Research Article

Ethno-medicinal Plants Used by Local Communities of Pokhara Metropolitan City of Kaski District, Western Nepal

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ABSTRACT

In the diverse landscape of Pokhara Metropolitan City, Kaski district, Western Nepal, traditional medicine remains integral to the healthcare practices of many communities. This study presents a comprehensive exploration of the ethnomedicinal value of locally available plants, emphasizing detailed insights into the research methodology employed. Data were collected from field observation, interview with local people, key informants, consultation with experts and secondary sources. Collected data were analyzed and presented well in table and charts. Data analysis involved a multi-faceted approach, including the systematic compilation of information gathered through interviews and field observations. The collected data were further organized and presented in tables and charts for comprehensive visualization. Plant specimens were meticulously collected, studied, and identified using standard literature and consultation with university professors. The results revealed a rich tapestry of ethnomedicinal practices, showcasing 83 plant species distributed among 76 genera and 55 families, each playing a unique role in local healthcare. Trees emerged as the most prevalent life form, constituting 39.76% of the documented species. Noteworthy species included Ocimum tenuiflorum, Curcuma longa, and Citrus limon, with distinct medicinal applications The conservation and protection of these medicinal plants will further benefit in the prolonged sustainability of cultural as well as biological diversity.

Keywords: Ethnomedicine, Traditional medicine, Pokhara, Medicinal Plants, Lakeside

INTRODUCTION

Plants have been utilized since long period as a primary source of medications (Newman et al., 2003), and the historical practice of using plants in traditional medicine is still continued all over the world. They have been a key source of crude medications for various traditional

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medicine systems (Cuningham et al, 2008; Jayaprasad et al, 2011). Botanists, social scientists, anthropologists, and indigenous medicine practitioners around the world are frequently studying human-plant interactions in the natural environment (Biology Discussion, 2015). The interactions between people and plants have evolved in tandem with the emergence of humans; they have been using plants or plant products from the beginning of time, attempting to exploit them by altering their physical and genetic characteristics to suit their needs (Singh et al, 2011). Since the Vedic period, countries such as Nepal and India have used unrefined herbs as medicine. Medicinal plants are becoming more popular due to a number of purported benefits, including fewer side effects, and better patient compliance (Brown et al, 2008). Even if Nepal is a small country with an area of 147,516 square kilometers, it has a diversified collection of plant species. Nepal is prominent for the variety of assemblage of medicinal as well as aromatic plant resources which grow richly in different types of forest (Dhami, 2008). People from different regions of the country use those plants for medicinal as well as commercial purposes (Miya et al., 2020, 2021; Lamichhane et al., 2021; Pariyar et al., 2021; Singh et al., 2021). The comparison of traditional medicines which is established in terms of bio-active compounds in both plants and animals are practiced by different ethnic groups (Acharya and Shrivastava, 2008). Plants and people provide a mutual benefit among each other and the benefits of plants have been perceived by humans since the old ages. It is reported that Nepal consists of about 1,624 medicinal and aromatic plants and under cultivation and/or in the wild are commercially available in the crude drug market (Shrestha et al., 2002).

Nepal is a country that is multiethnic and multilingual, with 125 ethnic groups reported in census 2021(CBS, 2021). All of these ethnic groups residing in different ecological belts depend on various plants and plant products to meet the requirement of food, fodder, medicine, and so forth. Ethnic groups such as Brahmin, Magar, Chhetri, Kami, Gurung are substantially found residing in these communities. The ethnic societies constitute their own ethnomedicinal folklore and the superiority of ethnomedicine have been serving rural people throughout the world since the ancient past (Dhami, 2008). And the application of various plant resources of these communities is also somehow different than others (Malla et al, 2011). This can be distinctly observed as communities of different regions have different approaches to ethnobotany and their uses. There are a few ethnomedicinal studies and floral exploration from the Kaski district (Acharya et al, 2010; Bhattarai et al, 2011; Rana et al, 2015; Kunwar et al, 2017; Adhikari et al 2010; Adhikari et al, 2019; Miya and Gautam, 2021), but the studies incorporating these localities are rather rare. The ethnomedicinal value of locally

available plants has been integral to healthcare practices, weaving a rich tapestry of indigenous knowledge. However, a comprehensive exploration of these practices, along with a detailed understanding of the research methodology employed, has been notably absent. Despite the cultural significance of ethnomedicinal practices in Pokhara, there exists a conspicuous gap in our understanding, with limited in-depth studies on traditional healthcare systems in this region. The primary objective of this study is to comprehensively explore and document the ethnomedicinal practices associated with locally available plants in Pokhara Metropolitan City, Kaski district, Western Nepal. Specifically, the study aims to identify and catalog plant species used in traditional medicine, understand the cultural significance and traditional knowledge associated with medicinal plants, investigate the distribution and prevalence of ethnomedicinal practices across different communities within Pokhara and to provide insights into the research methodology employed for the documentation of ethnomedicinal practices, ensuring transparency and reliability of the study. As cultural practices evolve and biodiversity faces increasing threats, urgent attention is required to document and analyze the indigenous knowledge associated with medicinal plant use. As a result, this study aims to address this gap by delving into the ethnomedicinal practices of Pokhara, providing a holistic understanding of the relationship between cultural practices, biodiversity, and traditional healthcare. This research not only fills a critical void in our understanding of traditional healthcare in Pokhara Metropolitan City but also contributes to the broader discourse on the interplay between cultural practices, biodiversity, and the sustainability of traditional healing methods.

DATA AND METHODS

Study Area

The present study was conducted in and around three distinct locations of Pokhara metropolitan city, Kaski District Nepal. The study was conducted in Lamachaur-16, Lakeside-6, and Chapakot-23 (Figure 1), strategically chosen to represent distinct characteristics and ethnic compositions. Lamachaur is predominantly involved in business and jobs, Lakeside relies on tourism, and Chapakot is primarily agriculture-based. The residents of the study area are primarily of Brahmin and Chhetri ethnicity. Understandably other ethnicity such as Gurung, Magar, and Newar were also believed to be sharing the space. Lamachaur has latitude of 28.2613^0N and longitude of 83.9721^0E and has ward no.20 on the east, ward no.19 on the west and the north and Madi rural municipality on the south. Lakeside has a latitude

of 28.2100^0 N and longitude of 83.9558^0 E having Ratnachowk on the east, Pame on the west, Sarangkot on the north and Pumdi on the south. Similarly, Chapakot has a latitude of 28.2277^0 N and longitude of 83.8950^0 E having Pumdi on the east, Panchase on the west and Kaski kot on the north. The communities on Lamachaur mostly earn their livelihood through business and jobs whereas Brahmins and Chhetris of Lakeside rely on tourism as their primary income. Similarly, the majority of people in Chapakot are dependent on agriculture as their source of income. The annual average temperature of Pokhara is about 21.5°C. Similarly, the average rainfall in summer is around 799.33 mm and 4.00 mm in winter. The area receives approximately 74% of its annual rainfall during summer (Gautam et al.,2018).

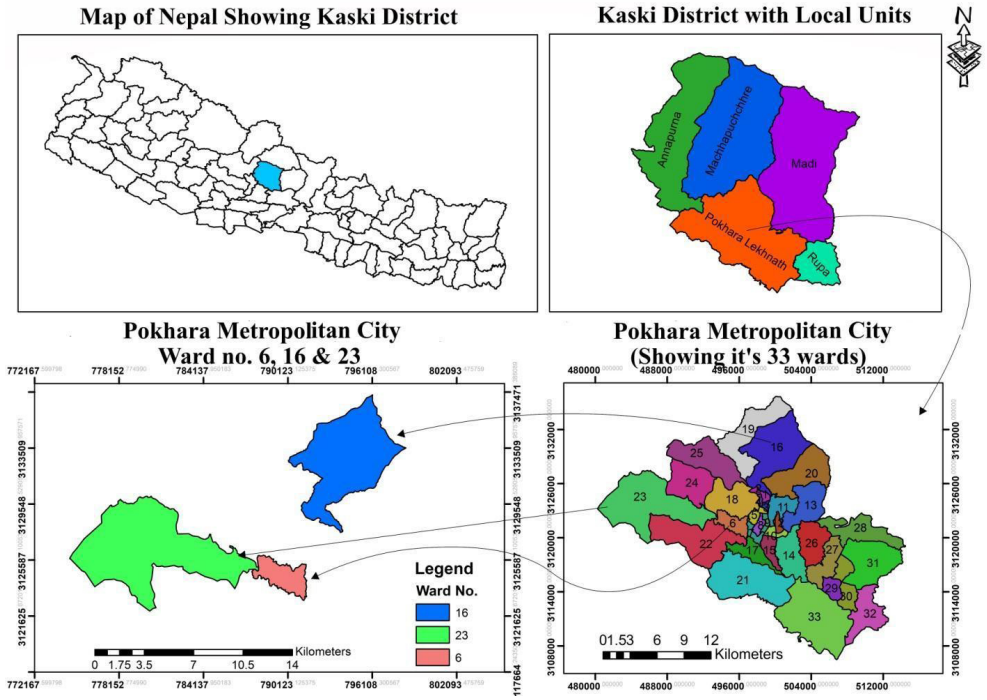
The study was conducted in the months of September and October of 2021 for the collection of ethnomedical information. Respondents were randomly chosen from three sites of Pokhara Metropolitan City (Lamachaur, Lakeside and Chapakot) of Kaski district of western Nepal. Data collection was carried out prioritizing the inclusion of elderly individuals with significant experience in utilizing medicinal plants. The data for this study were gathered through an immersive exploration of ethnomedicinal knowledge within Pokhara Metropolitan City, Kaski district, Western Nepal. To comprehensively understand the traditional healing practices, field surveys and interviews were conducted with local communities and traditional healers. These interactions yielded valuable qualitative insights into the utilization of medicinal plants, along with the associated cultural significance. Botanical surveys, carried out in collaboration with local experts, further identified and cataloged the plant species integral to traditional medicine. Participant observation played a crucial role, allowing researchers to immerse themselves in the local culture and healthcare practices. The study also involved systematic documentation of traditional knowledge, capturing details on plant names, preparation methods, and treated ailments. Additionally, a thorough review of existing literature on ethnomedicinal practices in the region complemented the primary data.

This multifaceted approach, incorporating community engagement, botanical surveys, participant observation, and literature review, ensures a holistic understanding of ethnomedicinal practices in Pokhara, contributing to the depth and authenticity of the study. Total 60 individuals (20 from each site); 6 key informants (2 from each site) were directly interviewed and cross checking was done with the consultation of 3 ethnomedicinal experts. The selection of 60 respondents for the study was guided by statistical considerations and practical constraints. This sample size is widely accepted in ethnobotanical research, allowing for meaningful insights into local knowledge while balancing resource and time limitations.

Additionally, it aligns with established norms and facilitates thorough interviews and botanical surveys within the available timeframe. The primary research tool employed for data collection in this study was structured interviews. These interviews were designed to gather detailed information from respondents regarding their knowledge of local plant use and practices. The structured format ensured consistency across interviews, enabling systematic data analysis and interpretation. The specimens were collected, critically studied and identified with the help of standard literature (Haines, 1961; Hooker, 1872-1897; Hara et al., 1978, 1982; Hara and Williams, 1979; Siwakoti, 1995; Polunin and Stainton ,1984) as well as consultation with university professors. The collected data underwent a rigorous process of qualitative analysis. Transcripts from structured interviews were systematically coded to identify recurring themes and patterns. This thematic analysis provided valuable insights into the local plant use practices. Additionally, statistical methods, including descriptive statistics, were applied to quantify certain aspects of the data. The combination of qualitative and quantitative analyses offered a comprehensive understanding of the study's subject matter.

Figure 1

Map Showing Different Wards of Pokhara Metropolitan City



RESULTS AND DISCUSSION

Medicinal plants play a vital role in Nepal's primary health care systems. Most ethnic groups have relied on them for the treatment of various diseases and for their livelihood since the dawn of civilization. This has been proven from different ethnomedicine related publications. The local communities of the study area proved to be rich in ethnomedicinal culture. A total of 83 different plant species were documented belonging to 76 different genera and 55 families (Table 1). The widespread life form of plants is tree (39.76%) followed by herb (38.55%), shrub (13.25%), climber (3.62%), grass (2.41%), and fern (2.41%) (Figure 2). Most of the medicinal plants reported belong to the family Fabaceae: six plant species. Plant species belonging to the family Asteraceae and Zingiberaceae are four each.

The local community of study area has profound knowledge on different trees, herbs and shrubs species with ethnomedicinal value. The studied area is ethnobotanically rich with diversified species. These different communities are found to be using these plant species in terms of food, medicine, timber and fodder. It was found that *Ocimum tenuiflorum* L.(31%) was the most common species used as a medicine in these communities, followed by *Curcuma longa L.* (23%), Citrus limon(L.) Osbeck (19%),*Centella sciatica* (L.) Urb. (15%) and *Zingiber officinale Roscoe* (12%). The local people of these communities are more advanced in terms of their education and economy. Even so, they tend to incline more towards the traditional methods of medicine more than the science-based ones. The lack of general awareness and superstition among the community since the old ages has been the contributing factor towards this endurance of knowledge. The younger generation seems to be incorporating traditional values along with modern medicine. The people of these areas are perturbed due to the fact that unplanned development and increasing population has resulted in loss of species with ethnomedicinal values. The plants need to be preserved in natural habitat and can be done so by establishing botanical gardens by impelling the locals for ex situ conservation (Malla et al., 2015).

Figure 2

Pie Chart Showing the Life Form of Plants (n=83)

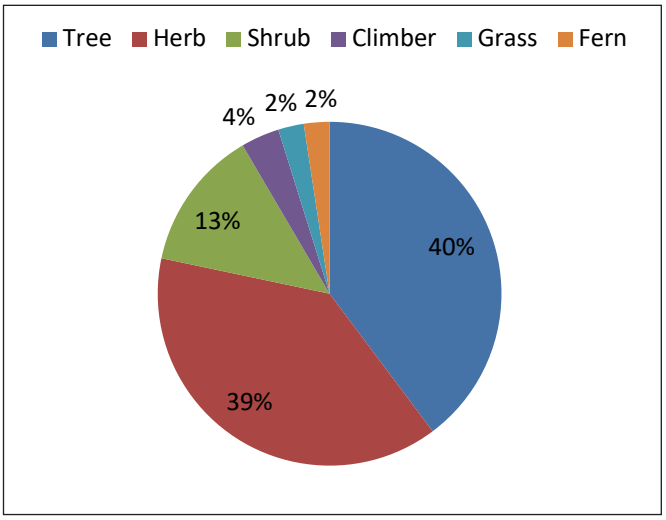


Table 1

List of Ethnomedicinal Plants Used by Local Communities of Kaski

S. N.	Scientific Name	Local Name	Family	Life form	Part used	Uses	Modes of uses
1.	*Acacia catechu (L.f.) Willd.*	Khair	Leguminosae	Tree	Flower, wood	gonorrhea, diarrhea, dysentery	The flower and wood are used to treat gonorrhea, diarrhea and dysentery.
2.	*Acacia nilotica (L.) Delile*	Babul	Leguminosae	Tree	Young plant	Venereal	The young plant is used to treat venereal.
3.	*Achyranthes bidentata Blume*	Datiwan	Amaranthaceae	Herb	Whole body	Typhoid, anti-allergic, asthma	The whole body is used to treat typhoid and asthma. It is also regarded as anti-allergic.
4.	*Acmellacalva (DC.) R.K. Jansen*	Marathi	Compositae	Herb	Fruit or Flower	Intestinal worms	The fruit and the flower of the species is extracted for the treatment of intestinal worms.

S. N.	Scientific Name	Local Name	Family	Life form	Part used	Uses	Modes of uses
5.	*Acorus calamus L.*	Bojho	Acoraceae	Herb	Rhizome	Asthma, cough	The rhizome of the plants is used to treat asthma and cough.
6.	*Adhatodazeylanica Medik.*	Asuro	Acanthaceae	Tree	Leaf	Catarrh, cough	The leaf is used to treat catarrh and cough.
7.	*AgeratinaAdenophora (Spreng.) R.M.King & H.Rob.*	Banmara	Compositae	Shrub	Leaf	Cuts and wounds	The leaf is applied to heal the cuts and wounds.
8.	*Allium cepa L.*	Pyaj	Amaryllidaceae	Herb	Bulb, leaf	Whooping cough, vegetable, eczema, rheumatic pain	The bulb and leaf of the species are used to treat whooping cough, eczema and rheumatic pain.
9.	*Allium sativum L.*	Lasun	Amaryllidaceae	Herb	Bulb	Diarrhea, gastritis	The bulb of the plant is used to treat diarrhea and gastritis.
10.	*Aloe vera (L.) Burm.f.*	Ghiukumari	Asphodelaceae	Herb	Leaf	Fever, skin infection, burns	The leaf of the plant is used for the treatment of fever, skin infection and burns.
11.	*Amaranthus hypochondriacus L.*	Latte ful	Amaranthaceae	Herb	Whole plant	Diarrhea, wounds	The whole plant is used to treat diarrhea and wounds.
12.	*Amomum subulatum Roxb.*	Alainchi	Zingiberaceae	Herb	Fruit	Cough and cold	The fruit of the plant is used to treat cough and cold.
13.	*Ananas comosus (L.) Merr.*	Bhui-katahar	Bromeliaceae	Shrub	Fruit	Indigestion	The fruit of the plant is used to treat indigestion.
14.	*Annona squamosa L.*	Sarifa	Annonaceae	Shrub	Leaf	Ulcer, dysentery, wound	The leaf of the plant is used to treat ulcer and dysentery as well as to heal the wounds.

S. N.	Scientific Name	Local Name	Family	Life form	Part used	Uses	Modes of uses
15.	*Artemisia dubiaL. ex B.D.Jacks.*	Titepati	Asteraceae	Herb	Leaf	Allergy, anti-bacterial	The leaf of the plant has anti allergic as well as antibacterial properties.
16.	*Asparagus racemo-susWilld.*	Kurilo	Asperagaceae	Shrub	Whole plant	Diabetes	The whole plant is used in the treatment of diabetes.
17.	*Azadirachta-indicaA.Juss.*	Neem	Meliaceae	Tree	Leaf and bark	Fever, cough and skin disorders	The leaf and the bark of the plant are used to treat fever, cough and skin disorders.
18.	*Basella alba L.*	Poisag	Basellaceae	Herb	Apical shoot	Insomnia	The apical shoot of the plant is used to treat insomnia.
19.	*Bauhinia purpurea L.*	Koiralo	Leguminosae	Tree	Bark	Gastritis	The bark of the plant is used to treat gastroenteritis.
20.	*Berberis aristata DC.*	Chutro	Berberidaceae	Shrub	Bark and root	Typhoid, jaundice, diarrhea	The bark and root of the plant are used in the treatment of typhoid, jaundice and diarrhea.
21.	*BlumeaLacera(Burm.f.) DC.*	Kurkure	Asteraceae	Herb	Leaf	Cuts	The leaf of the plant is used to heal cuts.
22.	*Bombax ceiba L.*	Simal	Bombacaceae	Tree	Root, Bark	Dysentery, fracture	The root and bark of the plant are used in the treatment of dysentery and fracture.
23.	*Cannabis sativa L.*	Bhang	Cannabaceae	Shrub	Leaf, flower	Piles	The leaf and flower of the plant are used to treat piles.
24.	*CentellaAsiatica(L.) Urb.*	Ghod-tapre	Apiaceae	Herb	Whole body	Cough, typhoid	Whole plant is used to cure cough and typhoid.
25.	*Chenopodium*						

S. N.	Scientific Name	Local Name	Family	Life form	Part used	Uses	Modes of uses
Al-bum L.	*Bethe*	Chenopodi-aceae	Shrub	Young shoot	Constipa-tion, nutri-tion	The young shoots of the plant are used to cure con-stipation and nutritional diseases.	
26.	*Cinnamomum tamala(-Buch.-Ham.) T.Nees&E-berm.*	Tejpat	Lauraceae	Tree	Leaf and bark	Gastritis, fever	The leaf and bark of the plant are used in the treat-ment of gastritis and fever.
27.	*Citrus aurantiifo-lia(Christm.) Swingle*	Kagati	Rutaceae	Tree	Fruit	Skin disorder, jaundice	The fruit of the plant is used to cure skin disorder and jaundice.
28.	*Citrus li-mon(L.) Os-beck*	Nibua	Rutaceae	Tree	Fruit	Food poison-ing	The fruit of the plant is used in the treatment of food poisoning.
29.	*Coffea Arabi-ca L.*	Coffee	Rubiaceae	Tree	Fruit	Headache	The fruit of the plant is used to treat headache.
30.	*Coriandrum sativum L.*	Dhaniya	Apiaceae	Herb	Leaf, seed	Stomach disorders, diabetes	The leaf and seed of the plant are used in the treat-ment of stomach disorders and dia-betes.
31.	*Crotonbon-plandianus-Baill.*	Mirchaiya-jhaar	Euphorbiaceae	Herb	Leaf, Root	Ulcer, cuts	The leaf and root of the plant are used to cure ulcer and cuts.
32.	*Curcuma angustifolia Roxb.*	Barkhesarro	Zingiberaceae	Herb	Rhizome	Stomach ache, gastritis	The rhizome of the plant is used in the treatment of stomachache and gastritis.
33.	*Curcuma lon-ga L.*	Besar	Zingiberaceae	Herb	Rhizome	Sore throat, fever, com-mon cold	The rhizome of the plant is used to treat sore throat, fever and common cold.
34.	*Cyathea spinulosaWall. ex Hook.*	Chhatre	Cyatheaceae	Fern	Soft pith	Body pain	The soft pith of the plant is used to cure body pain.

S. N.	Scientific Name	Local Name	Family	Life form	Part used	Uses	Modes of uses
35.	*CynodonDactylon(L.) Pers.*	Dubo	Poaceae	Herb	Whole plant	Diarrhea, dysentery	Whole plant is used in the treatment of diarrhea and dysentery.
36.	*Cyperus rotundus L.*	Mothekaseru	Cyperaceae	Herb	Tuber	Stomach ache	The tuber of the plant is used to treat stomach ache.
37.	*Dalbergia sissoo DC.*	Sisau	Fabaceae	Tree	Leaf, Stem	diarrhea, scabies	The leaf and stem of the plant are used in the treatment of diarrhea and scabies.
38.	*Drymariadiandra Blume*	Abhijalo	Caryophyllaceae	Herb	Whole plant	Sinusitis	Whole plant is used to cure sinusitis.
39.	*Erythrina stricta Roxb.*	Phaledo	Fabaceae	Tree	Bark	Typhoid	The bark of the plant is used to treat typhoid.
40.	*Euphorbia hirta L.*	Aanklejhar	Euphorbiaceae	Herb	Whole plant	Piles	Whole plant is used to cure piles.
41.	*Ficus benghalensis L.*	Bar	Moraceae	Tree	Milky juice	Heel cracks, venereal Disease, cataract	*The milky juice of the plant is used to treat venereal diseases, cataract and heel cracks.*
42.	*Ficus religiosa L.*	Peepal	Moraceae	Tree	Leaf, Bark and Fruit	Rheumatoid arthritis, diabetes, atherosclerosis	The leaf, bark and fruit of the plant are used to treat rheumatoid arthritis, diabetes and atherosclerosis.
43.	*Fraxinus floribunda Wall.*	Lankuree	Oleaceae	Tree	Bark	Broken legs, arms	The bark of the plant is used for the treatment of broken legs and arms.
44.	*Jatropha curcas L.*	Sajiwan	Euphorbiaceae	Tree	Stem and Leaf	Tonsillitis	The stem and leaf of the plant are used to treat tonsillitis.

S. N.	Scientific Name	Local Name	Family	Life form	Part used	Uses	Modes of uses
45.	*Juniperus indicaBertol.*	Dhupi	Cupressaceae	Tree	Stem, Seed	Blood pressure, congestion, bone pain, rheumatism	The stem and seed of the plant are used to cure blood pressure, bone pain and rheumatism.
46.	*Lepidium sativum L.*	Chamsur	Brassicaceae	Herb	Whole plant	Rheumatism, liver problems	Whole plant is used to treat various liver problems and rheumatism.
47.	*Leucaena leucocephala(Lam.) de Wit*	Seto babul	Fabaceae	Tree	Seed	Ascaris, trichinosis	The seed of the plant is used to treat ascaris and trichinosis.
48.	*Litsea-cubeba(Lour.) Pers.*	Siltimur	Lauraceae	Tree	Seed	Gastritis, sore throat	The seed of the plant is used to treat gastritis and sore throat.
49.	*Magnolia champaca(L.) Baill. ex Pierre*	Chaap	Magnoliaceae	Tree	Flower, Steam and Bark	Diabetes, cardiac disorder, gout	The flower, stem and bark of the plant are used for the treatment of diabetes, cardiac disorder and gout.
50.	*Mangifera indica L.*	Aanp	Anacardiaceae	Tree	Bark	Inflammation, menstrual bleeding, scabies, diabetes, diarrhea	The bark of the plant is used to cure inflammation, menstrual bleeding,
51.	*Mirabilis jalapa L.*	Lanka sani	Nyctaginaceae	Herb	Rhizome	Gastritis, body pain	The rhizome of the plant is used to treat gastritis and body pain.
52.	*Melia azedarach L.*	Bakenu	Meliaceae	Tree	Bark	Diarrhea	The bark of the plant is used to cure diarrhea.
53.	*Mentha spicata L.*	Pudina	Lamiaceae	Herb	Whole plant	Diarrhoea, dysentery, stomach ache	Whole plant is used in the treatment of diseases like diarrhea, dysentery and stomach ache.
54.	*Mimosa pudica L.*	Lajjawati	Fabaceae	Herb	Root	Scabies	The root of the plant is used to cure scabies.

S. N.	Scientific Name	Local Name	Family	Life form	Part used	Uses	Modes of uses
55.	*Momordica charantia L.*	TiteKarela	Cucurbitaceae	Climb-er	Fruit	Piles and high blood pressure	The fruit of the plant is used to treat piles and high blood pressure.
56.	*Moringa oleif-era Lam.*	Sigru	Moringaceae	Tree	Bark	Rheumatism	The bark of the plant is used to treat rheumatism.
57.	*Morus alba L.*	Kimbu	Moraceae	Tree	Bark	Toothache	The bark of the plant is used for the treatment of toothache.
58.	*Myrica esculent-aBuch.-Ham. ex D. Don*	Kafal	Myricaceae	Tree	Fruit	Diabetes	The fruit of the plant is used to treat diabetes.
59.	*Nephrolepis-cordifolia(L.) C. Presl*	Pani Amala	Nephrolepida-ceae	Fern	Tuber	Dehydration, jaundice	The tuber of the plant is used to treat dehydration and jaundice.
60.	*Nicotiana tobacumSpeg.*	Kachopaat	Solanaceae	Herb	Leaf	Infected cuts and wounds	The leaf of the plant is used to treat infected cuts and wounds,
61.	*Nyctanthesar-bortristisCra-ib*	Parijaat	Oleaceae	Tree	Leaf	Fever, rheu-matism	The leaf of the plant is used to cure fever and rheumatism.
62.	*Ocimumtenui-florum L.*	Tulasi	Lamiaceae	Shrub	Whole plant	Heart failure, flu, other heart diseases	Whole plant is used for the treat-ment of heart fail-ure, flu and other heart diseases.
63.	*Oxalis cornic-ulate L.*	Chariamilo	Oxalidaceae	Herb	Whole plant	Indigestion, appetizer	Whole plant is used for the treat-ment of indiges-tion and appetizer.
64.	*Periploca-calophyl-la(Wight) Falc.*	Chautajor	Asclepiadaceae	Herb	Root	Backbone and body pain	The root of the plant is used to cure backbone and body pain.
65.	*Prunus persi-ca(L.) Batsch*	Aaru	Rosaceae	Tree	Bark and leaf	Sore throat	The bark and leaf of the plant are used to treat sore throat.

S. N.	Scientific Name	Local Name	Family	Life form	Part used	Uses	Modes of uses
66.	*Psidium guajava L.*	Amba	Myrtaceae	Tree	Leaf	Mental illness	The leaf of the plant is used to treat mental illness.
67.	*Punica granatum L.*	Anar	Punicaceae	Tree	Fruit and Bark	Dysentery, diarrhea	The fruit and bark of the plant are used for the treatment of diarrhea and dysentery.
68.	*Rauvolfiaserpentina(L.) Benth. ex Kurz*	Chand maruwa	Apocynaceae	Herb	Leaf	Mental disorder	The leaf of the plant is used to treat mental disorders.
69.	*Rhododendron arboretum Sm.*	Lali gurans	Ericaceae	Tree	Flower	Throat obstructions, diarrhea, dry cough	The flower of the plant is used to cure throat obstructions, diarrhea and dry cough.
70.	*Rubus ellipticus Sm.*	Ainselu	Rosaceae	Tree	Root	Fever, sore throat	The root of the plant is used to treat fever and sore throat.
71.	*Rumex nepalensisSpreng.*	Halhale saag	Polygonaceae	Herb	Whole plant	Constipation, skin infections, diarrhoea	Whole plant is used to treat constipation, skin infections and diarrhea.
72.	*Saccharum officinarum L.*	Ukhnu	Poaceae	Grass	Stem	Jaundice	The stem of the plant is used for the treatment of jaundice.
73.	*Saccharum spontaneum L.*	Kaans	Poaceae	Grass	Flower	Cuts	The flower of the plant is used to cure cuts.
74.	*Solanum torvum Sw.*	Setobihee	Solanaceae	Shrub	Fruit	Toothache	The fruit of the plant is used to treat toothache.
75.	*Stephania japonica(Thunb.) Miers*	Batulepaat	Menispermacae	Climber	Leaf	Hemorrhage	The leaf of the plant is used to cure hemorrhage.
76.	*Swertia chirayita(Roxb.) Buch.-Ham. ex C.B.Clarke*	Chiraito	Gentianaceae	Herb	Leaf	Constipation, fever, headache	The leaf of the plant is used for the treatment of constipation, fever and headache.

S. N.	Scientific Name	Local Name	Family	Life form	Part used	Uses	Modes of uses
77.	*Tinosporasinensis(Lour.) Merr.*	Gurjo-ko-laharaa	Menispermaceae	Climber	Stem	Venereal disease	The stem of the plant is used to cure venereal diseases.
78.	*Viburnum mullaha-Buch.-Ham. ex D. Don*	Molo	Sambucaceae	Tree	Fruit	Food poisoning	The fruit of the plant is used for the treatment of food poisoning.
79.	*Viola canescens Wall.*	Aankhlejhar	Violaceae	Herb	Leaf	Joint pain	The leaf of the plant is used for the treatment of joint pain.
80.	*Woodfordiafruticosa (L.) Kurz*	Ras dhainyaro	Lythraceae	Shrub	Flower	Diarrhea, dysentery	The flower of the plant is used to cure diarrhea and dysentery.
81.	*Zanthoxylum armatum DC.*	Parparetimmur	Rutaceae	Shrub	Seed	Gastritis, intestinal worms, toothache, poisoning	The seed of the plant is used to cure gastritis, Intestinal worms, Toothache, Poisoning
82.	*Zingiber officinaleRoscoe*	Adhuwa	Zingiberaceae	Herb	Rhizome	stomachache, common cold, vomiting	The rhizome of the plant is used to treat stomach ache, common cold and vomiting.
83.	*Ziziphus mauritiana Lam.*	Bayer	Rhamnaceae	Tree	Fruit	Measles	The fruit of the plant is used to cure measles.

CONCLUSIONS

This research thoroughly explores how local communities rely on native plants, showing that these plants are deeply intertwined with daily life, culture, and economy. Through interviews and careful analysis, it becomes clear that these native plants are essential to these communities. Recognizing the vital role of native plants is not just something for academics to think about; it has real-world implications for how we manage our resources sustainably. The findings of this study go beyond the world of academic research; they call for real, practical actions to conserve our environment. Understanding how these plants are used is not just about preserving traditions; it also helps in protecting different plant species and, in turn, the variety of life on our planet. In a world where modernization often threatens traditional knowledge,

this research emphasizes the importance of combining old wisdom with what we know now about preserving our environment. It's like blending the best of the old and the new to make sure we're taking care of our planet properly. This study is more than just a wake-up call for responsible resource management; it's a reminder that we need to make sure these important plant resources last for a long time. By connecting the traditional practices of indigenous communities with efforts around the world to take care of our environment, this research adds important information to the ongoing conversation about how to keep our planet healthy for the future. These insights aren't just for people who study this kind of thing; they're practical things we can all think about to make sure we're taking care of our planet for a long time to come.

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