

LODHSALLA

Taxus baccata

Lodhsalla is a conspicuous evergreen tree, attaining average height of 8m and girth 1.5-1.8m. It is found in the shady places under Fir and Spruce forests. Its extracts of leaves can be used in cosmetics, such as hair lotions, rinses, beauty and shaving-creams and dentrifices. In Humla this species has not been so far collected and traded but in the other part of the country it is threatened by the uncontrolled collection. It is a banned item for the export in the crude form.

1. BIOLOGY

A. Taxonomy

Family - Taxaceae

English name - Himalayan yew

Local Name - Talispatra, Lothsallo, and Thuner



There is still some confusion with the taxonomy of *Taxus* species, at least in Dolakha and Ramechhap districts. Agents of the DABUR Company, which are the only buyers of yew leaves, recognize three different species according to the concentration of chemical components. Oleg and Stainton (1992) recognize only *Taxus baccata* subsp. *Wallichiana*.

Taxus baccata L. is the only species of this genus found in Nepal (HMG/N 1976), its synonyms is *Taxus wallichiana* Zucc.

An evergreen tree usually 6 meter to 10 meter in height, 1.5 to 1.8m in girth found in temperate Himalayas at an elevation range of 1800 to 3300m. Bark redish brown, thin scally, leaves distichious, linear with recored margin, shining above, pale yellowish brown or rusty red below. Flower diocious, male stobili stalked, globpse arising from the axils of the leaves on the under side of the branchlets of the previous year, each consisting of 6-14 stamens with short fillament. Female strobili solitary, axillary, seed burn in a scarlet fleshy cub. Spiny tipped 2-3.5cm long, 3mm broad, fruits red freshy, circumference 8mm with single seed. Slow growth rate 12-14 annual rings per 2.5 cm of radius. Girth increment is 0.4 to 1.3cm per year.

The Himalayan yew could be confused with *Tsuga dumosa*, the Himalayan hemlock called locally 'tingre salla' which leaves look like the yew's however, it is quite easy to recognize it. *Taxus* leaves are green beneath and hemlock leaves are white below.

B. Habitat and Range

Distribution occurs Afghanistan to South West China, Burma, and South East Asia at the elevation range of 1800-3300m. It is found in the forest, shady revine. It found as under-storey in the moist areas. In Nepal it is distributed in the west Himalaya in the association with *Quercus semecarpifolia*, *Abies spectabilis*, *Picea smythiana*, *Cedrus deodara*, *Rhododendron comanulatum*.

C. Ecology

It is semi xerophytes plant, frost hardy, preferred less precipitation, light demander and found in the coarse textured soil. Flowering season is during March to May, fruiting season from September to November, seed collection season immediately after fruiting of Lodhsalla trees. Seed sowing season is before monsoon season. Viability of seeds depends upon storage condition of seeds.

D. Regeneration

Regeneration takes places by seeds which don't germinate until second year from cuttings. Young plant requires shelter and deep shade it can not thrive in open forest area.

2. UTILIZATION

A. Subsistence Use

The foliage is used as litter and fed to cattle in Pakistan (Oleg, P. & Stainton, A.) and Nepal. The red juice of the bark is used as an inferior dye and utilized by Brahmins for staining the forehead. Bark and wood produce brown colour to the wool mordant with alum (Shrestha, B).

B. Commercial Use

Extract of Taxus can be used in cosmetics, such as hair lotion, rinses, beauty and shaving cream and dentifrices. Wood is burnt as incense. Tincture made from the young shoots has long been used for treatment of headache, falling pulse, coldness, diahorrea. Leaves have anti spasmodic properties used in treatment of hysteria, epilepsy, nervousness and frequently used in Unani system of medicine.

4. MARKETING

A. Production Volume and Trade

Yearly, about 800 metric tons of crude Lodhsalla is collected by Dabur-Nepal from seven districts of Nepal namely; Sindhuli, Dolakha, Sindhupalchowk, Manang, Gorkha, Lamgunj, Ramechhap (source: Dabur-Nepal).

B. Current Market Channel

Collectors -> Local traders (Agents) -> Processors (Dabur-Nepal) -> Indian Processor (Dabur-India)

C. Current Processing

Mature Lodhsalla branches with leaves are cut into two inch pieces using a *Khukuri*. These pieces are piled into a heap and covered with plastic sheets for up to one week; this process is called *Bakahro* in Nepali. When the green pieces turn in to a brown colour, then these pieces are placed on plastic sheets for sun drying. After few days of drying in the sun, these Lodhsalla pieces are packed in jute sacks for transportation to markets.

D. Variability and Risk

Very limited markets for Lodhsalla exist in Nepal. Only few companies are involved in trading of Lodhsalla. . Only Dabur- Nepal, Machhapuchhare Herbal, SAAN Herbal Company and HPPCL have licenses from the government for Lodhsalla collection. Traders cannot collect Lodhsalla without a license. There is a monopoly on the market from the agents of Dabur- Nepal and Machhapuchhare Herbal in collection, price fixing and other related activities. In reality the agents collect more benefits from Lodhsalla business than that of collectors.

5. SOCIO-ECONOMIC AND POLICY ISSUES

A. Socioeconomic factors of existing activities

Naturally occurring Lodhsalla trees are declining due to over harvesting, if this situation continues, after few years Lodhsalla trees will not be found in its natural habitat. The agents of concerning companies (Dabur-Nepal, Machhapuchhare Herbal) collect more benefits from Lodhsalla business than that of collectors. There are unnecessary administrative hassles if an individual wanted to start this business, such as the delay in licensing procedures, commissions have to be paid for different organisations, lack of financial and marketing support from concerned agencies

B. HMG Policy on Collection, Processing, and Trade

1. Current Policy

Government provide licences to concerning agencies for collection of Lodhsalla leaves, after taking royalty of Rs 25/kg. Only Dabur-Nepal, Machhapuchhare Herbal, SAAN Herbal and HPPCL have licenses from the government for Lodhsalla collection. These

companies have their own agents (local traders) who are involved in the trading of Lodhsalla. Traders cannot collect Lodhsalla without a license.

2. Policy Constraints

There are unnecessary administrative hassles if an individual wanted to start this business, such as the delay in licensing procedures, commissions have to be paid for different organisations, lack of financial and marketing support from concerned agencies.