ANNUAL REPORT
2016



National Trust for Nature Conservation

MISSION STATEMENT

"To conserve, manage and promote nature in all its diversity balancing human needs with the environment on a sustainable basis for posterity-ensuring maximum community participation with due cognizance of the linkages between economics, environment and ethics through a process in which people are both the principal actors and beneficiaries."

With over 3 decades of experience in the field of participatory conservation, right from the grassroots level to policy and core research, the National Trust for Nature Conservation (NTNC) continues to steer a phenomenal track record of driving the principal of Conservation for Development. NTNC, established in 1982 by a legislative act, is an autonomous and not-for-profit organization, mandated to work in the field of nature conservation in Nepal. From its very inception the Trust fully understands that local communities matter, and that they are eventually stipulated to become the flag bearers of all conservation initiatives. To ensure that the locus of sustainable conservation is bearing on each of these communities, the Trust has successfully implemented various projects from nature and biodiversity conservation, cultural heritage protection, ecotourism development, alternative energy promotion, gender empowerment, livelihood enhancement. Given its deep integration with the community, and coupled with its expertise, the Trust maintains an unmatched advantage—whether it be in matters related to wildlife research and monitoring, community engagement, anti-poaching, conservation education, needs identification, assessment and impact study, capacity building, or in matters related to good governance and local institutional empowerment. This is one of the main reasons why NTNC continues to embrace a reputation that is crucial in cohabiting the development agendas for a large number of multilateral stakeholder projects. Its unique ability to perceive and interpret both from the point of view of resource conservation as well as conservation resourcefulness is been a notable model emulated by many others.

Working at both the levels of species and landscape conservation, geographically, the Trust's activities are spread from the sub-tropical plains of Chitwan, Bardia, Kanchanpur and Parsa in the lowlands to the Annapurna, Manaslu and Gaurishankar region of the high Himalayas, including the trans-Himalaya region of Upper Mustang and Manang. Currently, the Projects of the Trust are divided into three geographical areas - the lowland, the mid hills and the high mountains. The Trust's activities in the lowlands are based in and around Chitwan National Park, Parsa Wildlife Reserve, Bardia National Park, Banke National Park and Shuklaphanta Wildlife Reserve located in the central, western and far-western development regions of Nepal, through the Biodiversity Conservation Center (BCC) and Parsa Conservation Program (PCP) in Chitwan and Parsa, the Bardia Conservation Program (BCP) in Bardia/Banke and the Shuklaphanta Conservation Program (SCP) in Kanchanpur. Similarly, the Annapurna Conservation Area (ACA), the Manaslu Conservation Area (MCA) and the Gaurishankar Conservation Area (GCA) are the three protected areas managed by the Trust in the mountain region. The Central Zoo is the only project managed by the Trust in Kathmandu Valley.



NTNC

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FOREWORD

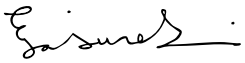
Human beings are the drivers both for the conservation and destruction of nature. Co-existence of all living creatures in nature is possible only by respecting each other's role and existence. Therefore, it is essential to promote harmony among all living creatures. However, population growth and urbanization, encroachment of wildlife habitats, unsustainable extraction of resources, illegal poaching and trading, and the encroachment by non-native invasive alien species are the major threats for maintaining sustainable harmony with nature.

National Trust for Nature Conservation (NTNC) is dedicated towards mitigating the threats to biodiversity and harmonizing the relationship of people with the nature and environment. The Trust's focus on lowland protected areas is primarily on wildlife research and monitoring which also includes habitat management, biodiversity conservation, community mobilization, anti-poaching and illegal trade control. In the mountain region, NTNC is engaged in protected area management adopting the approach of integrated conservation and development program (ICDP). NTNC's involvement in the field of nature conservation for over three decades has shown that the conservation efforts in low income economies cannot be sustainable unless the needs and welfare of the local people are addressed. Thus, the Trust's activities are focused in community mobilization and livelihood enhancement addressing the needs of the communities with their active and meaningful participation recognizing them as the principal actors as well as beneficiaries.

This report is the snapshot of our focus and accomplishments in the fiscal year 2015/16. Success achieved is owed to the hard work and dedication of the Trust family, notably the secretariat, the Projects, and the Governing Board of Trustees. We would like to extend our sincere gratitude to all our partner agencies and local communities for their support and inspiration. We anticipate your continuous support in the days to come and also welcome comments and feedback from all our well-wishers and valued readers.

We remain committed to ensure that the benefits of conservation and development reach the poorest and marginalized communities and anticipate their improved living conditions.

Thank you,



Govinda Gajurel
Member Secretary

ACRONYMS

ACA/P	Annapurna Conservation Area/Project
AEPC	Alternative Energy Promotion Center
APU	Anti-poaching Unit
AREAS	Asian Rhino and Elephant Action Strategy
BCC	Biodiversity Conservation Center
BCF	Barandabhar Corridor Forest
BCP	Bardia Conservation Program
BNP	Bardia National Park
BZ	Buffer Zone
BZCF	Buffer Zone Community Forest
BZMC	Buffer Zone Management Committee
BZUC	Buffer Zone Users Committee
CAMC	Conservation Area Management Committee
CAMOP	Conservation Area Management Operation Plan
CAPA	Community Adaptation Plan of Action
CBAPU	Community Based Anti-poaching Unit
CE	Conservation Education
CF	Community Forest
CFOP	Community Forest Operational Plan
CFUG	Community Forest Users Group
CGI	Corrugated Galvanized Iron
CHAL	Chitwan-Annapurna Landscape
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CNP	Chitwan National Park
COP	Conference of the Parties
DAO	District Administration Office
DDC	District Development Committee
DFO	District Forest Office
DoF	Department of Forests
DPO	District Police Office
DNPWC	Department of National Parks and Wildlife Conservation
DWS	Drinking Water Scheme
EBC	Elephant Breeding Center
ECI	Elephant Care International
EMMP	Environmental Monitoring and Management Plan
FoZ	Friends of Zoo
FMSC	Forest Management Subcommittee
GBC	Gharial Breeding Center
GBV	Gender Based Violence

GCA/P	Gaurishankar Conservation Area/Project
GDA	Gender Development Assistant
GESI	Gender and Social Inclusion
GFC	Green Force Club
HDPE	High Density Polyethylene
HH	Household
HWC	Human Wildlife Conflict
ICDP	Integrated Conservation and Development Program
IDA	International Development Assistance
IGA	Income Generation Activities
IUCN	International Union for Conservation of Nature
Km	Kilometre
KW	Kilowatt
LAPA	Local Adaptation Plans for Action
LHW	Livestock Health Worker
M	Metre
M/ICS	Metallic/Improved Cooking Stove
MCA/P	Manaslu Conservation Area/Project
MM	Milimetre
MoFSC	Ministry of Forest and Soil Conservation
MSFP	Multi-stakeholder Forestry Program
NAPA	National Adaptation Programme of Action
I/NGO	International/Non Government Organization
NTNC	National Trust for Nature Conservation
PV	Photovoltaic
PWR	Parsa Wildlife Reserve
SAWEN	South Asia Wildlife Enforcement Network
SCP	Shukaphanta Conservation Program
SLC	Snow Leopard Conservancy
SLCSC	Snow Leopard Conservation Subcommittee
SMART	Spatial Monitoring and Reporting Tool
SWR	Shuklaphanta Wildlife Reserve
TAAN	Trekking Agencies' Association of Nepal
TAR	Tibetan Autonomous Region
TMSC	Tourism Management Subcommittee
TV	Television
UC	Users Committee
UCO	Unit Conservation Office
USAID	United States Agency of International Development
VCBC	Vulture Conservation and Breeding Center
VDC	Village Development Committee
W/WT	Watt
WWF	World Wildlife Fund
ZSL	Zoological Society of London

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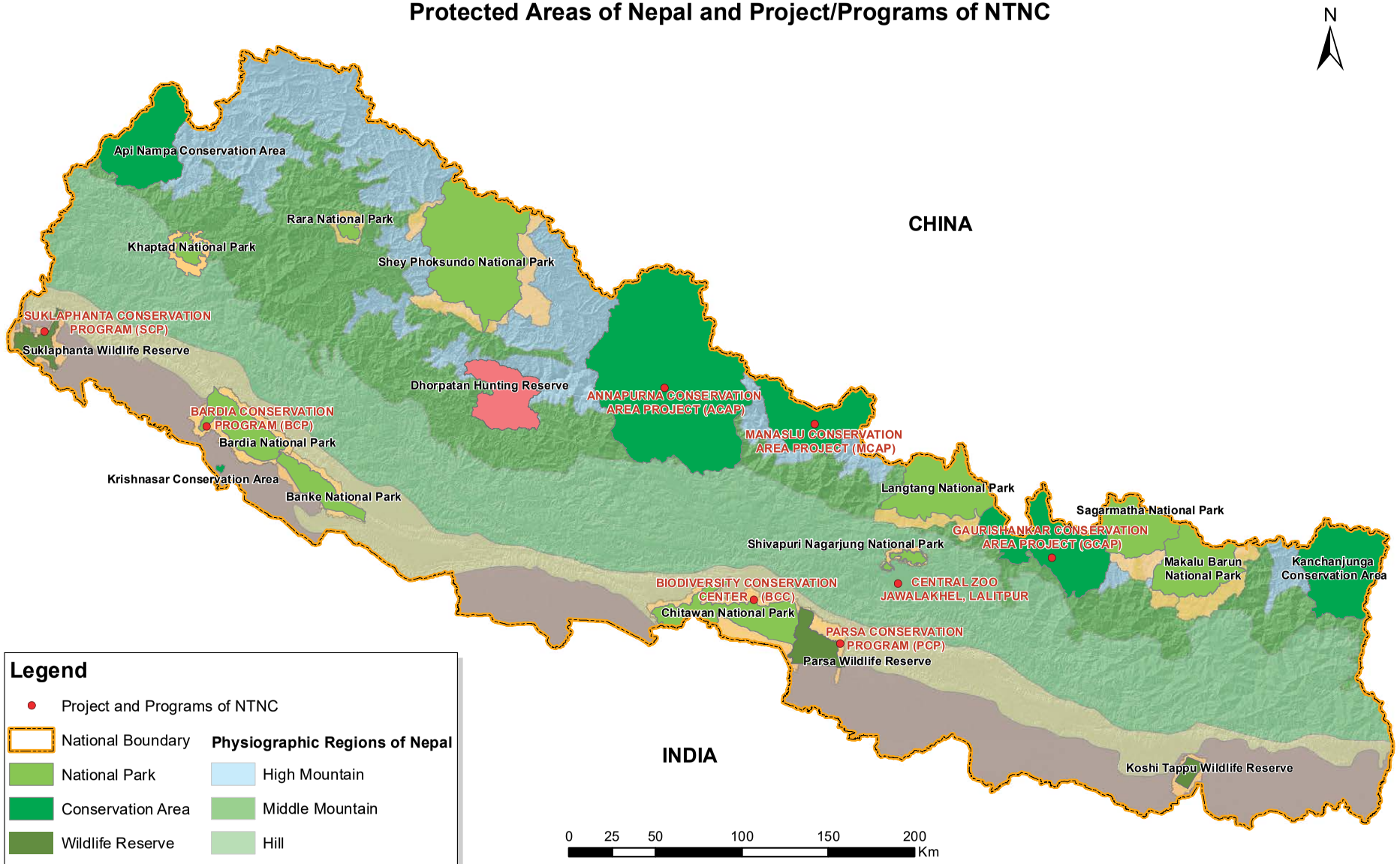


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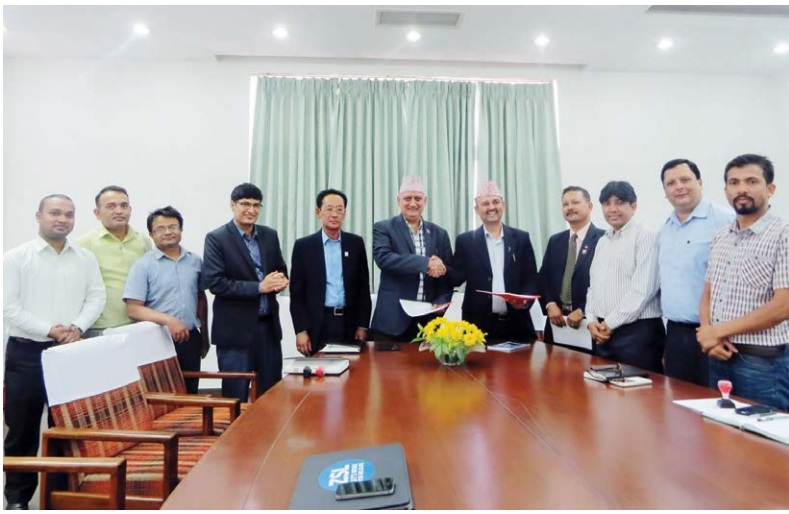
NTNC Patron Lays Foundation Stone of National Zoological Garden

The then Rt. Honorable Prime Minister and Patron of NTNC, Mr. K.P. Sharma Oli laid the foundation stone of the National Zoological Garden at Suryabinayak, Bhaktapur on June 23, 2016. Seen as a much necessary intervention to deal with the Central Zoo's current space limitations (6.6 ha), the Government of Nepal had decided to establish a National Zoological Garden with an area of 245 ha in Suryabinayak VDC of Bhaktapur on February 12, 2015. The Zoological Garden will cover the area of seven community forest user groups and some areas of the national forest. NTNC carried out the feasibility study of the zoological garden in 2011 and had forwarded it to the government for approval. During the ceremony, both the Rt. Hon. Prime Minister and patron of NTNC, as well as the Minister of Forests and Soil Conservation and Chairperson of NTNC, expressed the necessity for Nepal to establish the National Zoological Garden of a global standard.



NTNC Sign Project Agreement with ZSL

Supporting the national commitment to double tiger numbers by 2022, NTNC and the Zoological Society of London (ZSL) signed a project agreement to support the implementation of activities related to transboundry tiger recovery in India and Nepal, especially around the national parks and wildlife reserves adjoining India and the Tarai region. The Member Secretary of NTNC Mr. Govinda Gajurel and the Country Manager of ZSL signed the agreement on May 17, 2016 at NTNC Khumaltar, Lalitpur. The project will be implemented in Parsa Wildlife Reserve, Bardia National Park, Banke National Park, Shuklaphanta Wildlife Reserve and buffer-zone areas.



The agreement aims to implement the different conservation and awareness raising activities in close collaboration with the Department of National Parks and Wildlife Conservation (DNPWC) and the respective protected area. Major activities will be focused on conducting camera trapping to study the status of tiger and their prey species, providing training to increase the capacity of government staff working in conservation, improving the effectiveness of security network, setting up new security posts, and providing support to security forces and community youths in patrolling inside and outside the protected areas. The estimated cost for the three-year project up to December 2018 is estimated to be approximately NPR 95 million.

NTNC Signs MoU with NTB

NTNC and Nepal Tourism Board (NTB) entered into a partnership through a Memorandum of Understanding (MoU) signed on May 12, 2016 to promote Nepal as an attractive tourist destination. Mr. Govinda Gajurel, the Member Secretary of the NTNC and Mr. Deepak Raj Joshi, Chief Executive Officer of NTB signed the MoU on behalf of their respective organizations aiming to promote exclusive joint cooperation in exploring new and existing tourist destinations, capacity enhancement and adding values to tourism in Nepal through conservation initiatives. Valid up to four years , the MoU is extendable upon mutual agreement of both the parties.



Water Buffalo Increased to 432 Individuals in Nepal

The Asiatic wild water buffalo *(Bubalus arnee)* population has increased to 432 individuals in Koshi Tappu Wildlife Reserve (KTWR), the only habitat for wild water buffalo in Nepal. According to the count results conducted between April 10 -12, 2016, an increase of 105 buffalos was recorded compared to 2014. The water buffalo count was conducted jointly by DNPWC-KTWR and NTNC with support from International Development Assistance (IDA) of the World Bank under the Strengthening Regional Cooperation for Wildlife Protection in Asia (SRCWPA) Project.



The Director General of Department of National Parks and Wildlife Conservation (DNPWC), Mr. Fanindra Raj Kharel declared the result of water buffalo count amid a function at Kushaha, Sunsari on April 30, 2016. Among them, 182 are adult female, 120 adult male and 130 calves. Being among the protected species of the country, the present findings make for very encouraging numbers, especially since during the time of establishment of KTWR in 1976 there were only 63 water buffalos. Marking the event, the chief guest Mr. Govinda Gajurel, Member Secretary of the Trust expressed KTWR as being "a heaven habitat" for birds and water buffalos stressing on the need for vigilance for human wildlife conflict scenarios. Likewise, the Director of Eastern Regional Forest Directorate,

Mr. Man Bahadur Khadka laid emphasis on the need for scientific management of the water buffalos. The Asiatic wild water buffalos are under threat due to high anthropogenic pressure ranging from habitat deterioration to hybridization with domestic buffalo. Currently, the Asiatic wild water buffaloes are distributed only in Nepal, India, Sri-Lanka, Cambodia, Myanmar, Thailand and Bhutan.

NTNC Signs MoU for Tripartite Academic Cooperation

The National Trust for Nature Conservation (NTNC) signed a Memorandum of Understanding (MoU) for academic cooperation with the Nepal Anti-Tuberculosis Association/German-Nepal Tuberculosis Project, Nepal; Graduate School of Veterinary Medicine, Hokkaido University, Japan and Hokkaido University Research Center for Zoonosis Control, Japan to facilitate academic cooperation between the Parties on April 11, 2016 at NTNC, Khumaltar, Lalitpur, Nepal. The MoU aims to allow the parties to jointly develop academic, educational, and research cooperation associated to the field of public health, microbiology, emerging and reemerging diseases, zoonosis, wildlife biology and medicine, and other related areas in health and veterinary sciences. Activities to be implemented under the MoU include exchange of academic staff and students, implementing collaborative research projects, hold lectures and symposia, exchange academic information and relevant materials and promote other academic cooperation for mutual benefit. The MoU has been signed for five years and can be extended through the mutual agreement of the parties.

Conservation Workshop for Miss Nepal 2016 Finalists

Organized under the theme "Greening Beautiful Minds – Beauty with Purpose" the Biodiversity Conservation Workshop was organized for Miss Nepal 2016 Finalists at the Trust's Biodiversity Conservation Center (BCC), Sauraha, Chitwan from March 18 to 21 April 2016. Following the MoU signed with The Hidden Treasure (THT), organizers of the Miss Nepal beauty pageant, NTNC hosted the workshop aiming to impart knowledge on nature conservation, climate change and the traditional cultures of Nepal. The initiative is expected to actively engage the national beauties further towards biodiversity conservation and social transformation in the future. Altogether, 19 Miss Nepal 2016 finalists participated in the workshop, wherein the winner of Miss Nepal will be promoted as the "Biodiversity Conservation Ambassador" of the Trust. Practical sessions and field visits undertaken to enrich their level of understanding on conservation issues included—elephant safari in Chitwan National Park (CNP); visit to wildlife display centre; visits to the gharial, elephant and vulture breeding centers; visit to the Bhagmara Buffer Zone Community Forest where





participants were able to visualize and learn firsthand the benefits being derived from the community-focused conservation efforts being undertaken in the country. Mr. Ganga Jung Thapa, the Executive Director of NTNC led the workshop assignment to a resounding success.

Five Rhinos Successfully Translocatd to Bardia National Park

With the aim to ensure the survival of a second viable population of the greater one-horned rhinos *(rhinoceros unicornis)* in Bardia National Park, five rhinos were translocated to Bardia National Park (BNP) from the



Chitwan National Park (CNP) on the occasion of World Wildlife Day 2016. Taking place after 13 years, the translocation was conducted between March 2 and 5, 2016, and involved 2 male and 3 female rhinos who were also radio collared. Following the decision of the Ministry of Forest and Soil Conservation (MoFSC) on January 14, 2015, the rhinos were translocated under the leadership of the Department of National Parks and Wildlife Conservation (DNPWC) with technical and financial support from NTNC and WWF Nepal. The Honorable Minister for MoFSC and the Chairperson of NTNC Mr. Agni Prasad Sapkota was also present at the rhino releasing ceremony among other officials from MoFSC, NTNC and WWF Nepal.

According to the rhino census carried out in 2015, there were 645 rhinos, among which, the Chitwan National Park provides habitat for 605 individuals; this followed by 29, 8 and 3 individuals at BNP, Shuklaphanta Wildlife Reserve (SWR) and Parsa Wildlife Reserve (PWR). The MoFSC has planned to carry out translocation of 30 rhinos from Chitwan to two potential habitats in BNP and SWR in the next two to three years. Speaking at the releasing ceremony, the Honorable Minister and Chairperson of the Trust Mr. Sapkota maintained assurance to all the conservation related partners about the country's commitment to "ensure the safety of the rhinos in their new habitat through the serious engagement of local authorities, security personnel and local communities."

NTNC Signs MoU with Jeju National University, Republic of Korea

The National Trust for Nature Conservation (NTNC) signed a memorandum of understanding (MoU) with Animal Taxonomy and Morphology Laboratory, Faculty of Science Education, Jeju National University of the Republic of Korea to establish bilateral cooperation between its faculty, students, wildlife researchers and staffs of both institutions on January 29, 2016.The MoU aims to develop research collaboration on wild species in molecular level between the two partners in the field of common interest; exchange scientific knowledge, technical skills and expertise in research and conservation, as well as share scientific output

20th Anniversary Celebrations of Central Zoo under NTNC Management

Marking the two decade feat, various programs were organized at the Central Zoo premises in Jawalakhel, Lalitpur on December 29, 2015. Inaugurating the program was the Chief Guest, the Minister for Forest and Soil Conservation (MoFSC) and Chairperson of NTNC Honorable Agni Prasad Sapkota. The Hon Minister emphasized on the proper management of natural resources and wild animals as being key to enhancing the potential for nature-based tourism as well as for improving the livelihood of local communities. Given the limitations of the Central Zoo area, a commitment was also made to transfer the big mammals to the zoological garden planned to be established at Suryabinayak, Bhaktapur. Other distinguished attendees and speakers during the event consisted of Mr. Uday Chandra Thakur, Secretary of the MoFSC and Mr. Govinda Gajurel, Member Secretary of the NTNC.

During the event the chief guest felicitated five former Directors of the Central Zoo in recognition of their contribution to the Zoo's success story—Dr. Mukti Narayan Shrestha, Dr. Shreevatswa Man Malla, Mr. Bal Krishna Khanal, Mr. R. K. Shrestha and Dr. Udaya Raj Sharma—also inaugurating the painting exhibition that included works of fifty of the country's senior artists dedicated to nature and earthquake.





and promote faculty exchange between the parties. Mr. Govinda Gajurel, the Member Secretary of the Trust and Prof. Hyangjin Huh, the President of Jeju National University signed the MoU on behalf of their respective organizations.

Agreement Signed for Studying Faunal Biodiversity Assessment in Chure Range

NTNC and the President Chure-Terai Madhesh Conservation Development Board (PCTMCDB) signed an agreement to carry out the study on Faunal Biodiversity Assessment in the Chure range of Nepal on November 16, 2015. Mr. Govinda Gajurel, the Member Secretary of NTNC and Dr. Annapurna Nanda Das, the Member Secretary of the Board signed the agreement in the presence of the Hon. Minister for Forests and Soil Conservation, also the Chairperson of the Trust, Mr. Agni Prasad Sapkota.

The main aim of the two-year project will be to assess the status of biodiversity and existent threats, and help devise conservation sensitive policies and interventions in the Chure (Siwalik) range of Nepal. Expected to be carried out by experts from NTNC, the study will focus on distribution and abundance of faunal species including mammals, birds, herpetofauna, fishes and insects to establish a baseline database for the Chure range. Subsequently, the study would help reveal the threats and challenges of species conservation in the Chure range.

NTNC Member of the Governing Board of Trustees Awarded with National Conservation Award

Professor Dr. Ram Prasad Chaudhary, Member of the Governing Board of Trustees of National Trust for Nature Conservation was awarded the National Conservation Award from the Ministry of Forests and Soil Conservation of the Government of Nepal. Honoring the Professor's exemplary contribution in the field of conservation, the recognition was rendered by the then Rt. Hon. Chief Justice Mr. Ram Prasad Shrestha in the presence of the then NTNC Chairman and Hon. Minister for Forest and Soil Conservation Mr. Mahesh Acharya. The function was held during the National Conservation Day and carried a purse of Rs. 151,000. Prof. Dr. Chaudhary also works with the Central Department of Botany at Tribhuwan University and his invaluable contribution to the country's conservation discipline continues to emanate in many others.





British Ambassadors Visit Annapurna Region

Following the massive Nepal earthquake in 2015, important interventions were made to redeem tourism related initiatives in the Annapurna region. For this communicating the safety and normalcy of the tourism-dependant region was crucial for getting the right message out to the world. To make this a success, the Trust gained solidarity visits by the British Ambassador(s) to Nepal, His Excellency Mr. John Rankin, and DFID Chief to Nepal Dr. Gail Marzetti visit to Dhampus village. Following this, in early January 2016 the new incoming British Ambassador to Nepal, His Excellency Mr. Richard Morris's visit to the region provided further impetus to promoting the safety and value of the region. As a symbolic step, the high profile promotional visits were successfully coordinated through the efforts of SAMARTHA-NMDP.





Annapurna Conservation Area Project (ACAP)

ACAP was initiated in 1986 from Ghandruk village as a pilot project integrating nature conservation and community development. ACA is the first initiative in conservation history of Nepal where local communities were directly involved in the management of the protected area. It is the ACA, where NTNC developed and tested integrated Conservation and Development Program (ICDP) model of conservation, which has now become the role model both at national and international level. ACA was designated as "conservation area" by the Government of Nepal in 1992.

Since then, NTNC is managing the area focusing on ICDP approach. ACA is the largest protected area covering 7,629 sq. km. in Nepal and spreads over 57 VDCs in five districts. It is home to around 100,000 people belonging to different ethnic, cultural and linguistic groups. The cultural diversity of ACA is rivaled by its biodiversity, which isn a treasure house of 1,226 flowering plants, 102 mammals, 485 birds, 41 reptiles and 23 amphibian species. The area is one of the most popular trekking destinations for visitors from all over the world. For management purpose, ACA is divided into seven unit conservation offices: Ghandruk, Lwang, Sikles, Bhujung, Manang, Jomsom and Lo-Manthang to ease its management.

ACAP has been integrating natural resource management with alternative energy, ecotourism, gender development, and other community development programs. Recognizing that local participation is a fundamental aspect of environmental conservation, ACAP has been integrating local communities in all stages of development: from planning to implementation and monitoring.

NATURAL RESOURCE CONSERVATION PROGRAM

Afforestation Program (Project forest nursery operation and Community plantation)

"As part of the ACAP's afforestation initiative, more than 40,000 seedlings were produced from the Project and private nurseries during the FY 16, and over 64,000 plants and cuttings were distributed in the region"

Project nursery operations are undertaken with the objective of providing tree seedlings of varying species for plantation purposes, both at the community and household level. By identifying areas where tree growth is sparse and can be expanded, these initiatives help boost forest cover tremendously. Since fuel wood for cooking and fodder for livestock are the immediate demands of local people, plantation of these species are given special focus. Nursery operations involved the production of over 40,000 seedlings in the Annapurna region, from which more than 17,600 seedlings were distributed from its project, private and community nurseries. In addition to this, community plantation support involved the distribution of over 64,000 plants and cuttings, of which 38,152 poplar cuttings were distributed to 534 plantation owners in Upper Mustang. Being a vital endeavor in managing forest cover, especially in places like Upper Mustang— a semi cold desert type area, with less than 0.1 % of forest cover, and wherein animal-dung makes for 80% of the fuel source—such afforestation-related activities become absolutely intrinsic to diversifying livelihood alternatives too. Subsequent fencing support provided for plantation purposes involved the construction of more than 1250 metres by UCO Lomanthang. Besides this, 3000 metres of HDPE pipe for irrigating community plantations will directly benefit more than 200 households in Jhong, Chhairo and Toga Garden.

Patrolling and Awareness Camps

UCOs mobilize local informants to prevent illegal wildlife and natural resources related crimes, illegal trade of precious cultural artifacts and materials, and stop unwarranted tourist entry. The creation of local intelligence networks on the ground is instrumental here. Such informants are extremely resourceful in relaying information gaps that many a times may not be fully comprehensible only within the Trust's institutional capacity. As a result, the number of illegal activities as well as the inclination to engage in them have reduced considerably in the past few years. This year only 18 illegal cases were bought to book compared to the last year. Up to 40 patrolling and awareness camps were completed wherein most patrolling exercises were undertaken in collaboration with UCO staff members, community-based anti-poaching units, police/army personnel, and committee (CAMCs) or sub-committee affiliated members, like the fish management sub-committee of Kuibang that undertook patrolling even at night to control illegal fishing in the Mardi river.





Management Operation Plan Preparation

As per regulation, all CAMCs are expected to prepare a five-year management operational plan that must be approved by NTNC before implementation. Being technical in nature, these operation plans are in a sense meant to justify each CAMCs or VDCs score for sustainability against their existing resources, whilst also being able to evaluate the existing local conditions and capacity (forest inventory evaluation, etc.). During this fiscal year 46 Operation Plans (Ghandruk: 5 approved and 1 submitted for approval, Lwang: 7 approved, Sikles: 7, Bhujung: 8 and Manang: 13 submitted for approval, Jomsom: 5 approved and 4 under preparation and Lomanthang: 7 under preparation) were prepared and submitted for approval.

Soil and Water Conservation

Given the steep mountain terrain, most parts of northern Nepal are extremely vulnerable to rain-fall induced disasters like landslides, floods, etc. causing huge damage to community infrastructure and private property as well as to safety and access conditions. To minimize the consequences of such calamities, and to counter and protect against instances of soil erosion, distribution of gabion boxes is considered as a very reliable and feasible measure. Across the Annapurna region, more than 650 gabion boxes were distributed this year. Generally the size of each gabion box measure approximately 2*2*1 cubic metres, wherein its preparation and construction tasks (filling and weaving) are community driven.

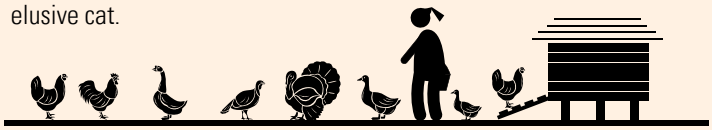
Relief for Livestock Depredation

Relief from wildlife depredation was provided for a total of 281 livestock in the Annapurna region during this fiscal year. Although demands for higher level of relief were made by livestock owners, compensation rates were accorded keeping in mind the relief guideline capacity of each Unit Conservation Office. For instance, UCO Lomanthang provided compensation for 202 livestock at the rate of Rs. 1500 per horse, and Rs. 1000 for other livestock. In the case of Jomsom the rates were fixed at Rs. 10,000 per horse, and Rs. 2000 per goat, relief provided per goat in Bhujung stood at Rs. 4000. These variations in relief rates occur across the region consistent with local contexts as well as the compensation capacity of each UCO.

Apart from these, instances of crop depredation by wildlife, especially by monkeys, is a recurring problem in the region. As a counter measure, over 4000 metres of fencing was constructed to protect plantation from wildlife. Since depredation and relief are fundamental in shaping human-wildlife conflict mitigation measures, from the fiscal year 2073-74 it is anticipated to raise focus on providing better relief for such losses. This would undoubtedly guide wildlife conservation and establish the need for a shared and reliable space between human and wildlife within the larger community. Financial relief was provided for a total of seven wildlife victims this year.

Livestock Insurance Scheme in Manang

Aimed at strengthening the existing livestock insurance program, the Snow Leopard Conservation Fund was created in 10 VDCs of Manang. A fund worth Rs. 250,000 was deposited in the bank accounts of the respective CAMCs which is expected to help implement an insurance scheme for livestock loss by snow leopard. As per the livestock insurance system, locals must register their livestock by paying a nominal premium to claim the insurance. The mechanism will especially help livestock herders cope with their losses more competently, while motivating local people to join in the collective cause to save the elusive cat.



LAPA Preparation Support

As per the national adaptation strategy to cope with climate change (NAPA), and to address climate change impact at the local level, Local Adaptation Plan of Action (LAPA) was prepared for 15 CAMCs—8 in Manang , 3 in Sikles, and 4 in Bhujung. Consultants were hired for this wherein community level workshops were also conducted during the process. The workshops involved the participation of CAMC representatives, women's group and youth club members, local leaders, representatives from VDCs and other groups like the Agriculture service centre . Feedbacks provided by the participants were incorporated in the LAPA preparation, thus ensuring that an integrated and inclusive principle of the Trust continues to emanate right from the grassroots. On May 12 2016, Mustang district was officially declared as Nepal's first LAPA district). Out of 16 VDCs of Mustang, LAPA of 9 VDCs was prepared by NTNC-ACAP with the support of Hariyo Ban Program, whereas LAPA for the remaining 7 VDCs were made by the Multi Stakeholder Forestry Program (MSFP).

"Mustang district has been declared as Nepal's first district to prepare LAPA for all its 16 VDCs. This is seen as a major progress of instituting preparedness within the community to deal with the highly vulnerable climate change sensitivity of the region"



Natural Resource Conservation Focused Training and Workshop

As part of the Project's institutional and community capacity building measures undertaken, more than 60 units of natural resources related trainings were conducted, directly engaging over 1000 community members. Trainings covered varying topics related to Leadership and good governance, Forest management, NTFP management and utilization, Anti-poaching coordination, Silvi-culture, Forest fire control and awareness raising, Office management and accounting. On the occasion of the Wildlife Conservation Day , four wildlife awareness camps were organized in Lwang sector—in Ghachok, Lahachok, Rivan and Lwangghalel VDCs. During the camp, over 100 participants shared and discussed about rules and provisions related to illegal activities, whilst also relaying the importance of biodiversity and wild conservation through the distribution of posters. In order to reduce wildlife poaching and illegal trade, three more anti-poaching awareness workshops were organized for 67 police personnel in Pokhara.

"Institutional and community capacity building measures undertaken in the Annapurna region, involved the completion of more than 60 related trainings with the direct participation of over 1000 community members"

International and Domestic Tour for CAMC Members

Anticipating to build from cross-cutting contexts and shared experiences around the areas of natural resource management, community involvement, human-wildlife conflict mitigation and tourism promotion in some of the popular protected areas and tourist destinations of India, the international exposure tour was undertaken for 34 CAMC members from 24th to 31st May 2016. During the tour interactions and meetings were conducted with the park authorities and community members at the Ranthambore National Park and the Bharatpur Bird Sanctuary (also known as Keoladeo National Park) in Rajasthan, India. To enhance tourism understanding, the group also visited the internationally renowned Taj Mahal, while also interacting with the handicraft community at the Delhi zoo. Another similar tour was undertaken for 22 community members to eastern Nepal– including the Kanchenjunga Conservation Area Project (KCAP) to specifically understand and grasp the notion of 'council managed' protected area framework practiced in KCAP. Exposure visits such as these are bound to strengthen CAMC institutional management capacity and knowhow, thus also ensuring that community preparedness to self-manage ACAP in the near future prevails successfully.

District Level Yarsagumba Management Meeting in Chame

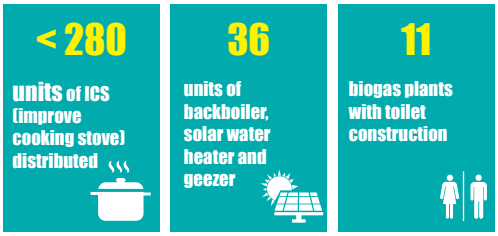
NTFPs are crucially interlinked to the local livelihood of the people of Manang. In order to deal with the significant reduction of NTFP availability and their haphazard collection in recent years, the Yarsagumba Management meeting was conducted among various representatives from the DAO, DDC, DPO, CAMC including representatives from political parties in Manang. Discussing on how to tackle the emerging security and management challenges during Yarsagumba collection season and '*Chhod Purjee*' (permission) management, the meeting recommended ACAP to allow for Yarsagumba collection in accordance to the guidelines mentioned in CAMR 2053 and the approved Sustainable Harvesting Plan for NTFPs. A decision was also made for deploying of security forces along with CAMC members and local people during the prime collection season. This year's Yarsagumba collection was recorded at 27.7 kg.

ALTERNATIVE ENERGY PROGRAM

Improved Cooking Stove (ICS)

Being tremendously effective in fuel-wood saving, improved cooking stoves are designed with efficient combustion techniques and comparatively

low emission, apart from consuming negligible electricity. This year more than 280 units of ICS were distributed across the region with over 170 households benefitting in Sikles and Bhujung areas alone. Besides the environmental and health merits of ICS, their convenience and efficiency in the kitchen help reduce the burden of household related tasks, especially for women.



Support for Biogas, Back boiler and other installations

In order to minimize greenhouse effects from burning firewood whilst simultaneously availing subsidy from the Government, Lwang sector provided support for 11 biogas plant installations. Within this arrangement, ACAP Lwang committed to provide Rs. 5000 for each plant under the condition that villagers would construct a toilet outlet connecting the biogas tank. Given the severe weather conditions in Manang and Mustang, installation and repair of 36 back boilers, solar and smoke water heaters were undertaken in this fiscal year. For instance, the 9 back boilers supported in Lomanthang area will help equip cooking conditions for 27 in the recently established village of Nawasung, near Chhoser. Nawasung is a typical case of villagers' resettled households area arising from the scarcity of water, mostly attributable to climate change vulnerabilities. In Kobang VDC, support for a grinding mill and an improved water mill will benefit about 150 households.

Micro Hydro-related support

Micro hydro stations are the main source of lighting in the rural reaches of Annapurna. There are about 51 micro-hydro stations currently operating in the region with a total generation capacity of over 1.5 megawatt . Of these, ACAP has directly supported the establishment of 13 micro hydro plants bearing over 530 kilowatt capacity. Besides the regular technical support provided by the Project, including hiring external consultants, repair and construction work were



undertaken in Tsarang, Marang and Phoo villages this year. This in turn will ensure uninterrupted power supply for more than 80 households. Additionally, a 5-day micro hydro operation repair and maintenance training conducted in Butwal for 14 micro hydro operators will enable secure maintenance-related skills necessary for upkeep of the region's plants on a daily basis.

"Constrcution of the Hokal Khola Micro hydro power in Phoo is now complete and operational. Generating 18 kilowatt power, the station will serve 45 households, schools and a gompa for lightening, cooking and heating purposes thereby enabling people to use less firewood"

CONSERVATION EDUCATION AND EXTENSION PROGRAM

With the aim of generating awareness among locals—especially among the youth—to engage with matters related to nature conservation as well as development, the CEEP program consists of two main components; in-school and out-school activities. In-school activities are focused to engage students and teachers whereas, out-school activities engage the wider community. Presently with an outreach of more than 5300 students, some 93 schools follow the CEEP curriculum book designed by ACAP. The guiding model adopted believes that at the foundational level youths have a special role to bring about a positive change in the attitudes of the wider community.

Conservation Education Tour and Workshops

As an incentive and exposure support for CE students, an internal tour to Bhujung and Siurung villages were undertaken for 42 GFC members

"In order to mainstream youth motivation into conservation-related activities, 22 youth clubs were extended support in various forms to mainly conduct recreational activities related to sport tournaments, local cultural events and festivals"

and teachers this year. In addition, 9 conservation education tours were organized for more than 500 students. In order to ensure quality education among students, teachers' capacity enhancement is a crucial factor. Hence, as part of the regular program, numerous workshops were organized for more than 200 teachers and students from the region. For instance, the three-day story writing workshop in Jomsom and another knowledge sharing workshop conducted in Lwang will help build children understanding, creativity and compassion for nature and wildlife.

CE Awards: Scholarship Stipends and CE Prizes

Besides the 5300 CE books distributed across 93 schools in the Annapurna region, 165 students were recipients of the Project's scholarship and stipend program during this fiscal year alone. Although the support is mostly focused towards secondary school students (between grade 6 and 10), 15 students from +2 and Bachelor levels were also awarded. Through this arrangement, stipends and scholarships are provided to economically and socially marginalized students at the rate of Rs. 3000 each for secondary levels, and at the rate of Rs. 30,000 each for higher levels. Other awards included best CE student prizes to over 550 students for their outstanding performance in the CE course.



CE Books and Materials Support

More than 5300 CE books were distributed across the 93 schools in the Annapurna region. The course book entitled "Prakriti Ko Sandesh" translated as "Message of Nature" consists of multidisciplinary topics related to flora and fauna and is taught in grade 6, 7 and 8 in all the lower secondary and higher secondary schools in ACAP. Students are further provided with stationary along with other materials that might be necessary during their classes.

Green Force Club (GFC) Support

Green Force Clubs (GFCs) are student groups formed in every school to lead and drive conservation initiatives and agenda in their respective schools. Each GFC has about 12-15 members, and these are maintained on a rotation basis every year so that opportunity is available for another fresh lot of students. This year GFCs were reformed in 87 schools with over 1000 new student members who are expected to shoulder responsibility and showcase their leadership skills toward nature conservation. To enhance environment and climate change-related knowhow among the community, 4 climate change awareness camps were organized for GFC and women group members.

Museum Curator Training

A two-day curator training covering general theory and practice was organized to guide museum management and enhance know-how among 8 community museum members (plus 3 staffs of ACAP). Conducted at the International Mountain Museum (IMM) the 2nd day involved a guided tour of 4 popular museums of Pokhara: at the IMM, Western Regional Museum, Gurkha Memorial Museum, and the Annapurna Museum. The training was undertaken by Museologist and Chief of IMM, Mr. Bal Prasad Rai, and the Chief of Regional Museum, Pokhara Mr. Sandeep Khanal. Apart from striving to enhance vocational and technical know-how among participants, aspects related to safety and preservation, placement

Eco Museum Support in Sikles

Project formed Museum Management sub-committee with an endowment fund support worth Rs 1,500,000 (plus) Rs. 200,000 for museum upgrading.

Construction of 78 metre-long trail and Chautari in the museum garden completed.

6000 brochures were printed for promotion and publicity.

positioning and presentation, aesthetic and design including creativity and interpersonal attributes were explored through demonstrations. The training is expected to add impetus to conservation awareness given the cultural wealth of the Annapurna region.

Special Events

Every year the Project along with the local communities come together and voice unity and support for the various conservation-related events and issues. Some 10,000 students, teachers and community members from all walks participated in the various events observed across the region. Prominent events undertaken this year (along with their theme) were: World Environment Day (theme: 'Go Wild for Life: Zero Tolerance for Illegal Wildlife Trade'); Conservation Day ('Conservation for Sustainable Development); Wildlife Week ('The future of wildlife is in our hand'); International Women's Day ('Planet 50/50 by 2030, Step up for Gender Equity- 2016'); and World Tourism Day: ('One Billion Tourists One Billion Opportunities'). The common activities undertaken throughout these events included: Folk *dohori* songs, Local cultural dance and song, Traditional costume show, Speech program, Quiz contest, Art competition, Wildlife drawing competition, Poem, games and sports competitions, Clean-up campaigns, Agri-products exhibition among others.





COMMUNITY INFRASTRUCTURE DEVELOPMENT PROGRAM (CIDP)

Aimed at motivating local people towards conservation by supporting basic infrastructure facilities at the grassroots level, different community development activities were undertaken this fiscal year to fulfill local demand for basic infrastructure. To up-lift community livelihood, the project in general provides basic materials for construction, wages for skilled labor, technical assistance and bears transportation expenses, whereas local people contribute through unskilled labor and the collection of locally available materials.

"Some 10,000 students, teachers and community members from all walks participated in the various events celebrated across the region with more than 5000 participants estimated during the World Environment Day celebration"

2 cases of CIDP

- **In order to diversify livelihood opportunities, Project supported the Community Tea processing plant in Bhujung with a 68 metre long fencing net, 34 iron poles, and a 8x5 ft. gate for compounding purpose, directly benefitting 375 households**
- **27 deaths and two dozen households were destroyed by the landslide last monsoon in Lumle village, for which emergency financial aid was provided as relief for immediate rescue and resettlement**

9 Major Community Infrastructure work completed in FY16

SL	Program/Activity	Coverage & Outcome (unit)
1	Building construction, repair and maintenance	15 units, benefitting 1000 households and schools
2	Drainage construction	4 units with about 300 metres constructed, benefitting 700 HHs
3	Trail Construction & Repair (metres)	13 units, about 5000 metres, 1200 HHs
4	Toilet construction	73 units, benefiting 600 households, 175 students and teachers benefited
5	Drinking Water Supply Construction (DWS)	84 units benefiting 900 HHs
6	School furniture support	3 schools benefitting 200 students
7	Community Relief (as per urgent/unforeseen relief activities)	34 units (across various programs)
8	Bridge Program (construction & repair)	6 bridges (4 RCC, 1 wooden, 1 suspension), benefiting 400 HHs
9	Irrigation Development Program	13 units benefitting 500 HHs

SUSTAINABLE TOURISM MANAGEMENT PROGRAM



Trail Development and Signage Management

Being a globally reputed destination for trekking, ACAP understands the overreaching significance of the region's trails. Still, challenges remain abound with physical development works, and meeting the local community's demand for convenience and access. This has further aggravated the problem because of wear and tear of existing trails due to landslides and floods. Finding newer routes to heighten tourist value is thus something that the Project has closely maintained focus. During this fiscal year, alternative trekking route development works was carried out in 9 different locations, and more than 20 trails underwent repair and maintenance. In total, about 13,500 metres of works are expected to have been completed. Further, as a part of signboard management which is crucial for trekkers—54 information boards, 27 sign posts, 112 poles, 82 trail markers were installed across various locations of the Annapurna region.

Alternative Trekking Route Exploration: A case of Surkhang-Damodar Kunda trail

An alternative trekking route survey program of Damodar Kunda was jointly completed by CAMC Surkhang and ACAP Lomanthang. Survey included a public meeting in Yara village with tourism stakeholder in which insights were drawn. Being a wilderness area exceptionally rich in biodiversity and cultural values, this trekking route poses a tremendous opportunity to promote religious, wildlife and adventure tourism.

Work to be undertaken immediately if the trail is to develop include:

Widening, filling of dry/gabion wall and trail signs, notice boards, ranging pole and other amenities to be kept along the way.

Dhampus Eco Park Development

Dhampus village being conveniently close from Pokhara, is a favorable attraction for many international as well as domestic tourists. Also known as the 'Dr. Harka, Dr. Chandra and Mingma Eco Park', the park adjoins the main trekking trail to the Annapurna Base Camp trek and Mardi Himal trek. Construction work involved a 20 feet high

view tower and 250 metre long and 5 feet wide trail inside the park. The park is expected to add much impetus to the attraction and variety of the already popular destination, with a great prospect also for education excursions.

Tourism Trainings and Workshops

Over 40 days of tourism-related trainings and workshops for more than 300 community members were undertaken this year. These ranged from First aid and rescue, Basic cooking and baking, Hotel Management, Homestay Management, Community Campsite Management, Tourism co-ordination and awareness among others. Awareness building exercises also included Tourism awareness camps in Sikles and Lomanthang among local entrepreneurs, youth clubs and community members. With such skill building exercises, the vision is to establish the region as a hallmark for quality tourism in the country.

Village Tourism Promotion

In order to promote cultural tourism , local festivals and cultural events play a significant role in destination promotion of any particular village since these events have the tendency to attract both internal and external tourists. Festivals and events followed mainly on clean-up campaigns, cultural rally shows, honey hunting, handicrafts exhibition and local custom and cultural performances (like: Ghantu, Sorathi and Krishna Charitra, Ghyabre dance, etc). This year, more than 15 such events related to village tourism promotion were conducted mainly around Lwang and Bhujung areas. Additionally, two promotional videos of Bhujung and Tangting village were telecast on ABC channel network.

New Check Post and Information Centre

The 21 Check Posts and Information Centers of the Project ensure regular services for visitors. Apart from verifying and maintaining tourist records, they facilitate legal compliance on matters from transportation and trade, to issuing approval, permits and updates, whilst also overseeing and restricting any unwarranted activity like checking forestry products, NTFPs, wildlife trafficking, etc. Given the growing extent of transit at certain points, two new check posts were added this year in Bhujung and Jomsom area. Apart from being of tremendous support to tourists and locals alike, the new facilities will ensure better supervision of the area and help track any potential miscreants. Besides this, regular upgrading work were also undertaken throughout all existing units.



ACAP for Quality Trails

30 trails measuring about 13,500 metres built and developed across various locations with 54 information boards, 27 sign posts, 112 poles, 82 trail markers

Additionally 2 porter shelters were constructed along the prominently busy Thorong La area and Machhapucchre model route

"A total of 81,878 tourists visited the region in the FY 2015-16, down from 114,418 in the previous fiscal year, mostly as a consequence of the Nepal earthquake and the blockade at the Nepal-India border"

Waste Management and Safe Drinking Water (SDW)

Besides regular and numerous clean up campaigns, construction of 33 incinerators and dumping pits by the Project were completed this year. Given the region's volume of tourist activity, this will help to manage waste better for 2000 households. Further, to minimize plastic bottled water use inside the Protected Area, whilst simultaneously guaranteeing safe and readily available drinking water facilities, the Project has added two more Safe Drinking Water (SDW) stations along the trekking routes making the total SDW count in ACAP to 22 stations. Besides ensuring a clean environment, they also facilitate trekker safety and experience. A very good example of effective waste management is noticeable in Lomanthang area where through its 'Zero Garbage Footprint Policy' 700 kilos of garbage was deposited at the collection point next to the Kagbeni check post over the past two years. The idea is to ensure that visitors are made to bring out what they take in. Again, through the Project's financial support to CAMC and women's groups in Lomanthang and Tsarang weekly clean-ups are made possible.

AGRICULTURE AND LIVESTOCK DEVELEOPMENT PROGRAM

Nursery Management and Conservation Farming

Project nurseries are established throughout major locations in ACAP. Apart from producing

"More than 145 kilos seeds (+) 4917 packets (+) 3078 seedlings, 1600 apple cuttings distributed, wherein Project's support to coffee, tea and cardamom farmers in Sikles sector alone helped to sell produce worth more than Rs. 7.5 million this FY"

varieties of vegetable seedlings they also serve as agri-demo plots for exhibition purposes imparting cultivating and caring techniques to local farmers. These demonstration plots are extremely effective in motivating and convincing local people to adopt newer and improved agricultural practices. On the other hand, by running private nurseries, conservation farmers not only help neighbors get quality vegetable seedlings and seeds, but also play a key role in promoting overall organic vegetable production. In Manang, 1372 seedlings were distributed to 88 farmers, whereas 19 varieties of vegetable seedlings distributed in Lomanthang area will benefit 1087 households. In Lwang area, conservation farmers' support alone involved the distribution of 1315 packets of vegetable seedlings among 30 farmer groups consisting of 1125 members. Some of the varieties distributed were of cauliflower, cabbage , tomato , cucumber, zuchini, chili, bitter gourd, sponge gourd, brinjal, bean, radish among others.

Cash Crop Production Support

Having tremendously favorable climatic conditions for tea, coffee, cardamom, fruits like apples and wild berries, the Project continuously strives to improve the living standard of its farmers by supporting them in cash crop cultivation. About 500 farmers were supported with 5 cases of cash crop production including Cardamom slips: 318,720 (plus 1 kg); Tea seedlings: 51,947; Coffee seedlings: 96,412; Zinger rhizome: 900 kg; Broom grass: 5200 sets. In Sikles sector alone, the Project distributed 6412 coffee saplings and 2 kilos coffee seeds, 2100 tea saplings, and 241,720 cardamom saplings. In addition to these, 3 coffee pulper machines were also provided in Sikles and Bhujung.



Conservation Farmer Success

In Sikles, 31 different varieties of vegetable seeds were provided free of cost to 19 conservation farmers for seedling production and distribution in their locality. ***Mr. Bhim Prasad Kafle*** *is one of the innovative conservation farmers in Saimarang VDC. He not only produces vegetable seedlings but also grows fresh organic vegetable in his 0.20 ha land. With his hard work and perseverance since the past 12 years along with support from NTNC-ACAP, now he is also growing coffee, cardamom and banana. Today his economic and social status is remarkable being a model for many other farmers in the village*

Agriculture and Livestock Management Improvement

Over 20 agri-livestock trainings and workshops were conducted this fiscal year leading to improved farming and livestock rearing practices for more than 400 farmers. Likewise major tools and material support included providing over 200 simpaulin plastic sheets, 82 rolls of PVC pipe, 3 coffee pulpier machine, hedge cutting machine, watering cans, sprayer and sprinklers, drums, HDPE pipes, nursery nets, etc. Further cash support of Rs 3000 was provided to 30 farmers each for plastic tunnel preparation to grow off-season vegetable for diversifying income alternatives.

To maintain a hygienic and disease-free environment for livestock, 19 improved sheds were constructed this year. The Project's 15 livestock health workers treated about 25,000 livestock with cases related to castration, parasite control vaccines, PPR, dipping treatment, etc. Material support for livestock health workers also included 2 large castrators and a refrigerator in Sikles, and 87 beehives, 10 caps and 10 gates in Bhujung sector. All these will undoubtedly lead to better profits for the livestock farmers of the region.



WOMEN EMPOWERMENT PROGRAM

Women's Group Support

Upper Mustang has about 15 women's groups. During this fiscal year, such groups were supported with Rs. 4000 each for village sanitation purposes. Through such an initiative, a sense of responsibility toward developing waste disposal etiquette is observed among people. Elsewhere in Manang, 25 members from 15 women's groups were part of the homestay observation tour to the reputed home stay villages of Bhujung and Ghalegaon. Exploring attributes to homestay management and best practices, the impact of the experience has been taken much optimistically by the women of Manang. In Lwang area, 7 women sub-committees have been formed as a VDC level core women's group to represent the voice of all women in the VDC in every aspect of decision making and collective action.

Day Care Centre Support

There are 13 day care centers in the region wherein each day care has at least one teacher and one helper. Project support involves covering expenses for teacher salary, center repair work, center materials, tiffin management, capacity building, monitoring, and problem solving among others. These are especially valuable support for young mothers, who have to manage household work as well as farming related activities. The Project supports such centers that are charged with the responsibility of keeping children safe and constructively engaged during the major part of the day.

Trainings and Workshops

Training and Workshop	# of training, # participants
Women's group coordination workshop	12 units, 260 participants
Women Leadership & Empowering Training	4 units, 130 participants
Sewing and cutting training (1 month)	1 unit, 8 participants
Nettle Fibre weaving Training (60 days)	1 unit, 6 participants
Traditional Wool dying training	1 unit, 14 participants
Advocacy training cum workshop for women groups (on Nepal Constitution)	7 units, 224 participants
Women's group observation tour (Manang)	25 Members of 15 WGs in Bhujung & Ghalegaun



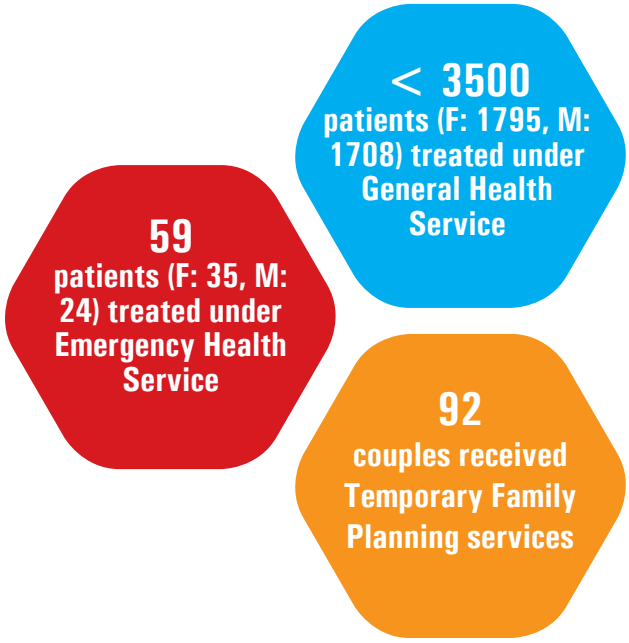
Skills Enhancement Trainings

Three of the major skills enhancement training for women conducted this year comprised of a 14-day Traditional Wool Dye Training in Lomanthang, 30 days Sewing and Cutting Training especially focused on Dalits of Sikles, and 60 days Nettle Fiber Cloth Weaving Training in Bhujung. The participants were provided a support of 50% subsidy on the sewing machine after completing the training course. Facilitated by technical consultants, these trainings are expected to strengthen the economic independence of 28 women and their roles in shaping a more equal society. Another 6-day leadership training for

women and youth members was also conducted in Sikles. Apart from this, the advocacy training was organized to raise awareness of women's rights enshrined by the new Constitution of Nepal among 224 community members.

GENERAL HEALTH SUPPORT PROGRAM

The main aim of the health program is to enable basic health care extension and education. These include awareness raising, safe motherhood, family planning, sexually transmitted diseases, nutrition and sanitation etc. General health facilities are made available only in the remote northern areas of Upper Mustang and Manang region. The health program of the Project is thus solely focused on making preventive interventions rather than serving a curative function.



***** Health Awareness Camps like STDS/HIV/AIDS Awareness Camp and Winter Mobile Health Camps had a coverage of more than 160 patients and youths**

High rate of gastritis, worm infection, acute respiratory infection, fungal infection, joint pain, dental carries, diarrhea, headache, and other communicable diseases were commonly observed, especially in the remote villages north of the region

HERITAGE CONSERVATION PROGRAM

Local Festival Support

Over 12 local festivals bearing immense cultural significance to the people across the region were supported by the Project this year, including popular festivals such as Ghantu, Losar, Tiji and Yartung. As part of the Tiji festival celebrations, the project supported a three-day Local Food Festival in Lomanthang wherein about 50 foreign visitors, 200 Nepali visitors and more than 350 local people visited the various stalls set up exclusively for the occasion.

ACAP for Tradition

Mhane dance—also known as the Tibetan opera dance—is a kind of traditional dance of Lomanthang, performed on special occasions and ceremonies like Lhosar and Tiji. Bearing numerous characters across performances and role plays, the show takes up to 7 days to complete and requires many props and materials. Since the past few years, less importance and interest has been shown to this unique practice. Thus ACAP supported in the purchase of required materials with the aim of establishing its revival

Gompa and Mahne Chhorten Support

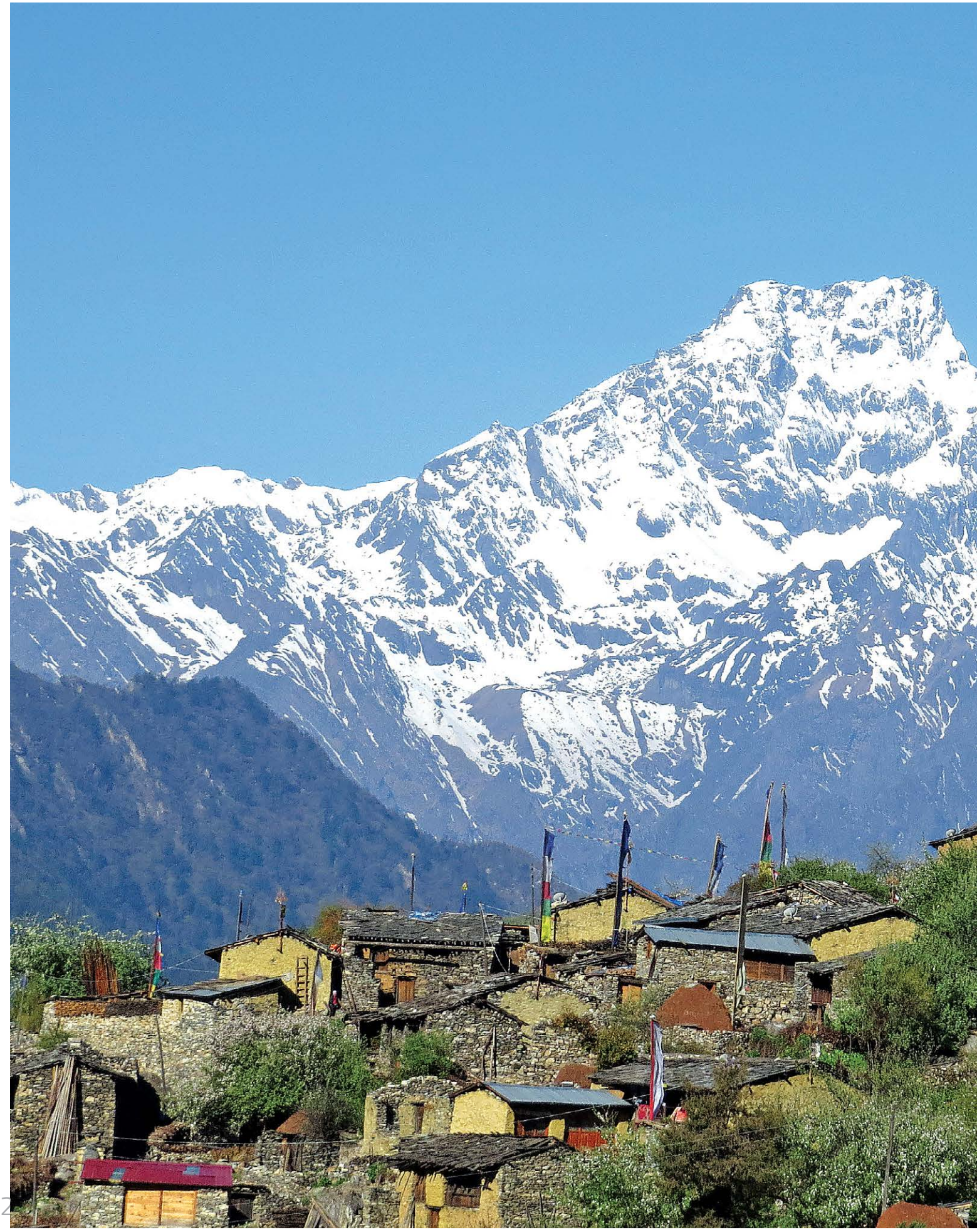
Recognizing the cultural significance of the ancient "Luri Ghang Gompa", that sits inside a cave and houses numerous delicate frescoes, ACAP Lomanthang supported two sets of low beds and three sets of Tibetan-styled tables to keep with locals faith for performing regular *pujas* and ceremonial rituals. At the Milerepa cave in Manang area, a wooden stage that was devastated by the wind and heavy snow is in the process of being built using iron truss construction. Further a prayer house construction in Jhong VDC of Jomsom area, near the locals' ancestral burial place was also completed. Likewise, repair work of Jyanju Chhorten (ancestor god) in Tanki Manang involved the renovation of cracks seen in the chhorten plaster and coloring work on the stupas and mahnes.

Rijiling cave trail construction

Being among the oldest caves of Chhoser village, one will observe many a fine ancient paintings at the Rijling cave. Although only a 30 minute walk from the main village, the caves sloping location makes it a difficult point to visit. In order to overcome the problem, the project supported the construction of a 700-metre footpath along with a 732 metre trail. The improved path will subsequently encourage more visitors to take to the cave in the future and enjoy its unique marvels.

Archery Play Ground Support

In order to promote the much revered and reveled sport of the people of Mustang, especially the primitive forms and styles of archery whose techniques were once used to hunt wild animals, ACAP Jomsom provided support for an archery playground in Muktinath. Along with the 186 households of Khinga village, the new playground will encourage the present generation to immerse in their traditionally special sport.





Manaslu Conservation Area Project (MCAP)

Manaslu Conservation Area (MCA), declared through Nepal gazette on 28 December 1998, is the third conservation area in Nepal and second conservation area entrusted to NTNC for management. It spreads over in an area of 1,663 sq. km covering 7 VDCs of northern Gorkha, MCA is adjoined with Tibetan Autonomous Region (TAR) of the People's Republic of China to the north and east, parts of Gorkha district to the south, and Manang and Lamjung districts to the west.

MCA has its own significance in terms of socio-cultural, biological and geo-morphological diversity. People of Tibetan origin, follower of the Buddhism dominate the area. Economically, the people of the region rely on agriculture and animal husbandry system and depend upon natural resources for firewood, timber and medicine but the agricultural production is very low because of limited agriculture land, lack of irrigation and high altitude. Trade and tourism enterprises are the secondary occupation in the area. Ecologically, MCA has a diverse range of habitats which boasts many rare flora and fauna such as Snow leopard, Lynx, Musk deer, Red fox, Jackle, Brown bear and their prey species such as Blue sheep, Himalayan thar, Himalayan serow, Wooly hare and Himalayan marmot. Likewise, varieties of birds like Snow partridge, Tibetan snowcock, Chukor partridge, Himalayan griffon, Golden eagle etc. with diverse plant communities are found in the region.

NTNC through MCAP has been working for the conservation and management of natural resources through holistic and integrated conservation and development program (ICDP) approach that promotes local people as the beneficiaries as well as key actors of conservation. The project has been working closely with the conservation area management committees (CAMCs) to conserve the biodiversity, natural resources and sustainable tourism development.

NATURAL RESOURCE CONSERVATION PROGRAM

"2 snow leopard conservation sub-committees (SLCsC) were formed this year at Samagaun VDC with the aim to conserve the highly endangered snow leopard through the mobilization of local communities, wherein 7 citizen scientists (CS) were selected to conduct regular monitoring-related activities"

Snow Leopard Conservation Sub-Committee Formation

Conservation Area Management Committees (CAMC) are the vested legal local institutions responsible to conserve and manage natural resources as per the conservation area management rules and regulations. Each CAMC is therein expected to work within their own operating area, i.e. ideally, 1 CAMC each in their respective VDC (village development committee). Thereafter, conservation sub-committees are formed under each CAMC to effectively manage and implement specific tasks. To conserve the highly endangered snow leopard through the mobilization of the local communities, 2 snow leopard conservation sub-committees (SLCsC/SLCCs) were formed this year at Sama and Samdo of Samagaun VDC in Mansalu. A series of interaction, meetings and orientation trainings at the community level were conducted to disseminate the value of the rare cat, and the part played by local institutions to promote its conservation.

Community Based Snow Leopard Monitoring System

Long term conservation and survival of the wildlife species can be assured by developing appropriate monitoring systems. For community-based regular monitoring of the snow leopard, 7 citizen scientists (CS) were selected from the newly formed SLCsCs. Five days capacity building training on snow leopard monitoring and survey techniques was conducted in Chhekampar VDC for the selected CSs and SLCsC members. A total of 16 participants were trained on community-based direct and indirect survey methods to monitor the snow leopard, and on GPS handling and camera trapping methods. Further, to set up a systematic community monitoring mechanism, the snow leopard monitoring system and data collection record keeping book format was also provided to the trainees.



Community Based Compensation System for Livestock Damage

Several meetings and workshops were organized to develop community based compensation relief systems in Samagaun and Chhekampar VDCs for livestock damaged by snow leopard. In order to secure compensation relief support scheme livestock registration with the existing 9 SLCsCs was proposed, wherein MCAP helped support the creation of a community level compensation fund with a seed capital amount of Rs. 500,000 and Rs. 700,000 for CAMC Samagaun and CAMC Chhekampar respectively. The compensation system follows that farmers will be required to pay a nominal amount for registration, whilst also jointly implementing decisions made by SLCsC and CAMC. According to this arrangement, compensation relief support amount provided through the respective CAMCs and SLCsCs will consist of 15-20 percent of livestock valuation amount, although only in case of depredation caused by snow leopard. The compensation relief scheme is expected to support local livelihood for livestock husbandry as well as reduce retaliatory killings, thus ultimately helping to secure the highly endangered snow leopard.

Workshop on Human-Snow Leopard Conflict

A two-day workshop on Human-Snow leopard conflict management was organized in Philim of Sirdibas between 22nd to 23rd December 2015, wherein participants included representatives from CAMCs, SLCsCs and citizen ccientists (CS). During the workshop, predator ranking, causes of animal loss and potential activities which could minimize the conflict, including seasonal calendar of depredation were discussed and accessed. The workshop also focused on sharing and gathering ideas on community based compensation relief

scheme drafts and to develop the snow leopard conflict management strategy so as to minimize Human-Snow leopard conflict in MCA.

Community Based Anti Poaching Unit (CBAPU) Mobilization

To control incidents related to wildlife crime, anti poaching Units (APUs) of Bihi, Prok, Lho and Chumchet CAMCs and 3 FMsCs of Sirdibas and 2 FMsCs of Chhekampar in Manaslu region conducted forest patrolling in their periphery. During the exercise, Bihi APU found one animal trap in Serang area whereas FMsC Chhekam found an old gabion wire trap. A total of 106 people were involved in the patrolling exercises undertaken for 14 days in the forest and pasture areas of the 6 VDCs of MCAP. So far 14 forest patrolling exercises have been supported with 4 APUs and 5 FMsCs through their respective CAMCs. Local people recount that the rate of trap encounters and illegal activities have been decreasing since two years, attributing the improving scenario to regular forest patrols as well as the community's diligence towards controlling illegal activities. Elsewhere in Gorkha, the coordination meeting with the Wildlife Crime Control Unit (WCCU) decided to form a CBAPU at the Arughat-Arkhet section, since this site is considered a sensitive junction and falls on the way to the Manaslu route followed by open border with Tibet.

Logging and Timber Preparation for Earthquake Recovery

For the reconstruction and recovery of earthquake damaged infrastructures, controlled logging and timber preparation from fallen logs, dead and dying trees were made of good use. The April 2015 Gorkha earthquake had caused tremendous damage to the trails and other public infrastructures within MCA—like bridges, community buildings and cultural monuments including Mani, Kani and Gumbas. Consequently an increasing demand for timber reconstruction and recovery was only eventual. In response MCAP supported the logging and timber. A total of 2,342.30 cu.ft of timber was extracted (beam 719 pcs and plank 3,573 pcs). Out of the timber prepared, Sirdibas CAMC used 163.02 cu.ft for the Yabang khola wooden bridge and 46 cu.ft for Nawang khola wooden bridge, whereas CAMC Bihi provided 38.80 cu.ft (planks) to Bihi School.



Given the scale of public infrastructure devastation in Manaslu, all 6 CAMCs put topmost priority on reconstruction efforts. Some important public infrastructures built in the post-reconstruction works included: rebuilding of 13,500 metres of trail, along with 12 wooden bridges, 6 Gumbas, 7 Mane and Kani, including other infrastructure facilities like water mills and drinking water supplies throughout the 7 VDCs of MCA–in Sirdibas, Bihi, Prok, Lho, Samagaun, Chumchet and Chhekampar VDCs.

"In response to the damage caused by the earthquake MCAP supported for the logging and timber preparation for 6 CAMCs wherein **2,342.30** cu.ft of timber was extracted for reconstruction purposes, which helped build **13,500** metres of trail, along with 12 wooden bridges, 13 religious sites including other infrastructure facilities like water mills and drinking water supplies"

Local Adaptation Plan of Action (LAPA) Implementation

LAPA implementation support was undertaken for all the 6 VDCs of MCAP in Sirdibas, Bihi, Prok, Lho, Chumchet and Chhekampar. Some of the major activities planned during the period included the completion of seven Fire awareness campaigns, 14 Kitchen garden trainings, 3 Organic pesticide preparation trainings, Plastic tunnel support for green house and fencing support for plantation, Drinking water supply repair and improvement, and drainage improvement. As a result more than 500 participants across 25 trainings and campaigns, along with 236 households (including 2 mother groups) benefitted from the plantation and fencing support activities. The 730 metres of stone fencing built in Yabang khola pakha (114 m), Salleri pakha (104 m)and Pangsing (512 m) of Sirdibas VDC will in turn close potential open periphery and entry sites of the community plantation area so that livestock are restricted access. These plantation sites cover approximately 5 ha area.

5 LAPA Implementation Interventions	Outcome
Fire awareness campaign	• 7 events • 228 community members in 3 VDCs
Kitchen garden training	• 14 events • 269 community members trained from 3 VDCs • 13 improved varieties of vegetable seeds provided to trainees
Organic pesticide preparation training	• 3 units • 27 farmers trained from 3 VDCs • trainees provided with pesticide preparation manuals and materials
Plantation fencing support	• 3 sites • 730 m fencing • 236 HHs benefitted • 5 ha of plantation area now protected from open grazing livestock
Proejct Nursery	total # of fodder, fuelwood and timber seedlings: • produced: 7,755 • distributed: 2,418 • ready for plantation: 5,722 • transplanted: 2,033 • 12 species

"Besides the production and distribution of fodder, fuelwood and timber seedlings from the Project nursery, 13 farmers were supported with 22,995 seedlings of Swertia chirayita (Chiraito) with the aim to enhance local livelihood alternatives by taking into growing of the valuable medicinal NTFP"

Nursery Operation and Block Plantation Support (*Swertia chirayita*)

This year a total of 2,072 seedlings of more 12 different species (like Bakaino, Uttis, Bans, etc) were distributed from the project nursery in Philim of Sirdibas. Block Plantation Support program is a very effective alternative to promote local livelihood by diversifying income generating activities. For instance, the favorable climate and geography in Manaslu area finds immense potential for the plantation of *Swertia chirayita* for income generation. Besides *Swertia chirayita* there are plans to initiate cardamom plantations in Sirdibas VDC and in the lower parts of Lokpa of Chumchet VDC. During the reporting period, 22,995 seedlings of *Swertia chirayita* (Chiraito) were supported to 13 farmers of Sirdibas VDC. Among these, 22,195 seedlings were purchased from Anga and Sano Philim nurseries and supported to the 13 farmers for block plantation. The remaining 800 seedlings were distributed from Philim project nursery.

ALTERNATIVE ENERGY PROMOTION PROGRAM

Improved Cooking Stove Promotion

With the aim to reduce pressure on forest and consumption of firewood, since many years NTNC-MCAP has been supporting in the supply of Metallic Improved Cooking Stoves (MICS) to individual households in Manaslu region. This year, a total of 137 households (Sirdibas-40, Prok-15, Bihi-42 and Chumchet-40) benefited from the three-pot holder stove model designed by the Alternative Energy Promotion Center (AEPC). In addition to fuel efficiency, MICSs are also used for space heating proving to be very effective in the mountainous regions.



CONSERVATION EDUCATION AND EXTENSION PROGRAM

School Education and Awareness Camp

Conservation Education plays a vital role in the conservation of natural resources and wildlife. To relay the value of snow leopard conservation among the local school students as well as local communities, 17 snow leopard conservation awareness camps were conducted between August to December 2015 across various schools and settlements of Sirdibas, Lho, Samagaun and Chumchet VDCs in Manaslu. A total of 446 participants (Female-199), including students,

were apprised about the ecological importance of the natural resource conservation, snow leopard occurrence and distribution, its threats and legal aspects through lectures, slide shows, discussions and related video sessions.

Stipend and Scholarship Awards

With the aim to encourage local students towards education, particularly those who are disadvantaged socially or economically, the project has been providing some amount of scholarship each year to support such students belonging to MCA. For this fiscal year 43 students studying in different grades at the Buddha Secondary School: Primary-12, Lower Secondary-20 and Secondary-8 were awarded the education grant on the occasion of the World Environment Day 2016 on June 5. Support consisted of Rs. 3,000 each for Primary level students, Rs. 4,000 for Lower secondary and Rs. 5,000 for Secondary levels. Similarly, 3 students studying Higher secondary level (after Grade 10) were supported with Rs. 20,000 each.

COMMUNITY INFRASTRUCTURE DEVELOPMENT PROGRAM

Trails and Eco-Trails Construction and Improvement

The Barpark-Gorkha earthquake of 2015 measuring 7.6 magnitudes ruined most of the trekking trails and alternate access points in the Manaslu region. To open the blockage at Yarubagar, 3 temporary wooden bridges were constructed over the Budhi Gandaki river. Further, more than 4,000 metres of alternative trail construction and trail widening was undertaken in Sirdibas, Bihi, Prok and Chumchet VDCs within the main trekking trail sections thus linking settlements, through the financial support of USAID funded Hariyo Ban Program.

Livelihood Support through Cash for Work

As part of the NTNC, Hariyo Ban Program, post earthquake reconstruction was implemented under the 'Cash for Work' program. Reconstruction involved works related to damaged trails, wooden bridges, kani, mani, gumba and other community infrastructure. CAMCs of Sirdibas, Bihi, Prok, Chumchet and Chhekampar VDCs identified



the activities needed to be reconstructed and improved, and subsequent work was carried out in all 5 VDCs of MCA through the mobilization of 9,204 man days. During this time, a total of 13,500 metres of trail was stone paved, this along with the building of 12 wooden bridges, 6 Gumbas, 7 Mane and Kani, including other infrastructure facilities like water mills, and drinking water supplies.

"Besides stone paving 13,500 metres of trail, 4000 metres of alternative trail construction and trail widening work was completed this year within the main trekking trail sections of Manalsu region, thus helping better link settlements and sentiments, communities and tourists alike"

Drinking Water Supply and Drainage Improvement

As is generally the case elsewhere in Nepal, women and children often suffer most from poor sanitation in Manaslu region too. Given that they regularly engage in household water collection and sanitation-related tasks, to reduce their burden as well as maintain hygiene, drinking water supply facilities and drainage damaged from the earthquake were repaired and improved. A total of 5 units of drinking water schemes were constructed and repaired in Gapsya and Upper Gapsya of Prok VDC and Gomnang and Bhanjam

NTNC, Hariyo Ban Program construction work completed in FY 2016 following the disaster caused by the Nepal earthquake

Over 9,200 man-days deployed

- 13,500 metres of trail stone paved
- > 4000 metres of alternative trail construction and trail widening completed
- 12 wooden bridges
- 13 religious site constructions: 6 Gumbas, 7 Mane and Kan

Beside other infrastructure construction like water mills, drinking water supplies, drainage and irrigation repair, etc.

of Lho VDC, in addition to repairing 1 unit for drainage improvement of drinking water supply in Jagat, Sirdibas VDC.

Disaster Risk Reduction (DRR) Support to CAMCs

In the high reaches of Nepal, disasters are commonly caused due to natural hazards like floods, landslide, Glacier Lake Outburst Flood (GLOF), earthquakes, or other anthropogenic activities like water pollution. The extent of risk depends on the vulnerability of the area as well as the response and coping capacity of its people. For this, enhancing the local capacity and resources to respond to potential incidents of disaster becomes crucial. DRR support to CAMCs was planned for each VDC after identifying disaster-prone locations from the community level meetings.

During the reporting period, CAMC Sirdibas placed a 24 metre long gabion-filled dam to protect the settlement on the riverbank of the Budi Gandaki nearby Jagat Bagar. For this the District Soil Conservation Office (DSCO), Gorkha provided 62 gabion boxes. On the other hand, improvement of drinking water facilities at Dhurjung, Namrung and Lihi by CAMC's of Bihi, Prok and Lho in Manaslu will continue to ensure that local residents are at the heart of safer, healthier and happier communities.

WOMEN EMPOWERMENT PROGRAM

GESI Sensitive Disaster Preparedness

"More than 800 women directly benefited from various GESI-sensitive disaster preparedness activities related to GESI responsive awareness campaigns, lifesaving development skills, leadership and capacity building, to ensure that women are at the forefront of recovery and reconstruction works in the region"

Socially excluded and marginalized groups in the community, especially women are the most vulnerable to disasters given their low coping capacity. In order to redress this issue, MCAP provided Training of Trainers (TOT) to Local Resource Persons (LRPs) aimed at ensuring effective mobilization of skills and knowhow at the community level. Trainings covered disaster risk reduction skills and tools trainings, gender responsive trainings, including measures for improved drinking water supply and sanitation facility support.

The 5-days long community level Emergency Response Training of Trainers (TOT) was provided to the LRPs of MCA from 14 to 18 February 2016, wherein 21 participants including 2 MCAP staff, 7 LRPs and representatives from CAMCs and women's groups took part. The objective of the training being to capacitate future local level trainers on GESI sensitive disaster preparedness, this will help marginalized communities recover better from the earthquake and resume biodiversity conservation activities. In particular the training aimed at building LRP capacity, and through their mobilization in-turn to sensitize women's groups through the local language so as to develop a gender-intrinsic preparedness to disaster within the wider community.

Post the TOT training, 7 LRPs conducted gender responsive awareness campaigns and provided lifesaving skills training as well as materials support to mother groups across MCAP. In addition to this, they also supported CAMCs with activities related to record keeping, monitoring and reporting of recovery and reconstruction work implemented under Hariyo Ban Program like 'cash for work' and trail improvement. The overall TOT program facilitation was undertaken by the team from the Nepal Red Cross Society. Theoretical and practical interactive classes were conducted on topics regarding disaster and common hazards; specific hazards like earthquake, fire, water emergency and basic life support; risk reduction measures; fire protection; first aid techniques; preparedness and evacuation; communication and evaluation techniques etc. About 800 women are expected to have benefitted from the 35 campaigns and 7 life saving skills trainings conducted in the seven VDCs of MCAP.



TOURISM MANAGEMENT PROGRAM

Sign Board and Trail Management

Signage is extremely important for enhancing tourist notion about safety, apart from disseminating information about surrounding locations, particularly about destination points. These help relay often-basic, yet very vital information to visitor whilst raising awareness among locals. In MCAP, 1 location board about Larke Pass, 7 flex board frames for GESI-responsive information and awareness, 3 fire incidence control boards, 44 directional sign posts, 14 warning signs related to landslide prone/stone fall areas for 7 locations, and 30 destination boards, including repair of old signage were designed and prepared in Gorkha alone.

Additionally, 44 informative slogan boards related to women empowerment and sanitation awareness were also prepared. Out of these, 3 new sign posts were installed at Soti, Naulikhola and Dovan on the main Manaslu trekking trail, along with one steel board at Larke pass. Similarly, maintenance of 3 existing boards was completed in Jagat in Sirdibas. Other pending signage work continues to remain in progress due to trail blockage caused by the monsoon rains.

AGRICULTURE AND LIVESTOCK DEVELOPMENT PROGRAM

Farmer Support

To encourage farmers to taken in to vegetable production, seasonal vegetable seeds were distributed to local farmers from Philim at a nominal rate, much lesser than the market retail price. Seeds purchased from the market were packed into small packets and distributed from the Philim office to farmers at the rate of Rs. 2 per packet. A total of 1,883 packets of nineteen varieties of vegetable seeds were distributed to 547 local farmers of MCA. With this support, farmers will be able to diversify their income spread by reducing cost margin, whilst being able to focus on maintaining supply and quality instead.

Livestock Restocking and Shed Construction

Since MCAP region adjoins Barpark, the epicenter of the April 25, 2015 earthquake, large counts of villagers have lost their livestock as a consequence



of the disaster. This has negatively affected their agricultural and farming output leading to narrowed income sources. In response to the situation, MCAP continues to work hard in providing support for livestock restocking along with shed and corral improvement aiming to help in the villagers' livelihood recovery. During this fiscal year, livestock data details for all the VDCs were collected. Out of the 654 livestock found to be damaged from the earthquake, restocking was completed for 422 livestock (in 144 HHs) along with the construction of 31 sheds and corals.

"More than 100 signage-related installations covering trail direction and destination, GESI responsive information and awareness signs, safety and warning, and other informative and educational boards were undertaken in MCAP region this FY to ensure trekker's safety and convenience"

EARTHQUAKE RELIEF SUPPORT

Since the powerful earthquake measuring 7.6 magnitude struck Nepal in April 2015 with the epicenter near Barpark of Gorkha district, the disaster resulted in numerous small and big landslides along the trekking route and destroyed many more houses and other community buildings within MCA. In response to the disaster, shelter materials like tarpaulins (490) and blankets (1500) were delivered. Blankets were distributed to each household of Bihi, Lho, Samagaun, Chumchet, Chhekampar and in ward no. 7, 8 and 9 (260 HHs) of Sirdibas VDCs. For the remaining households of Sirdibas VDC (ward no. 1 to 6) 410 tarpaulins were distributed. In Prok VDC, 230 blankets received from District Disaster Relief Committee (DDRC), Gorkha were transported and distributed to each household. Blanket and tarpaulin distribution were led by the CAMCs of the respective VDCs. Besides this, shelter tools (30) and trail improvement tools (18) were also distributed to the CAMCs so as to enable local people in the vital reconstruction and recovery work. Relief support ensured coverage to the households of all the 7 VDCs of Manaslu area. Transportation of all these materials were delivered from Deurali (near Abukhaireni) to the respective sites through the World Food Program's UNHAS air service.





Gaurishankar Conservation Area Project (GCAP)

Gaurishankar Conservation Area (GCA), the youngest conservation area in Nepal was declared as conservation area by a historic and special meeting of the Council of Ministers, Government of Nepal (GoN) held at Kalapatthar, base camp of Mt. Everest on December 4, 2009. Spread over an area of 2,179 sq. km covering 22 village development committees (VDCs) of Dolakha, Sindhupalchok and Ramechhap district, GCA is adjoined with Tibet Autonomous Region (TAR) of the Peoples' Republic of China to the north, Langtang National Park (LNP) to the west, Sagarmatha National Park (SNP) to the east and other districts of Nepal to the south. GCA is not only very rich in bio-diversity but also provides biological corridor connectivity to two crucial protected areas of the country, SNP and LNP.

GCA comprises 695 types of floral species and 16 major vegetation types: Pinus roxburghii forest, Schima-Castanopsis forest, Alnus forest, Pinus wallichiana forest, Pinus patula forest, Rhododendron forest, Quercuslanata forest, Lower temperate oak forest (*Quercus semicarpifolia*), Lower temperate mixed broad leaved forest, Abies forest, Upper temperate mixed forest (Birch-rhododendron forest), Temperate mountain oak forest, East Himalayan Oak forest, Juniperus forest, Shrubland (Rhododendron anthopogon bushes) and Moist alpine scrubs. Faunal diversity inside GCA totals to 71 species of mammals, 27 species of reptiles, 24 species of fishes, 12 species of amphibians, and 252 species of birds.

The region is quite rich in water resources and is catchment of Khimti, Bhotekoshi, Sunkoshi, and Tamakoshi rivers that are the major sources of water for some major hydropower projects in the country. The region is also famous for glacial lakes, particularly the Tso Rolpa. Glaciers account for 2.77 percent of the total area of the region. With the issue of climate change becoming prominent in the national and international arena, the region carries special significance.

GCA is the third conservation area entrusted to NTNC for management. NTNC started conservation and development establishing GCAP at Laduk as headquarters and visitors' information center at Singati and Siwalaya. In close collaboration with communities and government stakeholders, GCAP has been implementing programs based on holistic and integrated conservation and development program (ICDP) approach since 2010.

NATURAL RESOURCE CONSERVATION PROGRAM

"Apart from preparing 21 Operation Plans this year, the Project developed and approved a harvesting plan for ten commercially important non-timber forest products (NTFPs) of trees, shrubs, and herbs. A total of 137 export orders were issued out of which a total of 2276.3 tons of NTFPs (plants) were released, while 98,984.5 square feet of stone slates were exported"

Operation Plan Preparation and NTFP Harvesting Plan

Operation plans (OPs) for 21 CAMCs were prepared in Gaurishankar area this fiscal year. Besides these, OPs for Kamalamai community forest user group and Chirkunthan community forest user group were drafted and bought for public consultation. Operation plans are in a sense community-specific area management plans required to be prepared every 5 years. In addition, another 15 operation plans of community forest user groups were amended with the technical and financial assistance from ANSAB, Dolakha. Apart from preparing 21 Operation Plans, the Project developed and approved a harvesting plan for ten commercially important non-timber forest products (NTFPs) of trees, shrubs, and herbs. A total of 137 export orders were issued in this fiscal year, out of which a total of 2276.3 tons of NTFPs (plants) were released, while 98,984.5 square feet of stone slates were exported. Regulating the outflow of such plants and materials (like slates, gravel, sand, etc) from the region is one of the many important roles that GCAP maintains under its protected area management responsibility.

Nursery Operation and Plantation

Regeneration of degraded areas is undertaken by the Project as a vital intervention measure. Through the plantation of multipurpose tree species especially on community forests and private lands, including timber and fodder were undertaken, GCAP also promotes palatable fodder species that serve both for livestock and construction materials. Aimed at encouraging locals to initiate nursery establishments the Project ascertains demands from villagers, schools, religious institutions, and interested groups, and makes for alternatives to deliver.





To minimize the threats of climate change induced disasters like landslides and flooding, the degraded lands were planted with a total of 90,450 seedlings. In addition, seedling support for income generation activities included distribution of 890 seedlings of bamboo, 3400 seedlings of broom grass, 500 seedlings of Mulberry or *Kimbu* and 210 seedlings of *Lapsi* in Tashinam, Gaurishankar VDC. Further 2300 extension materials related to climate change and wildlife conservation were also distributed.

Field Visits and Inventories

Apart from conducting biomass assessment, biometric analysis, tree biomass and stock volume for operation plan preparation of community forest user groups, the Project measured and analysed areas where vegetation needed to be removed, as recommended by the environmental impact assessment (EIA) report. It has been recommended to clear the forest area for the establishment of tower of the Upper-Tamakoshi hydropower project. Forest conditions in Gaurishankar, Tso-Rolpa, Suri, Chankhu, Kalinchowk, Marbu, and Alampu were also assessed. A joint monitoring by district administrator, security officers, NTNC and CAMC

members, local political leaders and VDC secretary was carried out up to Tsho Rolpa Lake.

Forest Patrolling and Management

Irregularities related to public property utilization are a common problem also seen in *Gaurishankar* conservation area. Community forest user groups, conservation area management committees, local police, and Project staffs thus maintain strict vigilance to counter potential misconduct. Wildlife trophy hunters and traffickers, NTFP smugglers, as well as illegal timber smuggling cases are common. Surprisingly, members of elite groups are also involved in such activities.

Severely vulnerable areas where the likelihood of criminal activities are higher is assessed and rendered with counter-response strategies. The Project has identified some key locations where patrolling teams maintain a close eye, with the deployment of key informants. Frequent encounters with snares, pits, and traps left by poachers, along with the illicit felling of commercially valuable trees, and illegal NTFP collection are common sightings to patrolling teams. During this year, patrolling was conducted across 11 different forests in GCAP. Further, regular patrolling exercises are also undertaken by forest guards from the community, who are supported financially by the Project. To strengthen community-based network, 6 youths were mobilized for a period of 4 months, with the main objective of disseminating conservation related messages with special focus on illegal activities. Elsewhere in Singhati, 26 representatives took part at the information and sharing workshop between CAMC representatives, local community and Project staffs to discuss issues and find solutions on illegal trade and trafficking of forest products and wildlife crime.

ALTERNATIVE ENERGY PROMOTION PROGRAM

Improved Cooking Stoves (ICS) Distribution

By supporting for improved cooking stoves (ICS), biogas plants, liquefied petroleum (LP) gas, electricity (micro or mega), GCAP helps to ensure the reduction of pressure on forest products. During the second half of the year, contracts were made between local people of Shyama and Chuchure VDC for ICS purchase, wherein an understanding was reached to pay them in the first months of next fiscal year. Additionally, *Gumdel* village of *Ramechhap* district was supported with 10 electric poles.

CONSERVATION EDUCATION AND EXTENSION PROGRAM

Conservation Education Program

Conservation education plays an important role in creating and strengthening knowledge base for protecting ecologically, environmentally, and socio-culturally important sites for posterity. Through the conservation education curriculum at schools, via the *Prakriti ko Sandesh* coursework—a supplementary curriculum for students—the Project ensures the value of youth participation as a key driver to conservation. Additionally, the Project provided stipend to economically weak students, along with those from marginalized class, caste, and ethnic communities. The Project also provided 8 schools with necessary stationary and other logistic support, along with providing for CE teacher remuneration.

Special Events

More than 3,000 students and teachers participated in the various conservation-related occasions throughout the region this fiscal year. Wildlife Week, generally observed during the first week of the first month *(Baishak)* of the Nepali calendar was celebrated in Chankhu,



"6 youths were mobilized for a period of 4 months to strengthen community-based patrolling network, with special focus on conservation awareness and illegal activity monitoring within Gaurishankar VDC. On the other hand, maintaining growing stock in community forests was a major challenge this year due to higher demand of timber for reconstruction of damaged homes by the earthquake"



Chilankha, Lamabagar, Shyama, and Marming villages. Some 1800 people participated at the World Environment Day celebrations in Chuchure, Phulpingkatti, and Suri VDCs under the theme "Go Wild for Life," wherein Project staffs actively delivered conservation messages to locals, students, and community members about the need for pro-conservation action and initiative by the community themselves. The theme of the event aimed to reiterate that healthy wildlife lies at the heart of healthy communities. Likewise, Women's Day marked on 8th March bought together more than 800 villagers. Aimed to bring women from household tasks to the outside world, especially within the fold of conservation-related activities, the role of women is taken as fundamental to enriching biodiversity, especially given their role in mentoring children and influencing the community at large.

"As part of the MSFP's Innovation Fund a film highlighting local success stories was released and distributed, to share on learning attributes from village locals, as well as identify and gather traditional knowledge in natural disaster management and mitigation"

'Gaurishankar Darpan' Radio Program

'Gaurishankar Darpan'—a radio program targeting listeners of Gaurishankar Conservation Area and beyond—was aired on public stations throughout the year. Altogether, 96 episodes were aired from four FM stations in Charikot, Dolakha. The radio broadcast featured conservation related subjects through public service advertisements (PSA), talkbacks and interviews, public opinion polls, and most recent updates and activities in the field of conservation, along with educational themes.

Fire Awareness and Training Program

Forest fires are very common in Nepal's high altitude forests. They occur mostly due to reasons intentional or by accident (Ex: lit cigarettes stumps). Local people expectant on fresh sprouts of grass shoot deliberately alight fire. Similarly, bush meat traders and the wildlife traffickers also ignite fire in the higher mountains where they can propel their prey out from hiding and easily pursue them. Being no exception, the GCA landscape also witnessed numerous fire incidents across various locations—especially in the pine forests of Laduk, Bulugn, Chilankha, Khare, Lambagar—resulting in the loss of vulnerable biological resources.

To reduce instances of forest fire and heighten peoples' awareness and responsiveness, GCAP organized a series of fire awareness camps. Furthermore, through the Gaurishankar Darpan radio program, the Project continues to reach out to the local community conveying the impacts of forest fires on nature and environment, wildlife, and on human health. This year, approximately a dozen forest fire incidents were controlled by the joint team of local forest users, Project staff, and local police personnel.

Stipend to School Children and GFC Support

Students from marginalized class, caste, sex and regions are provided with stipends to support their education every year. This year also the Project provided stipends to over 300 students from 8 schools across the region. To take lead of conservation activities in their respective schools and communities, a network of school students known as Green Force Clubs (GFCs) are formed. Supported through the Project's conservation education program, students interested in wildlife, forest, and environment volunteer themselves in various duties to serve as environment volunteers.



They act as active conservation messengers and play a crucial role in influencing parent/elder's behaviour. To strengthen such groups, the Project provides regular financial and technical support. This year, GFC was formed at the local school of Chuchure among 53 students.

LIVELIHOOD IMPROVEMENT PROGRAM

Rural Infrastructure Support

Improving the living standards of local people while conserving natural resources is a twin strategy adopted by the Project. Through its livelihood improvement program, GCAP aims to deliver outcomes which can satisfy the pressing needs of the community. Programs that support farmers, public health and sanitary challenges, electrification and micro hydro promotion, minor infrastructure support, drinking water support programs are undertaken to fulfil local community needs and interests. For instance, to promote construction of livestock sheds, GCAP provided CGI sheet bundles to 11 households of Gaurishankar VDC. Rural infrastructure included works undertaken to promote eco-tourism and homestay facilities, along with developing community trails and trekking routes.

Infrastructure development also consisted of CAMC building construction. Such building works are undertaken to facilitate a working premise for the local community while also instituting for community access, merit and convenience. During this period, buildings were constructed in Suri, Kalinchowk, Chilankha, and Shyama with funding support from the Project. Completion of the CAMC, Gumdel building was subsequently handed over, while CAMC buildings in Alampu and Khare that were damaged by the earthquake were renovated.

School Support Program

Latrines are considered as minimum infrastructural facilities necessary in each and every school. Frequent reports from the country show that girls reaching the age of puberty often miss classes due to the lack of latrines in their schools. During the year, GCAP supported schools in Gumdel, and a school each in Shyama, Suri, Marming, and Listikot in the construction and maintenance of their toilets. Endeavouring to accommodate these basic



facilities in all the schools of GCA, it is expected that students attendance will show positive numbers in the future.

"To enable the many livestock farmers who still depend on traditional rearing methods and use low quality and unhygienic sheds, 11 households were provided with CGI sheet bundles for keeping with improved livestock sheds"

Drinking Water Supply Maintenance and Repair

To ensure the supply of clean and safe drinking water, GCAP provided water tanks, pipes, road head transport, and construction material support. In total 20,000 running metres of pipelines and accessories were provided to the users of Tatopani, Marming, Ghorthali, and Chuchure VDCs. Subsequently, CAMC members of the respective VDCs were responsible for construction and maintenance, thus making for a shared process of responsiveness and ownership between the Project and the CAMCs.



"To change the current pattern of cropping system from subsistence to modern cropping, 60,000 seedlings of multiple cash crop species for cardamom farming, as well as varieties of vegetables and fruits were distributed free of cost"

Cash Crop Distribution

Although conventional crops are thought to be beneficial to the environment, the need for increased food supply has become crucial with the increasing population and demand for food. In Guarishankar region, 45.46% people use only organic manure, whereas 16.2% use chemical fertilizer and 38.34% use a combination of both. Very few villagers use improved seeds (9%) and only 15.4% engage in cash crop farming, a meagre 3% use modernized cropping systems.

To change the current pattern of cropping system, from subsistence to modern cropping, GCAP offers subsidy on a variety of modern varieties of seeds and vegetable seedlings along with materials to conservation farmers. These conservation farmers in turn offer an example to lead other farmers in the community towards implementing modern and advanced farming practices. This year alone a total of 60,000 seedlings of multiple cash crop species for cardamom farming, as well as varieties of vegetables and fruits were distributed free of cost. Besides different species of crops and fruits, 450 Kiwis plants were also distributed under the MSFP Innovation Fund.

TOURISM MANAGEMENT PROGRAM

Trekking Trail Improvement and Destination Promotion

About 20,000 metres of trekking trails were reconstructed this year in Gaurishankar and Lamabagar VDCs to offer easy travel and commuting for tourists and villagers. Eco-tourism initiatives for homestay promotion, local cultures and local products were also promoted wherein support for the trail development work in Simigaun is expected to benefit more than 250 households. Apart from the Project's destination promotion support for 5 Gompas and 1 temple, the repair and reconstruction of the trekking route from Shivalaya-Deurali-Gumdel (10 kms) is expected to further boost visitors' experience and variety, and the overall tourism value of the region.

To improve the service quality and skills of the existing homestays and hotels, 47 participants including homestay owners from Gaurishankar



VDC, hoteliers of Singati bazaar, as well as Project staffs participated in the hospitality and housekeeping training.

Culture and Heritage Promotion Support

To maintain and promote the region's cultural diversity while also enhancing tourism opportunities, culture conservation support is provided to local communities. Support include improvement and maintenance of religiously and culturally important infrastructure, sites and monuments. Maintenance support was provided for two Gompas of Gumdel VDCs of Ramechhap district, one Gompa each in Syalu, Lamabagar and Tashinam in Garuishankar VDCs and one temple in Chankhu VDC of Dolakha. Material support provided by GCAP this year included support for 2 *Kumbu* and 21 bowls—materials of religious significance to the Gompa management committee of Rolwaling, Daljyam, and Tasi Chholing Gompa in Gaurishankar VDC. Supports such as these ensure that the unique practices and way of living of the people in the region persist and thrive in spite of modern transitions.

Tourist Information Centre and Check Post Upgrade

A new Tourist Check Post and Information Centre was established in Nayapul of Sindhupalchowk district this year. Subsequently, general management tasks related to the information centre and check post were allocated. Prior to the commencement of GCAP, local communities from the district were facing severe hardships in deriving public services and facilities. Since then, they are now availed to services within their door steps. Apart from providing for readily available services to the community, these check posts

ensure vigilance measures and minimization of people's propensity for illegal activities including wildlife crimes, timber and NTFP smuggling.

Tourism Promotion and Waste Management

A clean up camp along the tourist route to the Sagarmatha National Park via Shivalaya was undertaken by the Project to collect non-biodegradable wastes at designated areas. Onsite mentoring on environment pollution and its effect on human health, environment, and wildlife was delivered by the Project staffs wherein public, local elites, teachers, students, Nepal police staffs, hoteliers from the Shivalaya Bazar took active part in the program. During the camp, some 53 dust collection bins were distributed to households and hotels so as to protect the route from further deterioration. In coordination with CAMC Gaurishankar, GCAP constructed 3 incinerators at prime trekking routes and location where waste accumulation possibilities are high. Similarly waste management training was also provided to 33 participants in Singati, Dolakha.

Trail Signage

Some 50 information boards consisting of rules and regulations of the protected area, tourist guidelines, and location and destination boards, along with onsite information were installed and renovated around the Gaurishankar area in Chyanmara, Bhorle, Gurumphi, Chuchure, Marming, Tatopani, and Lamabagar. Beyond raising awareness and knowhow, signage infrastructure has an intrinsic role in determining trail quality and experience on the part of tourists, making it a strategic task of connecting and communicating the usefulness of a given trail network.

CAPACITY BUILDING PROGRAM

Climate Change Sensitization Training

To sensitize the local community on climate change and its day to day impact, climate change sensitization trainings and workshops were conducted. The main objective of the program being to impart knowledge and information on climate change and climate induced issues, as well as to strengthen adaptive capacity in local communities. Three such trainings were provided



to the local community and Project staffs. Besides these, two other climate change sensitization trainings were also undertaken in Simigaun and Singati villages amid the participation of 69 locals.

Forest Management Training

Although local communities are generally masters of local resource management, integrating new tools and methodologies that have been tested with success can undoubtedly heighten their already profound indigenous knowledge. Being fully aware of this local asset, Project staffs are themselves continuously learning these unique traditional methods. To expose local communities and forest user groups to newer and refined techniques, forest management trainings were organized across different locations in Gaurishankar area. Altogether, 271 community members took active participation in these training sessions. Lending some valuable insights, participants proposed potential and practical solutions considering the realities faced, whereas echnical inputs were provided by the forestry staffs so that learning could become more effective combining traditional with more recent methods.

Conservation Education (CE) Teacher's Training

The Project's "*Prakritiko Sandesh*" book taught in schools combines additional materials to the regular course syllabus concerned with

"20,000 metres of trekking trails reconstructed (plus) 50 information boards, along with the establishment of a new Tourist Check Post and Information Centre this year will lead to improved visitors' experience and tourism value of the region"





"To capacitate local preparedness in dealing with all future obstacles related to farming exotic species, multiple trainings were organized across the region for 187 conservation farmers, during which each farmer was provided with a set of agricultural tools, including plastic tunnels, seeds, utensils, etc"

forests, wildlife, environment, climate change, biodiversity, and other emerging global issues. Divided into three volumes for grade 6, 7 and 8, science teachers are generally given the added responsibility to conduct weekly classes wherein the school administration facilitates the coursework implementation with financial support provided by the Project. This year also CE related workshops ensured that experience sharing and discussion between the schools and the Project was engaged upon to fill-in the existing gaps whilst optimizing student impact.

Agri-Livestock Workshop/Training

Cultivation of newly introduced species require an in-depth understating on general habitat and its adaptation features to the new environment. Being fully aware of the nature of exotic species the Project planned and undertook to capacitate local preparedness to deal with all future obstacles related to farming such species. Agriculture and livestock technicians were thus busy scheduling such trainings across Gaurishankar area. In order to facilitate easy access of local people from the surrounding areas, trainings were organized in clusters in Singati, Marming, Chuchure, Garjyang, Tatopani and Gurumphi, and Alampu. Conservation farmers were given insight about the nature and habit of such crops to be introduced in their farms. Altogether, 187 participants were oriented during the trainings, wherein each conservation farmer was provided with a set of agricultural tools, including plastic tunnels, seeds and utensils.

CAMC and Project Staff Training

Skills development trainings are crucial for empowering local communities by helping them build institutional capacity and knowhow. This in-turn directly converts to their economic diversification and growth. To enhance CAMC members and staff capacity, the Project conducted Forest inventory training in Shivalaya, Ramechhap. During the last week of the fiscal year, another two-day capacity building training was conducted in Charikot, Dolakha wherein 22 staffs from all GCAP field offices participated. During the occasion, Conservation Officers and Project Chief discussed a wide range of topics from legal issues, policy and governance, team building and team work essential for effective and efficient conservation area management.

MULTISTAKEHOLDER FOREST PROGRAM (MSFP) SUPPORTED PROGRAM

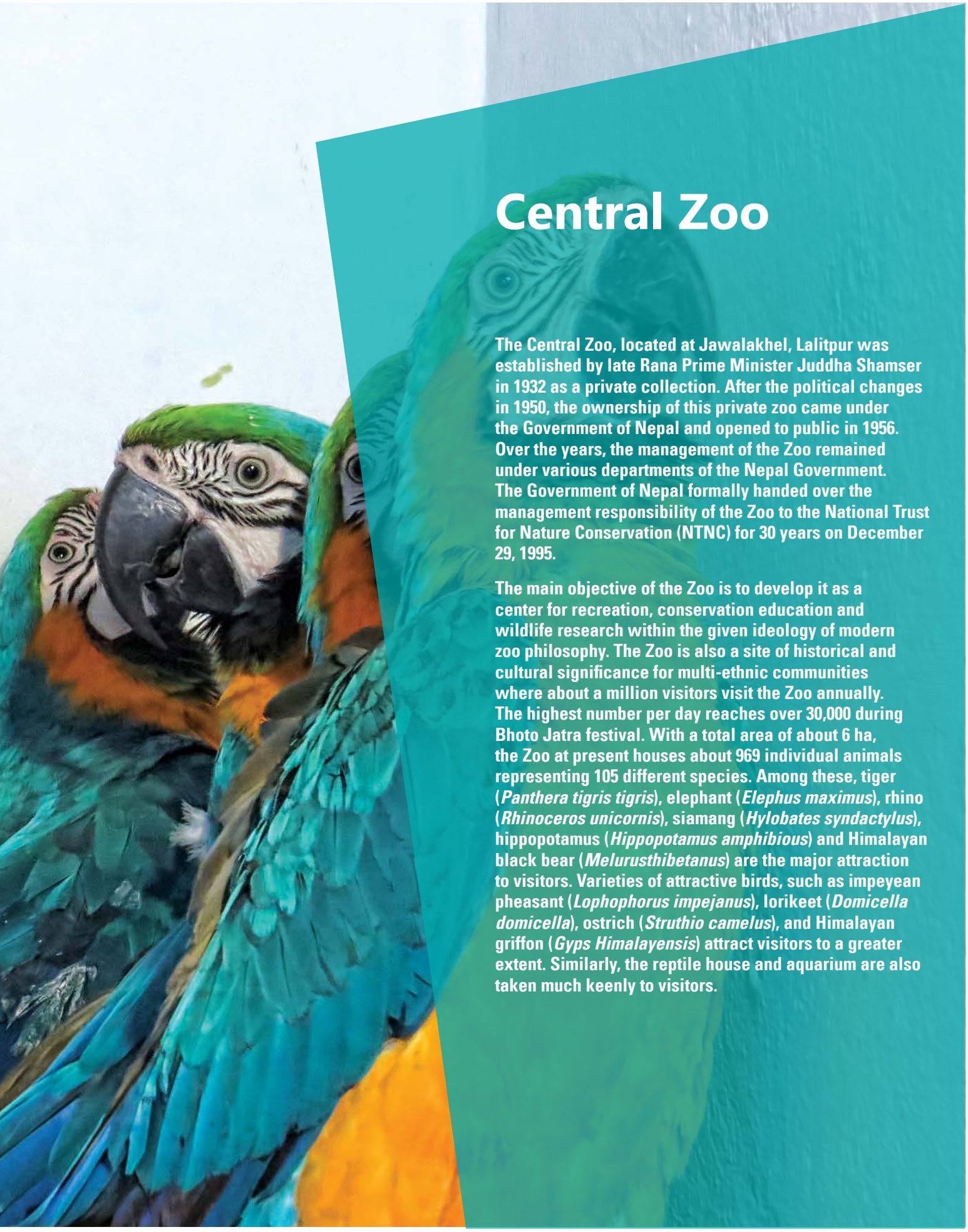
Climate Change Induced Disaster Preparedness

MSFP is mainly focused in piloting the climate smart conservation program in Gaurishankar VDC of GCAP. Given the region's vulnerability to natural as well as climate-induced disasters, and coupled with its poor coping ability, a nine-member disaster mitigation sub-committee was formed under CAMC Gaurishankar. A revolving fund

of Rs.400,000 was created for this purpose to provide quick and emergency relief for the victims of disasters caused by climate change/flood or other natural disaster cases. Operation plans were subsequently reviewed to ensure climate adaptation and mitigation measures with the active participation of community, line agencies and concerned stakeholders. Numerous in/formal discussions and surveys were also carried out to identify and gather special traditional knowledge of the community members so as to combine their knowhow with modern mitigation techniques. To minimize the threat caused by land degradation induced disasters like landslides and flooding, 890 seedlings of *Bambusa* (bamboo), 3400 seedlings of *Thysanolaena maxima* (broom grass or *Amrisho*), 500 seedlings of *Morus alba* (Mulberry or *Kimbu*) and 210 seedlings of *Choerospondias axillaris* (*Lapsi*) were planted. In addition to these, another 2300 extension materials related to climate change and wildlife conservation will ensure a more resilient preparedness on the ground.

"To strengthen community preparedness to cope with climate change induced disasters like floods, land degradation and other emergencies, a revolving fund of Rs. 400,000 was created for emergency relief of disaster victims, this besides the planting of 5000 seedlings and supporting for 2300 extension materials"





Central Zoo

The Central Zoo, located at Jawalakhel, Lalitpur was established by late Rana Prime Minister Juddha Shamser in 1932 as a private collection. After the political changes in 1950, the ownership of this private zoo came under the Government of Nepal and opened to public in 1956. Over the years, the management of the Zoo remained under various departments of the Nepal Government. The Government of Nepal formally handed over the management responsibility of the Zoo to the National Trust for Nature Conservation (NTNC) for 30 years on December 29, 1995.

The main objective of the Zoo is to develop it as a center for recreation, conservation education and wildlife research within the given ideology of modern zoo philosophy. The Zoo is also a site of historical and cultural significance for multi-ethnic communities where about a million visitors visit the Zoo annually. The highest number per day reaches over 30,000 during Bhoto Jatra festival. With a total area of about 6 ha, the Zoo at present houses about 969 individual animals representing 105 different species. Among these, tiger (*Panthera tigris tigris*), elephant (*Elephus maximus*), rhino (*Rhinoceros unicornis*), siamang (*Hylobates syndactylus*), hippopotamus (*Hippopotamus amphibious*) and Himalayan black bear (*Melurusthibetanus*) are the major attraction to visitors. Varieties of attractive birds, such as impeyean pheasant (*Lophophorus impejanus*), lorikeet (*Domicella domicella*), ostrich (*Struthio camelus*), and Himalayan griffon (*Gyps Himalayensis*) attract visitors to a greater extent. Similarly, the reptile house and aquarium are also taken much keenly to visitors.

CONSERVATION EDUCATION PROGRAM

"Over 7000 students and teachers directly benefitted this fiscal year in the various conservation education-related programs, besides more than 2000 FOZ members who were directly involved in the Zoo's special conservation related days as part of the drive to expand conservation awareness and response"

Zoo Visit for Differently Abled Students

As part of the Central Zoo's initiative to reach out to as many perspectives and groups, Zoo visit programs for differently abled children and orphan children are organized each fiscal year. Organized twice this fiscal year on January 22, 2016 and May 22, 2016 a total of 66 differently abled children from Bahira Mahila Ka Srijanshil Hatharu and Nepal Children Organization took part in the visits. Besides observing the animals, students also attended the talk program along with watching a documentary, plus an information sharing session to enhance understanding on different animals and aspects related to the Zoo.

Eco-calendar Events

NTNC-Central Zoo, along with FOZ school students regularly observe special conservation related days as part of the drive to expand conservation awareness and response. This year special activity celebrations included observing Global Tiger Day on July 29, 2015 which saw the participation of more than 250 students involved in face painting, coloring, along with the interaction session aimed at raising awareness among visitor about the Royal Bengal Tiger and its ecology; International Vulture Day event on September 6, 2015 with more than 500 participants; Wildlife Week celebrations between April 13-19, 2016 that saw a poem competition face-off among 16 FOZ students on the topic *'Banya Jantu ko Bhabhishya Hamro Hatma'* (T: the Future of Wildlife is in our Hands); and the World Wetland Day marked on February 2, 2016 among 100 participants.



FOZ Meetings and Interactions

Undertaken to share and learn aspects about Eco Club initiatives across different schools, including on how to coordinate and participate in joint programs, the FOZ club meeting was organized at the Zoo facility on 14th August 2015. Attended by 54 FOZ club chairpersons of 25 schools, participants presented and shared experiences on the activities conducted by the FOZ club in their respective schools through a presentation session. The best FOZ Eco Club award for this year was awarded to D.A.V Sushil Kedia Vishwa Bharati, Lalitpur. Elsewhere, to make discussion on the annual educational program, including collecting inputs over the Zoo Eco-calendar programs, 27 FOZ coordinators took part in the FOZ Coordinator Interaction meeting held on March 25, 2016.

FOZ Interschool Competitions

Wildlife Essay and Drawing competitions were organized for FOZ members from grade 5-10, wherein a total of 889 students from 23 schools participated in the essay competition, and 1156 students from 22 schools participated in the drawing competition. With the essay topic as "Sambar Deer and Its Conservation", the

FRIENDS OF THE ZOO (FOZ) is a membership based Conservation Education program of the Central Zoo. The Central Zoo organizes yearly scheduled conservation educational activities for its FOZ members. It aims to raise awareness about nature and wildlife conservation and issues concerning their survival. FOZ is especially designed for school children but membership is open to all national and international individuals, students and families. At present, FOZ programs have been introduced across over 200 schools in Kathmandu, Lalitpur and Bhaktapur, reaching out to a network of more than 20,000 FOZ members. Being an FOZ member, students can participate in various Conservation Education programs organized by the Zoo, while also empowering them to engage in creative and fun-filled opportunities to develop different environmental projects on their own





preliminary round was held in the respective FOZ member schools whereas the final competition took place at the Zoo on November 30, 2015. Likewise, the Inter-School FOZ Debate Competition on May 15, 2016 saw the participation of 66 FOZ members from 34 different schools engage each other on the topic "Banya Jantu ko Bhabhishya Hamro Hatma" (T: the future of wildlife is in our hands).

Educational Tour and Outreach Activities for FOZ Members/Coordinator

As part of the yearly education tour, 26 senior FOZ members of grade 8-10 from 13 different schools were taken to Annapurna Conservation Area Project (ACAP)-Ghandruk to observe conservation-related practices, especially with respect to natural resources, social and economic development at the local context, village and ecotourism initiatives with minimum negative impacts on the natural environment. A similar tour was held between January 27-29, 2016 for the 24 Junior FOZ members between grade 5-7 at the Chitwan National Park. Another short trip to Nargarkot was also organized for 30 FOZ coordinators from 26 different schools. The outreach program that is aimed at providing recreational opportunity to the FOZ teachers is also undertaken to appreciate their contributions to the Zoo's conservation education program.

Teachers for Tigers (T4T) Workshop

A two-day Teachers for Tigers (T4T) workshop was organized in April, 2016 with the participation of 39 FOZ coordinators from 39 different schools. In addition to refresh the FOZ coordinators, the objective of the workshop aimed to develop creativity among the trainees on how to organize different environmental events, and to link different aspects from the T4T concept with school curricula. Dr. Jhamak Karki, an expert on tiger delivered a talk on prey species, conservation issues and techniques of monitoring tiger population in the wild condition. Special appreciation must be conveyed for the support made by WCS, US and Zoo, India for providing manuals and other tool kits.

Day with a Vet Program

A day with a vet program was organized for 313 FOZ members from 7 different schools between April 1 to May 31 2016. As part of the two-months long initiative, FOZ members together with Zoo veterinarians conducted physical examination of small animals, like rabbits, by recording their temperature and heart-beat rate, along with conducting general health checkups. Although Ms. Rochana Shrestha of Jagriti Academy bagged the award for submitting the best report, this kind of unique experience makes a great opportunity for all FOZ members to learn about medical care procedures undertaken for captive animals and in their proper handling.

"The Central Zoo's two-month long 'Day with a Vet Program' helps young students come face to face with various incidents concerning animal health and special interventions made therein, thus leading to increased empathy and care for animals"

Night Guided Tour

A one-month long night guided tour for FOZ members was undertaken from December 1, 2015 up to January 30, 2016 with the participation of 857 students and teachers from 15 different schools. Undertaken as a regular activity, each year FOZ students are exposed to observe and learn the behavior of nocturnal animals in captivity. Following this exercise, FOZ members would be better equipped to understand and relate to animal behavior against time traits.



Visit to National Botanical Garden

To raise awareness about the role of different types of plants in scientific research and conservation impacts, a one-day excursion trip to the National Botanical Garden, Godavari was organized for 95 FOZ members on February 13, 2016. During the same occasion, students also had the opportunity to visit the Fisheries Research Division where they got a practical understanding of different types of fish and their role in maintaining aquatic ecosystem.

Solid Waste Management Training

A two-week solid waste management training for Friends of Zoo (FOZ) members was conducted for 400 FOZ members and teachers from 10 different schools. The main objective of the training was to raise solutions to minimize solid wastes and promote environmentally sound waste disposal and treatment plants. FOZ members also visited the Zoo waste management site near the elephant exhibit and learned how degradable waste generated from zoo is being managed.

Animal Feeding Program

"The animal feeding program aims at providing firsthand experience to students about the feeding behavior of animals and is seen as a vital exercise in building intimacy and positive attitudes for wildlife among youths"

Being among the more popular and widely enjoyed activities, the animal feeding program was open for the FOZ members from July 17 to the end of December 2015. During this period, more than 2000 FOZ students from 26 different schools participated in the feeding program. Under the guidance of the zoo keepers FOZ members were engaged in preparing food for the captive animals according to the dietary chart and then feeding the animals with their own hands. Undertaken to provide them with first-hand experience and to widen their knowledge about feeding behavior of the animals, the program is seen as a vital exercise to build empathy and positive attitudes for such animals among students.

Climate Change Awareness Program

To make case of the impacts of climate change on agriculture, biodiversity, health, tourism, infrastructure and water resources of Nepal, an awareness training was conducted among the participation of 189 FOZ members from 6 different schools. As part of this, a report submission exercise was conducted wherein Ms. Aashwini Pantha of Bhaktapur NIST School bagged the award for submitting the best report. Initiatives such as these will help youths engage more seriously with the subject of urban development and modern lifestyle influences on an increasingly carbon-stressed planet.

Visit to Natural History Museum

To induce stimulation and learning about the evolution of the various floral and faunal species of Nepal, their history and diversity, a visit to the Natural History Museum was organized for 60 FOZ students from 28 different schools. Being a part of Tribhuvan University, the museum is an excellent point of making young minds discover the rich biodiversity and conservation history that the country fetes on.

SPECIAL EVENTS

Zoo Anniversary Celebration

The Central Zoo celebrated its 20th Anniversary under the management of the National Trust for Nature Conservation (NTNC) with a variety of programs held on December 29, 2015. Inaugurating the celebrations, the chief guest of the Program, the Hon. Minister for Forest and Soil Conservation (MoFSC) and the Chairperson of NTNC Mr. Agni Prasad Sapkota emphasized on the country's high potential for nature-based tourism in improving livelihood standards of local communities. Given the limitations in the land area of the Central Zoo in Jawalakhel, the Hon. minister also expressed





commitment to transfer the big mammals to the zoological garden planned to be established soon in Suryabinayak, Bhaktapur. Mr. Govinda Gajurel, Member Secretary of the Trust further reemphasized the urging of the Hon. minister to expand beyond the area of the current zoo facility, and reiterated the importance of instituting the welfare of wild animals into the Suryabinayak facility.

Recognizing the contribution of the former Directors of Central Zoo during the occasion, the chief guest felicitated Dr. Mukti Narayan Shrestha, Mr. Shreevatswa Man Malla, Mr. Bal Krishna Khanal and Mr. R. K. Shrestha. Besides conferring winning prizes and certificates to FOZ students, the chief guest also inaugurated the painting exhibition by 50 senior artists of Nepal based on nature and earthquake. Other prominent speakers during the program included Mr. Uday Chandra Thakur, MoFSC secretary and Mr. Fanindra Raj Kharel, Director General of DNPWC, and Ms. Sarita Jnawali, Manager of the Central Zoo.

World Environment Day Celebration

NTNC-Central Zoo observed the World Environment Day on June 5, 2016 jointly with the Lalitpur Sub-Metropolitan City, IUCN, WWF Nepal and BCN. Inaugurating the occasion the chief guest, Hon. Minister for Forest and Soil Conservation and the Chairperson of the NTNC, Mr. Agni Prasad Sapkota urged for the collective efforts to address challenges related to climate change. In response he also reiterated the Government's commitment to formulate relevant policies and plans to protect the environment.

Prior to the ceremony, over a thousand FOZ school children and teachers accompanied in the traditional *Dhime Baja* music rally to share and spread conservation awareness messages under this year's theme "Go Wild for Life", which the Government of Nepal translated in Nepali as *"Hamro Jeevjantu, Hamro Batavaran ra Van, Samrakshyan Garau Lagai Sampurna Tan, Man Ra Dhan."* Another attraction of the program was the conservation oath administering ceremony by Miss Nepal World 2016 Ms. Asmi Shrestha who is also the Biodiversity Conservation Ambassador of NTNC, Ms. Nepal Earth Ms. Roshani Khatri, and Ms. Nepal International Ms. Barsha Lekhi. Other highlights during the occasion involved the launching of the Site Specific Conservation Action Plan for Blackbuck in Shuklaphnata Wildlife Reserve published by DNPWC, the felicitation of Dumri Thumka Adarsha Women Community Forest Users' Group, and the honoring of Dr. Udaya Raj Sharma, the former Secretary of the Nepal Government and the former Director of the Central Zoo.

"Through the climate change awareness initiatives undertaken for students it is expected that an incresing number of youths will engage more seriously with the subject of urban environment and modern lifestyle influences on an increasingly carbon-stressed planet"

ANIMAL MANAGEMENT

Zoo animal management program comprises of routine yet extremely significant interventions. These cover activities related to animal care and rearing, arranging for feedstuffs for the entire Zoo collection of about 900 animals according to modern Zoo husbandry guideline, to ensuring that their natural feeding habit and nutritional requirements are in place. Further they also include taking care of regular animal treatment and medication, along with nursery and quarantine management activities, and rearing of the young and sick before they are released to the Zoo

exhibit. Apart from these, animal collection and rescue operations make for major interventions as elicited below:

"Besides arranging feedstuff for the entire Zoo collection of about 900 animals, regular treatment and medication, along with nursery and quarantine management activities, animal collection and rescue operations are some major interventions made by Central Zoo"

Animal Collection and Rescue

A variety of animal species were collected from different sources this year. Gauri, the resident female red panda at the zoo, found a companion with the arrival of a pair of red pandas on January 19, 2016. The pair were rescued from the mid-western region of the country by an old couple and were reared for two months after which they were handed over to the District Forest Office in Rolpa. After a week in quarantine, they are presently in the Zoo exhibit with Gauri. Elsewhere, a female Sambar deer (*Rusa unicolor*) was rescued by the District Forest Office Kathmandu and was handed over to the Central Zoo on August 22, 2015. Sambars are the biggest deer species found in Nepal, widely common in Bardia NP, Chitwan NP, Shuklaphanta Wildlife Reserve and Parsa Wildlife Reserve.

The Zoo team was also actively involved in the rescue and rehabilitation of problematic and orphaned animals in and around the Kathmandu Valley. Along with birds species like Black kite, Black-crowned night heron, Barn owl, Large Indian civet, Cattle egret, Java sparrow, Cockatiel; other mammals like Himalayan black bear, Wild boar, Budgerigar, Turtle, Rose-ringed parakeet were also rescued and brought to the Central Zoo.

Regular birth and hatching related cases indicate natural and healthy animal activity. This year new born cases involved the birth of a female calf by the resident Wild water buffalo Shrawani; the resident Leopard cat's birth to a cub; offsprings of Civet, Rhesus macaque, Spotted deer, Barking deer, Black buck among others. Cases of bird hatchings involved that of the Ruddy shelduck, Nepali Kaliz, Golden pheasant, Silver pheasant, Back headed Ibis and Lady Amherst's pheasant.



Some Animal Rescue this FY:

Mammals
A pair of Red panda, a female Sambar deer, Himalayan black bear, Wild boar, Budgerigar, Turtle, Rose ringed parakeet

Birds
Black kite, Black-crowned night heron, Barn owl, Large Indian civet, Cattle egret, Java sparrow, Cockatiel

PARTICIPATION, VISITS AND CAPACITY BUILDING

Zoo Staff Out-of-Country Participation Programs

Ms. Sarita Jnawali, Project Manager of Central Zoo attended the 70th World Association of Zoos and Aquarium (WAZA) conference held in Al Ain, UAE from October 11-15, 2015. Besides this, she also participated at the Nepal Day 2016 function in Cologne, Germany, where upon the invitation of the German-Nepal Friendship Association Ms. Jnawali delivered a presentation on the 'Impact of the Earthquake on Nepal's Biodiversity' as one of the guest speakers at the program.

Ms. Rachana Shah, acting Curator of the Central Zoo attended a two week climate change training on monitoring of Greenhouse Gas Fluxes from Natural and Agro ecosystem in Chengdu, China. The training was organized by Chengdu Institute of Biology, and the Chinese Academy of Sciences in collaboration with ICIMOD. Two other staff from NTNC-Central Zoo, Mr. Suk Bahadur Gurung and Mr. Ganesh Koirala attended the training on Zoological Information Management System (ZIMS) in Chandigarh, India between November 25-30, 2015. ZIMs was organized by the Central Zoo Authority India and International Species Information System (ISIS). Another 10 staff

members from different sections of the Zoo visited the Darjeeling Zoo in India to explore and learn from its overall management. Such cross-learning contexts will eventually lend into the overall capital for better Zoo management in the future.

Talk Program on Disaster Management

A one-day talk program on disaster management focusing specifically on earthquake-related cases was organized for 35 Zoo staffs on June 8, 2016. The talk delivered by Mr. Ram Kumar Dhakal, an expert from the Lalitpur Sub–Metropolitan City, mainly highlighted on the recent earthquake catastrophe, sharing about the different causes of its occurrence, as well as safety measures to be taken during pre and post earthquake situations. Given the extent of Zoo visitors, especially children, the exercise was undertaken as a necessary step to ensure that Zoo personnel are equipped with standard earthquake-safety measures.

Special Visits

NTNC and ZSL have signed an MOU wherein they have been working together since over a decade. Professor David Field, Zoological Director of ZSL visited the Zoo this year whereby progressive discussions and insights were drawn among senior officials from NTNC and the Zoo team. The main purpose of his visit was to explore potential areas for strengthening organizational relationship between the two parties for future collaboration in ex-situ conservation. Other special visits this fiscal year included those made by US Embassy expatriates along with visits by the social culture group from the UK.

INFRASTRUCTURE DEVELOPMENT AND VISITORS FACILITIES

Regular upkeep and enhancement of the Zoo infrastructure is a necessary intervention if one seeks to put quality experience at the heart of matters—both for animals under exhibition, as well as for the scores of Zoo visitors. This year some of the prominent infrastructural upgrades

Total number of Zoo visitor during FY 2015/16

Nationality	Visitor numbers
Nepali adult	6,89,150
Nepali children	1,86,144
Student Nepali	1,23,370
Foreigner adult	3,639
Foreigner children	483
Total	**10,02,786**

involved the construction of a public toilet facility that included being disabled-person friendly; a new office gate cum guard house for improved security and monitoring; a 98 metre front compound wall that is earthquake-proof; construction of a new aviary for the birds measuring approximately 4000 sq. feet and having seven chambers; and the renovation of the Tiger enclosure. The renovated enclosure guarantees that the Tiger holding area bares all the standard facilities such as—proper drainage system, water pot and feeding trough. These will ensure convenience of the three resident Royal Bengal Tigers (names: Bange, Shiva and Kancha) whilst also easing the working environment of the tiger keeper. Further to supplement the facilities within the children's park section of the Zoo, a couple of slides were added. Other infrastructural work that continue to be implemented into the next fiscal year include construction of office complex, inner compound wall, water hydrant, and solar light installation.

"Given the extent of Zoo visitors every year, especially among children, the post earthquake disaster management training was a necessary step to ensure that Zoo personnel are equipped with standard earthquake-safety measures to deal with potential crisis situations"







Biodiversity Conservation Center (BCC)

Biodiversity Conservation Centre (BCC), formerly known as Nepal Conseravtion Reserach and Training Centre (NCRTC) established in 1989 at Sauraha, Chitwan is one of the largest undertakings of NTNC. BCC has been working in numerous thematic areas since its establishment for reserach and monitoring and bringing local communities into the mainstream of conservation. Currently, BCC is working in and around Chitwan National Park and Parsa Wildlife Reserve focusing on biodiversity conservation. Over 80,000 local communities are direct beneficieries of the project. BCC implements its project activities in close collaboration and coordination with CNP, Nepal Army, buffer zone management committees, users committes, community forest user groups, local government bodies and NGOs.

The main objective of this center is to promote biodiversity research and monitoring, to capacitate wildlife research, and to promote biodiversity conservation in and around CNP with due focus on local livelihood. Major programs implemented by BCC are research and monitoring, natural resources conservation, human wildlife conflict mitigation, conservation education, livelihood support, Nepal elephant TB surveillance program etc. The center provides technical assistance to Vulture Conservation and Breeding Centre, Elephant Breeding Centre and Gharial Breeding Centre too.

WILDLIFE RESEARCH / MONITORING PROGRAM

Genetics Lab

As an ambitious endeavor aimed at establishing a state-of-the-art research facility in Chitwan, a genetics lab was set up this year at the Biodiversity Conservation Centre (NTNC-BCC). Having come into operation from February 2016, the lab is equipped with four departments, namely the DNA Extraction Room, PCR Room, Electrophoresis and Gel Documentation Room, and ELISA Room. Supported by the Hariyo Ban program of USAID, with partial support for some devices from the International Trust for Nature Conservation (ITNC), the lab has been established with the objective to draw on the vacuum in genetic study in the country, especially focusing on wildlife conservation. The set-up of this ambitious facility is expected to draw on the research potential, not just for NTNC but also for the future of the country as a whole.

National Crocodile Survey

Conducted to understand the current status of thespecies in Nepal, the national crocodile survey was undertaken across the major river systems and ponds, lakes and other water bodies of Nepal. Under the funding of the USAID Hariyo Ban Program, the survey was divided into three blocks—the Chitwan Block, the Bardia Block and the Shukla Block— wherein the design and selection of the study segment was based following standard protocols. Using the 'total count' method, altogether 677 mugger crocodiles (340 in river systems and 337 in lakes) and 198 gharials were recorded. Whereas anthropogenic and habitat covariates of both species were also recorded at every 500 metre segment for river systems, a separate datasheet was prepared to collect data about the nature of the lakes, habitat type and other faunal species for lakes and ponds.

"The national crocodile survey undertaken across the major river systems, ponds, lakes and other water bodies of Nepal recorded a total of 677 mugger crocodiles and 198 gharials, whereas Gaur Monitoring exercise conducted by NTNC-BCC recorded a total of 473 Gaurs at the Chitwan National Park and Parsa Wildlife Reserve"

Rhino Translocation

In keeping with the efforts to build a second viable population of the Asian Greater One-Horned Rhinoceros (*Rhinoceros unicornis*) in the country, 5 rhinos (3 females and 2 males) were translocated to the Babai Valley of Bardia National Park (BNP) from Chitwan National Park (CNP). Undertaken as part of the Hariyo Ban Program, the capture operation was conducted on the basis of an approved protocol, including transportation and releasing in the new habitat. Translocation of rhinos involve a series of carefully designed operation of movement with minimum stress factors and optimum sensitivity.

Pagolin Survey

NTNC-BCC conducted a preliminary study on Pangolins, one of the most illegally traded animal in Asia. The intensive camera trapping exercise for a total of 88 days in the 9 community forests of Makwanpur and Gorkha resulted in the identification of 6 pangolins. Further the sites have also been recognized as a good habitat for pangolins, and a long term conservation effort to safeguard the species in the region is advised, especially since pangolin numbers are under serious threat due to habitat degradation, poaching and illegal trade.







Gaur Monitoring

Under the initiation of DNPWC, the census for the endangered Gaur (*Bosgaurus*) was completed in Chitwan National Park (CNP) and Parsa Wildlife Reserve. Made to coincide with the occasion of Wildlife Week 2073, a total of 14 elephants and 130 people were deployed for this task. As part of the survey, the CNP was divided into 14 zones with one team each conducting the census simultaneously—from Pratappur in the eastern side to Kanamana in the west. The latest population of Gaur has been recorded at 368 in CNP. Likewise, 105 Gaurs were recorded as part of the same exercise conducted in Parsa Wildlife Reserve (PWR) that involved the completion of the survey in 3 blocks—in Bhata, Amlekhgunj and Pratappur blocks.

Tiger and Prey Base Monitoring in Barandabhar Corridor Forest

21 days of intensive survey was carried out for monitoring of Tiger and Prey Base in Barandabhar Corridor Forest above the highway. The survey was carried out in 88 grids with 56 pairs of cameras in Belsar, Devnagar, Tikauli and Bhojad camp. Line transect method was used for prey base monitoring where a total of 16 line transects of 2-6 Km were established. Analysis of images generated from the trap, along with a detail report on the status of tiger and other mega fauna is expected to be available in the near future.

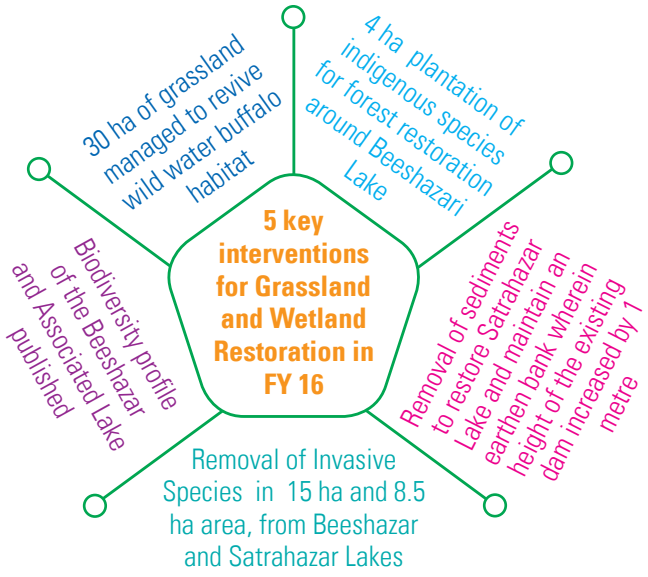
Camera Trapping in Parsa Wildlife Reserve (PWR)

Camera trap sightings in PWR indicate gradual increase in tiger population from 5 in 2013 to 10 in 2014/15. This number further increased to 19 tigers 2016 . Using spatial capture and recapture models, tiger density estimates from 'secr' and 'SPACECAP' packages marked an increase per 100 sq km from 0.65 and 0.78 tigers in 2013, to 1.34 and 1.43 tigers in 2016. Further there is enough evidence to suggest that these are residential tigers. With this increase, Parsa now holds the third largest tiger population in Nepal after Chtiwan and Bardia. Extension of the core area, evacuation of settlements, improved security and habitat management have made Parsa a good habitat for tigers wherein Chitwan's source population contributed a large portion of the tigers recorded in PWR this year. It is advised that the Chitwan-Parsa complex be managed as a single ecological unit for the benefit of large ranging species like tigers and elephants.

"Parsa now holds the third largest tiger population in Nepal after Chtiwan and Bardia. NTNC-BCC's efforts in the extension of the core area, evacuation of settlements, improved security and habitat management have made Parsa an improved habitat for tigers in recent years"



BIODIVERSITY/NATURAL RESOURCE CONSERVATION



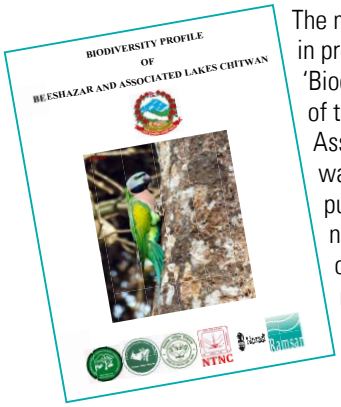
Grassland Management

Chitwan National Park is home to some of the highest biodiversity nurturing grassland forests in the country. From mega herbivores like the one horned rhino, elephants, to different species of the deer family, the area is a prime habitat for herbivores and associated species. These floodplain grasslands once supported a thriving population of wild water buffalos, although sadly not the case now. This year, a total of 30 ha of grassland was managed in Padampur area of CNP to establish a favorable habitat for the wild water buffalos that have been planned for translocation from Koshi Tappu Wildlife Reserve. With this progress, it has already been observed that the movement of herbivores has increased in the area.

Forest Restoration in Catchment Area

"For the restoration of degraded forests, 6772 seedlings of varying species produced from the NTNC-BCC nursery was distributed to the buffer zones of Chitwan National Park for plantation in public and private land in this fiscal year"

Heavy grazing, habitat fragmentation, encroachment, and improper harvesting practices have increased the pressure on the Beeshazar areas leading to an increased risk for the species that required the pristine habitat. To restore the blank area of the forest, plantation of indigenous species such as *Ficusreligiosa*, *Syzygiumcumini, Ficusbengalensis, Ficusbenjamina, AzadirachtaIndica,* etc was carried out on more than 4 ha around Beeshazari Lake—2 ha each in Barandabhar and Mirgakunja area. Subsequently, the planted trees will act as natural sponge and prevent the flow of sediments inside the lakes, whilst also ensuring easy water supply off the hand pumps for the plantations. This will ultimately develop a green belt around the Beeshazar area, and as a direct consequence lead into a growing hotspot for bird species while guaranteeing scenic beauty—the chain of whose effect will share into eco-tourism and improving overall livelihood opportunities around the Beeshazar complex.



Preparation of Biodiversity profile of the wetlands

The main objective in preparing the 'Biodiversity Profile of the Beeshazar and Associated Lakes' was to study and publish the total number of species of vegetations, mammals, herpetofauna, and aquatic fauna, whilst also enabling the researcher and layman to explore the diversity and wealth of the area. A booklet containing the details of flora and fauna has now been published. Randomized block method, camera trapping, photographic documentation of birds, literature reviews among others were some of the methods applied to analyze the present number of species. The profile stands to record a total of 165 species of plants, 33 species of mammals, 31 species of reptiles, 26 species of fish, 328 species of birds and 16 species of butterflies.

Strengthen and Mobilize CBAPU/CFUG to Control Illegal Activities

Conservation outside protected areas is equally important to ensure long term survival of endangered species such as Tiger, Rhino. This is where CBAPUs play a crucial part. Not only do the participation of youth members living in the vicinity of the protected areas strengthen conservation and protection of wild flora and fauna, they also sensitize the local community to action. As a part of this, the Barandabhar Tiger Conservation Project provided mobilization support to CBAPU of Barandabhar Corridor Forest wherein one local person has been appointed to facilitate, monitor and regularly report the CBAPU activities. Further, the Beeshazar and Associated Lake project supported the CBAPUs and Rapid Response Teams (RRT) of Barandabhar and Mrigakunja BZUCs



with 50 sets of field gears (shoes, water bottle and torch light) to help in their regular patrolling initiatives.

Community-based Ghoral Conservation Stakeholders' Networking

In its fifth year now, the community based ghoral conservation program was launched to support the aspiration of people living in Nawalparasi and Palpa districts who are self motivated in the conservation of the ghorals—now a part of their larger community. A major stakeholders workshop was organized during this fiscal year in order to share the community's own aspirations with representatives from the Ministry of Forests and Soil conservation, DNPWC, I/NGOs, and senior members of major political parties of the area. The endeavor was undertaken to make stakeholders understand the concept and impact of ghoral conservation, and to inspire them to join the movement in declaring the area as a ghoral conserved landscape.

HWC Mitigation: Power fencing at Ramauli Pratapur

Through the support of Hariyo Ban Program, a 10 km power fencing installation was undertaken in the relocated community of Ramauli Pratappur in Parsa Wildlife Reserve. Elephants are the most problematic species in the relocated area, and thus the installation would directly benefit more than 500 households. The fence installation was initiated by Manahari buffer zone user committee (BZUC) with the technical and financial support of Parsa WR, NTNC-BCC and USAID funded Hariyo Ban Program. Further, project sites along the Chitwan-Parsa Complex like Amlekhgunj, Nirmal Basti, Madi and Manahari are seen to make constant use of local youths to address human-elephant conflicts through Elephant Monitoring Units (EMUs). To improve surveillance in the Parsa Wildlife Reserve extension, NTNC-BCC provided technical support for the construction of 3 new guard posts



CLIMATE CHANGE

Air Quality Monitoring

The Chitwan National Park Air quality observatory was established at the NTNC-BCC facility in collaboration with ICIMOD to monitor air pollution levels and study its impact on biodiversity. Data from the observatory will provide baseline information on air quality in the region and thus contribute to monitoring national air quality levels. NTNC is already partnering with ICIMOD in developing biodiversity monitoring protocols for REDD+ on the basis of the United Nations Framework Convention on Climate Change (UNFCCC), Convention on Biological Diversity (CBD), and United Nations Convention to Combat Desertification (UNCCD).

Climate Change Monitoring on Permanent Plot

A study related to the impact of climate change on biodiversity was carried out with the support of USAID Hariyo Ban program by establishing permanent plots in the CHAL area. A total of 12 permanent plots were established based on climate refugia along the altitudinal gradient of the CHAL area (previously studied by USAID Hariyo Ban Program). NTNC-BCC carried out studies on 5 permanent monitoring plots designated within CHAL, each having an area of 2*2 km. On the other hand, the floral survey was focused more on graminae species and invasive species, faunal survey included mammal, bird, butterfly and herpetofauna.

Located in the lowlands of Terai, the Khorsor plot comprises a faunal diversity made up of many large mammals like the greater one-horned rhino, elephant, sloth, bear and tiger, along with large reptiles like mugger crocodile. Since all of the plots other than Khorsor lie outside Protected Areas (PAs), they have fewer large mammal species like common leopard, Malayan porcupine and jackal. This is because such plots are managed as

"Besides installing 10 km of power fencing to protect local communities from potentially problematic wildlife species such as elephants, support for 3 new guard posts in Parsa Wildlife Reserve extension will lead to improved surveillance as well as human-wildlife conflict management"

Recordings from the 5 permanent plots surveyed by NTNC-BCC

Plot no.	Location (District)	Altitude (m)	Species						
			Mammals	Birds	Reptiles	Amphibians	Butterflies	Flora	
								Graminae	Invasive
8	Asardi (Palpa)	380-1050	5	57	7	5	85	30	3
9	Kabilash (Chitwan)	315-700	6	39	7	7	83	13	2
10	Kaule (Chitwan)	850-1070	2	68	6	9	36	9	1
11	Khorsor (Chitwan)	1425-1805	13	68	5	2	31	20	4
12	Tilakpur (Syangja)	181-201	6	93	5	4	68	11	3

community forests wherein due to higher reliance on forest resources, human dependency and disturbance are also significantly higher. Although relatively poor in mammal diversity, these plots are rich in other species like butterflies, birds, reptiles and amphibians. For instance, Kaule and Kabilash plots are the only such sites where the spiny babbler, the only endemic bird species to Nepal, were recorded. In Kabilash, the Himalayan stripe-necked snake (*Leopeltisrappi*) was recorded for the first time this year in Chitwan district.

"To build toward greater experience and services for tourists favoring the much popular destinations in and around Chitwan National Park, a 3500 metres of eco trail was developed, this along with the construction of 2 new Visitor Information Centres, and 2 wooden piers"

ECOTOURISM PROMOTION

Construction of Eco-trial with safety precaution

NTNC-BCC constructed a 3500 metres long eco-trail from Chitrasen BZCF to Beeshazar Lake. The concept of the trail was to promote ecotourism by extending the visiting area and interlinking the forest area to the wetland. Besides meeting the eco-friendly tourist's aspirations, the trail is expected to help manage security and wildlife habitat much better, especially since the trail now connects the fire prone area, that was previously broken off and not connected to the road in Beeshazar.



Establishment of waste disposal mechanism in and around the Lake area

Management of waste is a major challenge in the surrounding areas of Beeshazar Lake. Besides scattered and unmanaged garbage, open defecation-related problems also persist in these areas. NTNC-BCC ensures that toilet facilities with regular water supply are in place, along with proper management of dustbin points. This year, a solar hand pump for ensuring regular toilet water supply, along with maintenance of the existing toilets in the lake area were undertaken. Likewise, several garbage containers were also set up by the side of the walking track of the Lake.

Tourist Facilities Establishment

Visitor Information Centres facilitate guests with access to reliable information. These include from landscape to wildlife and culture, to regulations and general facilities. 2 such centers were established in Sauraha, and Gondryang this year under the responsibilities of Mrijakunja and Barandabhar communities respectively. With readily available information services now in

place, visitors would thus be able to plan their engagements much better and also orient their expectations with informed choices, thus resulting to their quality experience. Additionally the construction of the 2 two-storey wooden piers, one each in Barandabhar and Mrigakunja BZUC, would improve site seeing experience among visitors along with ensuring their safety.

SUSTAINABLE LIVELIHOOD PROGRAM

Alternative Livelihood Promotion for Wetland Dependent Communities

As a part of NTNC-BCC's efforts to provide alternative livelihood opportunities for poor and marginalized wetland dependent communities, 27 households who depend on income from fishing were selected from the marginalized Musahar community. Given the small size of the existing fishing pond, the Musahar Taal (Lake) area was expanded by more than two times—from 2 *bigha* (1.3 ha) to 4.43 *bigha* (2.99 ha). A boring has also been set up next to the Musahar Taal at Bagmara BZCF to ensure regular water supply to the *taal*. Under the new arrangement, every year a portion of the profit (@ Rs. 50,000) from fisheries in the new lake area will be used for the livelihood development of the Musahar community.



Sewing and Tailoring for Chepang Women

Alternative income generating activities to support the livelihood of forest-dependent communities are at the foremost of sustainable conservation initiatives. To bring local communities into mainstream conservation, Barandabhar Tiger Conservation Project provided basic training for



sewing and tailoring to 25 local Chepang women from the CFUG of Barandabhar corridor forest for three months. The Chepang people are among the most backward communities of Nepal. After the training, sewing machines and raw materials were handed over to the trainers free of cost.

Nature Guide Training

NTNC understands that it is important for local youths to share the benefits of nature conservation and tourism, especially given the low youth employment rates in the country. As a regular program conducted since the past few years, NTNC-BCC completed three Nature Guide Trainings this year, wherein each training was organized independently by Beeshazar and Associated Lakes Conservation and Community Empowerment Project; Barandabhar Tiger Conservation Project; and Koshi Tappu Wildlife Reserve collaboration with BCC. Spanning over a total period 26 days, 83 youths participants underwent evaluation and were provided with accredited certificates.

"The Chepang and the Musahar community are among the most backward communities of Nepal. The three-month long Sewing and Tailoring training provided to 25 local Chepang woman, and the Musahar Lake extension for 27 fishing-dependent households will not only help diversify their livelihood alternatives but also help uplift their gender and social status"

Alternative Energy Promotion

To achieve NTNC-BCC's efforts to shift energy consumption patterns of communities who still depend largely on forest products, 90 biogas plants were supported this year in Chitwan and Nawalparasi districts under the Hariyo Ban Program. Likewise, under the support of Beeshazar and Associated Lakes Conservation and Community Empowerment Project, 29 biogas plants and 37 solar panels were distributed to the poor and marginalized community members of Mrigakunja BZUC and Barandabhar BZUC. The new biogas plants and solar panels will have a major



role in reducing firewood pressure of the many households who directly depended on using fuel wood from the forests.

CONSERVATION AWARENESS PROGRAM

Conservation Awareness Raising-

"Tiger Conservation awareness programs of NTNC involves working closely with buffer zone communities to enhance their understanding and tolerance towards the endangered species. An example of this is the week-long conservation interaction program among 10 schools around the Barandabhar corridor"

Part of the numerous activities undertaken to sensitize local communities on the overreaching significance of wetland conservation involved spreading community awareness through F.M. media. As part of this mass awareness campaign, radio coverage involved airing 20 jingles every day, along with a 15 minute program scheduled on the 15th day of each month for three consecutive months. Similarly, a contract aimed at raising awareness levels about wetland conservation among school children was also signed between the Environment Conservation Teacher's Forum and NTNC. As part of this, a 15-minute documentary was prepared to let children visualize the difference between past and present, and the impact of conservation on the Beeshazar Lake Complex. From helping local communities understand the value of wetlands, such programs are expected to aid in growing positive attitudes and encourage a willingness to participate among the wider community.

Tiger Conservation awareness programs launched by NTNC involved working closely with buffer zone communities in enhancing their understanding and tolerance towards the endangered species. For instance a week long conservation education program—comprising of interactive sessions, presentations, and group discussion among students—was organized for the 10 schools around Barandabhar corridor. During the program, major focus was put on the status, threats and conservation issues of Tiger, along with stressing its ecological importance to sustain the forest area.

Nature Conservation Camp

Aimed at strengthening youth connection with nature, a three day event under the theme 'Nature Camp for Greening Young Minds' was organized by ICIMOD (through REDD+ Initiative Program) in collaboration with NTNC. Conducted in Sauraha Chitwan between 28-30 January 2016, 25 students from Gorkha (also the epicenter of the Nepal earthquake) took part in the camp along with 12 resource persons from both organizations (ICIMOD and NTNC). Post-camp discussions held in the presence of the Joint Secretary, Chief of REDD Implementation Cell, Chief Park Warden, Executive Director of NTNC, Chief Policy Advisor of ICIMOD among others, maintained notable consensus about the effectiveness and merits of outdoor and explorative learning.

Promotion Materials (Publication and Poster)

Aimed at reaching out to passing pedestrians and drivers, a total of 25 hoarding boards were painted and installed around the vicinity of the Besshazar and Associated areas. Along with the preparation of a brochure on Beeshazar and Associated lakes, T-shirts containing slogans on wetland conservation were also prepared and distributed. Some 1500 pieces of posters with slogan ''Live and let me live,'' for tiger conservation were prepared in both English and Nepali language and distributed to District Forest Office, CFUG offices, schools and public spaces. The poster that was prepared by a local artist was seen to have a positive impact in the community.

CAPTIVE SPECIES CONSERVATION PROGRAM

Elephant Tuberculosis Project

Sample collection was carried out for a total of 101 elephants owned by the Government of Nepal and NTNC, as well as for privately owned



elephants. These included elephants from Chitwan National Park (57), Parsa Wildlife Reserve (11), Bardia National Park (17), Shukla Phanta Wildlife Reserve (7), Koshi Tappu Wildlife Reserve (3) and 6 elephants privately owned in Chitwan. Out of 101 elephants tested during the study period, 11 elephants (10.89%) were reactive to tuberculosis and 90 elephants (89.11%) were non-reactive. From the reactive elephants, 7 were from Chitwan National Park, and 1 each from Parsa, Koshi, Bardia and Shuklphanta. Besides tuberculosis treatment, a calf diagnosed with EEHV Type-1 (Elephant Endotheliotropic Herpes Virus) was treated successfully at the Chitwan National Park, marking the country's first successful treatment of its kind. Such progress validates the positive outcomes from laboratory upgrading under the USAID/Hariyo Ban Program. The veterinary laboratory in Chitwan now also comprises of an installation facility made for molecular disease diagnosis.

Vulture Sex Identification at the Vulture Conservation and Breeding Center

The GoN in close coordination with NTNC, BCN, Zoological Society of London (ZSL) and Royal Society for the Protection of Birds (RSPB) established the Vulture Conservation and Breeding Center (VCBC) in Chitwan National Park to ensure the long term survival of 2 species of Gyps vultures (Slender billed vulture – *Gyps tenuirortris* and Oriental White-rumped vulture – *Gyps bengalensis*). With the sharp decline in vulture population, captive vulture conservation was initiated in Kasara, covering an area of 6,375 square metres adjacent to the Gharial Breeding Center. The center currently has a vulture breeding aviary, 2 holding aviaries, 1 staff quarter cum office building with three full time staffs (keepers) working at the center. For the first time sex identification by molecular sexing was carried out at the Vulture Conservation Breeding Centre (VCBC) in collaboration with DNPWC, Agriculture and Forestry University and BCN. Among the 57 vultures at VCBC, 32 have been identified as female and 25 male.

3 major achievements for Captive Species Program in FY 2016	
Vulture Conservation and Breeding Center (VCBC)	For the first time sex identification by molecular sexing was carried out at the Vulture Conservation Breeding Centre (VCBC)
Vulture Feeding	A total 23,190 Kg of safe buffalo meat (free from diclofenac) fed to vultures at VCBC, Kasara
Elephant Tuberculosis Project	A calf diagnosed with EEHV Type-1 (Elephant Endotheliotropic Herpes Virus) was treated successfully, marking the country's first successful treatment of its kind

"Sex identification by molecular sexing was carried out at the Vulture Conservation Breeding Centre (VCBC) for the first time in collaboration with DNPWC, Agriculture and Forestry University and BCN. Among the 57 vultures at VCBC, 32 have been identified as female and 25 male"

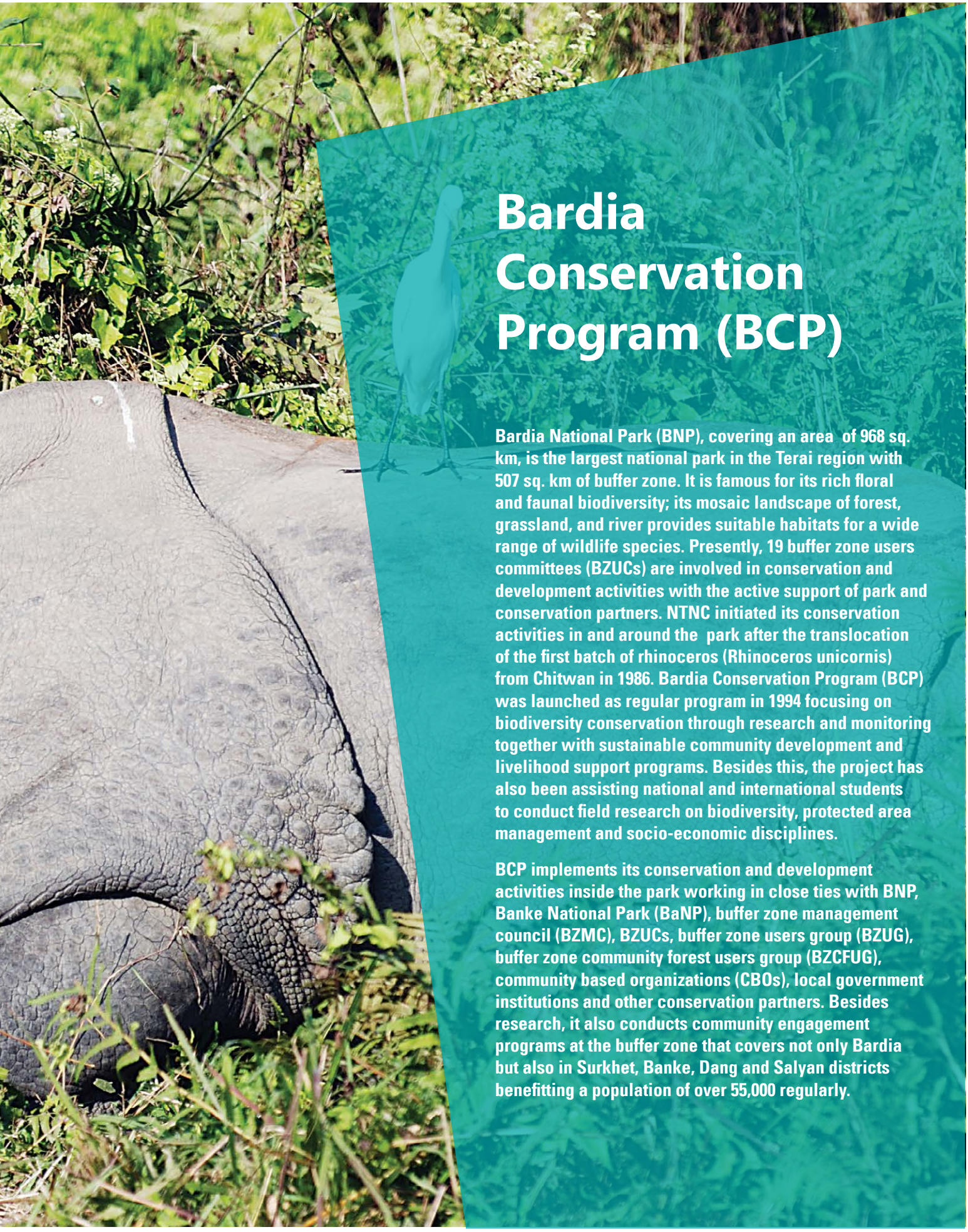
Elephant Breeding Center

Established in 1986, the Elephant Breeding Centre (EBC) located in Khorsor has been an attractive tourist destination for many national and international visitors. Serving as an educational as well as recreational facility, with a nominal entry fee collected from visitors, NTNC-BCC uses the fund for the management of captive as well as wild elephants and other orphan or problematic animals in CNP. Elephants in the center are primarily used for patrolling and research-related activities inside the national park.

Gharial Breeding Center

The Gharial Breeding Center (GBC) was established in Kasara near the headquarters of Chitwan National Park (CNP) in 1978. The main goal is to address the sharp decline of the gharial crocodile from the rivers of Nepal and to ensure their long term survival. As a matter of fact, the center has had a significant contribution for the survival of gharial crocodiles in the rivers of Nepal, along with holding immense value for research, education as well as recreation to Nepalese and international visitors alike. The money collected from visitors as nominal entry fee goes back to support the crocodile breeding program in Nepal. This year a total of 42,812 guests visited the breeding centre.





Bardia Conservation Program (BCP)

Bardia National Park (BNP), covering an area of 968 sq. km, is the largest national park in the Terai region with 507 sq. km of buffer zone. It is famous for its rich floral and faunal biodiversity; its mosaic landscape of forest, grassland, and river provides suitable habitats for a wide range of wildlife species. Presently, 19 buffer zone users committees (BZUCs) are involved in conservation and development activities with the active support of park and conservation partners. NTNC initiated its conservation activities in and around the park after the translocation of the first batch of rhinoceros (Rhinoceros unicornis) from Chitwan in 1986. Bardia Conservation Program (BCP) was launched as regular program in 1994 focusing on biodiversity conservation through research and monitoring together with sustainable community development and livelihood support programs. Besides this, the project has also been assisting national and international students to conduct field research on biodiversity, protected area management and socio-economic disciplines.

BCP implements its conservation and development activities inside the park working in close ties with BNP, Banke National Park (BaNP), buffer zone management council (BZMC), BZUCs, buffer zone users group (BZUG), buffer zone community forest users group (BZCFUG), community based organizations (CBOs), local government institutions and other conservation partners. Besides research, it also conducts community engagement programs at the buffer zone that covers not only Bardia but also in Surkhet, Banke, Dang and Salyan districts benefitting a population of over 55,000 regularly.

NATURAL RESOURCES CONSERVATION PROGRAM

Forest Nursery Seedling Production and Plantation

NTNC-BCP operates two forest nurseries, located at Thakurdwara 5, Betani and another at Pasupatinagar 5, Banjaria. During this fiscal year, over 43,000 seedlings of multipurpose tree species mainly NTFPs, fodder and timber, varieties of multipurpose plants were produced and distributed free of cost to community and private forests. Apart from helping enhance greenery and community livelihood, NTNC-BCP also provided related technical assistance.

Orahi River Restoration Program

"As part of the Orahi River restoration program, 1080 metres of barbed wire fencing, 2 ha native species plantation, grazing control, 100 bamboo plantation, and 11 gabion box fillings work was completed this year"

River bank erosion caused by the Orahi River is a major problem across hundreds of hectares of forest and agricultural land in the buffer zones leading to degradation of embankment along with water logging at several settlements. With an aim to minimize the problem, NTNC has initiated a program with the financial support of USAID Hariyo Ban Program to support local communities against the adverse impacts of the Orahi River flooding. River bank restoration and reforestation program continue to be implemented with active participation of the local communities, who contribute by participating in implementation, regular maintenance of the restoration work, and its long term monitoring. These activities have helped enhance the forest areas in the flood plain of the Orahi River at Shivapur, Thakurdwara and Neulapur VDCs, along with preventing uncontrolled grazing. Activities undertaken as part of the restoration program involved joint efforts undertaken by 7 buffer zone community forests over work related to Plantation and Regeneration, River Training, Bioengineering application like barbed wire fencing, gabion box filling, native species plantation, and grazing control among others.



Wildlife Monitoring Patrolling and Law Enforcement

During this fiscal year, 16 river patrolling exercises were carried out by CBAPU members across Babai, Geruwa and Karnali rivers. Besides survey purposes, such inspection and supervision initiatives help deter illegal activities inside the park area. Based on informant reports, some illegal fishermen were pursued during the patrolling wherein some nets and wooden boats were made defunct. Another 5-day monitoring and patrolling in Khata and Karnali corridor (from Kothiyaghat to Lalmati) involved habitat monitoring of wild animals and birds by members from four different CBAPU coordination sub-committees, together with members from NTNC-BCP, BNP, Bardia's Nature Guide Association (NaGA), and Nature Conservation Club (BNCC).

Besides regular coordination meetings with the Nepal army regarding law enforcement in National Parks, a separate orientation workshop entitled "Law Enforcement on Tiger and Prey Base Conservation" was held this year. Attended by 47 participants, including Nepal Army commanders and Chief Wardens of Banke and Bardia, the workshop's primarily aim was to raise awareness among security personnel about the enabling rules and regulations of Conservation Areas. Besides this, it also served as a good occasion to discuss existing wildlife conservation challenges as well as inform security personnel about ongoing wildlife conservation strategies being pursued.

CAPACITY BUILDING PROGRAM

Proposal and Report Writing Training

A 4-day proposal and report writing training was organized from 24 to 27 January 2016 at NTNC-BCP. Participants were trained on key concepts,



processes and structure to be observed whilst engaging in creating a report or proposal. A total of 12 participants (10 males and 2 females) participated in the training from Chinchu, Lekhparajul, Hariharpur, Bhada and Thakurbaba BZUC, are expected to implement enhanced standards and skills, whilst also being able to write future reports and proposals independently.

Participatory Governance Assessment

A three-day Participatory Governance Assessment (PGA) training was organized by NTNC with the objective to spearhead improved governance at the local levels. Using a participatory approach, the training comprised of group work and presentations, along with a session review of the developed tools and indicators tracking PGA. These tools are expected to diagnose and identify future problems, while also helping to monitor and evaluate policy and program achievements, as well as track pre-defined results and outcomes. Further the training will also help assess the level of community engagement in discussions, their inclusiveness, goals and priorities. A total of 19 participants from NTNC-BCC, NTNC-BCP, NTNC-SCP, and consortium partner FECOFUN Dang took part in the training.

Community-based Anti-poaching Unit (CBAPU) Support

Since its very inception, NTNC-BCP has maintained particular focus in strengthening the role of CBAPUs—from its formation and mobilization roles in the buffer zones of BNP, including Khata and Karnali corridors, to regular financial and technical support. An instance of this is in the support provided for the CBAPU information centre building construction. Besides this, a number of grants provided for institutional strengthening are expected to directly benefit more than 1200 members affiliated to the various CBAPU coordination sub committees of Neulpaur, Suryapatuwa, Thakurdwara and Shivpur. CBAPU members have a defining role from conducting patrolling exercises to rallying information to park authorities about instances related to illegal activities like tiger bait, poachers, illegal extraction of timber, sand and fishing. Patrolling operations conducted by CBAPU subcommittees in Dalla, Kailasi, and Patharbojhi alone accounted for 730 man days spread over 27 day and 54 night operations.

Other anti-poaching support measures included conducting a two-day workshop for journalists aimed at generating awareness about the role and responsibility of journalists and media groups for strengthening biodiversity conservation and wildlife anti-poaching operations**.** Additionally, income generation activities consisted of support to 32 CBAPU members from Bardia and Banke for vocational skill based training on community livestock assistant, bricklayer masonry, house wiring and plumbing. Other capacity building initiatives undertaken for CBAPU strengthening involved 4 training sessions conducted on bird survey along with a week-long training on solar maintenance and handling to deal with electricity scarcity.

"To ensure quality governance and inclusive participation, NTNC with the support of Hariyo Ban Program analyzed the internal governance systems of 68 buffer zone user committees (BZUCs) in the Terai region from Parsa to Shuklaphanta, including the participatory governance analysis for 19 BZUCs of BNP and 9 BZUCs of BaNP"



Special Role of Informant(s) in Wildlife Illegal Activities

In order to effectively control poaching and illegal activities in and around the national park, underground informant networks play a crucial role. Local undercover informants are selected from the villages surrounding the park area and are mobilized to monitor suspicious and illegal activities. With financial and logistical support such informants are mobilized regularly to track poachers, their activities and whereabouts. Working in close ties with the park authority, such informants relay first-hand and often very sensitive information about an incident that has occurred or that is being planned. Strengthening and regularly motivating credible informants is another strategy deployed to discredit any tolerance for illegal wildlife activities



HUMAN-WILDLIFE CONFLICT (HWC) MITIGATION PROGRAM

Monthly Allowance for Wildlife Victims

"In the past 2 decades, 52 people are recorded to have died from wildlife attacks. In the recent years, increase in both human and wildlife populations have led to increased conflict incidents in the buffer zone area of BNP"

Increase in both human and wildlife populations have led to increased human-wildlife conflict incidents in the buffer zone area of BNP. Most recent conflict statistics indicate a dramatic rise. During the past 2 decades, 52 people are recorded to have died from wildlife attacks. Among these 36 are elephant victims, whereas the remaining casualties are associated with rhino, tiger and leopard attacks. During this year, monthly allowance of NRs. 1500 per person was provided to 16 single women of wildlife victims, and 6 disabled persons from wildlife injuries.

Orphan Education Support

NTNC, BCP regularly provides stipend to school children from disadvantaged households. This year support was extended to 21 school children belonging to families of HWC victims. The stipend consisted of cash support, including support for uniform, stationeries, and accessories. The child nominated for the support had previously depended on the deceased person from the conflict. Stipend distribution was made on the special occasion of Wildlife Week.

Human Elephant Co-Existence Sensitization Workshop

Focusing specifically on Human-Elephant Conflict minimization, the Human-Elephant co-existence sensitization workshop was organized among 33 participants at NTNC-BCP. Participants in the workshop included the chief conservation officer of BNP, chairperson of buffer zone management council, chairpersons of different user committees, forest user group members, women group members, electric fence management committee, members and officials from BNP and NTNC. During the occasion, park authorities and community members were briefed about the implementation strategy preparation for improving the modality for improving human-elephant coexistence.

Electric Fence Management Support

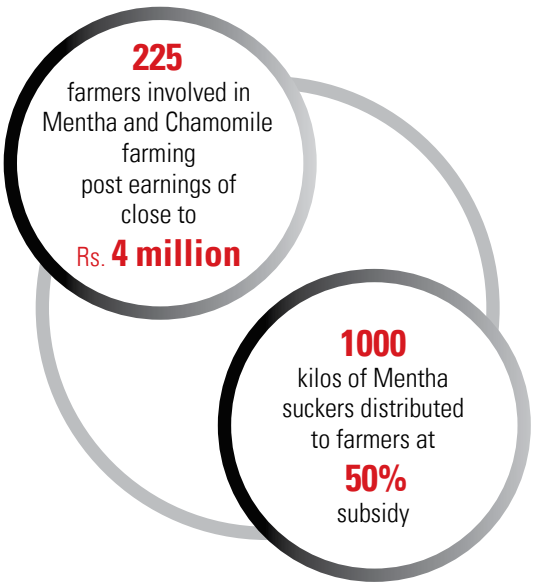
Human-wildlife conflict in the buffer zone of Bardia National Park denotes increasing trends over the past few years. To minimize conflict and reduce damage caused by wildlife, about 119 km of electric fence has already been installed around the buffer zone and Karnali river corridor. However, ongoing maintenance of these electric fences has become a challenging task—mostly due to fence loss, and community ignorance for timely repairing. Past trends also indicate that conflict caused by rhinos and elephant herds have reduced drastically due to proper fence management systems. On the other hand solitary male elephants still continue to pose major problems, especially in human

causalities and household damages. Although electric fences are very effective in controlling wildlife entry into farmlands and settlements, regular maintenance and supply of spare materials seem to add to the community's woes. This year, 2 additional power back-up with energizer were installed in Balanti and Chotkitanduwa. The old energizer in Bhimapur VDC and the existing solar panel set in Shivapur-Bandrahawa were also replaced with new ones.

Promotion of Alternative Crops

Aromatic crops farming among the farmers around BNP, namely 'Mentha' farming is becoming a very popular alternative because of its unpalatable taste to wildlife. But given the high cost for the seedlings, many still cannot afford its cultivation. Thus, NTNC-BCP provided 50% price support (subsidy) to farmers in collaboration with Suryapatuwa User Committee (UC) for Mentha cultivation replacing the older crops which would generally attract wildlife. Altogether 1000 kg of Mentha suckers were distributed to the farmers during this period.

NTNC-BCP also provided support to 26 farmers to encourage them to take into Chamomile cultivation. The high market value for Chamomile is expected to thus enable farmers earn three times more than they had previously earned from traditional crops. This year a total of 225 farmers from Thakurdwara and Suryapatuwa were involved





in Mentha and Chamomile farming alone, posting earnings of close to Rs. 4 million. Additionally, a community based demonstration plot for lemon grass was established in the degraded forest land of the Kailashi Community Forest. With a view to examine the growth performance in the local environment, the program supported in the distribution of 8000 lemon grass slips.

ALTERNATIVE ENERGY PROMOTION PROGRAM

Biogas Support Program

Biogas promotion in buffer zones is one of the most prioritized activities of BCP. They directly help reduce pressure on forests resources and prevent smoke generated health problems mainly faced by household women. Majority of the local communities are dependent on the forest for fuel wood and fire. Thus, to minimize pressure on fuel wood, NTNC-BCP provides support for biogas plant installations as an alternative fuel source. On the other hand, for household woman cooking in biogas is convenient and smoke-free. However due to high installation costs, only financially capable families from high and middle income levels can afford biogas. Hence, NTNC-BCP is pushing for increased funding, so that poor families are provided with more subsidies and can reap its benefits. This year NTNC supported the installation of 133 biogas plants in Bhada UCs, Dhadhawar (31), Kareliya UC, Ramapur (17), Patavar UC, Patavar (35), Geruwa UC, Gola (15),

"BCP has supported the installation of 1,846 biogas plants in the buffer zone since 1995. As a result studies reveal that household consumption of firewood has reduced by 45 to 55 percent"

Bindra UC, Pashupatinagr (15), Asaregaudi UC, Manau (20).

CONSERVATION EDUCATION AND EXTENSION PROGRAM

Eco Teacher Workshop and Conservation Education Book Finalization

The Eco-teacher workshop was organized at NTNC-BCP for 18 school teachers with the aim of discussing the preparation of the conservation education book for grade 6. Along with the creation of biodiversity conservation awareness strategies, the workshop also highlighted the role of eco club members.

"81 conservation education sessions were organized across the local communities and schools of Bardia with over 2200 participants, this excluding the 24 park visit and exposure programs organized for more than 400 students and teachers, CBAPU and community users"

The conservation education book for grade 6 was prepared by NTNC-BCP with the financial support of ZSL, in collaboration with SENSE Nepal. Implemented across the buffer zone schools of BNP, the book will be taught as a regular curriculum in line with the government's policy for integration of a suitable subject as per the schools' needs. The book is expected to deliver conservation messages covering local issues, efforts, and opportunities among lower secondary level students as well as community members. In the process, two days of orientation and draft finalization program was engaged upon with the Principals from representative schools, eco teachers, national park authorities from BCP, SENSE Nepal representatives, NTNC-BCP's staffs and book authors. After incorporating valuable suggestions received from the participants, the final book was released on 8th March, 2016 by the Director General of the Department of Education of the Nepal Government at a book release program organized at Bardia.



Conservation Education Session and Awareness Campaign

During this period a total of 81 conservation education sessions were organized across local communities and schools with over 2200 participants. The aim of these sessions were mostly focused on engaging school students in the conservation activities of BNP so as to raise their awareness around overall biodiversity and conservation affairs. Elsewhere, 172 local community members participated in the of 5 conservation education sessions targeting women groups—on their integral role in achieving biodiversity conservation and sustainable livelihood.

Park Visits and Exposure Tour

During this fiscal year, 22 park visit programs were organized for more than 380 students and teachers, including CBAPU and community users. Posed with a chance to experience firsthand about the wildlife and habitat of Bardia National Park, such exercises are undertaken to create a sense of visual impact among participants. Some of the activities undertaken during these visits included: river rafting, wildlife and dolphin monitoring, GPS training and patrolling, jungle safari, and research-related work. Additionally, 2 separate exposure tours were organized especially for eco-club members consisting of 27 students and teachers.

Special Day Celebration

Special days were observed and celebrated across all ages and groups in Bardia. Some of the major occasions celebrated this year included—the Third Elephant Festival: wherein the elephant football competition and cultural conservation program stood out as a major highlight; the World Wildlife Day: also celebrated as CBAPU Day in Bardia with among more than 5000 local community members under the slogan "Youth hand with conservation: Think good do good"; Wildlife Week Celebrations from 13-19 April 2016; World Wetland Day; and World Environment Day.

LIVELIHOOD IMPROVEMENT PROGRAM

Drinking Water Supply

NTNC-BCP provided financial support to 68 households to improve drinking water facility and access. Work undertaken was mainly related to maintenance and conservation of water resources at the northern buffer zone (NBZ) of BNP. Water resource conservation covered user committees in Lekhparajul and Hariharpur (for 38 HHs), whereas water tank construction work was completed in Taranga and Chinchu (30 HHs). With this support, the benefitting 4 user committees (across 6 locations) will be ensured that regular and safe drinking water supply and access is guaranteed in the future.

Skills-based Training

A three-month long sewing and tailoring training was organized for a total of 42 women from the buffer zones user committees of Chinchu, Lekhparajul, Hariharpur and Taranga. After the training, participants are believed to have initiated the operation of small scale tailoring centers in their local areas. Another ten days of handicraft training was organized for 15 women interested in acquiring handicraft techniques and skills. Handicrafts made by these women groups will be sold from the handicraft promotion center. It is expected that through such trainings, many marginal families would be able to diversify their livelihood alternatives through increased earnings.

Seed Money for Micro Finance Scheme

Saving and credit schemes are a key component to organize rural women towards income generation activities along with maintaining conservation awareness. Further, these groups are linked with cooperatives for sustainability and functionality. Currently 4 cooperatives provide loan facilities to rural farmers in BCP. These four cooperatives were supported with NPR 100,000 each as seed money this year. The grant is monitored on a regular basis focusing on assessing the status of funds and providing further support if necessary. For instance women from the northern buffer zone (NBZ) are now seen to regularly maintain small savings and derive loans to meet their additional expenditure



as well as their income generation needs from their own group.

Advance Nature Guide Training

Organized by NTNC-BCP with the support of WWF TAL Program, a one week-long advanced nature guide training was conducted for 21 CBAPU members. Facilitated by trainers from BCP, BNP and other local conservation leaders, participants were trained on basic courses related to plantation and wildlife, birds and their habitats, park rules and regulations, first aid, code of conduct expected of a nature guide, guest hospitality, along with field-based practical sessions. Given the ever increasing number of visitors to western Nepal, and especially to Bardia National Park, the training is expected to help participants pick up their professional potential as future tourist guides.

"Over 100 days of skill-based training was undertaken for 57 BZUC women this fiscal year. It is expected that through such trainings, many marginal families would be able to diversify their livelihood alternatives through increased earnings"

COMMUNITY HEALTH SERVICE PROGRAM

Health Service	Sex	Total # patients
General service	F	2876
	M	1915
	Total	**4791**
Doctor Visit	F	94
	M	44
	Total	**138**
Ambulance Service	F	48
	M	105
	Total	**153**

"Besides the translocation of 5 rhinos to BNP, this year rhinos with IDs '9 Dalla Vale' and '5 KhagchiruwaTikhe' were collared to trace and study their movement and activities in the national park. Further to restore grassland habitat for the newly translocated rhinos, grassland management work was carried out on 49 ha this year"

The Geruwa community health center in western buffer zone area of BNP has been providing general medication services, a lab service, an ambulance service, and facilities for monthly doctor visits. During the period, 5082 patients received health treatment from the center. Since the health center's establishment in 1995, NTNC-BCP supported in the creation an endowment fund for its sustainable management. However, due to decreasing bank interest rates and the ever expanding services of the center, management costs have also been on the rise. Thus, a grant of NPR 100,000 was provided this year to cover the deficit management cost of the health center. The mega health camp organized at Bardia National Park Office premises in Thakurdwara saw a total of 622 patients receive treatment and free medicine from 9 specialist doctors, from Nepal Medical Association.

BIODIVERSITY RESEARCH AND MONITORING PROGRAM

Monitoring of Threatened Wildlife in Babai

In response to growing incidents threatening tiger population, an intensive monitoring was conducted to support the Government of Nepal's (GoN) policy of reestablishing threatened animal population in the Babai Valley. For this purpose several 2km by 2km grids were formed. After a one-day orientation training, six technicians were deployed in 2 teams with the arranging of daily necessities. These included kitchen utensils, GPS, camera, bag pack, sleeping bag, tent, along with daily allowance. Monitoring teams were mobilized to collect necessary data from the grids which were replicated thrice. Besides this, a special format was developed for recording all wildlife species data in the Babai Valley. Data collected on a monthly basis continues to be analyzed and is expected to be published in the near future.



Tiger and Prey Base Monitoring

To assess the status of tigers, their prey population and habitat in Bardia and Banke National Park (BNP and BaNP), as well as to evaluate the effectiveness of past conservation interventions especially in Banke NP, tiger and prey base monitoring was initiated from 17th February 2016. Using camera trapping along with occupancy, line transects and vegetation survey from the south-west point of BNP, field monitoring and sampling works were undertaken. Monitoring coverage accounted for a total of 293 camera stations in Bardia NP, and 125 camera stations in Banke NP. Results from the monitoring indicate that there are more than 50 adult breeding tigers, 6 sub-adult tigers and 29 cubs in BNP, and 7 adult breeding tigers and 2 cubs in BaNP.

Tiger Population Alarm for Action

Within less than a year, from June 5 2014 to April 27 2015, 7 tigers (5 male and 2 female) were found dead in and around the premises of BNP. While the cause of death of male tigers are expected to have been natural, female tiger deaths were established as having been poaching related. Elsewhere, the country's leading crime investigation agency, the CIB seized 9 tiger incidents from mid and far western development regions raising the need for alarm and action

Grassland Management at Babai Vallley

The grassland ecosystem of Babai flood plain is both very dynamic as well as sensitive. It is thus readily affected by floods, fires, grazing and manual cuttings. Further the *Saccharum spontaneum* (Kans) type of grasslands of the valley is considered to be of the highest quality habitat for wild herbivores especially for the newly translocated rhinos. But in recent years these grasslands are being converted

into shrublands and forests resulting in the acute shrinkage of wildlife habitat. To this end, grassland management work was carried out in about 49 ha at Thuloshree and Sanoshree of BNP with the aim to manage and restore the grassland for the conservation of newly translocated rhinos in Babai Valley. The major works carried out included: site survey delineation, uprooting and removable of unwanted trees, grass, bushes, shrubs, invasive plants, controlled burning activities, and waterhole management by installation of boring/pumping machine at the Grassland.

Wildlife Reintroduction, Translocation and Monitoring

With an aim to ensure the survival of a second viable population of the greater one-horned rhino in the Bardia National Park (BNP), 5 rhinos were translocated to BNP from the Chitwan National Park (CNP) on the occasion of World Wildlife Day 2016. Translocation was carried out on the 2nd, 3rd and 5th of March, 2016 wherein they were subsequently released in Mulghat of the Babai valley, a new habitat maintained for rhinos inside BNP. All 5 rhinos were fit with satellite radio collars and continue to be monitored regularly. On May 22, 2016 one of the translocated female rhinos gave birth to a healthy calf.



In May and June 2016, 3 female and 2 male swamp deer were reintroduced at Baghaura Phanta of BNP from Shuklaphanta Wildlife Reserve (SWR). The translocated swamp deer were radio collared and are being monitored on a regular basis by a team of dedicated technicians. The translocated deer have been found to adapt well to their new habitat and are integrating well into the wider community of BNP. This apart, the 14 blackbucks translocated last year from Krishnasar Conservation Area in Khairapur of Bardia to Hirapurphanta in SWR are known to have adapted well and are in a healthy condition.





Shuklaphanta Conservation Program (SCP)

Shuklaphanta Conservation Program was started in 1999 as a satellite project under Bardia Conservation Program to monitor translocated rhinoceros from Chitwan. Regular activities have been carried out as independent program under NTNC since 2000. Currently SCP is working in and around Shuklaphanta Wildlife Reserve (SWR)focusing on biodiversity conservation. In buffer zone, majority of the activities are focused in Bageshwari, Shuklaphanta, Sundevi, Kalikich, Himalaya and Sagarmatha BZUCs. Over 50,000 local communities are direct beneficieries of the program. SCP implements its project activities in close collaboration and coordination with SWR, Nepal Army, Buffer Zone Management Council (BZMC), BZUCs, BZUGs, BZCFUGs, locals agencies and I/NGOs.

The main objectives of the Shuklaphanta Conservation Program (SCP) are to safeguard endangered wildlife species and their habitats in and around SWR, and to improve the livelihood of marginalized communities around the Reserve.

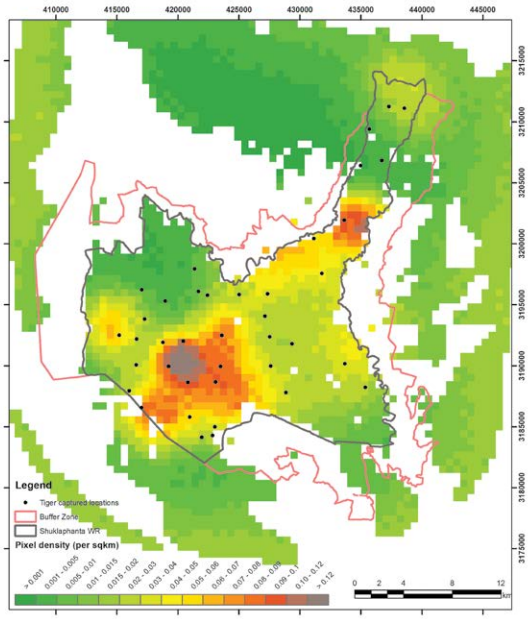
WILDLIFE RESEARCH AND MONITORING

Tiger And Prey Monitoring

"Rhino monitoring in SWR established an addition of two extra baby calves to the existing total rhino population—from 8 to 10 rhinos. The monitoring was undertaken by 23 persons and 5 elephants across 11 days"

Tiger monitoring continues to remain a primary focus in Shuklaphanta Wild Reserve (SWR), including areas along the Brahmadev Corridor and the Laljhadi Corridor. Undertaken in collaboration with local stakeholders, monitoring methods used comprise of activities mostly related to camera trapping, line transect and patch occupancy survey. Making for great sightings this year, for the first time in Nepal the rusty spotted cat was recorded from camera traps installed in the Wildlife Reserve area.

During this period camera trapping grids were designed in three blocks wherein all of the 15 adult breeding tigers of SWR were recorded across 38 grids. Out of SWR's existing population of 15 tigers estimated, high density persists in the south central part of the reserve. Overall the estimated tiger density in SWR is 2.97 (SE = 0.79, 95% CI 1.77 - 4.97) whereas the overall prey density is estimated at 82.73 animals per sq.km (as established by density map obtained from SPACECAP program). Spotted deer is the most common prey species with a density of 24.05 animals per sq.km, followed by the hog deer 10.52 animals per sq.km, and wild boars 10.52 animals per sq.km. Domestic animals continue to make the highest density at 28.29 animals per sq.km, thus posing major management challenges arising from wildlife conflict.



Tiger monitoring period captured tiger locations map



Animal	Density per sq. km
Tiger	**2.97**
Spotted deer	24.05
Hog deer	10.52
Wild boars	10.52
Domestic Animal	**28.29**
Prey density (overall)	82.73

ID-Based Rhino Monitoring

The Government of Nepal's most recent rhino census in 2015 has recorded a total of 645 rhinos (Parsa - 3, Chitwan - 605, Bardia - 29 and Suklaphanta - 8). However, the total rhino population from the monitoring exercises conducted this year in SWR indicate an increase in the recorded population from 8 rhinos in 2015 to 10 rhinos in 2016. This increase is attributable to two newly born calves. For the rhino monitoring survey undertaken this year, 23 persons and 5 elephants were deployed for 11 days wherein all the rhinos were tracked around the Sundariphanta and Bichuwajhala area. To ease monitoring, SCP has allotted separate identifications for each rhino which means they are now able to be monitored individually. Monitoring attributes consist of determining rhino distribution and movement, their





health status, age, sex, birth and death findings, including transboundary movements.

Ecological Study for Swamp Deer Monitoring

The ecological study of the swamp deer is undertaken with the objective of studying its seasonal movement and habitat preference. A total of 12 swamp deer—3 adult males and 9 adult females—were radio collared for the study where regular tracking of its movements and habitat preference continues to be undertaken. As part of this project, Mr. Hemanta Kumar Yadav, Conservation Officer of NTNC, is working along with the Massey University, Auckland, New Zealand.

Swamp Deer Translocation

In accordance to the decision of the Ministry of Forest and Soil Conservation, 5 swamp deer (2 male, 3 female) were successfully translocated from SWR to Bardia National Park between May 30 and June 5, 2016. The present translocation is the first of its kind initiative in Nepal. For the capture of the swamp deer, 5 wooden crates and 20 nets (length 14m each) were prepared, along with the U-shaped human curve designed by technicians for pursuing the swamp deer's movement towards the net. The translocation from one protected area to another having a similar habitat aims to enhance genetic diversity and establish a genetically and ecologically viable swamp deer population in BNP.

Habitat Expansion and Management of Reintroduced Blackbuck

Restocking of blackbuck in Hirapurphanta of SWR has only been possible by securing extra habitat. Presently the existing site has been extended to meet the habitat size of the growing number of blackbucks. Up to last year, predator proof electric fencing was installed for 17 ha area. This year alone 20 ha of area expansion work was completed in the north site making the total installation of predator proof fencing to 37 ha.

To-date, a total of 42 blackbucks have been translocated to SWR in two phases, once in 2012 (28 blackbucks) and another time in June 2015 (14 blackbucks). The blackbuck (Antilope cervicarpa), also locally known as "Krishnasar", is found in the wild in Nepal in only one place, in Khairapur, Bardia. Management for the translocated blackbucks is hence being undertaken to establish a second viable population of blackbuck in SWR which includes mainly their habitat management, repair and maintenance of power fence, regular treatment from worm infection, supplementary feeding of the animals, and supplementary food sowing. Blackbuck population, once having gone down to 35, has now increased to 45 counts (male 23, Female 20 and fawn 2) with an improving health situation.

In order to manage their feeding ground, intensive management procedures are applied with extra focus being maintained on meeting the animal's

"Marking the first swamp deer translocation initiative in Nepal, 5 swamp deers were translocated from Shuklaphanta Wildlife Reserve to Bardia National Park (BNP) to enhance genetic diversity and establish a genetically and ecologically viable population in BNP"







Blackbuck Management Program Success in SWR

A total of 42 blackbucks translocated to SWR to-date

> 3 ha prepared for growing crops such as lentil, maize, peas and wheat to ensure protein and mineral-rich diet

37 ha of predator proof fencing installed to-date (20 ha installed this FY)

Traditional irrigation systems upgraded to ensure water supply during the dry season, resulting in reduced stress on grain output

"Blackbuck population, once having gone down to 35, has now increased to 45 counts (male 23, female 20 and fawn 2) with an improving health situation"

protein and mineral-rich diet. With an effort for additional cultivation, irrigation and grazing ground, upgrading activities are undertaken continuously wherein the blackbucks are grazed in rotation. During this period, more than 3 ha alone were prepared for growing crops such as lentil, maize, peas and wheat. Further, traditional irrigation systems have now been upgraded for ensuring water supply during the dry season thereby greatly reducing the stress on grain output.

Crocodile Census and Monitoring

The Crocodile monitoring in Kailali and Kanchanpur District was conducted by SCP in coordination with SWR, and District Forest Office Kailali and Kanchanpur. Undertaken over a period 25 days, 219 men were deployed for the survey. Before the actual monitoring, staffs from NTNC, SWR, Nepal Army, Game Scouts and DFO representatives were trained on data collection and survey techniques, including understanding the behaviour and biology of the Ghariyal and Magar crocodile. As part of the exercise, 23 lakes and 16 *kundas*, and 7 rivers were surveyed, from which the data collected is presently being analyzed.

NATURAL RESOURCE CONSERVATION PROGRAM

Project Nursery Operation

15,000 fodder tree seedlings of different species were produced this fiscal year from the Trust's nursery in SCP. Out of these, 12,500 seedlings were distributed in Beldadi, Daijee, Jhaladi, Pipaladi and Bhimdatta Municipalities and Dodhara Chandani area of SWR buffer zone. The remaining 2500 seedlings were distributed to two women groups engaged in improved livestock milk production. Together with the support of the Zoological Society of London (ZSL)/DI and Awely Green Cap program, fodder tree seedling production continues to help control grazing and pressure on SWR's pristine forest cover.

Anti-Poaching Support for SWR

Field gears and mobility support for patrolling was provided to SWR office and Shree Bhawani Box battalion of the Nepal Army that is deployed for the Reserve's security. The support is expected to further strengthen the security capacity of SWR in dealing with future illegal instances. Some of the anti-poaching items distributed this year included:

Local Institutional Capacity Building Support

SCP supports numerous Buffer Zone User Groups and Management Committees (BZUGS, BZCFUGS and BZMCS) in the regular monitoring, and office management related tasks. Besides administrative and on-the-ground support for forest guards and other groups, technical support was provided for Operational Plan preparation and constitution renewal of three buffer zone community forests of Kishan BZCF, Shahid Smriti BZCF & Batabaran BZCF. The operational plan and constitution

being renewed for the next five years is key to ensure in the smooth day-to-day functioning and management of the overall buffer zone community undertakings. Further, SCP facilitated completion of the participatory governance analyses of 9 user committees of SWR buffer zone. Also, two book keeping trainings conducted for 41 community members (user committees, CBAPUs, CFUGs) between July 3-6, 2016 is expected to build on the administrarial and management quality of key local community institutions/stakeholders active in conserving of the Reserve's resources.

Community Based Anti Poaching Unit Support

Youth groups play a vital role in working against wildlife crimes in SWR area through Community Based Anti-Poaching Units (CBAPU). These units play a vital role and act as a preventive force in controlling illegal activities. Their significance is felt primarily in buffer zone areas that have proved to be very successful in controlling rhino poaching in Bardia and Chitwan. Youths are trained on the importance of forest and wildlife conservation and later they are assisted to form youth groups to work against wildlife crimes.

Total # of illegal cases/incidents controlled by security personnel in the past 14 months between July 2, 2015 to August 31, 2016

Cases related to	# of cases
Cow/Ox	3127
Buffalo	1294
Goat	4450
(Sickle) Hansiya	182
Namlo	153
Net	12
Log	171
Cycle	20
People	7405
Axe	37
Saw	22
Snare	63
Weapon	2
Animal skin	3
Explosive	250g
Gun powder	250g

S.N.	Particular	Unit	Quantity
1	Mega Torch Light	Set	20
2	Sleeping Bag	Pcs	10
3	Mattress	Pcs	10
4	Back pack	Pcs	10
5	Bicycle	Pcs	16

Given the sensitivity of wildlife crimes in the buffer zone of Shuklaphanta Wildlife Reserve (SWR), through the USFWS program, SCP has supported in the formation of 6 CBAPUs in Beldandi area, under the Kalikitch Buffer Zone User Committee, and another 6 CBAPUs in Chandani areas, under the Himalaya Buffer Zone User Committee. Out of these, 2 new CBAPU sub-committees were formed this year wherein, the newly formed CBAPU members were trained in different aspects of conservation, patrolling methods, legal aspects and reporting methodology. Another 3-day exposure visit for 23 youths was organized for the newly formed CBAPUs with the aim to learn and share best practices from those areas where CBAPU activities are already well institutionalized.

"SCP undertook the participatory governance analyses of 9 user committees of the SWR buffer zone; this besides the technical support provided for preparing the new Operational Plan and Constitution of three buffer zone community forests"

Trans-boundary Meeting

A trans-boundary meeting between the forest officials of Nepal and India on biodiversity conservation was jointly organized by NTNC-SCP and SWR in Dudhwa Tiger Reserve (DTR) and Pilibhit Tiger Reserve (PTR) in India from July 1-3, 2016. Given that vast stretches of Nepal's forests and protected areas adjoin India, the meeting provides a great opportunity to share and build between varying wildlife conservation interests, as well as over problems related to wildlife and forest crime.

The idea of landscape level conservation is to restore and maintain the connectivity of forest patches inside and across the international border. A total of 10 participants from Nepal took part in the meeting: 4 from Shuklaphanta Wildlife Reserve (SWR), 1 from buffer zone management council, 3 from National Trust for Nature Conservation and 2 from District Forest Office (one officer each from Kailali and Kanchanpur).

"Given that vast stretches of Nepal's forests and protected areas adjoin India, the trans-boundary meeting between the forest officials of Nepal and India, in Dudhwa Tiger Reserve and Pilibhit Tiger Reserve in India provides a great opportunity to share and build between varying wildlife conservation assets and interests, know-how and networks"

During the meeting, the Director of Dudhwa Tiger Reserve (DTR) raised the issue of timber smuggling from DTR to Nepal. To tackle the problem of timber smuggling and illegal wildlife trade, it was decided to undertake joint patrolling at least once a week in both DTR and PTR. The next meeting is slated to be held in Nepal. Possibilities for the construction of separate range posts along the border were met with positive response, and a consensus was reached on sharing information on illegal wildlife trade along the border with emphasis on tiger trade parts. Further both parties agreed to share information on the ecological study of the radio-collared swamp deer.

SUSTAINABLE LIVELIHOOD ENHANCEMENT PROGRAM

Income Generating Alternative Support

A 30-day basket making advanced training was undertaken this fiscal year for 30 community members from Ganga user group and Deurali user group. Conducted in Ganga user group Beldadi-7 in Kanchanpur, the training aimed to supplement local skills and techniques to produce quality baskets which could fetch good value in the market. Six farmers from the Kalika user group and Dipjyoti user group in Beldadi and Gobariya were provided with 15 piglets by SCP to motivate local people towards tiger conservation.

Three other skill based trainings organized to enhance alternative incomes of forest dependent communities comprised of— House wiring training for 4 persons, Plumber training for 6 persons, and Beautician training for 4 persons.



Improved Cow/Buffalo Milk Production Sub-Committee Formation

During the reporting period SCP helped establish two milk cooperatives in the SWR buffer zone. Locations were selected on the basis of cattle grazing severity inside the buffer zone area. Constitution of both the cooperatives in Bhimdutta Municipality, and in Jhallari-Pipladi have already been approved by the District Veterinary Office, Kanchanpur, whereas the credit mobilization directives 2072 was also approved by the Chief Warden of SWR. Before handing over the cooperative's revolving fund of Rs. 700,000, two events were organized. This included 3 days of training which was conducted for two sub-committee members on improved livestock rearing, and another 3-day administrative and accounting training aimed at capacity building was provided to 10 participants (5 from each co-operative).

2 prominent milk production cooperatives established in SWR buffer zone	groups involved	members
Shuklaphanta improved cow/buffalo milk production sub-committee, Bhimdutta Municipality, ward number 13, Pipraiya	5	53
Trishakti improved cow/buffalo milk production sub-committee, Jhallari-Pipladi, ward number 5, Garjmani	5	82

Predator-proof Coral Support in Dodhara

Under the participatory conservation and development approach of NTNC, reducing forest pressure through creating alternative livelihood opportunities has been of utmost priority. To this end SCP provided 15 households of Dodhara VDC (now part of Chandani Dodhara municipality) with predator proof corral construction. Wood and labour cost was contributed by the users themselves whereas mess wire for corral and skilled labour costs were provided by SCP. Households of poor and underprivileged groups who had previously lost their livestock from predators like tigers or leopards were selected for the support upon the recommendation of the respective user committee.

Support for Artificial Cow Insemination

Large number of unproductive livestock holdings in the buffer zone area is another major reason for exerting heavy grazing pressure in SWR. Promotion of improved breeds of livestock can therefore significantly reduce livestock holding as well as grazing pressure. In response to this and with the support from the Awely Green Cap Programme, artificial insemination was undertaken in the buffer zone area in collaboration with the District Livestock Service Office in Kanchanpur. This year artificial insemination covered 34 livestock—33 cows and 1 buffalo.

Nature Guide Training

Biodiversity conservation can become sustainable only when local people understand their essence and take ownership towards conservation, as well as when the benefits of conservation are subsequently ploughed back to the community for generating livelihood and employment opportunities. In order to help create nature guide related employment opportunities, a 7-day nature guide training was organized for 21 local youths of SWR buffer zone. Organized in coordination with the SWR, BZMC and local hotel entrepreneurs, the participants involved 10 youths already working as guides in the tourism sector, thus enhancing their professional leverage.

Biogas Installation Program

Buffer zone people rely greatly on SWR resources for firewood, thus leading to an accelerated deteriorating effect on forest and habitat quality. The USAID funded Hariyo Ban Program in collaboration with NTNC-SCP has been promoting alternative energy sources in order to reduce pressure on forests. In order to minimize firewood consumption, a total of 242 biogas plants have been installed this year. Biogas helps in convenience and improving the health of women, who generally are victims of inhaling toxic smoke from firewood used for cooking. They are also extremely efficient in minimizing heat waste. In the long run, they help to address deforestation and forest degradation related issues that are intrinsic to a sustainable landscape of SWR and the greater Terai Arc Landscape (TAL).



CONSERVATION EDUCATION AND EXTENSION PROGRAM

"The 242 biogas plants installed this year will not only contribute to minimizing firewood consumption, but will also help in improving the health of women who are generally direct victims of inhaling toxic smoke from firewood used for cooking"

Conservation Education and Awareness

School students are undoubtedly posited to become future leaders of the community and thus investing in them means to invest for a better future. Providing them with conservation awareness classes are then very valuable to build up a broader support-base for conservation initiatives. From this perspective, interactive conservation and education classes about Tigers and the biodiversity conservation in Shuklaphanta Wildlife Reserve was provided to grades 8, 9, 10, 11 & 12 of 5 schools of buffer-zone in Dodhara Chandani Muncipality. A total of 292 school children between the age of 12 and 22 years (105 boys and 187 girls) were part of the education and awareness efforts carrying home with them messages related to tiger conservation, Shuklaphanta's fauna and flora, as well as the current issues and threats to conservation.

Special Events

Special days and events are significant aspects that build solidarity among the larger community to understand and acknowledge the arch of conservation related matters better. Besides, it is also a great opportunity to indulge in creative and participatory action, often also through fun activities. Some of the more prominent special days observed this year included celebrations marking the World Environment Day, Wildlife Week, and Global Tiger Day amongst others. Activities undertaken covered street dramas to documentary viewing, debates to interactions, and awareness raising workshops and rallies. Altogether over 350 youths took direct part throughout such events.



FINANCIAL STATEMENTS

FY 2015/16 (2072/73)

NATIONAL TRUST FOR NATURE CONSERVATION

Khumaltar, Lalitpur, Nepal

CONSOLIDATED BALANCE SHEET

As at Ashad 31, 2073 (July 15, 2016)

Amount in NPR

Particulars	Current year Ashad 31, 2073 (July 15, 2016)		Previous Year Ashad 31, 2072 (July 16, 2015)	
Assets :				
Non Current (Fixed Assets)		421,186,125.89		423,767,568.57
Investments		720,889,062.57		672,766,213.78
Current Assets:		240,627,793.90		318,755,308.69
Cash and Bank Balances	*197,050,957.85*		*244,572,583.54*	
Advances	*13,410,571.31*		*14,212,075.34*	
Accounts Receivable	*30,166,264.74*		*59,970,649.81*	
TOTAL		**1,382,702,982.36**		**1,415,289,091.04**

Fund and Liabilities				
Endowment Fund		68,930,000.00		68,930,000.00
Capital Assets Fund		375,072,157.16		384,660,676.55
Exchange Equalization Reserve		214,231,045.76		188,984,142.76
Restricted Fund Balance				
Others		206,372,535.48		161,220,383.95
Opening Balance upto last year	*161,220,383.95*		*155,421,960.91*	
Add : Current year balance	*45,152,151.53*		*5,798,423.04*	
Accumulated Surplus:		139,611,826.16		248,004,576.28
Surplus upto Last Year	*248,004,576.28*		*248,822,717.67*	
Less: Deficit adjested in current Year	-		*(944,783.48)*	
Add: Current Year Surplus/(Deficit)	*(108,392,750.13)*		*126,642.09*	
Current Liabilities		378,485,417.80		363,489,311.50
Current Liabilities	*79,327,981.20*		*96,996,932.11*	
Non Current Liabilities (Long term laibilities)	*299,157,436.60*		*266,492,379.39*	
TOTAL		**1,382,702,982.36**		**1,415,289,091.04**

Significant accounting policies and notes to the accounts form integral part of this statements.

As per our report of even date

Deepak Kumar Singh
Executive Director

Govinda Gajurel
Member Secretary

Mohadatta Timilsina
Deputy Auditor General

Office of the Auditor General Nepal 2016

NATIONAL TRUST FOR NATURE CONSERVATION

Khumaltar, Lalitpur, Nepal

CONSOLIDATED INCOME AND EXPENDITURE

For The Period 01 Shrawan 2072 to 31 Asadh 2073 (17 July 2015 to 15 July 2016)

Amount in NPR

Particulars	Current Year for the year ended Ashad 31, 2073 (July 15, 2016)	Previous Year for the year ended Ashad 31, 2072 (July 16, 2015)
INCOME :		
External Sources	459,099,208.08	310,879,778.71
Internal Sources	342,915,822.21	421,805,662.68
Total Income	**802,015,030.29**	**732,685,441.39**
EXPENDITURES :		
Project Expenditures (Restricted)	413,947,056.55	305,081,355.67
Sub Total	**413,947,056.55**	**305,081,355.67**
General Management (Internal)		
Personnel Related Cost	119,113,576.09	122,505,958.38
General Management (Administrative and Support)	101,952,010.97	108,326,028.08
Project Cost and Support	230,242,985.28	190,847,034.13
Sub total	**451,308,572.34**	**421,679,020.59**
Total Expenditure	**865,255,628.89**	**726,760,376.26**
Internal Fund Surplus / (Deficit) Transferred to Balance Sheet	**(108,392,750.13)**	**126,642.09**
External Fund Surplus / (Deficit) Transferred to Balance Sheet	**45,152,151.53**	**5,798,423.04**

Deepak Kumar Singh
Executive Director

Govinda Gajurel
Member Secretary

Mohadatta Timilsina
Deputy Auditor General

Office of the Auditor General
Nepal
2016

NATIONAL TRUST FOR NATURE CONSERVATION
Khumaltar, Lalitpur, Nepal

CONSOLIDATED STATEMENT OF CASH FLOWS
For The Period 01 Shrawan 2072 to 31 Asadh 2073 (17 July 2015 to 15 July 2016)

Amount in NPR

Particulars	Current Year for the year ended Asadh 31, 2073 (July 15, 2016)	Previous Year for the year ended Ashad 31, 2072 (July 16, 2015)
A. ***Cash Flows from Operating Activities***		
Surplus	(108,392,750.13)	126,642.09
Deficit adjusted in Current Year	-	-
Adjustment for:		(944,783.48)
Add :		
Depreciation on Fixed Assets	8,827,775.82	6,250,575.44
Disposal of Capital Assets (Write Off)	-	-
Less :		
Income from Investment	(17,636,718.62)	(20,797,686.91)
Other Income	(40,952,189.03)	(38,002,985.20)
Operating Surplus before Working Capital Changes	**(158,153,881.96)**	**(53,368,238.06)**
Adjustment for Working Capital Changes:		
Advances	801,504.03	376,995.88
Accounts Receivable	29,804,385.07	(2,763,756.64)
Accounts Payable	14,996,106.30	64,639,483.49
Net Cash from Operating Activities (A)	**(112,551,886.56)**	**8,884,484.67**
B. ***Cash Flows from Investing Activities:***		
Less :		
Additions to Fixed Assets	2,581,442.68	14,811,806.55
Depreciation on Fixed Assets	(8,827,775.82)	(6,250,575.44)
Increase in Investment	(48,122,848.79)	(49,849,199.23)
Add :		
Interest received from Investment	17,636,718.62	20,797,686.91
Disposal of Capital Assets (Write Off)	-	-
Other Income	40,952,189.03	38,002,985.20
Net Cash used in Investing Activities (B)	**4,219,725.72**	**17,512,703.99**
C. ***Cash Flows from Financing Activities:***		
Restricted Fund Balance	45,152,151.53	5,798,423.04
Endowment Fund	-	700,000.00
Capital Assets Fund	(9,588,519.38)	(15,533,590.91)
Exchange Equalization Reserve	25,246,903.00	25,998,264.38
Payments:	-	-
Loans	-	-
Net Cash used in Financing Activities (C)	**60,810,535.15**	**16,963,096.51**
D. ***Net Increase/(Decrease) in Cash and Cash Equivalents (A+B+C)***	**(47,521,625.69)**	**43,360,285.17**
E. ***Cash and Cash Equivalents at beginning of period***	**244,572,583.54**	**201,212,298.37**
F. ***Cash and Cash Equivalents at end of period (D+E)***	**197,050,957.85**	**244,572,583.54**
Cash comprises of Bank and Cash Balances		
Cash in Hand	5,186,582.10	2,487,349.96
Cash at Bank	191,589,615.75	241,810,473.58
Gold and Silver Coins	274,760.00	274,760.00
TOTAL	**197,050,957.85**	**244,572,583.54**

Deepak Kumar Singh
Executive Director

Govinda Gajurel
Member Secretary

Mohadatta Timilsina
Deputy Auditor General

Office of the Auditor General
Nepal
2016

NATIONAL TRUST FOR NATURE CONSERVATION

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