the WHO’s last census, there are 37 million blind people in the world, and a further 110 million people with low vision. Most of them are living at developing countries, and over a half of them is blind due to cataract, an ageing disease that is able to be simply, indolently, with low cost and effectively treated. Without opportune and active intervention of national programs in all the countries around the world under the guidance and support of national governments as well as the effective and positive support of WHO, local and international NGOs; the worldwide blindness prevalence is estimated to double by 2020 to reach 75 million. Therefore, “VISON 2020: The right to sight”, a global initiative was jointly coordinated by the World Health Organization (WHO) and the International Agency for the Prevention of Blindness (IAPB) and its international membership of NGOs after two year discussion. The initiative aims at warning and appealing all resources and governmental, public and international effort to meet the goals of avoidable blindness elimination by the year 2020. Vietnam Minister of Health, Mr. Do Nguyen Phuong, stood in the Vietnam Government and Vietnam MoH, together with WHO’s representative, signed the commitment to approve and implement the initiative in Vietnam on March 5th 2000.

In the last years, thanks to the backing of international organizations, concern of MoH and local authorities at different levels, endeavour of health care sector, BP task in Vietnam, especially cataract treatment attained significant progress. Cataract surgery saw a great increase in magnitude from 10,000 to 116,000, restoring sights for thousands of blind nationwide. The cataract backlog, however, still stands at high ratio. Some regions of the country still have a high backlog of contagious and nutritional deficiency disease such as trachoma, xerophthalmia, Vitamin A Deficiency (VAD). Some eye diseases are emerging in some regions of the country such as refractive error; retinopathy of prematurely (ROP), diabetic and hypertensive retinopathy in the elderly become a growing concern. In order to meet the goals of “VISON 2020” to eliminate avoidable blindness by 2020, contributing to reduce blindness prevalence, improving community living quality and health care in accordance with Resolution No. 46 of Political Bureau and Centre Committee on taking care and improving community health in a new phase, a detailed plan should be unanimously and synchronously applied in the whole country.
2. LEGAL BASIC OF THE PLAN CONSTRUCTION

The construction of Vietnam National Plan for BP and Eye care towards the goals of “VISION 2020” was based upon following legal documents:

- Scheme up to 2010 and VISON 2020 of the BP program
  (Submitted to MoH for approval in accordance with document No. 45/VNIO issued by VNIO on August 25th, 2004)
- Commitment document between Minister of MoH, the Social Republic of Vietnam and WHO dated March 5th 2000 in Ha Noi.
- Resolution No. 46 of Political Bureau and Centre Committee on taking care and improving community health in a new phase
- Decision No. 243/2005/ QD-TTg promulgating the Government's Program of Action
- Decision No. 153/2006/QD-TTg approving the master plan on development of Vietnam's healthcare system up to 2010.

3. THE NEED OF THE PLAN

3.1 Evaluation on Blindness Prevention and Eye care implementation situation in Vietnam

Thanks to the support of the Vietnam Party Committee, local authorities at different levels, MoH and Provincial Departments of Health (DoHs), international organizations and local charities; BP program has been implemented in the whole country since 1986 and achieved noticeable results. The prevalence of bilateral blindness among those from 50 years old decreased by 3.1% according to the 2007 survey carried out in 16 provinces represent 8 ecological regions from 4.7% (revealed in the national survey in 2000-2002). There are up to 116,000 patients receive cataract surgery annually. The cataract surgery coverage rate that reflects the program coverage also raises 1,381 cases per million people in 2006 from 879 cases per million people in 2002. However, the coverage of 3,000 cases per million people as a demand to reach the goals of VISION 2020 of WHO requires even more endeavour. To date, cataract remains the leading cause of blindness in Vietnam. There is a backlog estimation of 251,700 people who are bilaterally blind and an estimation of up to 1,130,514 people with cataract waiting for surgery, not to mention the annual bilateral blindness incidence of 84,000 and unilateral blindness incidence of 84,000 more. The fact issues a challenge to the whole country so that BP is categorized core issues. 43% is the recorded percentage of cataract treatment ratio over total cataract blindness number according to the 2007 survey performed in 16 provinces. Therefore, so far we have merely served 1/2 cataract surgery need and there remains another 1/2 people in need waiting to be restored their sights.

After years of vigorously preventing, trachoma declines to be the eighth cause of blindness and scatters in few provinces, localizing in some villages or communes with low economic and environment condition within the area of the Red River Delta and Northern mountainous and midland regions. We are attempting to eliminate trachoma by 2010 to reduce the prevalence of active trachoma (TF+TI) by less than 5%, the trachoma trichiasis
(TT) prevalence by 0.1%, trachomatous corneal scar (CO) prevalence by 0.01 % via trachoma treatment in the regions of high trachoma ratio (over 10%) and basically deal with the current backlog of TT. Since the backlog of patients with TT remains at high ratio (approximately 257,000 patients with TT that have more than 4 hairs misdirected into the eyeball), TT treatment is quite a challenge to the nation. Thus, TT surgery as well as cataract surgery needs to be widely boosted associated with financial help for the poor and scattered TT patients detection and treatment in the community within the next 5 years in order to opportunely prevent trachoma blindness.

The prevention task of xerophthalmia in infants due to VAD was accelerated and gained optimistic results in the last few years. Xerophthalmia due to VAD in infants in the country is almost under control clinically. There is, however, an amount of about 12.6% of children younger than 3 have VAD in blood serum. BP activities in children hence should be maintained in several years ahead.

As contagious diseases and VAD are being under control, new challenges emerge. Refractive error (RE) becomes more populous as the rate of school age children with RE is approximately 10-12% at rural areas and approximately 17-25% at cities which affect children’s vision and living quality despite not causing them blindness. Other eye diseases such as poor vision, ROP, strabismus, ptosis that cause amblyopia in children as well as diabetic and hypertensive retinopathy in adults are growing into new challenges that necessitates a fundamental and long term plan to cope with.

In terms of Eye care system and personnel, there still remain 10 provinces without any Eye Centre or Centre for Social Diseases Control to perform community eye care although a quite good provincial eye care system has been established. This leads to an urge for the establishment of provincial Eye Centres or Centres for Social Diseases Control as specialized agency for BP and community eye care at tertiary levels. This is a major drawback to BP and community eye care tasks in those provinces.

By 2005, there are 1,083 ophthalmologists not including those from army medical corps. Accordingly, there is a fast development in magnitude compared to previous years with the rate of 1 ophthalmologist per 76,640 people. Those fairly sufficient numbers of ophthalmologists, however, mainly cluster in big cities and delta regions. In some highland and Southern regions, there are only some ophthalmologists (3 to 4 ophthalmologists) such as Ha Giang, Cao Bang, Dien Bien and even less (1 to 2 ophthalmologists) in other newly divided provinces such as Dak Nong, New Lai Chau, Hau Giang. Therefore, there is an urgent need for eye doctor training, especially training for new eye doctors to surrogate retired ones and strengthen forces for provinces with inadequate number in order to appropriately deliver eye care services in community in those provinces.

In terms of district eye care system, the statistical report released in 2005 shows a number of 130 ophthalmologists working at secondary level, including 2 masters in ophthalmology, 50 ophthalmologists level I, 78 basic eye doctors, and 183 eye nurses and assistants working at district hospitals. Among those, there are merely 27 ophthalmologists able to perform ECCE+IOL. Some ophthalmologists in districts after training are not able to perform cataract surgery because of the lacking in surgery kits and surgical microscopes. Since there remain 500 districts in the country without any ophthalmologist or eye nurse, qualified mid level eye care personnel (MECP) (nurses, assistants) dedicated for secondary level should be trained so that each district has at least 1 ophthalmic nurse or assistant to be in charge of BP and eye care program in the district. The need is more urgent in some highland and Southern regions where there is no ophthalmologist or ophthalmic nurses such as Lai Chau, Dien Bien, Bac Can, Ha Giang, Lang Son, Cao Bang, Kon Tum, Dak Nong, Ben Tre, Kien Giang, etc. The need also requests a unanimous
guidance and MECP nationwide allocation to attain good results in PEC and BP which is also mentioned as one of the goals of WHO VISON 2020: The right to sight.

In terms of PEC system, 15,158 village, commune and ward workers are trained and utilised in PEC integrated into Primary Health Care (PHC) throughout 317 districts of 43 provinces in order to enhance BP mission, namely early screening cataract patients, encouraging patients to undergo cataract surgery, properly referring patients with acute eye disease such as glaucoma, corneal ulcer, uveitis, xerophthalmia in infants, trauma, etc. This effective training orientation requires a method for maintaining and developing of PEC system in villages, proceeding to the training and development of Village Health Workers (VHWs). The largest difficulty lies in the narrowing training budget and Ministry of Finance (MoF)’s financial policies and initiatives regarding short training courses that hinder the opening of courses at villages. Since there is a limited number of PEC training courses opened thanks to the sponsorship of some organizations at their provincial projects, there is still a huge need for PEC training in more nearly 400 villages. Therefore, the continuity of financial investment and support of MoF, provincial DoHs, and international organizations is required so that we can integrate PEC into PHC in the whole country.

Tab. 4 Evaluation on the implementation of blindness prevention programs in Vietnam.

<table>
<thead>
<tr>
<th>No.</th>
<th>Program</th>
<th>Present output</th>
<th>Output goal</th>
<th>Output goal to 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cataract surgery</td>
<td>111,000 cases</td>
<td>170,000 to 250,000 cases/year</td>
<td>Control the blindness backlog of 1,130,514 cases</td>
</tr>
<tr>
<td>2</td>
<td>Trachoma prevention</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Treat active trachoma</td>
<td>130,000 patients/year</td>
<td>500,000 patients/year</td>
<td>Eliminate trachoma and TT: 257,000 cases</td>
</tr>
<tr>
<td></td>
<td>- TT surgery</td>
<td>22,000 cases/year</td>
<td>45,000 cases/year</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Xerophthalmia prevention</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Distribute preventive</td>
<td>7 million capsules/year</td>
<td>7 million capsules/year</td>
<td>Eliminate xerophthalmia due to VAD (2012)</td>
</tr>
<tr>
<td></td>
<td>Vitamin A</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>- Distribute Vitamin A in</td>
<td>360,000 capsules/year</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>hospital system</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Childhood BP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Screen</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>5</strong></td>
<td><strong>Construct eye care system at different levels</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>-----------------------------------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Territory eye care</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Secondary eye care with ophthalmologists, ophthalmic nurses and assistants</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Primary eye care with PEC personnel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>10 provinces without Eye Centre or Social Disease Control Centre</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>31,6% of districts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>47,4% of villages</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>100% of districts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>100% of villages</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>In all provinces</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Set up a comprehensive eye care system at all levels, accomplishing the tasks of each level.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>6</strong></th>
<th><strong>Provide ophthalmic equipment for eye care network.</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- Provincial and regional level</td>
</tr>
<tr>
<td></td>
<td>- District and village level</td>
</tr>
<tr>
<td></td>
<td>Crucially deficient</td>
</tr>
<tr>
<td></td>
<td>Almost does not exist</td>
</tr>
<tr>
<td></td>
<td>Exist minimum equipment</td>
</tr>
<tr>
<td></td>
<td>Exist minimum equipment</td>
</tr>
<tr>
<td></td>
<td>Provide adequate minimum ophthalmic equipment for eye care network at all levels.</td>
</tr>
</tbody>
</table>

### 3.2 Obstacles and difficulties to overcome

In order to reach the goals of VISON 2020 by WHO committed by Vietnam MoH on
March 5\textsuperscript{th}, 2000; BP should be appropriately paid attention to, ratified and implemented as a comprehensive national plan. The plan is to actively deal with following current obstacles and difficulties in national eye care task, namely:

- Avoidable and curable blindness is not yet controllable in the whole country. Cataract backlog is still high (251,000 bilaterally blind and 1,130,514 unilaterally blind). The portion of high risk population to blinding trachoma is still of high rate (257,000 patients with TT). Xerophthalmia in children is not yet under control. There is no solution to new emerging blindness types. The blindness rate of 0.46% is considered high in comparison to other developing countries’ in the region.

- Eye disease structure tends to tilt definitely in favour of unavoidable blindness in provinces. Cataract remains the leading cause of blindness in all provinces and is the focus of treatment in the next 15 years. Avoidable blindness (trachoma, xerophthalmia due to VAD, etc.) prevalence is diminishing and would be under control within the next 5 to 10 years. There is a trend of new emerging problems, however, such as RE, non-contagious diseases (complicated diabetes, hypertension, trauma, results from malaria medicine, congenital and genetic disease, etc.)

- Despite being established in some provinces, eye care system in different levels is not complete, being deficient in a concord of organizing and management scheme and thus are not able to perform a good function of eye care and BP in community.

- There is not children eye care system in big regions in the country yet, especially in rural and remote areas. Many eye diseases like ROP and RE are still neglected to be timely detected and treated right at many big cities.

- There is a big gap between provinces in the capacity of eye care providing as well as the quality of eye care services and techniques.

- Eye care technical service proving units, especially high technical ones, only can be found in big cities. The obvious gap in eye care service access and beneficiaries' level in communities between various regions and areas, due to different elements such as: technical capacities of provincial eye care personnel, eye care equipment condition, and geographical distance to eye care service units, standard of living, and habit of communities.

3.3 Main reasons

- Although having received considerable support and concern from local authorities at different levels, BP and eye care program are still unsatisfactorily invested. Due to financial problem, the BP program are still recognized a national program. The investment budget for BP is many times lower than real demand. BP and eye care activities in many provinces depend on international aids, community mobilization, out-provincial support, or local charities. The program implementation, therefore, is passive, and lacking in a long term plan.

- Many poor patients could not afford eye care services although people’s standard of living is much ameliorated after years of war. The national survey in 2007 shows that there are up to 10 to 30% patients could not afford eye care services.

- A guidance apparatus on the implementation of BP and BP task was established in provinces but lacking in an organizing scheme agreement and there is not yet a national guiding board. Currently, there are a total of 6 different schemes. In addition, there is not yet a clear division of works and responsibilities in terms of
accountability and guidance clue of the program implementation in the province.

- There remains no close connection between ophthalmologist network and PEC network at community in many provinces, obstruct the outcomes of BP activities. There is not yet a clear distinctness of guiding mechanism, coordination between provincial eye care and treatment (for example, between Provincial Eye Centre and Eye Dept. of Provincial Hospital). The same situation occurs in the relationship of provincial, district and village levels.

- There is a lack of quantity in eye care personnel especially in secondary level, and flaw in professional knowledge within ophthalmic units and PEC network as well. Unequal ophthalmic human resource allocation among provinces results in the limited eye care service delivery capacity in rural and remote areas. PEC activities in many provinces are restricted due to the lack of supervising and training financial budget, village and commune equipment, promoting document and personnel.

- There is a severe deficiency in eye care equipment and medicine in many levels, especially in secondary level, not to mention the village level with almost no PEC equipment. Particularly, the equipment provision is not symmetrical to the personnel demand and ability.

- There is not yet an eye disease supervising system in the provinces. There is a lack of fundamental data regarding real eye disease situation in the provinces within researching area due to the lack of an execution of scientific surveys. The monitoring records and report process updating on eye disease incidence are not formed in many levels, especially at primary level.

3.4 Advantages and experiences for blindness prevention program:

- BP activities during last years attained fairly good achievements, making good impact on the society, gaining attention and concrete guidance of Party Committee and local authorities at different levels.

- There is nationwide an experience accumulation regarding BP activities amongst ophthalmic personnel, a team with firm specialized knowledge, enthusiasm and high spirit of dedication for the community. A BP and eye care network has been spread widely throughout the country from tertiary level to secondary level, even to village one in some regions, and surely to help national eye care sector out of current challenges in the new phase.

- Socio-economic condition is much improved, and people’s living of standard is much ameliorated in the last years along with national social and economic development, facilitating BP and eye care activities in community.

- The great and effective support of international organization such as WHO, UNICEF, other NGOs like FHF, CBM, HKI, Sight First, Orbis International, ITI, Task Force Sight and Life, Vietnam-US Joint Committee for Scientific and Technological Cooperation, etc. is a huge advantage that help Vietnam eye care sector out of current BP challenges

- In recent years, eye care sector has applied many new modern technological achievements into eye care program in community, bringing much higher treatment results, contributing to increase the patients’ confidence and willing to pay for their treatment, facilitating the development of other modern technology.
The need of a nationwide BP and eye care plan therefore become important and urgent, requiring the appropriate attention, concern, investment and support from Party Committee and local authorities, various sectors and the whole society in order to meet the goals of “VISION 2020” by the WHA Resolution 59.

4. AIMS AND STRATEGIES OF THE PLAN

4.1 Overall aims of the plan

The overall aim of the plan is to meet the goals of “VISION 2020” by the year 2020 according to the Resolution 56.26 and Resolution 59.25 issued by WHA. The goals are absolutely in accord with the initiatives of Resolution No. 46 of Political Bureau and Centre Committee on taking care and improving community health in a new phase and with Decision No. 243/2005/ QD-TTg promulgating the Government's Program of Action issued on October 5th, 2005 by Vietnam Prime Minister.

The overall aims of the plan are:

- To control avoidable blindness such as cataract, trachoma, xerophthalmia due to VAD in infants, and RE by the year 2020, performing surgery and restoring sight for 2.3 million people from now to 2020.
- To construct and complete eye care network at all levels, adequately providing essential eye care equipment. Construct 8 Paediatric Eye Centres in 8 main regions of the country.
- To train a sufficient amount of human resource for eye care network at all levels.
- To reduce the blindness prevalence in the population up to 0.3% by the year 2020.

4.2 Specific aims of the plan

Specific aims for each year within the plan from 2007 to 2020 include:

- To establish the National Steering Committee for Blindness Prevention in Vietnam and minor Steering Committee at provinces.
- To annually perform 170,000 cataract surgeries, gradually accelerating to reach 250,000 cases by 2020.
- To annually perform 40,000 – 45,000 TT surgeries, treating for 500,000 patients with active trachoma per year in the endemic trachoma.
- To biannually supplement 7 million high dose Vitamin A capsules in the community for 3.5 millions children under 3, and distribute 360,000 vitamin A capsules per year for high risk children in the hospitals system to treat and prevent xerophthalmia in infants.
- To annually perform 5,000 congenital cataract and glaucoma surgeries, strabismus and ptosis for children, including 2,500 free surgery cases.
- To construct and develop 8 paediatric eye centres in 8 main regions of the country that carry out annual screening of 2,500-3,000 children of prematurity and provide treatment for 150-200 children with ROP by YAG Laser technique.
- To conduct examining and treatment activities regarding RE in both children and adults, especially in school age children in big provinces and cities in the country, dispensing free eyeglasses for poor children.
- To establish eye care network for children and people with low vision in big centres nationwide, gradually training them on skills for daily life, providing careers guidance and assisting people with low vision to integrate into society.

- To train eye care personnel for different levels. In addition to the number of approximately 100 ophthalmologists and 100-150 ophthalmic nurses trained by Medicine University and big training centres in the country, the plan is to train some additional personnel as follows:
  - Cataract surgeons: 20 per year
  - Paediatric ophthalmologists (performing children cataract, strabismus and ptosis, and screening ROP): 12-16
  - Refractionists: 40-50 per year
  - Eye doctor to screen RE at community: 20 per year
  - Village and commune health workers trained on PEC short-day courses: 1000 per year.

4.3 Minor projects

The plan consists of 4 small constituent projects and several supporting activities as follows:

4.3.1 Project of cataract control

- Overall objectives: To eliminate the cataract backlog, to control the annual cataract incidence, to reduce the blinding cataract prevalence by 0.3% by the year 2020.

- Specific objectives:
  - To annually perform 170,000 cataract surgeries, gradually increasing to reach 250,000 cases by 2020.
  - To enhance district eye care personnel capacity, annually training 20 cataract surgeons. To enhance capacity of eye care personnel at primary level, training 1000 village and commune health workers on PEC.
  - To broaden the patients’ access to cataract surgery service in order to diminish the charge and other difficulties for the patients, especially in mountainous, rural and remote areas.
  - To improve the awareness of blinding cataract amongst public and communities, mobilizing necessary resources for backing the project.

4.3.2 Project of trachoma control

- Overall objectives: To eliminate blinding trachoma in Vietnam by 2010, contributing to reduce the blindness prevalence by 0.3% by the year 2020.

- Specific objectives:
  - To annually perform 40,000-45,000 TT in hospital system and at community.
  - To reduce the active trachoma prevalence by 5% at 264 villages with high ratio of active trachoma in the project.
  - To improve eye care personnel capacity at primary levels of trachoma prevention, integrated into the training of 1,000 village and commune health workers on PEC.
To improve the awareness of hygiene of trachoma prevention amongst public and communities, contributing to improve the environment at project’s provinces.

4.3.3 Project of xerophthalmia due to VAD and malnutrition in infants (this project is under the management of Vietnam National Institute of Nutrition)

- Overall objectives: To eliminate xerophthalmia due to VAD in infants by the year 2010.

- Specific objectives:
  - To periodically supplement high dose Vitamin A capsules per 6 months for 3.5-4 million children under 36 months old at community via Vitamin A capsules distribution campaign nationwide.
  - To supplement 360,000 high dose Vitamin A capsules per year for high risk children in the hospitals system
  - To improve the awareness of the prevention of xerophthalmia due to VAD and malnutrition in infants amongst public and communities

4.3.4 Project of improving the service quality, establishing and developing children eye care network in some regions of the country.

- Overall objectives: To improve the service quality and access ability to children eye care services via the establishment and development of children eye care network by the year 2020.

- Specific objectives:
  - To construct and develop 8 paediatric eye centres in 8 main regions of the country including Ha Noi, Ho Chi Minh City, Da Nang, Hue, Hai Phong, Thai Nguyen, Can Tho and Ninh Thuan.
  - To enhance the children eye care capacity of provincial eye care personnel at those 8 centres, training 12-16 paediatric ophthalmologists (performing children cataract, strabismus and ptosis, and screening ROP)
  - To annually screen 2,500-3,000 children of prematurity at those 8 paediatric eye centres, providing treatment for 150-200 children with ROP by YAG Laser- technique.
  - To conduct screening and treatment activities regarding RE in school age children, dispensing free eyeglasses for poor children in rural areas, primarily conducting at provinces within the projects of CBM, FHF and ORBIS. Train 2 ophthalmologists at each province on RE screening.
  - To construct 2 training centres on Refractionists in Ha Noi and Ho Chi Minh City that help train 50-100 refractionists per year in the whole country.

4.4 Plan strategies

Vietnam National Plan of Blindness Prevention is fundamentally based upon the strategy to meet the goals of “VISON 2020” by WHO. This strategy absolutely accords with the PHC policies by Vietnam MoH via the comprehensive
combination between disease prevention and treatment, between personnel training and infrastructure upgrading of the national eye care system.

4.4.1 Control avoidable blindness such as cataract, trachoma, xerophthalmia due to VAD in infants, and RE:

- Improve the quantity of cataract surgery, aiming at basically control the cataract backlog and annual incidence, rapidly reducing the blindness prevalence in the country.
- Accelerate the task of trachoma prevention in the endemic trachoma, eliminating the blinding trachoma by the year 2010.
- Continue to intensify childhood blindness prevention program, especially xerophthalmia due to VAD, congenital cataract and ROP, aiming at completely control the xerophthalmia due to VAD by the year 2010.
- Conduct RE screening and free eyeglasses dispensing for poor children, steadily establishing and developing the care service for children with low vision and providing RE surgery at big eye centres in the country.

4.4.2 Develop human resource

- Enhance eye care manpower training at all levels, establishing an eye care network in the whole country, giving priority for district MECP and Primary Level Eye care Personnel (PECP) in order to Construct up a PEC network integrated into PHC activities nationwide.

4.4.3 Develop technology and Construct up eye care infrastructure

- Reinforce and develop ophthalmic units in the country, upgrading equipment, applying high ophthalmic technique such as phaco-emulsification (ultrasonic cataract removal), and refractive surgery using YAG laser technique
- Establish and develop big ophthalmic agencies for each region, including the paediatric ophthalmic centres.
- Establish and develop spectacles and ophthalmic medicine at low price to sufficiently supply for the poor at rural and remote areas.

5. SOLUTIONS AND PLAN’S ACTION CONTENT

5.1 Solution regarding network organization

5.1.1 The establishment of the National Steering Committee for Blindness Prevention in Vietnam and minor Steering Committee at provincial level.

On November 27th, 2007, Minister of MoH signed the Decision on the establishment of the National Steering Committee for Blindness Prevention (SCBP) in Vietnam including 9 members in order to unanimously and synchronously conduct eye care activities in the country, and vigorously mobilize and effectively utilize all resources.

The NSCBP consists of following members:

1. Chairman: Deputy Minister of MoH, Ms. Nguyen Thi Xuyen.
2. Vice Chairman of Standing Committee:
- PhD Ly Ngoc Kinh, Head of Treatment Department, MoH
- PhD Do Nhu Hon, Director of VNIO

3. Members:
   - Dr. Tran Dac Phu, Deputy of Preventive Medicine Department.
   - Mr. Nguyen Hoang Long, Deputy of Planning and Finance Department, Vietnam MoH.
   - Associate Professor, PhD Nguyen Cong Khan, Head of National Institute of Nutrition.
   - Associate Professor, PhD Tran An, Vice Director of VNIO.
   - Dr. Tran Thi Phuong Thu, Director of Ho Chi Minh Eye Hospital.
   - Dr. Pham Binh, Director of Da Nang Eye Hospital.

Duties of the National SCBP are as follows:
   - Leading and coordinating all blindness prevention and eye care activities in the whole country to achieve the goals of VISION 2020.
   - Making the National Plan and monitoring its implementation.
   - Providing financial and technical support.
   - Fundraising for blindness prevention and eye care activities, especially subsidy for cataract and TT surgeries for the poor.
   - Collaborating with other NGOs and INGOs in blindness prevention and eye care activities in the whole country.

The next step is the approval of provincial People’s Committees (PC) for the establishment of Minor Steering Committee for Blindness Prevention, with following anticipated members:

1. Chairman: 01 leader from provincial, city People Committee (Vice President) (PC)
2. Vice Chairman of Standing Committee:
   - 01 Leader of provincial, city DoH
   - 01 Leader of provincial Eye Hospital or Eye Centre, or Centre for Social Diseases Control, or Vice President of Eye Department of Provincial Hospital (where there is not yet a Eye Centre or provincial Centre for Social Diseases Control)
3. Members
   - 01 Representative of Dept. of Finance
   - 01 Leader of provincial Fund for Vietnamese Children
   - 01 Leader of provincial Health Insurance
   - 01 Leader of provincial hospital or Eye Dept. of provincial Hospital
   - 01 Representative of Vietnam Blind Association.

Duties of the Minor SCBP should be as follows:
   - Leading, coordinating, and evaluating all blindness prevention and eye
care activities in the whole country to achieve the goals of VISION 2020.

- Making the provincial blindness prevention plan by the year 2020 to be submitted for the approval of provincial PCs.

- Proposing an establishment and completion of provincial, district, village and commune blindness prevention and eye care system to provincial PCs.

- Assigning tasks and annual targets for each provincial eye care unit regarding medical examination and treatment as well as training for provincial eye care sector to reach the mutual goals of the country, monitoring and evaluating its implementation.

- Fostering the eye care personnel selection, training at different levels, especially at secondary level where there is a big shortage of eye care personnel.

- Implementing initiatives regarding financial support, technology upgrading, improving the service quality for eye care units in the province.

- Mobilizing and searching for inner and internal and external resources to support the provincial blindness prevention and eye care activities.

Following this decision, the eye care structure will be improved following this way in the near future, more simple but more effective:

5.1.2 The establishment and completion of blindness prevention and eye care system at village, commune, secondary and tertiary levels.

Following specific activities should be conducted to implement the solution:

- Provincial PCs considers and makes early decision on the establishment and
coming into play of Eye Hospital or Eye Centre (according to the comprehensive scheme of Vietnam Health by 2020 that would merge the Centres for Social Diseases Control into the provincial Centres of Preventive Medicine) in the 10 provinces without such organization in order to enhance the task of BP and eye care in the community.

- Provincial and city DoHs make the plan of establishing and reinforcing the district Eye Departments with detailed plan of eye care personnel recruiting and training for each district, along with the plan of purchasing and providing essential ophthalmic equipment for secondary level.

- Provincial and city DoHs make the plan and policies of training and responsibilities allocation for health care personnel regarding PEC, integrated into the PHC function of PHC system, along with the plan of purchasing and providing essential ophthalmic equipment for village level.

5.2 Solution regarding speciality, techniques and other activities

5.2.1 Improve cataract surgery, increasing the number of blinding cataract surgery by 170,000-250,000 cases per year, eliminating the cataract backlog and fundamentally control the annual cataract incidence. Following solutions should be taken:

- Mobilize all resources from community, international and local charities, Government and health insurance system to conduct cataract surgery for patients, eliminating the current huge backlog of cataract. There would be total 2,100,000 cataract surgeries performed by the year 2020.

- Improve surgeon technique and professional skills, renovating and applying new techniques in cataract surgery.

- Lessen the difficulties and fee for patients to access cataract surgery, especially in rural and remote areas.

- Conduct health education and promotion to improve the awareness of the curability of cataract amongst patients, families and society, aiming at gaining spiritual and financial support for cataract treatment activities.

With the solution of improving the cataract surgery to 170,000-250,000 cases per year, following actions should be taken:

- MoH and MoF issue the policies to mobilize all resources from community, government and health insurance system, local and international charities in order to gather budget for cataract surgery. The expected cataract surgery output of 170,000 cases are to be mobilized from following resources:
  o 100,000 cataract surgery would be fully paid by the patients
  o 25,000-30,000 cases per year would propose to be fully supported by International NGO’s (CBM, FHF, ORBIS, HKI, Sight First, Mekong Eye Doctors, Worldwide Eye Care, etc.) with total estimated cost of 15 billion VND per year during 14 years.
  o 25,000 cases per year would propose to be fully supported by local charities (20,000 cases per year by Ho Chi Minh city Association for Sponsoring Poor Patients, 5,000 cases by the Association for Sponsoring the Invalids and Orphans) with total estimated cost of 12.5 billion VND per year during 14 years.
o 5,000 cataract surgery per year would propose to be fully supported by Vietnam MoH and Vietnam Health Insurance with total estimated cost of 2.5 billion VND per year during 14 years.

o Each year, National Steering Committee would base on the population and local and international resource mobilization in each province to Construct the plan to be submitted to MoH for approval and forwarded to provincial PCs and DoHs for implementation so that each province is able to perform 2,000 cataract surgery per 1 million people. Provinces with high economic condition, dexterous surgeons and adequate equipment would strengthen the magnitude of cataract surgery as an compensation for other provinces.

o Big provinces should make the plan of cataract surgery technical renovation such as investment to purchase phaco-emulsification machine (about 30,000 USD/item), ultrasound machine (6,500 USD/item) and Javal keratometer (3,000 USD/item).

o Newly purchase or exchange ophthalmic equipment for provincial eye care units, namely by 2020 each province need 2 surgical microscopes, 2 slit lamps, 4 trial lens cases, 4 ophthalmoscopes, and at least 4 cataract surgical kits per year. Provide minimum equipment for secondary level.

o Newly train and re-train 20 cataract surgeons per year.

o Maintain cataract surgery camp to bring wider access to the patients, especially in mountainous, rural and remote areas. Each province should have 1 car for the surgery team of the camp.

o Periodically radio broadcast, TV broadcast on The Voice of Vietnam Radio and Vietnam Television in all provinces, place news on the newspaper, printing promoting posters and leaflets in order to educate and propagandize on eye care, improving the awareness of patients, families and society.

5.2.2 Increase the Trachoma trichiasis by 35,000-40,000 cases per year, eliminating the TT backlog and fundamentally control the trachoma blindness. Following solutions should be taken:

- Mobilize all resources from community, international and local charities, Government and health insurance system to conduct TT surgery for patients.

- Conduct mass treatment for patients with active trachoma at regions of high trachoma ratio (over 10%) detected by quick survey.

- Enhance the capacity of eye care personnel at primary level of trachoma prevention.

- Improve the awareness of hygiene of trachoma prevention amongst public and communities, contributing to improve the environment at project’s provinces

To implement above solutions, following actions should be taken:

- MoH and MoF issue the policies to mobilize all resources from community, government and health insurance system, local and international charities in order to gather budget for TT surgery. The expected TT surgery output of 170,000 cases are to be mobilized from following resources:

o 15,000 TT surgery would be fully paid by the patients (approximately 3 billion VND)
o 20,000 cases would propose to be fully supported by International NGO’s (10,000 cases per year by ITI; 10,000 cases per year by CBM, FHF, ORBIS, HKI, etc.) with total estimated cost of 200,000 USD per year during 4 years.

o 5,000 cases would propose to be fully supported by Vietnam MoH and Vietnam Health Insurance with total estimated cost of 800 million VND per year during 4 years.

o Conduct active trachoma screening and treatment in the regions of high trachoma ratio (over 10%), giving priority to the regions belong to trachoma provincial projects funded by ITI.

o Organize trachoma prevention training courses, integrated into annual training of 1,000 village, commune and district health workers on PEC.

o Boost up information, education and promotion on trachoma prevention: printing and distributing leaflets, posters, booklets for community and schools of provincial projects, encouraging patients to have trachoma surgery, improving personal hygiene and environment condition.

5.2.3 Eliminate Xerophthalmia due to VAD deficiency in infants by the year 2010. Following solutions should be taken:

- Continue periodically supplement high dose Vitamin A capsules per 6 months to 3.5-4 million children under 36 months old in the community nationwide.

- Maintain high dose A supplement to high risk children in hospital system

- Enhance the capacity of eye care personnel at primary level and awareness of mothers and public in general of VAD and other mineral substance deficiency prevention as well as malnutrition prevention.

To reach target of xerophthalmia due to VAD elimination in infants by the year 2010, following actions should be taken:

- Organize 2 Vitamin A supplementation program per year on the “Nutritional and micronutrient Day” (on June 1st and December 1st annually) to 3.5-4 million infants under 36 months old in community in the whole country through the preventive medicine system and commune health stations.

- Receive aid from Vietnam-US Joint Committee for Scientific and Technological Cooperation and annually distribute to supplement 360,000 high dose Vitamin A capsules to infants with xerophthalmia or infants with high risk of xerophthalmia in hospital system.

- Boost up information, education and promotion: printing and distributing leaflets, posters, monitoring tickets on infant development, organizing radio broadcasting, TV broadcasting, and festivals of competition “Raise healthy child, teach good kid” in the whole country in order to improve public awareness.

5.2.4 Improve service quality, establishing and developing children eye care system in the whole country. Following solutions should be taken:

- Steadily Construct, reinforce and develop 8 paediatric eye centres in 8 main regions of the country including Ha Noi, Ho Chi Minh City, Da Nang, Hue, Hai Phong, Thai Nguyen, Can Tho and Ninh Thuan.
- Enhance the children eye care capacity of provincial eye care personnel, increasing the scope of children eye care services (ROP, RE, low vision children, etc.) in some big centres.

- Improve technology, renew and apply modern technology in children eye care services.

- Conduct health care education to improve the awareness of the prevention of childhood blindness amongst patients, families and society.

   To implement above solutions, following actions should be taken:

- Reinforce current children eye care centres in Ha Noi and Ho Chi Minh City (upgrading infrastructure, training paediatric eye care personnel) in order to construct up these two centres into main training centres of the country.

- Gradually construct and develop other 6 centres at other 6 main regions of the country. In first years from 2007 to 2010, 4 new centres in Da Nang, Hue, Hai Phong, Thai Nguyen would be built with the support from ORBIS. Provide paediatric ophthalmic equipment for these centres.

- Conduct the training of 12-16 ophthalmologists on children eye care (each course would last at least 3 to 6 months) for paediatric eye care centres, namely on congenital cataract surgeon, ptosis, ROP detecting and monitoring, examining and eyeglasses dispensing.

- Screen 2,500-3,000 children of prematurity at 8 paediatric eye centres in the country, providing treatment for 150-200 children with ROP by YAG Laser-technique in Ha Noi and Ho Chi Minh City.

- Conduct 5,000 congenital cataract, congenital glaucoma, strabismus, ptosis surgeries each year with the support from the program “For the sight of children”

- Conduct examining and treatment activities regarding RE in school age children, dispensing free eyeglasses for poor children in rural areas, giving priorities for the provinces under the projects of international NGOs. Train 2 ophthalmologists at each province on RE screening.

- Intensify information, education, and health promotion via media channels in order to improve the awareness of the prevention of childhood blindness amongst families and society.

5.3 Expected outcomes

The expect outcomes of the national plan is based upon the action plans of its small projects. The outcomes are as following table:

<table>
<thead>
<tr>
<th>Plan/Project name</th>
<th>Objectives</th>
<th>Expected outcomes</th>
</tr>
</thead>
</table>
| Blindness prevention towards VISON 2020 | - To unify the blindness prevention and monitoring activities in the whole country.  
- To reach the goals of VISON        | - To establish National Steering Committee and Provincial Steering Committee.  
- To control avoidable blindness by 2020. |
| Project of cataract blindness control | 2020. | - To adequately train eye care personnel at all levels.  
- To establish eye care infrastructure system in the whole country. |
|--------------------------------------|-------|-----------------------------------------------------------------|
| - To reduce 170,000 blinding cataract cases per year.  
- To enhance the capacity of eye care personnel at village and secondary levels.  
- To broaden the access to blinding cataract surgery service to the patients.  
- To invest in opthalmic equipment for tertiary level.  
- To invest in opthalmic equipment for secondary level.  
- To improve the awareness of cataract blindness amongst people and communities. | - To conduct 170,000-250,000 cataract surgeries per year.  
- To train 20 cataract surgeons per year. Train 100 eye care personnel and primary levels on PEC.  
- To organize surgery camp at each province, providing vehicle of transportation for the team.  
- To purchase 2 operating microscopes, 2 slit lamps, 4 trial lens cases, 4 opthalmoscopes, and at least 4 cataract surgical kits per year for each province.  
- To purchase 1 opthalmoscope, 1 case and lenses, 2 major surgical kits and 2 medium surgical kits for each district.  
- To provide 10,000 posters, leaflets, conducting radio broadcasting and TV broadcasting 4 times per year. |

<table>
<thead>
<tr>
<th>Project of trachoma prevention.</th>
<th>- To periodically supplement</th>
<th>- To annually supplement over 7</th>
</tr>
</thead>
</table>
| - To reduce 35,000-40,000 TT cases per year.  
- To reduce the active trachoma ratio by 5% at 264 villages under the projects.  
- To enhance personnel capacity at primary level.  
- To improve the awareness of disease preventive hygiene amongst people and communities. | - To reduce 40,000 TT cases per year, gradually decrease the TT ratio by 0.1%  
- To treat active trachoma by antibiotic for 500,000 people per year.  
- To train 1,000 primary eye care personnel on trachoma prevention per year.  
- To have 80% population in the regional projects receive the trachoma prevention message. |
| - To periodically supplement | - To annually supplement over 7 |
### Project of prevention of xerophthalmia due to VAD and malnutrition in infants

<table>
<thead>
<tr>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>high dose Vitamin A capsules per six months to 3.5 million infants.</td>
</tr>
<tr>
<td>- To conduct xerophthalmia prevention and treatment for high risk children in hospital system in the country.</td>
</tr>
<tr>
<td>- To improve the awareness of xerophthalmia and malnutrition prevention in infants amongst people and communities.</td>
</tr>
<tr>
<td>million Vitamin A capsules to 3.5 million infants in the community.</td>
</tr>
<tr>
<td>- To annually provide 360,000 Vitamin A capsules to the hospital system in the whole country.</td>
</tr>
<tr>
<td>- To provide posters, leaflets, development diagrams for health stations.</td>
</tr>
<tr>
<td>- To conduct radio and TV broadcasting programs, children raising and teaching festivals of competition.</td>
</tr>
</tbody>
</table>

### Project of developing children eye care system

<table>
<thead>
<tr>
<th>Action</th>
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</thead>
<tbody>
<tr>
<td>- To construct and develop 8 paediatric eye care centres.</td>
</tr>
<tr>
<td>- To enhance provincial eye care personnel capacity on children eye care.</td>
</tr>
<tr>
<td>- To screen and prevent blindness in children of prematurity.</td>
</tr>
<tr>
<td>- To contribute to reduce childhood blindness prevalence.</td>
</tr>
<tr>
<td>- To screen RE in school age children, dispensing free eyeglasses for poor children in rural areas.</td>
</tr>
<tr>
<td>- To reinforce 2 centres in Ha Noi and Ho Chi Minh City, develop more 6 new centres, providing equipment.</td>
</tr>
<tr>
<td>- To train 12-16 paediatric ophthalmologists.</td>
</tr>
<tr>
<td>- To screen 2,500-3,000 children of prematurity per year, providing treatment for 150 children by YAG-laser technique.</td>
</tr>
<tr>
<td>- To conduct 5,000 congenital cataract, glaucoma, strabismus and ptosis surgeries for children per year.</td>
</tr>
<tr>
<td>- To train 2 eye doctors at each province on RE screening.</td>
</tr>
</tbody>
</table>

### 6. PLAN BUDGET

#### 6.1 Proposed budget for the plan

The management and budget using method would comply with the Government’s regulations, revealing in following legal documents:

- Decision No. 64/2001/QD-TTg dated April 26th, 2001 by Prime Minister of the Government regarding management and use of foreign non-governmental aids.

- Circular No. 118/2004/TB-BTC dated December 8th, 2004 by Ministry of Finance on official travel and workshop/conference expenses applicable to public administration and public service agencies throughout the country.
Circular No. 79/2005/TT-BTC dated September 15, 2005 proving guideline on the management and use of funds for training and fostering state officials and employees.

The plan budget is built upon the financial resources from international NGOs’ blindness prevention projects implemented or being implemented in Vietnam, local charities and annual financial support by Vietnam MoH for blindness prevention program, as well as the payment of Vietnam Insurance fund for patients with health insurance. National Steering Committee for Blindness Prevention in Vietnam and provincial minor Steering Committees will actively mobilize different resources for the activities within the plan.

Currently, International NGOs are funding those following blindness prevention projects in Vietnam:

- **The Fred Hollows Foundation (FHF)** has worked in Vietnam since 1992, nowadays is annually funding approximately 1.5 million USD for 12 community eye care projects in 12 provinces including Quang Binh, Quang Tri, Thua Thien Hue, Da Nang, Quang Nam, Quang Ngai, Binh Dinh, Phu Yen, Vinh Long and highland province of Dak Lak; and two trachoma eradication project in Thai Binh and Hai Duong.

- **ORBIS** is annually funding approximately 2 million USD for 6 comprehensive eye care projects in 6 provinces including Ha Nam, Phu Tho, Yen Bai, Ninh Binh, Nghe An, and Ha Tinh; other 6 projects of Constructing and developing children eye care centres in Ho Chi Ming, Hai Phong, Thai Nguyen, Da Nang, Can Tho and Hue; and another Eye bank program for corneal transplant with VNIO.

- **CBM (Christoffel Blind Mission)** is funding approximately 400,000 Euro yearly for 13 eye care projects in 13 provinces including Hai Phong, Hue, Thai Nguyen, Nghe An, Quang Binh, Ninh Binh, Son La, Thanh Hoa, Quang Ngai, Soc Trang, Thai Binh, and VNIO.

- **The Mekong Eye Doctors** is annually funding approximately 100,000 USD for community eye care projects in 4 provinces including Long An, Binh Phuoc, Bac Lieu, Ca Mau and another additional refractionist training for Ho Chi Minh City.

- **The Eye Care World Wide** is annually funding approximately 20,000 USD for the community eye care project in Cao Bang.

- **ITI** is currently funding for the Trachoma Prevention Project in 13 provinces with total budget of 237,540 USD, and is closing in the end of 2007.

- **UNICEF** is currently annually funding 7 million high dose Vitamin A capsules. Vietnam-US Joint Committee for Scientific and Technological Cooperation and Task Force Sight and Life are annually funding 360,000 high dose Vitamin A capsules for the prevention program of xerophthalmia due to VAD.

- **HKI** is annually funding a 135,000 USD for cataract surgeon training and post-surgery monitoring program in 5 provinces including Can Tho, Binh Thuan, Binh Dinh, Ha Tinh, and Nam Dinh.

- **Lions Club International** is funding a RE screening project in Ha Noi with total budget of 28,000 USD

- **HCMC Sponsoring Association for Poor Patients** is annually funding 2,000 free surgeries with total budget of 10 billion VND.
- **Sponsoring Fund for Vietnam Children** is annually funding approximately 2,500 free surgeries for children with various eye diseases with total budget of 1.5 billion VND.

- **Vietnam MoH** is annually funding for programs of blindness prevention, cataract surgeon and TT training with total budget of approximately 200 million VND.

- **The Atlantic Philanthropies** funded 299,434 USD in 2007 to conduct basic blindness survey in 16 provinces, thence constructing the blindness prevention plan towards VISON 2020.

### 6.2 Proposed budget for each plan’s article

To have the fixed budget for every project’s article, each article for each constituent project needs to be particularly calculated with the participation of financial experts and expertise from different specialities. This plan therefore merely proposes the budget forecast for following basic activities:

#### 6.2.1 The project of cataract blindness control

- **Support cataract surgeries for the poor and the disadvantaged**:  
  
  - There is a proposed number of 25,000 cataract surgeries to be supported by INGOs and other 25,000 cases to be supported by local charities (20,000 cases per year by HCMC Sponsoring Association for Poor Patients and 5,000 cases per year by Sponsoring Association for the Invalids and Orphans) per year with total estimated budget of 175 billion VND (12.5 billion VND per year x 14 years)

  - There are a proposed number of 5,000 cataract surgeries to be supported by Vietnam MoH and Vietnam Health Insurance with total estimated budget of 35 billion VND (2.5 billion VND per year x 14 years)

- **Support for cataract surgeon training**: Each year 20 cataract surgeons need to be trained through 10 courses, that is:

  \[ 200 \text{ million VND} \times 14 \text{ years} = 2.8 \text{ billion VND} \]

- **Support training of PEC personnel network at primary level**: There need 30 courses per year to train 1,000 PEC personnel. Each course costs 7 million VND in 14 years constantly. Therefore the total budget by 2020 is:

  \[ 30 \text{ courses/ year} \times 7 \text{ million VND} \times 14 \text{ years} = 2.94 \text{ billion VND} \]

- **Purchase ophthalmic tertiary levels**:

  By 2020, each province need at least have two surgical microscopes (5,000 USD per item), 2 slitlamps (7,000 USD/ item), 2 A-scan ultrasound machines for ophthalmology (6,500 USD/ item), 2 refractometers (5,000 USD/ item), 4 Java keratometer (3,000 USD/ item), and 4 trial lens cases (500 USD/ set). That means, each province need approximately 84,600 USD (equal to 1.353.6 million VND), and the total 64 provinces of Vietnam need 86,630 billion VND to purchase ophthalmic equipment.

  Above estimated budget needs to be included in the forecast budget with
provincial PC’s approval to have the plan by 2020. Provinces with international cooperation projects need to propose the funding from international organizations for purchasing those equipments. Other additional equipment such as Phacoemulsification machine (30,000 USD/item), laser excimer laser system, vitrectomy equipment, etc. with higher price would be purchased depending on the province’s condition.

- **Purchase ophthalmic equipment for Eye Departments at secondary level (where there exists ophthalmologist or eye nurses):**

  Cataract surgical kits (500 USD/ item), 2 entropy surgical kits (100 USD/ item), 2 micro surgical kits (50 USD/ item), 1 ophthalmoscope (400 USD/ item), 1 case and lenses (300 USD/ case) are needed. Districts where already have these kinds of equipments should pay attention to maintaining and fixing. Provinces with international cooperation projects need to propose the funding from international organizations for purchasing those equipments. Each district requires about 2,000 USD for equipment investment. The total estimated budget by 2020 is:

  \[
  668 \text{ districts } \times 2,000 \text{ USD} = 1,336,000 \text{ USD}
  \]

  Above estimated budget needs to be included in the forecast budget with provincial PC’s approval to gradually equip, giving priority for districts with ophthalmologists.

- **Support for blindness prevention and eye care information, education and promotion:**

  10,000 posters, leaflets will be distributed for all provinces in the country; many radio and TV broadcasting programs should be conducted. That is:

  \[
  50 \text{ million VND per year} \times 14 \text{ years} = 700 \text{ million VND}
  \]

  Therefore, the estimated total budget for the cataract blindness control plan by 2020 would be 534.416 billion VND

### 6.2.2 The project of trachoma prevention

This project has its own forecast budget by MoH being implemented in 264 villages in the whole country. In addition to 10,000 TT surgery cases funded by ITI, provinces out of the ITI’s provincial projects need the minimum budget for TT control as follows:

- 10,000 cases in provinces currently included in the cooperative projects with INGOs like CBM, ORBIS, FHF, HKI, should be proposed to be supported with total estimated budget of 400,000 USD (100,000 USD per year x 4 years).

- 15,000 cases should be fully paid by the patients. The estimated budget would be 12 billion VND (3 billion VND per year x 4 years)

- 5,000 cases should be proposed to be supported by Vietnam MoH and Vietnam Health Insurance. The total budget would be 3 billion VND (750 million VND/year x 4 years)

### 6.2.3 The project of elimination of xerophthalmia due to VAD in infants

The program its own forecast budget by Institute of Nutrition, MoH, being implemented in the whole country. Additionally, there is aid of 360,000 high dose Vitamin A capsules (360,000 x 0.04 = 14,400 USD) by Vietnam-US Joint
Committee for Scientific and Technological Cooperation to distribute to hospital system in the whole country.

6.2.4 The project of improving service quality, establishing and developing children eye care system.

- Construct 8 paediatric eye care centres in 8 main regions of the country:
  
The project worth 870,000 USD would be led and supported by ORBIS to establish 8 paediatric eye care centres by 2020 in 8 regions of the country. The expected activities are: establish paediatric eye care centres, provide specialized equipment, train 12-16 paediatric ophthalmologists, screen 2,500-3,000 children of prematurity per year, treat 150 children of prematurity by YAG laser technique at 3 big centres of the 3 country’s regions, namely Ha Noi, Da Nang, and Ho Chi Minh City.

- Contribute to reduce childhood blindness prevalence:
  
  Each year 5,000 children with congenital cataract, glaucoma, ptosis, strabismus and conjunctivitis need to surgery. The project is led and funded by National Fund of Vietnam Children with its own forecast budget of approximately 1.5-2 billion VND per year.

- Screen RE in school age children, dispensing free eyeglasses for poor children in rural areas:
  
  o Base on human resource and financial capacity, each province need to set up the plan with forecast budget of RE screening in school age children, prescription providing, and free eyeglasses dispensing for poor children for provincial DoH’s approval. It is estimated that there would be annually 300,000 children to be screened on RE.
  
  o Train 2 ophthalmologists at each province on RE screening: To reach such target, there should be 4 annual short training courses with 10 trainees per course conducted. The training program would finish within 4 years. The training courses would totally cost 16,000 USD (= 4,000 USD x 4 years). The cost would be proposed to be pay by MoH and other INGOs.

- Conduct eye care activities for children with visual impairment children and rehabilitation for the blind: The pilot project is funded by CBM, being implemented in 2 provinces of Hue and Nghe An with its own forecast budget. National Steering Committee would offer CBM to broaden the project scope into other provinces and conduct support for children with visual impairment in provinces included in CBM’s comprehensive eye care projects.

6.2.5 Budget for management, monitoring and evaluation activities:

- Build, manage and monitor the plan:
  
  o Write proposal: 1,000 USD
  
  o Hire consultants: 2,000 USD
  
  o Conduct quarterly meetings for National Steering Committee:
    
    250 USD/ quarter x 4 quarters x 14 years = 14,000 USD
  
  o Conduct monthly meetings for Provincial Steering Committee:
    
    50 USD/ quarter x 4 quarters x 14 years x 64 provinces = 179,200 USD
Conduct annual review and evaluation workshop at Centre Government level

6,000 USD/ year x 14 years = 84,000 USD

This portion of the budget would be mobilized from international organisations, pharmacy and health equipment companies, MoH and provincial People’s Committees by National Steering Committee for Blindness Prevention

- Conduct quick assess on blindness prevention situation and intervention impact of the plan on 8 ecological regions of the country: 2 surveys are expected to be conducted in 2012 and 2020 with total budget of 300,000 USD. WHO and NGOs are mobilized for the support.

6.3 Annual proposed budget

Annual forecast budget would be set by provincial Steering Committee based upon activities and approved budget, as well as the ability of mobilizing from local and international resources, from provincial PC and DoH resources for blindness prevention.

6.4 Proposed budget for the year 2008 to be supported by Vietnam MoH

- OBJECTIVE 1: To establish and maintain activities of National Steering Committee of Blindness Prevention

<table>
<thead>
<tr>
<th>No.</th>
<th>Activities</th>
<th>Proposed budget</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Currency : 1,000 VND</td>
</tr>
<tr>
<td>1</td>
<td>Write and modify project proposal to submit to MoH</td>
<td>16,000</td>
</tr>
<tr>
<td>2</td>
<td>Hire consultants and project evaluation committee</td>
<td>32,000</td>
</tr>
<tr>
<td>3</td>
<td>Conduct quartely meetings for National Steering Committe</td>
<td>16,000</td>
</tr>
<tr>
<td>4</td>
<td>Conduct managing and monitoring activities. Committee members conduct monitoring trips, official documents transferring and printing, etc.</td>
<td>100,000</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>164,000</td>
</tr>
</tbody>
</table>

- OBJECTIVE 2: To support cataract and TT surgeries for the poor patients in disadvantaged provinces

<table>
<thead>
<tr>
<th>No.</th>
<th>Activities</th>
<th>Proposed budget</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Currency: 1,000 VND</td>
</tr>
<tr>
<td>1</td>
<td>Support 3,000 cataract surgeries for 10 poor provinces (each case costs 600,000 VND)</td>
<td>1,800,000</td>
</tr>
</tbody>
</table>
Support 5,000 TT surgeries in 10 provinces with nidus of trachoma blindness (each case costs 150,000 VND)  

<table>
<thead>
<tr>
<th>No.</th>
<th>Activities</th>
<th>Proposed budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td></td>
<td>750,000</td>
</tr>
</tbody>
</table>

Total  

2,550,000

- **OBJECTIVE 3: To train eye care personnel for all levels**

<table>
<thead>
<tr>
<th>No.</th>
<th>Activities</th>
<th>Proposed budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Train 20 cataract surgeons through 10 courses in 10 provinces (each course costs 10,000,000 VND)</td>
<td>100,000</td>
</tr>
<tr>
<td>2</td>
<td>Train Phaco emulsification surgeons for 20 trainees through 10 courses (each course costs 20,000,000 VND)</td>
<td>200,000</td>
</tr>
<tr>
<td>3</td>
<td>Train 600 CHWs on PEC through 20 courses for 10 disadvantaged provinces (each course costs 7,000,000 VND)</td>
<td>140,000</td>
</tr>
<tr>
<td>4</td>
<td>Train 40 ophthalmologists on school age RE screening through 4 courses for 20 provinces. Each course lasts for 5 days and requires 10 trainees from 5 various provinces (one course costs 16,000,000 VND)</td>
<td>64,000</td>
</tr>
</tbody>
</table>

Total  

504,000

- **OBJECTIVE 4: To raise awareness of eye care and blindness prevention through propaganda education programs**

<table>
<thead>
<tr>
<th>No.</th>
<th>Activities</th>
<th>Proposed budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Produce 5,000 posters on blindness prevention and normal eye disease treatment released by WHO to provinces</td>
<td>50,000</td>
</tr>
<tr>
<td>2</td>
<td>Broadcast on promoting media channels</td>
<td>50,000</td>
</tr>
</tbody>
</table>

Total  

100,000

*Total budget proposed to MoH for 2008 is: 3,318,000,000 VND (three billion three hundred eighteen million Vietnam dong)*
### 6.5 Proposed budget for the year 2008 to be supported by NGOs and other resources:

<table>
<thead>
<tr>
<th>Constituent projects</th>
<th>Activities</th>
<th>Proposed budget (Million VND)</th>
<th>Proposed resources</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Establishing provincial Steering Committees</strong></td>
<td>- Establish provincial steering committees, conducting quarterly meetings</td>
<td>205</td>
<td>Provincial DoHs</td>
</tr>
</tbody>
</table>
| **Controlling cataract blindness** | - Conduct 50,000 free cataract surgeries per year  
- Train 1,000 primary health personnel on PEC  
- Provide 2 ophthalmalscopes and 4 surgical kits per province per year | 25,000  
210  
2,867 | NGOs and INGOs  
Provincial DoHs + NGOs |
| **Tracoma prevention** | - Conduct 5,000 free TT cases  
- Treat 500,000 patients with trachoma per year | 150,000 USD | NGOs  
Tracoma prevention project by ITI |
| **Prevention of Xerophthalmia due to VAD deficiency** | - Supplement 7 million vitamin A capsules to 3.5 million children in the community.  
- Provide 360,000 vitamin A capsules for the hospital system in the country.  
- Provide posters, leaflets, and development diagrams for commune health centres. | 280,000 USD  
14,400 USD | UNICEF  
US committee for scientific cooperation with Viet Nam  
Vitamin A project by Institute of Nutrition |
| **Developing children eye care system** | - Reinforce 2 centres in Ha Noi and Ho Chi Minh City, developing 5 new centres in Hai Phong, Thai Nguyen, Da Nang, Hue and Can Tho.  
- Train 6 pediatric ophthalmologists  
- Screen 2,500 to 3,000 children of prematurity per year, providing | 290,000 USD | ORBIS |
treatment for 150 children by YAG laser technique.
- Provide 5,000 congenital cataract, glaucoma, strabismus and ptosis per year.

<table>
<thead>
<tr>
<th></th>
<th>National fund for Vietnam Children</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>In VND</td>
</tr>
<tr>
<td></td>
<td>29,782 million</td>
</tr>
<tr>
<td></td>
<td>In USD</td>
</tr>
<tr>
<td></td>
<td>734,400</td>
</tr>
</tbody>
</table>

6.6 Management and budget using method.

The management and budget using method of the plan would comply with the Government’s regulations, revealing in following legal documents mentioned above.

MoH, head of National Steering Committee for Blindness Prevention, would be responsible for the management of the whole plan budget. The constituent projects in the plan are managed by the projects leader, for example, the project of trachoma prevention, project of prevention of Xerophthalmia due to VAD deficiency and malnutrition. National Steering Committee would allocate the budget to all provinces according to annual detailed activities and mobilized budget from international organizations, local charities, MoH and Vietnam Health Insurance. Provincial Steering Committees and units receiving the budget would be in charge of strictly managing the budget as well as providing reports and balance sheets for MoH and funders. MoH and MoF would periodically conduct audition. All original vouchers would be kept by project implementers in order to assist the audition. The photocopied ones with stamps and signs of unit chief officers would be sent to National Steering Committee for Blindness Prevention and MoH.

7. SOCIO-ECONOMIC EFFECT OF THE PLAN

With big investment of international organizations (UNICEF, WHO) and NGOs (FHF, CBM, ORBIS, ITI, Sight First, Mekong Eye Doctors, Eye Care Worldwide, etc), local charities (Ho Chi Minh Sponsoring Association for Poor Patients, Sponsoring Association for the Invalid and Orphans, etc.) Government (MoH, MoF, Vietnam Health Insurance, provincial PCs and DoHs), the plan is to bring about an authentically good socio-economic impact.

With the cataract blindness control project, there would be 160,000 – 250,000 blind people operated annually and a total 2,100,000 blind people have their sight restored by 2020, helping them out of blindness, improving their living quality. In other way, the sight restored people could participate in working and housework to give their children more time for working, creating more wealth for the society. A recent survey conduct in India shows that the sight restored people would live 5 years longer than other blind.

The trachoma prevention project would also assist 200,000 patients with TT to avoid blindness and more 1.5 million children and adults with active trachoma to be treated in endemic trachoma, preventing future blindness risk. Most of the TT patients are over 35 years old, and play the role of main workforce in the family and society. The fact means that the project is to bring about a huge economic impact, improve the working capacity of thousands of people, contributing to eradicate hunger and alleviate poverty, improving intellectual standards of people.

The project of preventing exophthalmia in infants that annually supplement 7 million high
dose Vitamin A capsules to about 3.5-4 million children would made a big contribution to the improvement of children health in the country, preventing approximately 6,000 children from blindness and death per year, reducing the rate of malnourished children in the country.

The project of improving service quality and developing children eye care system would bring back the sight and good looking for 5,000 children with congenital cataract, strabismus and ptosis per year in addition to the screening of 2,500-3,000 children weighing under 1,700g to early detect and provide treatment for 150-200 children with ROP per year, preventing and alleviating blindness risk for those children. There would be approximately 150,000-300,000 school age children screened with RE and dispensed with eyeglasses, facilitating their learning results and daily activities. Thanks to the construction of 8 main paediatric eye centres in 8 main regions of the country, Vietnam children would receive eye care services with higher quality; and children’s families would benefit from more conveniences and reduced travelling and accommodation costs.

Thanks to the ophthalmic equipment investment for community in general and for children in particular, Vietnamese would take advantages of advanced eye care services, and it would also save a lot of money for families and communities as they do not need to take their relatives with eye disease to travel overseas for eye care services. In addition, the plan would improve the eye care personnel capacities at all levels, especially at primary level, enhancing their professional skills, accessing to and applying global modern ophthalmic technique, and also developing communications, management, monitoring and social mobilization capacity within the project’s areas. Once the PEC system is established and come to play far and wide, Vietnamese would benefit from eye care services better, earlier right in their villages and communes. People would also be protected out of avoidable blindness and other blindness risk by timely referred to higher level for serious eye diseases. The plan, with the involvement of local authorities at different levels, governmental sectors, social organization and every people altogether, clearly revealed the health socialization initiative of Vietnamese Party and Government. Millions of people and thousands of children have their sight back, especially those from ethnic minorities in mountainous and remote areas would be an evidence of the realistic concern of the Government in people’s lives, strengthening the belief of people in local authority and contributing to make a prosperous and secure society.

8. IMPLEMENTATION AND MANAGEMENT ORGANIZATION

The plan is expected to implement during 13 years, from 2008 to December of 2020. The annual plan is to built by provincial Steering Committee for Blindness Prevention and submitted to National Steering Committee for Blindness Prevention for consideration, suggestion, technical and financial support.

- Leading agency: Ministry of Health
- Investor agency, conducting direct implementation:
  - VNIO
  - Eye hospitals, Eye centres, provincial Social Disease Control Centres
  - Eye Departments of provincial General Hospitals

Organization, coordination and management chart of the plan

| International Organizations and NGOs | 32 | Local agencies and organizations |