



# Annual Report 2021-2022

रिसोर्सेस हिमालय  
रेसोर्सेस हिमालय  
RESOURCES HIMALAYA



**Resources Himalaya Foundation**

*Securing nature in the Himalaya through “good science” & “evidence-based decision- making”*

**Cover Photo:** A pair of Black-necked Crane (*Grus nigricollis*) in Gyau khola Valley, Upper Humla, Nepal. Photo by: Naresh Kusi/Himalayan Wolves Project.

## NOTE FROM THE CHAIRPERSON

I am very happy to share the Annual Report (2021/2022) of the Resources Himalaya Foundation (RHF) with the readers as well as our research/work partners.

RHF is a knowledge-based nature conservation organization, founded by Pralad Yonzon in 1986. The programs and activities of RHF fall under three major thematic areas, viz., 1) Monitoring of biodiversity and conservation efforts; 2) Addressing contemporary issues in conservation and development; and 3) Capacity building and mentoring of the new generation of researchers including students.



Under the first theme, the projects undertaken by RHF include a) Social Mobilization and Community engagement; b) Ecosystem based adaptation through South cooperation; and c) Fostering Indigenous Sustainable Harvest (FISH) for climate resilient livelihood in Middle Karnali watershed of the Karnali River Basin.

Under the second theme, RHF has been organizing and supporting various “Conservation Days” around the year. This involves facilitating or hosting important days like World Elephant Day, International Red Panda day, Save the Frog day, International Day for Biological Diversity, and so on. Recently, Environmental Graduates in the Himalaya (EGH, a sister organization within RHF) has started organizing Nature Hiking during the week-ends and holidays with a view to raise awareness among the people towards nature conservation. Another very important task undertaken by EGH and its coordinators consists of publishing (electronic) the Headlines Himalaya, the newsletter which brings to the attention of its readers any important news item or information related to environment and conservation published in the news media in Nepal, Bhutan, India, Pakistan and China (Tibet). More than five thousands subscribers from 78 countries around the world receive and cherish our weekly Headlines.

The third theme, viz., capacity building and mentoring of the new generation is regarded as deserving concerted and serious attention from educational institutions, conservation organizations, teachers, established researchers and others who have been working within Nepal and beyond. One significant event under this theme this year was the “Fifth Graduate Conference on Environment and Sustainable Development”. This event was jointly organized by RHF, the Central Department of Environment Science at Tribhuvan University, and The institute for Social and Environmental Development. RHF also continues to organize and host GIS training, Wildlife training, and mentoring workshop for young university graduates as per demand.

Before I end my short note, I would like to thank the EGH coordinators and administrative staff members of RHF for their hard work in making things happen at RHF during the past year. I also would like to thank all those institutions and individuals who generously provided support (material or non-material or both) to RHF’s various programs and activities completed during the past year. I hope readers will enjoy going through this annual report. We at RHF welcome any feedbacks and suggestions the readers may have for us.

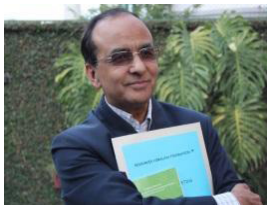
Prof. Ram B. Chhetri  
Chair,

Resources Himalaya Foundation

## THE GOVERNING BOARD



**Chairperson:** Dr. Ram B. CHHETRI. He is a professor of Anthropology at Tribhuvan University. His specialization includes community-based resource management. He holds a PhD in Anthropology from University of Hawaii, USA.



**General Secretary:** Dr. Dinesh R. BHUJU. He is an academician at Nepal Academy of Science and Technology. Besides his academic work on ecology and environment, he has been actively involved in the promotion of science. He holds a PhD from Chiba University, Japan.



**Treasurer:** Ms. Patanjali Y. SHRESTHA. She has a Master's degree in International Relations from the University of Wollongong, Australia. She has a wide experience of working as a researcher on various issues of women, ethnic groups, livelihood, forestry, school children and served at RHF as a Program Officer for five years.



## BOARD MEMBERS



Dr. Pitamber SHARMA. He is a professor of Geography at Tribhuvan University; former Vice-Chair of the National Planning Commission (2008). He is a geographer/ regional planner with wide experience in the Himalayas. He holds a PhD in Regional Planning from Cornell University, USA.



Ms. Binu YONZON. Wife of Late Dr. Pralad B. Yonzon. She has been actively involved as a Board Member of RHF since 2012. She initiated Dr. Pralad B. Yonzon Wildlife Research Grant on May 21, 2021 providing funds to support post-graduate students for their Master's thesis. Till date, Ms. Yonzon has financially supported six post graduate students to successfully complete their research.



Mr. Prakash SHARMA. He has a Masters in International Cooperation and Development from University of Pavia, Italy. Mr. Sharma has more than 15 years of experiences in development sector, mainly program design, implementation and monitoring in development sector on child labor, education, gender mainstreaming, social dialogue, workplace cooperation, industrial relation, social policies, enterprise development, informal economy, youths and employment, training and capacity building.



Dr. Deep N. SHAH. He is an assistant professor at the Central Department of Environmental Science, Tribhuvan University. With over a decade of experience in different roles at GOs, NGOs and INGOs in Nepal. He holds a PhD in Natural Science (Biodiversity and Climate Change) from Johann Wolfgang Goethe-University, Germany.

## THE EXECUTIVE OFFICE



Dr. Dinesh Neupane  
Executive Director



Dr. Kamal Adhikari  
Research Director



Dr. Gauri S. Bhandari  
*Team Leader, NIBR Project*



Mr. Naresh Kusi  
Project Coordinator, HWP



Dr. Dipesh Pyakurel  
Project Manager



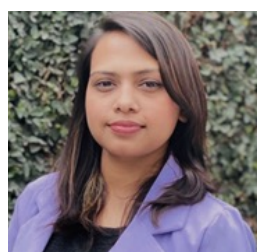
Ms. Sheila Ghimire  
Project Manager



Ms. Priya Maharjan  
Finance Officer



Mr. Suraj Baral  
GIS Officer



Ms. Srijana Sigdel  
Program Associate



Ms. Saraswati Thapa Chhetri  
EGH Coordinator  
(March 2022-August 2022)



Mr. Rajan Raj Dahal  
Research Assistant



Ms. Anusha Pahari  
Intern  
(November 2021- February 2022)



Ms. Shreyashi Bista  
Intern  
(March 2022-May 2022)



Ms. Neva Chaudhary  
Intern  
(July 2022-September 2022)



Ms. Nirmala Magar  
Caretaker



Mr. Gopal Maharjan  
Caretaker



Mr. Lal B. Tamang  
Security Guard



Figure 1: Nature hike organized by EGH in February 19, 2022

Participants take a break during a hike for nature organized by Environmental Graduates in Himalaya (EGH)



## BACKGROUND

Resources Himalaya Foundation (RHF) was established as a research think tank on natural resource conservation by the late Dr. Pralad Yonzon. Registered with the Government of Nepal, RHF is a not-for-profit research foundation managed by a Governing Board. It has over 35 years of experience in innovative research and capacity building in biodiversity, environment and livelihood in Nepal, Bhutan and Sikkim through nearly 200 research projects. The milestones include: Count Rhino 94, Status of the Red Panda in the Himalayas, Hornbill Ecology, Nationwide Database of Chure (Siwalik) Ecology, GIS Database of Nepal's Protected Area, Annapurna Conservation Area Management Plan, Elephant Conservation Action Plan, Snow Leopard Conservation Action Plan, Nepal Biodiversity Action Plan, and Conservation Plan of the Western Terai–Chure Region as the primer for Terai Arc Landscape (TAL). RHF also assisted in developing Rapid Biodiversity Survey Framework for all nine protected areas of Bhutan, including Phobjikha Conservation Landscape Area Plan.

Bringing contemporary knowledge to deal with issues of natural resources conservation and mentoring the younger generation to build the conservationists of the future are the two major thrusts of RHF's work. In the last five years, it has mentored over 400 university graduates and enabled over 100 graduates to engage in dissertation studies.

## MISSION, GOAL AND VISION

### *Mission*

To conserve biodiversity in the Himalaya, to promote sustainable use of natural resources including soil, water, forest and rangeland, and to improve livelihoods, particularly of the poor, disadvantaged and marginal sections of society.

### *Goal*

To promote “good science” to facilitate “informed and evidence-based decision-making”, to secure both biodiversity and resource conservation, and improved livelihoods of the poor.

### *Vision*

Resources of the Himalaya are conserved for posterity and sustainably utilized for improving the livelihoods of its people.

## OBJECTIVES

1. Promote collaborative and innovative research at local and regional levels, and advocate evidence-based decisions,
2. Promote community-based action-research on issues of contemporary relevance to biodiversity conservation and improving livelihoods,
3. Groom and mentor younger generation of graduates in environmental and social sciences on the path to becoming dedicated conservationists, and
4. Provide platform for scientific exchange, discussion and advocacy on issues of conservation and livelihoods.

## ENVIRONMENTAL GRADUATES IN HIMALAYA

The majority of RHF activities are carried out by its sister organization, Environmental Graduates in Himalaya (EGH). EGH is an independent forum for young graduates, established in February 2008 as a sister organization of RHF with the mission of protecting the environment and biodiversity in the Himalaya by building knowledge – based human resources amongst graduates through research, training and mentorship. With over 1200 members from around the globe, including Nepal, Australia, Bhutan, Bangladesh, India, China, Pakistan, Austria, Germany, Korea



and the United States of America, EGH has established itself as an active science – based youth forum in Nepal. The membership is free to any individuals who are involved in environmental conservation. EGH gets support fund from RHF and other contributions from ongoing EGH activities. EGH publishes *Headlines Himalaya*, a weekly research based fact file to keep global readers abreast with the happenings in the Himalaya. EGH supports RHF in different activities, such as trainings, workshops, seminars, graduate open house and various events. It also maintains a digital library for graduates seeking reference reading. Further, it regularly endorses and undertakes research activities.

EGH is led by its coordinator who typically serves for six months. The position of EGH coordinator is open to fresh graduates or enrolling students in MSc in natural sciences for apply. The EGH coordinator honor roll includes: Mr. Dhan Bahadur Shrestha 2008; Mr. Yogesh Dangol 2008; Mr. Bhuwan Dhakal 2009; Ms. Sangita Maharjan 2009; Ms. Barsha Parajuli 2010; Ms. Kanchan Ojha 2011; Mr. Anuj Pradhan 2011/12; Mr. Raju Jati 2012; Ms. Medinee Prajapati 2012/13; Mr. Biraj Shrestha 2013; Ms. Anju Rana 2013/14; Ms. Upama KC 2014; Ms. Meena Bohara 2014/15; Mr. Chitra Magar 2015; Ms. Kalpana KC 2015/16; Ms. Ishu Sireng 2016; Ms. Rasmi Kunwar 2016/17; Ms. Binita Pandey 2017; Mr. Saroj Basnet 2017/18; Ms. Bandana Adhikari 2018; Ms. Varsha Rai 2018/19; Ms. Anjana Suwal 2019; Ms. Juna Rai 2019/20; Ms. Kanchan Kattel 2020; Ms. Sushila Bajracharya 2020/21; Ms. Sheila Ghimire 2021; Ms. Srijana Sigdel 2021/22; and Ms. Saraswati Thapa Chhetri is the current Coordinator of EGH.

## ACTIVITIES

### ***PRIORITY THEMATIC AREAS***

RHF's core concerns – conservation of biodiversity and resources and improving the livelihoods of people – cover a very broad canvas. RHF's recent strategic plan outlines a

long-term vision with coherence of short-term programs. Three broad priority thematic areas have been identified:

1. Monitoring of biodiversity and conservation efforts,
2. Addressing contemporary issues in conservation and development, and
3. Capacity building and mentoring for the new generation.

### **A) Monitoring of Biodiversity and Conservation Efforts**

#### **i) *Habitat Utilization Patterns of Asian Elephant (*Elephas maximus*) herds in Central and Western Terai, Nepal***

This project is being carried out as collaboration between RHF and Xishuangbanna Tropical Botanical Garden (XTBG) of the Chinese Academy of Sciences (CAS). The main objective of the project is to study the habitat ecology of elephants in the protected areas of Nepal, particularly Chitwan National Park, Parsa National Park, Bardia National Park and Banke National Park. Initial work of the project has been completed and currently, the team is planning for the field activities scheduled in the upcoming months.

#### **ii) *RHF-NIBR Project: Biodiversity and Sustainable Use of Biological Resources of Nepal***

A Memorandum of Agreement (MoA) was concluded between the National Institute of Biological Resources (NIBR) of South Korea, and RHF for cooperation on the research of biodiversity and sustainable use of biological resources of Far-west Nepal. The forms of cooperation between NIBR and RHF include field surveys and inventory of the flora of Far-west Nepal, collection of herbarium specimens, and documentation of ethnobotanical knowledge. Three expeditions to the Far-west Nepal have been completed with the collection of two sets of herbarium specimens of about

520 species: one set of specimens for deposition in KB (herbarium of NIBR) and another set for deposition in KATH (National Herbarium Godawari, Nepal) The first expedition was conducted between February 22, 2021 and March 1, 2021 in Baitadi, Dadeldhura, Doti and Kailali districts. The second expedition was carried out during September 12, 2021 to September 21, 2021 in Achham, Baitadi, Bajhang, Dadeldhura, Doti and Kailali districts. The third expedition was conducted during May 27, 2022 to June 5, 2022 in the same districts explored during second expedition. The collected samples were air-dried and stored in herbarium cabinets at RHF. Silica-gel dried leaf samples for DNA extraction were also collected. Most of the species were identified in the field. Other species which could not be identified easily in the field are being identified using relevant literatures and consulting with experts. A set of 230 identified specimens were handed over to KATH in May 2022. RHF has submitted an application to DPR for approval to transfer a set of herbarium specimens to NIBR.



Figure 2: Project team collecting herbarium specimens in field

### iii) ***Social Mobilization and Community Engagement (2017-2022)***

Social Mobilization and Community Engagement is a two-year project (recently

extended to three years) supported by Nepal Reconstruction Engineering Services Project (NRES) program of the CDM Smith International INC. funded by the United States Agency for International Development (USAID). The NRES project aims to support USAID in its efforts to “build back safe” health and education facilities in Nepal after the devastating earthquake of April 2015. To accomplish these objectives, the project is being implemented through task orders that will include design and construction of earthquake- affected buildings in the three schools of Kathmandu valley, namely;

1. Adarsha Secondary School, Sanothimi, Bhaktapur
2. Kanya Mandir Secondary School, Nhyakha, Kathmandu, and
3. Bhagwati Secondary School Sankhu, Kathmandu.

RHF with the support of CDM Smith International INC. is providing qualified social mobilizers in developing, understanding and cooperation within the communities in these schools in order to enhance the potential success and outcomes of the program.



Figure 3: Cover page of the Education Quality Improvement Plan of the three schools

### iv) ***Clean-up Lamtang to Sustain High Altitude Heritage, Nepal***

RHF received an award from the European Outdoor Conservation Association (EOCA) to conduct the project titled, ‘Clean-up Himalaya

to sustain high altitude heritage, Nepal'. There were four main objectives: (i) to assess the impact of tourism business on the environment, (ii) to conduct awareness campaigns, (iii) to conduct clean-up campaigns, and (iv) to prepare a policy brief for solid waste management. Although the project initially aimed to be completed by October 2020, the COVID-19 pandemic interrupted its timely implementation. Some of the works conducted were: (i) a pilot survey and stakeholder meetings from February 6-9, 2020, (ii) a clean-up campaign and stakeholder consultations from November 3-12, 2020, (iii) a mass mobilization of 113 volunteers for clean-up campaign and a one-day awareness trainings in three locations for 104 students of three schools and 102 individuals from local stakeholders from January 7-11, 2021, and (iv) a final visit for the monitoring of dustbin installation and facilitation of an incinerator from March 12-25, 2021. Additionally, solid waste was collected from both Lamtang and Gosainkund trails once a month until the end of February 2021. Fifty dustbins made from bamboo were installed on both trails by consulting the local stakeholders. The incinerator was also designed and coordination was carried out with the local government for its installation and operation. A solid waste management policy has been prepared for the Gosainkunda Rural Municipality (GRM).



Figure 4: Awareness campaign on solid waste management

#### v) *Occupancy of Eurasian Otter (*Lutra lutra*, Linnaeus 1758) in Tadi River of Central Nepal*

The research project was a part of Nepal Otter Action Plan: Phase I Research Focus, and funded by IUCN Otter Specialist Group, The Four Corner Stone. The objectives of this research were i) to assess presence/absence of the Eurasian Otter, ii) to evaluate the habitat suitability of Eurasian Otter, and iii) to document the availability of prey species in the habitat. The otter surveys were carried out in the Tadi river catchment from the confluence of Tadi and Trishuli rivers to Sisipu (buffer zone of Lamtang National Park) over the length of 52 kilometer. Field surveys were carried out for two times in which activities such as camera trapping, habitat, sign transect surveys and scat collection for genetic study were completed.



Figure 5: Researchers during awareness campaign on solid waste management

#### vi) *Otter Clubs in Chitwan National Park, Nepal*

In collaboration with the International Otter Survival Fund, RHF successfully completed the project "Education and Formation of Team Otter Clubs in Chitwan National Park, Nepal" led by Prof. Paras Mani Acharya and Dr. Dinesh Neupane. It focused on raising awareness of otters and their conservation by educating school level students from eight schools in the buffer zone of Chitwan National Park, Nepal. The overall project was divided into two sub-



projects: i) creating an awareness program; and ii) an educational workshop to start Team Otter Clubs. The project aimed at educating school children and teachers on various aspects of otters, including its ecology, biology, habitat, and behavior, including its conservation issues. This interactive program was successful in increasing the children's interest and affinity towards otters. As a result, five Team Otter Clubs were formed, comprising of 38 children from five schools. Through the formation of these clubs, this program aimed at creating a sense of stewardship and responsibility among the local people and children for the conservation of otters and the riverine habitat, as well as addressing the environmental issues of the river basin. The project is expected to enhance the awareness of the importance of conserving aquatic species. This program would be a steppingstone to create a better understanding of the importance of otters and is expected to extend to a larger group of people in the future. Mr. Pawan Poudel, Ms. Swostika Jamarkattel, and Ms. Surakshya Bhandari supported during the fieldwork.

vii) ***Sustainable Ecosystem Protection: Conservation of the Wildlife Community in Upper Humla through an Understanding of Wolf Behavior and Local Communities***

The Himalayan Wolves Project (HWP) team conducted 'Conservation Workshop and Wildlife Monitoring Training' in Upper Humla during November 2021. The team prepared presentations, educational posters and board games for the workshop and a simplified manual on camera traps, Global Positioning System (GPS) device, scale compass and binoculars for the training. They also distributed copies of the book "The Web of Life: A Trans Himalayan Animal Adventure" to the villagers and school children. Similarly, they installed mini-libraries in the local schools with books from different fields, including science, health, conservation and natural history. The workshop and

training were conducted in collaboration with the Namkha Rural Municipality, Humla and Division Forest Office, Humla.

During May-July 2022, the project team conducted another research expedition in the Trans himalayan valleys of Upper Humla. Like in the previous year, they deployed camera traps, conducted fecal DNA sampling of the Himalayan wolves and surveyed the prey community through distance sampling. During the same visit, the project team also initiated the constructions of predator-proof livestock corrals and distributed fox lights to yak herders. Currently, the project team is examining the research data from 2021-2022 and is preparing for the next conservation workshop.



Figure 6: Conservation workshop for school children in Halji village, Upper Humla, Nepal

**B) Addressing Contemporary Issues in Conservation and Development**

i) ***Elephant Talk: Death of Makuna***

RHF and EGH organized an Elephant Talk on October 6, 2021, on the topic "Death of Makuna: Conservation Science and Ethics". The speakers of the program were young students, researchers and graduates involved in elephant research. Amidst the recent death of Makuna, the program was organized primarily to find out the views of young generation of researchers on the current conservation efforts and needs to mitigate human-wildlife conflict.



The program was moderated by Ms. Sheila Ghimire, Program Associate at RHF.

The speakers were Mr. Ayush Shrestha, Mr. Saugat Bolakhe, Mr. Bishal Koirala, Mr. Pitamber Gaire, Ms. Divya Bhattarai, Ms. Srijana Sigdel and Ms. Ruby Shah. All the researchers shared their experiences and views encompassing various aspects, such as the behavior of Makuna, current conservation efforts in Koshi Tappu Wildlife Reserve, the behavior of local people in response to wildlife and the need for technological advances, giving examples of cases from other countries.

## ii) ***Review on Rainfall-induced Disaster in Nepal***

RHF organized a talk program on “A Review on Rainfall-induced Disaster in Nepal” on November 1, 2021. The program was moderated by Dr. Basanta Raj Adhikari (Assistant Professor, Institute of Engineering, Tribhuvan University). The panelists were Ms. Shanti Kandel (Senior Divisional Meteorologist at Department of Hydrology and Meteorology (DHM)); Mr. Pradip Khatiwada (Executive Director, Youth Innovation Lab); Dr. Dijan Bhattarai (Under Secretary and Spokesperson, National Disaster Risk Reduction and Management Authority (NDRRMA)); and Prof. Dr. Bishal Nath Upreti (Academician, Nepal Academy of Science and Technology (NAST)).

Ms. Kandel highlighted the climate trend in Nepal and Mr. Khatiwada talked about the disaster status, underlining the damage and loss. Dr. Bhattarai discussed government’s stand in solving the issue and Dr. Upreti talked about the approaches required to have an effective solution. A discussion on how the high intensity of rainfall in a short period of time resulted in damages were highlighted. Not only the loss and damages from disaster, but also the irregularities of such occurrences are also increasing. It cannot be denied that the country is moving towards acquiring and managing data, but its use in decision making is still unclear. From the government’s standpoint,

the step towards disaster minimization and management is relatively new in the context of Nepal. Moving from no legal ground for disaster management in the past to developing some act and policies, Nepal’s step to mitigate the recurring disaster is praiseworthy to some extent. However, a strong technology and early warning system is still required in addition to flood and landslide specific hazard maps. A strong coordination as well as knowledge and resource exchange between DHM and NDRRMA is a much needed approach for better disaster management in Nepal.

## iii) ***COP 26: Lessons Learnt and Way Forward***

RHF organized a panel discussion on “COP26: Lessons Learnt and Way Forward” on December 5, 2021. The program was moderated by Mr. Bhushan Tuladhar (Chairperson of Clean Energy Nepal and Environment and Public Health Organization). The panelists were Dr. Radha Wagle (Joint Secretary and Chief of Climate Change Management Division, Ministry of Forests and Environment), Dr. Bimal Raj Regmi (Team Leader, Policy and Institutions Facility, Oxford Policy Management) and Ms. Prakriti Koirala (Student, MSc in Environmental Science, Central Department of Environmental Sciences, Tribhuvan University). All the panelists were among the delegates who represented Nepal at COP26.

Sharing their experiences of their learning from the COP26, the panelists discussed the issues that COP26 addressed and failed to address. Dr. Radha Wagle talked about the preparations that Nepal made to present its need in COP26. The urgency of implementation of actions like national planning adaptation, strategies of reduction of carbon emissions and nationally determined contributions (NDC) was put forward in the negotiation process. Some of the positive things were that the majority of the countries at the conference were convinced about the loss and damage from climate change and the Paris Agreement was finalized

after all the countries agreed on the disputed agenda. Dr. Bimal Raj Regmi talked about the role of private organizations in implementing the commitments that Nepal has made. Comparing the present and historical context, he highlighted that the interests of developed countries and least developed countries might not align. However, the fact that incremental progress has been made cannot be denied. The government cannot work singlehandedly to meet the target, so the investment and commitment from private organizations is very important. Additionally, all the major departments and ministries of Nepal must work together through an integrated approach to enhance Nepal's role in combating climate change. Ms. Prakriti Koirala represented the youth and highlighted the need to have a youth inclusive approach in the implementation of different climate change related actions. She pointed out the difference in commitment level between least developed countries and developed countries. From a youth's perspective, she mentioned that the net-zero commitment made by Nepal could be attained if all the concerned authorities work together, including active engagement of youth.

In the discussion session, the role of private organizations for the promotion of electric vehicles was highlighted. Without the support of the government for technical assistance, private sector engagement in the promotion of such vehicles is very low. The talk underlined the need for creating an enabling environment by the government for the private sector to invest in climate resilient or adaptive technologies. To summarize, the panel discussion mainly highlighted the need for implementing the commitment of COP26, wise and sustainable use of domestic finance and the need for an integrated approach from all departments in the country.

#### iv) ***Solid Waste Management in Urban Cities of Nepal: Policy and Perspective***

RHF organized a talk program on "Solid

Waste Management in Urban Cities of Nepal: Policy and Perspectives" on July 04, 2022. The program was moderated by Mr. Haribol Acharya (Environmentalism). The panelists were Mr. Lawa Shrestha (Mayor, Manthali Municipality); Ms. Sarita Rai (Chief, Environment Department, Kathmandu Metropolitan City) and Dr. Dhundi Raj Pathak (Geo Environmental Engineer and Solid Waste Management Specialist).

Dr. Pathak highlighted the trend and emergence of solid waste in Nepal, and recommended possible smart, technology driven solutions, and approaches. Ms. Rai talked about the current interventions and gaps in operation, policy, and the initiations taken to tackle the issue by Kathmandu Metropolitan City. Mr. Lawa Shrestha talked about the challenges being faced by Manthali Municipality in terms of resources, knowledge, and their further plans based on the local scenario. A discussion on the trend and pattern of solid waste including the change in its composition were highlighted. It cannot be denied that the major problem has emerged due to the failure of segregation of waste at the point of generation. As a result, the huge amount of waste generated has created problems in the existing landfill sites and to solve it alternative sites are being explored. But this only means that we are shifting the same problem to another place.

Decreasing human resources and access to road to dumping sites due to seasonal rain are the challenges that Kathmandu Metropolitan Municipality is facing. However, creating a systematic approach to waste management, segregation of waste is in the process of implementation. Smart techniques are still required to be incorporated in addition to proper planning. Manthali Municipality is on the plan to coordinate with Ramechhap Municipality for its waste management. Also, they are trying to incorporate the concept of generating money from waste management. Manthali Municipality is facing various challenges such as, a lack of adequate budget

allocation and community mainstreaming. Thus, as recommendations; proper planning with strong inter-municipality coordination along with coordination between committee and local level, as well as knowledge exchange between government, specialist and private sectors are much needed approaches for better

solid waste management in urban areas of Nepal. Also, during the creation of a waste management plan, whether the waste is to be managed or commercialized needs to be taken into consideration.

## C) Capacity Building and Mentoring Activities

### i) Research Grants

#### 1. Research Grants

RHF provided thesis grant to students studying Bachelor's and Master's in Natural Sciences in own resources and support from partner institutions. The list of students with their thesis topic is given in the table below:

Grant Number	Level	Name	Title	College
Co1/21/001	Master's Degree	Basanta Sharma	Coexisting with tigers: Factors affecting tiger-human exposure and people's outlook towards conservation in Khata corridor, Bardia National Park	Nepal Open University
Co1/21/002	Master's Degree	Srijana Sigdel	Assessing habitat use and human-leopard interactions in Tanahun district, Nepal	School of Forestry and Natural Resources Management
Co1/21/003	Master's Degree	Prabesh Kakshapati	Occurrence, distribution, and survival threats of Red Panda in Sunchhahari Rural Municipality of Rolpa district, Nepal	Kathmandu Forestry College
Co1/21/004	Master's Degree	Binod BC	Human-elephant conflict in the buffer zone of Bardia National Park	Central Department of Botany
Co1/21/005	Master's Degree	Bishal Koirala	Spatial pattern and determinants of human-elephant conflicts in Eastern lowland of Nepal	Central Department of Zoology
Co1/21/006	Bachelor's Degree	Anuja Thapa	Wildlife movement in and around waste transfer facility in Teku area	Nepal Open University
Co1/21/007	Bachelor's Degree	Nabin Basnet	Ethnobotanical medicinal plants practiced as traditional healing by Santhal community of Dharampur area, Jhapa	Central Campus of Technology
Co1/21/008	Bachelor's Degree	Pratik Shrestha	River health assessment of Bagmati River and its tributaries in the Kathmandu valley, Nepal	Golden Gate International College

Co1/21/008	Bachelor's Degree	Richa Shrestha	Water quality analysis on water resources of Banepa Municipality with impacts of COVID-19 on them	Khwopa College
Co1/21/010	Bachelor's Degree	Samyak Prajapati	Farmers-monkey interface before and during lockdown in Chapagaun, Lalitpur	Patan Multiple Campus
Co1/21/011	Bachelor's Degree	Shreya K.C.	Frogs in the field: study of frogs' population and pesticidal impacts in agriculture land of Lubhu, Lalitpur	Patan Multiple Campus
Co1/21/12	Bachelor's Degree	Simran Dhakal	Habitat and mortality analysis of white-rumped vulture in Koshi-tappu wildlife reserve	Kathmandu Forestry College
Co1/21/13	Bachelor's Degree	Ranjan Raj Dahal	Dendrochronological potential of multiple tree species from mid-hill of Nepal Himalaya	Patan Multiple Campus
Co1/21/14	Master's Degree	Sabita Badal	Wildfire drivers and their mitigation measures adopted in local communities: A case study in three ecological zones of Nepal	Golden Gate International College
Co1/21/15	Master's Degree	Roma Phuyal	Wildfire occurrence, trend, and its impact on vegetation in Nawalpur district, Nepal	Golden Gate International College
Co1/22/16	Master's Degree	Samjhana Shrestha	Wildfire trends in forests of Nepal and its impact on medicinal plants: Cases from Rasuwa district of Nepal	Golden Gate International College
PO1/21/001	Master's Degree	Bibek Sapkota	Effects of biochar on the soil nutrients in climate smart village, Devchuli	Golden Gate International College
PO1/21/002	Master's Degree	Utpal Devkota	Socio-economic determinants of trees and their carbon stock in small holder community farms	Agriculture and Forestry University
PO3/21/001	Bachelor's Degree	Hasina Chaudhary	Medicinal plants and their indigenous use in Kailali district.	Institute of Forestry
PO3/21/002	Bachelor's Degree	Sabitri Sharma	Use, perception, and management of Asuro in rural communities: A case from the Central Nepal.	Amrit Science Campus
PO3/21/003	Bachelor's Degree	Kalpana Bhattarai	Ethnobotanical study of medicinal plants used by Tharu tribe in Mid-eastern Terai of Nepal.	Trichandra Multiple Campus



## 2. YSN (Young Scientist Network) Research Grant

Young Scientists Forum Nepal (YSFN) was established by RHF under the coordination of Dr. Dinesh Neupane in 2020 to mobilize the younger generation of scientists into science advocacy and research. Three young scientists received YSN grant this year to carry out their research.

**Table 2: List of RHF Grantees from YSN**

Grant Number	Name	Title	College
P02/21/001	Sandeep Chhetri Luitel	Status of birdlife in Telpanui Community Forest, Jhapa	Agriculture and Forestry University
P02/21/002	Asmikta K.C.	Human-rhesus macaque conflict in Methlang, Pokhara	
P02/21/003	Nabin Basnet	Diversity of butterflies in Bishnupaduka area, Sunsari district, Eastern Nepal	Central Campus of Technology

### ii) Himalayan Knowledge Conclave- Graduate Conference 2022

The eighth Graduate Conference was hosted by Mid-West University, Birendranagar, Surkhet, held on 4th and 5th April 2022 in collaboration with the Ministry of Industry, Tourism, Forests and Environment- Karnali Province, Government of Nepal Ministry of Education, Science and Technology, Mid-West University, Tribhuvan University-Institute of Science and Technology-Central Department of Environment Science, RHF, Institute for Social and Environmental Transition- Nepal (ISET-Nepal), Kathmandu University, Agriculture and Forestry University, and Lumbini Buddhist University. The main goal of the conference was to build an interdisciplinary knowledge-sharing platform for young researchers, with a particular focus on environment, resource conservation, management, economic and social development and innovations and technologies. The theme of the conference was 'Connecting Dots: Resources and Prosperity'.

The Conference brought graduates and young researchers together from Nepal and neighboring countries (Bhutan, China, India, and Thailand) to present their researches, provide review and comment on each other's work. The conference included 12 thematic areas: Agriculture and food security, Biodiversity and forests, Climate change and disasters, Environmental pollution, Ethnobiology and health science, Innovation and technologies, Philosophy and development, Sociology and humanities, STEEM (Science, Technology, Education, Engineering, and Mathematics),

Mountaineering, tourism and heritage. The conference received contributions of more than 70 oral and 40 poster presentations from the graduates of 19 universities from different parts of the globe, including Nepal, Bhutan, China, India, and Thailand. The program was carried out simultaneously each day in three halls: Kanjirowa Hall, Rara Hall, and Sinja Hall. The two-day conference included an inauguration session, 12 technical sessions, lecture sessions, a panel discussion, special site events, and a closing session. The program had an opening session, chaired by Dr. Sudeep Thakuri, Conference Convener. Honorable Chief Minister, Mr. Jeevan Bahadur Shahi attended as the chief guest. Mr. Mohan Raj Bhatta, Campus Chief, CCST; Prof. Dr. Nanda Bahadur Singh, Vice-Chancellor, Mid-West University; and Honorable Minister Tshering Damdul Lama (Karchen) had their valuable presence in the program. In the closing sessions, the representatives from different partners; Dr. Dinesh Neupane, Executive Director, RHF; Dr. Sadhana Pradhananga, Head of Department, Central Department of Environment Science -TU; Prof. Dr. Nanda Bahadur Singh, Vice-Chancellor, Mid-West University; Prof. Dr. Amma Raj Joshi, Vice-Chancellor, Far-Western University put their remarks on the conference and its needs respectively.

### iii) Training and Mentoring Workshops for Young Graduates

#### 1. Professional Training on Environmental Assessment (EIA/ IEE/BES)

Two Initial Environment Examination (IEE)

training sessions were held in the previous calendar year. For both trainings, Mr. Manoj Aryal, an environmental inspector at the Department of Roads, was invited as the instructor.

**Table 3: Environment Assessment Training during 2078/079**

S.N.	Time Period	Length (Days)	No. of Trainees
1	December 24-26, 2021	3	8
2	July 15-17, 2022.	3	18

The introduction and the procedures for Environmental Impact Assessment, IEE, and Brief Environmental Study were the main subjects of the environmental assessment training. The second day of the training was set aside for a field excursion to the Kirtipur campus of Tribhuvan University, where the trainees divided into two groups and completed several environmental assessment tasks. Finally, each group discussed its findings, how to interpret the fieldwork, and how to prepare a report on the final day.



Figure 7: Environmental assessment training

## 2. Wildlife Training to Graduates 2022

EGH and RHF organized 10 days “Wildlife Training to Graduates, 2022” from February 27 – March 08, 2022, with an objective to groom and mentor the younger generation of graduates in environmental and natural sciences, to becoming dedicated wildlife conservationists by capacity building, empowering with field-based techniques. The training enlightened the innovative research and policy analysis and created a platform for knowledge management and dissemination. The training was financially supported by World Wildlife Fund-Nepal (WWF), and Zoological Society London (ZSL) Nepal. National Trust for Nature Conservation (NTNC) provided logistics support. A total of 17 theory sessions were carried out by various

resource persons covering topics such as wildlife research techniques, genetics, trade, research ethics, R basics, GIS etc. Various research techniques regarding the study of mammals, birds, habitat assessment, non-invasive genetic sampling and household surveys were practiced in the field.



Figure 8: Trainees and trainers during the field work in Bardia

## 3. Intermediate Level Training on Geographic Information System (GIS) Modeling and Remote Sensing (RS)

EGH organized “Intermediate Level Training on Geographic Information System (GIS) Modelling and Remote Sensing (RS)” from April 18 to 22, 2022 with instructor Mr. Suraj Baral, GIS Officer at RHF. Three hours long training was given to six trainees from different background. The training started with briefing of GIS and RS, followed by the practical sessions. The content; map layout, supervised and unsupervised land cover classification, maxent modelling, watershed delineation, and remote sensing of soil, fire, and productivity were covered during these five days. Individual topic was carried out in detail with demonstrations, discussions and assignments.



Figure 9: GIS and RS trainees

#### iv) Pralad Yonzon Conservation Forum

In 2012, the Pralad Yonzon Conservation Forum (PYCF) was initiated in honor of the late Dr. Pralad Yonzon, who founded RHF. PYCF is a platform for advocacy and knowledge sharing. Every month on the first Friday, open public seminars, talks, and discussions are held on topics of public interest related to environmental preservation, livelihoods, and the sustainable use of natural resources.

Efforts are being made to broaden PYCF as a regional platform that brings together professionals and researchers not only from the environmental sciences but also from ancillary disciplines in the natural as well as social sciences. A total of ten professionals, experts, and researchers expressed their thoughts on various topics at the forum between August 2021 and July 2022.

Table 4: List of speakers on PYCF (August 2020 to July 2021)

Series	Month	Guest Speaker	Title
103	August 2021	Dr. Binod Baniya	Space Based Ecological Research in Nepal
104	September 2021	Dr. Lila Nath Sharma	Human and Non-Human Drivers of Fine Scale Pattern of Tree Diversity in Jalthal Remnant Forest
105	October 2021	Mr. Abhinaya Pathak	Time for Difference: Learning from Genetic Diversity of Greater One-Horned Rhinoceros of Chitwan National Park
106	November 2021	Dr. Madhu Chetri	Ecology of Snow Leopards in the Central Himalayas, Nepal
107	December 2021	Mr. Ganesh Pant	Climate Change Vulnerability Assessment and Adaptation Planning: A Case of Greater One-horned Rhinoceros in Nepal
108	January 2022	Dr. Rabin Kadariya	Genetics, Ecology and Conservation of Himalayan Black Bears ( <i>Ursus thibetanus laniger</i> ) in Nepal
109	February 2022	Mr. Shyam Kumar Thapa	Grazing Lawns in Sub-Tropical Region of Nepal
110	March 2022	Dr. Mohan Bahadur Chand	Glacial Lake Development and Associated Hazards in Nepal Himalayas
111	May 2022	Dr. Geraldine Werhahn	Himalayan Wolf Ecology, Phylogeny, and Conservation
112	July 2022	Asst. Prof. Kamal Raj Gosai	Birds of Different Feathers Flock Together



## v) Guff-Gaff

Guff-Gaff is a semi-formal monthly discussion program, which was initiated on December 25, 2012 by EGH. The aim of the program is to motivate young and early researchers by sharing their personal and professional experiences. The program recognized experts in various sectors, mostly from the environmental sector. Many EGH members and students seek suggestions and advice from experts in their own areas of interests and also gain insights into experiences of the “real” world. Throughout the year 2021–2022, eight guests shared their knowledge and experiences with students and young researchers.

**Table 5: List of Guests on Guff Gaff**

Date	Guest Speaker	Title
August 2021	Ms. Indira Aryal	Women in Conservation Journalism: Challenge and Opportunity
November 2021	Dr. Rijan Bhakta Kayastha	Status of Cryospheric Research and Climate Change in Nepal
December 2021	Mr. Ramesh Kumar Thapa	Human-Elephant Coexistence: Lesson Learnt
February 2022	Mr. Paras Mani Acharya	Otter Research in Nepal: Experiences and Hurdles in Conservation
March 2022	Dr. Sailesh Ranjitkar	Plastics: A Problem of Anthropocene and its Biological Solutions
April 2022	Dr. Radha Wagle	Importance of Gender Mainstreaming in Sustainable Forest Management
June 2022	Dr. Ramesh Man Singh	Research Experiences on Refuse Derived Fuel as an Alternative Fuel for Industrial Kilns
July 2022	Dr. Gauri Shankar Bhandari	Learning from the Experiences of Biodiversity Related Field trips in Nepal and East Asia

## i) *Young Scientist Network*

Young Scientist Network was developed as an initiative to combat COVID-19 after the first lockdown which was initiated in Nepal on March 24, 2020. The network is composed of coordinators and associate coordinators from all the seven provinces and overseen by the national coordinator, Dr. Dinesh Neupane, Executive Director at RHF. YSN was initially covered in 57 out of 77 districts but has now been extended to 75 districts in Nepal. This network has completed several activities such as awareness campaigns through posters, audio-visuals, arts, comics, and articles including an action research called “Building Science Chasing Coronavirus”. These initiatives were awarded with the prestigious “UNESCO Wenhui” award for education innovation.

YSN has been actively carrying out new innovative work to maintain scientific literacy among people. Furthermore, to talk about the contemporary issues, letter-to-editor initiative is being carried out. Some volunteers have developed SciPod where they talk about scientific issues. Another notable work being carried out is the research on “Scientific Literacy of Mask Usage in Nepal” through online questionnaire survey. Other service includes the COVID-19 Help Desk to support the general public in need of oxygen cylinders, hospital beds and ICU during the shortage period. The young scientists

have also been expanding their knowledge horizon by inviting distinguished guests from different fields and hearing interesting talks given by them.

## **D) Celebration of Important Days**

RHF and EGH have a long tradition of marking important days related to environment and conservation. Details on the celebration are given below:

### **i) World Elephant Day**

RHF and EGH celebrated World Elephant Day on August 12, 2021, by organizing a panel discussion on the theme “Human-Elephant Conflict: Challenges to Elephant Conservation.” Three experts from research, government planning and local level planning were invited. The panelists included Mr. Hari Bhadra Acharya (Ecologist, DNPWC), Dr. Narendra Man Babu Pradhan (Elephant Expert; Program Coordinator, IUCN) and Mr. Ramesh Thapa (Former Conservation Officer, DNPWC). The program was moderated by Dr. Dinesh Neupane (Elephant Expert; Executive Director, RHF).

The panel discussion was carried out in two rounds. The first round was about the Human-Elephant conflict scenario whereas the second round was discussion about the current mitigation measures and, the way forward to reduce the conflict. They talked about the incidents of elephant attacks, the major places it occurs, and the ways the community has been dealing with them. They also highlighted the different actions being taken to reduce the conflict through various research organizations, government and local institutions. All the panelists constantly highlighted the nature of elephants, their movement, and the way the habitat has been fragmented due to various developmental activities.

In the second round, they focused on the need for coexistence of both human and elephant in such a way that the elephant can move freely

and the livelihood of the local people is not affected. They pointed out various research as well as activities being carried out, such as relief funds by the government, conservation action plans, transboundary cooperation policies, and research about alternatives to reduce the human-elephant encounters. A successful example was given from the Khata corridor, where the group “Hathi Mero Sathi” has been actively working to create awareness in the community by dividing into groups. They inform about the arrival of 11 elephants through the early warning towers, have new compensation initiatives, and give benefits to the victim’s family, which has created a positive attitude among the local people. This, in turn, has greatly helped in reducing the encounters. Such activities can be adopted in other parts of the country to mitigate the conflict.

### **ii) National Science Day 2021**

National Science Day was celebrated on September 17, 2021 (Ashwin 1, 2078) with the slogan “Voice for Science”. The day was celebrated with the aim of appreciating the role of science and technology and promoting scientific research and development. Dr. Dinesh Raj Bhuju coordinated the campaign, along with representatives from various institutions in different provinces of Nepal as well as abroad. The campaign was conducted virtually where more than 1400 people participated through the Zoom platform and Facebook live.

The session was chaired by Prof. Jiwan Shrestha, Fish Scientist and Architect Mr. Jagatbir Shilpakar was the chief guest. Representative people from various backgrounds of science and technology expressed their views. Ms. Rojina Gauchan, Mr. Manoj Acharya, Mr. Nashir Mulla, Ms. Anju Malla and Dr. Sojen Malla represented the young scientists, teachers, researchers, women scientists and the diaspora respectively. In order to include the scientific creativity of young people, a science video competition was organized, which was coordinated by RHF. The participants

submitted videos related to science innovation covering different aspects of science and technology. Ms. Asmita K.C. was awarded with the first prize, followed by Ms. Rojina Gauchan and Mr. Nabin Basnet in the second and third position respectively. The consolation prize was won by Mr. Aditya Dhital, Mr. Binod B.C. and Mr. Ronen Acharya. Er. Ganesh Shah distributed the cash prize to all the winners. The remarkable announcement on this occasion was the establishment of the Science Teachers Award. The overall campaign was supported by different institutions around Nepal, such as educational institutions, research institutions, NGOs, and foundations.

### **iii) Dr. Pralad Yonzon Memorial Day**

RHF and EGH jointly organized a talk program titled “Recalling Dr. Pralad Yonzon’s Memories” on the occasion of 10<sup>th</sup> Memorial Day of Dr. Pralad Yonzon on October 31, 2021. Several distinguished guests shared their precious memories with Dr. Pralad Yonzon. The program was moderated by Ms. Sheila Ghimire, Program Associate at RHF. Dr. Dinesh Neupane, Executive Director of RHF, gave the welcome remarks.

As a tribute to Dr. Yonzon, Dr. Dinesh Raj Bhujju announced that RHF would establish an award (Dr. Yonzon Conservation Award) in the name of Dr. Pralad Yonzon. These awards will be formalized by internal funds and with the support from other institutions and individuals. Dr. Yonzon Conservation Award will be given to a dedicated field based conservationist.

In the program, Dr. Yonzon’s mentees, Dr. Sapana Lohani Joshi and Mr. Promod Tandan expressed gratefulness towards Dr. Yonzon for always encouraging and inspiring them in every way. Similarly, Ms. Puspa Keshari Shrestha and Dr. Prabhu Budhathoki shared experiences and memories with Dr. Yonzon. They praised Dr. Yonzon’s persistence, hard-working nature, solid determination and encouraging attitude made him such a distinguished person and were the key to the uncountable contribution that he

made in the field of conservation science.

### **iii) International Mountain Day**

RHF and EGH organized a webinar on December 10, 2021 to mark International Mountain Day 2021. The day is celebrated on December 11 to emphasize the importance of mountains to the ecosystem, environment and human livelihood and to highlight the opportunities and constraints in mountain development, and to build alliances that will bring positive changes to mountains’ peoples and environments around the world.

The topic of the webinar was “Mountain Potentials and Future”. Nepali scientists and researchers from around the world were invited to talk about different aspects of mountains. Dr. Rajiv Ghimire (Research Associate, Arizona State University, USA), Dr. Prajal Pradhan (Senior Scientist, Potsdam Institute for Climate Impact Research, Germany), Dr. Nawal Shrestha (Researcher, Lanzhou University, China), Dr. Sojen Pradhan (Lecturer, University of Technology Sydney, Australia) and Dr. Dibas Shrestha (Assistant Professor, Tribhuvan University, Nepal) were the key presenters. Dr. Dinesh Raj Bhujju (General Secretary, RHF) moderated the program and Dr. Siddhartha Bajra Bajracharya (Academician, NAST) gave concluding remarks.

Dr. Rajiv Ghimire presented the topic “Adapting to climate change in the mountains through knowledge co-production”. He emphasized the existing problems on mountains and the need to integrate local knowledge with scientific knowledge for better adaptation to climate change. Dr. Prajal Pradhan presented on “Solar and wind energy potential in the mountains”. He explored the potential of solar energy in the northern and trans-Himalaya region and highlighted that the existing and upcoming hydropower projects should be synchronized with solar and wind energy in order to address a likely increase in energy demand in Nepal.



Dr. Nawal Shrestha presented on “Mountains as museums and cradles of species diversity: Evolutionary and conservation insights” and gave an overview of the high biodiversity of mountain regions. He mentioned that even though mountains cover only one-fourth of the land area, it has more than 85% biodiversity due to its high niche diversity. He gave examples of the evolution of rhododendrons in space and time. Dr. Sojen Pradhan gave a brief overview on “Nexus between mountain tourism and entrepreneurship: A pathway to community development in Nepal”. He pointed out the hidden problems of community-based tourism in the mountains and provided different approaches to promoting mountain tourism through the engagement of local resources. Finally, Dr. Dibas Shrestha presented on the topic “Vanishing Himalayan glaciers: Current understanding based on observations over Nepal Himalayas”. He emphasized the retreating of glaciers over the years by providing background from observations of 15 years in three glaciers of Nepal. He underlined the existing need for huge resources and the combined approach of in-situ observations, remote sensing and modelling to study the status of glaciers in Nepal. The program was concluded by Dr. Siddhartha Bajra Bajracharya by providing brief summary and closing remarks.

#### **iv) *International Day for Biological Diversity 2022***

RHF and EGH organized a talk program on May 22, 2022 to mark “International Day for Biological Diversity 2022”. The day is celebrated every year on May 22, to raise global awareness about the importance of protecting biological resources and the global biodiversity that shapes our environment, not only the various species of plants, animals and microorganisms around us.

The topic of the program was based on the theme “Building a Shared Future for All Life”. Dr. Narayan Prasad Koju (Evolutionary Biologist)

and Mr. Prakash Chandra Aryal (Conservation Biologist) were invited to talk about different aspects of biodiversity remaining intact with the theme. The young researchers and biodiversity enthusiasts actively participated in the program.

Dr. Narayan Prasad Koju mentioned that the theme was coined with two visions, i) Unity for nature and man, and ii) Follow nature’s course evolved after the declaration of ecological restoration decade (2021 – 2030). To meet this vision 30 by 30 target and living in harmony with nature was set, which means that 30% of earth’s land and ocean will be converted to protected status by 2030. On the cross of it, Dr. Koju stated that only the declaration of protected areas does not conserve biodiversity; collaboration with private-sectors outside the conservation area is needed for its meaningfulness. Looking over the composition of “Ecological Restoration Decade”, it is not only the provision to conserve biodiversity but also benefit on multiple sectors such as food security, climate change mitigation, water resources conservation and upgrading the economy. Dr. Koju concluded with a note that although Nepal is very rich in biological diversity, we are facing the existing threats for which everybody seems responsible; every individual and every individual’s action matters; we all need to work together and everyone needs to do our part of work for conservation of biodiversity.

Mr. Prakash Chandra Aryal talked about the current status of biodiversity, its current and future threats and some of the legal policies with actions taken to overcome the threats at local, government and international level. Talking about these different scenarios, he suggested that fulfilling the gap between practice and policy can conserve the biodiversity. The speakers addressed all the queries directed towards them. Looking over the interactive discussion session, the participants or the researchers seem to be stimulated to fulfill the gap in the researches on biodiversity and take the necessary actions to conserve it.

## **v) *Environment Day Celebration***

RHF and EGH organized a panel discussion on June 5 to mark “World Environment Day 2022”. The day is celebrated every year with a broad objective to raise awareness on various environmental problems including pollutions, sustainable consumption, and food security. Panel discussion was mainly focused on the theme of this year “Only One Earth”. Three guest speakers; Mr. Indu Bikram Joshi, Joint Secretary at Ministry of Education, Science and Technology, Dr. Alka Sapkota, Vice principal at Himalayan White House International College, and Dr. Binod Baniya, Asst. Prof. at Patan Multiple Campus, were invited. The program was moderated by Asst. Prof. Chandra Mani Aryal of Padma Kanya Multiple Campus.

Dr. Binod Baniya focused on the academic status, research done by the academicians and their implementation impact on existing issues in Nepal. Dr. Alka Sapkota emphasized on the problems being raised by waste, challenges and few solutions to solve those problems. Mr. Indu Bikram Joshi highlighted the support, loopholes from policy level to academic institution and research. The panel discussion was followed by an interactive session between the participants and panelists.

## **vi) *Global Tiger Day 2022***

RHF and EGH celebrated the Global Tiger Day on July 29, 2022, by organizing a talk program. Dr. Rabin Kadariya, Senior Conservation Officer of Bardia Conservation Program, National Trust for Nature Conservation, gave a talk on the topic “Creating Co-existence for the Welfare of Humans and Tigers”. The purpose of celebrating the Global Tiger Day is to create awareness among the people to conserve tigers and save their natural habitat.

Sharing the happiness that Nepal was able to increase tiger numbers to 355 in its fourth tiger census, 2022, with the highest number in Bardia National Park, Dr. Kadariya talked about the success story behind their achievement and need

to create co-existence for the welfare of humans and tigers in coming days. He addressed the issues of the human-tiger conflict, its challenges, and measures taken to mitigate them in Bardia National Park. Giving a blink to the conflict scenario, Dr. Kadariya mentioned the highest death record of humans by tiger attack from 2019 to till now is concentrated on Khata corridor and Gerua of Bardia National Park. Timely deployment of cameras after human casualties, continuous monitoring of tigers in the fringe area by radio collaring, and a massive behavior change campaign are the major activities done to reduce tiger attacks in Bardia National Park. In the midterm, he suggested to build a long elongated wildlife overpass and underpass on the road to stop the problem of road kills of tigers. Dr. Kadariya concluded the talk with some strong measures like management of habitat and prey species, grassland management, building of water holes/ponds, predator-proof corral houses, game-proof fencing with electric fence, and by providing alternatives for forest-based livelihood, awareness campaign should be specially focused for the management. The program ended with an interactive discussion session between the speaker and participants.

## **E) Other Celebrations/ Programs**

RHF and EGH have a long tradition of marking important days related to environment and conservation. Details on the celebration are given below:

### **i) *Award and Certificate Distribution Ceremony***

RHF and EGH organized an Award and Certificate Distribution Ceremony on September 24, 2021 and March 11, 2022. The objective of the program was to encourage and support the winners and active participants of different programs which were organized during the past months. The program was organized physically at Dr. Pralad Yonzon Memorial

Conservation Chautari and attended by the awardees, research grantee and honorable guests. Dr. Dinesh Raj Bhuj, General Secretary at RHF, chaired the program. Dr. Rejina Byanju Maskey, Professor and Head of Department of Central Department of Environmental Science, and Mr. Yogendra Subedi from Institute of Social and Environmental Transition- Nepal provided the encouraging remarks to young awardees.



Figure 10: A group photo of award and certificate distribution ceremony

The editors of Headlines Himalaya and the interns from March 2021, to February, 2022 were presented with their certificates. Also, the trainees of wildlife training to graduates in 2022 were presented with certificates on that day. The winners of the Voice for Science Campaign, which was held on National Science Day 2078, and the Himalaya Knowledge Conclave (HKC), Seventh Graduate Conference were awarded with cash prizes and certificates. Prof. Dr. Maskey and Mr. Subedi, represented the partner organization of HKC, gave their remarks on the graduate conference contributing to the growth of young graduates. Finally, the grantees who are being supported by RHF for their thesis research were presented with their grants. The program ended with concluding remarks by the chair of the program.

## ii) *EGH Day*

EGH organized a Nature Hike on February 19, 2022, to mark EGH Day (February 23). This is a yearly program organized by

EGH. The destination chosen for this year was Champadevi temple, Kirtipur. A total of 17 people from different backgrounds participated. After meeting at Balkhu, we moved towards Pahiroad bus stop, Dakshinkali road, where all the participants gave their short introduction. The hiking started with all the excitement and reaching to the Champadevi temple was our best mile to be covered on foot. With a short refreshment at the top, the next route to Pushpalal Park was followed. Activities like bird watching, exploration of nature, plant identification were carried out during the hike along with knowledge dissemination and interaction with experts, Dr. Dinesh Neupane and Mr. Suraj Baral.

## iii) *Welcome and Farewell of EGH Coordinator*

EGH organized the Welcome and Farewell of EGH Coordinator on September 24, 2021 and March 11, 2022. The objective of this program was to appreciate and acknowledge the contributions of EGH Coordinator, welcome the new EGH Coordinator and farewell to the current coordinator. The program was organized physically at Dr. Pralad Yonzon Conservation Chautari and attended by the editors of Headlines Himalaya, interns and Wildlife Training Graduates of 2022, RHF staff members and honorable guests.



Figure 11: EGH coordinator welcome and farewell

Appreciating the contribution of former coordinator Ms. Sheila Ghimire, the position



was handed over to the new EGH Coordinator, Ms. Srijana Sigdel, on September 24, 2021. Likewise, Ms. Saraswati Thapa Chhetri was welcomed by the former coordinator Ms. Srijana Sigdel and position was handed over on March 11, 2022. The former coordinator was given the farewell with a token of love. Dr. Dinesh Neupane, Executive Director at RHF, provided a vote of thanks and the program ended with concluding remarks by Dr. Ram Bahadur Chhetri, the chair of the program.

#### iv) **Staff Retreat**

RHF organized a retreat program to provide refreshment for the staff members of the organization. The retreat was for 1 night and 2 days in Chitlang, Nepal. In order to avoid affecting the normal office hours, the program was scheduled on the weekend. The attendees were: Dr. Dinesh Neupane, Dr. Kamal Adhikari, Mr. Naresh Kusi, Ms. Priya Maharjan, Mr. Purna Man Shrestha, Ms. Sheila Ghimire, Ms. Srijana Sigdel, and Ms. Anusha Pahari.



Figure 12: Group Photos of Attendees

## F) CHEADLINES HIMALAYA

An Environmental Research Abstract

# Headlines Himalaya

June 15 – June 30 (2022)

No. 703 – 704

Editorial Team: Shreeya Manandhar and Shreyashi Bista

For the 703<sup>rd</sup> - 704<sup>th</sup> issues of Headlines Himalaya, we reviewed researches from nine sources and selected 11 researches from four countries. We selected five researches from Nepal and six researches from other Himalayan countries (India, China, and Bhutan).

Headlines Himalaya, a weekly e-News is an attempt to keep our global readers abreast with the happenings in the Himalaya. Please share it with your colleagues and friends. Also, subscription is free. Enjoy!

Figure 13: Heading of Headlines Himalaya

Headlines Himalaya is designed to provide abstracts of environment related research from the Himalayas. Thus far, 703<sup>rd</sup>-704<sup>th</sup> issues of Headlines Himalaya have been published. It has been subscribed by more than 6000 readers from 78 countries around the world. This weekly research based fact file is an attempt to keep global readers abreast with the happenings in the Himalaya. It covers the news from the Himalayan regions of five countries- Nepal, India, China, Bhutan and Pakistan. Headlines Himalaya also provides an opportunity for environmental graduates to work as monthly editors.

**Table 6: List of Editors- August 2021- July 2022**

<b>Editor</b>	<b>Institutions</b>	<b>Month</b>	<b>Issues</b>
Monica Neupane and Rachana Sharma	Center for Environment Education Nepal and Chinese Academy of Sciences	August, 2021	661-664
Puspa Aryal and Uma Dhungel	Central Department of Botany	September, 2021	665-668
Puspa Aryal and Uma Dhungel	Central Department of Botany	October, 2021	669-672
Pratishtha Shah Thakuri and Sara Pariyar	School of Forestry and Natural Resources Management, Institute of Forestry	November, 2022	673-676
Puspa Aryal and Uma Dhungel	Central Department of Botany	December, 2021	677-680
Manju Chaudhary and Swostika Thapa	Central Department of Botany	January, 2022	681-684
Dikshya Poudel and Prabina Dhakal	Central Department of Zoology	February, 2022	685-688
Aarati Khatri and Shreyashi Bista	Institute of Forestry, Pokhara and Kathmandu University	March, 2022	689-692
Prakriti Raj bhandari and Rona Vaidya	Golden Gate International College	April, 2022	693-696
Bibek Sapkota and Bimal Sharma	Golden Gate International College and Central Department of Environmental Science	May, 2022	697-700
Shreeya Manandhar and Shreyashi Bista	Kathmandu University	June, 2022	701-704
Aabha Pokahrel and Deepika Bagale	Central Department of Environmental Science	July, 2022	705-708

## A) PUBLICATIONS

1. Gurung, S., **Kusi, N.**, Lama, T., Lama, P.R., Tamang, K., Tamang, K.S., Lama, L., Lama, M.T., Lama, T.N., KC, R., Kandel, R.C. & Werhahn, G. (2022). First record of Steppe Polecat *Mustela eversmanii* outside the protected areas network in Nepal. *Species*, 23 (71), 261-265.
2. Acharya, P. M., Saeung, S., Techato, K., Rimal, N., Gyawali, S., & **Neupane, D.** (2022). Review of Environmental Policies and Otter Conservation in Nepal. *IUCN Otter Spec. Group Bull*, 39(1), 44-55.
3. **Neupane, D.**, Baral, S., Risch, T. S., & Campos-Arceiz, A. (2022). Broad scale functional connectivity for Asian elephants in the Nepal-India transboundary region. *Journal of Environmental Management*, 321, 115921.
4. Gao, J., Bhujju, D., Li, J., Fu, J., Li, W., Guo, X., Shao, G. & **Sharma, P.** (2022). Himalayas: create an international peace park. *Nature*, 607(7919), 449.
5. Kunwar, R. M., Baral, B., Luintel, S., Uprety, Y., Poudel, R. C., Adhikari, B., ...**Pyakurel, D.**, ... & Bussmann, R. W. (2022). Ethnomedicinal landscape: distribution of used medicinal plant species in Nepal. *Journal of Ethnobiology and Ethnomedicine*, 18(1), 1-11.
6. **Pyakurel, D.**, Subedee, B. R., Subedi, C. K., Gurung, J., & Chaudhary, R. P. (2022). Trade potentiality of oils extracted from *Prunus davidiana* (wild apricot), *Sapindus mukorossi* (soapnut) and *Zanthoxylum armatum* (Nepalese pepper) in Kailash Sacred Landscape, Nepal. *Environmental Challenges*, 7, 100490.
7. **Adhikari, K.**, Uprety, Y., Pyakurel, D., Thagunna, K., Bhatta, L. D., & Chaudhary, R. P. (2021). Healthcare Choices and Use of Medicinal Plants: An Ethnobotanical Study in Kanda Area of Bajhang District, Kailash Sacred Landscape, Nepal. In *Ethnobiology of Mountain Communities in Asia* (pp. 381-407). Springer, Cham.

## B) Outreach and Collaboration

### 1. Memorandum of Understanding

Over the years, RHF has developed trusted partnerships with various institutions and organizations involved in the field of teaching, research and mentoring. Memorandum of Understanding (MoU) signed this year includes the following:

1. MoU with Patan Multiple Campus,
2. MoU with Purbanchal University, College of Environment and Forestry, and
3. MoU with Wildlife Conservation Nepal.

Additionally, RHF team led by Dr. Dinesh Neupane (Executive Director) conducted outreach activities and interactive sessions at Central Campus of Technology, Dharan.



## **TRANSPARENCY**

The foundation gets funds mainly for institutional support and research projects from various governmental and non-governmental organizations and also from individual donations. Its annual expenditures are audited by registered auditors and reports are submitted to the Government of Nepal and Social Welfare Council. Every year, the audited annual spending of the foundation is printed for public distribution and also posted on its webpage. This effort has brought credibility to the foundation as one of the outstanding institutions within and outside the Himalaya.



## INDEPENDENT AUDITOR'S REPORT

### To the Member of M/s Resources Himalaya Foundation Report on the Audit of the Financial Statements

#### Opinion

We have audited the financial statements of **M/s Resources Himalaya Foundation** which comprise the statement of financial position as at 32<sup>nd</sup> Ashadh 2079 (16<sup>th</sup> July 2022), statement of cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion and to the best of our information and according to the explanations given to us, the financial position of the organization as at 32<sup>nd</sup> Ashadh 2079 (16<sup>th</sup> July 2022) its financial performance, statement of changes in equity, statement of cash flows statement of cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies for the year then ended in accordance with Nepal Accounting Standards.

#### Basis for Opinion

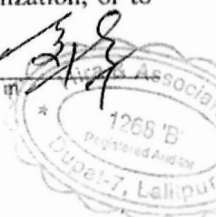
We conducted our audit in accordance with Nepal Standards on Auditing (NSAs). Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Statements* section of our report. We are independent of the Org. in accordance with the Institute of Chartered Accountants of Nepal's *Code of Ethics for Professional Accountants* (ICAN Code) together with the ethical requirements that are relevant to our audit of the financial statements in Nepal, and we have fulfilled our other ethical responsibilities in accordance with these requirements and the ICAN code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis of our opinion.

#### Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with Nepal Accounting Standards, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing organization's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the organization, or to cease operations, or has no realistic alternative but to do so.

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Those charged with governance are responsible for overseeing the organization's financial reporting process.

### **Auditor's Responsibilities for the Audit of the Financial Statements**

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with NSAs will always detect a material misstatement when it exists.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.


### **Report on Other Legal Regulatory Requirements**


We have obtained information and explanations asked for, which, to the best of our knowledge and belief, were necessary for the purpose of our audit. In our opinion, balance Sheet, income Statement, statement of changes in equity and statement of cash flows, have been prepared in accordance with the requirements of the law and are in agreement with the books of account maintained by the organization and proper books of account as required by law maintained by the organization including relevant records relating to preparation of the aforesaid financial statements have been kept so far as it appears from our examination of those books and records of the organization.

To the best of our information and accordance to explanation given to us and so far appeared from our examination of the books of accounts of the organization necessary for the purpose of the audit, we have not come across cases where members or any employees of the organization acted contrary to the provisions of law relating to the accounts, or committed any misappropriation or caused loss or damage to the organization or acted in a manner to jeopardize the interest and security of the organization its Member.

Date: 2079.05.23  
Place: Lalitpur, Nepal

For Hira & Associates

  
Hirakaji Maharjan  
Auditor



UDIN Number:220908RA046328CLaV



# Resources Himalaya Foundation

Saneepa Naya Bato, Lalitpur, Nepal

## Fund Accountability Statement

For the period from 1 Shrawan, 2078 to 32 Asadh, 2079 (16 July, 2021 to 16 July 2022)

S.N.	Particulars	EOCA Project	USAD SUOMAR Project	EGH	Graduate Conference	USAD NRES	ASU Grant	Himalayan Wolves Project	Other Research in Chitwan	Other Research in Tadi	NIBR Project	TDCP Project	Elephant Project	Dr. Prasad Yonzon Memorial Conservation Trust	Dr. Prasad Yonzon Wildlife Research Grant Fund	BIF Main Account	Total (After Adj. Inter Fund Transaction)
A	Opening Fund Balance	419,743	33,715	78,777	35,367	48,591	123,292	2,923,933	-	119,509	3,810,131	813,990	-	141,172	105,000	3,852,350	12,505,968
1	Bank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	Cash	-	-	500,000	-	-	-	874,895	146,500	-	-	-	-	4,189,350	-	151,831	5,362,576
3	Advance and Receivables	-	-	-	-	-	-	-	-	-	-	-	-	-	-	39,617,704	39,617,704
4	Fixed Assets	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	Less: Payable	(1,110,000)	(10,200)	-	(2,648)	(84,219)	-	-	-	-	-	-	-	-	-	(47,703,615)	(48,410,682)
	<b>Total</b>	<b>(690,257)</b>	<b>23,515</b>	<b>578,777</b>	<b>32,719</b>	<b>(35,628)</b>	<b>123,292</b>	<b>3,798,828</b>	<b>146,500</b>	<b>119,509</b>	<b>3,810,131</b>	<b>813,990</b>	<b>-</b>	<b>4,330,522</b>	<b>105,000</b>	<b>(4,081,730)</b>	<b>9,075,566</b>
B	Fund Received	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	Grant Received	827,173	-	250,000	-	2,324,223	174,048	-	-	-	-	-	1,818,893	-	-	115,000	5,509,337
2	Individual Contribution	-	-	-	-	-	-	-	-	-	7,000	-	-	-	-	1,610,160	1,617,160
3	Bank Interest	-	21,738	-	-	-	11,204	-	-	-	-	-	-	240,579.70	-	213,735	487,262
4	Contribution from different organizations	392,572	-	110,000	6	-	-	-	-	-	-	-	-	-	-	-	502,572
5	Training Income	-	-	12,275	-	-	-	-	-	-	-	-	-	-	-	-	12,275
6	Overhead Income	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	Membership Fee Income	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,609,907	1,609,907
8	House Rent Income	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18,000	18,000
9	Income from Fixed Assets Fund	-	-	-	-	-	-	-	-	-	-	-	-	-	-	682,440	682,440
10	Exchange difference Income	7,675	-	-	-	-	3,034	-	-	-	-	-	-	-	-	107,505	107,505
11	Registration Income	-	-	50,000	5,800	-	-	-	-	-	-	-	-	-	-	14,410	25,119
12	Other Income	-	-	-	-	-	-	-	-	-	-	-	-	-	-	69,835	55,800
13	Hall Charge Income	-	-	-	-	-	-	-	-	-	-	-	-	-	-	63,470	63,470
	<b>Total</b>	<b>1,227,421</b>	<b>21,738</b>	<b>422,275</b>	<b>5,806</b>	<b>2,324,223</b>	<b>188,286</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>7,000</b>	<b>-</b>	<b>1,818,893</b>	<b>240,580</b>	<b>-</b>	<b>4,504,462</b>	<b>10,760,682</b>
C	Fund Expended	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	Program Expenses	6,000	-	355,183	12,500	-	89,000	1,568,080	15,478	680,159	813,990	780,300	-	-	14,500	788,447	3,509,347
2	Human Resource Expenses	-	-	122,000	27,000	1,135,509	-	258,000	927,483	-	-	-	-	-	-	2,572,607	5,852,899
3	Travel Expenses	-	-	59,080	-	17,600	-	613,980	136,933	100,660	325,166	71,940	-	-	-	281,392	1,606,751
4	Administrative Cost	70,498	45,252	-	1,500	1,135,486	71,556	185,011	9,567	3,771	22,759	33,690	107,837	-	-	2,489,486	4,177,413
5	Other Cost	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,529	1,529
	<b>Total</b>	<b>76,498</b>	<b>45,252</b>	<b>516,263</b>	<b>41,000</b>	<b>2,288,595</b>	<b>160,556</b>	<b>2,655,071</b>	<b>146,500</b>	<b>119,909</b>	<b>1,956,567</b>	<b>813,990</b>	<b>179,777</b>	<b>-</b>	<b>14,500</b>	<b>6,133,462</b>	<b>15,147,940</b>
D	Fund Transfer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	Fund Transferred	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
E	Closing Fund Balance (A+B-C+D)	460,665	-	484,790	(2,475)	-	151,022	1,143,757	-	-	1,860,564	-	1,639,115	4,571,101	90,500	(5,710,731)	4,688,309
1	Bank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	Cash	460,665	-	40,655	2,525	-	151,022	1,144,179	-	-	1,860,564	-	1,639,115	421,101	90,500	651,116	6,461,443
3	Advance and Receivables	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	Fixed Assets	-	-	444,135	-	-	-	29,978	-	-	-	-	-	4,150,000	-	2,178,831	6,352,944
5	Less: Payable	-	-	-	(5,000)	-	-	(30,400)	-	-	-	-	-	-	-	(47,693,202)	39,157,524
	<b>Total</b>	<b>460,665</b>	<b>-</b>	<b>484,790</b>	<b>(2,475)</b>	<b>-</b>	<b>151,022</b>	<b>1,143,757</b>	<b>-</b>	<b>-</b>	<b>1,860,564</b>	<b>-</b>	<b>1,639,115</b>	<b>4,571,101</b>	<b>90,500</b>	<b>(5,710,731)</b>	<b>4,688,309</b>

Annexure 1 to 21 and notes thereon forms an integral part of the Fund Accountability Statement

As per our attached report of even date

*[Signature]*  
Ms. Priya Mahajan  
Finance Officer

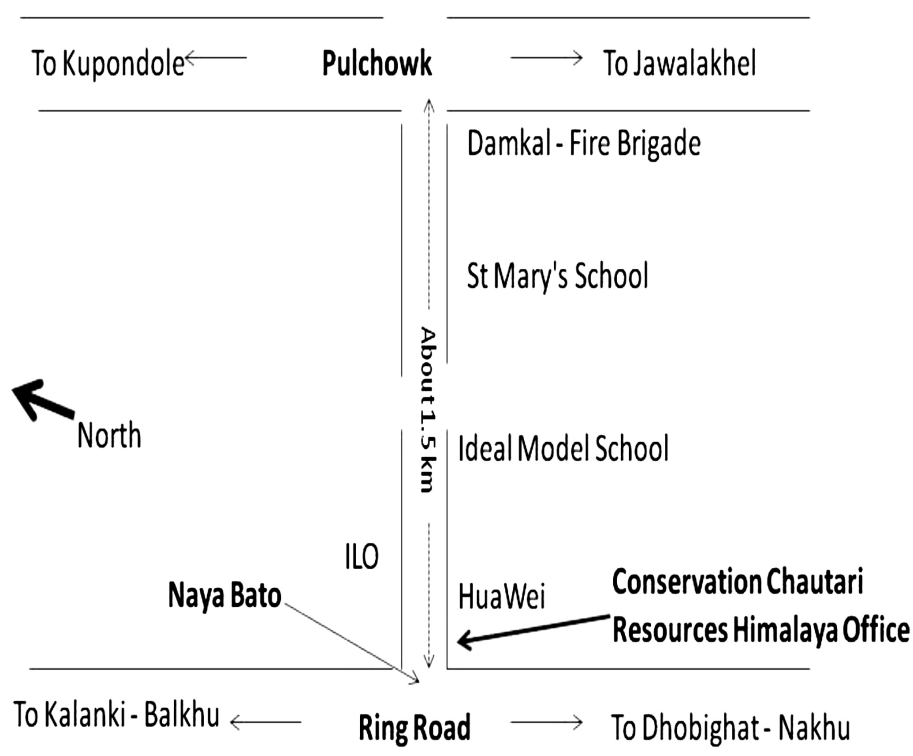
*[Signature]*  
Ms. Purnima Shrestha  
Treasurer

*[Signature]*  
Prof. Dr. Ram Bdr Chhetri  
Chairperson



रिसोर्स हिमालय  
RESOURCES HIMALAYA

Registered Auditor



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