





### Nepal's Unique Landscape

Nepal is a geographically, culturally, and linguistically unique country. Because of its location directly on the collision zone of two tectonic plates, Nepal is home to many of the Himalayan Mountains, including Mt. Everest and 8 of the 10 tallest peaks in the world. With mountains in the north; hills, valleys and lakes in the center; and dense forests in the south, Nepal's landscape reflects the cultural variety of its 30 million inhabitants.

About 70% of the Nepali population works in agriculture, using terracing in the hilly regions to plant potatoes, rice, maize, and other staples for consumption and sale. Despite Nepal's steady growth in GDP and per capita income during the last decade, about 25% of the population still live below the poverty line, earning less than \$1.90 USD per day. In spite of the challenges that exist in Nepal, the Nepali people are welcoming and friendly, proud of their traditions, religion, music, and culture.

Data from 2010 shows those living in monetary poverty ranged regionally from 17% to 46% of the population, with higher incidents of poverty in rural areas. Because Wintergreen and Spikenard grow in different regions of Nepal, dōTERRA's Co-Impact Sourcing initiatives provide critical, sustainable income-generating opportunities as a means to improved livelihoods to various communities across the country.

### Harvesting and Oil Sourcing

#### Wintergreen

Wintergreen grows in the foothills of the Himalaya, making Nepal and China the sole regions of the world with endemic, wild-harvested Wintergreen. The Wintergreen plant, which grows between 100 and 300 cm tall, prefers a cool climate in heavily forested areas.

The forests where Wintergreen grows naturally are managed by Community Forest User's Group (CFUGs) who oversee managed Wintergreen collection to prevent over-harvesting. Harvesters and distillers work with the CFUGs to follow their management plans, which allow wild harvesters to collect the Wintergreen leaves in specific areas that rotate each year.

To harvest Wintergreen, harvesters must travel through steep, muddy mountainsides, collecting leaves from the shrub. After the raw material is hand-collected, harvesters bring the leaves in large baskets carried on their backs to the distillation unit where the owner of the distillation unit will weigh the leaves, pay the harvester, and run the distillation. The distillation process lasts at least 14 hours, and prior to distillation the leaves typically soak in warm water overnight, which helps to ensure release of the essential oil. Unlike most essential oils that float on water, Wintergreen oil has a higher density than water, so it sinks before it is separated.

Most Wintergreen harvesters are women who harvest the leaves during the early mornings before they start their daily household tasks. Often, the money from the sale of the leaves supplements essential household costs, such as sending children to school or buying food.

#### Spikenard

Spikenard grows at higher elevations than Wintergreen, in the sub-alpine and alpine regions of the Himalaya, between 3,000 and 5,000 meters (9,800 to 16,400 ft). Spikenard, or Nardostachys Jatamansi, is a flowering plant of the Valerian family that grows in the Himalaya of Nepal, China, and India. The plant grows to about 1 meter (3 ft) in height and has pink, bell-shaped flowers. As an endangered plant, Spikenard is subject to CITES regulations, which limit the amount and frequency of harvesting. As such, all Spikenard oil sourced by doTERRA is CITES-compliant to help ensure that this plant can continue to be protected for generations to come.

The dark green Spikenard oil is distilled from sustainably harvested roots gathered from community forests in Nepal. Harvesters must climb, sometimes for days, through steep mountainsides to reach the open rocky places where Spikenard grows, to hand-collect roots from the plant. Because the harvest time for Spikenard is a very short window of time, the harvesters generally set up a basecamp in the mountains from which to work. Working on exposed mountainsides, harvesters are unprotected from harsh weather conditions as they dig out the plants, clean off the dirt, and replant a small percentage of the root so that the Spikenard can continue to grow.

After about 15 to 20 days, harvesters carefully climb down the mountain, carrying the roots in large baskets or sacks on their backs. High elevations, steep and uneven terrain, unpredictable weather, including heavy rains that wash out the trails, contribute to the precarious journey. Once home, harvesters dry the roots for several days before they sell it by weight to the owner of the distillation unit. The oil is then extracted through steam distillation.

**References:** www.fao.org/nepal/fao-in-nepal/nepal-at-a-glance/en | www.npc.gov.np/images/category/Nepal\_MPI.pdf www.ceicdata.com/en/indicator/nepal/gdp-per-capita

## Cō-Impact Sourcing Initiatives

Together with our Cō-Impact Sourcing partners in Nepal, dōTERRA has also been very active in facilitating supply chain improvement and sustainability programs for Spikenard and Wintergreen, including:

- Development of Good Collection Practices (GCP) and Good Manufacturing Practices (GMP) Manuals;
- Development and facilitation of sustainable harvesting training seminars for Spikenard harvesters, Wintergreen harvesters, and Community Forest User Groups;

- Training seminars for Spikenard essential oil producing enterprises on GMP to improve oil yields and product quality;
- Development of nurseries and demonstration plots to test Spikenard and Wintergreen cultivation; and
- Designing model solar drying facilities in Spikenard collection clusters.

These supply chain improvement initiatives help to ensure that harvesters and distillers make a fair wage and optimize oil yields to make best use of these important natural resources.



Kathmandu

NEPAL



# QUICK FACTS

Nepal is located in the Himalayan Mountains, landlocked and bordered to the north by the People's Republic of China, and to the south, east, and west by the Republic of India.

With an area of 147,181 square kilometers (56,827 square miles) and a population of approximately 30 million, Nepal is the world's 41st most populous country. More than 4.5 million of Nepal's population live

in the capital city, Kathmandu.

Nepal is known around the world for its majestic mountain peaks, including Mt. Everest, as well as exotic flora and fauna, demanding trekking trails, and ancient cultures.

Nepal is a multiethnic and multilingual country. Although Nepali is the official language, there are more than 90 other languages and dialects spoken throughout the country. More than half of the population speaks a language other than Nepali as their mother tongue. Wintergreen grows between 1,500 and 2,700 meters in altitude as it is primarily found in the Himalaya of Nepal and China.

Spikenard requires an elevation between 3,600 and 4,500 meters, in open rocky places.

#### As of 2019, the dōTERRA Healing Hands Foundation has donated

nearly \$2 million for earthquake relief aid and community-benefitting social impact projects.



### Social Impact Projects: A Hand Up

Nepal's 2015 earthquakes had devastating effects on Nepal: nearly 9,000 people were killed and over 8,200 schools and 1,200 health facilities were damaged or destroyed. Families in affected areas lost everything, and years later, many are still working to rebuild their lives. The dōTERRA Healing Hands Foundation has contributed to relief, longer-term reconstruction efforts, and community-benefitting projects in multiple communities throughout Nepal. In partnership with the nonprofit organization CHOICE Humanitarian, as well as local governments and communities, the dōTERRA Healing Hands Foundation has supported numerous projects in Wintergreen and Spikenard oil-producing communities, including:

- Construction of Sanskriti Sadan Secondary School in Archaleni, Lamjung (500 students)
- Construction of Sharada Secondary School in Dhamilikuwa, Lamjung (700 students)
- Construction of Gokul Ganga Higher Secondary School in Rasnalu, Ramechhap (700 students)
- **Rebuilding** more than 50 earthquakedamaged homes.
- Expansion of the Primary Hospital in Palung, Makwanpur (serving over 100,000 people), as well as equipment for a heated baby birthing center.
- **Construction of a new hospital** in Rasnalu, Ramechhap to serve approximately 21,000 people in the region.

- **Reconstruction of the Agara Health Post** benefiting 9,000 habitants.
- Construction of the Veterinary and Agricultural Lab facility as part of the Janakalyan Secondary School in Makwanpur. This two-room lab benefits over 1,245 students and farmers from the community. Students learn new agricultural techniques and distillation methods, while local farmers can visit to test soil quality and plants for disease.
- Water supply system providing potable water for 325 families and schools in one of the country's poorest communities in Thaha Municipality, Makwanpur District.

In partnership with the nonprofit organization Days for Girls, the dōTERRA Healing Hands Foundation has funded the distribution of more than 30,000 feminine hygiene kits and critically important education to adolescent girls throughout Nepal.





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