

FIELD UPDATES FROM ONE DAY ONE TREE
SAGARMATHA NATIONAL PARK AND
LANGTANG NATIONAL PARK AND BUFFER ZONE



REPORT SUBMISSION TO:

SIR EDMUND HILLARY STIFTUNG DEUTSCHLAND

HAUSER EXKURSIONEN

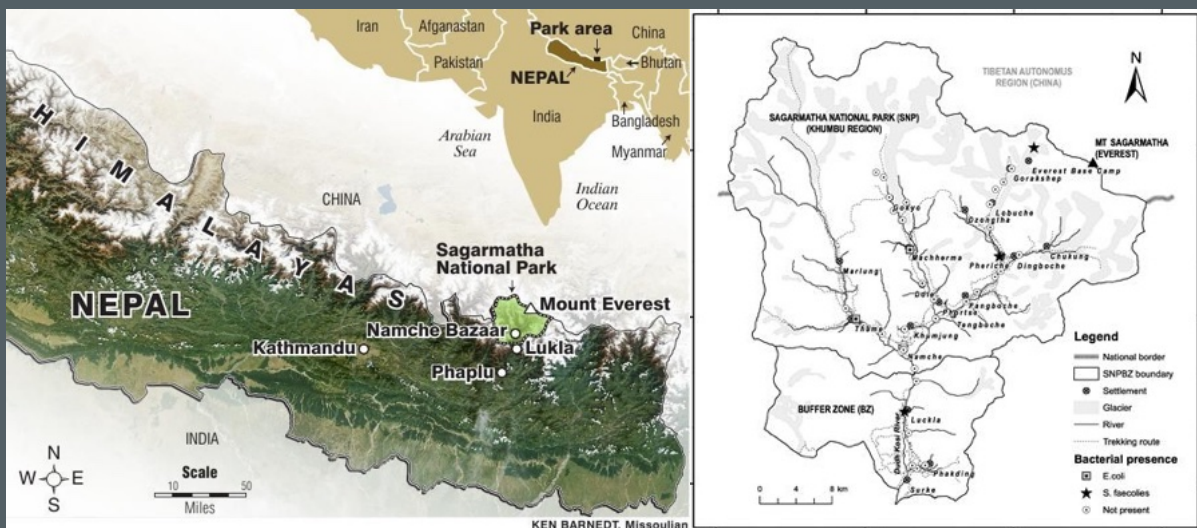
JULY 2023

1. INTRODUCTION

The Partners Nepal (TPN) presented Hauser Exkursionen and Sir Edmund Hillary Stiftung Deutschland, with the following report covers the period from July 2022 to July 2023. The current update covers the implementation of the ONE DAY ONE TREE initiatives in the Solukhumbu and Langtang regions, the establishment of a nursery facility in Khumjung, the translation of the book "Climate Change in the Himalayas" into Nepali, and the completion of a school project in Necha, Solukhumbu.

2. PROJECT LOCATION

The conservation and reforestation initiative currently being undertaken by The Partners Nepal is situated within the villages of Pangboche, Phortse, Khumjung, and Khunde, which are part of the Khumbu Pasanglhamu Rural Municipality-4 in the Solukhumbu district.



The villages are situated exclusively within the Sherpa community, at an elevation of 3,900m, within the confines of Sagarmatha National Park. This particular valley in the Khumbu region is renowned for its unspoiled natural beauty. According to projections, the Sherpa village is expected to comprise around 2000 households and accommodate a population ranging from 4000 to 5,000 individuals between 2020 and 2021. The village has been inhabited by various traditional Sherpa cultures for approximately forty years, during which they have cultivated a mutually beneficial coexistence with the challenging yet periodically fertile surroundings.

The Sherpas residing in the village persistently adhere to conventional agricultural practices and employ indigenous strategies for managing natural resources. Since the 1960s, the respected Sir Edmund Hillary has established educational institutions and medical facilities intending to offer fundamental education to Sherpa children and enhance the overall health conditions of the Sherpa community.

3. CHALLENGES

The regions of Solukhumbu and Langtang Valley have experienced the impacts of climate change. The acceleration of glacier melting due to increasing temperatures poses a significant threat to downstream regions, potentially leading to water scarcity for millions of people. Storms and droughts have had a significant impact on agricultural systems and the overall stability of food production and availability. The loss of biodiversity in these regions is also a matter of concern. Climate change poses a significant threat to numerous species inhabiting mountainous regions. Communities reliant on varied ecosystems confront an uncertain trajectory as these ecosystems undergo degradation. The implementation of comprehensive solutions to address global climate change is imperative for the preservation and sustainable management of mountainous regions.





4. SIR EDMUND HILLARY STIFTUNG DEUTSCHLAND'S SUPPORT

Since 2016, The Partners Nepal has received significant funding from the Sir Edmund Hillary Stiftung Deutschland for a variety of initiatives, including the establishment of the Sir Edmund Hillary Memorial Museum and Elderly Care Centre in Bung of Solukhumbu, Cultural Conservation projects in the Khumbu region, Climate Change in the Himalayas: A Case from Solukhumbu, and nursery establishment. Hauser Exkursionen has strongly supported the One Day One Tree initiatives in Solukhumbu and Langtang National Park. The following project progress information is provided:

4.1 FIELD VISITS TO KHUMBU IN AUGUST 2022 AND JULY 2023

In August 2022 and July 2023, a group of officials from The Partners Nepal, comprising Ang Rita Sherpa (chairman), Bheem Raj Rai (secretary), and Bhala Kaji Rai (treasurer), conducted a visit to the Sagarmatha National Park and Solukhumbu Buffer Zone. The main objective of this visit was to assess the success of the comprehensive reforestation initiative and strategize for the upcoming 2023-2024, considering potential funding prospects from diverse donors, including Nepal Hilfe-Tirol. The subsequent points outline the precise objectives or aims of visiting Sagarmatha National Park:

1. To assess Hauser Exkursionen's financial support for the ONE DAY ONE TREE initiative.
2. We had the opportunity to engage in a meeting with Ang Tharkey Sherpa at Phurte Nursery, with the purpose of seeking his valuable insights and guidance pertaining to the reforestation efforts in Pangboche, as well as the effective management of the nursery.
3. This study aims to investigate the reforestation sites located in Khunde between the years 2016 and 2023.
4. Arrange a meeting with the Khumbila Buffer Zone Users Committee in Khumjung for the purpose of engaging in a discussion regarding the reforestation site planned for the year 2023.
5. Additionally, explore the potential feasibility of establishing a forest nursery within the confines of Khumjung village. This study explores the feasibility of establishing a nursery at an altitude of 3790m in Khumjung.
6. Examine the reforestation area located in Phortse during the period of 2018-2022, while also exploring the prospective criteria for selecting the reforestation site for the year 2024.

4.2. ASSESSMENT OF REFORESTATION PROGRAM IN KHUNDE, PHORTSE AND PANGBOCHE FROM 2017-2023

From 2017 to 2023, the team visited several Khumbu sites to implement the plantation project. Institutions and individuals funded the project. Our study evaluated reforested Khunde, Phortse, and Pangboche areas to protect vulnerable alpine ecosystems and deforested areas and reduce flash floods. Sir Edmund Hillary Stiftung Deutschland, Hauser Exkursionen, Nepal Hilfe-Tirol, Engage Nepal, Aero TELEGRAPH, Alice C. Tylers Perpetual Trust, and Terra Mater Inc. have funded the project.

125 men and women planted 30,000 juniper, fir, rhododendron, and birch seedlings in Khunde, Phortse, and Pangboche. This project restored the severely denuded area in Sagarmatha National Park and Buffer Zone between 3870m and 3900m. To date, 95% of the seedlings have matured into trees. In four prominent Sagarmatha National Park and Buffer Zone villages, seed, fertilizer, hole digging, and native tree planting took one week. The elevation of Thame village increased the seeds' chances of survival.

4.3. KHUNDE VILLAGE 3870M FROM 2017-2023



UPDATES FROM SOLUKHUMBU-AUG 2022-JULY 2023



**ONE DAY
ONE TREE**
REFORESTATION PROJECT

KHUNDE VILLAGE (3790M)
KHUMBU PASANGLHAMU RURAL MUNICIPALITY-4, SOLUKHUMBU
ESTABLISHED: JUNE 2019

PROJECT FUNDED BY: Hauser aero TELEGRAPH

MANAGED BY:

ENDORSED BY:





Before

After

4.4. PHORTSE VILLAGE 3900 M FROM 2017-2023



**ONE DAY
ONE TREE**
REFORESTATION PROJECT

PHORTSE VILLAGE (3950M)
PASANGLHAMU RURAL MUNICIPALITY-4, SOLUKHUMBU
ESTABLISHED: MARCH 2018

PROJECT PARTNERED BY:

MANAGED BY:

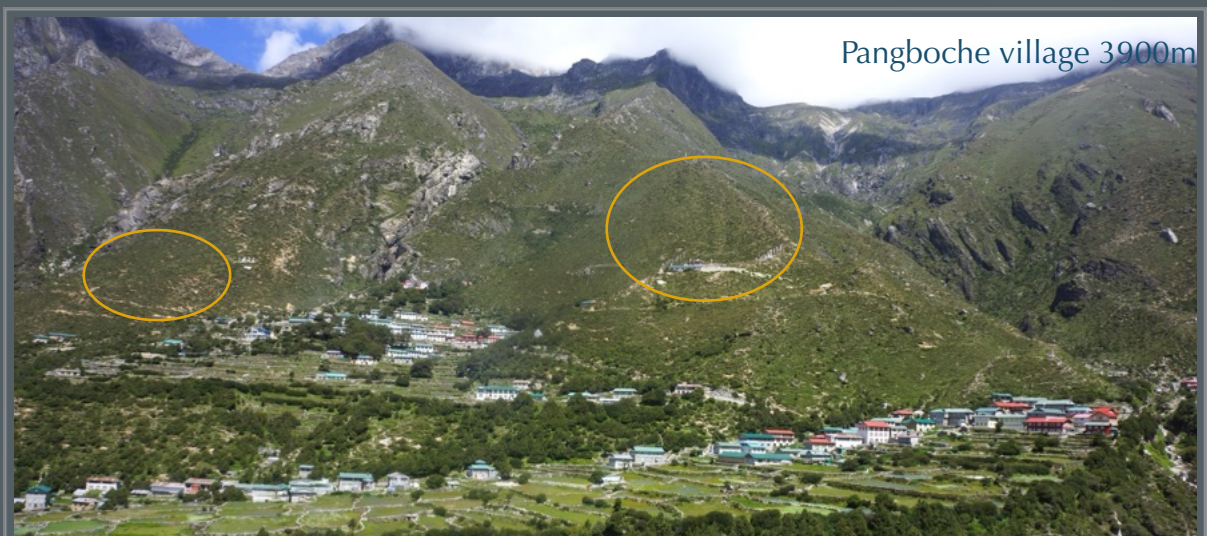
ENDORSED BY:





4.5 PANGBOCHE VILLAGE 3900 M FROM 2017-2023

Since 2016, The Partners Nepal has been working on reforestation projects with the blessing of later Lama Geshe Pangboche. He has blessed our project, and we have established the high-altitude nursery in Pangboche with strong support from the Department of National Parks and Wildlife Conservation and Sagarmatha National Park. We have hired locals to manage the nursery and to harvest locally grown seeds from nearby forests for our long-term planting programs in the area.





4.6 ONE DAY ONE TREE IN LANGTANG NATIONAL PARK 2021-2023

Since 2021, The Partners Nepal has been working with residents of Langtang Valley to launch the "One Day One Tree" project, which has received initial funding from Hauser Exkursionen and Nepal Hilfe-Tirol. Partners Nepal has considered assisting with this initiative in collaboration with our philanthropic contributors. This decision was made in response to a formal request from the Langtang community for assistance in preserving and rehabilitating the fragile alpine ecosystems. The proposed approach entails replicating the successful reforestation project in Sagarmatha National Park. "ONE DAY ONE TREE" will accomplish this. This endeavor will be carried out by implementing the "ONE DAY ONE TREE" project. This project aided conservation and restoration efforts in the Langtang Valley region, severely damaged by an earthquake in 2015. Over 300 people were killed in the earthquake, including residents, porters, guides, and tourists.



Furthermore, the challenges faced by the residents of the mountainous region revolved primarily around open grazing, local fuelwood consumption, and the presence of lodges along the trails. These issues were particularly troublesome because of their negative impact on soil stability. A strategy involving cultivating indigenous tree species was deemed necessary to address these concerns. One of the primary strategies used to address this issue involved the implementation of extensive tree-planting initiatives in large areas.

4.7 NURSERY BED

We have a nursery in Mundu village, 3600 meters above sea level in the Langtang Valley. Mundu's nursery is essential for tree growth. By raising saplings, these specialized facilities help to preserve the environment. Nurseries improve tree growth, genetic diversity, and health from the start. Young trees require controlled environments in nurseries. These facilities protect saplings from harsh weather, pests, and diseases that can stunt growth in natural environments. Nurseries provide optimal irrigation, sunlight, and nutrient-rich soil for young trees. The care of young trees is critical to their long-term health. Nurseries employ skilled horticulturists who closely monitor sapling growth to ensure the proper amount of water, nutrients, and attention is provided to develop strong roots and structures.



4.8 GABION, ANGLE POLES AND WIRES USED FOR ENCLOSURES

During the tree planting, gabion wires, angle poles, and wires were used to create an enclosure. It keeps livestock out of planting areas, increasing their chances of survival. Enclosures also aid in the restoration of ground cover forests and grasslands. Gabion, angle poles, and wires were transported by road and heli from Kathmandu to the Kyanjin Valley reforestation site. The cost of fencing is rising because of high inflation and bad weather.



4.9 PLANTATION OF WILLOW INSIDE THE ENCLOSURE

While the seedlings grow at the Mundu nursery, we have decided to plant a native fast-growing and locally available species (willow trees) inside the enclosures. This native tree willow grows to about 2 feet in three to four months, depending on the environment and altitude. Around 80% of the willow planted inside the enclosure has grown successfully, assisting in soil stabilisation and preventing future soil erosion.



4.10. IRRIGATION SUPPORT FOR WILLOW PLANTATION

According to locals, willows, a fast-growing native species, require a lot of water, especially in their early stages. Irrigation ensures that they get enough water to grow healthy roots. Willows are drought-tolerant, but they still require regular watering. Irrigation keeps plants healthy and strong during droughts. Irrigated willow plantations grow faster. Commercial plantations necessitate faster growth to harvest more quickly.

Irrigation boosts both biomass production and plantation productivity. Willow plantations are often grown on erodible or marginal land. Irrigation improves soil stability, reduces erosion, and extends the life of a site. Willows are more vulnerable to environmental stress during establishment. Irrigation regulates water supply, which helps plantations survive and thrive. Well-irrigated willows are healthier and more resistant to diseases and pests.





The leaves began sprouting after being thoroughly irrigated inside the enclosure. Willow planting helps to prevent soil erosion and will provide a source of fuel wood once grown and matured.

5. ASSESS THE ONE DAY ONE TREE NURSERY IN PANGBOCHE

In 2016, The Partners Nepal and the Pangboche community built a nursery and greenhouse with project approval from the Department of National Parks and Wildlife Conservation and Sagarmatha National Park. We hired a nursery manager or Nike, who had technical advice from a TPN forestry expert, as well as seedlings and saplings. Nike Nursery has been producing, transplanting into poly pots, treating, weeding, cleaning, and other nursery tasks on a daily basis since then.



6. ENCLOSURES FOR PLANTATIONS

Plantation enclosure is required for good reforestation for several reasons: 1. Plantation enclosures provide wind, pest, and grazing animal protection. 2. Enclosures protect the plantation's privacy. 3. Enclosures provide physical boundaries for these effective practices. Enclosures for plantations are required for research and experimentation. 4. Researchers can build controlled experimental plots within enclosures to study forest growth and compare before and after results. The enclosure would safeguard, control, and organize the plantation, resulting in higher crop yields, improved management, and long-term sustainability.





7. NURSERY ESTABLISHMENT IN KHUMJUNG 3790M

A good nursery can promote sustainable land use and combat climate change by planting quality seeds in degraded areas. One Tree Planted and its partners built a world-class nursery in Khumjung village (3790m). Nursery beds help to sequester atmospheric CO₂ (carbon dioxide). This reduces greenhouse gas emissions, which help to contribute to global warming and climate change. Nursery beds help to reduce soil erosion, increase moisture retention, and provide habitat for wildlife. Nursery beds can be used in reforestation and other restoration projects to reduce human environmental impacts while mitigating global warming and climate change. Nursery beds encourage sustainable land use, carbon sequestration, and ecosystem health, all contributing to reducing global warming and climate change.





8. PLANTATION IN JULY 2023

The Partners Nepal planted approximately 7500 native trees with locals from Khunde, Khumjung, and Pangboche in late June and early July 2023, with the assistance of funding from Hauser Exkursionen, Peak Aid Japan, and One Tree Planted. The plantation locations were chosen with the permission of the Sagarmatha National Park and the Buffer Zone. The locations were chosen to safeguard and restore the park's fragile alpine ecosystems. Men and women were hired to dig holes collect fertilizer, and seedlings, while women were hired to plant four native seedling species: juniper, birch, fir, and rhododendron.







UPDATES FROM SOLUKHUMBU-AUG 2022-JULY 2023





9. PROJECT IMPACTS

The tree-planting project demonstrates how science and spirituality can protect the environment and cultural values. There are numerous benefits to planting trees in areas that have been severely deforested due to ecosystem conservation and restoration. This tree planting program involves involving local community members in planting and growing trees, as well as preserving fragile alpine and subalpine forests. Planting trees has numerous benefits, including biodiversity and community benefits, climate change and global warming benefits.

The One Day One Tree project is becoming increasingly important in conserving and restoring fragile alpine ecosystems throughout the region. It contributed to integrating natural and cultural values to benefit the environment while preserving cultural and sacred values. The local Sherpa community actively participates in tree planting and forest conservation in vulnerable alpine and subalpine areas.



10. COMMUNITIES BENEFITS

Tree planting benefits the environment and the communities it is planted. Initiatives to plant trees benefit both the environment and local communities. Locals will be hired to collect seeds and fertilizer, dig holes, and plant trees, particularly after the trekking season. Tree planting initiatives benefit both the local economy and the environment. The project brings together Sherpa communities, tourists, governmental organizations, donors, and institutions to protect alpine ecosystems. By spreading the word about forest conservation, locals can help protect their forests.

11. OUR APPROACH

The Partners Nepal (www.thepartnersnepal.org) will work closely with the local community to mitigate the effects of climate change on alpine ecosystems in the Sagarmatha National Park in Solukhumbu and the Langtang National Park in the Rasuwa district north of Kathmandu. Members of The Partners Nepal have been trusted partners in the mountains for decades, collaborating with mountain communities. Partners Nepal is launching a reforestation program in collaboration with dependable conservation partners as a successful project replication from Sagarmatha National Park and Buffer Zone.

12. CONCLUSION

In late June and early July 2023, trees were planted in Khunde, Khumjung, and Pangboche. Over 7000 seedlings of four native species, including fir, juniper, rhododendron, and birch, were planted. The plantation sites were chosen based on the need for reforestation and restoration in areas severely deforested or deforested due to overgrazing, fuel wood collection for cooking and heating, and other factors. The seedlings were purchased from Thame and Phurte Nursery, and the seeds are still germinating at Khumjung's newly established nursery, where they will be ready for planting in at least two years. The Sherpa community in the region has a profound understanding and recognition of the important role that forests play in a variety of aspects, including biomass provision, watershed management, soil nutrient enrichment, water retention, fodder supply for livestock, utilization of construction materials, and as a source of income. Similarly, residents in the area have begun to cultivate trees on both their individual and communal properties, indicating a renewed commitment to conservation efforts.

13. NEXT PLAN

- In mid-August 2023, plan the Shingi Nawa interaction on the Khumbu Shinginawa Indigenous Practise program.
- Examine the Khumjung Nursery Establishment and make suggestions on how to get seeds to grow well.
- Distribute the Nepali book Climate Change in the Himalayas, as well as the English book Global Warming and Its Effects in the Himalayas, to all primary and secondary schools in Solukhumbu and other mountainous areas such as Langtang, Pokhara, and the Kathmandu valley.
- The Sagarmatha and Langtang National Parks, the Buffer Zone Users Committee, and local representatives will continue collaborating.
- Evaluate the One Day One Tree project in Langtang National Park and the Buffer Zone.
- More trees will be planted in 2024 and later.
- Plan your programme activities for the year 2024, for example.

14. APPRECIATION

The Partners Nepal would like to thank the respected donor organizations such as the Sir Edmund Hillary Stiftung Deutschland, Hauser Exkursionen, and Nepal Hilfe-Tirol for their contributions to TPN's conservation and restoration of fragile alpine ecosystems (ONE DAY ONE TREE) project. Sir Edmund Hillary Stiftung Deutschland, Hauser Exkursionen, and Nepal Hilfe-Tirol have provided seed funding for a reforestation project in four villages within Khumbu Pasanglhamu Rural Municipality-4, Solukhumbu, Nepal, since its inception in 2016.

Since then, many other organizations have strongly supported Solukhumbu and Langtang National Park, including Engage Nepal, Aero TELEGRAPH, Alice C. Tylers Perpetual Trust, Terra Mater Inc., and Peak Aid Japan. We were able to plant over 30,000 (thirty thousand) native trees in two mountain districts of Nepal with the help of all of the above-mentioned generous donor organizations.

Planting trees benefits the environment by hastening and ensuring healthy forests are re-established. Because of this reforestation project, which encourages individuals, schools, and communities to plant one tree daily, the canopy ecosystems have been restored, and biodiversity can thrive.

15. THE PARTNERS NEPAL

The Partners Nepal (TPN) is a non-profit organization founded in 2012 to improve livelihoods while protecting the region's natural and cultural resources. Although TPN is a new NGO, all its members have extensive experience working on conservation, culture, and livelihood development projects as individuals and as a team, having worked together at The Mountain Institute for over 15-25 years in culture, conservation, and livelihood programs. Through partnership-based approaches with local people, governments, NGOs, and the private sector, TPN assists communities and local institutions in designing and implementing programs that improve local livelihoods in culturally appropriate ways, conserve high-priority mountain environments, and develop a community voice for policymaking and civil cooperation.

TEXT AND CONCEPT: ANG RITA SHERPA (THE PARTNERS NEPAL)

**PHOTOS: ANG RITA SHERPA OF THE PARTNERS NEPAL, PHURA GYALZEN SHERPA FROM KHUNDE,
PASANG TAMANG FROM LANGTANG**