

## ARTICLE

# Folk Medicinal Plants Used by Local Herbalists in and around Rajshahi Metropolitan City, Bangladesh

A.H.M. Mahbubur Rahman\*

Plant Taxonomy Laboratory, Department of Botany, University of Rajshahi, Rajshahi-6205, Bangladesh

### ARTICLE INFO

#### Article history

Received: 1 April 2021

Accepted: 20 April 2021

Published Online: 15 May 2021

#### Keywords:

Folk medicinal plants

Herbal drug development

Rajshahi

Bangladesh

### ABSTRACT

Folk medicinal plants used by local herbalists in and around Rajshahi metropolitan city were recorded. The study include 111 medicinal plants used to cure various diseases such as diarrhea, diabetes, toothache, fever, worm, snake-bite, blood disease, cough, menstrual disease, wound, itches, chicken pox, constipation, dysentery, eczema, piles, sex problems, skin diseases, headache, anemia, burning sensation, bronchitis, paralysis, jaundice, asthma, etc. Finally, this study shows that traditional medicine really contributes to the health care of the population and deserves to be accompanied. The identified medicinal plants will guide future research into natural substances for the development of improved traditional medicines.

## 1. Introduction

Traditional medicine as identified by the World Health Organization (WHO) “Total of knowledge, skills, and practices based on the theories, beliefs, and experiences indigenous to different cultures, whether explicable or not, used in the maintenance of health as well as in the prevention, diagnosis, improvement of treatment of physical and mental illness” [16].

The fact has proved that the ethnic communities around the world owning their own culture based on that they developed their system of medical practices, which are being addressed as folk and ethno-medicines. There are numerous medicinal plants available in their surroundings and those herbs are being used by the tribal community as medicine for curing their diseases. The local people lived in a forest environment for many generations and devel-

oped their knowledge of the flora and fauna of the forest that is known as folk or indigenous knowledge. At the same time, they have developed folk beliefs based on traditional practices that helped them in curing various forms of diseases. The beliefs and practices related to curing disease which are based on unwritten knowledge are carried from generation to generation through the practitioners [7]. Various research work on traditional medicinal plants was carried out in Bangladesh by [2,4,5,11,12,15,17-31]. The present document was undertaken to record the traditional medicinal plants used by local herbalists in and around Rajshahi metropolitan city, Bangladesh.

## 2. Materials and Methods

### 2.1 Study Area

Rajshahi is a metropolitan city, and a major urban,

\*Corresponding Author:

A.H.M. Mahbubur Rahman,

Plant Taxonomy Laboratory, Department of Botany, University of Rajshahi, Rajshahi-6205, Bangladesh;

Email: [drrahmanahmm@ru.ac.bd](mailto:drrahmanahmm@ru.ac.bd)

commercial and educational centre of Bangladesh. It is also the administrative seat of eponymous division and district. Located on the north bank of the Padma River, near the Bangladesh-India border, the city has a population of over 763,952 residents. The city is surrounded by the satellite towns of Nowhata and Katakhal, which together build an urban agglomeration of about 1 million populations. Arguably Rajshahi is the most clean and green among the cities in Bangladesh<sup>[3]</sup>.

## 2.2 Methodology

The present investigation focused on traditional medicinal plants in and around Rajshahi metropolitan city, Bangladesh during July 2017 to December 2018 to collect information on the medicinal uses of different plant species. A total of 111 species belonging to 102 genera under 55 families were recorded. Medicinal information was obtained through semi-structured interviews with knowledgeable traditional healers. A total of 19 local herbalists having an age range 32-78 years were interviewed using semi-structured interviewed method<sup>[32]</sup>. Plant parts with either flower or fruits collected using traditional herbarium techniques to make voucher specimens for documentation and voucher specimens have been preserved at Herbarium of Rajshahi University.

## 2.3 Identification

Collected specimens have been critically examined, studied and identified. Identifications have been confirmed by consulting standard literatures<sup>[8,14,1]</sup>. Nomenclature has been updated following recent literature<sup>[1,9,13]</sup>.

## 3. Results and Discussion

Folk medicinal plants used by local herbalists in and around Rajshahi metropolitan city, Bangladesh was carried out from July 2017 to December 2018. A total of 111 plant species under 102 genera and 55 families were recorded. Distribution of angiosperm species in the families shows variation. The family Fabaceae and Euphorbiaceae represented by 6 species each. Each of Moraceae and Apocynaceae is represented by 5 species. Each of Asteraceae and Amaranthaceae is represented by 4 species. Each of Lamiaceae, Acanthaceae Zingiberaceae, Liliaceae, Piperaceae Malvaceae, Caesalpinaceae, Combretaceae, Rutaceae, Solanaceae and Verbenaceae is represented by 3 species. Each of Lauraceae, Cucurbitaceae, Mimosaceae, Myrtaceae, Anacardiaceae, Oxalidaceae, Apiaceae, Convolvulaceae, Araceae and Poaceae is represented by 2 species. A single species in each was recorded by 30 families (Table 1). Out of 111 species, 41.73% species were used

in herbs, followed by 17.92% shrubs, 7.79% climbers and 31.27% trees (Figure 1). For each species local name, scientific name, family, habit, ailments, treatment process and part (s) used are provided.

Use of plant parts as medicine shows variation. Leaves (49.89%) are the leading part used in a majority of medicinal plants followed by Bark (15.92%), fruits (19.70%), root (17.32%), seed (12.88%), stem (8.68%), whole plants (16.82%), flowers (3.53%), leaf stalk (0.99%), rhizome (2.53%), gum (3.53%), petiole (2.53%), tuber (1.65%), bulb (1.65%), latex (1.65%), bud (0.99%) (Figure 2). The survey has also recorded 66 categories of uses of 111 medicinal plants. Out of 66 diseases, fever (20.82%), dysentery (18.11%), cough (11.83%), diarrhea (9.99%), asthma (8.32%), diabetes (7.89%), skin disease (7.50%) and jaundice (6.53%) (Figure 3).

The result of this information showed that these local people of study area still depend on medicinal uses of plants for the treatment of burning sensation, diabetes, bronchitis, weakness, insects and snake bite, high blood pressure, asthma, passing of semen, gonorrhoea, skin diseases, jaundice, headache, glandular swelling, diarrhea, acidity, dry cough, cancer, dysentery, scabies, menstrual disorder, tumors, leucoderma, catarrhal fever, chronic fever, malarial fever, toothache, burning wounds, stomachic, stomachache, piles, fever, epilepsy, gout, rheumatism, traumatic injury, abortion, vomiting, bleeding gums, ulcer, anemia, ring worm, hiccup, pneumonia, gastritis, tuberculosis, arthritis, heart disease, abdominal pain, hypertension, paralysis, constipation, baldness, sore, dyspepsia, chicken pox, pain, pyorrhea, eczema, cholera, flatulence, scurvy, intoxication, indigestion, whooping cough, digestive system disorders, liver disorders, intestinal worms, worms, gastrointestinal disorders, edemas, alterative and attendant, wound and injury, menstruation, cold, lung infection, dysuria, edema, bleeding, heavy bleeding, kidney, eye inflammation, boils, mouth freshener, bruises, high cholesterol, dry skin, hepatitis, hair fall, cough and many types of diseases.

Most of the species were used for the treatment of different diseases are *Polyalthia longifolia*, *Cinnamomum tamala*, *Litsea glutinosa*, *Peperomia pellucida*, *Piper betel*, *Piper longum*, *Kalanchoe pinnata*, *Nigella sativa*, *Nymphaea nouchali*, *Tinospora cordifolia*, *Argemone mexicana*, *Ficus religiosa*, *Ficus benghalensis*, *Ficus hispida*, *Ficus racemosa*, *Artocarpus heterophyllus*, *Boerhaavia diffusa*, *Amaranthus spinosus*, *Amaranthus viridis*, *Achyranthes aspera*, *Enhydra fluctuans*, *Basella alba*, *Glinus oppositifolius*, *Polygonum hydropiper*, *Aborma augusta*, *Bombax ceiba*, *Hibiscus rosa-sinensis*, *Abelmoschus esculentus*, *Sida cordifolia*, *Coccinia grandis*, *Momordica*

*charantia*, *Brassica napus*, *Moringa oleifera*, *Mimusops elengi*, *Diospyros malabarica*, *Acacia nilotica*, *Mimosa pudica*, *Cassia fistula*, *Tamarindus indica*, *Saraca indica*, *Cajanus cajan*, *Lablab purpureus*, *Erythrina variegata*, *Dalbergia sissoo*, *Butea monosperma*, *Clitoria ternatea*, *Lowsonia inermis*, *Punica granatum*, *Psidium guajava*, *Syzygium cumini*, *Terminalia arjuna*, *Terminalia chebula*, *Terminalia belerica*, *Acalypha indica*, *Euphorbia hirta*, *Jatropha gossypifolia*, *Phyllanthus emblica*, *Phyllanthus reticulatus*, *Ricinus communis*, *Cissus quadrangularis*, *Litchi chinensis*, *Mangifera indica*, *Spondias pinnata*, *Azadirachta indica*, *Citrus aurantifolia*, *Aegle marmelos*, *Feronia limonia*, *Averrhoa carambola*, *Oxalis corniculata*, *Centella asiatica*, *Coriandrum sativum*, *Swertia chirata*, *Catharanthus roseus*, *Rauvolfia serpentina*, *Alostonia*

*scolaris*, *Nerium indicum*, *Carissa carandus*, *Calotropis procera*, *Datura metel*, *Solanum nigrum*, *Capsicum frutescens*, *Ipomoea aquatica*, *Ipomoea batatas*, *Heliotropium indicum*, *Clerodendrum viscosum*, *Vitex negundo*, *Lantana camara*, *Ocimum sanctum*, *Leucas aspera*, *Leonurus sibiricus*, *Nyctanthes arbortristis*, *Andrographis paniculata*, *Justicia gendarussa*, *Adhatoda vasica*, *Tridax procumbens*, *Wedelia chinensis*, *Tagetes erecta*, *Eclipta alba*, *Areca catechu*, *Colocasia esculenta*, *Alocasia indica*, *Cyperus rotundus*, *Cynodon dactylon*, *Saccharum officinarum*, *Ananas comosus*, *Musa sapientum*, *Curcuma longa*, *Zingiber officinale*, *Amomum subulatum*, *Allium cepa*, *Allium sativum*, *Aloe barbadensis* (Table 1). The collected information is comparable with the result of other studies in Bangladesh like [2,4,5,10,11,12,15,6,17-31].

**Table 1.** Investigated medicinal plants used by the local herbalists in the study area

Bangla name	Botanical name and Family name	Habit	Parts Used	Ailments & Treatment Process
Ada	<i>Zingiber officinale</i> Roscoe (Zingiberaceae)	Herb	Rhizome	<b>Indigestion:</b> Rhizome powder is taken internally [2]. <b>Cold and Cough:</b> Corm juice is taken [5]. <b>Cattarhal fever:</b> Ginger juice mixed with leaf juice of <i>Ocimum sanctum</i> and honey is taken orally [29]. <b>Gout:</b> Warm paste of rhizome with cotton seed is applied externally [28].
Akando	<i>Calotropis procera</i> (Aiton) W.T. Aiton (Asclepiadaceae)	Shrub	Leaf	<b>Arthritis:</b> Warm mustard oil with salt and leaves are taken externally [26]. <b>Paralysis:</b> Warm leaf paste is taken externally [28]. <b>Rheumatism:</b> Gums mixed with <i>Brassica napus</i> oil used internally [22].
Alach	<i>Amomum subulatum</i> Roxb. (Zingiberaceae)	Herb	Seed, Fruit, pod	<b>Mouth freshener, Nausea, motion sickness &amp; Cough:</b> Powder of seeds is taken orally [10,11].
Anarosh	<i>Ananas comosus</i> (L.) Merr. (Bromeliaceae)	Herb	Flower, Leaf, Fruit	<b>Fever:</b> Fruits are taken internally [17]. <b>Abortion:</b> Young flower extract is taken internally [21].
Apang	<i>Achyranthes aspera</i> L. (Amaranthaceae)	Herb	Stem, Leaf, Root	<b>Jaundice:</b> Juice of leaves is taken internally [24]. <b>Tonsillitis:</b> The crushed leaf mixed with water and filtrate is taken [19]. <b>Traumatic injury:</b> Root decoction is taken internally [5].
Arhar	<i>Cajanus cajan</i> (L.) Millsp. (Fabaceae)	Shrub	Leaf, Seed	<b>Piles:</b> Leaf paste is taken [17]. <b>Jaundice and pneumonia:</b> Leaf juice is taken orally [20]. <b>Bowels:</b> Seed paste is taken externally [25]. <b>Mother milk secretion:</b> Decoction leaves and seeds are taken orally [31].
Amra	<i>Spondias pinnata</i> (L.f.) Kurz. (Anacardiaceae)	Tree	Bark, Root	<b>Diarrhea, Dysentery and Vomiting:</b> Infusion of the bark is taken [30]. <b>Gonorrhea:</b> Decoction of the bark is taken orally [23]. <b>Menstruation:</b> Roots are use in regulating menstruation [24].
Aakh	<i>Saccharum officinarum</i> L. (Poaceae)	Shrub	Stem	<b>Jaundice:</b> Stem juice is taken internally [25].
Arjun	<i>Terminalia arjuna</i> (Roxb.) Wight & Arn. (Combretaceae)	Tree	Bark	<b>Blood pressure &amp; Heart disease:</b> Extract of stem bark is taken orally [17].
Amm	<i>Mangifera indica</i> L. (Anacardiaceae)	Tree	Gum, Leaf	<b>Fever, Diarrhea and Toothache:</b> Decoction of the leaves is taken internally [18]. <b>Skin disease:</b> Gum paste is used externally [2].
Amrul	<i>Oxalis corniculata</i> L. (Oxalidaceae)	Herb	Leaf	<b>Stomach pain:</b> Decoction of leaves mixed with water is orally taken for the treatment of stomach pain [27]. <b>Scurvy:</b> Leaves juice is taken orally to cure scurvy [29].
Amloki	<i>Phyllanthus emblica</i> L. (Euphorbiaceae)	Tree	Fruit, Bark, Leaf	<b>Diabetes:</b> Green fruits and cumbered dry fruits can be used for treatment of diabetes [23]. <b>Stomach problem:</b> Fruit powder and bark juice is taken orally [21]. <b>Toothache problem:</b> Young fruits are taken orally. <b>Scurvy:</b> Green fruit is taken internally [10].

Bangla name	Botanical name and Family name	Habit	Parts Used	Ailments & Treatment Process
Ashok	<i>Saraca indica</i> L. (Caesalpinaceae)	Tree	Bark, Root	<b>Abortion:</b> Powder of dried bark is taken internally <sup>[2]</sup> . <b>Anemia:</b> Bark extracts mixed with 1 teaspoon sugar and 1 glass of milk is taken orally <sup>[27]</sup> . <b>Dysentery:</b> Root extracts mixed with water is taken <sup>[31]</sup> .
Babla	<i>Acacia nilotica</i> (L.) Willd ex Delile (Mimosaceae)	Tree	Bark, Leaf, Bark	<b>Bronchitis:</b> Bark extracts is taken orally <sup>[21]</sup> . <b>Dysentery:</b> Pods are taken internally <sup>[11]</sup> . <b>Leucoderma:</b> Leaf decoction is taken <sup>[25]</sup> .
Badarlathi	<i>Cassia fistula</i> L. (Caesalpinaceae)	Tree	Young Leaf, Fruit, Bark	<b>Ringworms:</b> Juice of young leaves is taken orally <sup>[24]</sup> . <b>Gout:</b> Fruits pulp is taken <sup>[5]</sup> . <b>Constipation:</b> Leaf decoction is taken orally <sup>[12]</sup> . <b>Diabetes:</b> Decoction of bark mixed with water is taken <sup>[17]</sup> .
Bhat	<i>Clerodendrum viscosum</i> Vent. (Verbenaceae)	Shrub	Leaf, Root	<b>Asthma, tumors and skin diseases:</b> Leaf and root paste is taken externally <sup>[20]</sup> . <b>Hair disease:</b> Leaf paste is applied <sup>[23]</sup> .
Basak	<i>Justicia adhatoda</i> L. (Acanthaceae)	Shrub	Whole plant specially leaf	<b>Cough and Fever:</b> Leaf juice is taken internally <sup>[18]</sup> . <b>Piles:</b> The extract or juice of plant is used in bleeding piles <sup>[30]</sup> .
Bel	<i>Aegle marmelos</i> (L.) Correa (Rutaceae)	Tree	Fruit, Root	<b>Stomachache:</b> Unripe wood apple is made pieces and used in stomachache <sup>[4]</sup> . <b>Constipation:</b> Ripe wood apple is made juice and taken to cure constipation <sup>[10]</sup> . <b>Diarrhea:</b> Extract of root is taken. <b>Heart disease:</b> Root juice is taken internally <sup>[23]</sup> .
Bot	<i>Ficus benghalensis</i> L. (Moraceae)	Tree	Latex, Root, Bud	<b>Rheumatic pain:</b> Latex is applied externally <sup>[12]</sup> . <b>Vomiting:</b> A tip of the hanging roots crushed and mixed with water is used for obstinate vomiting <sup>[19]</sup> . <b>Malaria:</b> Grinding, decoction of young buds; taken orally for malaria <sup>[25]</sup> .
Bohera	<i>Terminalia bellirica</i> (Gaertn) Roxb. (Combretaceae)	Tree	Green fruit	<b>Cough: Green fruit decoction is taken orally</b> <sup>[26]</sup> .
Berela	<i>Sida cordifolia</i> L. (Malvaceae)	Herb	Whole plant	<b>Asthma:</b> 10 g root juice smeared and boiled in 4-5 cup of water till it comes to 2 cup, filtered and the decoction is taken twice daily for 1 month <sup>[27]</sup> . <b>Bleeding Piles:</b> 5-6 young leaves are crushed and applied on the affected area at least 15-20 days <sup>[29]</sup> . <b>Gonorrhoea:</b> 2-3 seedlings are boiled in a 1 liter of water till it comes to 250 ml then the solution taken orally in early morning <sup>[19]</sup> . <b>Rheumatism:</b> 2-3 saplings are finely crushed mixed with little amount of mustered oil, boiled it and then the solution is taken orally for 4-5 days <sup>[22]</sup> .
Bherenda	<i>Ricinus communis</i> L. (Euphorbiaceae)	Shrub	Leaf, seed	<b>Jaundice:</b> Leaf juice is taken orally <sup>[30]</sup> . <b>Dysentery:</b> Juice of tender leaves mixed with sugar is orally taken to cure Dysentery <sup>[31]</sup> . <b>Constipation:</b> Seed oil is used internally for the treatment of constipation <sup>[23]</sup> .
Bokul	<i>Mimusops elengi</i> L. (Sapotaceae)	Tree	Stem-bark	<b>Swelling:</b> Stem bark decoction is taken <sup>[12]</sup> . <b>Asthma:</b> Flowers smell is used to cure asthma by smoking <sup>[19]</sup> .
Chotra	<i>Lantana camara</i> L. (Verbenaceae)	Shrub	Leaf	<b>Wound:</b> Grind the leaves with turmeric and salt and apply it twice a week to the wounds <sup>[24]</sup> .
Chirata	<i>Swertia chirata</i> L. (Gentiana- ceae)	Herb	Whole plant	<b>Fever:</b> Whole plant juice is taken internally <sup>[20]</sup> . <b>Vomiting:</b> Root juice mixed with honey is taken orally <sup>[21]</sup> .
Chitki	<i>Phyllanthus reticulatus</i> Poir. (Euphorbiaceae)	Shrub	Leaf, Root	<b>Diarrhea:</b> 100 g leaves are soaked into 3 cups of water for overnight and then administered internally <sup>[12]</sup> . <b>Malaria:</b> 20 gm root is boiled with 4-5 cups of water till it comes to 1 cup and half of the liquid is administered orally in early morning and other half in the evening for 4-5 days <sup>[22]</sup> . <b>Epilepsy:</b> 10 gm roots are crushed and soaked in a 1 liter of water for 10-12 hours and then the solution taken 4-5 days <sup>[27]</sup> .
Chatim	<i>Alstonia scholaris</i> (L.) R. Br. (Apocynaceae)	Tree	Bark, Gum, Root	<b>Ulcers:</b> The milky juice of gum is taken orally to cure ulcers <sup>[26]</sup> . <b>Cancer:</b> Root extracts is taken orally to cure cancer <sup>[28]</sup> . <b>Rheumatism:</b> Dry bark, salt, and <i>Piper nigrum</i> crushed them with water and made a paste used for rheumatism <sup>[23]</sup> . <b>Gastric problem:</b> Bark (50 mg) is mixed with sufficient salt and administered once daily for 5 days <sup>[19]</sup> .
Dherosh	<i>Abelmoschus esculentus</i> (L.) Moench (Malvaceae)	Herb	Fruit	<b>Stomachic:</b> Water, sugar mixed with fruit juice is taken <sup>[25]</sup> . <b>Female weakness:</b> Young fruits use as a vegetable at lunch regularly for a month <sup>[26]</sup> . <b>Hair fall:</b> Paste of young fruits used on head regularly <sup>[28]</sup> . <b>Constipation:</b> Young fruits use as a vegetable regularly <sup>[12]</sup> .

Bangla name	Botanical name and Family name	Habit	Parts Used	Ailments & Treatment Process
Dhone	<i>Coriandrum sativum</i> L. (Apiaceae)	Herb	Seed, Whole Plant	<b>Asthma:</b> Whole plant extract is taken <sup>[2]</sup> . <b>Sneezing:</b> Coriander seeds mixed with ginger, jeera, pepper and milk make juice, it taken internally <sup>[25]</sup> . <b>Cold &amp; Fever:</b> Whole plant juice mixed with salt is taken <sup>[27]</sup> .
Durba ghas	<i>Cynodon dactylon</i> (L.) Pers. (Poaceae)	Herb	Whole plant	<b>Stop bleeding:</b> Whole plant paste is taken externally <sup>[11]</sup> .
Dalim	<i>Punica granatum</i> L. (Punicaceae)	Tree	Fruit, stem, Leaf, Seed	<b>Dysentery:</b> Dried fruit decoction is taken <sup>[4]</sup> . <b>Dry cough:</b> Dry leaf powder is taken orally <sup>[18]</sup> . <b>Stomach pain:</b> Three to four young twigs are eaten with little salt twice a day for a week <sup>[20]</sup> . <b>Heart and throat pain:</b> The seeds juice is considered a tonic for the heart and throat <sup>[12]</sup> .
Debdaru	<i>Polyalthia longifolia</i> (Sonn.) Thw. (Annonaceae)	Tree	Bark	<b>Fever:</b> The bark is used as a febrifuge in the treatment of fever <sup>[26]</sup> .
Dudhia	<i>Euphorbia hirta</i> L. (Euphorbiaceae)	Herb	Whole plant	<b>Dysentery:</b> Whole plant is used to make paste and taken 3 times a day to cure dysentery <sup>[28]</sup> . <b>Bronchitis:</b> Grinding decoction of whole plant is taken to cure bronchitis once daily for a week <sup>[31]</sup> .
Dhutra	<i>Datura metel</i> L. (Solanaceae)	Shrub	Leaf	<b>Rheumatic pain:</b> Paste of leaves is taken externally <sup>[4]</sup> . <b>Asthma:</b> Leaf smoked is taken <sup>[10]</sup> . <b>Skin disease:</b> Datura and Neem Leaf paste is applied externally <sup>[23]</sup> .
Gaikhura	<i>Amaranthus viridis</i> L. (Amaranthaceae)	Herb	Whole plant	<b>Acidity:</b> Leaves are boiled with roots and smashed then taken <sup>[17]</sup> . <b>Leprosy:</b> Whole plant juice taken internally <sup>[29]</sup> .
Genda	<i>Tagetes erecta</i> L. (Asteraceae)	Herb	Whole plant	<b>Bleeding:</b> Leaf paste is taken externally <sup>[12]</sup> . <b>Pain:</b> Leaves are smashed and the paste is applied on the blotch after slight warming to make it lighter to burst out and reduces the pain <sup>[31]</sup> . <b>Tuberculosis:</b> About 250 mg leaves powder mixed with little amount of goat-milk and have to be taken <sup>[23]</sup> . <b>Dysentery:</b> 2 teaspoonful's leaves juice mixed with 2 teaspoonful's of sugar is taken <sup>[25]</sup> .
Ghrito kumari	<i>Aloe vera</i> (L.) Burm. f. (Liliaceae)	Herb	Leaf	<b>Paralysis:</b> Leaf extract is taken orally <sup>[18]</sup> . <b>Jaundice:</b> Juice of leaf is taken internally <sup>[24]</sup> . <b>Weakness:</b> Juice of leaf mixed with sugar is taken <sup>[22]</sup> . <b>Skin care:</b> Leaf paste is taken externally <sup>[5]</sup> . <b>Hair fall:</b> Juice of leaves is used for hair fall solution and mode silky and shines <sup>[26]</sup> .
Gaab	<i>Diospyros malabarica</i> (Desr.) Kostel. (Ebenaceae)	Tree	Fruit, Leaf, Stem	<b>Dyspepsia:</b> About 15 mg fruit powder macerated with little amount of water to make a paste and then taken orally twice daily for 3-4 days <sup>[30]</sup> . <b>Cough:</b> Approx. 2 gm of leaves powder is boiled in 5 cup of water till it come to the 2 cup than half of the liquid is administered orally in early morning and other in the evening for 7 days <sup>[31]</sup> .
Gima shak	<i>Glinus oppositifolius</i> (L.) Aug. DC. (Molluginaceae)	Herb	Leaf	<b>Fever:</b> Fried leaves are eaten to cure several fevers <sup>[21]</sup> . <b>Body pain:</b> Juice of leaves is orally taken to relief from body pain <sup>[17]</sup> . <b>Earache:</b> Castor oil and whole plant warm juice is taken <sup>[11]</sup> .
Guloncho	<i>Tinospora cordifolia</i> (Thunb.) Miers (Menispermaceae)	Climber	Stem, Leaf Stalk	<b>Passing of semen:</b> Stem juice mixed with milk is taken orally. <b>Diabetes:</b> Powder obtained from feaf stalk r mixed with neem paste is taken <sup>[31,23]</sup> . <b>Jaundice:</b> Leaf juice is taken orally <sup>[26]</sup> . <b>Pain and Edema:</b> The plant oil is effective in reducing pain and edema <sup>[28]</sup> .
Hatisur	<i>Heliotropium indicum</i> L. (Boraginaceae)	Herb	Leaf	<b>Dog bite:</b> Leaf juice is taken externally <sup>[25]</sup> . <b>Insects bite:</b> Leaf juice mixed with 5 gm <i>Ricinus communis</i> oil is taken externally <sup>[24,11]</sup> .
Haritaki	<i>Terminalia chebula</i> Retz. (Combretaceae)	Tree	Seed, Fruit	<b>Vomiting:</b> Seed powder mixed with honey is applied orally <sup>[22]</sup> . <b>Dysentery:</b> Fruit powder mixed with hot water is taken <sup>[27]</sup> .
Harjora	<i>Cissus quadrangularis</i> L. (Vitaceae)	Climber	Whole plant	<b>Irregular menstruation:</b> Juice obtained from stem is taken internally <sup>[20]</sup> . <b>Stomachic:</b> Stem paste is taken internally <sup>[12]</sup> . <b>Indigestion:</b> Juice of leaves are mixed with water and orally used for indigestion <sup>[18]</sup> . <b>Piles:</b> Juice of leaves are orally used for recovery of piles <sup>[17]</sup> .
Helencha	<i>Enhydra fluctuans</i> (Lour.) Spreng. Asteraceae	Herb	Whole plant	<b>Fever:</b> Curry made from whole plant is taken <sup>[10]</sup> .

Bangla name	Botanical name and Family name	Habit	Parts Used	Ailments & Treatment Process
Holud	<i>Curcuma longa</i> L. (Zingiberaceae)	Herb	Rhizome, Flower	<b>Eczema:</b> Rhizome paste is taken externally <sup>[19]</sup> . <b>Dysentery:</b> Powder made from rhizome mixed with hot rice, mustard oil and table salt is taken <sup>[23]</sup> . <b>Gonorrhoea:</b> Paste of flower is taken <sup>[18]</sup> . <b>Gastric problem:</b> Fresh rhizome chewing with table salt <sup>[21]</sup> .
Jagath madan	<i>Justicia gendarussa</i> Burm. f. (Acanthaceae)	Shrub	Leaf	<b>Headache:</b> Leaf is covered with mustard oil then that leaf is put on the forehead <sup>[5,18,31]</sup> .
Jagdumur	<i>Ficus racemosa</i> L. (Moraceae)	Tree	Fruit	<b>Dry cough:</b> Curry made from young fruit is taken internally <sup>[24]</sup> . <b>Asthma:</b> Fresh fruit mixed with honey is taken <sup>[21]</sup> . <b>Diabetes:</b> Young dry fruit powder is taken orally <sup>[12]</sup> .
Joba	<i>Hibiscus rosa-sinensis</i> L. (Malvaceae)	Shrub	Flower	<b>Burning wound:</b> Paste of flower is used for burning wound <sup>[11]</sup> . <b>Irregular menstruations:</b> Paste of flower mixed with water orally treated twice daily for two weeks <sup>[23]</sup> . <b>Cooling and astringent:</b> Powder obtained from flower buds mixed with water is taken internally <sup>[26]</sup> . <b>Hair treatment:</b> Paste of flower used orally for hair treatment <sup>[27]</sup> .
Jamalkota	<i>Jatropha curcas</i> L. (Euphorbiaceae)	Shrub	Leaf, Seeds, Gums, Stems,	<b>Fever:</b> Juice made from Jamalgota leaf, lemon leaf and ata leaf mixed with hot water is taken <sup>[25]</sup> . <b>Worms:</b> Paste made from seeds is taken internally <sup>[28]</sup> . <b>Cancer:</b> Decoctions of leaves are used for anti-cancer <sup>[29]</sup> . <b>Constipation:</b> Gum mixed with liquid food and orally treated <sup>[22]</sup> .
Jam	<i>Syzygium cumini</i> (L.) Skeels. (Myrtaceae)	Tree	Bark, Seed, Fruit	<b>Asthma:</b> Bark decoction is taken internally <sup>[24]</sup> . <b>Diabetes:</b> Seed paste is taken with sugar or a pinch of salt, fruits extracts taken daily against diabetes <sup>[31,23]</sup> .
Kalomegh	<i>Andrographis paniculata</i> (Burm.f.) Nees. (Acanthaceae)	Herb	Leaf	<b>Fever, headache, diarrhea, and cholera:</b> Juice obtained from leaves is taken internally <sup>[24]</sup> . <b>Lung infections:</b> Decoction of leaf is taken orally <sup>[21]</sup> . <b>Leprosy:</b> Paste of leaf is taken externally <sup>[25]</sup> .
Kamranga	<i>Averrhoa carambola</i> L. (Oxalidaceae)	Tree	Fruit, Leaf	<b>Piles:</b> After slicing the star fruit it has to be boiled in open sunlight for 1 week and to make dry powder out of it. Then 1.5 gm of that powder of star fruit has to be taken with one glass of water twice every day <sup>[17]</sup> . <b>Fever:</b> 2gm dry powder of star fruit leaves has to be taken with 1.2 cup of water every day morning and evening for ¾ days <sup>[20]</sup> . <b>Dysentery:</b> In an intense stage of these ailments 1 teaspoonful of extract or juice of ripens star fruit has to be taken to improve the situation <sup>[31]</sup> . <b>Liver pain:</b> 3-4 teaspoonful of ripen star fruit juice to be taken with water to improve this condition <sup>[21]</sup> .
Karamcha	<i>Carissa carandas</i> L. (Apocynaceae)	Shrub	Fruit, Root, bark	<b>Diabetes:</b> Root bark decoction is taken orally <sup>[22]</sup> . <b>Wound:</b> Decoction of root bark is orally taken internally <sup>[12]</sup> .
Katanotey	<i>Amaranthus spinosus</i> L. (Amaranthaceae)	Herb	Whole plant	<b>Toothache:</b> Whole plant decoction is taken <sup>[23]</sup> . <b>Dysentery:</b> Leaf juice is taken internally <sup>[10]</sup> . <b>Wounds:</b> Leaf paste is taken externally <sup>[31]</sup> .
Kathal	<i>Artocarpus heterophyllus</i> Lam. (Moraceae)	Tree	Root, Leaf	<b>Diarrhea:</b> Decoction of roots is used internally in diarrhea <sup>[2]</sup> . <b>Skin disease:</b> Yong leaves paste used regularly on infected skin <sup>[5]</sup> .
Kalokeshi	<i>Eclipta alba</i> (L.) Hassk. (Asteraceae)	Herb	Whole plant	<b>Diarrhea:</b> Leaf juice mixed with sugar or honey is taken <sup>[10]</sup> . <b>Constipation:</b> Pounded leaf mixed with cold water is taken <sup>[11]</sup> . <b>Hair treatment:</b> Leaf paste is applied externally <sup>[5]</sup> .
Kochu	<i>Colocasia esculenta</i> (L.) Schott. (Araceae)	Herb	Leaf, Petiole	<b>Stop bleeding:</b> Leaf juice taken externally <sup>[17]</sup> . <b>Tumors &amp; Cancer:</b> Leaf juice is taken internally <sup>[30]</sup> .
Korobi	<i>Nerium oleander</i> L. (Apocynaceae)	Tree	Leaf, Root bark	<b>Ulcer &amp; Joints pain:</b> Root bark paste is taken externally <sup>[25]</sup> . <b>Insect bite &amp; Swellings:</b> Young leaf decoction is taken externally <sup>[18]</sup> .
Kola	<i>Musa sapientum</i> L. (Musaceae)		Stem, Bark	<b>Stop bleeding:</b> Stem juice is taken <sup>[11]</sup> . <b>Snake bite:</b> Bark juice is taken externally <sup>[18]</sup> .
Kalijeeri	<i>Nigella sativa</i> L. (Ranunculaceae)	Herb	Seed	<b>Blood pressure:</b> Seed oil is taken orally <sup>[20]</sup> . <b>Asthma:</b> Black seed is taken internally <sup>[31]</sup> .
Korolla	<i>Momordica charantia</i> L. (Cucurbitaceae)	Climber	Whole plant	<b>Colic and fever:</b> Whole plant juice is taken <sup>[2]</sup> . <b>Diabetes:</b> Juice of the whole plant orally taken to treated diabetes. The leaves juice is taken orally daily for diabetes <sup>[12]</sup> . <b>Headache:</b> Root paste is used in headache <sup>[21]</sup> . <b>Stomachic:</b> Cooked fruits used as stomachic <sup>[30]</sup> .

Bangla name	Botanical name and Family name	Habit	Parts Used	Ailments & Treatment Process
Kolmi shak	<i>Ipomoea aquatica</i> Forssk. (Convolvulaceae)	Climber	Whole plant	<b>Jaundice and Bronchitis:</b> Dry leaf powder mixed with cold water is taken orally <sup>[24]</sup> . <b>Fever, Anthelmintic, Carminative, Leprosy, and Liver complaints:</b> Cooked vegetables are taken orally <sup>[31]</sup> .
Kotbel	<i>Feronia acidissima</i> L. (Rutaceae)	Tree	Stem, Leaf, Fruit	<b>Piles:</b> Paste prepared from stem bark is applied externally <sup>[26]</sup> . <b>Vomiting:</b> Leaves juice is orally taken to control vomiting <sup>[28]</sup> . <b>Heart disease:</b> Fruits juice is orally taken to help heart disease and digestion <sup>[18]</sup> .
Khoksha dumur	<i>Ficus hispida</i> L.f. (Moraceae)	Tree	Fruit	<b>Diabetes:</b> Juice of fruit mixed with water is taken orally <sup>[22]</sup> . <b>Jaundice:</b> Fruit decoction is applied <sup>[26]</sup> .
Lajjaboti	<i>Mimosa pudica</i> L. (Mimosaceae)	Herb	Root, Leaf	<b>Diarrhea:</b> Root paste is taken <sup>[4]</sup> . <b>Piles:</b> Root juice is taken externally <sup>[18]</sup> . <b>Snake bites:</b> Root juice mixed with raw cow milk is taken internally <sup>[20]</sup> . <b>Muscular pain:</b> Decoction of leaf mixed with water is taken <sup>[21]</sup> .
Lebu	<i>Citrus aurantifolia</i> (Christm.) Swingle (Rutaceae)	Shrub	Fruit	<b>Catarrhal fever:</b> Fruit juice mixed with honey is taken orally <sup>[24]</sup> . <b>Apetite:</b> Has to eat by making lemonade or may be taken with rice <sup>[21]</sup> . <b>Nausea:</b> Juice of fruits is taken internally <sup>[25]</sup> . <b>Stomachache:</b> Fruit juice mixed with water and taken it every morning in empty stomachache <sup>[23]</sup> .
Luchipata	<i>Peperomia pellucida</i> Kunth. (Piperaceae)	Herb	Leaf	<b>Headache:</b> Crushed leaf is applied externally <sup>[12]</sup> . <b>Abdominal pains and Fever:</b> Leaf juice is taken <sup>[26]</sup> .
Litchu	<i>Litchi chinensis</i> Sonn. (Sapindaceae)	Tree	Fruit	<b>Heart, brain and liver:</b> Fruits are tonic to the heart, brain and liver <sup>[28]</sup> .
Mehedi	<i>Lawsonia inermis</i> L. (Lythraceae)	Shrub	Leaf	<b>Skin disease:</b> Leaf paste is taken externally <sup>[20]</sup> . <b>Hair treatment:</b> Leaves pastes are valuable external used in hair fall solution and make hair silky and shine <sup>[23]</sup> .
Madar	<i>Erythrina orientalis</i> Murr. (Fabaceae)	Tree	Leaf, Root	<b>Joints pain:</b> Paste of leaves is applied externally to relief pain of the joints <sup>[12]</sup> . <b>Earache:</b> Leaves juice is poured into the ear to relief earache <sup>[21]</sup> . <b>Toothache:</b> Leaves juice is used to relief toothache <sup>[18]</sup> . <b>Nematode:</b> Extract of roots is taken once daily as much as patient can to control <sup>[29]</sup> .
Mankochu	<i>Alocasia macrorrhizos</i> (L.) G. Don. (Araceae)	Herb	Fruit, Petiole	<b>Snakebite:</b> Paste of petiole used in affected area treated for snake bite <sup>[5]</sup> . <b>Fever:</b> Fried of fruit is taken to cure several fevers <sup>[17]</sup> .
Mistialo	<i>Ipomoea batatas</i> (L.) Lam. (Convolvulaceae)	Climber	Tuber, Leaf	<b>Edema:</b> At least 10-12 leaves are paste and used in the affected area for at least 1 month <sup>[25]</sup> . <b>Dysentery:</b> Sweet potato grained with appropriate amount of water and 1 teaspoonful filtered extract of it has to be taken 15-20 minutes alternately to treat the disease <sup>[28]</sup> . <b>Skin disease:</b> Tuber paste is taken externally <sup>[29]</sup> .
Mohavringaraj	<i>Wedelia chinensis</i> (Osbeck) Merr. (Asteraceae)	Herb	Leaf	<b>Alopecia:</b> Leaf paste is taken externally <sup>[5]</sup> . <b>Stop vomiting:</b> Leaf juice mixed with salt is taken orally <sup>[29]</sup> .
Morich	<i>Capsicum frutescens</i> L. (Solanaceae)	Herb	Leaf, Fruit	<b>Night blindness:</b> Juice of leaves is used to cure night blindness <sup>[17]</sup> . <b>Headache:</b> Leaves are used in headache on forehead <sup>[28]</sup> . <b>Blood dysentery:</b> Chili powder mixed with water and fried with hot rice is taken internally <sup>[26]</sup> . <b>Mouth disease:</b> Young fruit paste is taken <sup>[25]</sup> .
Muktajhuri	<i>Acalypha indica</i> L. (Euphorbiaceae)	Herb	Leaf	<b>Ringworm:</b> Leaf juice is taken orally <sup>[24]</sup> . <b>Snake bite:</b> Leaf paste is applied externally <sup>[20]</sup> .
Mutha	<i>Cyperus rotundus</i> L. (Cyperaceae)	Herb	Tuber, Root	<b>Fever:</b> Fresh root are crushed and boiled in 5 cup of water reduced to 3 cup then filtered it and the decoction has to be taken twice per day <sup>[31]</sup> . <b>Diarrhea:</b> About 5 gm of crushed root are soaked overnight in 3 cup of water and taken twice daily for 3-5 days <sup>[26]</sup> . <b>Wounds &amp; Sores:</b> Macerated root paste is taken externally <sup>[22]</sup> .
Nayantara	<i>Catharanthus roseus</i> (L.) G. Don. (Apocynaceae)	Herb	Whole plant	<b>Leukemia:</b> Whole plant is plucked and made juice which helps in leukemia <sup>[2,5,26]</sup> .
Neem	<i>Azadirachta indica</i> A. Juss. (Meliaceae)	Tree	Leaf	<b>Chicken pox:</b> Leaf paste mixed warm water is taken externally <sup>[17]</sup> . <b>Jaundice:</b> Juice of leaf is taken <sup>[28]</sup> . <b>Pyorrhea:</b> Leaf decoction is taken <sup>[11]</sup> . <b>Skin disease:</b> Paste of leaf is taken externally <sup>[29]</sup> .
Nishinda	<i>Vitex negundo</i> L. (Verbenaceae)	Shrub	Leaf	<b>Headache:</b> Tonic obtained from leaf is taken <sup>[18]</sup> . <b>Catarrhal fever:</b> Leaf decoction mixed with long pepper is taken <sup>[12]</sup> .

Bangla name	Botanical name and Family name	Habit	Parts Used	Ailments & Treatment Process
Oporajita	<i>Clitoria ternetea</i> L. (Fabaceae)	Climber	Root, Leaf	<b>Throat pain &amp; Swelling:</b> Leaf paste is taken externally <sup>[23]</sup> . <b>Tuberculosis:</b> Root decoction is taken orally <sup>[27]</sup> . <b>Headache:</b> Leaf paste is taken externally <sup>[31]</sup> . <b>Cold &amp; Cough:</b> Warm bulb juice along with <i>Brassica napus</i> oil is taken by massage of the whole body to cure common cold, cough <sup>[28]</sup> . <b>Headache:</b> Warm blub juice along with <i>Briassica napus</i> oil is applied on head to cure headache <sup>[30]</sup> . <b>Snake bite:</b> Macerated bulb juice is applied on the affected area for snake bite <sup>[10]</sup> .
Piaj	<i>Allium cepa</i> L. (Liliaceae)	Herb	Bulb	<b>Diarrhea:</b> Flower infusion is given <sup>[12]</sup> . <b>Urinary disease:</b> Flower juice mined with milk is orally taken to cure urinary complaints <sup>[25]</sup> . <b>Body toxin:</b> Flower is used to remove body toxins <sup>[23]</sup> .
Palash	<i>Butea monosperma</i> (Lam.) Taub. (Fabaceae)	Tree	Flower, Leaf, Seed	<b>Asthma:</b> The dried fruit, pulverized and taken in water for fort-night removes asthma <sup>[2]</sup> . <b>Dry cough:</b> Fruits extracts or cooked vegetable are taken orally for dry cough <sup>[11]</sup> .
Pakur	<i>Ficus religiosa</i> L. (Moraceae)	Tree	Fruit	<b>Wounds, boils and insect bite:</b> Leaf paste is taken externally <sup>[23]</sup> .
Pathorkuchi	<i>Kalanchoe pinnata</i> (Lam.) Pers. (Crassulaceae)	Herb	Whole plant	<b>Diarrhea and dysentery:</b> Bark juice is taken internally <sup>[31]</sup> .
Pepulte	<i>Litsea glutinosa</i> (Lour.) C.B. Rob. (Lauraceae)	Tree	Leaf, Bark	<b>Diuretic:</b> The root paste mixed with water is orally applied as a diuretic twice daily <sup>[24]</sup> . <b>Asthma:</b> Decoctions of the roots and leaves are taken in moderate doses to cure asthma <sup>[27]</sup> .
Punarnava	<i>Boerhaavia diffusa</i> L. (Nyctaginaceae)	Herb	Root, leaf	<b>Constipation:</b> Leaf juice is taken orally <sup>[29]</sup> . <b>Toothache:</b> Root is applied internally <sup>[24]</sup> . <b>Burning sensation:</b> Leaves paste is used for burning sensation <sup>[12]</sup> .
Puishak	<i>Basella alba</i> L. (Basellaceae)	Climber	Leaf, Root	<b>Phlegm:</b> Leaves serves as a natural expectorant and aids in easy removal of phlegm <sup>[30]</sup> . <b>Killing lice and cough:</b> Leaf juice helps in killing lice and in reducing cough <sup>[31]</sup> .
Pan	<i>Piper betel</i> L. (Piperaceae)	Climber	Leaf	<b>Weakness:</b> Bark extract mixed with water is used in the marinade for body weakness <sup>[24]</sup> . <b>Dyspepsia:</b> 250 mg (leaf) dust of this plant has to be taken with one glass of water for 1 week <sup>[23]</sup> .
Pipul	<i>Piper longum</i> L. (Piperaceae)	Climber	Leaf, Bark	<b>Asthma:</b> 250 mg leaves dust of this plant mixed with water is taken internally <sup>[25]</sup> . <b>Rheumatism:</b> 250 mg leaves powder of this plant mixed with 1 teaspoonful of ginger extract has to be taken 2 times daily <sup>[28]</sup> .
Piyara	<i>Psidium guajava</i> L. (Myrtaceae)	Tree	Leaf, Bark	<b>Diarrhea:</b> Leaf and stem bark decoction is taken internally <sup>[30]</sup> . <b>Mouth wash:</b> Young leaf is taken <sup>[27]</sup> . <b>Dysentery:</b> Paste of root mixed with water is taken orally <sup>[17]</sup> .
Rasun	<i>Allium sativum</i> L. (Liliaceae)	Herb	Bulb	<b>Cough and fever:</b> Bulb extract is taken orally <sup>[29]</sup> . <b>Eczema and scabies:</b> Bulb paste is taken externally <sup>[31]</sup> . <b>High blood pressure:</b> Garlic bulb mixed with hot rice is taken internally <sup>[19]</sup> .
Roktodron	<i>Leonurus sibiricus</i> L. (Lamiaceae)	Herb	Whole plant	<b>Menstrual disease and Uterus contraction:</b> Dried whole plant is taken internally <sup>[18]</sup> . <b>Febrifuge:</b> Decoction of root and leaves are taken orally <sup>[12]</sup> .
Setodron	<i>Leucas aspera</i> L. (Lamiaceae)	Herb	Leaf, Root	<b>Snake-bite:</b> Macerated leaf is administered orally <sup>[18]</sup> . <b>Rheumatism:</b> Leaf juice is taken internally <sup>[12]</sup> . <b>Stomach pain:</b> Leaf extract is taken <sup>[26]</sup> . <b>Psoriasis and skin disease:</b> Leaves pastes are orally used to care psoriasis and other skin disease <sup>[29]</sup> .
Shim	<i>Lablab purpureus</i> (L.) Sweet. (Fabaceae)	Climber	Leaf	<b>Skin disease:</b> Leaf paste is taken externally <sup>[21]</sup> . <b>Burning sensation:</b> Leaf paste is used internally <sup>[27]</sup> .
Sisso	<i>Dalbergia sissoo</i> Roxb. (Fabaceae)	Tree	Leaf, Bark	<b>Hemorrhage:</b> Dried bank is used as a local astringent and haemostatic in various forms of hemorrhage <sup>[23]</sup> . <b>Gonorrhoea:</b> Decoction of leaves is taken orally to acute stage of gonorrhoea <sup>[19]</sup> . <b>Dysentery:</b> Leaf decoction is taken internally <sup>[17]</sup> .
Shialkata	<i>Argemone mexicana</i> L. (Papaveraceae)	Herb	Root, Latex	<b>Skin cracks:</b> Latex and root paste is taken externally <sup>[21]</sup> . <b>Jaundice:</b> Latex is taken internally <sup>[11]</sup> . <b>Tumors and cancer:</b> Latex is used for tumors, cancer <sup>[2]</sup> . <b>Malarial fever:</b> Shialkata root mixed with betel leaf juice is taken orally <sup>[20]</sup> .
Shimul	<i>Bombax ceiba</i> L. (Bombacaceae)	Tree	Gum	<b>Burning sensation:</b> Paste of gum is taken externally <sup>[18]</sup> . <b>Sexual weakness:</b> Young root extracts mixed with boiled water is taken <sup>[5]</sup> . <b>Rheumatism:</b> Root bark decoction is taken internally <sup>[10]</sup> .



Bangla name	Botanical name and Family name	Habit	Parts Used	Ailments & Treatment Process
Sorisha	<i>Brassica napus</i> L. (Brassicaceae)	Herb	Seed	<b>Hair treatment:</b> Seed oil is boiled slightly and externally used in hair. It makes hair strong and shines <sup>[27]</sup> . <b>Sleep:</b> Seed oil used on head to for good sleep <sup>[23]</sup> . <b>Skin cracks:</b> To avoid skin cracks seed oil applied on skin <sup>[19]</sup> . <b>Gout:</b> Plaster of mustard is used in gout <sup>[12]</sup> . <b>Cough and Neuralgic:</b> Warm seed oil is taken externally <sup>[29]</sup> .
Supari	<i>Areca catechu</i> L. (Arecaceae)	Tree	Seed, Root	<b>Teaniasis:</b> Crushed of fresh seeds is taken orally <sup>[25,29]</sup> . <b>Blood Dysentery:</b> 4 gm fresh seed are crushed and has to be boiled in 3 cup of water until it comes to 1 cup then filtered it and the decoction taken twice a day as a remedy against blood dysentery <sup>[31,12]</sup> . <b>Toothache:</b> Equal amount of root powder and dry nut powder are to fry in the pots and make ash out of it. Then the ash may be used for brushing the teeth as a remedy against toothache <sup>[29]</sup> . <b>Sore:</b> Fruit has to be dried in open sunlight and to make dry powder out of it. Then the powder applied on the affected area <sup>[23]</sup> .
Sarpogandha	<i>Rauvolfia serpentina</i> (L.) Benth ex Kurz.(Apocynaceae)	Herb	Root	<b>Blood pressure and Dysentery:</b> Extract obtained from root is taken internally <sup>[28]</sup> .
Shapla	<i>Nymphaea nouchali</i> Burm. f. (Nymphaeaceae)	Herb	Rhizom, Leaf	<b>Dysentery:</b> Dried rhizome powder mixed with water as used for dysentery <sup>[17]</sup> . <b>Burning spot:</b> Paste of leaves is used to remove burning spot <sup>[25]</sup> .
Sajna	<i>Moringa oliefera</i> Lam. (Moringaceae)	Tree	Leaf, Root, Fruits, Seed.	<b>Blood pressure:</b> Whole leaves cooked and eaten in high blood pressure <sup>[23]</sup> . <b>Abortion:</b> Paste obtained from root bark is taken orally <sup>[11]</sup> . <b>Fever and abdomen pain:</b> Extract obtained from root is taken orally <sup>[20]</sup> . <b>Rheumatism:</b> Oil obtained from seed is taken <sup>[28]</sup> . <b>Diabetes:</b> Leaves are dried on heat and if taken with rice regularly, help in controlling diabetes <sup>[12]</sup> . <b>Cold &amp; Cough:</b> Leaf extract is taken internally <sup>[26]</sup> .
Sheuli	<i>Nyctanthes arbor-tristis</i> L. (Oleaceae)	Tree	Bark, Leaf, Roots	<b>Chronic fever:</b> Leaves juice mixed with honey is orally in chronic fever <sup>[11]</sup> . <b>Round and thread-worms:</b> Root juice is taken orally <sup>[5]</sup> . <b>Rheumatic fever:</b> Juice obtaine from bark is taken orally <sup>[17]</sup> . <b>Bronchitis:</b> Leaf decoction is taken internally <sup>[23]</sup> .
Tulsi	<i>Ocimum sanctum</i> L. (Lamiaceae)	Herb	Leaf	<b>Coughs, colds, fever and bronchitis:</b> The leaves juice is taken internally <sup>[23]</sup> .
Thankuni	<i>Centella asiatica</i> (L.) Urban. (Apiaceae)	Herb	Whole plant	<b>Loose motion, Dysentery and Stomach pain:</b> Whole plant paste is taken internally <sup>[17]</sup> . <b>Tuberculosis:</b> Whole plant juice is taken internally <sup>[20]</sup> .
Tejpata	<i>Cinnamomum tamala</i> (Buch.- Ham.) Nees & Eberm. (Lauraceae)	Tree	Leaf, Bark	<b>Diabetes:</b> Leaf juice is taken internally <sup>[19]</sup> . <b>Bronchitis:</b> Oil obtained from leaf mixed with honey is taken internally <sup>[10]</sup> . <b>Cold &amp; Cough:</b> Dry leafs beady is use to smocking for few times to cure cough caused cold <sup>[17]</sup> .
Telakucha	<i>Coccinia grandis</i> (L.) Voigt (Cucurbitaceae)	Climber	Leaf	<b>Hypertension:</b> Juice obtained from leaf is taken internally <sup>[12]</sup> . <b>Fever and Vomiting:</b> Juice obtained from crushed leaf juice mixed with water is taken orally <sup>[26]</sup> .
Tetul	<i>Tamarindus indica</i> L. (Fabaceae)	Tree	Fruit, Seed, Leaf	<b>Fever:</b> Ripe fruit pulp is taken internally <sup>[4]</sup> . <b>Gastritis:</b> 200 gm dry seed powder is boiled with 3 cups of water till to reduce 2 cups and then taken orally twice daily for 7-9 days <sup>[25]</sup> . <b>Blood Dysentery:</b> Leaf juice is taken orally <sup>[21]</sup> . <b>Mouth disease:</b> Boiled decoction of stem and bark is administered thrice for 5 days to prevent mouth disease <sup>[28]</sup> .
Titbegun	<i>Solanum nigrum</i> L. (Solanaceae)	Herb	Leaf, Fruit	<b>Dropsy:</b> Leaf decoction is taken internally <sup>[12]</sup> . <b>Ringworm:</b> Green fruit paste is taken orally <sup>[19]</sup> .
Tridhara	<i>Tridax procumbens</i> L. (Asteraceae)	Herb	Leaf	<b>Dysentery and Diarrhea:</b> Juice obtained from leaf is taken <sup>[21]</sup> . <b>Bronchitis:</b> Juice obtained from crushed leaf mixed with water is applied internally <sup>[24]</sup> . <b>Bleeding:</b> Paste of crushed leaf is taken externally <sup>[29]</sup> .
Ulot kambal	<i>Abroma augusta</i> L.f. (Sterculiaceae)	Shrub	Petiol, Seed	<b>Weakness:</b> Juice obtained from petiole mixed with sugar is taken orally <sup>[26]</sup> . <b>Stomach pain:</b> Paste of seed mixed with water is applied internally <sup>[31]</sup> .

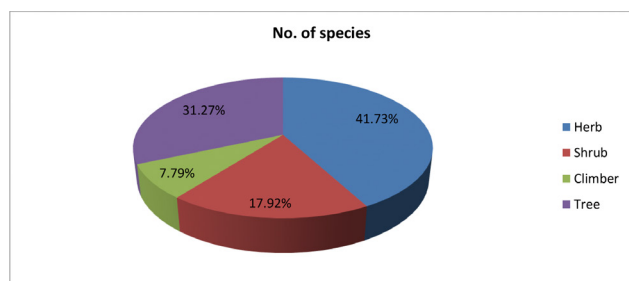


Figure 1. Investigated plant habit in the study area

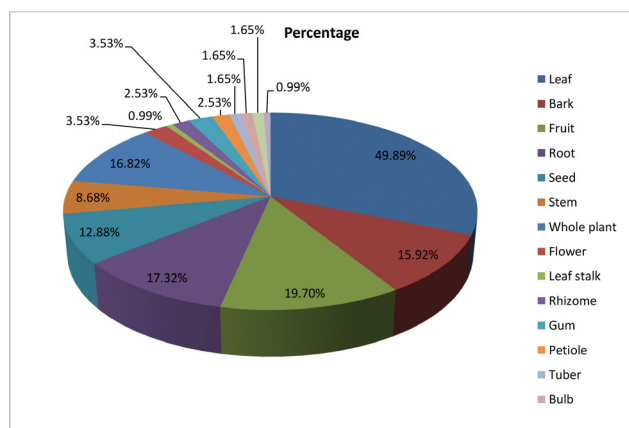


Figure 2. Recorded plant parts used as medicine

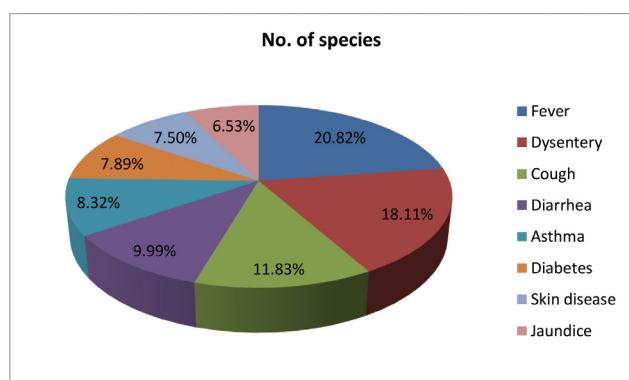


Figure 3. Investigated dominant diseases in the study area

#### 4. Conclusions

The survey has recorded 66 categories of ailments of 111 medicinal species belonging to 55 families were recorded in the study area. Rural community's practitioners and older people of Rajshahi utilize a number of plant species grown around their homes for several medicinal uses. However, the younger generation by ignoring their ancestral traditional medicine is inclining towards the allopathic medicine. Since, several bioactive compounds are being extracted from traditional medicinal plants; they are in great demand in pharmaceutical industries. The photochemical analysis and pharmacological investigations

of traditional medicinally important plants by taking in view their proper conservation too, would help in developing novel drugs to treat ailments. The investigation also recorded important medicinal plants and how to use them to care for and treat various diseases.

#### Acknowledgment

The author is grateful to the local herbalists in and around Rajshahi metropolitan city, Bangladesh for their co-operation and help during the research work.

#### References

- [1] Ahmed ZU, Begum ZNT, Hassan MA, Khondker M, Kabir SMH, Ahmad M, Ahmed ATA, Rahman AKA and Haque EU(Eds). Encyclopedia of Flora and Fauna of Bangladesh. 6-10. Angiosperms; Dicotyledons. Asiatic Soc. Bangladesh, Dhaka, 2008-2009.
- [2] Anisuzzaman M, Rahman AHMM, Rashid MH, Naderuzzaman ATM and Islam AKMR. An Ethnobotanical Study of Madhupur, Tangail. Journal of Applied Sciences Research, 2007, 3(7): 519-530.
- [3] Bangladesh Population Census (BPC) 2001, Bangladesh Bureau of Statistics; Rajshahi City Corporation 2007.
- [4] Choudhury, AR and Rahmatullah M. Ethnobotanical study of wound healing plants among the folk medicinal practitioners several district in Bangladesh. American- Eurasian Journal of Sustainable Development, 2012, 6(4): 371-377.
- [5] Faruque MO and Uddin SB. Ethnomedicinal study of the Marma community of Bandarban district of Bangladesh. Academia Journal of Medicinal Plants, 2014, 2(2): 014- 025.
- [6] Ghani A. Medicinal Plants of Bangladesh. Asiatic Society of Bangladesh, Dhaka, 2003.
- [7] Guruprasad SL, Ningaiah N, Gangadhar MR. Indigenous Knowledge of Medicinal Plants among the Iruliga tribal population of Western Ghats areas, Karnataka, India. Journal of Anthropology, 2013, 9: 195-203.
- [8] Hooker JD. (rep. ed. 1961). Flora of British India. Vols.1-7. L. Reeve and Co. Ltd. London, U.K, 1877.
- [9] Huq AM. Plant Names of Bangladesh. Bangladesh National Herbarium, BARC, Dhaka, Bangladesh, 1986.
- [10] Jamila M and Rahman AHMM. Traditional Medicine Practices for the treatment of Blood pressure, Body pain, Gastritis, Gonorrhoea, Stomachic, Snake bite and Urinary problems of Santal Tribal Practitioners at the Village Jamtala of Chapai Nawabganj District, Bangladesh. Journal of Progressive Research in Biol-

- ogy, 2016, 2(2): 99-107.
- [11] Khan MS. Prospects of Ethnobotany and Ethnobotanical Research in Bangladesh. In: RL Banik, MK Alam, SJ Pei and A Rastogi (eds.), *Applied Ethnobotany*, BFRI, Chittagong, Bangladesh, 1998, Pp. 24-27.
- [12] Nahar J, Kona S, Rani R, Rahman AHMM and Islam AKMR. Indigenous Medicinal Plants Used by the Local People at Sadar Upazila at Naogaon District, Bangladesh *International Journal of Advanced Research*, 2016, 4(6): 1100-1113.
- [13] Pasha MK and Uddin SB. *Dictionary of Plant Names of Bangladesh (Vascular Plants)*. Janokalyan Prokashani. Chittagong, Dhaka, Bangladesh, 2013.
- [14] Prain D (rep. ed. 1963). *Bengal Plants*. Vols.1-2. Botanical Survey of India. Calcutta, India, 1903.
- [15] Rahman AHMM, Ferdous Z and Islam AKMR. A Preliminary Assessment of Angiosperm Flora of Bangladesh Police Academy. *Research in Plant Sciences*, 2014, 2(1): 9-15.
- [16] Srinivas BM. Ethno Medical Practices among the Jenu Kuruba of Karnataka. *Man and Life* 2010, 36(3-4):107-112.
- [17] Yusuf M, Wahab MA, Choudhury JU and Begum J. Ethno-medico-botanical knowledge from Kaukhali proper and Betunia of Rangamati district. *Bangladesh J. Plant Taxon.*, 2006, 13(1): 55-61.
- [18] Rahman AHMM and Khatun MA. Leafy Vegetables in Chapai Nawabganj District of Bangladesh Focusing on Medicinal Value. *Bangladesh Journal of Plant Taxonomy*, 2020, 27(2): 359-375.
- [19] Khatun MR and Rahman AHMM Ethnomedicinal Uses of Plants by Santal Tribal Peoples at Nawabganj Upazila of Dinajpur District, Bangladesh. *Bangladesh Journal of Plant Taxonomy*, 2019, 26(1): 117-126.
- [20] Khatun MM and Rahman AHMM. Medicinal Plants Used by the Local People at the Village Pania under Baghmara Upazila of Rajshahi District, Bangladesh. *Discovery*, 2018, 54(266): 60-71.
- [21] Islam MT and Rahman AHMM. Folk medicinal plants used by the Santal tribal practitioners against diarrhea and dysentery in Tanore Upazila of Rajshahi District, Bangladesh. *International Journal of Pharmacognosy*, 2018, 5(6): 360-363.
- [22] Kona S and Rahman AHMM. *Inventory of Medicinal Plants at Mahadebpur Upazila of Naogaon District, Bangladesh*. *Applied Ecology and Environmental Sciences*, 2016, 4(3): 75-83.
- [23] Jesmin Nahar J, Kona S, Rani R, Rahman AHMM and Islam AKMR. Indigenous Medicinal Plants Used by the Local People at Sadar Upazila of Naogaon District, Bangladesh. *International Journal of Advanced Research*, 2016, 4(6): 1100-1113.
- [24] Rahman AHMM and Akter M. Taxonomy and Traditional Medicinal Uses of Apocynaceae (Dogbane) Family of Rajshahi District, Bangladesh. *Research & Reviews: Journal of Botanical Sciences*, 2015, 4(4): 1-12.
- [25] Rahman AHMM and Keya MA. Traditional Medicinal Plants Used by local people at the village Sabgram under Sadar Upazila of Bogra district, Bangladesh. *Research in Plant Sciences*, 2015, 3(2): 31-37.
- [26] Rahman AHMM and Gulshana MIA. Taxonomy and Medicinal Uses on Amaranthaceae Family of Rajshahi, Bangladesh. *Applied Ecology and Environmental Sciences*, 2014, 2(2): 54-59.
- [27] Rahman AHMM, Nitu SK, Ferdows Z and Islam AKMR. Medico-botany on herbaceous plants of Rajshahi, Bangladesh. *American Journal of Life Sciences*, 2013, 1(3): 136-144.
- [28] Rahman AHMM, Sultana N, Islam AKMR and Zaman ATMN. Study of Medical Ethno-botany of traditional medicinal plants used by local people at the village Genda under Savar Upazilla of district Dhaka, Bangladesh. *Journal of Medicinal Plants Studies*, 2013, 1(5): 72-86.
- [29] Rahman AHMM. Graveyards angiosperm diversity of Rajshahi city, Bangladesh with emphasis on medicinal plants. *American Journal of Life Sciences*, 2013, 1 (3): 98-104.
- [30] Rahman AHMM, Kabir EZMF, Sima SN, Sultana RS, Nasiruddin M and Naderuzzaman ATM. Study of an Ethnobotany at the Village Dohanagar, Naogaon. *Journal of Applied Sciences Research*. Pakistan, 2010, 6(9): 1466-1473.
- [31] Rahman AHMM, Anisuzzaman M, Haider SA, Ahmed F, Islam AKMR and Naderuzzaman ATM. Study of Medicinal Plants in the Graveyards of Rajshahi City. *Research Journal of Agriculture and Biological Sciences*, 2008, 4(1): 70-74.
- [32] Alexiades MN (Ed). *Selected Guidelines for Ethno Botanical Research: A Field Manual*. The New York Botanical Garden, New York., 1996, 305pp.