



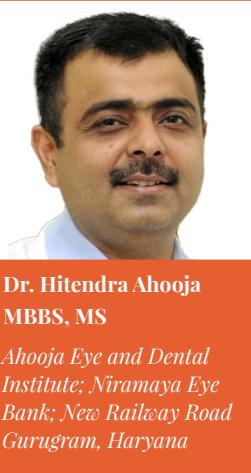
Through My Eyes: Founding and Leading an Eye Bank

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Abstract: In India, corneal blindness affects more than 1.2 million people, with 30,000 new cases added every year. To meet the demand, an estimated 100,000 corneal transplants are needed annually. However, only approximately 50,000–65,000 donor corneas are collected each year, creating a substantial shortfall. This gap is not due to medical limitations but largely stems from public unawareness, cultural and religious misconceptions, logistical constraints, and the absence of strong hospital-based Cornea Retrieval. Despite ongoing awareness campaigns and national efforts, less than 50% of the actual need is fulfilled, leaving thousands of visually impaired individuals without access to a sight-restoring corneal transplant. This article recounts the journey of establishing the Y.P. M Niramaya Eye Bank in Gurugram (Haryana), India, highlighting the challenges faced, innovative approaches adopted, and the impact achieved in restoring sight over a period of 20 years. Starting with an idea in 2004, a group of professionals navigated regulatory approvals, financial constraints, and societal taboos to create an eye bank from scratch. Key hurdles included obtaining registration, securing funding for infrastructure, and overcoming lack of eye donation awareness in the community. Strategic outreach campaigns played a pivotal role, ranging from 'Netra Daan Chetna Abhiyan' targeting opinion leaders to mass public events like 'Run for Vision 2009' and 'Walk for Vision 2010'. This momentum continued with large-scale community drives including 'Gurgaon Carnival 2011', 'Go Green Gurgaon 2015', the nationwide virtual campaign 'Step Up for Vision 2021', and the most recent 'Runathon 2023', ensuring consistent public engagement across digital and physical platforms. Over 20 years, Niramaya's eye bank enormous efforts have enabled the collection of thousands of donor corneas and facilitated over 1500 corneal transplant surgeries, restoring sight and impacting countless lives. The story of Niramaya Eye Bank illustrates how passionate advocacy, community engagement, and perseverance can build a successful eye banking program. It offers insights for ophthalmologists and public health professionals on bridging the eye donation gap through innovation, efforts and perseverance, ultimately contributing to efforts to reduce corneal blindness in India.

Keywords: Corneal blindness; Eye donation; Eye bank; Awareness campaigns; Hospital Cornea Retrieval; India, Home/Voluntary Eye Retrieval.



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Corneal disease continues to be a major contributor to vision impairment in India, second only to cataract and glaucoma. While often treatable through transplantation, access to donor tissue remains a persistent challenge due to limited public awareness, logistical constraints, and gaps in hospital-based donation programs. For these patients, corneal transplantation is often the only hope to regain sight as it is one of the causes of reversible blindness. However, the availability of donor corneas in India is grossly inadequate compared

to the need, but only a fraction of suitable donor eyes is collected and utilized.^[1] Even in the best recent years before the COVID-19 pandemic, about 65,000–70,000 donor eyes were collected annually nationwide, meeting only a third of the requirement. This disparity stems from multiple factors, including low public awareness about eye donation, cultural and religious misconceptions, and logistical challenges in harvesting corneas after death.^[2]

In the early 2000s, these national challenges were acutely evident at the local level in Gurugram, a rapidly growing city in Haryana, India. At that time, Gurgaon did not have a single eye bank, and patients in need of corneal transplants had to depend on eye banks in New Delhi or elsewhere. There was no Hospital Cornea Retrieval Programme (HCRP) in any major hospital in the city. As



an ophthalmologist practicing in Gurgaon, I frequently encountered patients who waited in vain for donor corneas. This unmet need sparked a vision: to establish a dedicated eye bank in Gurgaon that could collect, preserve, and supply corneas and do transplant for – giving the gift of sight to those waiting in darkness.

Genesis of Niramaya Eye Bank

Niramaya Eye Bank was born out of a passionate idea shared by a small group of like-minded professionals. In 2004, I discussed the concept of starting an eye bank with a group of colleagues from medical and non-medical backgrounds – and it “clicked”. We realized that by pooling our efforts as volunteers, we could address the eye donation gap in our community. By 2005, we had crystallized our dream: to set up an eye bank in Gurgaon and achieve at least 100 eye donations in a year – starting from zero.

We named our initiative “Niramaya,” a Sanskrit word meaning free from illness, reflecting our mission to eliminate avoidable blindness.

Formalizing this dream required creating a non-profit trust and navigating India’s medical regulatory framework. All the founders including myself maintained busy day jobs – we were full-time professionals in our respective fields – so this venture had to be a labor of love in our spare time. We established the Niramaya Charitable Trust in 2004 as the governing body for the eye bank. I took on the role of Medical Director, and we enlisted other volunteers and supporters from the local community. Notably, philanthropist Mr. Ashok Mahindru joined as a key partner; his family’s foundation became a major supporter of our cause. The eye bank was later named “Y.P.M Niramaya Eye Bank” in honor of Mr. Mahindru’s late father, a philanthropist who had long advocated for eye care services.^[3,4,5] With this collaboration, our fledgling eye bank combined medical vision with visionary leadership.

Regulatory and Logistical Hurdles

Setting up an eye bank in India comes with strict health regulatory requirements – a necessary safeguard given that eye banking involves human tissue donation and transplantation. As newcomers, we encountered a steep learning curve in dealing with government protocols. We had to obtain registration under the Transplantation of Human Organs Act and seek approvals at multiple levels.

To meet regulatory requirements, every eye bank in India must be affiliated with a licensed eye care institution capable of performing corneal transplantation. Accordingly, the Niramaya Eye Bank was established within the premises of Ahooja Eye and Dental Institute, a NABH-accredited tertiary eye care facility in Gurugram. This partnership not only fulfilled statutory conditions for registration but also provided the necessary clinical infrastructure and surgical expertise for corneal tissue evaluation, preservation, and transplantation. The seamless integration of the eye bank within a functioning eye hospital ensured that donor tissue could be promptly utilized, and transplant recipients could receive quality post-operative care under one roof. Legal Challenges soon became apparent: we needed clearances from the District Health authorities and the State Health Department, followed by a series of inspections and compliance checks by health ministry officials.^[6] Establishing an eye bank meant demonstrating proper facilities for donor cornea retrieval, processing, and storage, as well as trained personnel and documentation practices. It was a daunting process for a volunteer-driven team. After persistent efforts, we succeeded in registering Niramaya as an official Eye Bank and as an NGO (Non-Governmental Organization) by 2007. This regulatory approval marked the transition from an idea to Transplantation of Human Organs and Tissues Act, 1994 (THOTA). Notably, at the time of its registration, Niramaya Eye Bank became the first government-approved eye bank in southern Haryana, filling a critical gap in the region’s eye care infrastructure.

In parallel, we confronted numerous logistical hurdles. We needed trained manpower – eye bank technicians and grief counselors – where none existed locally. We have sent our ophthalmic assistants to training workshops in cornea retrieval and preservation. We also developed standard operating procedures in line with the Eye Bank Association of India (EBAI) guidelines for donor screening, serological testing, and tissue storage. Procuring essential equipment’s was another challenge. In the initial phase, we operated on a shoestring budget, using basic instruments for corneal excision. Recognizing the importance of evaluating donor tissue quality by specular microscope, we appealed to the National Programme for Control of Blindness (NPCB) for support. In 2008, government came forward with a grant to fund a specular microscope. This was a major boost



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to our capabilities – ensuring we could determine which donated corneas were suitable for transplant and which could be used for training or research.

Staffing the eye bank around the clock was also critical. Cornea donation is a race against time – ideally, eyes should be retrieved within 6–8 hours of death for optimal transplant outcomes. With no large hospital in Gurgaon participating in cornea retrieval back then, our model had to rely on on-call responsiveness. We set up a round-the-clock on-call team; one of our early policies was a prompt and guaranteed response to every donation call, regardless of the hour. Maintaining this level of responsiveness was challenging with a small team, but it was non-negotiable for us – and over time it built tremendous trust in the community. Families learned that if they wished to donate a loved one's eyes, Niramaya's team would be there reliably to honor that wish. In Niramaya's early days, volunteer-led home donations were the cornerstone of our eye retrieval efforts—driven by community members who responded with compassion and urgency. Even today, as formal HCRP systems have evolved, it is this spirit of volunteer home donation that continues to reflect the true essence of Niramaya.^[7,8]

Financial Challenges and Innovations

Financing a non-profit eye bank was another major hurdle in our journey. In the absence of any substantial initial funding, we had to get creative and resourceful. In the early stages, the eye bank's infrastructure was built through a combination of personal contributions and generous in-kind support from our founding members and well-wishers.

To create a sustainable funding stream, we launched the concept of "Drishti Mitra" (Friend of Vision). This was an innovative community sponsorship program wherein local businesses and individuals could sponsor various aspects of the eye bank's operations. For instance, some became Drishti Mitras by donating towards the cost of preserving cornea, or by funding public awareness materials. In return, we recognized their contributions in our events and newsletters, creating a sense of partnership in the fight against blindness. The Drishti Mitra initiative not only raised funds but also expanded our advocacy network, as sponsors often became ambassadors spreading the word about eye donation.

Despite our efforts, the scale of resources required to run an eye bank – vehicles with cold storage for transport,

sterile media for corneas, staff salaries for retrieval teams, etc. – was significant.

By blending grassroots donations with benevolent grants and government assistance, we gradually achieved financial stability. Within a few years, we were able to hire a small full-time staff – including trained eye bank technicians and a counselor along with other eye bank related facilities. These investments paid off: our cornea retrieval and utilization rate improved notably. In fact, by 2012, we had reached our initial goal of 100+ eye donations in a year, and cumulatively the eye bank had harvested around 1,000 donor eyes. Many of these corneas were used to give sight to patients not only at our own institute but also at larger centers – we established an ongoing collaboration to supply surplus corneas to RP Center; AIIMS (All India Institute of Medical Sciences, New Delhi) and PGIMS (Post Graduate Institute of Medical Sciences, Rohtak) for transplantation. This ensured that no donated cornea went to waste due to lack of local recipients, and it extended our impact beyond our city. All corneal transplant surgeries facilitated through Niramaya were provided free of charge or at minimal cost to patients, in line with our charitable mandate.

Awareness and Societal Challenges

Perhaps the toughest challenge was changing mindsets and building public awareness about eye donation. When we started, Gurgaon's general population had very limited exposure to the concept of eye donation. We encountered prevalent taboos and myths surrounding eye donation. Common fears included: "Will donating eyes disfigure the body?", "If I donate my eyes, will I be born blind in my next life?", or simply "It's not part of our family or community tradition". Some people hesitated with a "Why me?" attitude, expecting that others might donate but not seeing it as their personal responsibility^[9]. There was also a widespread lack of knowledge about the process as many did not know that eyes must be donated quickly after death, or whom to contact, or that anyone can pledge to be a donor. Trained grief counselors from Niramaya sensitively engaged with bereaved families often in their homes, helping facilitate informed decisions about eye donation with empathy and respect. Adding to the challenge, Gurgaon lacked a major government hospital that could anchor a Hospital Cornea Retrieval Programme(HCRP), which elsewhere helps normalize post-mortem eye donations in hospital



settings. In essence, we were trying to introduce a culture of eye donation in a city that had none.

To tackle these awareness challenges, we realized that a multipronged outreach strategy was needed. We had to engage people at all levels – from community influencers to everyday citizens, from young students to elder decision-makers. Early in 2005, even before our eye bank was fully operational, we hosted a seminal event called “Netra Daan Chetna Abhiyan” (Eye Donation Awareness Campaign). This was a meeting aimed at local opinion leaders we brought together religious and spiritual leaders, heads of social organizations, resident welfare association (RWA) representatives, and doctors. In that session as held on 16 January 2005, we discussed the issue of corneal blindness and the noble act of eye donation, encouraging these influencers to take the message to their followers. The participation of spiritual leaders was especially impactful; when a priest or guru publicly endorsed eye donation as a virtuous deed, many listeners shed their inhibitions. This approach tapped into the cultural and religious dome in a positive way, reframing eye donation as a final act of seva (service) or daan (donation) in line with faith, rather than against it.

Following this, we embarked on a series of innovative public awareness campaigns that over the years grew in size and creativity. We realized that consistent and repeated messaging was essential—people needed to encounter the idea of eye donation in multiple settings for it to truly resonate:

- **Community Presence:** We set up information booths in public parks during peak hours, engaging citizens—especially families and seniors—with friendly conversations and on-the-spot donor pledging. This “catch them early” approach fostered informal, approachable awareness.
- **Medical Network Mobilization:** Leveraging our professional circles, we organized talks and workshops at medical conferences to sensitize healthcare providers on eye donation and HCRP, turning doctors and nurses into long-term advocates.
- **Mass Media Campaigns:** Eye donation messages were broadcast through 30-second cinema and cable ads, local newspaper stories, and National Eye Donation Fortnight coverage—ensuring wide

and repeated exposure. Just before a movie would start, a 30-second clip would play, showing a simple message: a blind individual receiving sight because a family donated eyes, ending with our eye bank’s 24-hour phone number. These ran repeatedly in popular theaters and on cable networks, ensuring wide reach (Figure-1,2).

- **School and Youth Outreach:** School competitions on the theme “Gift of Sight” drew enthusiastic student participation. Many parents pledged their eyes after interacting during exhibitions and PTMs, making schools powerful awareness hubs.
- **Celebrity-Driven Events:** High-impact events like Run for Vision 2009 (flagged off by Virender Sehwag) and Walk for Vision 2010 (with Delhi Daredevils) attracted thousands, mainstreamed eye donation, and earned a place in the Limca Book of Records (Figure-3). Local youth groups, corporate teams, and families all participated, making it a memorable day that undoubtedly imprinted the importance of eye donation in the public consciousness.
- **Rural & Grassroots Campaigns:** Through eye camps in villages like Rajokri, collaborations with Jain Samaj and Arya Samaj, and platforms like the Gurgaon Go Green Carnival 2011, we extended our mission beyond city limits—reaching deep into underserved communities.

Over the past 20 years, Niramaya Charitable Trust has conducted more than 4,500 eye care and awareness events in the National Capital Region (NCR). These range from large marquee events like marathons to countless small group sessions in housing colonies, offices, and places of worship. Each event, no matter the size, contributed to chipping away at misconceptions and building a culture of eye donation. Importantly, we learned that awareness must be continuous. Public memory is short, and there’s always a new generation coming of age – so our campaigns became an ongoing caravan, year after year. This sustained effort has yielded measurable improvements: surveys in our region showed rising awareness levels, and gradually we noticed an increase in the number of families proactively calling us to donate their loved ones’ eyes.^[10]



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Figure 1: Community awareness events organized by Niramaya Charitable Trust



Figure 2: Continuing the legacy of awareness campaigns

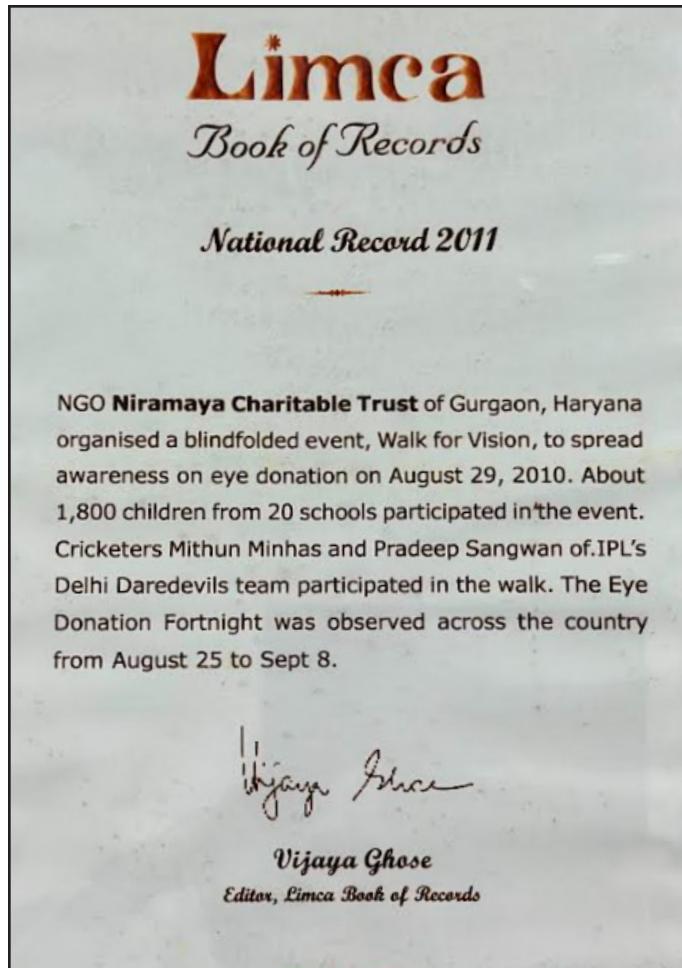


Figure 3: National recognition for eye donation awareness

The Science and Strategy of Eye Banking in Practice

Our journey in eye banking was rooted in both community service and scientific precision, evolving alongside best practices in corneal transplantation. As Medical Director, I ensured that all procedures adhered to clinical standards while incorporating advancements that enhanced tissue quality and utilization. A major national strategy strengthening HCRP focuses on identifying donors in ICU and trauma settings. In Gurugram, where a major government hospital was lacking, we created an informal HCRP network by partnering with smaller hospitals and the city morgue. By training hospital staff to notify us of potential donors, we significantly improved tissue quality, aligning with national studies showing that HCRP donors are younger (mean age ~44) than home donors (~73), with better endothelial cell counts and utilization rates (50% vs. 20–30%). In 2014, we collaborated with

authorities to retrieve corneas from unclaimed bodies and accident victims with proper consent before post-mortem, reducing delays and increasing viable tissue retrieval.

Quality assurance remained central to our operations. We used specular microscopy to classify corneas into optical, therapeutic, or training-use categories. For partial-thickness corneal transplant procedures like DSEK and DMEK, Niramaya Eye Bank ensured timely coordination with surgeons to provide suitable high-quality donor tissue—making it possible for a single cornea to benefit more than one patient. We followed rigorous safety protocols, screening each donor for HIV, Hepatitis B and C, and syphilis. Storage techniques also advanced over time; we used MK medium and Cornisol to extend corneal viability up to 4–7 days. Glycerol preservation enabled the long-term storage of scleral tissue, particularly useful in procedures like glaucoma surgeries.

During the COVID-19 pandemic, when the availability of fresh corneal tissue was severely restricted, Niramaya Eye Bank played a crucial role in supporting emergency therapeutic care. We supplied glycerol-preserved tissues to AIIMS, New Delhi, and to Dr. Shroff's charity eye hospital, helping sustain critical surgeries during a time of nationwide disruption. We maintained a commitment to equitable and transparent distribution of donor tissue—prioritizing cases based on medical urgency and actively participating in the national exchange network to transfer surplus or requested corneas across regions. At its core, eye banking is not just about collection; it is about ensuring that every donated cornea reaches the right patient at the right time, wherever the need arises.

Impact and Outcomes

The Niramaya Eye Bank has made a profound impact, with over 1400 corneal transplant surgeries completed by 2025, restoring sight and independence to individuals across all age groups and backgrounds. Every transplant tells a story of renewed hope—a child returning to school, a worker resuming their livelihood, or a grandparent seeing loved ones again. By providing these surgeries free of charge or at nominal cost, we ensured that financial barriers never stood in the way of someone regaining their vision. Beyond corneal transplants, our broader vision care efforts—over 10,024 total surgeries and screenings for more than 610,179 individuals—have generated a ripple effect in eye health across the region.



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Camps that began with eye donation awareness often led to expanded cataract screenings and reduced preventable blindness in underserved communities, transforming the eye bank into a comprehensive care hub.

A major shift has occurred in public perception over the years. From zero cornea donations in the early years, we now average 150–200 donations annually, with more families proactively reaching out to donate. Eye donation has become a widely accepted and recognized cause in Gurugram, thanks to consistent awareness activities during Eye Donation Fortnight, ongoing media coverage, and community mobilization. Surveys across North India indicate a clear decline in public unawareness as a barrier to donation—a shift that we are proud to have helped lead. As a recognized training centre, Ahooja Eye and Dental Institute (AEDI) has also contributed to system-wide capacity building by training technicians from over 20 Eye Donation Centres (EDCs), helping strengthen the eye banking ecosystem beyond our immediate geography.

The journey, however, has not been without obstacles. Some awareness campaigns struggled to gain traction, and the COVID-19 pandemic posed unprecedented challenges, reducing nationwide eye donations from 65,000 in 2019 to just 17,000. In response, we launched virtual initiatives like “Step Up for Vision 2021” and re-energized efforts with public campaigns such as the Runathon 2023, with more outreach planned in 2024 (Figure-1,2). Leading Niramaya has been a transformative experience—not only for the patients we serve, but for all of us involved. From grieving families who chose to give the gift of sight, to selfless volunteers like our Drishti Mitras, we have witnessed the extraordinary power of community compassion. What began in a city with no eye bank has become a model of community-driven eye donation, now working toward corneal blindness-free zones and contributing meaningfully to India’s national blindness elimination goals. It has truly been a journey where science, service, and humanity come together to restore sight (Figure-4).



Figure 4: The faces behind the gift of sight



Acknowledgements

I extend my heartfelt gratitude to all who have supported the Niramaya Eye Bank mission over the years. Special thanks to the late Shri Y. P. Mahindru, whose vision and generosity laid the foundation for our work, and to Shri Ashok Mahindru and the Mahindru Foundation for their sustained financial backing and active involvement in public awareness initiatives. I am equally grateful to my co-founders and volunteers at Niramaya Charitable Trust, whose commitment and shared vision gave shape to this endeavor.

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I remain profoundly grateful to our dedicated eye bank staff and the many Drishti Mitra volunteers whose tireless service made every donation possible. I also thank our institutional partners—AIIMS New Delhi, PGIMS Rohtak, and others—who helped ensure that every cornea we collected reached a patient in need. Above all, I honor the donor families and individuals whose selfless acts continue to restore sight and transform lives. You are the true heroes of this journey.

Conflicts of Interest

The author is the Co-Founder and founder of Niramaya Eye Bank, which operates within the premises of Ahooja Eye and Dental Institute, Gurugram. However, there are no financial conflicts of interest to declare. This article is written in the spirit of knowledge-sharing and does not promote any commercial products or services.

Abbreviations

- AIIMS – All India Institute of Medical Sciences (New Delhi, India)

- EBAI – Eye Bank Association of India
- HCRP – Hospital Cornea Retrieval Programme
- NGO – Non-Governmental Organization
- NPCB – National Programme for Control of Blindness (Government of India)
- RWA – Resident Welfare Association (community organization)

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