

STUDY OF PLANTS USED AS COSMETICS IN PUTALIBAZAR, SYANGJA

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ABSTRACT

In the recent days, people from the developed countries primarily rely on the modern synthesized product for their cosmetic needs, while people from the developing/ underdeveloped countries still rely on traditional knowledge and uses locally available plants for their cosmetic needs. As Nepal is underdeveloped country, most of the people live in rural areas are largely depend upon traditional plants for their cosmetic use. The main objective of this study is to identify and enumerate different plant species used as cosmetics in Putalibazar, Syangja. The data on plants used as cosmetics were collected via participants observation and interview method. The study revealed that 27 plant species belonging to 18 families were as cosmetics. Among them, *Curcuma longa* L., *Aloe vera* (L.) Burm.f. and *Santalum album* L. are the most often utilized plants.

Keywords: Traditional plants, cosmetics, beauty, Putalibazar, Syangja

INTRODUCTION

Nepal is a landlocked nation in South Asia. Nepal is located in the central part of the Himalayas, bordered by India to the east, south, and west and China to the north. The country has diverse topography, ranging from lowland plains to the highest peak in the world, Mount Everest. Nepal is renowned for having a diverse range of plant species and a rich biodiversity. The outstanding plant life in the nation is influenced by its distinctive topography, climate fluctuations, and geographic location. The existing checklists for Nepal record some 6500 species of flowering plants and about 530 ferns (Tiwari *et al.*,2019). Its vegetation is diverse, ranging from lowland subtropical woods to the high Himalayan alpine meadows. Biodiversity is highly significant in securing different fundamental human need. Since time immemorial, people have gathered plant

resources to fulfill various daily requirements. Hundreds of millions of people, mostly in developing countries, derive a substantial part of their subsistence and income from wild plant products (Schippmann *et al.*,2002). Nepal's rich plant biodiversity has also been utilized for various cosmetic purposes. The beauty and therapeutic benefits of some plants found in the nation have long been acknowledged by traditional knowledge and practices. Many of the indigenous plants are used as active ingredients in cosmetics. They are generally classified on the basis of their growth habit. It may be either a tree, shrub, herb, annuals, biennial, tubers, rhizomes or climber. Nepal is a multiethnic and multilingual country and has about 130 different ethnic groups speaking about 120 languages (CBS, 2013). In many countries including Nepal, a large number of plants are used as cosmetics, particularly

by the rural people. In Nepal, about 80% of the people, mainly of the rural communities, depend on herbal plants as medicine for their primary health care (Ghimire, 2000). Manandhar (2002) describes the uses of 1517 plants belonging to 858 genera and 195 families under four chapters covering the land, the people, the ethnobotany and the useful plants of Nepal. The ethnobotanical chapter includes history of ethnobotanical research in Nepal, plants in animal husbandry and agriculture, food and beverage plants, medicinal plants, bamboo and other fiber plants, other uses of plants and Nepalese folklore. Natural cosmetics is a general term applied to articles intended to be rubbed, poured, sprinkled, introduced into or otherwise applied to the human body or any part thereof, for cleansing, beautifying, promoting attractiveness, coloring, softening or altering the appearance. The birth of cosmetics dates back to the dawn of civilization. Archaeologists estimate that cosmetics existed as long ago as 6000 BC (Khan *et al.*, 2010). Cosmetic plants, also known as botanicals or herbal plants are used in the formulation of cosmetic products have several advantages over the modern synthetic cosmetic such as: they are widely available, locally cultivate, affordable and having less or no harmful effects as compared to artificial products. Some of the common plants useful in preparation of cosmetics are: *Curcuma longa* (turmeric), *Citrus limon* (lemon), *Aloe vera*, *Zingiber officinale* (ginger), *Citrus reticulata* (orange), *Phyllanthus emblica* (Amala), *Allium sativum* (Garlic), *Psidium guajava* (Guava), *Allium cepa* (Onion), *Ocimum sanctum* (Tulsi), *Rosa alba* (Rose) etc. These plants are valued for their beneficial properties and are often used in skincare, haircare, and other personal care products. Generally, botanical products are a rich source of vitamins, antioxidants, essential oils and oils, hydrocolloids, proteins,

terpenoids and other bioactive compounds (Dubey *et al.*, 2004). The use of bioactive extracts or phytochemicals from a variety of botanicals in cosmetics accomplishes two functions: care of the body and as ingredients to influence the biological functions of the skin, providing the nutrients for healthy skin (Dureja *et al.*, 2005). There have been a few previous studies on the use of plants as cosmetics such as Panthi and Singh (2013). These previous studies suggest that the use of plant-based cosmetics is increasing in the recent days (Costa, 2015), particularly the use of plant-based cosmetics have been found to play an important role in the management of dermatological conditions. Traditional medicinal resources, especially plants (Saikia *et al.*, 2006). However, studies on the use of plant-based cosmetics are still meagre. In this study, we explored the plant species used as cosmetics in Putalibazar, Syangja.

MATERIALS AND METHODS

The present study was carried out in Bhadkhola village of Putalibazar Municipality ward no.7 Syangja district and its surrounding areas, Gandaki province, Nepal. The majority of people living in this area are Brahmin followed by Chhetri, Gurung, Kami, Damai and others. The data were collected mainly by the method of field visit, group discussion, interviews, direct observation of field, and semi-structured questionnaire method. The listed plants were categorized on the basis of life forms (tree, shrub, and herb) and also on the basis of use pattern.

RESULT AND DISCUSSION

A total of 27 plant species were documented. These 27 plants belong to 18 families. The family with largest genera is Zingiberaceae with three genera followed by the families Asteraceae,

Lamiaceae, Oleaceae, Poaceae, Rosaceae, Rutaceae and Solanaceae each with two genera and the families Amaryllidaceae, Anacardiaceae, Asphodelaceae, Cucurbitaceae, Euphorbiaceae, Maliaceae, Malvaceae, Myrtaceae, Rubiaceae and Santalaceae with single species from each family (Table 1). On the basis of their habit, 11 plants are herbs, 6 shrubs, 8 trees, and 2 climbers (Figure 1). Different parts of the plants used by the local people in this area are fruit (33%), leaves (22%), flowers (15%), rhizome (11%), seeds (11%), bark (4%) and whole plants (4%) as cosmetics. According to the villagers, fruits and

leaves of the plants are most commonly used as cosmetics.

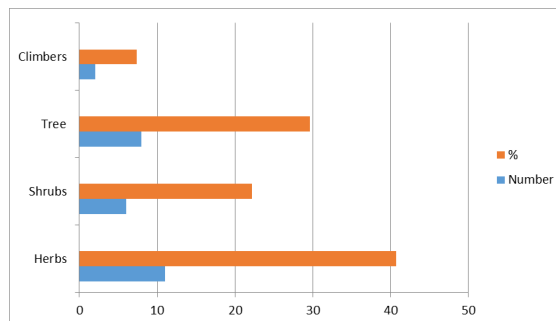


Figure 1 : Growth form of Plants used as cosmetics in Bhadkhola, Putalibazar

Table 1: Enumerated list of plants used as cosmetics in the study area

S.N	Family	Scientific Name	Vernacular Name
1.	Amaryllidaceae	<i>Allium cepa</i> L.	Pyaj
2.	Anacardiaceae	<i>Mangifera indica</i> L.	Aap
3.	Asphodelaceae	<i>Aloe vera</i> (L.) Burm.f.	Gheukumari
4.	Asteraceae	<i>Tagetes erecta</i> L.	Sayapatri
5.	Asteraceae	<i>Artemisia vulgaris</i> L.	Pati
6.	Cucurbitaceae	<i>Cucumis sativus</i> L.	Kakro
7.	Euphorbiaceae	<i>Phyllanthus emblica</i> L.	Amala
8.	Lamiaceae	<i>Mentha spicata</i> L.	Pudina
9.	Lamiaceae	<i>Ocimum sanctum</i> L.	Tulasi
10.	Maliaceae	<i>Azadirachta indica</i> A. Juss.	Neem
11.	Malvaceae	<i>Hibiscus rosa-sinensis</i> L.	Ghanti fool
12.	Myrtaceae	<i>Psidium guajava</i> L.	Belauti/Amba
13.	Oleaceae	<i>Jasminum sambac</i> (L.) Aiton	Chameliful
14.	Oleaceae	<i>Nyctanthes arbortristis</i> L.	Parijat
15.	Poaceae	<i>Imperata cylindrica</i> (L.) Raeusch.	Siru
16.	Poaceae	<i>Oryza sativa</i> L.	Dhan
17.	Rosaceae	<i>Fragaria vesca</i> L.	Strawberry
18.	Rosaceae	<i>Rosa graciliflora</i> Rehder and E.H.Wilson	Gulaf
19.	Rubiaceae	<i>Coffea arabica</i> L.	kafee
20.	Rutaceae	<i>Citrus limon</i> (L.) Burm.	Kagati
21.	Rutaceae	<i>Citrus sinensis</i> (L.) Osbeck	Suntala

22.	Santalaceae	<i>Santalum album</i> L.	Shreekhanda
23.	Solanaceae	<i>Lycopersicon esculentum</i> Mill	Golveda
24.	Solanaceae	<i>Solanum virginianum</i> L.	Kantakari
25.	Zingiberaceae	<i>Curcuma longa</i> L.	Turmeric/Besar
26.	Zingiberaceae	<i>Elettaria cardamomum</i> (L.) Maton	Alaichi
27.	Zingiberaceae	<i>Zingiber officinale</i> Roscoe	Adhuwa

The significance of ethnomedicine and ethnopharmacology is now increasingly recognized in modern medicine (Hans,1990), and these are enjoying a respectable position today, where modern healthcare services are limited. These remedies have gained popularity amongst the people of developing countries, being safe, effective, and less expensive. The identification of medicinal plants from indigenous pharmacopoeias that have been shown to have significant healing power, either in their natural state or as a source of new pharmaceuticals and the recognition that herbal formulations are less toxic than most pharmaceutical agents; during latter part of the last century made the traditional herbal medicine research mainstream worldwide (Elven-Lewis, 2001).

A wide variety of plants that can be used for cosmetic purposes are probably available at Putalibazar Syangja. Mostly turmeric, aloe vera and sandalwood has been used for centuries in Ayurvedic medicine and cosmetic preparations. Utilizing the abundance of these plants can help produce sustainable cosmetics that are made in the area. For the Badhkhola community, growing and using cosmetic plants can lead to economic prospects. By producing and selling cosmetics, it can help small businesses, generate employment, and boost the local economy. A natural and sustainable substitute for commercially accessible products is provided by cosmetic plants. These plants appeal to

people looking for organic and environmentally responsible solutions for their skincare regimens because they frequently lack synthetic chemicals, additives, and preservatives. Present study is an attempt to explore, preserve and proper documentation of traditional knowledge associated with cosmetic use of plants. Among the plants under our study area, most people were utilizing them as medicine. As our study emphasized on cosmetic use of those plant, species like turmeric, aloe vera and sandalwood are the most often utilized plants.

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