Documentation of flowering plants and ethnobotany in Jhilmil Lake area, Kanchanpur, Sudurpaschim Province

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Documentation of indigenous knowledge about plants plays a key role for conservation and utilization of plant resources. The present paper documents the diversity of plants and their traditional use in and around the Jhilmil Lake Area, one of the forest-dominated peri-urban areas of Kanchanpur district lying in Sudurpaschim Province. Vegetation sampling and ethnobotanical surveys were carried out twice between January, 2020 and January, 2021. Semi-structured questionnaire and checklists were used to record the use and distribution of the plant species and their conservation. A total of 126 plant species representing 52 families and 113 genera were reported. Among the total plants recorded, 114 (90.48 %) species were found to be ethnomedicinally used. The results showed that the use of plants as ethnomedicine was culturally motivated and less influenced by availability of the plants. The plant "importance value index" (IVI) was found to be negatively associated with the plant "relative frequency of citation" (RFC; p=0.057–0.790). The high RFC values of the trees and climbers hinted that the plant collection was subjectively oriented towards quality products. The findings suggested that the rare plants with high-use values such as *Pterocarpus marsupium, Dalbergia latifolia, Rauvolfia serpentina, Citrus limonum, and Mussaenda frondosa* should be prioritised for future conservation. It illustrates that lakes in forested areas are essential resources for plant diversity and local life because they include a variety of rare and useful local plant species.

Key words: Ethnomedicine, ethnomedicinal value, importance value index, relative frequency citation.

About 80% of the population of the developing world relies on traditional medicines for primary healthcare (WHO, 2014). In Nepal, about 70–80% populace in the mountain region depends on traditional medicines for health care (Manandhar, 1980). There are over 6,500 species of higher plants in Nepal, of which about 2,000 species are used medicinally (Ghimire, 2008; Kunwar *et al.,* 2021). However, due to the changing life style, secrecy of traditional healers, availability of modern health facilities and the tendency of younger generation to leave behind the tradional practices, the knowledge on medicinal plants is disappearing (Kutal *et al.,* 2021). The traditional knowledge about medicinal plants is declining fast in the lowlands of Nepal (Manandhar & Chaudhary, 1988). Therefore, documentation of indigenous knowledge about the usefulness of plants from the lowland areas is important for the preservation of traditional knowledge and conservation of useful plant species. Wetlands, forest, and vegetation in the lowland Terai region have declined dramatically in terms of both area

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and density over the last few decades (Subedi, 2019), threatening traditional livelihoods.

Tropical forests are confined to the Terai and Siwalik, and comprise over 500 plant species (Shrestha *et al.,* 2002). There are over 240 wetland sites in western Nepal, of which 163 are in the lowland Terai regions of Nepal (Siwakoti & Karki, 2010). Kanchanpur district has over 700 plant species, including over 300 medicinal plants, of which more than half are employed in traditional medicine (DNPWC, 2006; Bhatt *et al.*, 2021). Khatiwada *et al.* (2019) identified 15 macrophyte species from Jhilmil Lake. Kunwar *et al.* (2015), on the other hand, inventoried the macrophytes of the Mahakali River, which runs near the Jhilmil Lake, and documented 140 plant species. Nepal's Terai region is densely populated, resulting in enormous encroachment and pressure on the forest resources. Forest encroachment, habitat degradation and biological invasion are prevalent in western Nepal (Weaver, 2001; Kunwar & Acharya 2013), altering both the local flora and culture. The collection of fuelwood, fodder, edible and medicinal plants from the wild has put further strain on the forests and flora. The higher dependency on the plants is due to the preferences given by the local people to subsistence livelihood and traditional herbal remedies as well as poverty, accelerated human population, and belief in the effectiveness of folklore herbal remedies (Bhattarai, 1992). Habitat loss, agricultural run-off, drainage and over exploitation of the forest resources owing to the escalating human onslaughts has led to the reduced area of wetlands, there by endangering various biological resources in the Terai region of Sudurpaschim Province. Moreover, the Tarai and wetland areas are on the hardest hit by the increasing temperature and erratic rainfall (DoFSC, 2021).

Rural distant places, rich in biodiversity and managed by local communities for their livelihoods, are frequently ignored in research priorities. Although wetlands have aesthetic benefits and offer a variety of services and goods, their socioeconomic benefits, biodiversity, and sustainability have not been sufficiently investigated (Poudel, 2009; Khatiwada *et al.*, 2021). The Jhilmil Lake has also high natural as well as religious significance. The lake is surrounded by dense forests; however, the status of its plant biodiversity and utilization of plants & plant products are poorly understood.

Documentation of plant biodiversity and indigenous knowledge through ethnobotanical studies play a crucial role in the conservation and sustainable utilization of plant biodiversity. The main objective of this study was to analyze the plant-people interactions within the Jhilmil Lake Area (JLA), one of the forest-dominated peri-urban areas of Kanchanpur district. Besides, this study aimed to document the composition of the plant species, and assess the plant use values and conservation initiatives therein.

Study area

The study was conducted in and around the Jhilmil Lake located at an altitude of 801m above the mean sea level (msl) within the Ward No. 9 of Bhimdatta Municipality, the district headquarters of Kanchanpur district which lies in the Sudurpaschim Province of Nepal (Figure 1). The study was accompished in the year 2021. Jhilmil Lake is situated between 29.05^0–29.06^0 N latitudes and 80.185^0–80.188^0 E longitudes, and is about 10km north of Bhimdatta Municipality. Extending over an area of 1610 km^2, Kanchanpur district stretches from the Nepal-India border along the Mahakali River on the west to the Mohana River on the east and from the Nepal-India border along the Terai plain on the south to the Shiwalik ridge on the north. The altitude of the terrain ranges from 175 m to 1575 m above the msl. The district, moreover, exhibits sub-tropical type of climate with an average annual precipitation of 1717 mm and temperature range of 3–42 ^oC (DDC Kanchanpur, 2008). The local biodiversity is, no doubt, influenced by the rising warmth and irregular rainfall (Figure 2). The district possesses a number of beautiful lakes such as Betkot, Rani, Pyara, Sundue, and Jhilmil. The Jhilmil Lake covers an area of 4ha, and is surrounded by thick forest. Due to slightly steeper terrain, the southern and northern regions of the lake are more vulnerable to landslides and trash deposition as compared to its eastern and western

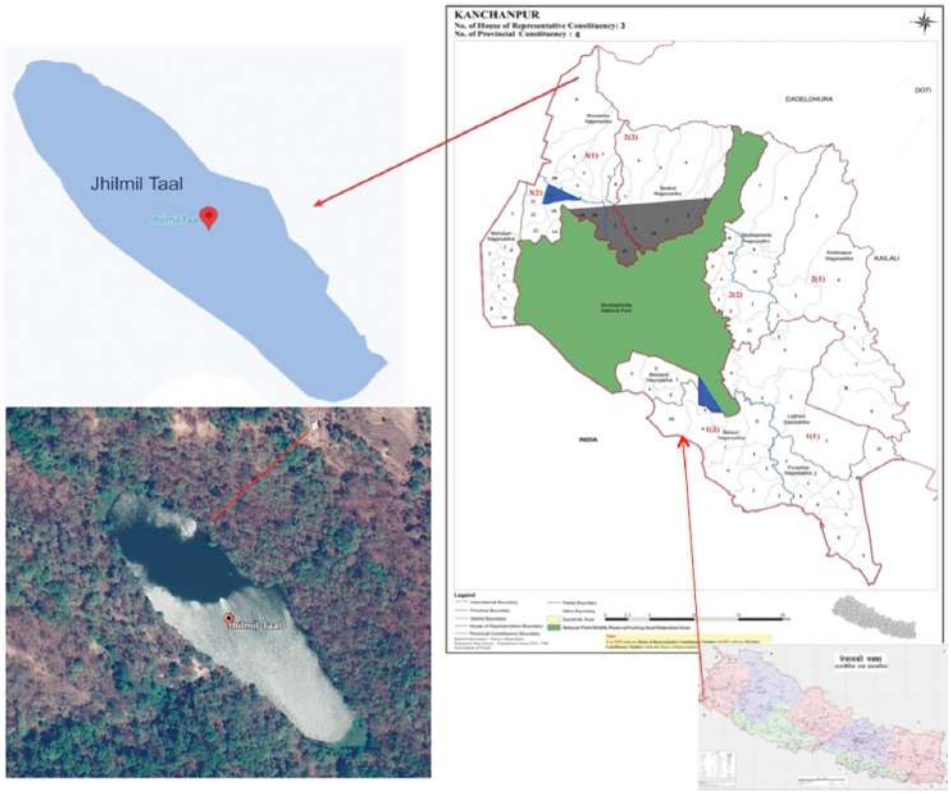

Figure 1: Map showing the location of the study area (Jhilmil Lake) along with its Google Earth Image, 2021 (Source: DoFSC, 2021)

borders (Figure 2). Approximately, 3,000 people visit the lake every year because of its natural beauty, surrounding evergreen forest, ease of accessibility, and spiritual significance, particularly during the months of Shrawan, Ashoj, and Chaitra when various Hindu festivals are observed in the region. As a result, the lake has the potential for tourism expansion. However as a result of increased tourism, human interferences are slowly causing the lake to deteriorate. The ecological and ethnobotanical values of the lake have not been thoroughly studied or documented despite the fact that they have the potential to attract tourists because of their natural beauty and significance as a place of pilgrimage.

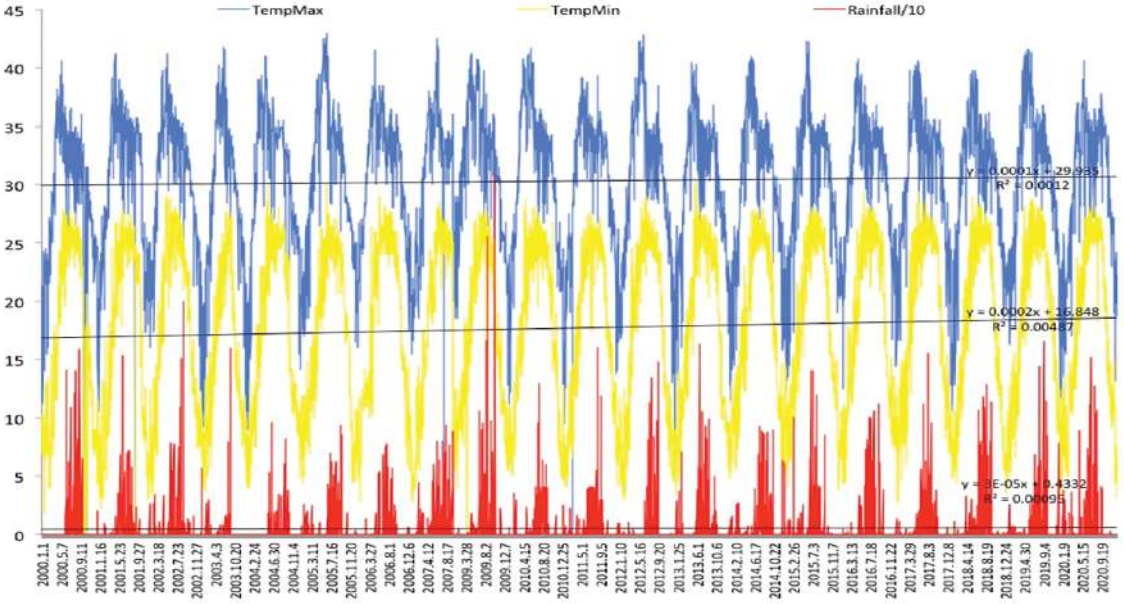

Figure 2: Graph depicting daily temp and rainfall of Bhimdatta Municipality (2000–2020); rainfall data (mm) divided by 10 in order to present both rainfall and temp data

Material and methods

Field visits and ecological & ethnobotanical study

Sampling was conducted around the Jhilmil Lake covering all the northern, southern, eastern and western sides. A total of 10 quadrats, each measuring 10m×10m, were laid following stratified random sampling following Misra (1968). Fieldwork was carried out twice between January, 2020 and January, 2021. Each fieldwork lasted for 25–30 days. The data and information regarding the composition of plant species, habitat condition, indigenous uses of the plants, and local conservation measures were collected during the fieldwork. Ecological indices such as distribution, frequency, density, and importantance value index (IVI) were calculated following Curtis & McIntosh (1951) and Zobel *et al.* (1987). Plant samples were collected for voucher records and ethno-ecological assessments.

To assess the distribution of plant use knowledge, a total of 20 respondents including 15 men and 5 women with the age ranging from 45 to 75 years were randomly selected from the Nyaulebasti and Tarakot Villages lying at the north and east sides of the Lake. Among the 20 respondents, 12 were Vaidhyas (traditional practitioners of Ayurveda), 2 Guruwas (traditional healers of Tharu Community) and 6 migrant traditional healers from Darchula (1), Baitadi (1), Dadeldhura (1), Achham (1), Doti (1) and Bajhang (1) districts. The ethnic composition of the respondents consisted of Brahmin (2), Kshetri (3), Janajati (4), Dalit (5) and Tharu (6). They were interviewed using semi-structured questionnaire following Kunwar *et al.* (2019).

During the course of our survey, the names of the beneficial plant species, as well as their usage, distribution, and method of application, were noted. A semi-structured questionnaire was used for survey, and supplementary information were collected through informal meetings following Putnam (1975). While pursuing informal meeting and questionnaire surveys, the information on the dominant plant species and the most useful species together with their vernacular names and their conservation status were also collected. The information gathered were compared with those of Bhatt & Kunwar (2020; 2021), Bhatt (2019), Dhami (2008), and Kumar *et al.* (2002). Furthermore, the species were reconfirmed by comparing them to herbarium specimens deposited at the Department of Botany, Siddhanath Science Campus, Bhimdatta Municipality (previously Mahendranagar), and all the collected voucher specimens (126) were deposited there. The Plant List (http://www.theplantlist.org/) was used to confirm the scientific names of all the plants and their families. The relative frequency of citation (RFC) of each plant species was computed using the following formula devised by Rehman *et al.* (2020):

$$RFC = RC/N,$$

Where, RC = No. of informants who used the plant species; and

N = Total no. of informants during the survey.

We evaluated $p<0.05$ to be statistically significant following Sokal and Rholf (1995), and utilized the "generalized linear regression model" to determine whether or not there was a correlation between the ecological value (IVI) and the ethnomedicinal value (RFC) of the various plant species, as well as if the greater plant usage value had linkage with the higher ecological value.

Results

Jhilmil Lake and its ecosystem

Jhilmil Lake is situated along the Churia Range that links the low lands of Terai and Bhimdutta Municipality on the south and the Mahabharat Ranage on the north. The northern and eastern parts of the lake are occupied by wetlands while the southern and western parts are covered with the mixed tropical vegetation under the Baijnath Siddhanath Community Forest (BSCF). As the lake is located nearby the Bhimdutta Municipality, it is regarded as a "peri-urban area". It has a diverse environment that includes forests, transitional zones, and vacant land. The lower belt (forested area) of Jhilmil Lake is

protected by the rules and regulations (under the Forest Act 1993) of the BSCF whereas its upper area is protected by the Churia Conservation Area (CCA), a recently enforced initiative of the Government of Nepal under the Environment Protection Act 1996, and is protected by its rules and regulations. Furthermore, the lake contains a variety of land use and ecosystem types within its boundaries; nonetheless, land use change resulted in an increase in forest area by 1.37 % at the expense of barren land (-1.35 %) around the lake over a ten-year period between 2010 and 2020.

Plant biodiversity

A total of 126 flowering plants of 113 species belonging to 52 families were found around the vicinity of Jhilmil Lake (see Annex 1). "Fabaceae" (with 19 species) was found to be the dominant family followed by "Poaceae" (with 7 spp.), "Lamiaceae" (with 7 spp.), "Asteraceae" (with 6 spp.), "Apocyanaceae" (with 5 spp.), "Combretaceae" (with 5 spp.), and so on (see Annex 1). The southern and western parts of the lake were found to be rich in plant species richness and diversity as it had mosaic habitat (open spaces, wetland ecosystem, and undulating slopes) with gravel type of soil texture.

The top 10 dominant plant species based on frequency, density and IVI as observed during our field visit are presented in Table 1. Sal (*Shorea robusta*), being the dominant species in the forest, is of profound socio-ecological importance. Although the lake is far from the city, the forests and settlements surrounding the lake were found to be invaded by invasive alien plant species (IAPS) such as *Ageratum houstonianum* and *Lantana camara*. The recorded dominant species were *A. houstonianum, Cynodon dactylon, Himalaycalamus asper, Ocimum gratissimum, Rubus ellipticus, Asparagus racemosus, Eulaliopsis binata,* and *L. camara* (Table 1). Among the ten dominant species, one belonged to tree species, three to shrub, three to herb, two to grass, and one to climber species.

Table 1: Dominant plant species reported around Jhilmil Lake

S. N.	Scientific Name	Local Name	Family	Plant Form	Relative Density	Relative Freq.	IVI
1.	*Dioscorea deltoidea* Wall. Ex Griseb.	Tarul	Dioscoriaceae	Climber	2.90	0.88	1.89
2.	*Ocimum gratissimum* L.	Ban Tulsi	Lamiaceae	Shrub	2.40	0.88	1.64
3.	*Himalayaclamus asper* Stapleton	Nigalo	Poaceae	Bamboo	2.29	0.88	1.58
4.	*Rubus ellipticus* Sm.	Ainselu	Rosaceae	Shrub	2.18	0.88	1.53
5.	*Cynodon dactylon* (L.) Pers	Dubo	Poaceae	Grass	2.18	0.88	1.53
6.	*Ageratum houstonianum* Mill.	Ganaune Jhar	Asteraceae	Herb	2.12	0.88	1.50
7.	*Saccharum spontaneum* L.	Kans	Poaceae	Grass	2.12	0.88	1.50
8.	*Shorea robusta* Gaertn.	Sal	Dipterocarpaceae	Tree	1.95	0.88	1.42
9.	*Eulaliopsis binata* (Retz.) C.E. Hubb	Babiyo	Poaceae	Grass	1.90	0.88	1.39
10.	*Lantana camara* L.	Banmara	Varbenaceae	Shrub	1.84	0.88	1.36

A higher number of trees but only a few shrubs & herbs were noticed around the lake; the reason might be because the lake is distant from the human settlement and relatively less disturbed. There were 57 tree species, accounting for 45% of the total 126 plant species (Table 2). The top 10 plant species found around the lake along with their IVI scores and the most use RFC values are presented in Table 3.

Table 2: Ecological and ethnobotanical values of plants

Plant Life Form	Number	Average IVI	Average RFC	Remarks
Tree	57 (45.2%)	0.64	0.55	Dominant, frequently used
Shrub	17 (13.5%)	0.92	0.41	-
Herb	34 (27.0%)	0.85	0.51	-
Grass	13 (10.3%)	1.06	0.27	-
Climber	5 (4.0%)	1.12	0.62	-
Total	**126 (100%)**	**-**	**-**	**-**

Useful plants and their association with plant biodiversity

Among the total 126 plant species found within the study area, 114 (90.48%) species were used to treat various ailments and diseases, and the other 12 (9.52%) species were used as firewood, forage and fodder. The highest number of useful medicinal plants was attributed to the fact that it has mosaic habitat featured with open spaces, wetland, and undulating slopes and far away from the city area. The collection of forest products, fuelwood, fish, fodder and medicinal plants was found to be rampant. The major tree species found around the lake were: *Dalbergia sissoo, Adina cordifolia, Buchanania latifolia, Semecarpus anacardium, Terminali atomentosa, Emblica officinalis, Bauhinia variegata, Alstonia scholaris, Bombax ceiba, Acacia catechu,* and *Pterocarpus marsupium*, all with ethnomedicinal value and the latter six being rare, indigenous, and threatened (figure 3).

We investigated the relationship between the ecology (of the lake) and ethnomedicine by employing the plant IVI values and the plant family IVI values along with the plant harvest and use. Neither the plant IVI values nor the plant family IVI values were found to be positively linked with the plant collection and use. The individual plant IVI values ($p=0.057$, $F=3.66$, & $R^2=23$; Figure 4: upper one) were found to be adversely linked with the plant family IVI values ($p=0.79$, $F=0.06$, & $R^2=1$; Figure 4: lower one). Furthermore, the ecology and ethnomedicinal values of the plants

Table 3: Top 10 plant species with the highest use citations and their IVI Values

S. N.	Scientific Name	Local Name	Family	Plant Form	Rel. Density	Rel. Freq.	IVI	Use RFC
1.	*Ocimum gratissimum* L.	Ban Tulsi	Lamiaceae	Shrub	2.40	0.88	1.64	0.9
2.	*Piper longum* L.	Pipla	Piperaceae	Climber	1.51	0.88	1.19	0.9
3.	*Artemisia vulgaris* L.C.B. Clarke	Titepati	Asteraceae	Shrub	1.00	0.88	0.94	0.9
4.	*Phyllanthus emblica* L.	Amala	Phyllanthaceae	Tree	0.95	0.88	0.92	0.9
5.	*Tinospora sinensis* (Lour.) Merrill	Gurjo	Menispermaceae	Climber	0.39	0.88	0.64	0.9
6.	*Ocimum tenuiflorum* L.	Tulsi	Lamiaceae	Shrub	0.33	0.59	0.46	0.9
7.	*Asparagus racemosus* Willd.	Kurilo	Asparagaceae	Shrub	1.78	0.88	1.33	0.85
8.	*Rauvolfia serpentina* (L.) Benth ex Kurz	Sarpaganda	Apocynaceae	Shrub	0.73	0.88	0.80	0.85
9.	*Azadirachta indica* A.Juss.	Neem	Meliaceae	Tree	0.33	0.88	0.61	0.85
10.	*Terminalia chebula* Retz.	Harro	Combretaceae	Tree	0.22	0.59	0.41	0.85

were not found to be positively associated, indicating that the folk-medicinal value (RFC) of the plants was negatively influenced by the ecological value (IVI).

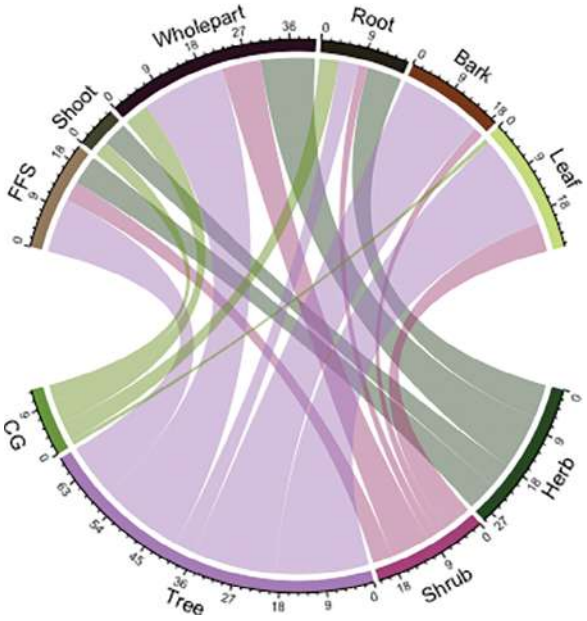

Figure 3: Chord-dendrogram showing the plant parts & forms useful in ethnomedicine (FFS= Fruit, Flower, Seed; CG=Climber and Grass)

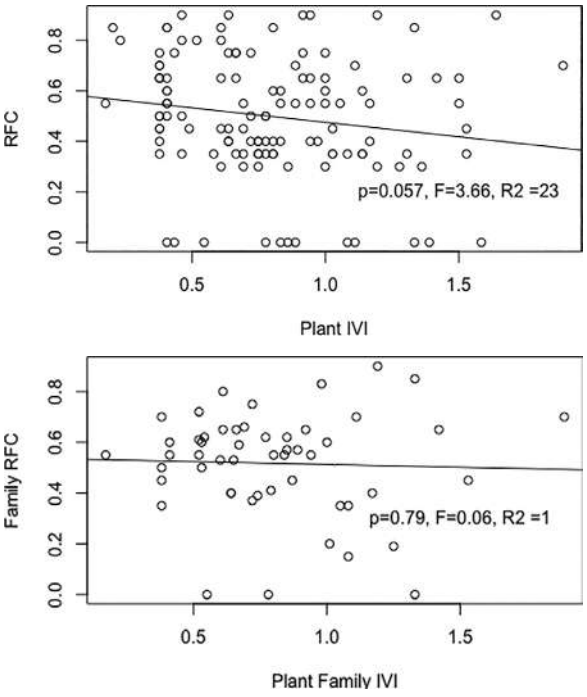

Figure 4: Relationship between the individual/ family IVI values and RFC values of the plants

People living in the JLA were discovered to be heavily reliant on the plants. The use of plants ranged from food, fodder, wood, medicine, oil, fiber, aroma and ornamental value to religious. Despite the extensive use of the plants for local livelihood, these resources have been underutilized and inadequately documented. There could be a large number of other species of socio-economic potential, urging the detailed and frequent inventories for better conservaiton.

Discussion

The Jhilmil Lake Area is a peri-urban location where urban and rural activities coexist and ecosystems are prone to rapid changes (Leaf, 2011), and is rich in the species found both in the disturbed and undisturbed forests nearby. The tree species used in ethnomedicine and threatened as a result of over exploitation include *Alstonia scholaris, Bombax ceiba, Acacia catechu,* and *Pterocarpus marsupium* (Manandhar, 1990; Kunwar *et al.,* 2013). The hardwood Hill Sal Forest in the vicinity of the lake is gradually succeeding to mixed type of forest (DFRS, 2015). The lake and its surroundings are used as the source of fodder, fish, eco-tourism, fuelwood, non-timber forest products. Besides, the lake site is also used as a site for cultural tourism while the lake-water is used for irrigation (Chalaune *et al.,* 2020); there are several natural water bodies around the lake, maintaining the soil moisture and biodiversity in its surroundings (Neupane *et al.,* 2011).

Anthropogenic landscapes and disturbed sites are rich in useful herbs and shrubs (Albuquerque & Lucena, 2005) and are frequently foraged (Kunwar, 2018) while the distant and primary forests are rich in trees. Out of the 73 herbs reported by Gautam & Mandal (2016), 43 were found in the disturbed forestand and 30 in undisturbed one. Fifty seven tree species were reported by Gautam & Mandal (2018) from the undisturbed tropical forest of eastern Nepal. Only six invasive species viz. *Ageratum houstonianum, Chromolaena odorata, Lantana camara, Mimosa pudica, Imperata cylindrica*, and *Parthenium hysterophorus* were reported from the study area. Out of the total six invasive alien plant species

(IAPs) found within the area, two viz. *L. camara* and *A. houstonianum* were dominant ones with the IVI values of 1.36 and 1.50, respectively; *L. camara* and *C. odorata* have been reported as the world's 100 worst IAPs (Lowe *et al.*, 2000). A similar study carried out in the tropical forest of Chitwan and Rautahat districts reported eleven IAPs (DoFSC, 2020).

Useful plants and their values

Out of the 114 ethnomedicinal plants mentioned, 61 species were used following Dhami (2008) whereas 25 species were used according to the report of Singh (2014). Both Bhatt & Shakya (2015) and the current study found the largest number of common beneficial species (75), which was attributed to the fact that both studies were conducted from the center region of the Kanchanpur district. The plants belonging to the Piperaceae (e.g. *Piper longum*), Asparagaceae (e.g. *Asparagus racemosus*), and Asteraceae (e.g. *Artemisia vulgaris*) families were reported to be frequently identified for ethnomedicinal purposes; however, three plant families (Linaceae, Orchidaceae, and Selaginellaceae) and 12 plant species were reported to be underutilized for ethnomedicinal use. According to Sah *et al.* (2003), the JLA contains around 560 plant species including over 200 valuable species. A significant number of beneficial plants are generally connected with a big number of plant species available in a given location (Charmakar *et al.*, 2021). Human groups that live in species-rich habitats may broaden their repertoire by utilizing a large number of plant species (Salick *et al.*, 1999).

The identified 114 species of medicinal plants, trees and leaves were frequently employed in ethnomedicine (Figure 3 above). The local people reported that they had been using different plant parts through various modes of application to cure different ailments such as dysentery, diarrhea, cough, inflammation, urinary diseases, jaundice, ulcer, asthma, diabetes, fever, cough, wounds, and dermatological complaints. Plant-based therapies are persistent in western Nepal for primary and local health care (Dhami, 2008; Singh *et al.*, 2012; Shakya, 2014; Bhatt & Shakya, 2015; Bhatt & Kunwar, 2020; Bhatt *et al.*, 2021). The ethnic people of Nepal rely on wild plants to meet their basic needs, and each ethnic community has its own pool of secret ethnomedicinal and ethnopharmacological knowledge about the use of plants available in their surroundings (Panthi & Singh, 2013).

Association of ecology and ethnobotany

As inconsistent association shown between ecological and ethnomedicinal attributes, species cultural values, popularity and usefulness are supposed to be found related (Araujo *et al.*, 2008), meaning that the plant collection and their use are less influenced by the availability of plants while more dependent on cultural belief. Foraging for plants typically takes place in nearby and accessible locations (Kutal *et al.*, 2021). According to Thomas *et al.* (2009), phytosociological indices were more positively associated with the category of non-medicinal use (wood, fuel, and building uses) and less positively associated with the category of medicinal use. The findings of our study showed that, while the ethnomedicinal usage of plants depends on cultural belief and their widespread use, ecological values of a ceratin area could be useful for defining the general ethnobotanical practises. As the individual plants and the plant families had negative association between their IVI and ethnobotanical values, the plant forms did not have positive association; the association being insignificant (p = 0.71). The high RFC value of the trees and climbers suggested that the plant collection was directed subjectively towards quality products and was not impacted by cost-benefit trade-offs (Thomas *et al.*, 2009). This demonstrated that plant IVI values influenced plant gathering for ethnomedicine in the Jhilmil area. It is plausible to infer that if use pressure is oriented towards species with lower IVI values, the supply of uncommon plants will be jeopardised in the future. Conservation of the plants with less IVI values but high RFC values (such as *P. marsupium, D. latifolia, R. serpentina, C. limonum, Mussaenda frondosa,* etc.) should be given high priority. These species were found to be threatened because of their overexploitation for local livelihood and health care practices as claimed by Bhatt *et al.* (2022).

Our findings indicated that the medicinal use values were not influenced by the frequency and density of the plants in the JLA. It becomes clear and obvious that the study area, which is rich in culture and ethnomedicinal plants, is still influenced by local culture and tradition, and that it is also threatened by the increasing strain caused by tourism growth.

Conclusion

A total of 126 plant species were discovered in the JLA, and 114 (90.48%) of those species were used as ethnomedicine by the locals. Due to less disturbance and distance from the city, there are less shrubs and herbs but more trees in the lake area; however, our research revealed that the trees, climbers, and herbs therein were regularly used. As the ecological variables negated the RFC values of the plants (p=0.057), it was determined that the use for ethnomedicine was motivated by culture. Additionally, the trees and climbers' high RFC ratings indicated that the plant collection had previously been subjectively directed towards high-quality goods. In Nepal's rural and remote places, ethnobotanical knowledge is crucial for preserving plant diversity and treating a number of diseases. In this regard, uncommon plant species like *P. marsupium, D. latifolia, R. serpentina, C. limonum*, and *Mussaenda frondosa* having lower IVI values but with high use values (high RFC) within the JLA should be given high priority for their conservation.

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Annex 1: Plant species with local names, families, IVI, RFC values, plant form, plant parts used, traditional uses, and earlier reports of ethnomedicine

S. N.	Name of plant species	Local/ English Name	Family	Voucher No.	RD	RF	IVI	RFC	Plant Form	Plant parts used	Traditional uses of plant spp. in the present study	Earlier reports on ethnomedicine with references
1.	*Justicia adhatoda* L.	Basingo	Acanthaceae	Aca-301	0.39	0.88	0.64	0.4	Shrub	Whole plant	Whole plant is anti-inflammatory, anti-spasmodic, febrifuge and pectoral. It used to treat bronchitis, asthma, fever and jaundice.	Green mature leaves used to prepare traditional medicines for curing cough, fever, asthma and dysentery. Mature leaves as well as inflorescence used as food (Singh *et al*., 2013).
2.	*Acorus calamus* L.	Bojo	Acoraceae	Aco-302	0.33	0.88	0.61	0.8	Herb	Root	Used in the treatment of digestive complaints, bronchitis, sinusitis, etc.	Rhizome infusion used in cough, cold, bronchial problems and chest pain. Juice of rhizome is taken to treat diarrhea and dysentery. Oil is extracted from the rhizome to use in perfumes (Dhami, 2008; Bhatt & Shakya, 2016).
3.	*Achyranthes aspera* L.	Bippeykuro	Amaranthaceae	Amar-303	1.00	0.88	0.94	0.55	Herb	Whole plant	Juice of the plant used in the treatment of boils, diarrhea, dysentery and itches.	Used for treatment of jaundice. Root paste is given in diarrhea, pain in lower abdomen, snake bite and scorpion sting. It is also used for enhancing milk production (Acharya & Pokhrel, 2006; Dhami, 2008).
4.	*Buchanania latifolia* Roxb.	Chiraunjee	Anacardiaceae	Ana-304	0.78	0.88	0.83	0.6	Tree	Root	Used for treatment of anaemia, inflammation, oxidative stress, ulcer, diabetes, wounds and gas.	Used for treatment of leprosy, constipation, diarrhea, cough, asthma and skin diseases (Fern, 2014).
5.	*Choerospondias axillaris* (Roxb.) B.L. Burrt & A.W. Hill	Lapsi	Anacardiaceae	Ana-305	0.67	0.88	0.78	0.5	Tree	Fruit	Used for treatment of calming nerves, blood disorders and cardiovascular diseases.	Used for treatment of menstruation disorder (Tamang *et al*., 2017).
6.	*Annona squamosa* L.	Sitaphal	Annonaceae	Anno-306	0.33	0.88	0.61	0.65	Tree	Whole plant	Used to treat diarrhea, dysentery, rheumatism and used as anti-cancer activity.	Leaf paste applied to boils, ulcers, sores. Root paste applied to forehead to relief form headache. Leaf juice used in cut wounds and skin disease (Dhami, 2008; Bhatt & Shakya, 2016).
7.	*Trachyspermum ammi* (L.) Sprague ex Turrill.	Ajwain	Apiaceae	Api-307	0.17	0.59	0.38	0.7	Herb	Seed	Used in the treatment of colds, coughs, influenza, asthma, diarrhea, cholera, colic, indigestion, arthritis and rheumatism.	Used for treatment of bronchitis, asthma, cold & cough (Alamgeer *et al*., 2018).
8.	*Centella asiatica* (L.) Urb.	Khuchaday	Apiaceae	Api-308	0.39	0.88	0.64	0.4	Herb	Whole plant	Widely used as blood purifier and for controlling high blood pressure & memory enhancement, and promoting longevity.	Used for treatment of acidity and urinary problem (stopped urination). Plant juice is considered a tonic and used in urinary troubles (Acharya & Pokhrel, 2006; Dhami, 2008).
9.	*Rauwolfia serpentina* (L.) Benth ex Kurz	Sarpagandha	Apocynaceae	Apo-309	0.73	0.88	0.80	0.85	Shrub	Root	Used for treatment of hypertension, intestinal disorders, eye diseases, cuts, wounds, splenic diseases, uterine contraction, headache and skin diseases.	Used for treatment of mental disorder (Acharya & Pokhrel, 2006).

S. N.	Name of plant species	Local/ English Name	Family	Voucher No.	RD	RF	IVI	RFC	Plant Form	Plant parts used	Traditional uses of plant spp. in the present study	Earlier reports on ethnomedicine with references
10.	*Calotropis gigantean* (L.) Drayand.	Aankh	Apocynaceae	Apo-310	0.17	0.59	0.38	0.65	Shrub	Bark & leaves	Bark used to treat diarrhea, dysentery and leprosy while the leaves are used to treat sores, burns, headache and rheumatic.	Bark used for treatment of asthma and malaria. It is equally applied for fracture, asthma, pinas (*English name?*) and scorpion-sting, body pain, sinusitis, boils, sprain and bloody stool (Acharya & Pokhrel, 2006; Tamang *et al*., 2017; Miya *et al*., 2020).
11.	*Alstonia scholaris* (L.) R.Br	Chhatiwan	Apocynaceae	Apo-311	0.22	0.59	0.41	0.6	Tree	Bark & leaves	Bark used to treat abdominal pain, fevers, chronic diarrhea and irregular menstruation while the leaves are used to treat dropsy and wounds.	Bark is bitter, healing astringent, tonic, alterative and febrifuge. It is also used to treat heart diseases, asthma and to stop bleeding of wound (Dutta, 2007).
12.	*Carissa carandas* L.	Karauda	Apocynaceae	Apo-312	0.22	0.59	0.41	0.5	Tree	Roots & leaves	Leaf decoction used against fever, diarrhea and earache. Roots serve as stomachic, vermifuge and remedy for itches.	Used as astringent & antiscorbutic. Used for treatment of fever, diarrhea and earache (Fern, 2014).
13.	*Wrightia tinctoria* (Roxb.) R. Br., Mem Wern.	Dudhelo	Apocynaeae	Apo-313	0.56	0.88	0.72	0.5	Shrub	Whole plant	It has anti-inflammatory and anti-dandruff properties, and hence used in hair oil preparations.	Used to treat dysentery, diarrhea, toothache and stomach pain (Fern, 2014).
14.	*Colocasia esculenta* (L.) Schoolt	Pindalu	Araceae	Ara-314	0.50	0.88	0.69	0.45	Herb	Leaves	Leaf juice is stimulant, expectorant, astringent and appetizer.	Tuber is useful in stomatalgia, alopecia, stimulant in internal hemorrhages. Juice of tuber is laxative demulcent (Bhatt & Shakya, 2016).
15.	*Arisaema tortuosum* (Wall.) Sehott		Araceae	Ara-315	0.61	0.88	0.75	0.3	Herb	Stem & Root	Roots have been used to treat wounds in cattle while tuber is applied to snake bites and the wounds of cattle.	Root used for wounds healing and also used as vermifuge i.e. anthelmintic medicine while tuber is applied against snake bites (Fern, 2014).
16.	*Calotropis procera* (Aiton) Dryand	Madar	Asclepiadaceae	Ascle-316	1.12	0.88	1.00	0.6	Herb	Leaves	Leaf paste used for treatment of snake-bite, sinus fistula, rheumatism, mumps, burn injuries & body pain, and jaundice.	Used in cuts, wounds, asthma, odontalgia, hepatitis, tuberculosis, malaria, skin burns and infestation (Kumar *et al*., 2011; Umair *et al*., 2019).
17.	*Asparagus racemosus* Willd.	Kurilo	Asparagaceae	Asp-317	1.78	0.88	1.33	0.85	Climber	Whole plant	Rhizome used as a soothing tonic that acts mainly on the circulatory, digestive, respiratory and female reproductive organs. The whole plant used for treatment of diarrhea, rheumatism and diabetes.	Whole plant used in case of diabetes, stomach problem and fracture, increase lactation, urinary problems gastritis, tonic, fever, headache, paralysis, anorexia, burnt area, spots on skin, and high blood pressure (Miya *et al*., 2020).
18.	*Artemisia vulgaris* L. C.B. Clarke	Titepati	Asteraceae	Ast-319	1.00	0.88	0.94	0.9	Herb	Whole plant	Used for treatment of cough, stomach and intestinal upset, common cold, measles, irregular heartbeat and muscle weakness.	Plant is stomachic, purgative, antispasmodic, anthematic and insecticide. It cures asthma, itching, gastritis, rheumatism, bronchitis, fever, headache, hemorrhage and diarrhea. (Bhatt & Shakya, 2016).

S. N.	Name of plant species	Local/ English Name	Family	Voucher No.	RD	RF	IVI	RFC	Plant Form	Plant parts used	Traditional uses of plant spp. in the present study	Earlier reports on ethnomedicine with references
19.	*Ageratum houstonianum* L.	Ganaune Jhar	Asteraceae	Ast-319	2.12	0.88	1.50	0.65	Herb	Leaves	Leaf-juice either used as a tonic or used to treat colic, colds, fever, diarrhea, rheumatism, and spasms.	Juice and paste of plant used to cure various ailments that include leprosy, skin disorders, sleeping sickness, rheumatism, headaches, dyspnea, toothache, pneumonia and many more (Acharya & Pokhrel, 2006; Yadav *et al*., 2019).
20.	*Parthenium hysterophorus* L.	Gauja	Asteraceae	Ast-320	1.73	0.88	1.31	0.65	Herb	Whole plant	The decoction of this plant has been used in traditional medicine to treat fever, diarrhea, neurologic disorders, urinary tract infections, dysentery and malaria.	Whole plant is bitter and strong-scented, reckoned tonic, stimulating and anti-hysteric. Root decoction is useful in dysentery, antitumor activity (Bhatt & Shakya, 2016).
21.	*Chromolaena odorata* L.	Chirstmas Bush	Asteraceae	Ast-321	1.12	0.88	1.00	0.55	Herb	Leaves	Fresh leaves have been used for the treatment of leech bites, soft tissue wounds, skin infections, and diabetes.	Used for treatment of malaria, skin wounds, and eye-pain; also used as antibacterial (Fern, 2014).
22.	*Bidens pilosa* L.	Kalo Kuro	Asteraceae	Ast-322	0.61	0.88	0.75	0.35	Herb	Root & leaves	Used as anti-bacterial, anti-dysentery, anti-inflammatory, anti-microbial, anti-malarial, diuretic, and hypotensive.	Leaf decoction used to treat headaches, ear infections, kidney problems and flatulence (Subhuti, 2013).
23.	*Ageratina adenophora* (Spreng.) King & H. Rob.	Banmara	Asteraceae	Ast-323	0.28	0.59	0.43	0	Herb			
24.	*Athyrium* Filix-Femina (L.) Roth	Fern	Athyariaceae	Athy-324	1.45	0.88	1.17	0.4	Herb	Stem & leaves	Used to relieve liver pains.	Used as an anthelmintic, diuretic, healing sores (Fern, 2014).
25.	*Oroxylum indicum* (L.) Benth. ex Kurz	Faltate	Bignoniaceae	Bign-325	0.17	0.59	0.38	0.5	Tree	Bark & leaves	Bark used in the treatment of anti-allergic, astringent, blood purifier and tonic. Decoction of leaves used in the treatment of stomachache, toothache and headache.	Bark used for treatment of jaundice, arthritic & rheumatic problems, gastric ulcers, tumors, respiratory diseases, diabetes, diarrhea & dysentery, and jaundice (Dinda *et al*., 2015; Miya *et al*., 2020).
26.	*Garuga pinnata* Roxb.	Dabdabe	Burseraceae	Bur-326	0.39	0.88	0.64	0.4	Tree	Stem & leaves	Juice of stem and leaves used to the treatment of eye disorders, asthma and stomach disorders.	Used in infection and would healing, and also as a vermifuge (Fern, 2014).
27.	*Cannabis sativa* L.	Bhang	Cannabaceae	Cann-327	0.95	0.88	0.92	0.65	Herb	Fruit & leaves	Used for the treatment of pain, spasms, asthma, insomnia, depression and loss of appetite.	Used in respiratory problems followed by rheumatism, gastrointestinal, gynecological, cancer and other ailments including hypertension, headache, itch, increases bile secretion, dandruff, fever and urinary problems (Shakil *et al*., 2021).
28.	*Terminalia chebula* Retz.	Harro	Combretaceae	Com-328	0.22	0.59	0.41	0.85	Tree	Fruit	Used in the treatment of constipation, diarrhea, dysentery, intestinal worms, vaginal discharge, coughs and asthma.	Used for treatment of cough, sore throat, fever, bronchitis, eye disease, and gastritis; also used as blood purifier (Miya *et al*., 2020).

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29.	*T. bellirica* (Gaertn.) Roxb.	Barro	Combretaceae	Com-329	0.33	0.59	0.46	0.8	Tree	Fruit	Used to treat diarrhea, indigestion, constipation, throats, hoarseness and coughs.	Fruits are anthelmintic, and used in indigestion, cough, cold, respiratory problems and fever. Dried-fruit mixed with tobacco is smoked for sedative action. Fruit powder is used to cure wound (Dhami, 2008; Bhatt & Shakya, 2016; Dutta, 2007).
30.	*T. tomentosa* (Roxb.) Wight & Arn.	Asna, Saaj	Combretaceae	Com-330	1.12	0.88	1.00	0.65	Tree	Bark	Bark is astringent, anti-diarrheal, and anti-leucorrhea. It is used for curing hemorrhagic & skin diseases, and leucoderma.	Bark used in liver troubles. Bark paste is applied on head for dandruff (Kumar *et al*., 2011; Marandi and Britto, 2014).
31.	*T. elliptica* Willd.	Saaj	Combretaceae	Com-331	1.00	0.88	0.94	0.65	Tree	Bark & leaves	Treatment of diarrhea, cuts, burns, wounds, swellings & dandruff. It has anti-fungal, antioxidant and anti-leucorrhea properties.	Used as an antiseptic and antioxidant. To treat diarrhea, cuts, wounds, dandruff & swellings (Fern, 2014).
32.	*Anogeissus latifolia* Wall.	Axlewood	Combretaceae	Com-332	0.45	0.88	0.66	0.35	Tree	Bark & leaves	Decoction of the bark used to treat wounds, swelling, diarrhea, bleeding piles, skin diseases, and jaundice.	It has property of antiseptic, and is used in wound healing, treatment of tumour, cancer, Rheumatism and burning sensation (Yadav *et al*., 2017).
33.	*Kalanchoe pinnata* (Lam.) Pers.	Kankaral	Crassulaceae	Cras-333	0.17	0.59	0.38	0.35	Herb	Leaves	Leaf paste used to treat wounds, ulcers, bruises, and boils.	Used as astringent, antibacterial, antiseptic, diuretic and febrifuge. Treatment of diarrhea, dysentery, cholera, colds and coughs (Fern, 2014).
34.	*Cyperus rotundus* (L.)	Mothe	Cyperaceae	Cyp-334	1.00	0.88	0.94	0.4	Grass	Root & stem	Root and tuber are analgesic, antibacterial, aromatic, astringent, diuretic, sedative, skin, stimulant, tonic and vermifuge.	Root tubers used in stomachache; an infusion of tuber is given for indigestion, diarrhea, dysentery, dyspepsia, vomiting, cholera and fever (Acharya & Pokhrel, 2006; Dhami, 2008; Bhatt & Shakya, 2016).
35.	*C. difformis* (L.)	Mothe	Cyperaceae	Cyp-335	1.28	0.88	1.08	0	Grass			
36.	*Dillenia indica* L.	Elephant Apple	Dilleniaceae	Dill-336	0.50	0.88	0.69	0.55	Tree	Bark & leaves	Bark & leaves used for treatment of indigestion, asthma, influenza, dysentery, jaundice, weakness, cough, and rheumatic pain.	Bark & leaves used as tonic and as laxative to treat cough, abdominal disorders and to wash mouth (Fern, 2014).
37.	*D. pentagyna* Roxb., PI Coromandel	Tatari	Dilleniaceae	Dill-337	0.17	0.59	0.38	0.45	Tree	Leaves	Paste of leaves is applied to poultice to treat scorpion bites, anal fistula, wounds, diabetes, pneumonia, and burning sensation.	Leaf paste used to treat scorpion bites, wounds, anal fistula, diabetes, and pneumonia (Fern, 2014).
38.	*Dioscorea deltoidea* Wall. ex Griseb.	Tarul	Dioscoriaceae	Dios-338	2.90	0.88	1.89	0.7	Climber	Root	Juice of root tuber used in the treatment of roundworm, constipation, asthma, arthritis, and genital disorders.	Juice of root tuber used in soap making, and as wormicide and fish poisoning; also used as anthelmintic (Tamang *et al*., 2017; Miya *et al*., 2020).

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39.	*Shorea robusta* Roth.	Sal	Dipterocarpaceae	Dip-339	1.95	0.88	1.42	0.65	Tree	Bark & leaves	Bark & leaves used to treat variety of diseases including piles, leucorrhea, gonorrhea, skin disorders, ulcers, wounds, diarrhea, dysentery, burns, seminal weakness, etc.	Resin is given orally to get rid of worms from stomach. Seed-powder is given orally to treat diarrhea and dysentery (Marandi & Britto, 2014; Miya *et al*., 2020).
40.	*Phyllanthus emblica* L.	Amala	Euphorbiaceae	Eup-340	0.95	0.88	0.92	0.9	Tree	Whole plant	All parts of the plant used in the treatment of diarrhea, jaundice, and inflammation.	Used for blood purification and mental disorder. Bark-juice used in dysentery, constipation, and body pain. Fruits are stomachic, and used in shore throat cold, cough, gastritis, stomach disorder, and as tonic & appetizer (Acharya & Pokhrel, 2006; Dhami, 2008; Bhatt & Shakya, 2016; Miya *et al*., 2020).
41.	*Mallotus philippensis* (Lam.) Muell. Arg.	Kumkum	Euphorbiaceae	Eup-341	0.95	0.88	0.92	0.75	Tree	Whole plant	The whole plant possesses anthelmintic, anti-inflammatory, anti-spasmodic, anti-fungal, anti-bacterial, and anti-diabetic properties.	Used for treatment of diarrhea and dysentery, urinary issues, vulnerary, diuretic, skin disorders, and heating; also used as purgative and anthelmintic (Tamang *et al*., 2017; Ishtiaq *et al*., 2021).
42.	*Ricinus communis* L.	Arande	Euphorbiaceae	Eup-342	1.39	0.88	1.14	0.35	Shrub	Seed & leaves	Paste of leaves and seeds used to treat migraine, low back ache, arthritis pain, and skin disorders. Oil from seed used to treat constipation.	Used for treatment of heel cracks, bronchitis, asthma, colds and cough (Acharya & Pokhrel, 2006; Alamgeer *et al*., 2018).
43.	*Trewia nudiflora* L.	Gutel	Euphorbiaceae	Eup-343	0.33	0.88	0.61	0.3	Tree			
44.	*Pterocarpus marsupium* Roxburgh.	Vijaysaal	Fabaceae	Fab-344	0.17	0.59	0.38	0.65	Tree	Bark	Used in the treatment of diarrhea.	Used for treatment of stomachache, cholera, dysentery, urinary complaints, tongue diseases, and toothache (Badkhane *et al*., 2010).
45.	*Dalbergia latifloia* Roxb.	Satisaal	Fabaceae	Fab-345	1.39	0.88	1.14	0.6	Tree	Bark	Used for treatment of diarrhea, worms, indigestion and leprosy.	Used as astringent & vermifuge, and also used to treat diarrhea, indigestion and leprosy (Fern, 2014).
46.	*Dalbergia sissoo* Roxb.	Sissoo	Fabaceae	Fab-346	0.78	0.88	0.83	0.55	Tree	Stem & leaves	Used to treat skin diseases.	Used for treatment of diarrhea, scabies; and bladder & kidney stone, piles, bronchial asthma, cough, rheumatism, and skin burn; also used as laxative and blood purifier. (Acharya & Pokhrel, 2006; Alamgeer *et al*., 2018).
47.	*Tamarindus indica* L.	Imli	Fabaceae	Fab-347	0.22	0.59	0.41	0.55	Tree	Fruit	Fruit is eaten to care fevers and control gastric acid; powdered seed used to cure dysentery and diarrhea.	Used in case of inflammation, boils, and chicken pox (Miya *et al*., 2020).

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48.	*Albizia procera* (Roxb.) Benth.	Siris	Fabaceae	Fab-348	0.17	0.59	0.38	0.5	Tree	Whole plant	Decoction of bark used for treatment of rheumatism, haemorrhage, and stomach ache; it acts as an anticancer agent while the leaves are poultice into ulcers.	Used as an anti-cancer agent. Used for treatment of rheumatism, haemorrhage, and stomach ache (Fern, 2014).
49.	*Cassia fistula* L.	Rajbriksha	Fabaceae	Fab-349	0.33	0.88	0.61	0.45	Tree	Bark & leaves	Applied to skin problems, broken bones, ulcers, wounds, and fevers.	The pulp is given in case of diarrhea & dysentery, and the paste of pulp is used to cure snake/scorpion-bites (Dhami, 2008; Bhatt & Shakya, 2016).
50.	*Abrus precatorius* L.	Ratigedi	Fabaceae	Fab-350	0.67	0.88	0.78	0.4	Shrub	Seed & leaves	Traditionally, used to treat tetanus & rabies. It is also used to treat score and wounds caused by dogs, cats, and mice. The leaves used to cure fever, cough and cold.	Used to treat female sterility (Acharya & Pokhrel, 2006).
51.	*Bauhinia variegata* (L.)	Koiraalo	Fabaceae	Fab-351	0.56	0.88	0.72	0.4	Tree	Whole plant	Used for treatment of skin diseases, leprosy, intestinal worms, tumours, wounds, ulcers, cough, and bleeding disorders.	Roots are cool, astringent, anthelmintic, acrid and styptic, they cure ulcer, swelling leprosy, cough, menstrual disorder, glandular diseases and prolapse of rectum. Bark is useful in skin diseases. Juice of flower is given to treat diarrhea and other stomachic disorders (Dutta, 2007; Bhatt & Shakya, 2016).
52.	*Mimosa pudica* L.	Lajjawati	Fabaceae	Fab-352	1.17	0.88	1.03	0.35	Herb	Root & leaves	Leaf-juice used in the treatment of biliousness, leprosy, dysentery, vaginal & uterine complaints, and blood diseases while the root-juice is used to control alcoholism.	Juice of plant used in scabies, diarrhea, asthma, jaundice, and dysentery (Acharya & Pokhrel, 2006; Shakya, 2016).
53.	*Senna tora (*L.*)* Roxb.	Koshe Ghas	Fabaceae	Fab-353	1.17	0.88	1.03	0.35	Herb	Root & leaves	Leaves used to treat ringworm and skin diseases while the roots are used as a laxative and anthelmintic.	Used for drug discovery as alternatives for Alzheimer's disease. Used to treat ringworm (Chethana *et al*., 2017; Tamang *et al*., 2017).
54.	*Bauhinia vahlii* (Wight & Arn.) Benth	Malu	Fabaceae	Fab-354	0.67	0.88	0.78	0.35	Shrub	Seed & leaves	Seeds are tonic and aphrodisiac while leaves are demulcent and mucilaginous.	Leaves used as plates and sun/rain hats. Seeds have aphrodisiac properties and are considered as tonic, and given to children suffering from indigestion (Dutta, 2007; Bhatt & Shakya, 2016).
55.	*Leucaena leucocephala (*Lam.) de Wit	Dalle Ghas	Fabaceae	Fab-355	0.61	0.88	0.75	0.35	Tree	Leaves	Used to control stomach diseases, facilitate abortion and diabetes.	Used for treatment of ascariasis, and also used as tonic (Fern, 2014).

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56.	*Vachellia nilotica* (L.) P.J.H. Hurter & Mabb.	Bakareul	Fabaceae	Fab-356	0.61	0.88	0.75	0.35	Tree	Whole plant	Bark and gum used for treating cancers, tumors, chest problems, liver and heart problems, cold, coughs and tuberculosis. Root used to treat tuberculosis. Wood used to treat smallpox.	Used to treat diarrhea, dysentery, cancers, tumours, chest problems, coughs and smallpox (Fern, 2014).
57.	*Albizia lebbeck* (L.) Benth	Lebbeck tree	Fabaceae	Fab-357	0.50	0.88	0.69	0.35	Tree	Bark	Used for treatment of bronchial asthma. Also, used to make herbal tea.	Used for treatment of flu, cough and lung problem, sexual disorders and impotency; also used as tonic, diuretic, blood purifier and treatment of asthma (Alamgeer *et al*., 2018; Umair *et al*., 2019).
58.	*Senegalia catechu* (L.F.) P.J.H. Hurter &Mabb.	Khosatte	Fabaceae	Fab-358	0.28	0.88	0.58	0.35	Tree	Whole plant	Used for treatment of dysentery, chronic diarrhea, skin problems, mouth ulcers, bed sores, score throats, and dental infections.	Used for treatment of blood clothing, dysentery, chronic diarrhea, bed-sores, nose bleedings, mouth ulcers and dental infections (Fern, 2014).
59.	*Flemingia strobilifera* (L.) W. T. Aiton	Bhatwasi	Fabaceae	Fab-359	1.12	0.88	1.00	0.3	Herb	Root	Used for various ailments such as insomnia, epilepsy, ulcer, inflammation and microbial infection.	Used for treatment of tuberculosis, rheumatism and also used as a vermifuge (Fern, 2014).
60.	*Butea monosperma* (Lam.) Kuntze	Palas	Fabaceae	Fab-360	0.84	0.88	0.86	0.3	Tree	Whole plant	Used for treatment of menstrual disorders, skin disorders. The leaves have astringent, diuretic and aphrodisiac properties.	Infusion or decoction of flowers is given orally for sun stroke, and also applied in the body. The seed power is given orally for killing worms in the stomach. The decoction of the bark is given orally for curing diarrhea and dysentery (Marandi & Britto, 2014).
61.	*Tara spinosa* (Feuille ex Molina) Britton & Rose	Tarra	Fabaceae	Fab-361	0.22	0.59	0.41	0	Tree			
62.	*Desmodium triflorum* (L.) DC.	Berseem	Fabiceae	Fab-362	1.06	0.88	0.97	0.4	Grass	Whole plant	The plant is anti-pyretic, anti-septic and expectorant. Plant decoction is commonly used to treat diarrhea and dysentery.	Used for curing toothache, stomachache and piles, kidney & urinal problems; the whole plant is considered as a beneficial drug in the treatment of various gastric ailments, and is administered in the form of decoction. (Singh *et al*., 2015; Padal *et al*., 2012).
63.	*Curcuma aromatic* Salisb	Ban Haldi	Gingerberaceae	Ging-363	0.45	0.88	0.66	0.65	Herb	Stem	Stem-juice stimulates gall bladder and circulatory system. Stem-juice is used to improve digestion, and is also used to cure jaundice, chest pains, and painful menstruation.	Used for treatment of jaundice, nose bleedings, painful menstruation, and chest pain (Fern, 2014).

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64.	*Ocimum gratissimum* L.	Ban Tulsi	Lamiaceae	Lam-364	2.40	0.88	1.64	0.9	Herb	Stem & leaves	Used internally in the treatment of colds, influenza, fevers, headaches, diarrhea, dysentery and worms in children.	Used for curing gonorrhea, rheumatic pain, swelling and headache (Miya *et al*., 2020).
65.	*O. tenuiflorum* L.	Tulsi	Lamiaceae	Lam-365	0.33	0.59	0.46	0.9	Herb	Whole plant	Used for treatment of illnesses colds, influenza, arthritis, digestive discords, etc.	It has a variety of biological/ pharmacological activities, such as anti-bacterial, anti-viral, anti-fungal, anti-protozoal, anti-malarial, anthelmentic, anti-inflammatory, anti-diabetic, antioxidant, anti-cancer, anti-fertility, anti-ulcer, anti-arthritic, immunomodulatory, and anti-coagulant activities. Used as memory enhancer and improving central nervous system (Pandey & Madhuri, 2010).
66.	*Thymus vulgaris* L.	Jwano	Lamiaceae	Lam-366	0.45	0.88	0.66	0.75	Shrub	Whole plant	Used in the treatment of digestive discords, sore throats and fever.	Thyme is incredibly useful in cases of assorted intestinal infections and infestations, such as hookworms and Ascaris. Used as a gargle, Thyme is helpful in treatment of laryngitis and inflammation. It used for skin issues like oily skin, acne, dermatitis, skin condition, and bug bites (Reddy *et al*., 2014)
67.	*Mentha spicata* L.	Mentha	Lamiaceae	Lam-367	0.28	0.59	0.43	0.75	Herb	Leaves & stem	Leaves used for treatment of fevers, headaches, digestive discords while stem is used as a poultice on bruises.	Leaves used as appetizer and for treatment of throat infection, indigestion, vomiting, gastric disorder, and boils; also used to treat cholera, stomach problems, insomnia, heat sickness, and jaundice (Miya *et al*., 2020).
68.	*Leucas aspera* (Willd.) Link	Tilaula	Lamiaceae	Lam-368	0.61	0.88	0.75	0.4	Herb	Leaves	Leaf-sap used to treat sores of eyes and nose, fevers, colds, rheumatism and snake bites.	Leaf-juice used as a tonic and to treat sores of eyes & nose, snakebites, wounds, and narcosis (Fern, 2014).
69.	*Lathyrus aphaca* L.		Lamiaceae	Lam-369	0.73	0.88	0.80	0.35	Herb	Seed	Ripe seeds used as anti-bacterial, narcotic and in the treatment of toothache.	Ripe seeds used for treatment of toothache and used as anti-bacterial and narcotic (Fern, 2014).
70.	*Colebrookea oppositifolia* Sm.	Dhusura	Lamiaceae	Lam-370	1.51	0.88	1.19	0.3	Shrub	Root & leaves	Leaves used to treat wounds, bruises, fever, headache and dysentery while roots used to treat peptic ulcers.	Leaves used for treatment of conjunctivitis, typhoid, epilepsy, sinusitis opaqueness in cornea, nose bleeding, sinus, and wounds (Miya *et al*., 2020).
71.	*Cinnamomum verum* J. Presl	Dalchini	Lauraceae	Lau-371	0.17	0.29	0.23	0.8	Tree	Bark	Bark-extract used as a poultice for treatment of rheumatism, stomach and intestinal gas.	Used to treat colic pain, diarrhea, digestive disorder and kidney disease, stomach ache, and skin disease (Miya *et al*., 2020).

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72.	*Cassytha filiformis* L.	Akashbeli	Lauraceae	Lau-372	0.39	0.88	0.64	0.75	Climber	Stem	Stem-juice used for treatment of skin problems, eczema, ulcers and parasitic conditions of both skin and scalp.	Used for treatment of jaundice and body pain. Plant given to domestic animals suffering from fever and dysentery (Dhami, 2008; Bhatt & Shakya, 2016; Dutta, 2007).
73.	*Machilus odoratissima* Nees	Kaulo	Lauraceae	Lau-373	0.50	0.88	0.69	0.3	Tree	Bark	Extract of bark has antioxidant and anti-bacterial properties.	Used as antioxidant and anti-bacterial (Fern, 2014).
74.	*Reinwardtia indica* Dumort.	Pyauli	Linaceae	Lin-374	1.78	0.88	1.33	0	Shrub			
75.	*Punica granatum* L.	Anar	Lythraceae	Lyt-375	0.17	0.59	0.38	0.75	Tree	Whole plant	Used as anti-bacterial, anti-viral and astringent agent. Seed used to treat syphilis. Juice of fruit used to treat jaundice and diarrhea.	Used as anthelmintic and body tonic, and also used for treatment of piles, intestinal disorders, jaundice, tumors, fever, cooling, cough, sore throats, skin disorders, and stomach pains (Acharya & Pokhrel, 2006; Miya *et al.*, 2020; Ishtiaq *et al.*, 2021).
76.	*Woodfordia fruticosa* (L.) Kurz.	Dhanyaro	Lythraceae	Lyt-376	1.73	0.88	1.31	0.35	Shrub	Fruit	Fruits are astringent; used to treat dysentery and menorrhagia.	Used to treat cholera, jaundice, dysentery and stomachache (Miya *et al.*, 2020).
77.	*Magnolia champaca* (L.) Baill. ex Pierre	Chanp	Magnoliaceae	Mag-377	0.22	0.59	0.41	0.6	Tree	Whole plant	Bark used as a febrifuge while flowers are used to treat leprosy. Leaves are used against colic, and seeds are used to treat badly chapped skin.	Whole plant used for treatment of leprosy, colic, skin problems, typhoid and also used as a febrifuge (Fern, 2014).
78.	*Bombax ceiba* L.	Simal	Malvaceae	Mal-378	0.67	0.88	0.78	0.5	Tree	Roots & leaves	Roots are diuretic & tonic, and used in the treatment of cholera, fistula, cough, and abdominal pain. Leaves are hypotensive and hypoglacaemic.	Root-paste used for curing dysentery and fracture. Plant-juice used to treat headache, cough, cold, indigestion, cuts, wounds, and diarrhea. (Acharya & Pokhrel, 2006; Dhami 2008; Bhatt & Shakya 2016).
79.	*Sida acuta* L.		Malvaceae	Mal-379	0.73	0.88	0.80	0.4	Herb	Whole plant	A decoction of the whole plant used as a treatment for fever and indigestion whereas leaves used to treat dysentery. Roots used to treat fever and toothache.	Leaves are demulcent and diuretic; root extract used to treat leucorrhoea (Kumar *et al.*, 2011).
80.	*Grewia optiva* J.R. Drumm. er. Burret	Bhimal	Malvaceae	Mal-380	0.73	0.88	0.80	0.35	Tree	Bark & leaves	Bark & leaves applied on eruptions, indigestion, gastric problems, and fever.	Bark & leaves are aphrodisiac, and applied for wound healing and prolapse of placenta (Ishtiaq *et al.*, 2021).
81.	*Azadirachta indica* A. Juss.	Neem	Meliaceae	Mel-381	0.33	0.88	0.61	0.85	Tree	Leaves	Leaves used to treat leprosy, eye disorders, intestinal worms, skin ulcers, liver and blood diseases, stomach disorders, diabetes, and fever.	Used tor treatment of hyperglycemia and malarial fever, headache, smallpox, toothache, malarian fever, diarrhea, and intestinal worms; also used as blood purifier and vermifuge (Alamgeer *et al.*, 2018; Miya *et al.*, 2020).

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82.	*Toona ciliata* M. Roem.	Tooni	Meliaceae	Mel-382	0.33	0.59	0.46	0.35	Tree	Bark	Used to treat chronic dysentery, wounds, and boils.	Used for curing blood diseases and stomach flatulence issues (Ishtiaq *et al*., 2021).
83.	*Cissampelos nepalensis* Rhods.	Baral-panrhe	Menispermaceae	Meni-384	1.34	0.88	1.11	0	Climber			
84.	*Tinospora sinensis* (Loureiro) Merrill	Gurjo	Menispermiaceae	Meni-384	0.39	0.88	0.64	0.9	Climber	Stem & leaves	Used for treatment of rheumatism and other ailments.	Squeezed stem is kept in water over a night and decanted water is taken next morning as a remedy of stomach troubles. Juice of fresh plant is taken in diuretic and gonorrhea (Dutta, 2007; Dhami 2008; Bhatt & Shakya 2016).
85.	*Ficus religiosa* L.	Ban Pipal	Moraceae	Mor-385	0.89	0.88	0.89	0.7	Tree	Whole plant	Traditionally, used as anti-ulcer, anti-bacterial, anti-diabetic and in the treatment of gonorrhea and skin diseases.	Used for curing cuts, wounds, cough, asthma, typhoid and spleen swelling. Asthma, dysentery, diabetes, wounds healing, epilepsy, diarrhea, fever, gastritis, inflammation, infectious and sexual disorders (Miya *et al.*, 2020; Ishtiaq e*t al.*, 2021).
86.	*F. auriculata* Lour.	Timla	Moraceae	Mor-386	0.22	0.59	0.41	0.55	Tree	Fruit	The roasted fruit is used in the treatment of diarrhea and dysentery.	The bark, leaves and fruits extracts are antioxidant, antibacterial, hepatoprotective, anticancerous, antidiabetic, and anti-inflammatory (Kunwar & Bussmann, 2006; Pant *et al*., 2009; Tamata *et al*., 2021).
87.	*F. palmata* Forssk.	Bedu	Moraceae	Mor-387	0.33	0.59	0.46	0.5	Tree	Fruit	Fruit is used to treat constipation, lungs and bladder discords.	Plants are potential source of antioxidant, and used to treat diabetes and inflammation (Negi *et al*., 2018).
88.	*F. racemosa* L.	Gullar	Moraceae	Mor-388	0.78	0.88	0.83	0.4	Tree	Whole plant	This plant is medically important in Ayurveda, and it has been used to treat jaundice, dysentery, diabetes, diarrhea and inflammatory conditions.	Milky latex is applied in muscular pain, cut wounds, fractures and boils (Dhami 2008).
89.	*Myristica fragrans* Hoult.	Jaiphal	Myristicaceae	Myr-389	0.17	0.59	0.38	0.7	Tree	Seed	Seeds are used to treat toothache, rheumatic, abdominal pain, and poor digestion.	Seed-oil is used to keep body temperature warm while seeds are used for treating piles and leucorrhea (Wangchuck *et al*., 2011; Sihotang *et al*., 2018; Jianwitchayakul *et al*., 2018).
90.	*Syzygium cumini* L. Skeels	Jamun	Myrtaceae	Myr-390	1.34	0.88	1.11	0.7	Tree	Bark & leaves	Bark & leaves are used for treatment of sore throat, bronchitis, asthma, thirst, biliousness, dysentery, ulcers, and blood disorders.	Used for indigestion. Fruits and decoction of leaves used for curing diarrhea, dysentery, cough, headache, sinusitis, and dysentery (Acharya & Pokhrel, 2006; Dhami, 2008; Miya *et al*., 2020).

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91.	*Nyctanthes arbor-tristis* L.	Parijat	Oleaceae	Ole-391	0.17	0.59	0.38	0.45	Tree	Leaves	The bitter leaves are useful as a cholagogue, laxative, diaphoretic and diuretic.	Fever, chronic typhoid, diabetes, inflammation, and scurvy (Miya *et al*., 2020).
92.	*Orchis tourn* ex L.	Sunakhari/ Orchid	Orchidaceae	Orc-392	0.67	0.88	0.78	0	Herb			
93.	*Oxalis corniculata* (L.)	Chari Amilo	Oxalidaceae	Oxa-393	1.28	0.88	1.08	0.35	Grass	Whole plant	The whole plant is anthelmintic, astringent, diuretic and styptic. The leaf juice is applied to insect bites, burns and skin eruptions.	Stomachache. Plant-juice is used in pimples, cut wounds, diarrhea and dysentery. Appetizer, body cooling, sinusitis, fever, tooth corrosion, sinusitis, anaemia, piles, scurvy, and jaundice (Acharya & Pokhrel, 2006; Dhami 2008; Miya *et al.,* 2020).
94.	*Pinus roxburghii* Sarg.	Sallo	Pinaceae	Pin-394	0.06	0.29	0.17	0.55	Tree	Stem	The wood is aromatic, deodorant, haemostatic, stimulant, anthelmintic, and is used as digestive and liver tonic.	Coughs and cold (Alamgeer *et al.,* 2018).
95.	*Piper longum* L	Pipla	Piperaceae	Pip-395	1.51	0.88	1.19	0.9	Herb	Fruit	Fruit is aromatic & stimulant, and is used to treat colds, asthma, bronchitis, arthritis, rheumatism, indigestion and toothache.	Used as stomachic, carminative as well as tonic useful in bronchitis, asthma, cold, cough and snake bite (Bhatt & Shakya, 2016; Miya *et al*., 2020).
96.	*Saccharum spontaneum* L.	Kans	Poaceae	Poa-396	2.12	0.88	1.50	0.55	Grass	Root	Roots are sweet, astringent, emollient, diuretic, tonic, burns, piles, and sexual weakness.	Cold, cough and fever; root is eaten for recovery of post pregnancy; recovery of stomachache (Tamang *et al.,* 2017; Shah & Lamichhane, 2017; Miya *et al.,* 2020).
97.	*Imperata cylindrica* (L.)	Siru	Poaceae	Poa-397	1.17	0.88	1.03	0.45	Grass	Root	Roots are antibacterial, diuretic, febrifuge, wounds, fevers, thirst etc.	Cholera (in child). Body tonic, hypertension, wounds, cuts, urodynia, and febricity. Anthelmintic (Acharya & Pokhrel, 2006; Umair *et al*., 2019; Miya *et al.,* 2020).
98.	*Cynodon dactylon* (L.) Pers.	Dubo	Poaceae	Poa-398	2.18	0.88	1.53	0.35	Grass	Whole plant	Decoction of the whole plant is used in the treatment of cough, diarrhea, dysentery, headache, hypertension, rubella, snake bite and tumors.	Used for curing cuts, wounds and burns, hemorrhage, inflammation of limbs, disorder in urinary tracts, and gastric disorders (Acharya & Pokhrel, 2006; Miya *et al.,* 2020).
99.	*Himalayacalamus asper* Stapleton	Nigalo	Poaceae	Poa-399	2.29	0.88	1.58	0	Shrub			
100.	*Eulaliopsos binata* (Retz.) C.E. Hubb	Babiyo	Poaceae	Poa-400	1.90	0.88	1.39	0	Grass			
101.	*Thysanolaena latifolia* (Roxb. ex Hornem.) Honda	Amlisha	Poaceae	Poa-401	0.84	0.88	0.86	0	Grass			
102.	*Fimbristylis dichotoma* (L.) Vahl.	Banso	Poaceae	Poa-402	0.78	0.88	0.83	0	Grass			

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103.	*Persicaria barbata* (L.) Hara	Nali Ghans	Polygonaceae	Pol-403	1.67	0.88	1.28	0.3	Herb	Whole plant	Seeds are used to treat dysentery and cholera while the roots are used to treat scabies; wood-sap is applied eternally to wounds.	Used for curing scabies and fish poisoning, bacterial infections, fertility issues, colic pain, inflammations, urinary disorders, stomachache, and scabies. (Tamang *et al.,* 2017; Ishtiaq *et al.,* 2021).
104.	*Rumex nepalensis* Sprngel	Hal hale	Polygonaceae	Pol-404	0.89	0.88	0.89	0	Herb	Root & leaves	Decoction of root applied to swollen gun, rheumatism, colic, stomach ache, abdominal pain and abscesses while leaf-juice applied externally to relieve headaches and wounds.	Root-paste used as medicine in skin allergy (Shah & Lamichhane, 2017).
105.	*Ziziphus mauritiana* Lam.	Bayar	Rhamnaceae	Rha-405	0.56	0.88	0.72	0.75	Tree	Fruit & leaves	Used to treat chronic fatigue, loss of appetite, diarrhea, bronchitis, anaemia and fevers.	Used to cure obesity, diarrhea, anemia, snake biting and wound healing; ripe fruits are edible and good for indigestion, constipation, and stomach problems; also used as blood purifier (Ishtiaq *et al.,* 2021; Bhatt *et al.,* 2021).
106.	*Rubus ellipticus* Sm.	Ainselu	Rosaceae	Ros-406	2.18	0.88	1.53	0.45	Shrub	Whole plant	Decoction of root is used to treat fever, gastric, diarrhea, and dysentery.	Used as anthelmintic agent as well as appetizer and for curing abdominal pain, curing wounds, urinary tract infection, diarrhea, sore throat, cholera, gastritis, fever, mouth wounds, tonsillitis, cough & cold, tongue eczema, and snake bite (Miya *et al.,* 2020).
107.	*Anthocephalus cadamba* (Roxb.) Miq.	Kadam	Rubiaceae	Rub-407	0.17	0.59	0.38	0.65	Tree	Bark & leaves	Dried bark is used to relieve fever and as a tonic while the leaves are used to treat ulcers, digestive problems, fevers, and vomiting.	Dried bark used as tonic, astringent, expectorant, and febrifuge (Fern, 2014).
108.	*Adina cordifolia* (Willd. ex Roxb.) Benth. & Hook. f. ex Brandis	Karma	Rubiaceae	Rub-408	1.23	0.88	1.05	0.55	Tree	Root	Roots act as astringent and constipating agent, and are useful in diarrhea and dysentery; used in the treatment of chronic, cough, jaundice, and stomach ache.	Used for treatment of chronic cough, jaundice, stomachache, and a variety of other ailments (Tamang *et al.,* 2017).
109.	*Mussaenda frondosa* L.	Asaray	Rubiaceae	Rub-409	0.17	0.59	0.38	0.4	Shrub	Bark & leaves	Decoction of leaves is used to get rid of intestinal worms while the bark-juice is used in the treatment of body ache, diarrhea and dysentery.	Traditionally, used in the treatment of white leprosy, eye troubles, skin infections, tuberculosis, jaundice, ulcers, wounds, cough, and bronchitis (Shanthi & Radha, 2020).
110.	*Zanthoxylum armatum* DC.	Timur	Rutaceae	Rut-410	0.22	0.59	0.41	0.85	Tree	Fruit	Used in the treatment of abscesses, arthritis, bruises, gastritis, swellings, and toothache.	Used for dental troubles and its lotion used for curing scabies, fever and toothache. Used as eye-sight enhancer, carminative, digestives, and stomachic (Dutta, 2007; Ishtiaq *et al.,* 2021).

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111.	*Citrus limon* (L.) Osbeck	Kagati	Rutaceae	Rut-411	0.11	0.29	0.20	0.85	Tree	Stem	Stem-bark is bitter, stomachic and tonic.	Continuous application of lemon essential oil solubilized in grape seed oil might be useful in the prevention of lifestyle-related skin diseases by regulating the balance of oxidative stress (Khalid *et al.*, 2010; Bertuzzi *et al.*, 2013).
112.	*Murraya koenigii* (L.) Sprengel	Kadi patta	Rutaceae	Rut-412	1.12	0.88	1.00	0.75	Shrub	Whole plant	Leaves used to treat dysentery, diarrhea, diabetics, wounds, and skin eruptions while root is used to relive from body-ache. Bark is helpful in treating snakebites.	Juice of leaves used for improvement of appetite and digestion, treatment of diarrhea and dysentery (Fern, 2014).
113.	*Aegle marmelos* (L.) Correa	Stone apple	Rutaceae	Rut-413	0.39	0.59	0.49	0.45	Tree	Fruit	Used for treatment of dysentery, and as an ayurvedic medicine for loss of appetite, respiratory problems, tuberculosis, fever, and diabetes.	Bark and leaf juice given in diarrhea, dysentery, indigestion and abdominal disorders (Dhami, 2008; Bhatt & Shakya, 2016; Dutta, 2007).
114.	*Sapindus mukorossi* Gaertn.	Reetha	Sapindaceae	Sap-514	0.22	0.59	0.41	0.65	Tree	Fruit	Used to treat burns and to wash hair and get rid of lice.	Used for cold, cough and fever (Tamang *et al.,* 2017).
115.	*Schleichera oleosa* (Lour.) Oken	Kusum	Sapindaceae	Sap-515	0.39	0.88	0.64	0.45	Tree	Whole plant	All parts of this plant are used as decoction to cure ulcers and wounds of cattle. Bark is used for skin problems and ulcers.	Treatment to wounds and ulcers of cattle, skin problems and also promotes hair growth (Fern, 2014).
116.	*Bergenia ciliata* (Haw.) Sternb. Revis. Saxifrag. Suppl.	Silfode	Saxifragaceae	Sax-516	0.22	0.59	0.41	0.55	Herb	Whole plant	Used for treatment of heart diseases, haemorrhoids, stomach discords, and opthalmia.	Used as aphrodisiac agent, used in case of fever, maternity problem, and post pregnancy, diarrhea, typhoid, dysentery, vomiting, stomachache, body pain, sprain, headache, cuts, wound, renal calculi, fracture, menstrual haemorrhage and whooping cough (Miya *et al.,* 2020).
117.	*Selaginella* P. Beauv.	Selaginella	Selaginellaceae	Sel-517	0.50	0.59	0.55	0	Grass			
118.	*Datura metel* L.	Kalodhatura	Solanaceae	Sol-518	0.45	0.59	0.52	0.8	Herb	Whole plant	Used to treat asthma, epilepsy, hysteria, heart diseases, fever, diarrhea, and skin diseases.	Dried stems and leaves smoked in asthma. Fruits and seeds used for curing paralysis; leaf-paste used in case of gonorrhea (Dhami, 2008; Bhatt & Shakya, 2016).
119.	*Datura stramonium* L.	Setodhatura	Solanaceae	Sol-519	0.45	0.88	0.66	0.75	Herb	Leaves & seeds	The dried ground leaves and seeds mixed with fat eaten to treat ringworm.	Used for treatment of toothache, asthma, bronchitis, and insomnia. Used as insecticide, antipyretic, narcotic, verimicidal, and for treatment of cold & fever in cattle. Also, used for early copulation and pregnancy in cow/ buffaloes (Miya *et al*., 2020; Ishtiaq *et al*., 2021).

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120.	*Withania somnifera* (L.) Dunal.	Ashwagandha	Solanaceae	Sol-520	0.17	0.59	0.38	0.65	Shrub	Whole plant	Used to treat nervous exhaustion, infertility, boils, wounds, swelling, and bed-sores.	Used for curing skin infection, smallpox, measles, etc. Used as aphrodisiac. Used for treatment of pulmonary troubles, asthma, stomachache, night mare, hyperglycemia, irregular menstruation, breast cancer, wounds, and malarial fever (Mabona & Van, 2013; Chauhan *et al*., 2014; Alamgeer *et al*., 2018; Umair *et al*., 2019; Ishtiaq *et al*., 2021).
121.	*Ceastrum nocturnum* L.	Rato rani	Solanaceae	Sol-521	1.45	0.88	1.17	0.55	Shrub	Whole plant	Extracts of the plant useful in preventing tumour growth.	Folklore uses of the plant are in treatment of various heart diseases, spasms, hypertension, urine retention and various digestive diseases (Maharjan *et al*., 2019).
122.	*Solanum nigrum* L.	Kali kuiyan	Solanaceae	Sol-522	1.39	0.88	1.14	0.35	Herb	Whole plant	Whole plant is alterative, anti-periodic, anti-phlogistic, aprodisiac, diaphoretic, diuretic, laxative, narcotive, puragative, stimulant, and tonic.	Used for easy child delivery and intermittent fever. Used in case of diabetes, headache, insomnia and indigestion (Acharya & Pokhrel, 2006; Miya *et al*., 2020).
123.	*Girardiana diversifolia* (Link.) Friis	Allo Sisno	Urticaceae	Urt-523	0.73	0.88	0.80	0.6	Herb	Root & leaves	Roots are used to treat constipation while leaves used for treatment of headache, fever, and swollen joints.	Used to cure constipation, sprain and diabetes (Miya *et al*., 2020).
124.	*Urtica dioica* L.	Sisno	Utricaceae	Utr-524	0.89	0.88	0.89	0.55	Herb	Whole plant	Whole plant is anti-asthmatic, anti-dandruff, astringent, depurative, diuretic, galactagogue, haemostatic, hypoglycaemic and a stimulating tonic.	Root juice given in case of stomach problems, fever, and intestinal worms. Stem juice given in fever, cut wounds. Flower decoction used in burns and wounds. Decoction of roots used to treat wounds of dog-bite. Fruits paste applied to treat dislocation of bone (Dutta, 2007; Dhami, 2008; Bhatt & Shakya, 2016).
125.	*Lantana camara* L.	Banmara	Verbenaceae	Ver-525	1.84	0.88	1.36	0.3	Shrub	Whole plant	Leaves contain anti-microbial, fungicidal and insecticidal properties while the roots are used to treat influenza, cough, mumps, high fever, malaria, headache, and asthma.	Used for treatment of respiratory diseases, headache, aerodontalgia, malarial fever, rheumatoids, arthritis, cuts, wounds, injuries, cough & cold, and to get rid of ring-worm (Alamgeer *et al.*, 2018; Umair *et al*., 2019).
126.	*Lippia nodiflora* (L.) Rich.	Kurkure Jhar	Verbenaceae	Ver-526	0.61	0.88	0.75	0.4	Grass	Whole plant	A poultice of fresh plant is applied to ripen boils, swollen cervical glands, burns, and chronic ulcers while root-juice is used in the treatment of gastric troubles.	Used as antibacterial, astringent, diuretic, parasiticides and refrigerant and to treat gastric problems, fever, and coughs & colds (Fern, 2014).