



**BIODIVERSITY CONSERVATION &
SUSTAINABLE LIVELIHOODS :
SUCCESS STORIES**

**Biodiversity Conservation & Sustainable Livelihoods:
Success Stories**

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- Written By : Anil Adhikari
- English Translation : Anil Adhikari
Emma Condon
- Concept By : Ashok Bariya
- Feedback & Suggestion: Roshan Sherchan
Nikki Maskey
- Layout and design : Subarna Humagain
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Foreword

The Langtang National Park & Buffer Zone Area Support Project (LNPBZ SP) works to fulfill the Sacred Himalayan Landscape's vision of preserving water resource, forest, pasture land, land and flora and fauna through integrated management, enhancing livelihood opportunities for local people, and the conservation of cultural diversity. The Project has been carrying forest conservation and management, species conservation, livelihood and sustainable community development, education and capacity building, and publicity activities since 2006.

The three-year project of LNPBZ SP under Sacred Himalayan Landscape (SHL) has already been completed. This book is an evaluation of the project that was independently carried out by a consultant. "Biodiversity Conservation and Sustainable Livelihoods: Success Stories" portrays the project's synchronization and partnership with like-minded institutions and individuals on issues of biodiversity conservation and sustainable livelihoods.

This book shows diverse practices including the role of the Buffer Zone Committee in reducing fuelwood and the use of the practice of good governance by a community forest user group, the contribution of Nepal Army to participatory conservation, role of community-based anti-poaching groups in controlling poaching, use of medicinal plants for improving livelihoods and an expansion of medicinal plant vegetation in the forest and the role of students and youth in conservation. Such initiatives, through this book, can be replicated among the concern stakeholders in order to achieve the conservation goal.

This book has been published in both Nepali and English in order to make it accessible to both national and international stakeholders.

I would like to thank Ashok Baniya, Manager of LNPBZ SP for his valuable idea and Anil Adhikari for writing this book.

Dr. Ghana Shyam Gurung

Conservation Program Director
WWF Nepal



Acknowledgement

Langtang National Park was declared in 1976 with 1710 sq.km and also declared its Buffer Zone Area in 1995 with 420 sq.km. Since that time, WWF Nepal has been collaborating with Department of National Park and Wildlife Conservation (DNPWC) and providing assistance in implementing conservation and community development activities.

The Langtang National Park and Buffer Zone Support Project (LNPBZ SP) was initiated under Sacred Himalayan Landscape (SHL) Program in 2007 with the aim of conserving biodiversity, enhancing livelihood opportunities and sustaining diverse cultures and traditions through the integrated management of land, forest and water resources in the park and Buffer Zone. WWF Nepal has been providing financial and technical assistance to LNPBZ SP in partnership with DNPWC.

Objectives of LNPBZ SP include; maintaining forest cover; improving habitat quality and sustaining local livelihoods through community forestry, alternative energy and forest restoration, including natural regeneration and plantation; reducing the threat to key species, their habitats and prey species through scientific research and monitoring; community based conservation, including anti-poaching, human wildlife conflict mitigation and conservation awareness; creating an enabling policy environment that supports the linkages between sustainable livelihoods and landscape level conservation; bringing livelihood benefits to local communities in focal sites, particularly poor and marginalized households; reducing the vulnerabilities of biodiversity, ecosystems and people to climate change impacts in Nepal and implementing adaptation strategies; conserving and managing freshwater resources to maintain their integrity/biodiversity and ecological process and functions, to bring livelihood benefits to the communities and to increase conservation awareness among the local communities in Langtang National Park and Buffer Zone, leading to positive attitudinal and behavioral changes that support conservation; and documenting best practices and lessons learned at the local, national and international level.

Community based anti-poaching groups, school-based eco clubs, Buffer Zone community forest user groups and local institutions formed with the help of LNPBZ SP have all been involved in significant work

on biodiversity conservation and sustainable livelihoods that have been documented and published here as "Biodiversity Conservation and Sustainable Livelihoods: Success Stories." This project strongly believes that this book can be an important source of information for those involved in conservation and livelihood issue.

Besides, we would like to extend our sincere appreciation to Narayan Prasad Dhakal, former Director of Tiger Rhino Conservation Project/ NTNC/UNDP for his valuable feedback and suggestions.

Furthermore, our thanks go to Hira Gurung, Finance & Admin Officer and Social Mobilizers Sarita Thapa Magar and Saraswoti Lamichhane of LNPBZ SP for providing assistance in producing this book.

Lastly, we are also thankful to the concerned individuals and institutions who have been the parts of success stories.

Ashok Baniya

Project Manager
SHL/LNPBZ SP

Fanindra Raj Kharel

Chief Conservation Officer
Langtang National Park

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Abbreviation

AFA	Agriculture Forest Academy
BZMC	Buffer Zone Management Council
DABZCFUC	Dhunge Amphepakha Buffer Zone Community Forest User Committee
DoF	Department of Forest
ECCA	Environment Conservation Camp
LACCS	Langtang Area Conservation Concern Society
LNP	Langtang National Park
LNPBZ	Langtang National Park Buffer Zone
LNPBZ SP	Langtang National Park & Buffer Zone Support Project
LCPG	Lokil Chiraito Production Group
DDC	Dairy Development Corporation
NGCPG	Norchumenki Gyalmo Chiraito Production Group
NAPCG	Nadanche Anti-Poaching Group
NKBZUC	Nau Kunda Buffer Zone User Committee
SKBZUC	Suya Kunda Buffer Zone User Committee
SBZCFUC	Syaubari Buffer Zone Community Forest User Committee
SIB	Shree Indrabox Battalion
SHL	Sacred Himalayan Landscape
SLOC	Langtang Snow Leopard Conservation Committee

Conservation Partner LACCOS

Last year, there was a forest fire in part of the national park. LACCOS carried out a local-level advocacy rally and distributed pamphlets alerting people to the presence of the forest fire. The members of LACCOS feel that because of this advocacy work, there have been no forest fires this year.

LACCOS member Sunil Ghale says, "We were already carrying out environmental sanitation activities at the local level." LNPBZ SP encouraged to initiate a specific organization working only in environment. In that case, LACCOS was formed in 2006.

With the support of LNPBZ SP, LACCOS has carried out various activities in the Gosaikunda area. "In the beginning, we were only focused on the pressure put on the environment by pilgrims coming for the Gosaikunda festival and altitude sickness issues," says Chairperson

Introduction

Name : Langtang Area Conservation Concern Society

Formation Date : Nov 2006

Address : Dhunche VDC

Working Area : Dhunche, Briddim, Timure, Thuman, Gojjug, Chilime, Syaphru, Ramche, Bhorle and Langtang VDC of Rasuwa.

Members : 14

Numbers of Groups : 10

Contact Person : Santosh Ghale, Chairman

Phone Number : 974 1020868



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Santosh Ghale. "Because the pilgrims used walking sticks, small sal and fir trees were being destroyed during the festival.", He further notes. In addition, during the festival people would cut down trees to make fires at night. But the National Park Office never focused on this issue, and so the Red Pandas' habitat was disturbed due to such activities. Sanitation was another problem that was not addressed by the National Park.

Because of these issues, LACCOS developed a proposal and submitted to LNPBZ SP. Santosh recalls that, "In 2008, LNPBZ SP granted 45,000 rupees which was used to mobilize volunteers, publish and distribute brochures, create banners and promote LACCOS' work." During the Gosaikunda festival, LACCOS cleaned up the area and stopped the selling of fir trees for walking sticks and instead initiated the use of reed.

As LACCOS began to actively participate in environmental conservation, the Gosaikunda Development Committee bought reeds to distribute to local shopkeepers. "After LACCOS began working in the area, the National Park began to realize the significance of environmental conservation in addition to health and sanitation activities and the Development Committee formed a separate sub-committee to look after the environment issues," says Sunil.

The members of LACCOS are very pleased that the issues that they raised were considered by the National Park and the Development Committee. Chairman Santosh further says, "we may be small in number



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but we are youthful and have a team spirit for doing something on the issue of conservation."

The project gave a training of trainers (ToT) on climate change to the LACCOS members. Since then, LACCOS has been conducting trainings in three different schools and screening documentaries in various parts of Rasuwa focusing on the role of local people in conservation.

"Conservation is everyone's duty and others should have an opportunity to learn what we have learned and to benefit from our experiences," says Sunil.

Now, LACCOS is working on alternative energy focusing to fifty cowsheds under Nau Kunda Buffer Zone User Committee Dhunche and Surya Kunda Buffer Zone User Committee Syaphrubesi. Sunil explains, "LACCOS is coordinating with ECCA to distribute Solar Tuki (lights)."

The local shepherds stay in the cowshed for six months and make fires. LACCOS expects that the distribution of Solar Tuki will reduce the risk of forest fire.

In 2009, on the occasion of Wetlands Day, LACCOS carried out cleaning and awareness activities in Parvati Kunda, which was covered with alga and hagberry. During the program Parvati Kunda Conservation Committee was formed to participate locals in the preservation of the lake.

**LACCOS
Chairman
Santosh says,
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Snow Leopard Found By SLCC

Just a few years back, it was assumed that there were no snow leopards in Langtang. Sonam Sangbo Tamang, Chairperson of SLCC recalls, "Even the National and International research found no evidence of snow leopard." However, on January 2010, at eleven in the morning, SLCC was patrolling the Langtang area at 4,400 mt. in a place called Numathung, the group found the dead body of a snow leopard.

"We handed over the body to the National Park office in front of the WWF representatives. WWF awarded us with 10,000 rupees for our good work," said SLCC treasurer Chhesang Lama-Jahnkri.

This was a major achievement for SLCC that proved the existence of snow leopards in Langtang National Park and is a significant moment for biodiversity conservation as well.

Sonam claims that the shepherds in this area have found Snow Leopards and that the Snow Leopards kill 15 baby yaks and horses every year. "The Snow Leopard kills cattle in the village," he claims. According to Sonam, while the shepherds are looking after the animals, some of them have seen snow leopards killing and eating the livestock. However, without a camera,

Introduction

Name : Langtang Snow Leopard Conservation Committee

Address : Langtang VDC

Formation Date : Nov 2006

Members : 14

Numbers of Groups : 10

Contact Person : Sonam Sangbo Tamang,
Chairperson

Phone Number : 019534023



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they have no proof and no one believes them. "Two years ago, I saw a snow leopard in Lantang village in front of a cave, just standing there. I was very surprised to see the Snow Leopard first time in my life. I could not believe that such a small animal could kill a baby yak or a horse," Sonam recalls.

As per him the Snow Leopard kills the cattle in the village and cowsheds. However, the villagers do not go out to kill the snow leopard in retaliation, because they are Buddhists. They do curse the snow leopards because they are angry, but they don't poison them and they don't trap them.

The treasurer of SLCC, Chhesang, notes that in Feb 2009, based on a tip from a trekker, SLCC went patrolling on the far side of Yamphu at the bank of Pangmelung River and found a poachers' hut, but the poachers had disappeared. However, the next day, they found traps and four skins of musk deer that had been stashed in the forest by poachers. Chairperson Sonam recalls that, on the same day on the other side of Nosapalli, SLCC also found a musk deer hanging in a trap. That day they were able to disarm 92 traps. In total, the organization has disarmed more than 600 traps.

Ghodatabela to Nepal-Tibetan boarder of Sindhupalchowk is considered as a potential habitat for musk deer. Due to the joint patrol initiation by SLCC, LNP and Nepal Army, members of SLCC believe that poachers in these areas have been wiped out. "That is why musk deer can be seen sometimes in Lantang area", says Sonam.

Along with the Nepal Army and Langtang National Park, SLCC carries

This was a major achievement for SLCC that proved the existence of snow leopard in Langtang National Park and is a significant moment for biodiversity conservation as well.

out six patrols every year. This kind of patrol is carried out for four days at a time. If there are urgent issues, the patrols can be increased to up to twelve times a year. If the operation is dangerous, then SLCC involves community people and uses the help of the Nepal Army. "We send the Army in front because they have weapons and we only have khukuris to fight," says Jhankri.

After the formation of SLCC in the Langtang area, the members of the group feel that there has been a reduction in the culture of consuming fuelwood. "On the one hand, the habitat of the animal has been preserved. On the other, due to the ecological balance in the area, snow is falling at the right time and crops can be planted, cultivated and harvested on time," says Sonam. He explains his understanding on the conservation of the snow leopard saying "we have to preserve endangered species. If we preserve them, eco-tourism will be increased, and it will support our livelihood."

Every year, SLCC carries out advocacy work that helps disseminate information about the importance of biodiversity to the local people. In addition, they have collected snow leopard droppings twice and counted the number of jharal, a species that the snow leopard preys on. SLCC has so far found 495 jharal in the area.

According to Jhankri, Jharal's pastureland is safe. Yak, Sheep and Horses cannot go there. "It is too high", says Jhankri.

With the objectives of controlling poaching activities through patrols and carrying out awareness activities at the local level, SLCC was founded in 2006. Since the establishment of SLCC, the LNPBZ SP has been providing technical assistance in group mobilization, capacity building and institutional development of the group. Besides, LNPBZ SP has provided SLCC with raincoats, tents, binoculars, digital cameras, pressure cookers, sunglasses, etc. in order to facilitate their anti-poaching work.



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Nadanche Anti-Poaching Group

NAPG was formed with the initiation of LNPBZ SP in 2006. In April 2009, NAPG was able to release 300 hundred traps at the foot of Nadanche Dobache. In the same year, on solo patrol without the Nepal Army and National Park Game Scout, NAPG found a dead musk deer, 3 red panda and a rotted Himalayan Monal (Nepal's National bird). The group then handed over their findings to the National Park Office. The Chairperson of NAPG Noang Finju says that LNPBZ SP rewarded the group with NR 5,000 for their good work.

"We have handed over about 300 traps to the National Park found on 4 times patrolling under my leadership," says Finju.

Prior to the formation of NAPG, people from various parts of Dhading and Rasuwa district would come to the forest around Thulo Syaphru and illegally collect medicinal plants, particularly Spikenard and Nirmasi (a kind of medicinal plant). They would also gather blue and red stones from the side of the mountain. Wildlife hunters from Sindhupalchok would also travel through the area on a regular basis. After the group was formed, it caught

Introduction

Name : Nadanche Anti-Poaching Group

Address : Thulo Syaphru

Formation Date : 2006

Members : 17

Contact Person : Noang Finju, Chairman

Phone : 9 741 086 568



10 poachers at 4,000 feet on Meragang Hill. The group members warned the poachers and reminded them not to repeat such acts, and then released.

In 2008, NAPG caught 4 poachers with 6 kg of Nimasi," says Lama Singi, one of the group members. For this courageous work, NAPG received a reward of NR 5,000 from LNPBZ SP. According to Chairperson Finju, the group carried out this operation alone as well, since the Army and National Park could not join for technical reasons.

"Similarly, in June 2007, we caught poachers carrying six sacks of Lokta (a kind of tree rind)," says Singi.

As it does for other anti-poaching groups, LNPBZ SP has provided the Nadanche Anti-Poaching Group with equipment, including cameras, sleeping bags, pressure cookers and binoculars.

The group has also been carrying out joint-patrolling operations with the Nepal Army and the National Park Game Scouts. Singi explains that during such kinds of operations, the group not only has to walk on difficult terrain, including hills, cliffs, river sides and gorges, but also day and night, in the rain and sunshine. "Just a small mistake can lead you to falling off a cliff. So one should be very careful," he further notes. "Poachers do not care about their lives. During the operation, you have to assume that your life is constantly in danger."

Covering the area from Suryakunda to the border of Langtang, Syaphru VDC is rich in biodiversity. Spikenard, chiraito, poison (bish), and wild



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mushroom is found in the area and it is also home to a variety of wildlife, including ghoral, jharal, musk deer, leopards, bears, wild pigs and Assami monkeys. Through the conservation efforts being carried out by NAPCG tourism has been developed in this area and has benefited the local community. Local residents therefore feel a sense of responsibility for conservation.

"This is our place. If we preserve the resources, it will make us wealthy. If water sources and pasture land is destroyed there will be no more wildlife and vegetation," says Lama Singi.

LNPBZ SP has provided two sessions of Capacity Building Training targeting to the group leadership. "Participants are able to learn how to manage financial resources and to develop and use work plans," says Chairperson Finju.

In addition, LNPBZ SP provides NR 11,000 for each patrol. 17 persons, including the members of NAPG, army personnel and national park game scouts are mobilized for 3 to 5 days patrolling. The group carry out 3 patrols each year.

According to Finju, nothing was found in the recent patrol that carried out in Feb 2010. It was due to the continued patrol and activities of anti-poaching groups. "Neither had we found poacher nor traps ".he says. He further explains that this is for two reasons: on one hand the poachers are afraid of the anti-poaching patrols and on the other; awareness has been raised at the local level. The group is therefore finding less evidence of poaching these days.

As it does for other anti-poaching groups, LNBZ SP has provided the Nandanche Anti-Poaching Group with equipment, including cameras, sleeping bags, pressure cookers and binoculars.

Nau Kunda Buffer Zone User Committee toward reducing the Consumption of Fuelwood

A few years ago, the people of the 9 wards of Nau Kunda VDC would go to the Langtang National Park to collect fuelwood and grass. Ward 1 to 4 and Ward 9 lie on the border of LNP while the rest Wards even though lie far, used to go to the National Park. The people would go to the jungle at any time and there were no rules and restrictions. People carelessly cut down the tree and green branches, collected fuelwood and brought it home. In addition to being used for daily household work, the wood was also a source of livelihood and income generation. Because of these dual uses, the potential for forest degradation was increased.

In 2006, NKBZUC came together with the LNPBZ SP to discuss issues of conservation and management of the forest and reduction of fuelwood collection in the area. NKBZUC frequently lobbied among the various stakeholders i.e. the National Park, the LNPBZ SP, user groups and the Buffer Zone Management Council (BZMC) to reduce the use of fuelwood. It also corresponded sending

Introduction

Name : Nau Kunda Buffer Zone User Committee
Address : Dhunche VDC
Formation Date : June 2007
Members : 20
Numbers of Groups : 10
Numbers of Users : 2,600
Contact Person : Tumpa Jai, Secretary
Phone Number : 9841893258



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letters and visiting likeminded people and institutions to concentrate the issue. The chairperson of the committee, Sang Tempa Tamang credits the User Committee with being the first stakeholder to start talking about this issue. On the recommendation of NKBZUC, the BZMC decided to limit access to the forest for collection of fuelwood to Fridays and Saturdays.

"This is a major achievement in the conservation area, initiated by the User Committee," says Ashok Baniya, the project manager of LNPBZ SP.

This decision helped to reduce the use of fuelwood by 2600 people in 260 households. the Secretary of NKBZUC, Tempa Jel notes, "Importantly, through this decision, the consumption of fuelwood by the Nepal Army has been reduced by 20 percent."

The National Park, in coordination with the BZMC, is trying to apply the user committee model in other areas of the park. In addition, the NKBZUC is trying to set limits on permit to access on wood for building houses. Members of the committee feel that due to the management of forest, the habitat of wild animals in the forest has improved. One of the members, Dawa Wangbo Tamang, says, "at least there is no disturbance in the forest for five days of the week."

Jel notes that, "Because of the formation of local level anti-poaching groups, forest fire control groups, and cowshed groups, all started by the LNPBZ SP, incidents of forest fires and poaching activities have been reduced.

On the recommendation of NKBZUC, the Buffer Zone Management Council decided to limit access to the forest for collection of fuelwood to Fridays and Saturdays.

With very minimum expenses, LNPBZ SP has been able to build and restore the yak trail at local level. In addition, the project has also helped to bring pipelines to the cowsheds, which both directly and indirectly contributed to conservation."

In 2010, the User Committee made plans to distribute 50 iron poles to replace wood poles in front of houses, aiming to reduce the consumption of wood in the area.

Using Iron Stoves for Reducing the Use of Fuelwood

In 2009, NKBZUC proposed LNPBZ SP to support improved iron stoves to the community. "In November, the committee distributed 50 stoves in Wards 5, 6 and 7," says Chairman Sang Tempa Tamang. One of the recipients, Devi Tamang of Dhunche notes that the use of the iron stove reduces the amount of smoke generated while cooking and has the added benefit of heating the house in the winter. NKBZUC aims to distribute 85 stoves by June 2010. Sang Tempa further states that the stoves are multi-uses. He explains "With the old stoves, six logs would fire only one mukh (place to put fuelwood) that cooks only one dish. But now, with these improved stoves, six logs can fire three mukh, and three dishes can be cooked at the same time. In addition, it also has an attached water pot so that water can be boiled simultaneously. It can also keep food warm for 4 hours after cooking." The stove saves time and makes families more productive.



Surya Kunda Buffer Zone User Committee toward Forest Fire Control

At 11 am on Dec 2009, there was a forest fire on the Syaphrubesi Hill. The fire was on the way to Briddim and it caused by a fallen electrical pole. It began to spread throughout the forest. The Surya Kunda Buffer Zone User Committee (SKBZUC) then informed the Nepal Army, the National Park Game Scouts and the anti-poaching group about the fire. Along with the support of the villagers, they were able to bring the fire under control.

On the same day, there was also a fire on Syo Hill at Syaphrubesi. The committee members and villagers went to fight the fire. The committee then investigated how the fire started. They found 3 twelve year-old children who were in the forest looking for a kind of medicinal plant (amriso). The forest fire started after the children made a fire for cooking and the fire spread. "The committee caught the boys and charged them 500 rupees each. The boys also were required to come once a week to the committee office to remind them not to

Introduction

Name : Surya Kunda Buffer Zone User Committee

Address : Syaphrubesi VDC

Formation Date : 2000

Members : 17

Numbers of Households : 520

Population : 2600

Contact Person : Pemba Chiring Tamang,
Chairperson

Phone Number : 9849488782



L.N.P.B.Z. S.P. / WWF Nepal

make the same mistake again, and to explain to them the importance of the forest," says chairperson Pemba Tsering Tamang.

In addition to many other activities related to conservation, the committee mainly works on forest fire control. They do such work without any technical equipment. "The work is only with spades, sickles and khukuris. So the risk is very high; we could die," says Pemba.

Pemba recalls the forest fire in Bakung Hill on a morning in 2008. After finding out about the fire, the committee immediately informed the mothers' group of Guljung VDC and the Nepal Army so that the fire would not spread and the habitat of various birds, monkeys, ghorals and deer would be protected.

Similarly, in Feb 2009, at 11 pm, there was another forest fire in Bakung Hill. The committee informed the Nepal Army, the National Park game scouts and the anti-poaching group. Chilime Hydropower Project provided a vehicle and with the participation of all informed groups the fire was brought under control in two hours.

The LNPBZ SP gave training on forest fire control to the committee, the Nepal Army and National Park staffs. The committee members also participated in a forest fire control workshop and distributed posters to all wards of Syaphrubesi VDC that was published by the LNPBZ SP. The committee members feel that these days, because of the committee's advocacy work, the incidence of forest fire has been reduced in the area.



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According to Vice-chairperson Yangjom Tamang, the committee made an agreement with the Hotel Entrepreneur Association under SKBZUC to plant trees at Singa Guppa of Chandan Bari in order to restore the ecological corridor and the habitat of the red panda that was destroyed by the forest fire. As per the agreement 5,000 seedlings of rhodo dendrons, sal and fir trees will be planted in 2010. Members of SKBZUC recall that before the formation of the committee, there was an encroachment on the forest in the surrounding hills. "There was poaching of musk deer, wild pig, deer and birds and illegal collection of medicinal plants," says Vice-chairperson Yangjom.

Because of the planting of trees on Bilep Hill in the eastern part of Syaphrubesi, these days one can see the re-habitation of the area by wildlife. "In August/September, when the maize is ready, Assami monkeys come to eat. This place is also the habitat of the ghoral, who breeds, gives birth to and raise young and grazes at Bilip Hill," says Pemba.

Apart from that, the planting of trees in Min Hill in the western part of Syaphrubesi has led to being able to see leopards in Bilip Hill area. In addition, because of conservation in the area, the number of bear, deer, wild pig and leopards has increased. Pemba notes, "Last year, the leopard killed 17 goats and 2 calves. In Ward 9, the leopard also killed 3 goats."

In 2010, SKBZUC plans to plant 30,000 seedlings with the help of the BZMC in Comin Hill of Syaphrubesi. The committee members believe that this will have a positive impact on the conservation of biodiversity in the area.

The Chairperson Pemba Tsering and the committee members understand well that forests should be conserved for the future generation. "Its important to conserve the forest in order to maintain the fresh water and fresh air" says Pemba.

Nowadays, if there is a forest fire or a poaching incident, everyone knows to contact SKBZUC. Everyone, including the Nepal Army, National Park and the community people listen to the committee. "Our responsibility to the community has increased because of the reputation we have gained from our work," says Pasang Kami, the secretary of the committee.

**The members of
Suryakunda work
on forest fire
control without
any technical
equipment.**

Fragrant Wintergreen Oil Processing at Syaubari

Fragrant Wintergreen, a kind of scented medicinal plant was growing naturally in the wild and was wasted. In 2008, LNPBZ SP suggested Syaubari Buffer Zone Community Forest User Committee (SBZCFUC) that the community could use Fragrant Wintergreen as a means of economic escalation.

SBZCFUC, with the support of LNPBZ SP, carried out research on the use, significance and sustainability of scented oil made from Fragrant Wintergreen. At the time, Fragrant Wintergreen was only used as grass and went to waste in the Community Forest. The committee found that scented oil could be made from the Fragrant Wintergreen plant after processing and it could then be sold at good price and used as a means of increasing the user livelihood. Based on this discovery, the committee decided to work collaboratively with the LNPBZ SP to produce fragrant wintergreen oil.

LNPBZ SP organized a 5 days long exposure visit to Dolakha for members of the user committee in order to provide information

Introduction

Name : Syaubari Buffer Zone Community Forest User Committee
Address : Laharepauwa VDC 8
Formation Date : 2048
Area : 141.8 Hecter
Household : 157
Population : 815
Contact Person : Bikram Lopchan, Secretary
Phone No. : 9841207536



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about scented oil. The participants had an opportunity to observe how scented oil is produced and processed. After the visit, participants discussed their experiences and decided to carry out the project establishing a Fragrant Wintergreen processing center at Syaubari Buffer Zone Community Forest at Laharepauwa VDC 8.

"Fragrant Wintergreen grows twice a year in May-June and October to December. It can be sold at 1100 Rupees per litre" says the Secretary of the SBZCFUC Bikram Lopchan. "When the members of the committee realized this, they were very excited."

Lopchan notes that at first, the processing plant was estimated to cost NR 500,000. "However, the committee wanted the plant to be sustainable. So along with NR 1,200,000 spent on the plant equipment, building, office and store. LNPBZ SP provided NR 280,000 as grant"

SBZCFUC has made an agreement with Natural Industry Pvt. Ltd. for the production, sale and promotion of its scented oil. According to the agreement, the company will help support the building of the processing center by providing a loan and the committee will have to sell the oil to the company for ten years at the price of 1100 rupees per litre. The

Fragrant Wintergreen grows twice a year. It can be sold at 1100 rupees per liter. , When the members of the committee realized this, they were very excited

committee will pay off their debt through the sale of the product.

As per the committee source, a trial production of wintergreen oil was executed. 9 kg of Fragrant Wintergreen oil was successfully produced.

2 machine operators and 32 leaf collectors have been appointed for the project. The project has increased employment opportunities in the area. "The committee plans to survey the field and decide which areas to collect from and discuss how Fragrant Wintergreen can best be grown in the areas," says one of the committee members.

In 2009, the committee also held an interaction with 6 community forest committees with Laharepauwa VDC. Participants discussed the coverage of Fragrant Wintergreen in the Community forests, and talked about the possibility of collecting wasted Fragrant Wintergreen leaves in the forest. The participants agreed to collaborate and it was decided that the committee would pay the forest groups a set fee for collecting and contributing the leaves.

Due to the possibilities such as; no need to harvest but naturally growing and selling in high price, SBZCFUC plans to continue processing of fragrant wintergreen in coming days for the sustainable livelihood of its users.

Fragrant Wintergreen

Scientific Name : Gaultheria fragrantissim. Wall.

Nepali Name : Dhasingare

Sanskrit Name : Hemant Harit

Other Name : Patpate

English Name : Fragrant Wintergreen

Vegetation Family : Ericaceae

Growing Season : March-June

Natural Habitat : 1200 mt. to 2,500 mt. from eastern to western part of Nepal

Utilization : It is used for eatable goods, drink items, medicinal products.

Major Chemical Elements : It has scented oil on leaves which have vegetation chemical like Methyl salicylate.



Source: *Prioritized medicinal plant for Socio-Economic Development of Nepal, DoPR, 2006*

Birman in Nursery Enterprise

Birman Bulun started his nursery business 15 years ago. To date he has grown thousands of seedlings. Those days, the National forest used to be covered by rhododendron, pine tree, bamboo, lilac tree, neem tree that had been grown up from Birman. Today after handing over to the Community, Dhunge Amphepakha Buffer Zone Community Forest has been bloomed due to Birman's dedication and handwork only.

Lal Maya helps Birman run the nursery. Fifty two year old Lal Maya is Birman's wife. Sometimes, Birman and Lal Maya spend hours in the nursery looking after the seedlings and sometimes they work alone. "But it requires two hours of work every day," says Lal Maya.

Birman is the only person who has run a nursery in Dhunge village of Laharepauwa VDC. "The Department of Forestry (DoF) inspired me to start the nursery business," says Birman, who still recalls those moments vividly. He used to buy pine seeds and grow the trees in poly bags. Birman produced NR 10,000 worth of seedlings in a month. The DoF would buy the seedlings at one rupee per seedling. Birman notes. "In the beginning, I sold the nursery's output to the national forest." In this way, Birman's nursery industry flourished.

Introduction

Nursery Name : Bahuddeshya Dale Ghas

Operator: Birman Bulun

Address : Laharepauwa VDC

Affiliation : Dhunge Amphepakha Buffer
Zone Community Forest User Committee
(DABZCFUC)



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In 2008, Dhunge Amphepakha Buzzer Zone Community Forest Users Committee (DABZCFUC) decided to plant trees on the vacant land of the community's forest, and sought the help of LNPBZSP. A joint meeting between the Project, DABZCFUC and the user group was held to discuss the topic. "At the meeting we decided to build a nursery. I would grow 30,000 seedlings and then hand them over to the community forest," Birman remembers. It was agreed to plant the trees in the vacant land of the community forest first and give the remaining seedlings to the users later. Birman will get 50,000 rupees for this work. "The project has already given me 31,000 rupees and the remaining 19,000 will be given as the seedlings get transferred to the community forest," says Birman.

Collaborating with the project, Birman and Lal Maya are excited about their involvement in growing seedlings. In response to demand, Birman has planted seventeen different seeds and seedlings in the nursery. He collected the required seeds during visits to Rasuwa, Nuwakot and Kathmandu. He also collected seeds from the community forest and from his own farm. For others, he submitted an application to collect from the National Park. And some he bought from the village and market. The seedlings produced in Birman's nursery include bamboo, amriso, climbing trees (rai kanyu, koiralo, tango), different pine species (pine, rani pine, terai pine, gobre pine, khote pine), nimaro, utish, battar, paeu, ilac, lapsi and sajiban.



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"In May 2009 we started preparing the nursery. The production begins on August-September," Lal Maya recalls. Birman adds, "The sale will begin from June 2010." He aims to produce 40,000 seedlings. Among them he will sell 30,000 plants to the community forest and the rest he can sell however he wants. "I will sell the seedlings separately and the polybags with the bills."

There a number of different tasks required for nursery building, including digging clay, making steps, leveling the steps, collecting sand, mixing the clay, sand, potash, grained fertilizer and manure and putting it in the poly bags, scattering seeds, watering the seeds, and weeding. Birman cannot do it alone. "We both have an equal role in the business," says Lal Maya who has been assisting Birman with the business since the beginning.

Because he has expertise in the nursery business, Birman is well known in many places. Almost every week visitors come to Birman's house to meet him or to visit the nursery. "Sometimes people come from LNPBZ SP and BZAMC and sometimes from other offices and places," Birman says, smiling. He seems very happy and delighted to share his experiences and show off his work. People come from Hetauda, Pokhara and Kathmandu. Many of them even take photos of Birman and show it to people from different places, telling them about his work. Ashok Baniya, manager of LNPBZ SP, notes that the Project wants to support and promote an experienced and hardworking person like Birman.

The nursery business has greatly helped Birman and Lalmaya in managing their household. The demand for seedlings is growing everyday. "If we are able to keep producing like this, the future will be very bright," says Birman. The Bulun couple is thinking of continuing their nursery business if the demand of consumers continues to rise.

President of Dhunge Amphepakha Buffer Zone Community Forest User Group Gyan Bahadur Bulun notes about Birman's work, "In the past, this place was very dispirited and disheartening. As an expert in the nursery business, Birman brought greenery to this place. He served as a drinking water supply worker for twenty-two years. He also operated a watermill for six to seven years and worked as a forest guard in this area for twenty years."

Those days, the National forest used to be covered by rhododendron, pine tree, bamboo, lilac tree, neem tree that had been grown up from Birman. Today after handing over to the Community, Dhunge Amphepakha Buffer Zone Community Forest has been bloomed due to Birman's dedication and handwork only.

Good Governance Practices in Dhunge Amphepakha Buffer Zone Community Forest User Committee

In 2000, Chihan Dada Forest Area was handed over to the community declaring as Dhunge Amphepakha Community Forest. It became a part of the Langtang National Park Buffer Zone Area in 2002.

Among 18 VDCs of Rasuwa district and 11 community forest user groups in Laharepauwa VDC, Dhunge Amphepakha Buffer Zone Community Forest User Committee (DABZCFUC) is considered the best practitioner of good governance. DABZCFUC has built a school, sculpture (Buddhist Ghyang) cremation ground, road and beaten track under its leadership. In addition, it has also taken steps towards creating a better water supply and irrigation at the local level.

Name : Dhunge Amphepakha Buffer Zone
Community Forest User Committee
Address : Lahare Pauwa
Formation Date : 2000
Members : 13
Household : 75
Population : 400
Contact Person : Gyan Bahadur Bulun, Chairman
Phone : 9849339961

In the practice of good governance, the work, activities and decisions regarding public matters or concerns in DABZCFUC are participatory and inclusive. The public officials and responsible staff work



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WWF/Nepal/Asitok BANAYIA

responsibly and dutifully because they have committed to do so. There is a very trusting environment among them. Chairman Gyan Bahadur Bulun says that DABZCFUC is committed to good governance practices and its members are doing their best to keep them present in the committee.

In 2009, with the assistance of LNPBZ SP, DABZCFUC organized a public hearing, in which various stakeholders and local people not only actively participated but were able to seriously raise their concerns about DABZCFUC's performance. Committee members gave reasonable answers to questions, mainly about performance and resources, which were raised by the participants. "In the past, the committee's activities and achievements were publicized among its members during meetings, but the public hearing disseminated information about the committee's work to the mass public," says LNPBZ SP social mobilizer Sarita Thapa Magar. According to DABZCFUC chairman Gyan Bahadur, the public hearing is a significant effort by the committee to practice good governance.

Secretary of Laharepauwa Buffer Zone User Committee and a member of DABZCFUC Gamvir Man Lo say "Except for emergency, all the decisions are made in a joint meeting with the forest group users"

Social mobilizer Thapa offers an example of good governance applied in the DABZCFUC: "A forest inventory was carried out with the support

A forest inventory was carried out with the support of LNPBZ SP. There had been a dispute over encroachment of the community forest's land by one of its users. The committee chairman took a measurement through Amin and found that encroachment was taking place. The user later returned back 30 ropani of land to the DABZCFUC

of LNPBZ SP There had been a dispute over encroachment of the community forest's land by one of its users. The committee chairman took a measurement through Amin (who measures the land) and found that encroachment was taking place. The user later returned back 30 ropani of land to the DABZCFUC.

The following article describes the four most significant good governance practices applied by the DABZCFUC;

Participation	There is equal participation of members and users in decision-making process on cutting grasses, branches and collecting fuelwood as well as on common work. Decisions are made only through joint participation on rules regarding weeding, cutting branches, disposing of unnecessary bushes and cutting only grasses eaten by cattle. In addition, there is also equal participation of committee members and users in decisions about the selection and distribution of seedlings. This includes the participation of women, Dalits, and the economically disadvantaged.
Transparency	There is equal participation of users and committee members on decision-making on developing the budget. Because they are concerned about conservation, the users are kept updated on the committee's activities and expenses. A record is kept of all the activities. Minutes are recorded. Information about the cost of purchasing school land and expense related to nursery building and the construction of the cremation ground are updated regularly. The committee's bank account is at the Nepal Bank in Dhunche. LNPBZ SP has also given auditing training. Auditing is conducted regularly. Income expenses are updated. There is a practice have keeping records. Users have access to key information. The program budget is distributed to the users during committee meetings.
Accountability	The committee members have properly fulfilled their responsibilities. Users are not involved in grazing and poaching. All issues raised during a public hearing are settled. Committee members are accountable to the users. Information and issues received from trainings or programs are shared and disseminated in the meeting. Members are well aware of regulations and duties as laid forth in the work plan.
Trustworthiness	There is trust and agreement among the leadership and they work together efficiently. There is also a trustworthy environment among members and users. There is an environment in which work gets done. The relationship between the committee members and users are improved.

Sadhuram, an Instructor of Chiraito Production

Sadhuram's Chiraito nursery is not new. He started the nursery business in 1999. At that time, Conservation Officer of LNP Jhamak Karki gathered farmers from around the National Park and provided them with training aimed to reduce crop damage caused by wild animals. Sadhuram remembers the three-day long Chiraito training, noting that he bought 100 grams of Chiraito seeds at that time. Sadhuram had known about Chiraito however it didn't grow on his land. He was therefore excited to see Chiraito among the banmara (unwanted grass) on his farm while cutting grass for the cattle. Despite having little knowledge about Chiraito, Sadhuram was determined to grow it on his farm and went to Dabar Nepal's Kaverpalanchowk Nursery to get Chiraito seedlings. Dabar required fifty percent of the cost to be paid up front as a deposit and the rest to be paid after the Chiraito is produced. But it did not allow one to pay on credit. Therefore, Sadhuram returned home empty handed.

Sadhuram recalls that in 2000 there was a NGO called DPROS Nepal, which focused on farmer's participation in Chiraito harvesting. Sadhuram

Introduction

Name : Lokil Chiraito Production Group

Address : Laharepauwa VDC, Lokil

Formation Date : 2007

Members : 13

Contact Person : Sadhuram Poudel, Chairman

Phone : 9841083335



Anil ACHIKARI



Anil ADHIKARI

took twenty thousand seedlings from DPROS for Lokil. At the same time, Thulo Syaphru, Bhorle and Ramche also took twenty thousand seedlings. The seedlings flourished. All together, the villages sold 6 kg of Chiraito at NR 4,000 per kg. In addition, Chiraito stems were also sold. "After earning 20 thousand rupees, I was motivated to keep farming Chiraito," Sadhuram recalls.

In 2001, farmers in the area received Chiraito training from the Agriculture Forest Academy (AFA). The AFA gave out seeds at the training to use what they had learned. However, the seeds failed to grow into thriving plants. AFA called for another training. "But we boycotted the training, saying the trainings were not worth it because the seeds did not produce good plants even when one followed the instructions given in the training. We instead asked for an exposure visit to see successful Chiraito farming or for AFA to bring in a successful farmer whose seeds had produced good plants, says Sadhuram. Later, AFA brought Uttar Bahadur Lo of Daman Agriculture Farm to give a Chiraito farming training to 40 participants including twenty farmers and twenty from the forest office and the National Park. They also gave 100 grams of seeds free of cost. These seeds grew properly. "However, the forest office, National Park and some others were not successful in growing Chiraito with the seeds," Sadhuram recalls.

With about 5 years of knowledge related to Chiraito farming, Sadhuram had been an experienced practitioner. He used whatever he knew about the plant in his practice. He also shared with others what he had learned. In 2003 Sadhuram gave a week-long training to Lama Sinki of Thulo Syaphru and Dindoop Tamang of Brabal. In addition, in 2006, he also gave two-day Chiraito nursery training to the local farmers at Ramche. In 2007, Sadhuram traveled to Sindhuli district to give 7 days long Chiraito training. "Unknowingly and gradually, I had become a trainer," Sadhuram says. In 2009, Sadhuram gave Chiraito nursery training, supported by LNPBZ SP, to about 2 hundred farmers of Bhorle, Ramche, Samarthali and Lokil.

By 2007, Chiraito demand had increased. Two hundred to four hundred thousand plants were in demand but Sadhuram was not able to supply them. In 2007, LNPBZ SP suggested expanding production by forming a producers' group. So Sadhuram gathered local farmers and formed Lokil Chiraito Production Group (LCPG).

**In 2009,
Sadhuram gave
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Samarthali and
Lokil
supported by
LNPBZ SP .**



An agreement was made between LCPG and LNBPZ SP. The group continued their work with the goal of producing 700,000 plants in 3 years, as per the agreement. "I have invested in the group by taking a personal bank loan for this work," notes Sadhuram. The group has to repay Sadhuram's loan through the sale of Chiraito. LNBPZ SP gave NRs. 250,000 as a grant to support the nursery project. "We have to sell the product to farmers at a price that is fifty percent lower than the market price," says the group's treasurer, Durga Devkota.

The group members have not had to go in search of a market. "The Chiraito contractor picks the product up from the nursery," explains one of the LCPG members, Kamala Devkota.

Sadhuram and the other group members have been continuously selling Chiraito for the last three years that can be used to treat fevers and coughs. The members of LCPG explain that they plan to plant one million Chiraito plants in 2010 in various part of Rasuwa district, including Bhorle, Yarsa, Syaphru, Ramche, Samarthali and Dhunche.

According to the farmers, wild pig, deer and bear still come to the area. "Before, we had to put an obstacle in order to save the crops from the wildlife. But Chiraito tastes bitter so no animal eats it now. Boars won't touch it and deer won't eat it either. There is no way for there to be a conflict," says Treasurer Durga.

Chiraito

Scientific Name : Swertia chirayita (Roxb.ex fleming) karsten

Nepali Name : Chiraito

Sanskrit Name : Chirtikta, Kiratikra

Other Name : Charaito, Tite, tikta

English Name : Chireta

Vegetation Family : Gentianaaceae

Growing Season : April-May

Natural Habitat : It is found at cold and open space at 1200 mt to 3,000 mt. height of Himalaya region. It is found in 40 districts in Nepal.

Utilization : It is used in Aurvedic medicine made for wound and boil. It is also used in increasing taste. Besides, Chiraito is also used in producing beer in order to create bitter taste

Major Chemical Elements : Chiraratin, amarogentin, ophelic acid, chiratogenin and swertinin is found in Chiraito



Source: *Prioritized medicinal plant for Socio-economic Development of Nepal*, DoPR, 2006

Chiraito Production, means for Human-Wildlife Conflict Mitigation

"Before the establishment of the National Park, the people of Brabal village were dependent on the National Forest for their living. There was nothing except medicinal plants there. They were the only source of income. It took six days to carry a load of medicinal plants to Kathmandu. The plants would then be sold at Ason Bazaar," say Dindoop Tamang. "Every household used to have a loaded gun in the house. People would kill and eat wild animals. There was no law against killing them."

Dindoop, a 63 year-old Tamang man notes the above statement. He is the Chairperson of Norchumenki Gyalmo Chiraito Production Group (NGCPG) at Brabal of Syaphrubesi VDC.

Things have been changed in the area since the declaration of Langtang National Park. "All forest was added in the National Park, which meant that 24 houses could no longer access the forest's ecological resources. After that there was no way to pick medicinal plants," says Dindoop.

Introduction

Name : Norchumenki Gyalmo Chiraito

Production Group

Address : Brabal, Syaphrubesi VDC

Formation : 2009

Member : 17

Contact Person : Dindoop Tamang, Chairman

Phone No. : 9741186939



ANTI/ADHIKARI



WWF Nepal/Ashok BANJIA

Lokta (a kind of tree rind) collection used to be a good source of income, but now people know it is illegal so they have had to give that up as well.

Along with tourism, raising yak and sheep is a good source of income in Brabal. However harvest like wheat, potato and barley are damaged by the National park wild animals i.e., wild pig, monkey, bear, deer and porcupine. Dindoop recalls that in 2002/03, a local NGO provided training to the local farmers like Dindoop about harvesting Chiraito that would help reduce human-wildlife conflict. Dindoop says, "We learned from the training that Chiraito was profitable and would help boost local income. Not only that, but they also brought sample seedling from Banepa and distributed them during the training."

Chiraito takes 18 months to grow. Dindoop explains that in the beginning, farmers were worried about whether it would grow and whether or not it would sell. In 2005, along with other farmers of Brabal, Dindoop produced 50 to 60 kg Chiraito and sold it at Jadibuti and Ason Bazaar in Kathmandu for NR 100 per kg.

Around the same time, Agriculture Forest Academy (AFA) came to the district. It taught farmers to plant seedlings, grasses and medicinal plants and gave advice on the best ways to collect and fertilize Chiraito. AFA also gave free plastic, water sprayers and pipes for use in nurseries.

Of 24 houses in Brabal, 3 households built nurseries. Between 2004 and the beginning of 2009, Dindoop sold NR 85,000 worth of Chiraito. By that time, the price of Chiraito was raised to NR 400 per kg. In Nov 2009, households from Thulo Syaphru and Brabal sold NR 400,000 worth of Chiraito at Kalimati in Kathmandu. The price was rising every year.

Dindoop was producing Chiraito in a way that he could sell it every year. Responsible for looking after eight members of his family, he says that all of the income from Chiraito goes towards household expense. "I now know the market well. This time I'm planning to sell it at Rasuwagadhi," says Dindoop.

In 2009, LNPBZ SP advised Dindoop and other farmers to start Chiraito Nursery protecting the environment as well. On this advice, 17 user groups from all 9 wards of Syaphru VDC met and decided that NGCPG would build a shared nursery. "It was decided in the meeting that I would lead the nursery," says Dindoop.

LNPBZ SP Manager Ashok Baniya says that Chiraito is being promoted by the project as a means of reducing crop damage. "Because of its bitter taste, monkeys, wild pig and other animals do not eat it," notes Baniya.

In March 2009, an agreement was made between NGCPG and LNPBZ SP. According to that, the group will produce 700,000 Chiraito

"The forest can be preserved by planting wild medicinal plants like Chiraito in the local land. The wild animals will not eat it, so the local won't have to get angry with them. Of course, the process is very labor intensive. However, selling one kg gets 400 rupees. And there is a separate rate for twigs. Planting one kilo of seedlings covers the whole forest," Dindoop says.



LNPBZ SP / WWF Nepal

plants in three years. NGCPG prepared the tentative budget. NR 500,000 would be spent on building the nursery and buying fertilizer, piping and plastic in order to produce 7,000,000 plants. LNPBZ SP gave NR 260,000 in support. According to Dindoop, LNPBZ SP set the condition that the remaining amount should come from voluntary labor, contributed by all 17 user groups.

Based on the decision of the group, Dindoop has built the nursery on two ropani of land he owns. However, no workers have been arranged for the nursery. He will be compensated NR 5,000 per month and an additional NR 12,000 per year for the use of his land once production is completed, he says. His goal is to earn NR 1.4 million by producing 700,000 Chiraito in 3 years.

Dindoop has heard that Chiraito is used in 14 different medicines. "The forest can be preserved by planting wild medicinal plants like Chiraito in the local land. The wild animals will not eat it, so the local won't have to get angry with them. Of course, the process is very labor intensive. However, selling one kg gets 400 rupees. And there is a separate rate for twigs. Planting one kilo of seedlings covers the whole forest.", he says.

It is not easy to grow Chiraito. It requires the labor of one or two people on a daily basis. With the use of fertilizer, you have to pull weeds at least twenty times. "As an example and to raise awareness at the local level to promote Chiraito as a human-wildlife conflict reducing crop, we've joined together with LNPBZ SP," says Dindoop.

Considering the contribution in Conservation, LNP has recently awarded Dindoop from the Conservation Award on the occasion of the World Environment Day 2010. Dindoop seems positive to continue Chiraito Nursery in coming days.

Nepal Army in Conservation of Langtang National Park

The Polangpati area is a good habitat for the red panda. However, a few years ago, when there were many cowsheds in the area, the movement of shepherds was high. Poachers would sometimes travel to the area and kill pandas, using the excuse of bringing food to the shepherds. The shepherds' dogs were also a risk to the pandas. Because of these factors, the habitat for the red panda deteriorated.

Realizing this, the National Park tried to address the problem by asking the shepherds' to remove the cowsheds from the habitat area, but the shepherds did not comply. The army therefore intervened and helped to remove the cowsheds. Since that time, the Polangpati area has been restricted and the habitat for red pandas has improved.

The Shree Indrabox Battalion (SIB) has been assigned for the conservation of Langtang

Introduction

Name : Nepal Army

Starting in Conservation : 1973

Total numbers assigned in conservation : 6,800
(at 9 National Parks and 3 Wildlife Reserves)

Contact : Nepal Army Headquarter, Kathmandu
Phone : 4269624



LNPBZ SP / WWF Nepal

National Park (LNP) since 2008/09. It is headquartered in Dhunche, with ten different posts within LNP: Kalikasthan, Langtang, Ghodatabela, Thulo Syapru, Syaprubesi, Timure, Makechit, Urleni, Diksyia and Kyul (of Sindhupalchok District). In order to control the illegal poaching activities, the Nepal Army along with the national park's game scouts and the local-level anti-poaching group jointly patrol the park. Apart from this, Nepal Army regularly patrols within and outside the park.

According to Lieutenant Colonel Padam Singh Khatri of the Shree Indrabox Battalion, despite having limited communication equipment, housing and electricity, they are still working hard to conserve the national park.

According to one of the army personnel, in April 2009, SIB discovered 475 traps in Ghoratabela and Kenjing areas. Another personnel says that in Cuel, the local people were felling trees, arguing that it was under a guthi (trust) so they thought they were allowed to cut them down. SIB handed those caught cutting down trees over to the National Park office and they were fined NR 5,000.

However, in the hilly areas it is very difficult to arrange for shelter, food and transportation for the poachers before bringing them to the National Park Office in Dhunche' says that personnel. In the experience of Lieutenant Colonel Padam Singh Khatri of the SIB, despite having limited communication equipment, housing and electricity, they are still working hard to conserve the national park.

In 2009, the LNPBZ SP provided a two day conservation education training to 300 army personnel of Kalikasthan, Brabal and Syaphrubesi posts under SIB. Not only did they gain exposure to environmental conservation, but they also acquired technical knowledge relating to conservation. The project manager Ashok Baniya thinks that in coming years, the project will continually provide such trainings to army personnel in order to increase technical knowledge.

In the opinion of one army personnel, "the army is the backbone of the national park and if the army were removed from the area, conservation would be difficult to manage." SIB has been participating in the conservation activities being carried out by the national park office. In addition, SIB has been advising the hotels along the trekking route to minimize the use of bottled drinks.

Ghodatabela Post at 3800 metres

This post, with 39 army personnel, is located along the Syaprubesi-Langtang trekking route at the height of 3,800 meters. Ghodatabela post has been carrying out 4 days long patrol at Bambu, Sherpa Gaau and Chamki collaborating LNP Game Scout and local level anti poachind group. The post in-charge says that, "if we are informed of possible poaching activities, we search houses and cowsheds."

The post in-charge feels that the conservation cannot be done only by the army; the local people must come in front. The post in-charge says, "The biodiversity in this area are the biggest asset of local people." The feelings of ownership towards the national park have been raised in local people. In addition, people have started understanding that their business can be improved through conservation and it will support their livelihood.

The post in-charge notes that Ghodatabela post has been frequently meeting with hotel owners to insist to use of alternative energy rather than using fuelwood. According to him under the jurisdiction of SIB, 75 % hotel entrepreneur has started using biogas, gas cylinders, kerosene stove and cow dung as an alternative energy.

To support Ghodatabela post in conservation, LNPBZ SP has provided a solar home system to provide electricity. This system has helped to improve their ability to maintain communications.



LNPBZ SP / WWF Nepal

Game Scouts in Forest Inventory

In 2006, LNPBZ SP gave seven-day training on forest inventory focusing to 25 game scouts. The aim of the training was to enhance technical capabilities in Game Scouts regarding buffer zone community forests.

"The trained game scouts were then mobilized for the forest inventory. By 2009, forty community forests under the Langtang National Park Buffer Zone (LNPBZ) had been handed over to the communities," says Ashok Baniya, Manager of LNPBZ SP.

Game scout Keshabraj Bhetwal worked for LNP for seventeen years and was particularly involved in Buffer Zone community forests for 10 years. Currently working in Shivapuri Nagarjun National Park, Bhetwal is one of the qualified trainees of the inventory training. "Working with the forest Rangers, I was involved in developing the forest regulations and a work plan," Bhetwal says.

After the training, Bhetwal involved in inventory of four community forests in Inchowk, Kyul and Helambu VDCs of Sindhupalchok within the LNPBZ.

Introduction

Name : Langtang National Park

Area : 1710 Sq. Km.

District : Rasuwa, Nuwakot and Sindhupalchowk

Address : Headquarter, Dhunche

Key Species : Red Panda, Musk Deer, Snow

Leopard, Ghoral, Asami Monkey

Contact : 010 540 119





LNPBZ SP / WWF Nepal

The things like border survey, a division of the area into blocks, sampling of trees, a social survey, and collection of data of ethnicity and minority groups, and a description of wildlife in the area should be prepared during the forest inventory. In addition, the survey involves determining the opening date and time of the community forest and the time and methods of collecting and cutting the wood of fallen and dried trees. It also requires creating a proper plan for planting trees and building nurseries, and establishing a system of fines and punishment for cutting down trees without permission. The rules of the community forests should also include how benefits are to be distributed.

Game Scout Narayan Shrestha of LNP feels that the training helped in acquiring necessary technical knowledge about community forestry. Senior Game Scout Ramesh Basnet agrees that the technical knowledge of Game Scouts have been enlarged through the training. "They are able to inventorying the community forest and their experience and technical knowledge has bloomed," says Basnet.

Game Scout Rajkumar Ghale, participants of the training works at Ghoda Tabela post under LNP. He feels technically empowered through the training. "After the training, we were able to observe and record the slope angle and slope distance of the forest."

The things like border survey, a division of the area into blocks, sampling of trees, a social survey, and collection of data of ethnicity and minority groups, and a description of wildlife in the area should be prepared during the forest inventory

Game Scouts Share Their Conservation Experiences

"Nearly 200 people were cutting down trees in Langtang National Park. Only two of us were there. There was no way to run away. Then, I blew the whistle and shouted loudly, 'Sab samel (all gather)' People started running away thinking that the army had surrounded the area."

These are the words of Mukund Raj Bhetwal. He has been working for Langtang National Park for 21 years. "Presence of mind is very important when working on conservation," says Bhetwal.

Game scouts are field-based staff who are assigned to various posts in national parks and wildlife reserves, working for the protection of the environment and biodiversity. They have been monitoring and taking care of wild flora and fauna and patrolling against poaching and other illegal activities.

There are 48 game scouts based in 1700 square kilometers of Langtang National Park. They are assigned to both the park headquarters in Dhunche and at the park's 13 field posts.

While working on conservation, game scouts have had many different experiences.

"In 2058, smugglers were able to take one load of Loth Salla (pines) from Timure. We investigated it for fifteen days, and found out where it was being taken. Then, we caught them red handed in Timure," says Bhetwal.

Game Scout Suresh Sitaula has had a different experience, noting that, "In addition to monitoring and controlling wildlife poaching, game scouts have also motivated local users in the Buffer Zone, educated people about forest resources, stitched trees, and monitored whether the Buffer Zone revenues were used properly or not."

Sitaula shares another experience of working against the poaching of wildlife: "In 2066 Bhedra, I was working at the Ghodabela post. One day, I was walking alone in the Kyanjing jungle of Langtang carrying only a khukuri. In eight hours, I disarmed 150 traps that were set to catch musk deer. I was prepared for retaliation from

In order to help the game scouts in their technical work, LNPBZ SP has provided equipment including, tents, blankets, bags, sleeping bags, etc.

the poachers. The next day I brought along a senior game scout. For the first time in my life, I saw a musk deer hanging dead in a trap. It was an important operation against poaching for Langtang National Park. The former warden, Binod Regmi, rewarded me with 1,000 rupees for my work. This put me in good spirits."

The game scouts of Langtang National Park are not only active in the protection of biodiversity but are also knowledgeable and experienced in the area of wildlife.

"Snow leopards can be found at Langsis, Ganjala and Digyapsa. Mountain deer (jharal) are found in Ghoda Tabela, Langtang and Chamoi. Similarly, Assami monkeys can be found between Syaphru and Ramche and between Syaphru and Timure," says Game Scout Tempa Tsering of the Syaphrubesi post, adding, "Ghoral can be found at Bambu and Langtang, and Naur are found in the Timure mountains. A kind of vegetation known as Padamchali is found at Cholangpati and Gosaikunda while Yarchagumba can be found in the Kyanjing area."

DDC Participates in Conservation Initiative

There are two Cheese factories of DDC in Langtang National Park. One is Kenjing Gumba Cheese Factory opened up in 1952 and another is Chandanbari Cheese Factory established during 1969.

According to Dr. Iswor Raj Adhikari, Project Manager of DDC, Swiss Geologist Dr. Tony Hegen had reached at the Kenjing valley of Langtang in 1951 while he experienced yaks grazing at the green pastureland of Kenjing, mountain people were making cheese and ghee and having scarcity of proper income and market for selling the products. Later DDC opened up Kenjinggumba Cheese factory with the Swiss technical support. "Due to the historical value, DDC is still running this factory also considering livelihood concern of the local people in this area"

Introduction

Name : Dairy Development Corporation

Establishment: 1967 (Formally)

Working Area: 40 Districts

Number of Staffs : 1050

Number of Cheese Factories: 6 (Langtang & Kenjing in Rasuwa, Thodung & Cama in Ramechhap, Pike in Solukhumbu and Chordung in Dolakha.)

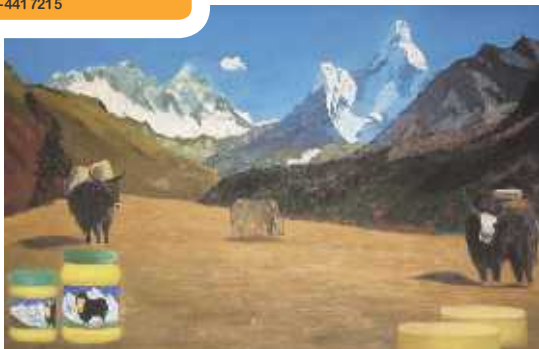
Address: Central Office, Lainchor, Kathmandu

Contact Person: Dr. Iswori Pd. Adhikari

Phone Number : 977-1-4417215

These factories produce 35,000 tons of cheese, valued at NR 24.5 million every year. In addition, the factories also produce 10,000 kilos of ghee, valued at NR 400,000, each year.

The production of these products requires 350,000 kilos of rhododendron, pine and khasu wood. Additional fuelwood is used for factories' employees for utilities.



For the purposes of milk production, 50 yak sheds are kept at Gatlang, outside Langtang National Park, while 140 sheds are set aside at Chandbari within the National Park. In total, there are 1100 yaks in 190 sheds.

"The natural resources have been exploited for a long time," says former Chief Conservation Officer of LNP, Ram Chandra Kanel. According to him, the numerous sheds owned by the DCC occupy the habitat of the red panda. The sheds have a negative impact on the ecological cycle as well. Whether the shepherds or factories are aware or not, poachers are using the sheds as a pretext for being in the park.

"What sort of impact does it have when 1,100 hundred yaks graze over the rare red panda's habitat? What impact does it have on biodiversity if it uses up hundreds of thousands of tons of fuelwood every year?" asks Kanel.

There is a time and place for animals to mate. There are places for wildlife to take shelter and hide. There are places for animals to drink and to relieve themselves. But because of the uncontrolled and unnecessary movement of yaks and shepherds, those times and places are being greatly disturbed.

Even today one can see the remains of the forest fire that took place at Chandanbari in 1963. "You can still see 50 hectares of hill that have little forest cover. There are only thorny and inedible species there," says Kanel.

Just as it had in the past, DDC approached LNP, asking for fuelwood for its cheese factories. "This time, LNP did not give permission to DDC, saying that the army, police and local people have all worked to reduce the use of fuelwood so there are no other options except to find alternative energy sources," says LNP assistant conservation officer Tikaram Poudel.

Due to these circumstances, an effort has been carried out few months back. A workshop held in 2009 and various stakeholders including DDC, LNP, DDC, local NGOs, LNPBZ SP, the media, farmers and shepherds participated the workshop. The workshop aimed to draw attention to the issues mentioned above. The workshop was technically and financially supported by LNPBZ SP.

DDC has recently handed over NRs.1 Lakh 20 Thousand to LNP in order to agree to contribute five percent of its total annual earnings from cheese factories to the conservation of Langtang National Park.

During the Workshop, DDC had shown a commitment to increasing its buying price of milk, reducing its use of fuelwood if possible by using bio-briquettes, and organizing workshops for yak owners and farmers to raise awareness about the issue of the red pandas' habitat. Additionally, DDC had agreed to contribute 5 percent of its total annual earnings from cheese factories to the conservation of LNP. As per the commitment, DDC has recently taken initiatives by handing over 1 Lakh 20 thousand rupees to LNP in order to carry out plantation at Singumpa of Chandanbari. LNP has taken this step positively



Photo DDC

Kalika Eco Club in Environment Conservation

The members of Kalika Eco Club feel that true environmental conservation work can only be done by participating in groups like their own. "The Eco Club can be an inspiration to everyone," says eighth-grader Sanjeev Lamichhane, "because whatever we learn from the Eco Club we disseminate the information to others through campaign."

One day, twelve-year-old Sanjeev and the other Eco Club members approached their parents to support some local-level sanitation activities the Club was involved in. The parents then shared this request in a meeting of the local Cooperative, Kalika Bahu Udhyesya. Then since June 2009, the Cooperative has been executing clearing campaign in Kalikasthan area collaborating with Eco Club. "One member should come from each household [for the sanitation

Introduction

Name : Kalika Eco Club
School : Kalika Higher Secondary School
Address : Dhaibung VDC, Kalikasthan
Club Formation Date : June 2007
Number of Mngt. Committee : 13
General Members : 500 from Grades 6 to 9
Contact Person : Sarswoti Acharya, Eco Teacher



Anil ADHIKARI

activities]. If a household neglects or do not provides a representative, it is fined 50 rupees," explains Sanjeev.

Seventh-grader Sarada Dhital says she has seen great improvements in environmental conservation after the formation of Kalika Eco Club. Sarada notes, "The people who live near the jungle used to not have a sewage tank, and pipes would be untied. But in 2009, we, through the Eco Club, met with the local people and told them that this was wrong, and sewage should not be disposed of in an open place." Another member of the club, Srijana Devkota says that the Red Cross helped to build a sewage tank in a few of the houses in the area. After this, people began to realize that good sanitation was connected with environmental conservation and started building more sewage tanks. The club credits themselves with this success.

"Since the formation of the Eco Club in Kalika Himalaya Higher Secondary School, many changes have been seen in the area," says the coordinator of the Eco Club, Saraswati Acharya. "Now good sanitation practices in the school are mandatory." As per her, the extracurricular activities like quizzes, speech contests and football help students develop as individuals. Besides, students are aware of which kinds of waste are environmentally friendly and which are not.

Teachers have also started to be involved in sanitation activities. The students have started disseminating information about sanitation



L/NP/2 SP/WWW/Nepal

and environmental conservation in the community through the Eco Club. Kalika Eco Club has collaborated with LNPBZ SP for executing environment activities at local level. Recently, LNPBZ SP has agreed to support Kalika Eco Club for planting 50 seedlings of amriso, dhupi and saal within the school compound on the occasion of World Environment Day 2010. Coordinator Acharya confidently says that they will raise the plants at any rate. In Acharya's experience, once someone is a member of the Club, they begin to feel a sense of responsibility for environmental conservation. "At the very least, they don't do things that damage the environment," she says.

The School administration provided an office space to Kalika Eco Club in order to help in institutionalizing the environment conservation activities. They also provided office equipment that has helped them to organize regular meetings and work more efficiently. The LNPBZ SP, which regularly monitors the club's activities, introduced such Clubs in Rasuwa district beginning on June 2007. Currently in Rasuwa, 10 Eco Clubs have been formed and mobilized under the Eco Club District Network, initiated by the LNPBZ SP. WWF has 463 Clubs throughout the country.

With the help of LNPBZ SP, the Eco Clubs of Rasuwa have the opportunity to visit other districts to see best practices in environmental conservation. In 2009, the Eco Clubs participated in a National Conference for Eco Clubs in Chitwan. The conference is a good platform for sharing information between different conservation stakeholders.

The Eco Club District Network and the Eco Clubs within this region jointly organize the sanitation management work during the Gosaikunda festival. LNPBZ SP is financially supporting such event.

LNPBZ SP introduced Eco Club in Rasuwa district beginning in 2007. Currently 10 eco clubs have been formed and mobilized under the Eco Club District Network. WWF has 463 clubs throughout the country.

Studying and being in the club at the same time

Prakriti Kafle studies in the ninth grade in Kalika Himalaya Higher Secondary School. She is the former treasurer of Kalika Eco Club. While in the Eco Club, she was involved in various activities including exposure visits, quiz contests, planting trees, interaction programs and sanitation activities. At the same time, she was also a full-time student. Due to her hard work, she has become a source of inspiration for other students and greatly appreciated

by her teachers. Coordinator of the Eco Club Saraswati Acharya says that, "Prakriti sends the message to students that if they are committed, they can be involved in environmental conservation activities and be good students at the same time."

Prakriti says her experience in the Eco Club, she learned that, "Environment should be preserved. We have to work together and that will be only successful." She continues, "I learned how we can benefit from the environment and the kinds of methods that are effective in protecting the environment. Most importantly, in the past, I only knew about the environment by reading in books, but by being involved in the Eco Club, I was able to gain practical experience."

After becoming a member of the Eco Club, she participated in environmental conservation training. She visited Chitwan and Bardiya National Parks and was able to observe animal behavior. She also interacted with the Eco Clubs there and tried to bring the good practices she saw there back to her own Eco Club. She says, "The club in Bardiya made souvenir goods from used plastic items. I'm trying to bring the same idea to my club." In Chitwan, Prakriti found that students had posted information about wildlife and ideas about conservation at Eco Club office. "Over the next year, I will collect the students' ideas about conservation and try to apply them in our club."



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Annex

- **Sacred Himalayan Landscape (SHL)**
- **Langtang National Park (LNP)**
- **Langtang National Park and Buffer Zone Support Project (LNPBZ SP)**

Sacred Himalayan Landscape (SHL)

Presupposition

The Sacred Himalayan Landscape presupposes to conserve biodiversity and cultural heritage of the tallest sacred mountains and the deepest valleys along with enhancing livelihood of the local people by securing their traditional rights.

Mission

The Sacred Himalaya Landscape (SHL) Program aims to conserve biodiversity and diverse culture and tradition of eastern Himalaya region by enhancing livelihood means.

SHL Region

Nepal, India and Bhutan has been included in Sacred Himalaya Landscape (SHL) Program. The total coverage of SHL is 39,021 Sq.Km.

SHL has spread out from Langtang National Park (LNP) of Nepal to Tursa Nature Reserve of Bhutan through Kanchanjanga Conservation Area of Sikkim and Darjelling of India.

SHL Region in Nepal

The following districts are incorporated in the SHL program; Rasuwa, Nuwakot, Kabhrepalanchowk, Sindhupalchowk, Dolakha, Ramechhap, Solukhumbu, Okhaldhunga, Sindhuli, Udaypur, Bhojpur, Khotang, Tehrathum, Dhankutta, Sankhuwasabha, Panchthar and Ilam.



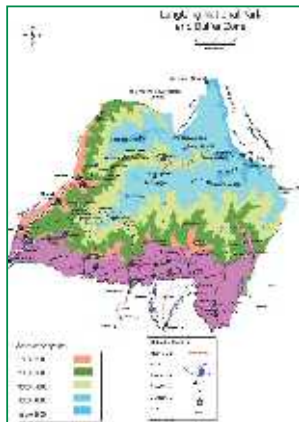
Source: WWF Nepal

Langtang National Park (LNP)

The Langtang National Park (LNP) aimed to establish in 1976 to biodiversity conservation of mid-Himalaya Region. LNP has an area of 1710 Sq.Km. area is best known for its pristine forests, high-elevation meadows of wild sheep, Tibetan-like culture and lovely mountain views. It includes 21 VDCs of 3 districts of Bagmati region namely; Rasuwa, Nuwakot and Sindhupalchowk. In 1998, the Buffer Zone (420 Sq.Km.) has been declared under Langtang National Park whereas Buffer Zone Management Council, Buffer Zone Management Committees and Users Committees are in use.

Plant communities in Langtang extend from upper tropical forest to regions of alpine scrub with perennial snow. Langtang National Park abounds in numerous vegetation types. This region is also an important route for migrating birds. Some of the best examples of graded climate conditions in the central Himalaya are found here. The variations in altitude and topography along with the existing forest cover provide habitat for a wide range of animals including wild dog, red panda, musk deer, Himalayan black bear, Himalayan thar, ghoral, serow, rhesus monkey and common langur.

LNP is rich with socio-cultural and traditional perspective. Tamang, Yelmu and Bhotia are the prime resident caste in this area whereas Brahman, Chhetri, Newar and Gurung also resides. Agriculture, livestock and somehow tourism enterprise are the main sources of living in this area. Langtang valley, Helambu and Gosakunda are the significant places in LNP to visit.



Source: DNPWC

Langtang National Park and Buffer Zone Area Support Project (LNPBZ SP)

Mission

Preserving water resources, forests, wildlife and land under Langtang National Park through integrated management, Langtang National Park and Buffer Zone Area Support Project (LNPBZ SP) aims to enhance livelihood opportunities for local people, and conserve diversity of cultural and tradition.

Objectives

Conservation, management and restoration of mountain pastureland and shattered forest areas ;

Forest inventory based on earth-communication system;

Increase economic status of people under Langtang National Park, through income generation activities based on forest and non-timber forest production.

Increase awareness in local communities in order to positive change in conservation behavior and attitude.

Major Programmes

Forest Conservation and Management

Species Conservation

Livelihood and Sustainable Community Development

Education and Capacity Building

Communication/Mass Publicity/Promotion.

