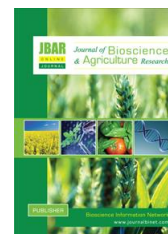


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Diversity of medicinal plants in Haluaghat upazila of Mymensingh and their uses

Mohammad Rizwanul Bari¹, Md. Aslam Ali² Md. Giashuddin Miah³ and Md. Rishad Abdullah¹

¹Dept. of Agroforestry, Bangladesh Agriculture University, Mymensingh, Bangladesh

²Dept. of Environmental Sciences, Bangladesh Agriculture University, Mymensingh, Bangladesh,

³Dept. of Agroforestry, Bangabandhu Sheikh Mujibur Rahman Agricultural University, Gazipur, Bangladesh

✉ For any information: ask.author@journalbinet.com, Received: 07.08.17, Revised: 26.09.17;
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ABSTRACT

To determine the diversity and uses of medicinal plants the study was conducted at twenty villages Haluaghat upazila of Mymensingh district, Bangladesh. Seventy five households were randomly selected and data were collected using structured questionnaires and resulted in the documentation of 87 useful medicinal plant species belonging to 51 families including trees (40%), herbs (32%), shrubs (20%) and climber (8%). The Fabaceae and Zingiberaceae family provided the largest number of species (5 plants) followed by Apocynaceae, Combretaceae and Euphorbiaceae (4 plants from each family). Among the identified plants 80 species uses against human disease, 11 species used against animal disease and 10 species used for pest control. Leaf was used in the majority of cases for medicinal preparation (52 species), followed by fruits (21 species), roots (19 species), seeds (13 species), barks (15 species) and besides these, rhizome, flower, latex as well as whole plant were used. Unfortunately, medicinal plants are increasingly threatened by various environmental, socio-economic and institutional problems. In the study area some medicinal plant species (Neem, Khejur, Mandar, Ulot kambal, Sazna, Bael and Amloki) were found well adapted for many years. However, proper training with adequate supply of desired medicinal plant species are required and credit facilities would be helpful for large scale cultivation of medicinal plants.

Key Words: Haluaghat, Medicinal plants, Diversity, Disease and Pest control

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I. Introduction

Forest and village thickets have always been the major sources of medicinal plant genetic resources. In addition to the timber value, these forests are composed many medicinal and aromatic species of

plants of diverse habits extending from trees and shrubs to herbs and climbers. Chowdhury et al. (1996) documented 42 folk formularies, which had long been used traditionally against dysentery and diarrhoea in Bangladesh. Infact, the use of plant parts for treating against diseases can be traced to the remote past and still proves to be an indispensable source of medicinal preparation, both preventive and curative (Srivastava et al., 1995). Although modern medicinal science has developed to a great extent, many rural people of this country still depend on plant products and herbal remedies for treating their ailments. Medicinal plants are playing significant role in providing primary health care services to the people. Given the importance of herbal medicines, the Government of Bangladesh has brought the system of Unani and Ayurvedic medicine under the National Drug Policy in 1982 to ensure availability, commercial manufacturing and marketing of Unani and Ayurvedic medicine and drugs (Ahsan et al., 1997). According to the World Health Organization (WHO), medicinal plants form the basis of traditional and indigenous health care needs used by the majority of the world's population. Modern Pharmacopoeia still contains at least 25% drugs derived from plants, which are synthetic analogues built on prototype compounds isolated from plants (Silva, 1997). Medicinal plants have been used in Bangladesh in Ayurvedic and folk medicine since ancient times. Rashid et al. (1987) has conducted research work into the nature and functional dynamics of crude drug market in Bangladesh. They observed that different Ayurvedic, Unani and other pharmaceutical industries of the country commonly used some 142 different crude drugs.

About 90% of the total medicines come from plant kingdom (Rahman, 2003). From the ancient era, plants have been used for treatment of several diseases. According to experts, the herbal plants belonging to 60 families out of 206 are used for medicinal purposes in Bangladesh (Roy, 2001). In many parts of the country particularly in adjoining forest and hilly area like Haluaghat are the wild collection of medicinal species used mainly by the poor in their livelihood activity and often a major source of cash income for these groups. Most of the people of rural areas go to the kavrāj, even to Homeopathic or Allopathic doctors. Protection and conservation of medicinal plant resources were not considered as a major concern until 1984 (Hannah and Bowles, 1995). In the past, many countries have failed to adequately enforce on genetic resources of medicinal plants due to lack of awareness of the potential value of the species (Walden, 1995). From the conservation point of view, many of our traditional medicinal plants are now extinct. Some are endangered and some are totally threatened. Therefore, intensive studies on the identification and uses of medicinal plants across the country are needed for developing long term strategies for protection and conservation of medicine. By considering the above facts, the study was undertaken to identify the commonly used medicinal plant species with their diversity and uses.

II. Materials and Methods

The survey was conducted in twenty villages of seven union, Haluaghat upazila, Mymensingh district covering an area of 360 sq km. This upazila consists of 12 union parisads, 145 mouzas and 169 villages. Total number of farm families in these villages was 59,191. Seven unions i.e. Amtail, Bhubankura, Gazirbhita, Haluaghat, Jugli, Narail and Swadeshi were selected purposively from a total of 12 unions. A total of 20 villages were taken from these seven unions for survey by the help of Upazila Agriculture Extension Office of DAE, World Vision and local people of Haluaghat. Data were collected during September to October 2004. The site is situated in the near foothill of the Garopahar and plain land that's have a long tradition of growing different medicinal plants naturally and in social and community based as well. Seventy-five respondents were chosen chiefly on the basis of knowledge on medicinal plants and their utilization in health care services and interviewed to collect data on medicinal plants and their uses. In order to collect relevant information, interview schedule was carefully designed keeping the objectives of the study in view. It contained both opened and closed form of questions. Initially the questionnaire was designed in Bengali for easy recording with the respondents. Collected data was verified through surveying the homestead and discussing with the households. Identification of the existing medicinal trees, shrubs and herbs species was done in the field with the help of rural aged people, local traditional doctors (kavrāj) while the others that could not be readily identified were brought to the herbarium of department of agroforestry, Bangladesh Agricultural University. The scientific names were obtained by consulting the literature (BARC, 1972-1992; Chopra et al., 1992; Chevallier, 1996; Das and Alam, 2001). The collected data were placed on to computer to prepare a database through Microsoft Excel and Microsoft Access database programme.

III. Results and Discussion

A wide variety of medicinal plants were observed in the study area of Haluaghat upazila under Mymensingh district. A total of 80 plant species including herbs, shrubs, climbers and trees were frequently used by the local communities of haluaghat upzila for curing ailments were recorded during the survey (Table 01). The study revealed that tree were dominant (40%) followed by herbs (32%), shrubs (20%), and climbers (8%) (Figure 01). A similar trend was also observed by [Miah and Chowdhury \(2003\)](#). They found that trees were dominant on a conservation area of Northern Bangladesh and Mro tribe in Chittagong Hill Tracts, Bangladesh respectively but [Ghani \(2003\)](#) found that herbs were dominated on other communities of Bangladesh.

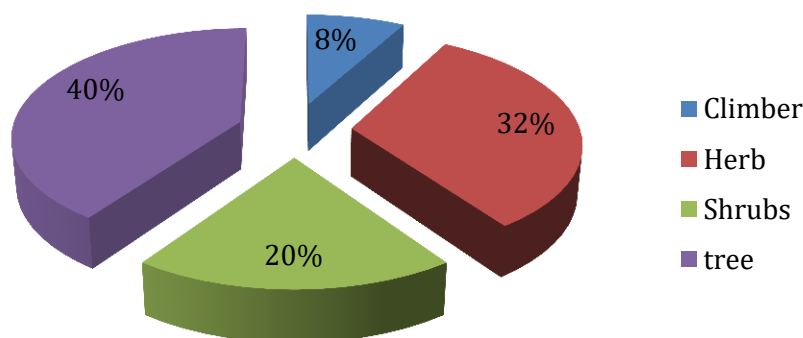


Figure 01. Percentage of type of the medicinal plants recorded from the study area.

Collected medicinal plants were distributed in 51 families. The Fabaceae and Zingiberaceae family provided the largest number of species (5 plants) followed by Apocynaceae, Combretaceae and Euphorbiaceae families provide 4 plants. The Amaranthaceae, Arecaceae, Malvaceae, *Moraceae*, Rubiaceae and Solanaceae families provide 3 plants each. The *Araceae*, Asteraceae, Lamiaceae, *Leguminosae*, *Liliaceae*, Menispermaceae, *Rutaceae*, and Verbenaceae families provided 2 plants each. Rest of the families provided only one plant. Similar trends was also observed by [Zohora et al \(2016\)](#). Plants were obtained from both wild and cultivated area. Several plants were cultivated for home consumption of fruits; the fruits were also sold commercially. Most threatened and endangered common and indigenous medicinal plant species in that locale were Horitoki, Bohera, Nishinda, Ashok, Bhuikumri, Jasthi-modhu, Anantamul, Shatamul, Datura etc.

Uses of plant parts for ailment of human diseases

Mostly of them were used against human diseases. The useful parts of the medicinal plants varied from roots to seeds. In case of some species almost all parts of that plant such as root, leaf, flower, fruit, seed etc. were found to be used against specific diseases. Total 144 uses were found in the present survey, where leaves formed the most frequently used plant part (37.96%), followed by fruits (15.33%), roots (13.87%), barks (10.95%), seeds (9.49%), flowers (6.57%) and rhizomes (Figure 2). The percentage of whole plant used in treatment was 2.19%. For human ailments, whole plant or plant parts were either orally administered or topically applied. It was also observed that the particular plant parts are used by the practitioners in several ways. [Ahmed et. al. \(2017\)](#) found 160 uses, where leaves formed the most frequently used plant part (26.87%), followed by fruits (18.12%), seeds (16.25%), roots (13.75%), stems (11.25%), flowers (6.25%), barks (5%) and partial plant (3.5%).

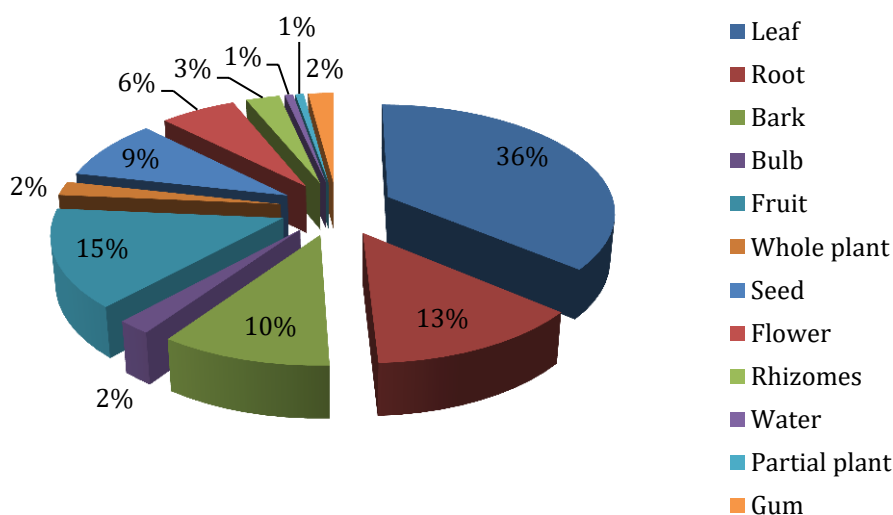


Figure 2. Percentages of various plant parts used by local communities

Table 1. Uses of medicinal plants (Trees, shrubs & herbs) against human diseases

Sl No	Local name	Scientific name	Family	Habit	Part uses	Diseases
1.	Ulot Kambal	<i>Abroma augustum L.</i>	Malvaceae	Shrub	Bark of roots, Leaf	Ministration disorder, Gonorrhoea
2.	Jhumka	<i>Abutilon indicum (L.) Sweet</i>	Malvaceae	Shrub	Roots	Early delivery
3.	Apang	<i>Achyranthes aspera L.</i>	Amaranthaceae	Shrub	Roots Plants	Aphordisiac, Arthritis
4.	Basak	<i>Adhatoda vasica Nees</i>	Acanthaceae	Shrub	Leaves, Bark, & roots	Coughing, Reduces high blood pressure
5.	Bel	<i>Aegle marmelos (L.) Corrêa</i>	Rutaceae	Tree	Fruits, Leaves, Roots	Constipation
6.	Rashun	<i>Allium sativum L.</i>	Amaryllidaceae	Herb	Bulb	Cough, asthma, intestinal
7.	Bishkachu	<i>Alocasia indica Roxb.</i>	Araceae	Herb	Leaves, Roots	Mouth diseases, Ear Diseases,
8.	Ghrito kumari	<i>Aloe vera (L.) Burm.f.</i>	Liliaceae	Herb	Leaves extract	Constipation. In appetite, Leucorrhoea.
9.	Chatim	<i>Alstonia scholaris (L.) R. Br.</i>	Apocynaceae	Tree	Bark, Root, Gum	High blood pressure, Fever, Nematicide, Diarrhoea
10.	Katanata	<i>Amaranthus spinosus L.</i>	Amaranthaceae	Herb	Roots	Dysentery, Diuretic
11.	Anarash	<i>Ananas comosus (L.) Merr.</i>	Bromeliaceae	Herb	Leaves, Fruits	Tape Worm, Urinary disorder
12.	Supari	<i>Areca catechu L.</i>	Arecaceae	Tree	Fruits, leaves	Stomach disorder, Ulcer, Diarrhoea
13.	Nadana	<i>Artemisia vulgaris (Linn.)</i>	Asteraceae	Herb	Leaves	Aclamsia
14.	Shatamuli	<i>Asparagus racemosus Willd.</i>	Asparagaceae	Herb	Whole plants	Cancer, Energies, Stimulator
15.	Kamranga	<i>Averrhoa carambola L.</i>	Oxalidaceae	Shrub	Fruits, Leave	Coughing, & Fever
16.	Jatineem	<i>Azadirachta indica A. Juss.</i>	Meliaceae	Tree	Bark, Seed, Leaves, Fruits, Flowers	Antiseptic, Skin diseases, Mouth & Tooth wash
17.	Hijal	<i>Barringtonia acutangula (L.) Gaertn.</i>	Lecythidaceae	Tree	Leaves, Branches	Cough, Asthma
18.	Shial mutha	<i>Blumea lacera (Burn. f.) DC.</i>	Asteraceae	Shrub	Root & Mutha	Dysentery
19.	Punarnava	<i>Boerhavia repens L.</i>	Nyctaginaceae	Herb	Leaves	Asthma, Intestinal injury
20.	Shimul	<i>Bombax ceiba L.</i>	Malvaceae	Tree	Bark, Root & Seed	Diarrhoea, Dysentery, Cough removal, Sexual weakness.
21.	Patharkuchi	<i>Bryophyllum calycinum Salisb.</i>	Crassulaceae	Herb	Leaves	Kidney stone remover, Cough & Fever

Sl No	Local name	Scientific name	Family	Habit	Part uses	Diseases
22.	Palash	<i>Butea monosperma (Lam.) Taub</i>	Leguminosae	Tree	Leaves, Flower, Bark, Seed	Worm, Bleeding, Cough, Fever, Menstruation
23.	Arohor	<i>Cajanus cajan (L.) Huth</i>	Fabaceae	Shrub	Leaves, Seed	Hepatitis, Vomiting, Bronchitis
24.	Akanda	<i>Calotropis gigantea (L.) W.T. Aiton</i>	Apocynaceae	Shrub	Leaves, Barks & Gum	Nauscent, Ruboficient, Alternative Leprocy, Asthma
25.	Sonalu	<i>Cassia fistula L.</i>	Caesalpiaceae	Tree	Fruits, Leaves	Constipation, Fungal infection, Skin diseases
26.	Nayantara	<i>Catharanthus roseus (L.) G. Don</i>	Apocynaceae	Shrub	Root, leaves	Leukemia, diabetes, hypertension
27.	Telakucha	<i>Cecineia cordijolia (L.) Cogn.</i>	Cucurbitaceae	Climber	Leaves	Insanity, Madness
28.	Thankuni	<i>Centella asiatica (L.) Urban</i>	Apiaceae	Herb	Leaves	Dysentery, Diarrhoea, Diseases of urinary tract
29.	Tejpata	<i>Cinnamomum tamala (Buch.-Ham.) Nees & Eberm.</i>	Lauraceae	Tree	Leaves & Bark	Gonorrhoea, Flavor, Carmative
30.	Lemon	<i>Citrus aurantifolia (Cristm.) Swingle</i>	Rutaceae	Shrub	Fruits, & Leaves	Vit. C, Digestion, Appetizer
31.	Vat	<i>Clerodendron infortunatum Linn.</i>	Verbenaceae	Climber	Leaves	Antianodyne Anthelmintic
32.	Coconut	<i>Cocos nucifera L.</i>	Arecaceae	Tree	Water	Diarrhoea, Gastric
33.	Amada	<i>Curcuma amada Roxb.</i>	Zingiberaceae	Herb	Rhizome	Abdominal & Gastric problem, Indigestion
34.	Araroot	<i>Curcuma angustifolia Roxb.</i>	Zingiberaceae	Herb	Tuber	Carminative
35.	Banhalud	<i>Curcuma aromatica Salisb.</i>	Zingiberaceae	Herb	Rhizome	Abdominal, Dycentry & Gastric problem
36.	Datura	<i>Datura metel L.</i>	Solanaceae	Shrub	Fruits, Leaves	Pain killer, Asthma. Mental disorder
37.	Krishnachura	<i>Delonix regia (Hook.) Raf.</i>	Fabaceae	Tree	Flower	Pneumonia, Bleeding
38.	Kendar	<i>Diospyros tomentosa Roxb.</i>	Ebenaceae	Tree	Fruits	Astringent
39.	Kalasuta	<i>Ehretia ocluminata R.Br.</i>	Boraginaceae	Tree	Plants	Jaundice
40.	Mandar	<i>Erythrina variegata L.</i>	Fabaceae	Tree	Leaves, Bark	Fever, Worm, Meho & Gonorrhoea
41.	Jungle dumur	<i>Ficus racemosa L.</i>	Moraceae	Tree	Plant juice, Fruit	Mums, Jaundice, Dycentery
42.	Gandharaj	<i>Gardenia jasminoides J.Ellis</i>	Rubiaceae	Tree	Flower	Stimulant
43.	Bannalia	<i>Gelonium multiflorum A.Juss.</i>	Euphorbiaceae	Tree	Leaves	Stimulant
44.	Jaisty madhu	<i>Glycyrrhiza glabra L.</i>	Leguminosae	Climber	Leaves & fruits	Anthelmintic, cold cough & asthma
45.	Lal Verenda	<i>Jatropha gossypifolia L.</i>	Euphorbiaceae	Shrub	Seed, Leaf, & Roots	Constipation, Rheumatic, & Neural weakness
46.	Mehedi	<i>Lawsonia inermis L.</i>	Lythraceae	Shrub	Leaves, Barks, Flowers	Headache, Skin disease, Antiseptic. Liver disorder
47.	Dandakalash	<i>Leucas aspera (Roth.) Spreng</i>	Lamiaceae	Herb	Leaves, Seeds	Labour problem, Achlamsia
48.	Mango	<i>Mangifera indica L.</i>	Anacardiaceae	Tree	Fruits, Leaves, Seed, Bark, & Gum	Diarrhoea, Diabetes. Asthma, Coughing, Piles.
49.	Cassava	<i>Manihot esculenta Crantz.</i>	Euphorbiaceae	Shrub	Leaves, Bark	Stop bleeding, Pluster
50.	Darharidra	<i>Morinda angustifolia Roxb.</i>	Rubiaceae	Tree	Branch, Leaves	Ginolo ical diseases
51.	Shajina	<i>Moringa oleifera Lam.</i>	Moringaceae	Tree	Berks, Fruits, Seed	Paralysis, Heart diseases, Neural weakness, Historia
52.	Tut	<i>Morus indica L.</i>	Moraceae	Tree	Fruits, Bark, Leaves	Neural disorder, Sex stimulator, Tape worm.

Sl No	Local name	Scientific name	Family	Habit	Part uses	Diseases
53.	Atia Kala	<i>Musa sapientum</i> Linn.	Musaceae	Herb	Roots, Leaves, & Fruits	Cholera, Dysentery, Diarrhoea, Worm, constipation & Diabetes
54.	Shephali	<i>Nyctanthes arbortristis</i>	Oleaceae	Tree	Leaves & Flower	Malaria, Rheumatic, & Worm
55.	Lal shapla	<i>Nymphaea nouchali</i> Burm.f.	Nymphaeaceae	Herb	Flower	Menstrual diseases
56.	Tulsi	<i>Ocimum tenuiflorum</i> L.	Lamiaceae	Shrub	Leaves, Flower, seeds, & roots	Cough remover, Bronchitis, Skin diseases, & Fever
57.	Kanaidinga	<i>Oroxylum indicum</i> (L.) Kurz	Bignoniaceae	Tree	Leaves	Jaundice
58.	Gandha badali	<i>Paedaria foetida</i> L.	Rubiaceae	Climber	Leaves	Venereal diseases, Dysentery
59.	Khejur	<i>Phoenix sylvestris</i> (L.) Roxb.	Arecaceae	Tree	Leaves, Roots	Pyorrhoea, Stomach
60.	Amloki	<i>Phyllanthus emblica</i> L.	Euphorbiaceae	Tree	Fruits	Carminative, Vitamin C, & Appetizer
61.	Chotrapata	<i>Plumbago zeylanica</i> L.	Plumbaginaceae	Herb	Leaves	Antifertility
62.	Raktachandan	<i>Pterocarpus santalinus</i> L.f.	Fabaceae	Tree	Fruits, Seeds	Skin diseases
63.	Dhalim	<i>Punica granatum</i> L.	Punicaceae	Tree	Stem, Fruits, & Roots	Nematicides, Dysentery, Diarrhoea
64.	Sharpagandha	<i>Rauwolfia tetraphylla</i> L.	Apocynaceae	Shrub	Leaves	Sedative, Blood pressure
65.	Ashoke	<i>Saraca asoca</i> (Roxb.) De Wilde	Fabaceae	Tree	Bark, Leaves & Fruits	Ministrations, Piles, Blood dysentery, Liver disorder, & Syphilis.
66.	Muchi lat	<i>Stephania japonica</i> (Thumb.) Miers	Menispermaceae	Climber	Whole plants	Plaster on injury, Jaundice
67.	Bishkachhu	<i>Stuednera virosa</i> (Roxb.) Prain	Araceae	Herb	Stem	Pain, Gut
68.	Sheora	<i>Streblus asper</i> Lour.	Moraceae	Tree	Leaves	Diuretic, Dysentery, Leucorrhoea
69.	Chirata	<i>Swertia chirata</i> Buch.-Ham. ex Wall	Gentianaceae	Herb	Leaves	Anthelmintic Alergy, Dycentry, Clean blood
70.	Kalojam	<i>Syzygium cumini</i> (L.) Skeels	Myrtaceae	Tree	Roots, Seeds & Leaves	Bleeding, Dysentery & Diabetes
71.	Marigold	<i>Tagetes erecta</i> L.	Compositae	Herb	Leaves, Flower	Anticeptic, Stop bleeding
72.	Arjun	<i>Terminalia arjuna</i> (Roxb. ex DC.) Wight & Arn	Combretaceae	Tree	Bark	Heart diseases, High blood pressure, Liver cirrhosis, Asthma
73.	Bohera	<i>Terminalia belerica</i> (Gaertn.) Roxb.	Combretaceae	Tree	Fruit & Seed	Hepatitis, Eye Diseases
74.	Katbadam	<i>Terminalia catappa</i> L.	Combretaceae	Tree	Barks & Fruits	Constipations, Piles, Fever & Menstruation
75.	Horitoki	<i>Terminalia chebula</i> (Gaertn.) Retz.	Combretaceae	Tree	Nut	Stimulant
76.	Amgorancha	<i>Tinospora cordifolia</i> (Willd.) Miers	Menispermaceae	Climber	Branch, Leaves	Antipyretic, Itches, Malaria
77.	Bon piuj	<i>Urginea indica</i> Kunth.	Liliaceae	Herb	Bulb	Dycentry, Antipyretic
78.	Harjora	<i>Vitis quadrangularis</i> (L.) Wall. ex Wight & Arn.	Vitaceae	Climber	Branch, Leaves	Fracture of bones, Inappetite
79.	Ashwagandha	<i>Withania somnifera</i> (L.)	Solanaceae	Herb	Whole plant	Displacement of Uterus
80.	Banada	<i>Zingiber purpureum</i> Roscoe	Zingiberaceae	Herb	Rhizome	Cough, Expectorent, Stomach ache

Medicinal plants used against animal diseases

In the study area 11 medicinal plant species were used against different types of animal diseases by the local people. Highest number of plants were from fabaceae family. Among the total respondents, 12% were used these species that are given in the following Table 02. This implied an effective safety net for livestock's with low cost medicines especially for the livestock's of poor people.

Table 02. Uses of medicinal plants against animal diseases

Sl No	Local name	Scientific name	Family	Habit	Part uses	Uses
1.	Bon piyaj	<i>Urginea indica Kunth.</i>	<i>Liliaceae</i>	herb	Bulb	Inflamation of throat
2.	Katanata	<i>Amaranthus spinosus L.</i>	<i>Amaranthaceae</i>	herb	Whole plant	Increase milk content of cow
3.	Anarash	<i>Ananas comosus (L.) Merr.</i>	<i>Bromeliaceae</i>	herb	Leaves	Anthelmintic of cow
4.	Jaina	<i>Fimbristylis littoralis Gaudich.</i>	<i>Cyperaceae</i>	herb	Whole plant	Increase digestion capacity
5.	Jungle dumur	<i>Ficus racemosa L.</i>	<i>Moraceae</i>	Tree	Fruit	Diarrhoea, cough of cow
6.	Atia Kala	<i>Musa sapientum Linn.</i>	<i>Musaceae</i>	herb	Mutha	Dysentery, Abdominal problem of cow
7.	Kanta bas	<i>Bambusa bambos (L.) Voss</i>	<i>Poaceae</i>	tree	Leaves	Solve labour problem of cow
8.	Biskatali	<i>Polygonum lapathifolium L.</i>	<i>Polygonaceae</i>	herb	Leaf	Lice
9.	Banhalud	<i>Curcuma aromatica Salisb.</i>	<i>Zingiberaceae</i>	herb	Tuber	Disentry of cow
10.	Banrashun	<i>Cyanotis cristata (L.) D.Don</i>	<i>Zingiberaceae</i>	herb	Bulb	Carminative
11.	Banada	<i>Zingiber purpureum Roscoe</i>	<i>Zingiberaceae</i>	herb	Tuber	Carminative

Medicinal plants used for pest control

The researcher found 10 medicinal plant species which were substantially used against pests of different crops by the 22.67% of the total respondents. These types of medicinal species with their uses are presented in Table 0. The findings indicated that there was a possibility of reducing pressure of chemical pesticides by using these types of species. This implied a positive effect on the natural environment if herbal pesticides are promoted.

Table 03. Uses of medicinal plants for pest control

Sl No.	Local name	Scientific name	Family	Habit	Part uses	Pest control
1.	Jatineem	<i>Azadirachta indica A. Juss.</i>	<i>Meliaceae</i>	Tree	Leaves & fruits	Stored grain pest, Stem borer, Aphids, Bugs, Leaf sucker
2.	Datura	<i>Datura metel L.</i>	<i>Solanaceae</i>	Shrub	Leaves, Fruits	Purple blotch of onion
3.	Cassava	<i>Manihot esculenta Crantz.</i>	<i>Euphorbiaceae</i>	Shrub	Young leaves	Insects were died for sucking
4.	Shajina	<i>Moringa oleifera Lam.</i>	<i>Moringaceae</i>	Tree	Leaves	Stored pests
5.	Tobacco	<i>Nicotiana tabaccum L.</i>	<i>Solanaceae</i>	Shrub	Leaves	White fly
6.	Tulsi	<i>Ocimum tenuiflorum L.</i>	<i>Lamiaceae</i>	Shrub	Leaves	Aphids
7.	Biskatali	<i>Polygonum lapathifolium L.</i>	<i>Polygonaceae</i>	Herb	Leaves	Stored grain pest, Stem borer
8.	Marigold	<i>Tagetes erecta L.</i>	<i>Compositae</i>	Herb	Leaves, Root	Insecticide, Nematocide
9.	Nishinda	<i>Vitex negundo L.</i>	<i>Verbenaceae</i>	Herb	Leaves	Majra oka
10.	Banhalud	<i>Curcuma aromatica Salisb.</i>	<i>Zingiberaceae</i>	Herb	Rhizomes	Insect pest, Specially for soil pest

IV. Conclusion

The study area was found to be a potential for medicinal plants. Most of the medicinal plant species had diversified uses. Some were used against human diseases, some for livestock diseases and others were used for controlling pests of plants. Although growing medicinal plants and benefits from them have been appeared as a potential enterprise to the concerned households, but several problems such

as scarcity of land, money inputs etc. were found to be barriers for their commercial cultivation and utilization. Appropriate methods need to be developed to restock natural and domesticated plant supplies of target important species; especially those are rare or endangered. Training and communication for the rural farmers should be arranged for providing necessary information and inputs on identification, usage, cultivation and conservation of medicinal plants.

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