

FINAL UPDATE

ONE DAY ONE TREE IN

LANGTANG NATIONAL PARK AND BUFFER ZONE

RASUWA DISTRICT, NEPAL



REPORT SUBMITTED BY

THE PARTNERS NEAPAL

DECEMBER 2024

T H E P A R T N E R S N E P A L



1. INTRODUCTION

The Partners Nepal (TPN) is pleased to present this final update report for the year 2020-2024 to reputable donor agencies, including Hauser Exkursionen. This progress report summarises the results of four years of reforestation initiatives in Langtang, as well as successful replications of reforestation projects in Sagarmatha National Park and the Buffer Zone. This One Day One Tree was founded in Langtang in order to overcome local obstacles. Manfred Haupel, the owner and founder of Hauser Exkursionen, expressed a strong interest in supporting this initiative in Langtang in 2018.

Significant progress has been achieved towards the conservation and restoration of alpine ecosystems in Langtang National Park and its buffer zone, thanks to a possible seed grant from Hauser Exkursionen, Nepal Hilfe-Tirol, and a number of individuals.

2. PROJECT LOCATION

The Langtang Valley is located 35 kilometres north of Kathmandu, Nepal's capital city, in the Rasuwa District. It was designated as Nepal's second National Park in 1976, and the first in the Himalayan area, including 1710 square kilometres of rugged terrain ranging in elevation from 2500 to 7200 metres. The Langtang Valley was named a National Park in 1976 due to its unique natural and cultural features, and it has

been cared for by His Majesty's Government of Nepal ever since.

It was Nepal's second national

park, but the first in the mountains. The proposed project area is in the Langtang Valley of the Gosainkunda Rural Municipality, Rasuwa district, north of Kathmandu. The Gosainkunda Rural Municipality encompasses 978.77 square kilometres and has a population of 7,143.



3. CHALLENGES

One of the biggest challenges facing Nepal's Langtang region is open grazing of livestock and increased use of fuelwood by lodges and hotels, which has resulted in the rapid conversion of alpine meadows and forests into scrublands. This problem has been exacerbated by the inflow of visitors in recent years, with local farmers extending into alpine locations such as Kyanjin Valley to run lodges and hotels for profit.

As part of efforts to address this issue, owners of lodges and teashops in the Langtang Valley have been questioned about their operations in the area, particularly the sort of fuelwood they use for cooking and heating. Prior to the rise of tourism in Nepal, forest resources, particularly fuelwood, were mostly used for basic requirements such as heating, cooking, and the construction of rudimentary dwellings to resist the country's harsh weather. Climate change threatens the lives and livelihoods of the Tamang ethnic people, who are primarily destitute, disadvantaged, and marginalised. Climate change is one of the most important issues of our day, affecting everyone, but especially the poor and vulnerable.



4. HAUSER EXKURSIONEN'S SUPPORT

With generous financial seed support from Hauser Exkursionen, The Partners Nepal (TPN) launched a reofestation initiative with Langtang residents from 2020 to 2024 to conserve and restore fragile alpine ecosystems in Kyanjin Valley, the last settlement within Langtang National Park and Buffer Zone. These ecosystems face major challenges as a result of climate change, global warming, and park tourism activities.

TPN established a reforestation initiative in Langtang as a replicable model, following the success of similar programs in **Sagarmatha National Park and the Buffer Zone** in Solukhumbu District, which were supported by a variety of sponsors, including Hauser Exkursionen. This initiative combines indigenous knowledge, gender justice, and a mix of scientific and spiritual approaches to promote sustainable mountain livelihoods and community resilience.

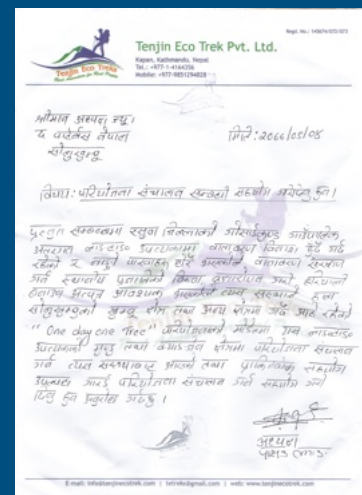


The project, which aligns with the cultural and spiritual values of the Tamang people, actively involves local stakeholders, including lodge owners, eco-trek operators, and residents, in planting trees on degraded lands. The focus is on reforesting deforested, deteriorated, and ecologically sensitive areas, directly contributing to Langtang National Park's long-term conservation goals and the Buffer Zone.

The **One Day, One Tree** project is consistent with the park's objective to "improve the environment of the park and buffer zone, preserving all living organisms, land, water, and atmosphere." This collaborative effort not only helps to restore biodiversity, but it also strengthens the Langtang region's cultural and ecological integrity.

5. ONE DAY ONE TREE PROJECT IN LANGTANG

The Partners Nepal and Tenjin Eco-Treks launched the One Day One Tree project in 2020 to protect and restore Langtang Valley's endangered alpine ecosystems. One Day One Tree encourages reforestation and conservation. The project encourages frequent tree planting in homes, companies, and schools. One Day One Tree encourages people to plant one tree per day to help make the planet a greener and healthier place. The concept has gained popularity as people become more worried about environmental degradation and climate change. Growing trees provides numerous benefits. Trees help to reduce greenhouse gas emissions by absorbing CO2 and emitting oxygen. Trees regulate the water cycle by absorbing and filtering rainwater, which reduces flooding and erosion.



The Langtang initiative has two components: the establishment of a tree nursery and the promotion of native willow plantings. Villagers, particularly women, run a nursery in Mundu that grows native species such as juniper, birch, rhododendron, and fir. By June 2024, 3,000 seedlings had been planted in a 50x50m enclosure in Kyanjin village (3,800 meters). This initiative promotes conservation, encourages reforestation, and teaches hikers about climate change, with financing from the various donor agencies to facilitate expansion.

The second component consists of planting native willows, which do not require nursery germination, to stabilise degraded slopes. In June 2023, villagers and volunteers planted 1,500 willows on steep damaged regions to promote community involvement and ecological rehabilitation.

5.1 LANGTANG PROJECT LAUNCH FEASIBILITY STUDY

Ang Rita Sherpa, Bheem Raj Rai, and Pasang Tamang from The Partners Nepal and Tenjing Eco-Treks visited Langtang National Park from December 14-19, 2021, to replicate TPN's One Day One Tree initiative in Sagarmatha National Park and Buffer Zone.



5.2 ONE DAY ONE TREE NURSERY ESTABLISHED IN MUNDU

Following the signing of a Memorandum of Understanding (MOU) with Tenjing Eco-Treks, our local partner for this forestry program in Langtang, the nursery was created at 3600m in Mundu, Langtang village. Gabion wires, angle poles, cables, ground labelling, a gate, nursery-producing beds, and a greenhouse were all installed at the nursery site in 2021. Mr. Min Bahadur Rai had been hired by The Partners Nepal to train Nike and the community. For a week, Mr. Rai showed them how to sow seeds, collect fertiliser, make beds, and set up irrigation systems in Mundu. Nike, another Mundu villager, runs the nursery. Despite COVID and lockdown conditions around the country, the Mundu Nursery has achieved significant progress. The plants had sprouted prior to being placed in polythene bags.



5.3 GREENHOUSE CONSTRUCTION

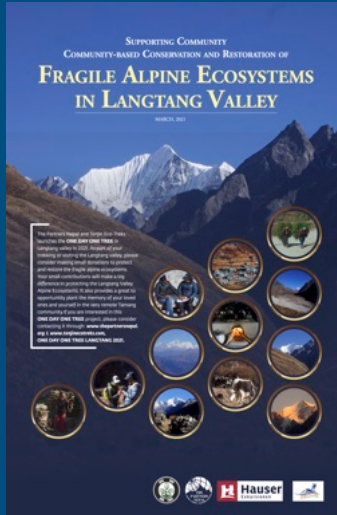
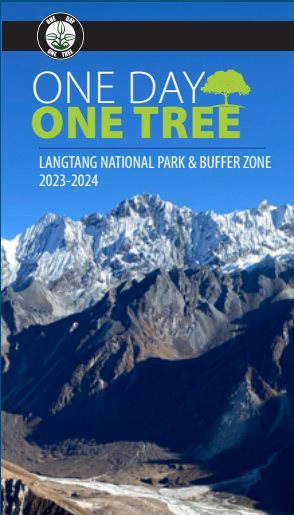
To enhance the nursery establishment, a 3m x 6m greenhouse is advised. The greenhouse protects crops from high temperatures, pests, and snowfall, providing an ideal environment for seed germination and promoting quick seedling growth. It protects delicate shoots and allows for the growing of specific plant kinds in tough conditions. The greenhouse frame is constructed of galvanised iron (GI) pipes and covered with long-lasting white plastic sheets. Materials are obtained from Trishuli Bazar, transferred to Shyabrubesi, then transported to Mundu in Langtang village by porters or mules.



5.4 AN EDUCATIONAL POSTER WAS PRODUCED AND PUBLISHED

Tenjin Eco-Treks and The Partners Nepal worked together to distribute booklets and banners in support of the ONE DAY, ONE TREE campaign. A 500-piece 2x3-foot poster was printed and distributed near lodges, tea stores, motels, key tourist attractions, and the national park. These posters aim to educate, create awareness, and solicit donations for the ongoing ONE DAY, ONE TREE campaign.

The supplies were distributed across Kyanjin Village and Sherpa Goan Lodges. Posters were hung on the available wall space, and pamphlets and caps were sent to each lodge, each with an explanation. For one day, everyone who got a brochure, poster, or tree cap expressed their appreciation for our efforts to restore and maintain fragile alpine ecosystems.



5.5 ENCLOSURE CONSTRUCTION 50X50 IN KYANJIN

The Partners Nepal and Tenjin Eco-Treks worked in Kyanjin Valley to build a 50x50 metre enclosure. In reforestation, enclosure is defined as fencing or physically surrounding a portion of land to protect it from external disturbances like as animal grazing or human activity such as logging and cultivation. Enclosure is critical to the success of reforestation initiatives because it creates a safe and controlled habitat for trees to grow and rejuvenate. Restoring damaged or deforested land to healthy, productive ecosystems is critical.

An enclosure was built during the tree seeding process using gabion wires, angle poles, and cables. It keeps livestock from entering sowing zones, improving their chances of survival. Enclosures also help to re-establish ground cover, such as forests and grasslands. Gabion, angle poles, and cables were brought by road and helicopter from Kathmandu to the Kyanjin Valley reforestation site. Fencing prices are rising due to high inflation and unseasonably bad weather.





5.6 WILLOW PLANTING WITHIN THE ENCLOSURE

We decided for planting willow trees, a native, fast-growing, and locally available species, in the enclosures while the seedlings grew at the Mundu nursery. This tree willow matures to around two feet in three to four months, depending on the habitat and altitude. Approximately 80% of the willows planted within the enclosure have thrived, helping to stabilise the soil and prevent future erosion. Willow trees have a huge environmental influence, supporting both natural ecosystems and human societies in a variety of ways.





5.7 WILLOW TREE INSIDE IRRIGATION ENCLOSURE

We built an irrigation technique for willow plantings based on local knowledge. Willows, a fast-growing natural plant, need lots of water early on. Irrigation provides enough water for strong roots. Willows need regular irrigation but are drought-resistant. Irrigation keeps plants strong during droughts. Willow farms develop faster with irrigation. Commercial plantings must grow quickly to harvest faster.





5.8 MEETING WITH THE LODGE OPERATORS IN KYANJIN VILLAGE

During our 2021 visit to Langtang, we updated the Kyanjin tourism industry and local community on efforts to restore fragile alpine ecosystems. Residents participated in an interactive program to encourage their involvement in conservation. Meetings with lodge operators highlighted the importance of reducing grazing and deforestation, fostering a sense of responsibility for ecosystem preservation.

The community appreciated these efforts and received materials on climate change, including brochures and a manual. The Partners Nepal and Tenjing Eco-Treks emphasized that community-led resource management aids grassland recovery and reduces fuelwood use, supporting sustainable conservation in the region.



5.9 SUPPORTING THE YAK HERDERS IN CONSERVATION

Livestock is vital to Langtang National Park's economy and culture but threatens its fragile alpine ecosystems through overgrazing. Yaks, sheep, goats, and cattle deplete pastureland, reduce biodiversity, destabilize soils, and endanger species like Himalayan tahrs and musk deer. Additionally, methane emissions from livestock harm glaciers and vegetation. To address these issues, The Partners Nepal and Langtang Valley collaborate with herders to implement sustainable grazing practices. These include rotating livestock to allow pasture recovery, restricting overgrazing in certain areas, promoting native plant growth, and monitoring ecosystems. Engaging local communities ensures sustainable management, protecting both cattle and the environment.



Promoting sustainable grazing and alternative livelihoods reduces reliance on livestock and diversifies income. Educating herders on ecological practices preserves vegetation, while providing weatherproof gear enhances their efficiency and quality of life. These initiatives boost community engagement, productivity, and health, ensuring effective pasture management and ecosystem sustainability.





Yak herders in Kyanjin Valley provide dung to the One Day One Tree enclosure in exchange for support. They pledge to supply dung each June before leaving for pastures and each September upon their return annually.

6.0 EXTENSION OF 50X50 METER ENCLOSURE IN KYANJIN

In 2024, The Partners Nepal and Tenjing Eco-Treks had expanded 50×50-meter enclosures in landslide-prone Kyanjin Valley. Building on the successful 2022 project by Hauser Exkursionen and Nepal Hilfe-Tirol, this reforestation effort combats deforestation and biodiversity loss. The enclosures protect tree growth by limiting human activities, ensuring effective ecosystem restoration and sustainable development.



Enclosures promote healthy tree growth, reduce invasive species, and restore ecosystems damaged by overgrazing and deforestation. Planting native species like juniper, fir, birch, and rhododendron also enhances soil stability.

To rebuild the 50×50-meter enclosure in Kyanjin Village at 4,000 m, Partners Nepal and Tenjing Eco-Treks sourced materials in Kathmandu and

transported them to Kyanjin using local jeeps and porters, ensuring timely construction.



6.1 PLANTING NATIVE TREES

After three years of seed germination in the Mundu nursery and greenhouse, we have planted approximately 3,000 native trees within two 50×50-meter enclosures. The first enclosure was constructed in 2022, and the second was built in March 2024. Native species planted include juniper, fir, birch, rhododendron, and willow. In the first enclosure, around 1,100 native willow trees were planted on June 5, 2024, coinciding with World Environment Day. Local Lamas, women's groups, residents of Kyanjin, and members of Tenjing Eco-Treks successfully participated in the tree planting program at Kyanjin (4,000 meters).





In June 2024, the Langtang community planted 3,000 native trees at the One Day One Tree enclosure in Kyanjin Valley. Participants included local religious members, women's groups, Buffer Zone Users Committee members, and park staff.

6.2 STAKEHOLDER MEETINGS

As part of our "One Day One Tree" project in Langtang, it is essential to engage stakeholders, including local communities, government agencies, NGOs, businesses, researchers, and donors, who have vested interests in conservation for economic, environmental, social, or cultural reasons.

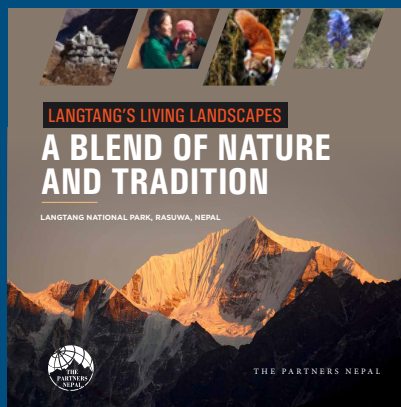
Local communities contribute valuable knowledge about the ecosystem and traditional practices, enhancing project outcomes and ensuring cultural appropriateness. Their active participation is crucial for sustainability, fostering shared responsibility and effective maintenance of conserved areas. Engaging stakeholders helps identify and resolve conflicts early, facilitates smoother project implementation, and promotes public support through awareness and education. Regular communication ensures transparency and the sharing of best practices, while stakeholders provide the necessary resources, knowledge, and support to make conservation initiatives effective and widely accepted.





Materials provided include brochures, posters, and a manual on climate change, with a forthcoming handbook featuring Langtang Valley case studies. According to Partners Nepal and Tenjing Eco-Treks, involving local communities in governance and restoration enhances the recovery of high-altitude grasslands and reduces fuelwood demand.

7. THE PARTNERS NEPAL PUBLISHED HANDBOOK ON CLIMATE CHANGE AND THE NATIONAL PARK AND BUFFER ZONE FOR LANGTANG NATIONAL PARK



As part of the One Day One Tree initiative in Langtang, Partners Nepal has published handbooks covering climate change, historical background, climatic conditions,

cultural aspects, flora, wildlife, and the spiritual significance of Langtang National Park and its buffer zone. The handbooks also address challenges such as expanding tourism, uncontrolled cattle grazing, and the impacts of climate change, offering local solutions.

The Partners Nepal will distribute these handbooks along trekking routes from Dhunche, the gateway to Langtang Valley, to Kyanjin Valley, the last settlement within the park and buffer zone. Available at all lodges and hotels, the books provide tourists, guides, and porters with valuable information to implement the recommendations and support conservation efforts.

8. PROJECT IMPACTS

The Partners Nepal, supported by donors like Hauser Exkursionen, has led reforestation efforts in Langtang National Park and its buffer zone to restore fragile alpine ecosystems, combat environmental degradation, and conserve native tree species vital for biodiversity and local livelihoods.

The One Day One Tree project blends science and spirituality, engaging Tamang communities, tourists, government agencies, and donors to restore alpine and sub-alpine areas. Community tree planting provides jobs, reduces soil erosion, creates wildlife habitats, and enhances carbon sequestration, supporting climate change mitigation and forest conservation.

Additionally, the initiative preserves sacred sites, conserves water resources, regenerates high-altitude grasslands and pastures, and reduces fuelwood use. By empowering locals and improving natural resource management, the project showcases Nepal's leadership in community-based conservation.

1. Restoration of Native Species

A key impact of the reforestation project is the successful reintroduction of native tree species—juniper, fir, birch, and rhododendron—in critical areas like Kyanjin Valley. By establishing a high-altitude nursery in Mundu, Partners Nepal cultivates resilient seedlings in controlled environments, essential for regions affected by long-term deforestation from livestock grazing pressures.

2. Erosion Control and Habitat Restoration

The 50×50-meter enclosures protect saplings from livestock grazing and create microclimates that reduce wind and water erosion. These measures stabilize soil, prevent climate-induced landslides, and support natural forest regeneration. By restoring critical habitats, the project enhances biodiversity and promotes ecosystem resilience.

3. Community Involvement and Sustainable Livelihoods

The project actively engages local communities, including Buffer Zone Users Committees and traditional forest management groups, fostering ownership and sustainability. By employing locals for nursery management, seedling collection, and planting, it supports livelihoods and strengthens community involvement in conservation efforts.

4. Climate Change Mitigation and Environmental Awareness

The project has increased awareness of climate change and its impact on the Himalayan ecosystem by distributing climate change handbooks to schools in Langtang Valley and surrounding areas. Reforestation efforts enhance carbon sequestration, mitigating global warming. Partners Nepal's ongoing initiatives are vital for preserving the natural beauty and ecological balance of Langtang National Park and its buffer zone.

9. PROGRAM SUCCESS AND CONSERVATION EFFORTS IN LANGTANG NATIONAL PARK

The Partners Nepal has achieved success through the dedication, teamwork, and expertise of its partner organizations in restoring Langtang National Park's fragile alpine ecosystems over the past two decades. With extensive experience in Nepal's forestry and reforestation efforts, TPN addresses the increased tourism and environmental degradation in Langtang Valley since the 2015 earthquake. Key challenges include unregulated tourism, excessive grazing, unsustainable fuelwood harvesting, inadequate conservation practices, and climate change.

TPN's comprehensive conservation initiatives focus on:

1. **Educating and Assisting Yak Herders:** Implementing sustainable grazing practices to protect alpine ecosystems.
2. **Raising Climate Change Awareness:** Engaging locals, visitors, and schoolchildren through educational programs about climate impacts and conservation.

By collaborating with local communities and experienced partners, TPN reduces costs, increases productivity, and ensures long-term sustainability. This partnership approach strengthens indigenous capacity to preserve and restore Langtang's ecosystems, promoting sustainable development and environmental stewardship.

10. NEXT PLAN

In 2024 and beyond, Partners Nepal (TPN) will continue evaluating the Kyanjin Valley tree planting project by assessing the Mundu Nursery and enhancing seed production. They will raise climate change awareness in Langtang and other districts using handbooks like *Melting Heights* and *Langtang's Living Landscapes*, funded by donors such as Hauser Exkursionen and Nepal Hilfe-Tirol. These handbooks will be distributed along trekking routes and implemented in all educational institutions within Langtang National Park and its buffer zone. TPN will collaborate with Langtang National Park, the Buffer Zone Users Committee, and local representatives to assess long-term impacts, maintain ongoing cooperation, and evaluate additional criteria for future plantations after 2024.

11. APPRECIATION

The Partners Nepal extends heartfelt gratitude to Hauser Exkursionen, Sir Edmund Hillary Stiftung Deutschland, Nepal Hilfe-Tirol, and the Alice C. Tyler Perpetual Trust for supporting the One Day One Tree initiative and Langtang Valley reforestation from 2021 to 2024.

We also thank our partners Tenjing Eco-Treks and the Langtang Buffer Zone Users Committee, forestry experts Mr. Bheem Raj Rai and Mr. Min Bahadur, and Ms. Mingmar Doma Gurung of Buddha Inn for their essential roles in conserving Langtang Valley's fragile alpine ecosystems. Additionally, we appreciate Mr. Kesang Tamang, Mayor of Gosainkunda Municipality, and Ward Chairman Dindu Tamang for their invaluable support in this reforestation initiative.

12. ABOUT THE PARTNERS NEPAL (TPN)

The Partners Nepal established in 2012, is a non-profit organization dedicated to enhancing livelihoods and protecting the natural and cultural resources of the eastern Himalayas. With members bringing 15 to 25 years of experience from The Mountain Institute in conservation, culture, and sustainable development, TPN employs partnership-based approaches by collaborating with local communities, governments, NGOs, and the private sector.

This collaboration protects high-priority mountain environments while improving livelihoods and empowering communities through involvement in policymaking and civic cooperation. In Nepal's Khumbu region, TPN has successfully implemented key projects, including the One Day One Tree program for conserving fragile alpine ecosystems above 13,000 feet, the restoration of cultural monuments and resources, and support for elderly people through the Bung Clinic.



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