Tilganga Institute of Ophthalmology (TIO) is the implementing body of the Nepal Eye Program, a not-for-profit, community-based, non-government organization. Support the prevention and control of blindness in Nepal and beyond.
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TIO aims at building a robust and capable organization that is not only providing a successful model for eye health service delivery, but also producing quality product and an example of best practice in administration, finance, public relations, fundraising, human resources and information technology.

We express gratitude from bottom of our heart to the TIO’s national and global partners for immediate relief support and medical assistance and donations.

Donors have significantly contributed to TIO-activities. It is due to their support – technical and financial, that TIO has been able to undertake all the various programs so effectively. We also have a very high appreciation of the co-operation extended by our partner organizations. We would like to request our partner organizations to continue that support to help us consolidate the works undertaken in the broad interest of eye-health. Especially, we would like to express our sincere gratitude to Fred hollows Foundation, AusAid, Himalaya Cataract Project, IAPB; Standard Chartered Bank(SiB), Vision Himalaya Foundation, New Vision, London Vision Center, All for Charity, JK Eye Centre, Druk Foundation Nepal, Anand Sangh Nepal, Joy Foundation and local partners for your continuing support.

The bond between the Institute’s personnel - medical, management, technical and administration has been helpful in making the TIO effective in the delivery of services. It is their teamwork that has contributed to the institutionalization of TIO. The sense of partnership and close relationship between management, unions and employees has been a key factor in improving both the Institute as a workplace and making the service-delivery efficient and effective.

Patients, whom we have served, have been the source of inspiration and indicators for our success. It is because of their valuable feedback that we, at TIO, have been able to develop a culture of a humanistic approach to medical care for the eye-health sector. We are very grateful to our valued patients for their feedback and suggestions that enable us to improve the quality of service.

Prof. Dr. Sanduk Ruit, MD, FRACO
Executive Director
MESSAGE FROM CEO

Year 2018 was another very promising year for the Institute with the regular increment in department wise activities, and outputs were highest ever recorded. Tilganga being a national referral centre is serving patient with best quality and affordable services, this has further opened new and exciting opportunities as a growing organization. We are not just a service provider – the eye health community looks to us. These measures continued throughout the year and the co-operation and involvement of all staff was much appreciated. We are a regional centre of excellence, a renowned education and training facility, a world-class Ophthalmic research Institute and a state of the art IOL manufacturer. It is important therefore, that TIO continues to set the best example across the business spectrum.

We have been working hard in 2018 and I am pleased to report the following:

- The Management Group has spent considerable time discussing and formalizing and strengthening strategic direction and department wise action plan 2018 onwards.

- Stable financial performance with small increases in overall revenue and expenditure.

Through this institutional strengthening, we aim to build a robust and capable organization that is not only providing a successful model for eye health service delivery, but a model for best practice in Administration, Program Management, Finance, Public Relations and Fundraising, Human Resources, and Information Technology.

We express gratitude from bottom of our heart to the TIO’s national and global partners for their immediate continue support assistance. As well as all the NEP Board of Director and employees for their guidance and tireless effort to manage.

I hope you can join with me in supporting this approach as we move to holistically develop TIO’s capacity in the coming years.

Dr. Reeta Gurung, MD
Chief Executive Officer
Tilganga institute of ophthalmology is been providing quality and affordable services to patients referred from across the nation and beyond. Having nine different subspecialty services at Surgi-centre, patient visit is growing 9-12% every year. In year 2018, a total of 2,70,336 patients were examined and treated at hospital OPD and 22,035 major operations were performed.

1.1 Base Hospital Clinical Intervention 2018

In the year 2018 A total of 2,70,336 (1,37,056 Males and 1,33,280 Females) were treated from the base hospital of Tilganga Institute of Ophthalmology. That includes a total of 2,15,045 (1,08,134 Males and 106911 Females) were treated through general outpatient services.

A total of 47,236 (23,329 Males and 23,907 Females) were treated through Extended Clinical Services, and 8,055 (5,5936 Males and 2,462 Females) were treated through emergency services. Compared to previous year 7% more patient were treated this year.

Disaggregated Analysis of OPD: During the year 2018 Surgi center provided eye care serviced to a total of 2,70,336 (1,37,056 Males and 1,33,280 Females). That consists of 50.24% of Male and 49.76% are female patients.

Above 38% of total treated patient were child and elderly people above 60 years of age and remaining 62% were adult, which also regarded as productive age group.
CUMULATIVE DATA OF OPD AT TIO SURGI CENTRE

Sub-Speciality Clinic patient treated: Tilganga has provided super-specialty eye care services to 68,513 (36,150 Males and 32,363 females) at various units of Retina, Glaucoma, Cataract, Cornea, Occuloplastic, Uveitis, Neuro-ophthalmology, Pediatric, Ocular Oncology with state of art facility. There is also an extended clinic in the afternoon for people who could not manage to visit hospital in morning general service hours.
1.2 Base Hospital Surgery Details

Surgi center gets thousands of referral cases from every part of country, for advance eye care and surgery services, A total of 22,035 (11,361 Males and 10,674 Females) surgeries performed in the year 2018.

As Cataract Surgeries has been very successfully operated across the country. Of the total surgery operated at surgi centre 49.76% were female patients and 50.24 were male patients. Other eye disease like retina, cornea, glaucoma incident are emerging rapidly every year.
CUMULATIVE DATA OF SURGERY AT TIO-SURGI CENTRE:

Tilganga’ has been expanding its community services, developing and collaborating partnership and training event with hospitals the country, it has been receiving thousands of referral surgery cases which is increasing every year.

Tilganga has prioritized to strengthen super specialty services at base hospital so super specialty services under Retina, Cornea and Refractive, Glaucoma, Oculoplastic, oncology, neuro-ophthalmolgy Strabismus and Lasik services are provided in state of art facility from specialists round the year.
COMMUNITY EYE CARE PROGRAM
(CEC/CEH)

In the year 2018 a total of 3,63,347 (1,68,393 Males and 1,94,954 females) patients were treated from community Program at CECs and Community eye hospital at Hetauda. That includes a total of 1,76,309 patients were treated at CEC/CEH OPD, whereas a total of 1,87,038 patients were treated at outreach in community screening, school screening and Satellite at CECs and CEH.

2.1 Outreach Microsurgical Eye Clinic Details 2018

Total 35 OMEC Camps were conducted in the year 2018 amongst them 30 National OMECs, 5 International OMECs screening program screened over 55,896 patients. total of 8406 cataract surgeries and 73 other surgeries were conducted at OMECs. As a part of technology transfer and promotion or TIO brand at international arena 5 OMECs were conducted in India and Cambodia.

<table>
<thead>
<tr>
<th>OMEC</th>
<th>#OMECs</th>
<th>Screened</th>
<th>Surgery</th>
<th>Minor</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>30</td>
<td>51,643</td>
<td>5,729</td>
<td>70</td>
</tr>
<tr>
<td>International</td>
<td>5</td>
<td>4,253</td>
<td>2,677</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
<td>55,896</td>
<td>8,406</td>
<td>73</td>
</tr>
</tbody>
</table>

Outreach Microsurgical eye clinics are conducted in rural and difficult terrain so as to reach the most marginalized (socially, culturally & geographically) and needy population. Eye health statistics suggest that there is high prevalence of blindness in woman, so these OMECs are conducted so as to provide services to targeted population on women and elderly people. Amongst the total cataract surgery operated during OMEC 55%
above are female. So OMEC programs have been very supportive to provide equity services by reaching to marginalized ones, and do justice on disparity seen on blindness and visual impairment prevalence and service user rate in women, child and elderly people.

2.2 District Eye Care Program:

16 Community eye center located at community conducts screening, refraction, minor surgery, referral, and awareness and promotion activities of eye care service in rural communities. Periodic community outreach screening program through its OPD at Centre and through Outreach programs (Satellites/Screenings/School Screenings). In the year 2018 a total of 2,16,897 (98,020 Males and 1,18,877 female) patients were treated through 16 District Community Eye center.
### COMMUNITY EYE CARE PROGRAM INTERVENTION AT DISTRICT LEVEL

<table>
<thead>
<tr>
<th>Year 2018</th>
<th>Centre</th>
<th>Outreach Screening</th>
<th>G. Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Community &amp; satellite</td>
<td>School screening</td>
</tr>
<tr>
<td></td>
<td>CECs</td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>1</td>
<td>Dhading</td>
<td>6,191</td>
<td>8,369</td>
</tr>
<tr>
<td>2</td>
<td>Nuwakot</td>
<td>6,252</td>
<td>6,888</td>
</tr>
<tr>
<td>3</td>
<td>Bhaktapur</td>
<td>9,293</td>
<td>11,015</td>
</tr>
<tr>
<td>4</td>
<td>Solu &amp; Jalpa sat.</td>
<td>2,281</td>
<td>2,875</td>
</tr>
<tr>
<td>5</td>
<td>Ramechhap</td>
<td>2,999</td>
<td>3,740</td>
</tr>
<tr>
<td>6</td>
<td>Dolakha</td>
<td>871</td>
<td>976</td>
</tr>
<tr>
<td>7</td>
<td>Charikot</td>
<td>3,169</td>
<td>4,643</td>
</tr>
<tr>
<td>8</td>
<td>Manang</td>
<td>322</td>
<td>303</td>
</tr>
<tr>
<td>9</td>
<td>Mustang</td>
<td>874</td>
<td>877</td>
</tr>
<tr>
<td>10</td>
<td>Rasuwa</td>
<td>423</td>
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<tr>
<td>11</td>
<td>Sindhu</td>
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<td>Okhal</td>
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<td>13</td>
<td>Rolpa</td>
<td>2,202</td>
<td>2,753</td>
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<tr>
<td>14</td>
<td>Swyambhu</td>
<td>2,847</td>
<td>3,716</td>
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<tr>
<td>15</td>
<td>jiri</td>
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<td>1,568</td>
</tr>
<tr>
<td>16</td>
<td>Melamchi</td>
<td>1,627</td>
<td>1,694</td>
</tr>
</tbody>
</table>

**Total** 45,304 | 57,054 | 102,358 | 21,098 | 27,762 | 31,618 | 34,061 | 98,020 | 118,877 | 216,897
PATIENT TREATED FROM VARIOUS SETUP AT COMMUNITY EYE CENTER

Increment is seen in patient treatment in 2018 compared to succeeding year. This high increment is also seen due to the large scale school screening program conducted in Communities. Extensive Community and school screening program were conducted in communities prior to OMEC surgical camps.
2.3 Hetauda Community Eye Hospital (HCEH)

Hetauda Community Eye Hospital has been providing eye care services (Screening, treatment and surgery) through base hospital located in Hetauda city of makawanpur district and through its 3 eye centre located at rural region (Chhatiwan Manohari, and Palung) of Makawanpur district. In year 2018 a total of 90,554 patients were examined and treated from base hospital and outreach activities and operated 4,005 surgeries including hospital and outreach surgical camps.

2.3.1 HCEH Hospital OPD services: HCEH is a secondary level eye hospital located at terai region of makawanpur district having catchment area in districts of Chitwan, Parsa, Bara, Rauthat, Sarlahi, Mahotari, Dhanasu, Sindhuli, Kabre. During year 2018 a total of 73,951 patients were examined and treated at hospital.

2.3.2 HCEH Outreach Services: In 2018, a total of 47 eye camps were conducted in communities resulting in examination and treatment of 16,603 patients across the 9 different districts in the Nepal Central Region; in Chitwan, Parsa, Bara, Rauthat, Sarlahi, Mahotari, Dhanasu, Sindhuli, Kabre. 3 Outreach Micro surgical clinics were organized and above 1261 Surgery. A total of 1754 free Cataract surgeries were performed at these camps.
FH-IOL production lab is an integral part of Tilganga Institute of Ophthalmology; The Fred Hollows IOL Laboratory is an internationally recognized manufacturing facility, dedicated to Eradicate blindness through manufacturing and distribution of high quality IOLs and allied products at affordable price serving to national and global community, which produces high quality intraocular lenses that are sold not only in Nepal, but to various countries around the world. Commissioned in 1995 with funding from the Fred Hollows Foundation in Australia, and designed and constructed by engineers and technicians from New Zealand, Australia and Nepal, the laboratory guarantees the highest quality manufacturing facility and a finished product that matches world-class standards. Products of FH-IOL have been sold over 70 countries of the world. Till now 5.3 million people are seeing the world with our lenses. Having started production of PPMA Intraocular Lens in 1995 at current location on small scale, FH IOL Laboratory is currently producing around 0.5 million lens per year out of which Foldable (hydrophilic) lens accounts for around 60% and PMMA Intraocular Lens accounts for around 40% of total Lens with 4 PMMA lens producing machine and 7 Foldable lens producing machines. Trial production of Hydrophobic & Yellow Aspheric Lens is successful; sample production is on-going for testing purpose of CE registration. FH-IOL is also working for contact manufacturing of ophthalmic surgical knives and tear stripes. As well as FH-IOL is going to expand its production capacity by adding following facilities.
LAB OVERVIEW

- Currently, FHIOL lab has total of 12 machinery for producing lens.
- The FH-IOL Lab is quality Certified with ISO 13485, and CE.
- Lab is operated with compliance of the code of Good Manufacturing Practice (GMP).
- Guaranteed by a comprehensive system of Standard Operating Procedures (SOPs) covering all areas of production:
  - Quality Control,
  - Quality Assurance,
  - Facility design,
  - Equipment Maintenance and
  - Order processing.
- The FH-IOL manufacturing facility is certified class 7 and class 5, clean rooms.
- Basic raw materials are Produced and imported from U.S.A. and United Kingdom.
- Primary packaging materials are produced, imported from Italy & New Zealand
- Equipped with the latest innovation in computer numerical controlled lens production equipment, including automatic loading, lathing, turning and milling.
- Our machines/equipment for Production, Cleaning, and Sterilization are world renowned brands from the USA and Europe.
- First IOL manufacturer in the South Asian region to receive MDD 93/42/EEC (CE Mark) Certification from SGS in the United Kingdom.
- Meets specifications and quality as equivalent to Europe & USA make IOLs.
- Equipped with Highly qualified production staffs and Technicians.

These meets international Standards of GMP for the manufacture of intraocular lenses and are guaranteed by a comprehensive system of Standard Operating Procedures (SOPs) covering all areas of production, Quality Control, Quality Assurance, facility design, equipment maintenance and order processing.

PRODUCT OVERVIEW

The FH-IOL produces under class 7 and class 5 certified clean rooms.
- Manufactured from clinical grade UV absorbing Poly-HEMA material.
- Smooth well centered implantation with perfect folding and unfolding performance.
- Non Ionic nature of the material ensures resistance to deposits.
➤ Low incidence of Posterior Capsular Opacification.

➤ Allows a smaller incision that leads to faster post-operative visual recovery and a smaller degree of residual astigmatism.

➤ Better corrected visual acuity and a better social and mental Quality of Life for the patient.

PRODUCTION AND SALE 2018:
FH IOL Lab total production and sales during the year 2018 has increased compared to year 2017. During the year 2018, The FH IOL Laboratory has produced PMMA lenses, Foldable lenses along with CTR of different models. Manufacturing output has been standardized and distributed depending on the available stock of IOLs and market need and supply chain.
During this year, due to high demand and quality of surgical outcome of foldable lens use, its production has been scaled up where has the ration of production of PMMA lens is lowered due to shift in demand of product. The production facility produced a total of 212,457 units of PMMA lenses and a total of 174,114 units of PMMA lens were sold. 62% more PMMA lenses were produced in 2018 compared to year 2017.

Similarly a total of 110,411 units of Foldable lens were produces out of which a total of 107,059 units of foldable lenses have been sold in 2018. Considering the stocks of foldable IOLs and demand, total production in year 2018 was lowered to clear succeeding year's stock.

**PRODUCTION AND SALES SINCE INCEPTION OF IOL PRODUCTION FACILITY**

Since inception of IOL production facility in 1996, total of 5.635 Million of IOLs have been produced and above 5.31 Million have been sold in national and international market in over 60 countries. 94.21% of the total produced IOLs has been delivered and utilized, helping millions of people to see the world adding socio-economic value in society and enhancing quality of life across the world.
Academic and training department is dedicated to develop National Human resource in ophthalmic care. Every year hundreds of ophthalmic human resource developed through MD in ophthalmology, Ophthalmic Assistants, Bachelor of Optometry, and fellowship academic program. Under training activities it provides training to eye doctors, ophthalmic assistants, optometrist, Medical student and nurse, paramedics, community eye care managers, community health volunteers on various short term, modular and long term training.

This year a total of 1534 ophthalmic personnel were attended the Academic and training program. That includes 68 personnel (9 MD residents, 8 Bachelor of optometry, 40 Ophthalmic Assistants, 11 Fellowship to Ophthalmologists) enrolled in Academic Program. Similarly a total of 40 ophthalmologist trained in Modular training for ophthalmologists, 63 health personnel trained in Modular Training for Allied Health Personnel - Hospital Based, a total of 833 Community health volunteers were trained in basis eye care training, a total of 27 students were trained in Elective Students from overseas and total of 472 Nursing and other health care students were trained, 2 ophthalmic equipment management and 1 OMEC Management training.

![Total of 1,534 eye care personnel completed Academic and Training program in 2018](image-url)
**Academic Program:** TIO continues to offer a MD residency program in partnership with the National Academy of Medical Sciences. A total of 9 Residents were enrolled in this year of 2018. Further 11 Fellows were enrolled and completed fellowships in Medical Retina, Glaucoma, Pediatric, Vitreo-Retina and Oculoplasty sub-specialties. Beside this in the Academic course of Bachelor of Optometry and Ophthalmic Assistants which play a vital role as Midlevel ophthalmic person in community and hospital setting. Under this program a total of 40 students in OA and 8 students in B. Optometry are enrolled.

**Modular Training for Ophthalmologists:** The TIO Surgi-centre excels in developing and/or adapting surgical techniques and management systems for outreach programs and eye care facilities. A total of 12 surgeons from Nepal and abroad were trained in cataract surgery (SICS & Phaco surgery) and a total of 28 surgeons were trained in Cornea Keratoplasty, Pediatric, IndoDcr, Retinopathy Management, Retinal Laser and Glaucoma.

**Short Term Training for Allied Health Professionals:** A total of 63 trainees underwent short term training, that includes 25 ophthalmic theatre Nursing, 8 in Ocular Regional anesthesia, 2 in Eye Banking and Management, 6 in refraction, 2 in Ophthalmic Investigation, 3 in Low Vision & contact lens, 12 in Optometry internship, 5 in optical fitting were trained in year 2018.

**Community-based training:** To provide eye care services and reach the unreached population local level eye health service and referrals need to strengthen. Health volunteers at local level plays crucial role on screening of eye problems and referring needy patients for eye care. It is equally essential to train and built basic eye care screening capacity of local volunteers. Every year, this has been done by providing training for Female Community Health Volunteer (FCHV), School teachers, traditional healers and drug retailers. During year 2018 a total of 883 communities health volunteers were trained that includes 547 school teachers and 336 FCHVs at community level.
**Exposure Training:** TIO offers clinical exposure as an elective for paramedical and medical students from national and international colleges. In 2018, 472 elective students got exposure training that includes 27 Elective Medical students and 445 nursing and other health care students.

**Management and others:** During year 2018, 1 personnel in Ophthalmic Equipment Maintenance and 7 in OMEC Management training were trained.
The research activities at TIO are prioritize to carry out so as to deliver service backed by research and innovation which mainly focused on clinical, public health and basic research. Research Department believes that it is only constant research that would keep our service at forefront and prepare us for the emerging challenges of tomorrow.

5.1 Research Projects

During year 2018, and 12 long and short term research projects is completed and 28 long and short term research project are ongoing. Total of 19 research papers published Some Papers have accepted for publication and some are still in the process of peer review.

LONG TERM PROJECTS

I. **Jiri eye Study (JES)**: Jiri eye study has been started from October 2014 with collaboration with Texas Biomedical Research Institute.

II. **Clinical Trial of the Femtosecond Laser System VisuMax® for Refractive Correction of Hyperopia by Means of Lenticule Extraction**: The Visumax software for treating hyperopia as a small incision lenticule extraction (ReLExSMILE) was installed by Carl Zeiss Meditec on 21st may 2014. In ReLEx® the VisuMax femtosecond laser creates two interfaces that define a refractive lenticule of stromal tissue. In ReLEx® smile, the lenticule is dissected and removed through a small 2-3mm incision without the need to create a whole flap unlike ReLExFLEx or LASIK.

III. **Congenital Rubella Syndrome Surveillance (CRS)**

In collaboration of Government of Nepal, Child Health Division, WHO and TIO, Congenital Rubella Syndrome Surveillance program has been initiated from August. One orientation meeting for all staffs of TIO, one steering committee meeting and one working committee meeting were held in 2018 which is ongoing in 2019.
IV. Agreement of diabetic retinopathy screening Using fundus photographs by allied medical professionals as compared to retina specialist in Nepal.

The study can help to assess the ability of allied medical professionals (paramedics) for DR grading in Nepal. This will be useful for DR screening in a large volume of diabetic cases in various health facilities and referral of vision threatening retinopathy for further investigation and management at referral eye centre. This study will also provide guidance in integrating DR screening in a public health system of Nepal for sustainable DR screening. Trained Allied medical professionals working in diabetic physician clinics of Bir Hospital, Patan Hospital and Gangalal National Heart centre in Kathmandu will be involved in this study. The fundus photographs will be used for screening and grading of diabetic retinopathy. Ophthalmologist involved in grading will be the retina specialist working at TIO, research activities is completed in 2018.

V. Effectiveness of mobile message (SMS) and phone calls to improve referral system of the diabetic patients’ from Diabetic Retinopathy screening sites to the tertiary eye care centre of Nepal.

The patients diagnosed with diabetes at physician clinic and screened with fundus photography at different centers of TIO’s screening centres for diabetic retinopathy namely, Shahid Ganga Lal Heart centre, Patan hospital, Birhospital, Bhaktapur community eye centre Hetauda community eye hospital.

The study will help to assess how SMS and phone calls could serve as a tool for management and follow up of diabetic retinopathy cases from wide health system to eye care centre, research is ongoing in 2019.

V. Assessment of Knowledge, Attitude and Practice on diabetic eye diseases among health professionals

This research is planned to commence from May 2016 and completed by 2018. Dr Eli Pradhan is the Principal investigator of this project.

As there is lack of KAP study on DR amongst physicians and paramedics in our country, this study will help to assess and improve the awareness of diseases among physicians and paramedics through training as well as by implementing national protocol for referral system, study is ongoing and will be completed in 2019.

VII. Assessment of Knowledge, Attitude and Practice regarding Diabetic Retinopathy among diabetic population

This research is planned to commence from May 2016 and completed by 2017. Dr Sanyam Bajimaya is the Principal investigator of this project.
This KAP Study will help to find out the level of awareness of the disease and its consequences among diabetic patients. This study will further contribute to prevent the future consequences and complications including diabetic retinopathy leading to visual impairment and blindness, study is completed.

Refer to Annex A for details of Short term Projects

**ACADEMIC RESEARCH**

Research is the one of the components of academic requirement to understand the real situation for clinical management of the clinician. MD resident should conduct one research project within their academic course. Usually they conduct clinical based research within clinical settings of the TIO. The most of the research is run prospective.

**The following Six academic researchers were completed on 2018 as follows:**

1. Choroidal melanoma our experience: a case series.
2. Spectrums of Lacrimal Gland Tumors: A comprehensive clinicopathologic review of 19 lesions with their management.
3. A Non-Randomized, Open-Label Study to Evaluate Smartphone-based Teleophthalmology at Remote Screening Camps in Nepal using the Paxos Scope system
4. Acute endophthalmitis after intravitreal Bevacizumab injections at the tertiary centre in Nepal.
6. Clinical outcome of reconstruction of lacrimal canalicular laceration with monocanalicular intubation system
7. Retinoblastoma: Changing trend in a Tertiary Eye Centre

**1.2 Papers publications:**

Publication is one good way of communicating our findings and results with the scientific community. It increases the utilization of research findings to provide an excellent service as well as knowledge management. In 2018, Tilganga Institute of Ophthalmology also connected with the ophthalmic world through the publication of Papers in national and international indexing journals.

A total of 19 papers were published in 2018.

Refer to Annex B for details of research paper published
Corneal related disease has been increasing every year, so as to address the growing need of eye banking services, Eye bank prioritized expansion of service coverage and strengthen human resources. In the year of 2018 various IEC and promotional materials were produced and distributed to aware people on importance of donating cornea after death.

Expansion and capacity development of Nepal Eye Bank was major priority during 2018. 4 cornea recovery centers have been established outside Kathmandu valley in Biratnagar, Mechi, Bharatpur and Hetauda eye hospital. At these facilities and at NEB, 21 Eye bank technician and clinical person have been trained in 2018 under DSAEK pre-cut tissue, eye recovery, and GEMS (Global Eye Bank Management System). 850 preservative Media are purchased for best harvest and utilization of cornea.

During year 2018 eye bank approached 593 donors of which collected 1,178 tissues were collected. Among total collected, 1024 were transplanted or utilized through Eye bank network hospital.

The Eye bank continued with awareness and education programs with and by support of social organizations in different communities along with mass Condolence program with the support of our partner, Himalayan Cataract Project (HCP). Eye Bank has received sight life quality certificate in the recognition of Organization’s Quality System and Eye Bank Processes (Donor Eligibility, Tissue Recovery, Processing, Storage, Tissue Evaluation and Distribution) which comply with Sight Life Partner Standards (SPS).
Information Technology (IT): Electronic Medical record system management.

Data/information Centre at TIO has been upgraded into web based system, with purpose of providing efficient and compatible medical record handling and use of information. This web based EMR has been fully implanted by year 2018 at base hospital and in 6 Community eye centers. Since EMR is centralized and connected to main server each patient visiting at CECs, CEH or at TIO base hospital is recorded with unique number that can be traced and identified from anywhere in TIO service delivery system. So this has immensely helped to refer, get patient history, timely and routinely consultation to the patients. By year 2019 all the community program will be connected through web based EMR system, thereby opening a new dimension to record, manage and use data for research, planning and development purposes.

During year 2018 above more than 20 different series of orientation and live demo session has been provided to EMR users and regular hands on training is also provided to users at CEC, CEH and at TIO.

LIBRARY SERVICES:

The TIO library has been developing and improving its core services and quality output from couple of years. The following is an account of the activities of the library staff in serving our clients’ needs.

The following is an account of the library activities during this Period -

- Newspapers and magazines were only purchased.
- Shifted multiple collections to improve access for users according to library Classification scheme.
- 14,300 visitors visited in the library.
- More than 5,100 books were issued to library members.
- Library processed over 2,640 renewals.

LIBRARY SERVICES

- Reference Assistance
- Reader’s Advisory
- Computers with Internet & Microsoft Office
- Free Wireless Internet
- Scanner
- Reprography
- Access to online databases Hinari, Pub Med
## LIBRARY OVERVIEW

<table>
<thead>
<tr>
<th>Library education materials</th>
<th>Library logistics and management devices</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Books</strong></td>
<td>● 6 Computers</td>
</tr>
<tr>
<td>▪ 2271 Books and other printed materials</td>
<td>● 1 CCTV; 4 Cameras</td>
</tr>
<tr>
<td>▪ National Regular journals (KUMJ)</td>
<td>● 1 Photocopy machine with printer</td>
</tr>
<tr>
<td>▪ 43 Thesis</td>
<td>● 2 Gloves</td>
</tr>
<tr>
<td></td>
<td>● 3 Scanner</td>
</tr>
<tr>
<td><strong>Non book materials</strong></td>
<td><strong>Furniture</strong></td>
</tr>
<tr>
<td>95 CD, 150 DVD, 50 Cassette,</td>
<td>50 chairs, 4 stack racks, 4 reading racks, 3 tables (1 for Librarian and 2 for Readers), 3 wooden cupboards,</td>
</tr>
</tbody>
</table>
NEPAL EYE PROGRAM MONITORING

Nepal Eye Program monthly and quarterly monitoring and evaluation meeting were conducted to review the progress against agreed activities, outputs and its budget implication. Meetings primarily focused on implementation of strategic action plan and its output and see alienation with agreed program activities between Nepal Eye Program (TIO) and Social Welfare Council (SWC). Monitoring and Evaluation Division in coordination with program department and implementing team reviewed and evaluated activities/outputs based on equity, cost effectiveness, target beneficiaries. Based on discussion adjustment were made on activity implementation methods, target location, and coordination were revisited. Regular, periodic and flying monitoring visits were conducted for mentoring and supervision of Community eye care programs, located in rural regions.

Senior management and executives have been very supportive to implement the program at center and at community level weekly, monthly meeting were organized to mitigate income priority and various risks, challenges were discussed and solution were proposed and implemented in the best interest of service beneficiaries.

Program/Project management (M&E) team conducted monitoring and supervision visits of Community eye care program in month of April, August, November and December of 2017. During the visit team reviewed the overall performance of NEP-TIO CECs on agreed projects activities. With developed checklist team reviewed and mentored CEC over clinical, administration, financial, training, management & coordination, advocacy & awareness activity, record keeping and its management. On the base of these findings annual monitoring & supervision report findings were produced and shared amongst project stakeholders.
LOCAL COORDINATION AND COLLABORATION

Community and center level activities are conducted in coordination with Social welfare council and government line ministries at central level and at local level various CBOs and NGOs are collaborative partners. Advocacy and coordination meetings such as, Central Project advisory committee meeting (CPAC), local level advisory committee meetings (DPAC), and stakeholders meeting are organized. At the meeting, progress and plan of community program are presented and discussed. Discussion is held on program expansion, quality of services, issues, challenges and opportunities, sustainability of the services. Based on discussion, decisions are taken and minute notes are documented and followed up to make services more effective in reaching to unreached population.

COMMUNITY EYE PROGRAM REVIEW AND EVALUATION

Tilganga Institute of Ophthalmology, Outreach Department conducted 2 days annual review meeting at Tilganga. Meeting was held on 3 different phased in month of February 2019. Above 40 participants from community eye center Management team (chairperson and in-charge), and all the departments of TIO participated in the program. Meeting focused on reviewing of 2018 activity and activity and budget for year 2018 and focused on issues and challenges faced during project implementation. During meeting CEC annual activity plan and budget for year 2019 was finalized with discussion for detail implementation plan.
DR. RUIT BECOMES THE FIRST NEPALI TO RECEIVE NATIONAL ORDER OF MERIT FROM KING OF BHUTAN

Prof. Dr. Sanduk Ruit was honored with National Order of Merit, Gold at the Royal Palace by the king of Bhutan Jigme Khesar Namgyel Wangchuck for his contribution towards eye care development in Bhutan on the 108th National day of Bhutan.

TILGANGA OBSERVED REX'S MEMORIAL

Tilganga observed Rex's memorial. Everyone’s heartfelt appreciation for all the hard work and dedication that Rex put in to help make Tilganga the place it is today. He was a well respected and well loved by all employees and board of Directors. He passed away on 16 December, 2017.

INDIAN PRESIDENT PRESENTS PADMA SHRI AWARD TO DR. RUIT

President of India, Ram Nath Kovind presented the Padma Shri award to Prof. Dr. Sanduk Ruit On the occasion of 69th Republic Day of India. Prof. Dr. Ruit has been introduced as “game changer in restoring the vision of the poor, through low-cost cataract surgery. Dr. Ruit, whose innovation in the 1980s led to a 90 percent reduction in the cost of cataract eye surgery, provides low-cost cataract surgery lenses to over thirty countries. Treating 5,000 patients every week, fees are waived off for
those who cannot afford and in over 30 years has restored the eyesight of 1,50,000 people across Asia and Africa and reached out to blind people who could not make it to Kathmandu, by trekking himself to those areas.”

Padma Shri Award is considered as one the prestigious civilian awards presented by the government of India.

**GLAUCOMA SYMPOSIUM**

Tilganga Institute of Ophthalmology and Cure Glaucoma has organized the Symposium on minimally invasive glaucoma surgery (MIGS) on 29<sup>th</sup> to 31<sup>st</sup> Jan, 2018 in TIO.

**SAARC ACADEMY OF OPHTHALMOLOGY CONGRESS IN KATHMANDU**

Fourteenth Biennial SAARC Academy of Ophthalmology Conference 2018 and 20th Nepal Ophthalmic Society Annual meeting was held in Kathmandu from June 21 to June 24 with the theme ‘Vision Beyond Borders’.

SAO is an assembly of ophthalmologists from eight countries in south Asia and is recognised by the governments of SAARC countries. The conference was focused on the latest updates on ophthalmic innovations and technology, evidence-based practices in various sub-specialties of ophthalmology.

Over 600 participants including doctors, experts, researchers and scientists from more than 24 countries has taken part in the conference. Experts from the USA, the UK, China, Japan, Canada, Germany, Russia, and Singapore among others were presented papers during the conference.
DR. REETA RECEIVED THE AWARD ON EVENT AT COUNCIL OF MEMBERS MEETING 2017 IN KATHMANDU, NEPAL, ON 17-18 SEPTEMBER.

Chief Executive Officer Dr. Reeta has been awarded as an Eye Health Hero by International Agency for the Prevention of Blindness. Dr Reeta oversee programmes and management. She worked as a Deputy Medical Director. Since 2013, her role as Chief Executive Officer.

THE SECOND MOU BETWEEN NEPAL EYE PROGRAM (TILGANGA INSTITUTE OF OPHTHALMOLOGY) AND NABIL FOUNDATION

Dr. Reeta Gurung (Chief Executive Officer) of TIO and Mr. Dayaram Gopal Agrawal (Chairman of Nabil Foundation) signed the MoU today on 25th September 2018.

The Memorandum of Understanding has been renewed between Nepal Eye Program, Tilganga Institute of Ophthalmology (NEP/ TIO) and Nabil Foundation to provide financial support to patients seeking corneal transplantation. It is expected to benefit people deprived of sights due to a cornea problem who otherwise cannot afford the cornea transplant surgery.

The first MOU was signed in March 2018.

WORLD SIGHT DAY

Tilganga Institute of Ophthalmology (TIO) has celebrated World Sight Day (WSD) with different activities on 11th of October, 2018. On WSD and weekly event of WSD TIO/Outreach Microsurgical Clinic (OMEC) a total of 875 Patient treated and a total of 144 surgeries performed free of cost in OMEC.

TIO Base Hospital On the day of WSD 2018, TIO provided free of cost registration for new and old patients. This targeted all the children under the age of 14 and aged people of equal and above 60 years of age. Around 500 Patients (201 males and 299 females) benefited. Banner Display at Hospital premise and set up a stall and distributed existing Information, Education and Communication (IEC) Materials. TV-Newspaper-Online Media exposure activities conducted on Prevalence of Blindness and
Eye health problems and programs (Press Note and Individual Doctor Wise interview). Public Service Announcement (PSA) regarding Refractive Error and Gender perspective has produced and telecasted 3 times (Normal, Prime and Super Prime Time) on 10th and 11th October through National Television Nepal Televison.WSD related Interview aired through different TV and Radio Program. Radio PSA was produced and aired through 16 Radio Network stations across Nepal. On 8th to 12th October 2018. TIO’s social media (Facebook and Youtube) has created and boosted to Audio/Visual PSA for 3 days. More than 50 Print, Broadcast and Online Media has covered the news.

IN COMMUNITIES –HETUADA COMMUNITY EYE HOSPITAL (HCEH) AND 16 COMMUNITY EYE CENTER (CEC) IN 13 DIFFERENT DISTRICTS

Free registration service provided to patients aged below 14 and above 60 on 11th of October, 2018. TIO marked WSD week in the communities with two different OMEC in the border of Okhaldhunga /Sindhupalchowk and Palungtar, Gorkha. Organized eye camp in Dolakha CEC. In both OMEC a total of 144 patients benefited from free cataract surgery. HCEH-CECs displayed banner and distributed IECs materials to patients. Organized a awareness/advocacy program at HECH/CECs Premise with invitation of local stakeholders (Local Governing authority, Local supporting organization, Press & Media).Radio/FM awareness program were organized at Community Eye Centers. The rally was conducted in Solu, Ramechap and Swyambhu CECs.

PED EYE SYMPOSIUM

Pediatric Eye Symposium was held in Kathmandu to discus ocular diseases in children and exchange skill, knowledge and technology for their effective treatment. The theme of the symposium was Gaining Knowledge for Growing Eyes.

Around 100 experts are participated in the international symposium that draws experts from countries including the United States of America, Canada, Singapore, Bhutan, Bangladesh and Saudi Arabia. The experts shared their expertise and experiences while curing some of the exceptional cases of blindness.

Ministry of Health Dr Pushpa Chaudhary explained various interventions that Nepal government has made to address the problem of blindness. Besides distributing Vitamin A capsules to children across the country to prevent blindness, the government has been conducted several programs to bring awareness among people about childhood blindness and measures to cure it.
WORLD DIABETES DAY

TIO has celebrated world diabetic retinopathy awareness week on 11th November to 16th November. During the week, visitors were informed and educated on the diabetic retinopathy information desk in TIO premises. More than 500 visitors were visited and get information. Visitors were provided information about diabetes and its effect on the eye. The IEC materials were distributed and one to one counseling was provided to 120 visitors (85 Males and 35 Females). Similarly, a public service announcement (PSA) was developed and disseminated on Facebook (social media).

On 14th November, The World Diabetes Day was celebrated worldwide with the slogan of Diabetes concern every family. TIO organized an awareness session at TIO. The session was participated by 71 participants (39 male and 32 female). Similarly, a walkathon was organized by Nepal Diabetes Society on 17th November and TIO participated in this activity. On the same day, a diabetic retinopathy screening program was conducted and 42 diabetic patients have screened for DR.

On the occasion of diabetic awareness month, Hetauda Community Eye Hospital organized a CME program on DR and DM in Hetauda. Total 31 participants (21 male and 10 female) participated where 22 doctors from Hetauda participated. The program was concentrated on the overview of diabetic retinopathy, its management and the advancement in diabetes management.
Mr. Patrick Prichette (Former Senior Vice President, Google and Board Member of Twitter) has observed overall facility of TIO on 12th Nov.2018. He had a meeting with Executive and management team of NEP/TIO.

Ian Wishart CEO, Fred Hollows Foundation has visited at TIO on 15th April 2018 and observed the eye camp in Phulari Eye Camp with meetings.
DELEGATES FROM ESSILOR INTERNATIONAL VISITED TIO

The team including Mr. Hubert Sagnieres, Global Chief Executive Officer of Essilor, Mr. Jayanath Bhuvaraghan, Chief Mission Officer, French writer and Buddhist monk Matthieu Richard visited TIO on December 3rd, 2018.

They observed all the services TIO has been providing. They met with the Executive team of TIO and explored the possibility of collaborations with TIO on Refractive Error treatment in Nepal.


- Tina Balin Berridge, Program Analyst of American Schools and Hospitals Abroad (ASHA) Bureau for Democracy, Conflict, and Humanitarian Assistance (DCHA) USAID and her colleague visited on 26th Feb, 2018.
- Nishara Miles (Senior Media Adviser, Fred Hollows Foundation) and Miranda Wood (Assistant Editor, News Limited Sunday Telegraph on 21st May, 2018.
- Group of University of Wisconsin-Madison (18 persons) 22nd May, 2018.
- 7 visitors from Wen Giving Foundation are visited on 7th March, 2018.
- Colin and Fiona Burman (from Australia) visited on 26th March 2018.
- UK professional Optometrists visit along with past Chairman David Shannon for the AOP (Association of Optometrists) 9th April 2018.
- IT staff of LAICO, Mr. Subburaman Venkatesh on 5th June 2018.
- Angelia Rorison, Communications Manager, accompanied by a professional photographer and longtime donor, John Kernicka on 3rd Dec, 2018.
- Kamal R. Dhakal, PhD Postdoctoral Associate Center for Visual Science University of Rochester, Rochester, New York on 31st Oct, 2018

Other so many guest and visitor have visited at TIO.
## ANNEX A
Details of short term projects

<table>
<thead>
<tr>
<th>SN</th>
<th>Principal Investigator (PI)</th>
<th>Research Title</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dr. Diwa Hamal</td>
<td>Choroidal melanoma our experience: a case series.</td>
<td>Completed</td>
</tr>
<tr>
<td>2</td>
<td>Dr. Diwa Hamal</td>
<td>Spectrums of Lacrimal Gland Tumors: A comprehensive clinicopathologic review of 19 lesions with their management.</td>
<td>Completed</td>
</tr>
<tr>
<td>3</td>
<td>Prof. Suman S. Thapa</td>
<td>A Non-Randomized, Open-Label Study to Evaluate Smartphone-based Teleophthalmology at Remote Screening Camps in Nepal using the Paxos Scope system</td>
<td>Completed</td>
</tr>
<tr>
<td>4</td>
<td>Dr. Anu Manandhar</td>
<td>Natural course of Seasonal Hyper Acute Panuveitis at Tilganga Institute of Ophthalmology</td>
<td>Ongoing</td>
</tr>
<tr>
<td>5</td>
<td>Dr. Eli Pradhan</td>
<td>Acute endophthalmitis after intravitreal Bevacizumab injections at the tertiary centre in Nepal.</td>
<td>Completed</td>
</tr>
<tr>
<td>6</td>
<td>Dr. Anu Manandhar</td>
<td>Clinical profile and treatment outcomes of acute retinal necrosis in a tertiary eye care centre in Nepal</td>
<td>Ongoing</td>
</tr>
<tr>
<td>7</td>
<td>Dr. Raba Thapa</td>
<td>Anatomical and visual outcome following silicon oil removal in rhegmatogenous retinal detachment at a tertiary eye center</td>
<td>Ongoing</td>
</tr>
<tr>
<td>8</td>
<td>Dr. Bhim Bahadur Rai</td>
<td>Pattern and presentation of vitreo-retinal diseases: an analysis of hospital records in a tertiary eye care centre in Nepal.</td>
<td>Completed</td>
</tr>
<tr>
<td>9</td>
<td>Dr. Keepa Vaidya</td>
<td>Pattern of ocular manifestations of pituitary adenoma among patients presenting at the Tilganga Institute of Ophthalmology</td>
<td>Ongoing</td>
</tr>
<tr>
<td>10</td>
<td>Dr. Neha Chaudhary</td>
<td>Pattern of refractive errors in patients with vernal keratoconjunctivitis patients at Tilganga Institute of Ophthalmology</td>
<td>Ongoing</td>
</tr>
<tr>
<td>11</td>
<td>Dr. Triptesh Raj Pandey</td>
<td>Clinical outcome of reconstruction of lacrimal canalicular laceration with monocanalicular intubation system</td>
<td>Completed</td>
</tr>
<tr>
<td>12</td>
<td>Dr. Robert Chang</td>
<td>Development and Validation of a Deep Learning System for Eye Care in Nepal</td>
<td>Ongoing</td>
</tr>
<tr>
<td></td>
<td>Name</td>
<td>Project Description</td>
<td>Status</td>
</tr>
<tr>
<td>---</td>
<td>-----------------------------</td>
<td>-------------------------------------------------------------------------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>13</td>
<td>Dr. Anu Manandhar</td>
<td>SHAPU study</td>
<td>Ongoing</td>
</tr>
<tr>
<td>14</td>
<td>Dr. Srijana Adhakari</td>
<td>Effectiveness of atropine eye drop for the prevention of myopia progression in children.</td>
<td>Ongoing</td>
</tr>
<tr>
<td>15</td>
<td>Dr. Srijana Adhakari</td>
<td>Restoration of visual function via perceptual learning that targets specific brain areas.</td>
<td>Ongoing</td>
</tr>
<tr>
<td>16</td>
<td>Dr. Leesha Shrestha</td>
<td>Outcomes after Descemet’s stripping endothelial keratoplasty in tertiary eye care center.</td>
<td>Ongoing</td>
</tr>
<tr>
<td>17</td>
<td>Dr. Sanyam Bajimaya</td>
<td>Scleral Fixation IOL implantation technique study</td>
<td>Ongoing</td>
</tr>
<tr>
<td>18</td>
<td>Dr. Anu Manandhar</td>
<td>Clinical and demographic pattern of Behcets Disease cases presenting in a tertiary eye center of Nepal.</td>
<td>Ongoing</td>
</tr>
<tr>
<td>19</td>
<td>Dr. Rachana Singh Rana</td>
<td>A Clinical profile on Keratoconus attending at Tertiary Eye Hospital of Nepal – Tilganga Institute of Ophthalmology.</td>
<td>Ongoing</td>
</tr>
<tr>
<td>20</td>
<td>Dr. Purnima Rajkarnikar</td>
<td>Demographics, clinical presentation and management of malignant ocular tumors at a tertiary care hospital in Nepal.</td>
<td>Ongoing</td>
</tr>
<tr>
<td>21</td>
<td>Dr. Hom Bahadur Gurung</td>
<td>Retinoblastoma: Changing trend in a Tertiary Eye Centre</td>
<td>Completed</td>
</tr>
<tr>
<td>22</td>
<td>Dr. Eli Pradhan</td>
<td>Firecracker related ocular trauma during Dipawali in Kathmandu, Nepal</td>
<td>Ongoing</td>
</tr>
<tr>
<td>23</td>
<td>Dr. Ben Limbu</td>
<td>National survey on Retinoblastoma among Nepalese children in year 2019</td>
<td>Ongoing</td>
</tr>
<tr>
<td>24</td>
<td>Dr. Sanjita Sharma</td>
<td>Treatment of large sized macular hole with PPV ILM Peeling with flap reversal n autologous serum</td>
<td>Ongoing</td>
</tr>
<tr>
<td>25</td>
<td>Dr. Poonam Shrestha</td>
<td>Assessment of outcomes of Simple limbal epithelial cell transplantation for limbal stem cell deficiency</td>
<td>Ongoing</td>
</tr>
<tr>
<td>26</td>
<td>Dr. Malita Amatya</td>
<td>Outcome of injection Botulinum toxin in Blepharospasm</td>
<td>Ongoing</td>
</tr>
<tr>
<td>27</td>
<td>Dr. Krin</td>
<td>Outcome of lateral tarsal strip and combination of lateral tarsal strip with Quickert (Everting) suture procedure in the correction of involutional entropion.</td>
<td>Ongoing</td>
</tr>
<tr>
<td>28</td>
<td>Dr Pawan Mahat</td>
<td>The effect of intravitreal injection Bevacizumab (avastin) in different types of diabetic macular edema based on OCT pattern</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>


‘मलाई सधैंजसो इच्छाशक्तिले डोन्यायो’

कान्ह्यपुर कररानाली

* नै चौकी समाधिक गर्नुको लागि जिज्ञासु विवादहरू हुनुहोस्
* चिन्ता शिविरी सुरू गर्नुको लागि जिज्ञासु विवादहरू हुनुहोस्
* अखिल नेपाल जनजागरण अभियानका विभाग (गोदा अघोश) कुर्सी गर्नु
* नेपाल दुर्गम नागरिक न्युनतम स्वतन्त्रताको लागि अभियानका विभाग (गोदा अघोश) कुर्सी गर्नु
आत्मविश्वास फर्काउदै कृतिम आँखा

स्थायी कृतिम आँखा
प्रतिसरणमा गरेकाछे हरेक वर्ष फलोकार प्राप्त गर्नुभएको विश्वास र भक्ति हुनुभएको विश्वास केही मोटैछ। यसलाई भक्ति र विश्वास बनाएर र भएको प्रकारमा जीवन निर्माण गरेको छ। यसलाई प्रभाव दिएपछि जीवन निर्माण गरेको छ।

एक वर्ष फलोकार हुन जसलाई प्रभाव दिएपछि जीवन निर्माण गरेको छ। यसलाई प्रभाव दिएपछि जीवन निर्माण गरेको छ।

प्राप्त गरेको विश्वास केही मोटैछ भएको विश्वास केही मोटैछ। यसलाई प्रभाव दिएपछि जीवन निर्माण गरेको छ। यसलाई प्रभाव दिएपछि जीवन निर्माण गरेको छ।

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प्राप्त गरेको विश्वास केही मोटैछ भएको विश्वास केही मोटैछ। यसलाई प्रभाव दिएपछि जीवन निर्माण गरेको छ। यसलाई प्रभाव दिएपछि जीवन निर्माण गरेको छ।
Nepal Eye Programme, Tilganga Institute of Ophthalmology (NEP TIO) to provide financial support to patients seeking corneal transplantation. It is expected to benefit people deprived of sight due to corneal problem and who have not been able to treat the problem due to poor financial condition. Dayaram Gopal Agrawal, Chairman of Nabil Foundation and Reeta Gurung, Chief Executive Officer of NEP TIO signed the MoU to the effect. With the agreement in place, Nabil Foundation will be providing financial support to needy patients identified by NEP TIO for corneal transplant. This programme will be conducted under the slogan ‘Sight for all by Tilganga in association with Nabil Foundation.’ reads a press statement. (PR)
Annex D
Visitors
Tilganga
1992-2018

- Treatment: 60,00,000
- Surgery: 4,00,000
- Ophthalmic HR: 540
- Intraocular Lens Production: 50,00,000
- Ophthalmic Academic/Training: 18,000
- Research & Development: 185
Strategic opportunities in TIO

**Core**

- Enhance production capacity by revisiting resources
- Reduce cost of production of IOs
- Increase sales in Domestic markets
- Expand hospital services and develop infrastructure
- Improve service delivery efficiency at SU
- Strengthen services at the HCEH
- Increase patient volume at RSU

**Adjacent**

- Build R&D and product development capacities
- Explore long-term contracts with NNUS and GoN
- Set up TIO-branded eye centers
- Streamline and strengthen medicine and optics services
- Develop partnerships for training with GoN
- Establish partnerships for training with GoN

**New**

- Diversify Product Portfolio
- Increase sales in global markets by venturing into new geographies
- Provide consultancy services
- Collaborate with the GoN in scaling NEHP
- Build 'Eminent' for TIO as a leading research institute in eye care
- Develop a focused marketing plan for courses

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**Nepal Eye Program**

Tilganga Institute of Ophthalmology

Community Eye Care Program

22 Districts

Gandaki Province
- Community Program
  - Manang
  - Mustang

Province 5
- Community Program
  - Rolpa

Karnali Province (6)
- Partnership Program
  - Surkhet Eye Hospital

Sudurpaschim Province (7)
- Partnership program
  - Kailali
  - Darchula
  - Baitadi

Province 3
- Community Program
  - Dolakha
  - Jiri & Charkot
  - Ramechhap
  - Sindhpulchowk
  - Melamchi
  - Bhalukot
  - Nuwakot
  - Rasuwa
  - Dhading
  - Swyambhu, Kathmandu

Province 2
- Partnership program
  - Dhankuta
  - Mahottari
  - Saptari

Province 1
- Community Program
  - Okhaldhunga
  - Solukhumbu

Partnership program
- Mustang
- Sunsari