

Nepal Netra Jyoti Sangh  
Eastern Regional Eye Care Programme  
Sagarmatha Choudhary Eye Hospital, Lahan  
Biratnagar Eye Hospital, Biratnagar

# 2017 ANNUAL REPORT



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Glimpses...



*Congratulation to newly elected NNJS Central Executive Committee Members. We wish all success in future tenure.*



नेत्र विशेषज्ञ अध्ययन कार्यक्रमको विकास तथा विस्तारका साथै अन्धोपन निवारणमा पुऱ्याउनु भएको अतुलनिय योगदानको लागि प्रा. डा. दीपबहादुर कार्कीलाई कदर गरिदै ।

Eastern Regional Eye Care Programme (EREC-P) is a non-profit, high volume treatment programme providing high quality comprehensive eye services at affordable cost to huge population in the eastern Nepal and the northern India. EREC-P comprises of:

- Sagarmatha Choudhary Eye Hospital (SCEH) in Lahan,
- Biratnagar Eye Hospital (BEH) in Biratnagar, and
- 17 Eye Care Centres (ECCs) in the Terai and in the hills

## HIGHLIGHTS:

**130,013 surgeries / 775,760 patients examined**



# SURGERIES

<b>Cataract:</b>	<b>101,903</b>
Sutureless ECCE/IOL (SICS):	76,811
Sutured ECCE/IOL:	821
On children:	1,512
Phaco ECCE/IOL:	21,889
Other lens removal procedures:	870
<b>Glaucoma:</b>	<b>2,663</b>
Trabeculectomy:	373
Combined (Cat&Trabeculectomy):	1,051
Trans scleral cyclo photocoagulation:	175
Nd. YAG iridotomy:	1024
Surgical PI & other:	40
<b>Corneo-Scleral Surgical Procedures:</b>	<b>5,066</b>
Keratoplasty:	241
Amniotic Membrane Graft (AMG):	70
Corneo Scleral Repair:	648
Pterygium:	3,770
Corneal Cross Linking:	39
Other Corneal Procedures:	298
<b>Vitreo-Retinal Surgery:</b>	<b>5,774</b>
Pars plana Vitrectomy:	1,693
Scleral Buckling:	43
Intra Vitreal Injections:	2,542
Others:	1,496
<b>Oculoplasty Procedures:</b>	<b>3,835</b>
Dacryocystorhinostomy:	1,911
Dacryocystectomy:	710
Entropion / Ectropion:	393
Evisceration / Enucleation:	350
Ptosis:	34
Other oculoplasty procedures:	437
<b>Laser procedures:</b>	<b>6,332</b>
Retinal Laser:	2,091
Nd. YAG capsulotomy:	4,241
<b>Squint:</b>	<b>52</b>
<b>Others:</b>	<b><u>3,253</u></b>
<b>SUB TOTAL:</b>	<b>128,878</b>
<b>Ear Surgeries:</b>	<b><u>1,135</u></b>
<b>TOTAL:</b>	<b>130,013</b>

# OUTPATIENTS

SCEH, Lahan:	187,547
Biratnagar Eye Hospital:	281,222
17 ECCs:	133,942
814 Screening Camps' Patients:	127,001
8 Surg. Camps' Outpatients:	<u>3,389</u>
<b>TOTAL</b>	<b>733,101</b>
Ear Department, Base:	22,863
Ear OPD in ECCs:	5,378
98 Ear Screening Camp Patients:	14,418
<b>TOTAL</b>	<b><u>42,659</u></b>
<b>GRAND TOTAL:</b>	<b>775,760</b>



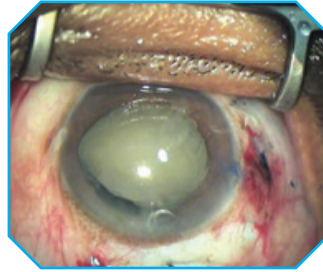
# Surgeries:

SCEH, Lahan & its Surgical Centers:	61,164
Biratnagar Eye Hospital:	67,181
8 Cat.Surg.Camps:	<u>533</u>
<b>SUB TOTAL:</b>	<b>128,878</b>
Ear Department, BEH:	<u>1,135</u>
<b>GRAND TOTAL:</b>	<b>130,013</b>

## SPECIAL SERVICES at EREC-P:

### Cataract Services:

Cataract is the major cause of blindness in Nepal. A new cataract unit was started at Biratnagar Eye Hospital to facilitate screening, consultation, necessary investigation, counselling and biometry of cataract patient in one place. Presently cataract surgery is being done with Fishhook (SICS) and phacoemulsification technique in our hospitals. Intraocular lens implantation is done in all patients after cataract surgery. In the year 2017; 101,903 patients underwent cataract surgery out of which 21,889 were phacoemulsification.



### Paediatric Ophthalmology Department

In the Paediatric Ophthalmology Department of both eye hospitals 50,527 children were examined and 3,780 children underwent surgeries. Out of these 1,512 surgeries were for paediatric cataract.

Visual Therapy System v4 (VTS4) an active shutter 3D and passive 3D glasses based program that provides Vision Therapy through the use of manipulating unique imagery for each eye has been installed at BEH. It uses various games and activities to improve specific ocular conditions.

Child friendly optical dispensing unit has been developed at BEH. This has increased the spectacle uptake among the children.



Surgery: 3,780 (1,512 on cataract)

Examination: 50,527 children

### Cornea Department

A total of 33,041 patients were examined in outpatient and 5,066 Corneal surgeries were performed including 241 Keratoplasty procedures (DALK-19, DSEK-27, DMEK-39, PK/TPK-156), 70 Amniotic Membrane transplantation, 3,770 Pterygium surgeries along with 464 with fibrin glue application (modified PERFECT technique). Cornea department of SCEH has been strengthened with installation of Corneal Topography and Specular Microscopy.

Cornea Fellowship was started in this year at BEH and 1st Cornea Fellow Dr. Reena Yadav completed her fellowship and started cornea transplantation services on a regular basis at Sagarmatha Choudhary Eye Hospital, Lahan.



## Vitreo-Retinal Department

In the Vitreo-Retinal Department of both eye hospitals 37,407 patients were examined, 5,774 patients underwent operations including Intra-Vitreal Injections and 2,091 Retinal laser performed. In last one-year period, 21,445 received B-scan services, 1,435 received FFA services and 2,890 received OCT services.



To manage the increasing number of surgical cases at BEH, 2nd set of vitrectomy machine and operating microscope was installed. Retina unit of EREC-P hospitals was further strengthened by addition of MicroPulse System Green Laser and Zeiss CIRRUS SD-OCT 5000 machine. Dr. Priya Bajgai has joined VR department at SCEH. Dr. Sarad Gupta from SCEH and Dr. Ashma Manandhar from BEH are undergoing 18 months VR fellowship at TIO.

## Glaucoma Department

In the Glaucoma Department of both eye hospitals 21,337 Glaucoma patients were examined, 2,663 and Glaucoma surgeries were performed. 2,791 patients underwent computerized Visual Field Testing. In last year, 30 (SCEH:7, BEH:23) children underwent Trabeculotomy and Trabeculectomy surgery. 4,241 patients received Yag PI services.



## Oculoplasty Department



In the Oculoplasty Department of both eye hospitals 15,292 patients were examined and 3,835 surgeries were performed. In the Ocular Prosthesis Unit, 326 received artificial eyes, 55 of these eyes were custom made.

Prof Dr. Rohit Saiju from TIO provided further training to Dr. Perna Arjyal at BEH on Endoscopic DCR surgery and Endoscopic DCR surgery was started on a regular basis. BEH oculoplasty unit was further strengthened by the addition of Ellman's Surgitron Cautery Unit.

Currently Dr. Diwa Lamichchane is undergoing one-year OPAL fellowship at TIO.

## Low Vision Department

In the Low Vision Department of both eye hospitals 623 patients with Low-Vision were assessed, including 210 children. Special Low-Vision Devices were dispensed to 266 patients who required devices for improving vision.



Andrew Miller and Priya Morjariya from LSHTM, London provided two days intensive LV training to 20 optometrists at BEH. A low vision research "Investigation of the need for low-vision services among children who have undergone surgery for bilateral cataract" was carried out at BEH with support from LSHTM.

## Refraction and Optical Dispensing unit

Optical Dispensing unit of SCEH and BEH underwent renovation and further instruments were added to strengthen the quality of optical dispensing services in both eye hospitals. An optometrist was appointed at Optical dispensing unit of BEH as quality controller to monitor the optical dispensing quality.

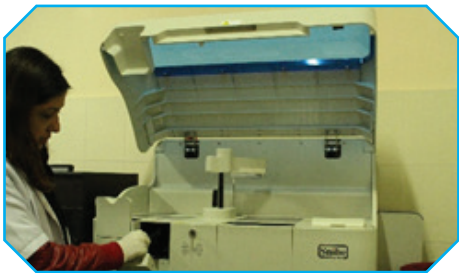


## New Department of Ophthalmic Pathology and Laboratory Medicine

With the increasing number of patients there was a need for good pathology department to support clinical services of hospital. Existing laboratory services of Biratnagar Eye Hospital underwent major infrastructure renovation and necessary instruments were purchased

to start biochemistry, haematology, microbiology and pathology services on a regular basis. Eleven member's ophthalmic pathology and laboratory medicine team of Biratnagar Eye Hospital includes 2

pathologists, 1 microbiologist and 9 supportive laboratory staffs. In the year 2017, total of 63,607 patients (SCEH: 12,029, BEH: 51,578) received Laboratory services.



## EAR DEPARTMENT



After an agreement with EREC-P, existing Ear department at SCEH run by Impact Nepal was handed over to SCEH. After a major renovation in infrastructure, addition of new instruments/equipment and with 4 trained manpower Ear department was inaugurated on 20th Nov 2017



with an objective to provide preventive, promotive, curative and rehabilitative services to reduce ear disease burden and deafness in the Siraha and neighboring district.

Ear Department of BEH was further strengthened by adding Digital PTA machine. A total of 42,659 patients with various ear problems were examined out of which 25,379 ear patients were examined at SCEH and BEH and 17,280 patients in the Outreach Activities (ECCs and Screening camps); 3,005 Pure Tone Audiometry (PTA) examination and 1,135 surgeries were performed and 278 patients with hearing loss were provided hearing aids at BEH.



Mr. Anand Singh has completed the 2 months course on Audiometry training from Impact Nepal. Mr. Nabin Kumar Sah has completed the 3 months course on Community Ear Health Worker (CEHW) from CHEERS and two are undergoing the same training.



## OUTREACH ACTIVITIES:



Besides continuing 16 Eye Care Centres (Malangwa, Rajbiraj, Siraha, Gaighat, Diktel, Bhojpur, Terhathum, Rangeli, Inaruwa, Mirchaiya, Katari, Haleshi, Ilam, Urlabari, Fikkal & Jaleshwar), 1 new Eye Care Centre was started at Bardibas.

### Linking eye care centers with community

BEH started a pilot project entitled **“Improving eye health seeking behavior by linking community to eye care centre”** with an objective of enhancing the eye health seeking behavior of community people including children and linking these people to eye care centre in Ilam district, Nepal. Through this program, a trained eye health worker screened 7,460 school children, 1,668 persons through house to house visit and 1,159 children through pediatric camp. Eye Health Education was also provided to the beneficiaries. With the financial support from CBM, SCEH screened 35,399 students from 256 primary schools and 216 students were referred to base hospital for special refraction and were given glasses. Similarly, BEH has screened 15,794 school children from 51 schools. 536 students referred for advance refraction examination at base hospital, and 150 received spectacles.



Screening eye camps were conducted in collaboration with several local social organizations in Mechi, Koshi, Sagarmatha and Janakpur zone.

### Surgical Eye Camps conducted in hilly areas of Koshi and Sagarmatha zone:

Surgical eye camps were conducted in the following places in coordination with local governmental hospital, non-governmental organization and eye care centers in remote areas of Koshi and Sagarmatha zone.

Mahottari – 1, Khotang – 1, Bhojpur – 2 (Dingla, Ghodetar), Terhathum – 2 (Myanglung, Sukrabare), Ilam – 1, Fikkal – 1



Camp type	No of camps	Patient examined
Surgical Eye Camp	8	3,389
Cataract Screening Camp	204	41,740
Cataract Screening Camp- Patient brought to hospital and operated	204	7,483
Ear Screening Camp jointly done with Eye Screening Camp	98	5,454
Diabetic Retinopathy Camp	25	2,728
Pediatric Eye Camp	62	18,512
School Screening	413	58,653
Workplace Camp	10	826
Eye examination by mobile bus eye clinic in 3 districts		2,874
589 Home Visit by CORW(Community Outreach and Rehabilitation Worker) for eye examination in Ilam district		1,668
1653 Home Visit for ear examination in Morang district by CORW(Community Outreach and Rehabilitation Worker)		8,964



## CBR PROGRAMME at BEH:

Biratnagar Eye Hospital had started community based rehabilitation project (CBR) with an aim to promote full social integration of person with disabilities in their own community in 11 VDCs of Morang district in 2013. During the span of 5 years, rehabilitative services were provided to more than 187 people with disabilities in the form of orientation & Mobility training, daily living skill training, vocational training and supported 40 persons with visual impairment & other impairment for income generation activities.

One of the beneficiary of CBR programme who is father of 3 blind children in Ratuwamai municipality ward no 3 stated that:

“The people from the CBR project provided training on how to walk using white cane, how to take care of ourselves and how to perform the daily activities on our children (2 sons and one daughter). After the training my sons and daughter have become independent, they can take care of themselves independently; they can walk and visit to neighbors and also can contribute in the household work. Our daughter helps in cleaning house and washing clothes and dishes and sons take care of cattle. Therefore, we have more time to work out in the field which has increased our family income and we were able to purchase small plot of land”

CBR program completed in 2017 at Morang district and an impact sharing programme at BEH was carried out with different government and non-government stakeholders including some beneficiaries.



## EYE HEALTH EDUCATION:

### “Netra Path”

BEH started publication of “Netra Path” on a quarterly basis to share activities of BEH, eye health related messages and interesting interview of patients to different stakeholders.



### Community awareness about eye and ear health



Eye and Ear Health messages were provided through exhibitions, wall paintings and street drama to create eye and ear health awareness among school going children and community people and were also done in different screening and surgical camps. Fortnight Eye Health Education Program and Jingles on Cataract, Glaucoma, Corneal Ulcer, Retina, and Childhood Blindness etc. are being regularly aired on F.M. radio program in local languages. Different Eye and Ear Health Education posters and brochures were designed, printed and distributed in co-ordination with government health posts /sub health posts.

## Training and community sensitization

Health Education department provided training on Eye & Ear health to 455 Female Community Health Volunteers (FCHV), 83 Drug Retailers and 1,108 people were made aware about eye and ear diseases by Eye Health Exhibition Program conducted at Chuhade, Udaypur, Swastik Pathshala, Mirchaiya.



## FREE SERVICES TO PATIENTS:

A total of 7,483 Cataract Patients identified in several screening and surgical eye camps of Koshi, Sagarmatha & Janakpur zone received surgeries free of cost. Patients from eye camps and poor patients presenting to SCEH and BEH received a support worth of NPR 26,573,584.00 in their examination, surgeries, spectacle, medicine, transportation and food cost. Out of all Cataract Patients 48% surgeries were done on a subsidized package of NPR 1200 (approx. USD 11).

## HUMAN RESOURCE DEVELOPMENT & TRAINING:

Besides continuous medical education for the hospitals' ophthalmologists the following teaching and training activities were performed:

### Post Graduate MD Ophthalmology with National Academy of Medical Science (NAMS)

Post Graduate MD Ophthalmology was started at EREC-P in affiliation with NAMS since 2015. At present seven resident doctors are undergoing MD residency training at EREC-P. Two MD-residents from TIO received short-term training in our organization.

To share teaching and training activities of SCEH and BEH, Polycom Video Conferencing System has been installed at SCEH and BEH.



### Diploma in Ophthalmic Science Course at SCEH, Lahan

DOS course was started from 2015 in collaboration with CTEVT at Lahan Technical School. 1st batch of DOS students have completed their 3 years' study and 79 students are undergoing 1st and 2nd year DOS training at SCEH.



## FELLOWSHIP AND TRAINING

### Anterior Segment Fellowship

Four Ophthalmologists completed their Anterior Segment Fellowship at BEH, which also includes training in Small Incision Cataract surgery with Fishhook technique and phacoemulsification. Twelve Ophthalmologist are undergoing two years Anterior Segment Fellowship at SCEH and BEH.

## Vitreo-Retinal Fellowship

Four Ophthalmologists are undergoing VR Fellowship at BEH.

## Cornea Fellowship

One Ophthalmologist completed cornea fellowship from BEH and one is undergoing the same training.

## Phaco Training

Five Ophthalmologist (SCEH-4; BEH-1) received 1-month phacoemulsification training.

## Optometrist Internship and short term training

Eight Bachelor in Optometry students are undergoing 1 year Internship training at BEH and 6 Optometrist from BPKLCOS received short term (6 weeks) training at SCEH and BEH.

## Primary Eye Health Worker and Primary Eye Care training

In 2017, 73 AHW & ANM received 6 months Primary Eye Health Worker training and 220 Staff Nurse & HA Students had 2 weeks training on primary eye care. Currently 56 AHW & ANM are undergoing 6 months Primary Eye Health Worker training.

## Optical Fitting and Dispensing Training:

Forty students were enrolled for 3 months Junior Optical Technician training at SCEH and three students were enrolled in 1-year Optical Fitting and Dispensing training at BEH.



## MISCELLANEOUS:

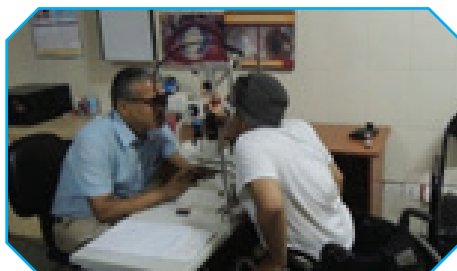
### Human Resource at EREC-P:

The 705-member employee includes 36 Ophthalmologists, 1 ENT Specialist, 3 Anaesthesiologist, 2 pathologists, 1 Microbiologist, 34 administrative staff, 1 Research Officer, 49 Ophthalmic Assistants (OA), 3 Anaesthetic Assistants, 21 Optometrists, 8 Pharmacy Assistants, 89 Eye Health Workers and other Supporting Staffs.

The role of the human resource department in hospital affects all aspects of the services because human resource department supports employees and employees are our foremost concern. To further support human resource department of both eye hospitals one qualified human resource personnel was recruited at EREC-P with an objective to improve the quality of work life and supervise, monitor and strengthen HR system.

### Accessibility Audit:

An accessible environment has been recognized as a core element of an inclusive society. Many people with disabilities are faced with physical barriers in a building that exclude them from participating as equal citizens. An accessibility audit of SCEH and BEH infrastructure was done from



23 to 29 May 2017 to assess the extent of accessibility and the extent of works required to improve the current facilities in accordance with Nepal government's accessibility and communication guidelines.

## Eye Care Centre Review and Planning Workshop

Two days ECC review and planning workshop included participations from different eye care centres managed by EREC-P and organized at Ilam on 28-29 December 2017 to review activities and target of 2017 and to plan new activities and target for 2018.



## Visitors, Visiting Faculty & Guest Lecturers:

Many visitors came to observe and support the work at EREC-P hospitals.

1. Prof. Dr. Christian Mardin, from Germany visited BEH and provided training on HRT and conducted Glaucoma/Retina CME from 6-10 Feb, 2017.
2. Dr. Scott Hickman from London School of Hygiene and Tropical Medicine visited SCEH and BEH in July for study of "current Cataract surgical training in the developing world and the potential of smart phone video technology".
3. Dr. Mohammad Shalaby executive director of Magrabi Foundation Egypt visited SCEH and BEH on 20-21st Sep 2017.
4. Professor. Dr. Matthew Burton from London School of Hygiene and Tropical Medicine visited SCEH and BEH from 1st Nov -3rd Nov 2017 and delivered a lecture at BEH.
5. Lion Rajen Thapa, District Governor, District 4 C3, California, Mr. Bimal Paudel, President, Nepal Redcross Society, Sunsari, Mr. Dipendra Gautam, Rotary Club, Itahari has visited SCEH on 22nd Nov 2017
6. Prof. Dr. Mahesh Kr. Maskey visited BEH on 26th Nov, 2017 and delivered a guest lecture.
7. Dr. Anjani Kumar Jha, Prof. Dr. Sabina Shrestha and Ms. Namita Ghimire visited on 4<sup>th</sup> Dec 2017 to observe the hospital review committee activities of BEH.



## Training and Workshop at EREC-P:

1. Behaviour Induction Training to 35 staffs of BEH on 14th March.
2. Basic Photography & Story Writing Training to 14 staffs of BEH on 16-17 April.
3. Training and orientation of outreach Optical staffs about Optical fitting conducted at SCEH and BEH by Mrs. Brigitte Nachtmann Leitl and Ms. Jutta Hildegard Deckert to 17 staffs from 22 April to 5 May.
4. House Keeping training to 30 staffs of SCEH on 6 to 7 May.
5. Total Quality Management Training to 50 staffs of BEH from 11 to 15 May.
6. Optical dispensing training to 18 staffs of SCEH and BEH from 12 to 13 May.
7. Cataract Counseling training to 12 staffs of SCEH and BEH from 12 to 13 May.
8. Motivational Training to 18 staffs of BEH on 9-10 June.
9. Disaster Management Training to 35 staffs of BEH on 2 to 4 August.
10. Stress Management & Positive lifestyle training to 45 staffs conducted at SCEH by BK Bhagwan Bhai from Mount Abu Rajasthan from 11 to 13 Sep.
11. Health, Healing & Happiness training to 79 staffs of BEH by Prof. Swaminathan on 22 to 23 Sept.
12. Disability sensitization training to 30 staffs of BEH by Mr. Prakash Raj Wagle on 8 Nov.



## Workshop and Conferences at EREC-P

### A. Ophthalmology Updates:

One day “Ophthalmology Updates Workshop” was done in Biratnagar Eye Hospital under the aegis of Nepal Ophthalmic Society where 87 ophthalmologists and ophthalmic paramedics from different hospital of Nepal and India participated. Total 10 scientific papers including recent ophthalmic advances in Cornea, Glaucoma, OPAL and Retina sub-specialty in Nepal were presented and discussed.



This workshop was made live on facebook so it was widely viewed by ophthalmic colleagues.

### B. Paper presentation by EREC-P doctors in NOS Conference at Mechi 16-18 March

1. Prof. Dr. Sanjay Kr. Singh –
  - a. *“Cataract Surgery in Nepal: Past, Present & Future”*
  - b. *“Complications and Recurrence rate following Pterygium Extended Removal followed by Extended Conjunctival Transplantation at Biratnagar Eye Hospital”*
  - c. A video presentation on *“Descemet Membrane endothelial Keratoplasty (DMEK) Mistakes”*
2. Dr. Rakshya Pant Sitoula–
  - a. *“Iridocorneal Endothelial Syndrome (case series different variant)”*.
  - b. *“Minimally Invasive Glaucoma surgery”*.
3. Dr. Purna Arjyal Kafle –*“Epidemiology of Oculoplasty conditions in a newly established department at Biratnagar Eye Hospital”*.
4. Dr. Triptesh Raj Pandey –*“Prevalence of presumed tuberculous uveitis in a tertiary eye care centre”* and a poster on *“A case of Orbital Myiasis in Recurrent Eyelid Basal Cell Carcinoma Invasive into the Orbit”*.
5. Dr. Lalit Agarwal –*“Scleral Buckling surgery without subretinal fluid drainage for rhegmatogenous retinal detachment”*.
6. Dr. Kshitij Aditya –*“Challenges in Management of Vogt Koyanagi Harada Disease (VKH) across spectrum and Clinical determinants of relapse”*.
7. Dr. Nisha Agrawal –*“Iridodialysis repair- A neglected art”*.
8. Dr. Ashma Manandhar –*“Phacoemulsification learning curve in first 500 cases”*.
9. Dr. Sanjeeva Kumar Desai –*“Ocular Surface reconstruction-review of surgical outcomes in Biratnagar Eye Hospital”*.
10. Dr. Jamuna Gurung –*“Spectrum of Lamellar Keratoplasty at Biratnagar Eye Hospital”*.
11. Dr. Ichhya Joshi –*“A case of Spontaneous closure of Traumatic Macular Hole”*.
12. Dr. Kinsuk –*“Clinical and visual outcome after Penetrating Keratoplasty”*
13. Dr. Sabin Sahu – *“Biometry in patient undergoing pediatric cataract surgery in Sagarmatha Choudhary Eye Hospital, Lahan”*.

### C. Ophthalmic Conference at Birgunj on 11th August 2017

One-day Ophthalmic Conference was organized jointly by EREC-P and Ram Kumar Mahabir Prasad Kedia Eye Hospital at Birgunj.

14. Prof. Dr. Sanjay Kumar Singh
  - a. *Posterior Lamellar Keratoplasty at BEH*
  - b. *Modified PERFECT surgery for Pterygium: experience from BEH*
15. Dr. Lalit Agarwal
  - a. *Diabetic Retinopathy in the era of anti-VEGF*
  - b. *Pearls secondary intraocular lens implantation.*
16. Dr. Sanjay Singh, SCEH –*“Clinical Profile and surgical outcome of Infantile Esotropia at SCEH, Lahan”*.
17. Dr. Pooja Rai Gautam - *“Clinical Profile of patients with Vitreous Haemorrhage Who underwent surgery at SCEH, Lahan”*.
18. Dr. Sabin Sahu – *“Surgical outcome of canalicular injury repair with stent done at SCEH”*.

## D. Other presentations at various places:

19. Dr. Rakshya Pant presented paper on “Low Dose Mitomycin C Augmented Trabeculectomy in Advanced Glaucoma” and a video presentation on “Trabeculectomy and Trabeculotomy in Congenital Glaucoma” in APAO Conference at Singapore in March.
20. Prof. Dr. Sanjay Kumar Singh was invited as a guest speaker to present a paper on “Ocular Surface management... BEH experience” on the occasion of BPKLCOS annual day in September.
21. Prof. Dr. Sanjay Kumar Singh participated as a panelist in cataract session of IAPB South East Asia (SEA) Day in Sept at Kathmandu.
22. Dr. Lalit Agarwal presented paper on “Cataract Surgery & What's behind !!!” at CME organised by Nepal Vitreo Retinal Society in Oct.
23. Dr. Diwa Hamal presented a paper on “Choroidal Melanoma: our experience” at 3<sup>rd</sup> National Oculoplasty conference, Nepal in October.
24. Dr. Lalit Agarwal presented a paper on “Non drainage scleral buckling in the era of MIVS” at Korean Ophthalmological society conference in November.
25. Mr. Abhishek Roshan presented as a guest speaker on “The role of Optometrists in Sagarmatha Choudhary Eye Hospital; A Lahan Model” in Integrated Philippine Association of Optometrists convention from in Nov at Manila Philippines.
26. Dr. Lalit Agarwal did poster presentation on “Non Drainage Scleral Buckling in the era of MIVS” at VRSI Conference in Decat Bhubhaneswar, India.

## Various Trainings /Courses attended by doctors & staffs for capacity building

1. Dr. Lila Raj Puri Completed MSc in Public health for Eye care from London School of Hygiene and Tropical Medicine from Sep 2016 to Sep 2017.
2. Dr. Purna Arjyal Kafle underwent Management Priorities in eye care delivery training from 22 to 28 Jan at LAICO, Madurai.
3. Mr. Sudhir K. Thakur participated on National level training Program on Disability Inclusive Disaster Risk and Reduction (DiDRR), conducted by CBM India Trust, for partners working in disaster prone areas, from 21 to 24 March at Guwahati, Assam.
4. Mr. Rajiv Ranjan Karn & Mr. Afaq Anwar took international training survey analysis & technique from 22 to 26 March at Chitwan.
5. Dr. Purna Arjyal Kafle, Mr. Kumar Prithu and Mr. Bidyanand Chaudhary attended Infection control workshop at TIO from 30 March to 2 April.
6. Mr. Chandra Narayan Chaudhary and Mr. Satya Narayan Singh participated in Training of Trainer for ophthalmic assistant program at Katmandu from 7 to 9 April.
7. Dr. Rakshya Pant Sitoula has participated in NAMS Faculty development training on 5-9 June.
8. Mr. Dipak Subedi & Mr. Dharmaraj Yadav received 1 month Basic Otolaryngology training from 21 May to 20 June at TUTH, Kathmandu.
9. Mr. Roshan Thakur took observership on ocular prosthesis from 25 June to 2 July at TIO.
10. Mr. Kumar Prithu, Mr. Pankaj Ray Adhikari and Mr. Rajiv Ranjan Karn underwent EyeXcel Training from 11 to 14 July at LAICO, Madurai, India.
11. Mr. Abhishek Roshan Participated in DID training organized by CBM Nepal at Pokhara from 24 to 26 July.
12. Dr. Rakshya Pant Sitoula participated in Workshop on Research Writing and Publication organized by NAMS on 27-29 Aug.
13. Mr. Afaq Anwar & Mr. Dipendra Chaudhary attended Advance Training of Trainer and Facilitator from 14 to 15 Sep organised by MAN, Kathmandu.
14. Mr. Shrawan Chaudhary has participated in Basic Eye Bank Technician cum Eye Donation Counselor training at Nepal Eye Bank from 23 Sep to 23 Oct.
15. Mr. Rajiv Ranjan Karn underwent Disability Inclusive Disaster Risk Reduction Training from 13 to 17 Nov organised by CBM.
16. Mr. Puskar Jha & Mr. Indrajit Yadav is undergoing Community Ear Health Worker Training from 19 Nov 2017 to 14 Jan 2018 by CHEERS, Nepal.
17. Ms. Ramita Chaudhary is undergoing Pediatric Counselling Training from 1 Dec 2017 to 2 Feb 2018 at Sadguru Netra Chikitsalay, Chitrakoot.
18. Mr. Rajendra Shah and Mr. Baldev Mahato visited Sadguru Netra Chikitsalay, Chitrakoot for exposure of Optical department from 1 to 8 Dec.

## Research Department and Operational researches:

EREC-P has been involved in research activities with its clinical and community services since its inception and every year different research paper has been published. Research department of EREC-P has been strengthened by full time appointment of research officer from 2017.

The objective of the research department is to strengthen, improve and support the research activities done by both hospitals. The department has facilitated training on research methodology and proposal development for research. Different proposals have been developed by the faculties and staffs of both hospitals to conduct research. In 2017, research department has conducted various operational researches including “patient’s satisfaction survey” and “waiting time analysis of both hospitals”. Secondary data analysis has been done for Eye Care Centre (ECC), School screening program and eye camp by outreach department of both the hospital.

## Publications:

In the year 2017, following publications were done:

1. Intraocular eyelashes and iris cyst in anterior chamber following penetrating eye injury: a case report  
Sabin Sahu, Lila Raj Puri, Sanjay Kumar Singh  
International Medical Case Reports Journal · March 2017
2. Lens Induced glaucoma: An experience in tertiary eye care center in eastern Nepal.  
Rakshya Pant Sitoula, Indrajit Sarkar, Devdutta Nayak, Sanjay Kumar Singh  
Biratnagar Eye Hospital, Nepal  
Nepalese Journal of Ophthalmology 2016;8(16): 161-166
3. Ossicular chain status in cases of cholesteatomatous chronic otitis media in eastern Nepal.  
Sanjeev Kumar Thakur, Nisha Ghimire, Rabin Acharya, Sanjay Singh, Afaq Anwar  
Asian Journal of Medical Science 2017; 8(3): 68-71
4. School Eye Health in Nepal: A holistic model  
Dr Sanjay Kumar Singh, Sudhir Thakur and Afaq Anwar  
Community Eye Health Journal, South Asia Edition, Vol 30 No 982017
5. Spontaneous formation and closure of full thickness macular hole in Vitrectomised eye: a case report  
Rajya Laxmi Gurung  
Nepalese Journal of Ophthalmology 2017; vol9 (18):96-99
6. Prevalence of diabetic retinopathy among self-reported adult diabetes in district of Eastern Nepal in a community based study  
Lalit Agarwal, Nisha Agrawal  
Nepalese Journal of Ophthalmology 2017; Vol 9 (18): 33-39
7. Unilateral Putscher’s Retinopathy; Review of 4 cases  
Rajya Laxmi Gurung  
Journal of Ophthalmic Studies 1(1): doi <http://dx.doi.org/10.16966/jos.102>
8. A unique case of Valsalva retinopathy in conch blower Case Reports.  
Rajya L Gurung  
American Journal of Ophthalmology 2017.07.003
9. Numerous smokestack and Inkblot pattern Leaks in Central Serous Chorioretinopathy  
Rajya Laxmi Gurung  
JAMA Ophthalmology May 2017 Vol 135 (5)
10. Amniotic membrane transplantation: Current indications in a tertiary eye hospital of eastern Nepal  
Diwa Hamal, Sanjay Kumar Singh, Binaya Lamichhane, Archana Sharma, Afaq Anwar, Vijay Mahaseth  
Nepalese Journal of Ophthalmology 2016; 8(16): 151-160
11. The intraoperative pathological findings in cases of chronic Suppurative otitis media with central perforation of tympanic membrane at a tertiary care centre in Eastern Nepal.  
Sanjeev Kumar Thakur, Nisha Ghimire, Rabin Acharya, Sanjay Kumar Singh, Anwar Afaq  
Asian Journal of Medical Science 2017; 8(1): 42-47
12. Socio-demographic profile and the associated factors of chronic otitis media in rural areas of eastern Nepal  
Sanjeev Kumar Thakur, Sanjay Kumar Singh, Rabin Acharya, Afaq Anwar, Nisha Ghimire  
Int J Otorhinolaryngol Head Neck Surg 2017; 3(2):222-227
13. Pterygium- Epidemiology prevention and treatment  
Sanjay Kumar Singh,  
Community Eye Health Journal, South Asia Edition  
Volume 29 Issue 95, 2017
14. Traumatic Subconjunctival Dislocation of Intraocular Lens  
Sahu S\* and Puri LR Sagarmatha Choudhary Eye Hospital, Lahan, Nepal  
Journal of Clinical & Experimental Ophthalmology; Vol 4 • Iss 7• 1000570 July, 2017
15. Childhood corneal blindness: a retrospective study in a tertiary eye hospital of eastern region of Nepal  
Paras Panjiyar, Vijay Gautam, Pooja Gautam Rai, Lila Raj Puri  
Nepalese Journal of Ophthalmology 8(1):18-22; 2016

## Acknowledgments

A sapling cared by Dr. Albrecht Hennig and his team in 1983 in the form of a 12 bed eye care facilities at the General Hospital in Lahan has now grown into a well developed Eastern Regional Eye Care Programme with 2 high volume multisubspecialty eye hospitals and 17 eye care centres. This development was possible due to the hard work, perseverance and dedication of ophthalmologists, paramedics and supportive staffs.

Patient number increased in 2017 in both eye hospitals, 775,760 patients were examined and 130,013 surgeries were performed at EREC-P hospitals, Eye Care Centres and in Out-reach activities. New “Cataract department”, “Ophthalmic Pathology and clinical Laboratory medicine” was started at BEH and Cornea transplantation services were started on a regular basis at SCEH. These achievements were possible due to strong commitment and support from all colleagues, administrative staffs, clinical staffs and other supportive staffs.

On behalf of EREC-P, I would like to thank CBM and their donors for constant support and guidance through out all these years. We are thankful to Ministry of Health & Population, Social Welfare Council, Orbis International, Vision for the World, Oertli Instrument AG Berneck, Switzerland, Tilganga Institute of Ophthalmology, Nepal Eye Bank and Wonderwork for their continuous feedback and support.

Lions Aravind Institute of Community Ophthalmology (LAICO), Childrens Eye Ear and Rehabilitation Services (CHEERS), Impact Nepal provided training to our ophthalmologists and paramedical staffs and London School of Hygiene and Tropical Medicine supported us in research activities.

I would like to thank all above mentioned organizations, people and many unnamed for their constant support to make Eastern Regional Eye Care Programme a success.

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Website: [www.erec-p.org](http://www.erec-p.org)  
Photo: © EREC-P and CBM





BEH felicitated Nepal Eye Bank for various support such as corneal tissue availability, teaching and training of staffs on occasion of BEH annual day 13<sup>th</sup> September 2017.



नेत्र ज्योति डा. निकोल ग्रासेट सम्मान पुरस्कार  
प्रा. डा. संजय कुमार सिंह २०७४



Prof Dr Sanjay Kumar Singh was felicitated by Nepal Eye Bank, TIO Kathmandu for doing highest number corneal surgeries in Nepal in the year 2017.



Mr. Dulliraj Timsina receiving honor from NNJS-Udayapur.

### An effort to complete the story of Azim Miya...

Azim Miya is a 24 year old low vision along with physical disabilities due to polio, who has not only turned his life around but is now inspiring many others with his story. He currently lives with his mother and an elder sister in Jhurkiya village, Morang. Mr. Miya expertly moves around with the help of wheel chair and does his daily personal work. He earns his living by cow farming. At present, cow is producing 8 litres milk a day and earning 300 rupees which is directly contributing to the family income.



In 2013, Mr. Miya was visited by CBR worker. The workers brought him to Biratnagar Eye Hospital where he was given a medical assessment and obtained high magnifier glasses. With collaboration of CBR Biratnagar, he also obtained wheel chair. In spite of this, CBR worker knew that there was still huge possibility for social integration and independency. The CBR Worker, Dilip Singh, started providing counseling, daily skills training, and linked with self-help group Jhurkiya. He then received financial support through village development committee for cow farming. Besides this, he started participating in disability sensitization program and now is one of the members of Disable People Organization who raises the voice in favor of disable people.



**Bachelor in Optometry and Vision Science**  
 First Subject committee meeting of NAMS to start the Bachelor in Optometry and vision science program.



Eye care centers are further strengthened by addition of auto refractometer, surveillance camera, and attendance machine at two eye care centers (Ilam and Rangeli).

**Celebrations of different days**



**Different classes and workshop at SCEH and BEH**



NAMS team regular monitoring visit | Lion Rajen Thapa, District Governor, District 4 C3, California visited SCEH, Lahan. MaHa Jodi visited BEH. | Care Group team visit



Health Healing & Happiness training by Prof. Swaminathan | Stress Management & Positive lifestyle training conducted at Iahan by BK Bhagwan Bhai from Mountabbu Rajasthan | Dr. Scott Hickman from LSHTM

Glimpses of News cutting...



(http://www.nagariknews.com)

आइडिए, २१ माघ २०१७, १२:५९

(http://www.nobelmedicalcollege.com.np/)

प्रदेश २ : चिकित्सा पर्यटनको बलियो स्रोत

विहिार, २० पुष २०१७, १३:१५ | विहिारका (news/author/937)



सहज- हुनेहाने केवलैहक स्वाध्याय ससका भयो कि उपचारका लागि भारत टैडिटानम् । तर छिमेकी मुलुक भारतका नागरिक नेपालकै अस्पतालमयि चिकुस गर्नुन् । अहमविता सारसमाथी पोचरी अँधारा अस्पतालमा दैनिक आउने विरामीका करिब ६० प्रतिशत भारतका हुन्छन्।

यो अँधारा अस्पताल प्रदेश नम्बर २ का लागि 'चिकित्सा पर्यटन' को बलियो स्रोत बनेको छ । चिकित्सा पर्यटनले सहज नगरको व्यापारलाई बढाएको छ । यो अस्पतालले यस क्षेत्रका करिब चारसय नागरिकलाई प्राथमक रोजगारी दिएको छ । 'यसबाट होटेम, लज र खुट्टे पसलको ब्यापारमा वृद्धि भएको छ । 'टोमसोका अवसरहुन पनि सिर्जना भएको छ' अस्पताल प्रबन्धन अधिकक सेहाने भने, 'कुल विरामीका इन्डे ६० प्रतिशत भारतकै हुने गरेको अस्पतालको रेकर्डबाट खुलछ ।'

गुणस्तरिय, सस्तो र सकेसाले सहजताले उपचार गराउन आउनेमा बढी भारतीय हुने गरेको उक्त अँधारा अस्पतालका प्रबन्धक सेहाने बताए । यो अस्पताल विरामीले दिने न्युनतम मुलुक



In memory of Dr Chirag Bhatta

Dr. Chirag Bhatta joined SCEH after completion of Vitreo Retina Fellowship as a young and dynamic Vitreo Retina specialist on end of May 2004. He was hardworking, polite and had a good working relationship with all his colleagues. He worked at SCEH, Lahan for two years and helped in establishing Vitreo Retina department. After a gap of 13 years he revisited SCEH and BEH in May 2017 to participate in Ophthalmology updates workshop and shared his knowledge with young colleagues. EREC-P family was shocked to hear sudden sad demise of Dr Chirag Bhatta in later part of the year 2017 but Dr Chirag Bhatta will always be remembered by EREC-P family for starting VR facilities at SCEH.



# EREC-P Centers



**Sagarmatha Choudhary Eye Hospital, Lahan-3, Siraha**

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**Biratnagar Eye Hospital, Rani, Biratnagar-13, Morang**

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