

# SSM Community Eye Hospital Tripunithura, Ernakulam District



## Project Report

## **Executive summary**

SSM Community Eye Hospital (SCEH) is a nonprofit, philanthropic initiative of Giridhar Eye institute and SSM Eye research Foundation and that aspires to help the underprivileged section of the society to avail quality eye care services at affordable/Zero cost.

Expenditure on health is substantive for semi urban and rural households in Kerala. A fairly high 14 per cent of the total household expenditure is incurred on the treatment of household members. This expenditure is comparatively much higher among rural households. The burden of expenditure on health can partly be eased for the households, by making better provision of basic health facilities at affordable rate.

The hospital is projected to serve roughly about 45000 out-patients and 3600 in-patients annually. The hospital is aimed at serving the need of the community and will be run on a not-for-profit basis. Apart from the subsidized treatment facility the centre will be conducting outreach initiatives in and around Ernakulam district to identify people with visual ailments and providing free treatment to the needy at affordable rate. This intervention will also be an attempt to satisfy the concern over spending on health care in villages of Ernakulam, Kottayam and Alappuzha districts. The hospital seeks to provide secondary ophthalmic care with facility of cataract and other minor surgeries. People who are Below Poverty Line will be getting treatment at very less or zero cost.

The commencement of hospital in Tripunithura, Ernakulam would enable easy access for the patients in this area and nearby villages. The hospital is operated in a built up area of about 6000 square feet on 09 cents of land, at an estimated total project cost of INR 1.88 Cr that is to be funded by volunteers, supporters, grants and donations. The hospital will cater to the needs of the patients with 3 Consultation Rooms, 5 optometry rooms, 1 Operation Theatre, 1 Laboratory kiosk, 1 pharmacy, 10 post operative care beds/recliners. This hospital will be functioning as a day care centre providing secondary ophthalmic care.

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## **1. Introduction**

### **1.1. An overview of basic eye care facility in Rural India**

#### **Background**

Vision impairment is a public health concern that affects over 10 per cent of the general population. Over half of those aged 40 years and older have difficulty seeing things at a close distance, for example, reading a newspaper. Fortunately, a large percentage of the population with vision impairment can be addressed with simple intervention such as spectacles for refractive error or a cost-effective surgery for cataract. Detection of vision impairment due to cataract and correction of refractive errors fall under the domain of primary eye care. Primary eye care can be community-based or center-based with ample infrastructure and facilities.

#### **Challenges**

Apart from adequate infrastructure, well-trained human resources in adequate numbers with equitable geographical distribution are prerequisites to providing high-quality primary eye care. However, these prerequisites are rarely met, and this poses a challenge for primary eye care, especially in rural and far-flung areas. Unfortunately, these are the places where the need for primary eye care is high. Geographical distance and issues related to accessibility, lack of integration and linkage between various levels of care are the other challenges that need to be addressed to improve the reach of primary eye care.

In the government sector, primary eye care is in the domain of primary health centres. However, often eye health does not figure in as a major vertical in these centres. There is a shortage of ophthalmic personnel at the primary level. Also, a system of continuing professional development programmes for these ophthalmic personnel is not a very established phenomenon barring isolated professional development programmes, mostly in non-government sector. Lack of standard equipment for basic eye examination in primary health centres is another challenge that needs to be addressed to overcome the public health challenge of vision loss in the community.

Universal eye health is a framework that is currently being talked about to ensure all people have access to promotive, preventive, curative and rehabilitative care without resulting in financial hardship when paying for these services.

## **2. SSM Eye Research Foundation**

## 2.1 Reaching the unreached

SSM EYE RESEARCH FOUNDATION, a registered Charitable Trust was formed on 01.10.2005 under Giridhar Eye Institute for various community centric activities, such as (a) Free Cataract surgery with intra ocular lens implantation for persons below poverty line (BPL), (b) to provide medical relief to economically weaker section of society, School Screening programme, (c) a project for vision testing in primary school children, (d) Conduct Diabetic Retinopathy Awareness and Screening camps, (e) to reach villages & remote areas for a comprehensive eye examination, and (f) Establishing a center for rehabilitation of Visually handicapped.

The trust has been doing charitable activities since its inception specially concentrating on eye care. The trust conducts free eye camps in remote areas and villages, examine people, identify the eye problems and do surgical procedures either free or at concessional rates without any profit motive where necessary. The trust also issues patient education materials in connection with different eye related disease for creating awareness. All these activities are done in association with its parent unit 'Giridhar Eye Institute'.

The trust is running 2 free eye clinics in Ernakulam District viz. (a) Gurudwara, Thevara (b) Rotary Balbhavan, Panampilly Nagar

- ✚ Free eye check-up camp in Gurudwara has been running since 2007 very effectively.
  
- ✚ Screening Camp in Rotary Balbhavan held since 2012
  
- ✚ Launched an awareness program on a wide-scale to educate patients and general physicians on diabetes related eye disease as the treatment for diabetic retinopathy is still out of reach for a common man in our country. This project won the prestigious XOVA Excellency award in 2010.
  
- ✚ Adopted Chellanam GramaPanchayat, one of the backward local bodies in Ernakulam for providing ophthalmic treatment to Below Poverty Line (BPL) residents free of cost for 12 months duration from October 2016.
  
- ✚ Started Swarnam eye bank for corneal retrieval and eye donation awareness creation in 2017.
  
- ✚ Launched Project Nethra, the mobile eye care unit with ultra-modern screening equipment and facility. The project was funded by rotary international.

- ✚ Won Rotary CSR excellence award in 2019 for the unique tribal screening program conducted at kuttampuzha.
- ✚ Launched Project Kiran, the mobile unit for RoP screening with the financial aid from Cochin Shipyard Limited.

Apart from the above, outreach programs are held at least three Sundays in a month in association with various NGO's. In all, on an average, 9-10 such programs are held a month.

### **3. Community Eye Hospital project**

#### **3.1 Project Overview**

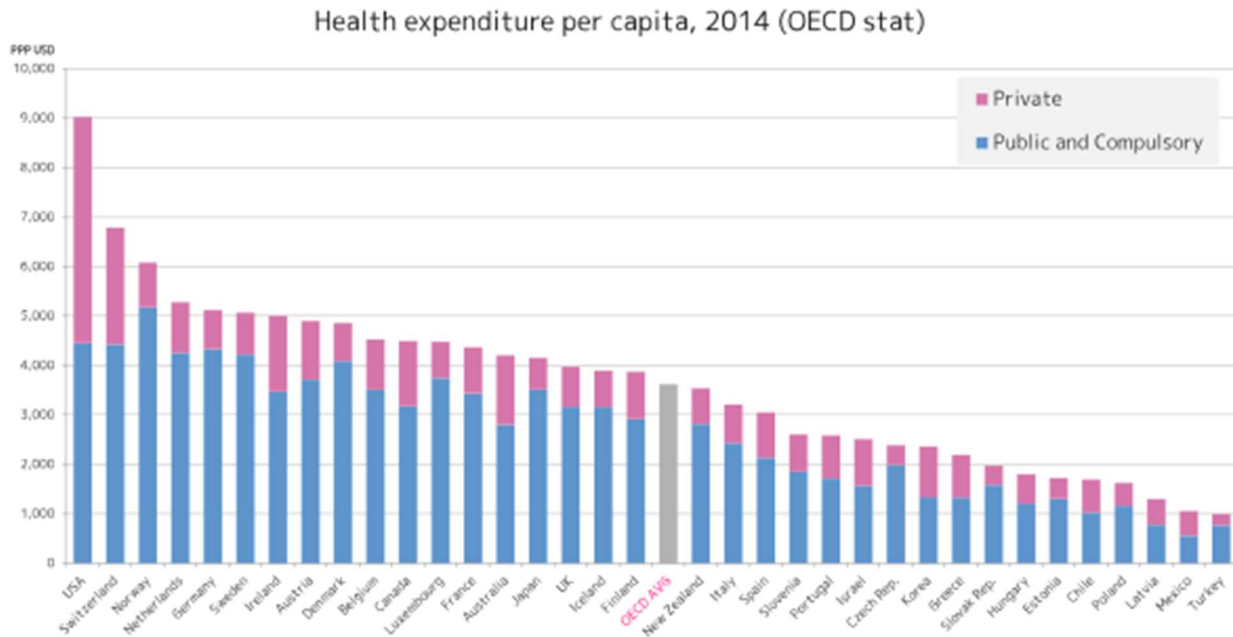
SSM Eye Research Foundation is working to set up a secondary care Community eye Hospital for the semi urban and rural people of Ernakulam and nearby districts. The proposed location of the hospital is at Tripunithura, Ernakulam. The hospital will offer affordable and quality services for patients and free services to the needy people from its service area.

#### **3.2 Project Rationale**

Poor people in urban and rural areas face a huge burden of ill health: almost 10% of them have had at-least one illness in the past two weeks. Despite high burden of illness, many—as many as one in five—do not seek any healthcare. When they seek care, they often do so from informal private providers, because of ease of reaching them, flexible payment options, and extended hours of service. Families also end up spending significant money (almost Rs300 for an out-patient consultation, and approximately Rs10,000 for in-patient) in the case of ophthalmology. It is not surprising, then, that expenditure on healthcare is one of the major reasons for families slipping into indebtedness in rural and Semi urban Kerala.

On account of absence of awareness and access to the public sector and erratic availability of liquid cash, families of migrants are even more likely to defer treatment when ill, and more likely to fall into indebtedness due to expenditure on healthcare. Migrants themselves have higher vulnerability to illness due to the unhealthy and unhygienic environment in which they work and live. Being less familiar with the city and its healthcare systems, and having limited liquid cash, they defer seeking care when ill, or go back to the “pastures” they know better: their own village, prematurely breaking the migration tenure and further reducing their income.

## Health Care around the World



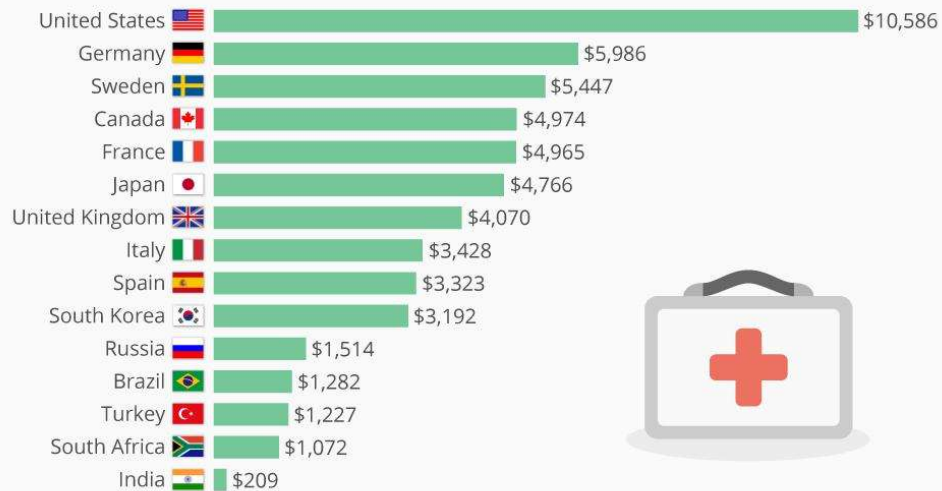
Health provision varies around the world. Almost all wealthy nations provide universal health care (the US is an exception). Health provision is challenging due to the costs required as well as various social, cultural, political and economic conditions. Health care provision is incredibly complex and many nations around the world spend considerable resources trying to provide it. Many other rights and issues are related to health, inequality being an important one, for example. Education, gender equality and various other issues are also closely related. Viewed from the spectrum of basic rights, the right to health seems core.

At some point the debate becomes ideological rather than practical, and most nations that attempt universal health care, while often supporting individual freedoms see value in a society generally being healthy. There are numerous ways such a system is provided, for example:

- Government funded (tax paid) national systems
- Government funded but user fees to top up (often at point of use)
- Health insurance systems (funded by governments, citizens, or some mixture)
- Decentralized, private systems run for profit or not for profit

## The U.S. Has The Most Expensive Healthcare System

Per capita health expenditure in selected countries in 2018



@Statista\_com

Source: OECD



Forbes statista

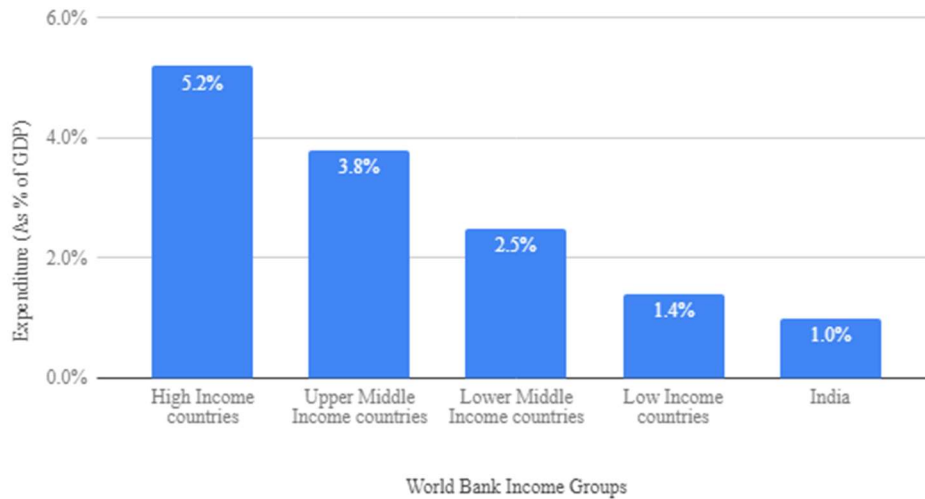
Different parts of the world have used different means for health care and generally, poorer nations have struggled to provide adequate health care.

### The Indian Healthcare System Scenario

India's public health care system is patchy, with underfunded and overcrowded hospitals and clinics, and inadequate rural coverage. India still spends only around 1% of its national GDP towards healthcare goods and services (compared to 18% by the US). Additionally, there are wide gaps between the rural and urban populations in its healthcare system which worsen the problem.



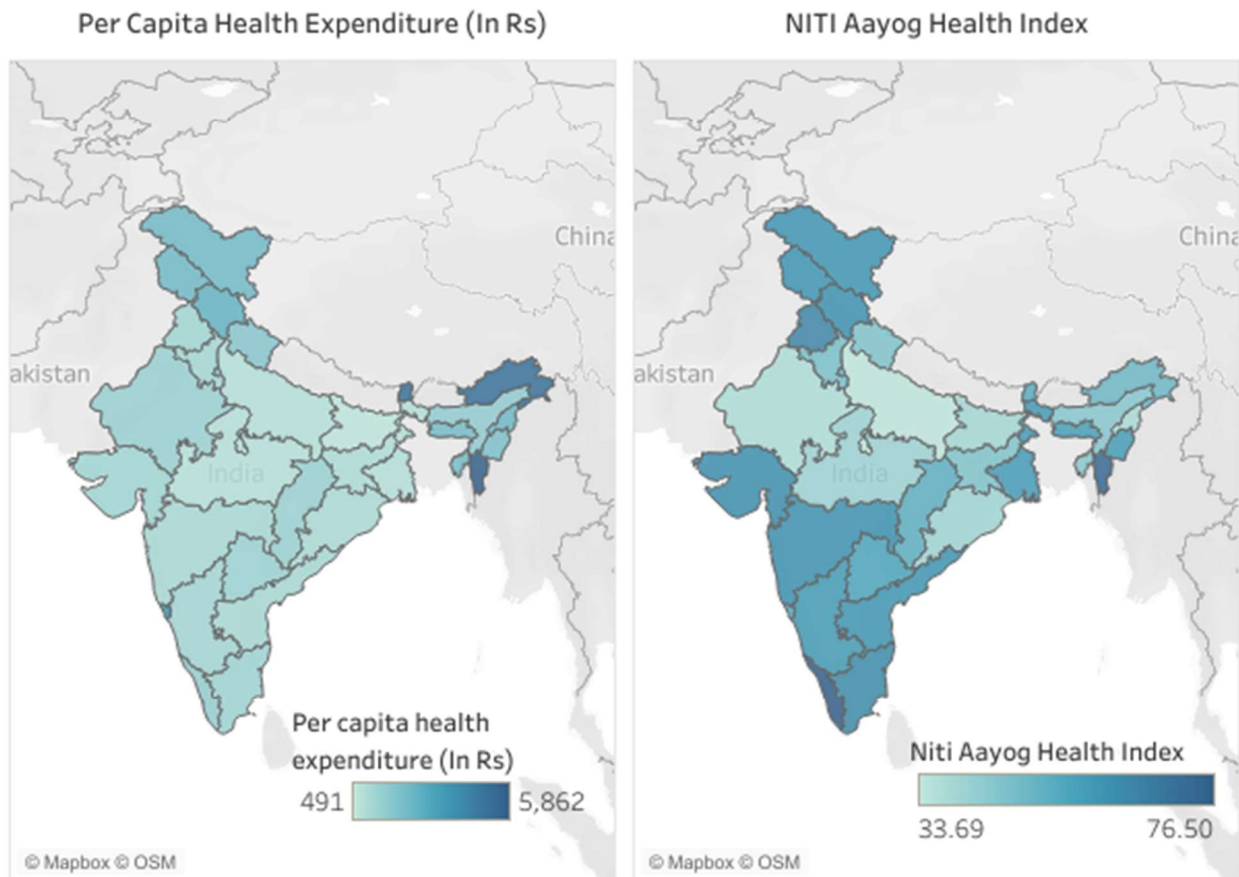
Public Expenditure On Health, By Countries' Income Groups



A staggering 70% of the population still lives in rural areas and has no or limited access to hospitals and clinics. Consequently, the rural population mostly relies on alternative medicine and government programmes in rural health clinics. One such government programme is the National Urban Health Mission which pays individuals for healthcare premiums, in partnership with various local private partners, which have proven ineffective to date.

In contrast, the urban centres have numerous private hospitals and clinics which provide quality healthcare. These centres have better doctors, access to preventive medicine, and quality clinics which are a result of better profitability for investors compared to the not-so-profitable rural areas.

## Public Health Expenditure Vs NITI Aayog Health Index, By State



Note: Data for Jammu and Kashmir are for the erstwhile state, including for the union territory of Ladakh

### Kerala

Kerala's healthcare system faces the challenge of large out-of-pocket expenditure (expenses which are not reimbursed by insurance), which constitutes 95 per cent of the private health expenditure (Kerala Health Accounts 2013-14). The trend in increase of super-specialty hospitals at the cost of small hospitals raises the question of accessible and affordable healthcare for the average person.

Kerala has been listed as the state with lowest poverty across India (0.71%), according to NitiAayog's first Multidimensional Poverty Index (MPI) 2021. Even though, ophthalmic conditions such as Diabetic Retinopathy, which are treated with surgery, Intra Vitreal injections and require periodic follow ups, would be a burden to any middle class and lower middle class families and such medical conditions can be considered as the main reason for the derailed budget of a family, irrespective of rural or urban classifications.

The government is responsible for ensuring affordable and equitable healthcare for all. This is possible only by engaging small private medical institutions because large share of the people among those going to private hospitals are dependent on such institutions. Most people opt for small private medical institutions near their home for basic healthcare and acute cases rather than visiting government hospitals where health insurance can be claimed.

### 3.3 Role of SSM Community Eye Hospital in the health care of Ernakulam.

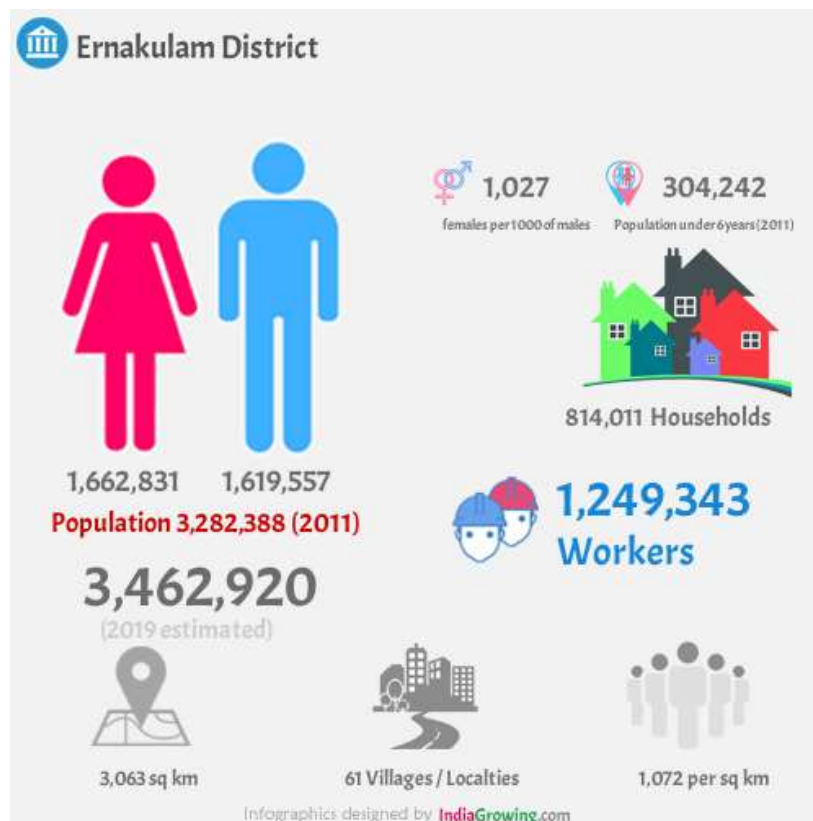
SSM has been involved in social and charitable activities ever since its formation in 2005. This organization has an in-depth reachability in all over Ernakulam and nearby districts by conducting eye screening programs, awareness campaigns and door to door surveys in every month. SSM has been conducting 2 free eye clinics in a month with the help of Gurudwara, Thevara and Rotary club of Cochin, Panampilly Nagar.

Apart from these regular camps and clinics, by starting a community eye hospital with all secondary infrastructures and surgery facilities in the suburb of Ernakulam, SSM reassures its commitment to the needy people in and around Ernakulam district through give access to a quality eye care at an affordable or zero prices. This center aims to provide all basic treatments related to eye in a subsidized rate, and for the needy people under poverty line treatment at free of cost. SSM is planning to provide the health care facility with the help of Giridhar Eye institute which can cater 150 patients a day.

In addition to the OP and surgery facility, the center will be acting as the referral hub for the majority of outreach activities conducted by SSM Eye Research Foundation and Giridhar Eye Institute. Moreover this center will be capable to provide training to the budding ophthalmologists and optometrists. There will be facility to plan, coordinate and implement clinical and non-clinical studies, surveys and researches.

### 3.4 Location and communities served by the project

SSM community Eye care center is a day care eye hospital which is proposed to come up at Tripunithura, Ernakulam district. Totally 49 Panchayaths spread out in 4 taluks (Muvattupuzha, Kunnathunadu, Kanayannoor and Vaikom) can be considered as the service area for this eye care center. Approximately 09 % people from this area are falling under Below Poverty Line. Moreover there is a huge population of migrant labours in this area due to the presence of many small scale factories in these four taluks.



#### 4. Facilities at Community Eye Hospital

##### 4.1 Overview

The hospital is a day care ophthalmic secondary care centre with a capacity to cater 150 patients a day. The proposed hospital is equipped with an operation theatre with the facility of cataract surgeries including phaco emulsification, Intra vitreal injections, minor surgeries related to cornea and minor ophthalmic injuries. The hospital possesses ample waiting area and day care beds. The hospital has a pharmacy and lab kiosk inside the premise.

##### 4.2 Ophthalmic specialties and services

The hospital will have following specialties and facilities.

- Community Ophthalmology OP
- General Ophthalmology OP
- Surgery(including phaco emulsification)
- Pharmacy
- Laboratory Kiosk
- Ascan, OCT, HFA
- Optical shop

## Support Services

- Front office
- Counselling
- IT
- House keeping

### 4.3 Outreach initiatives

The Community Eye Hospital will be working as the referral base hospital for outreach programs other than regular clinics. All the referrals from outreach screening site if it falls in the specialty and service scope of community eye hospital will be catered at this center.

The outreach coordinator will organize more screening programs in the drainage area of the community eye hospital and coordinate with the local organizers to assure the successful follow up. The proposed vehicle facility to carry the referred patients to the base hospital will be a game changer and thus the dropout can be reduced significantly. Moreover this facility will help the administration team to plan the appointment as well as staffing pattern.

## 5. Project financials

### 5.1 project cost and funding envisaged

The project is proposed to be the establishment of a day care ophthalmology hospital. The hospital will have a built up area of 6000 square feet in three floors. The area will include the service areas such as waiting space, entrance hall, registration counter consultation and refraction rooms, operation theatre, day care rooms, general ward etc. The hospital will cater to the needs of the patients with 3 Out-Patient Consultation Rooms, 5 optometry rooms, 1 Operation Theatre, 1 Laboratory kiosk, 1 pharmacy and 15 day care beds/recliners in Phase I. The facilities for medical retina specialty will be adding in third year as Phase II. The estimated project cost in Phase I is INR 1.467 Cr and Phase II is 41.5 lakhs which are expected to be funded by donations and contributions to the SSM Eye Research Foundation.

The breakup of the total budget is given below

SI No	Item Description	Count	Estimated cost(in Rs)
A 1.	Machinery & Equipment (Phase I)		
	Slit lamp (appa)	6	750000.00
	Applantation tonometer	4	200000.00
	Vision drum	8	96000.00
	Retinoscope(Inscon)	3	77640.00
	Indirect ophthalmoscope	1	56000.00
	A Scan (Biomedix)	1	212800.00
	B Scan (Appasamy)		952000.00
	Autoref (Protec PRK5000))	1	350000.00
	OCT (Appasamy)	1	1800000.00
	Pachymeter	1	250000.00
	Microscope( Zeiss Lumera basic 300- with sidescope)	1	3005050.00
	Phaco machine( Zeiss Visualis 100/ Appa)	1	1500000.00
	OT set	10	292000.00
2.	Furniture & Fixtures		850000.00
3.	OT and OP construction		1970000.00
3.	Computer & accessories		700000.00
4.	Preliminary & preoperative expenses		30000.00
5.	Building security deposit		1200000.00
6.	Signage and branding expenses		380000.00
	<b>Phase I Total</b>		<b>1,46,71,490.00</b>
B 1.	Machinery& Equipment (Phase II)		
	HFA(perimeter swap)	1	800000.00
	Laser Machine (appasamy)	1	1250000.00
	Fundus Photo (Trinethra)	1	400000.00
	Vehicle (Tempo Traveller)	1	1700000.00
	<b>Phase II Total</b>		<b>41,50,000.00</b>
	<b>Project Total (A+B)</b>		<b>1,88,21,490.00</b>

## 5.2 Projected Monthly expenditure Statement

Sl No	Expenditure	Phase I 0-6 month	Phase I 6-12 month	Phase II 2 <sup>nd</sup> year	Phase II 3 <sup>rd</sup> year	Phase III 4 <sup>th</sup> year	Phase III 5 <sup>th</sup> year
1	OP consumables	5000 Rs	5000 Rs	7000 Rs	8000 Rs	9000 Rs	10000 Rs
2	IP consumables	55000Rs	65000Rs	70000Rs	75000Rs	85000Rs	95000Rs
3	Staff salary	545000RS	545000Rs	650000Rs	800000Rs	925000Rs	1050000Rs
4	Monthly rent	200000Rs	200000Rs	225000Rs	250000Rs	250000Rs	275000Rs
5	Electricity +Water bills	65000Rs	65000Rs	70000Rs	74000Rs	80000Rs	86000Rs
6	IT bills	17000Rs	17000Rs	18000Rs	18000Rs	19000Rs	20000Rs
7	General expense	20000Rs	20000Rs	25000Rs	25000Rs	30000Rs	30000Rs
	<b>Total</b>	<b>907000Rs</b>	<b>917000 Rs</b>	<b>1065000Rs</b>	<b>1260000Rs</b>	<b>1298000Rs</b>	<b>1466000Rs</b>

## 6. Implementation plan

The proposed implementation plan of the project is given below.

SI No	Particulars	Timeframe	Patients count per month	Expenditure/ Month
A	Pre project			
	Ground work & Research	1 months		
	MoU& other Documentations	2 months		
	Structural & finishing works	3 months		
B	Phase – I	0-6 months 6-12 months	1000 1400	9.07 lakhs 9.17 lakhs
C	Phase – II	2 <sup>nd</sup> Year	1600	10.65 lakhs
	Phase – II	3 <sup>rd</sup> year	2000	12.60 lakhs
E	Phase – III	4 <sup>th</sup> year	2600	12.98 lakhs
	Phase- III	5 <sup>th</sup> year	3000	14.66 lakhs