



International Journal of Humanities & Social Science Studies (IJHSSS)
A Peer-Reviewed Bi-monthly Bi-lingual Research Journal
ISSN: 2349-6959 (Online), ISSN: 2349-6711 (Print)
Volume-II, Issue-III, November 2015, Page No. 86-104
Published by Scholar Publications, Karimganj, Assam, India, 788711
Website: <http://www.ijhsss.com>

A Survey on the Medicinal Plants of Karimganj District with Reference to their Taxonomy and Uses

Dr. Jayeeta Bhattacharjee

Faculty, Vivekananda College of Education, Karimganj, Assam, India

Abstract

The study in science, particularly life science can never be complete without practical studies. Theoretical studies give us only superficial ideas about the topic but its actual analysis with field studies is of prime importance. In the present study an attempt has been made to enumerate the vegetation wealth of the district (in part) as far as possible by undertaking frequent field survey in different localities of the district. The common historic wealth of district has been categorized in different groups depending on habitat. Attempt has been made to incorporate authentic scientific information such as correct nomenclatures, physiographical and meteorological features of the district.

Karimganj District at a Glance: Karimganj district was earlier annexed as subdivision under Sylhet district in 1947 but when India was divided, Karimganj, a part of Sylhet district was annexed to Cachar district. In 1983, Karimganj sub division was separated from the district of Cachar and with its territorial jurisdiction the district of karimganj was organized and with this, departed karimganj town attained the status of district town. It is situated on the south bank of the river Kushiya at 24– 52 North and 92.22 E longitudes.

Karimganj district is situated in south part of Assam. It touches the international boundary of Bangladesh in its northern and western sides. Hailakandi and Cachar district in the eastern and northern sides. It has geographical area of 1839 sq. km.

High intensity precipitation rate is that most remarkable characteristics of the district's climate with an average rain fall of 300 cm occurring mostly from April to September, the district faces the averages of flood several times in a year; being situated very near to the tropic of concern and with a sea level altitude, the district experience warm, human and muggy climate. Relative humidity does not fall below 75% on an average with a maximum of 95%. The maximum temperature in winter is short usually begins from the last part of the month of November and persists till the last month of February of the year.

Geographical Feature of Karimganj District: Karimganj district is located in the southern tip of Assam—a state in the north eastern corner of India. Together with two other neighbouring districts—Cachar and Hailakandi it constitutes the Barak Valley Zone in Southern Assam. Total area of the district is 1809 sq. km. which comprises varied geographical features like agricultural plains, shallow wet lands, hilly terrains and forests. As in 1997–98, total forest cover in the district is more than 54 thousand hectares. That is about 30% of total geographical area is covered by forest.

The geographical location of Karimganj district is between longitudes 92.15⁰15' and 92.15⁰15'

East and latitudes $24^{\circ}15'$ and $25^{\circ}55'$ North. The district is bounded on the north by Bangladesh and Cachar district; on the south by Mizoram and Tripura states, on the west by Bangladesh and Tripura and on the east by Hailakandi district.

Located strategically, the district shares 92 km of international border with the neighboring country of Bangladesh, 41 km of this is demarcated by the river Kushiya while 51 km is land border. However, on most parts with international border with Bangladesh is marked by either the river Kushiya or the sub- mountain tracts of Adamail range. In a sense, Karimganj, along with the neighboring district of Cachar district demarcates the frontier line between the plains of the Padma-Meghna basin of the hilly North- East India.

Hilly Terrains: Karimganj district is actually shut in between two hill ranges, where as there is a third hill that runs through the southern part of the district.

The Chhatachura range that starts from the south east border from the whole length border with hailakandi district. The summit of the range is called the chhatachura peak and its height is 2087 feet above the sea level. The hills gradually decline height and in the middle section which bears the name Sarashpur, are only 1000 feet above the sea level near the Barak river. At the lowest level, where they are known as Badarpur hills, the average height is about 50 miles from north to south and at the same parts, 13 miles in breadth.

The Adamail or Patharia range marks the western border of the district from the international border with Bangladesh. Running from south to north, its length is about 28 miles and breadth is about 7–8 miles. The highest point of the range is about 800 feet above the sea level.

The third hilly range crossing through the district is the Duhalia range, also called the Pratapgarh range. It turns through the mid-south of the district demarketing the Longai valley and chargolla valley. The length of the district is about 28 miles with highest peak at 1500 feet above the sea level.

Besides this main range, the plains of the district are also dotted with hillocks and forest. The north and north-eastern portion of the district are mainly plains whereas the south and south-western parts are mainly covered with forest.

Rivers and their Courses: Kushiya, Longai and shimla are the main rivers flowing through the district. The river barak enters the district through its northeastern corner near badarpurghat and after traversing a length of 7 miles upto a place called Haritkar near bangha, is divided into two branches namely the Kushiya and surma. From the point of bifurcating Kushiya flows westwards to Bangladesh forming the northern boundary of the district. Karimganj town is situated on the bank of this river. The old name of kushiya near karimganj town was bagali.

In Bangladesh, the river is again divided near badarpur in moula bazaar district, the northern branch assuming the name Bibiyana merged with the surma near Markuli. Steamer station in habiganj district of Bangladesh, assuming the name Bhera Mohana, ultimately this huge combined stream merges with the great river meghna of Bangladesh. The southern streams of kushiya resumes the original name Barak or shakha barak and flows in a south-western direction through habiganj district and finally falls into the old bed of the Brahmaputra near Bhairav Bazar in Maimansingh district (Bangladesh).

The Longai originates in the Jampai hills of Tripura state and travelling a course of northerly direction, turns south-west longai railway station near karimganj town. Near latu village, it enters Bangladesh and then flows to meet the Hakaluki Haor (haror = Allot like span of water) which

absorbs the entire inflow during the winter. During the rainy season, an outlet springs out which ultimately merges with the Kushiya near Bhairab near Fechuganj in Sylhet district (Bangladesh).

The Shingla river originates from Mizoram state and taking a north-ward direction, it falls in sonbeel Haor where from the stream merges bifurcated forming two river– Kachua and Kakra.

The Kusiya and the Longai are perennial rivers, whereas the others dry up during the winter.

Population and Demography: As per the last population census 2011, the population of Karimganj district is 10, 07, 976

Category	Population
General	8, 74, 118
SC	1, 30, 957
ST	2091
Total	10, 07, 976

Urbanisation: As much as 93% of the district population lives in rural areas. Urban population accounts for only about 7% compared to 11% for the state (Assam) and 26% for the country. Of course, the rural area includes many semi-urban localities like Small Township which can boast of many of the urban facilities, though yet to be notified as towns. There are only two notified urban areas in the district– Karimganj town (administered by Karimganj municipal board with a population of 43,883) and Badarpur urban area (administered by Badarpur town committee and Badarpur railway town committee with a combined population of 16,498). Other semi-urban localities are Ramakrishna Nagar, Patharkandi, Nilambazar etc.

Population Density: Population density of Karimganj district is one at the highest in India. With a total population of 10, 07976 (in 2011) and a total land area of 1809 sq. km. The density stands at 557 persons per sq. km. This far outstrips the corresponding state figure of 286 and the national figure of 273. In fact, this is the second highest district level density in the whole of North East. With the further growth of population in the last few years the density has gone up further.

Climate: Being a part of the tropical zone of the South East Asia, the region exhibits subtropical monsoonal climate in which annual rainfall exceeds annual loss of water due to evaporation and transportation. The district experiences a very damp and humid weather with frequent rainfall.

Rainfall: The average rainfall of the region is 4288.96 mm with an average of 149 rainy days per annual. There are 3 rainfall zones in the district.

1. The high rainfall zone– (i.e. above 4000 mm rainfall) is found in the north western part of the district bordering Meghalaya comprising of high hill areas.
2. The medium rainfall zone– (i.e. between 3000– 4000 mm rainfall) covering the largest area of the district spreading over the Bangladesh border in the west.
3. The rainfall zone– (i.e. below 3000 mm rainfall covers the southern part bordering Tripura state).

Generally, the period from December to February is rather dry day with scanty rainfall. Whereas the periods from March, April and October– November are characterized by low erratic rainfall with occasional hails storm. The period between May– Septembers is characterized by high intensity of precipitation with apprehension of floods. The month distribution pattern is not uniform and about 62% of the total rainfall is confined to the period between June– September.

Table– 1: Season with Average Normal Rainfall

Season	Month	Rainfall
Winter	December– February	74.7
Summer (pre monsoon)	March– May	2591.1
Monsoon	June– September	4462.1
Post monsoon	October- November	497.2

Table– 2: Distribution of Rainfall in Mm for Karimganj District (Monthly Total Rainfall for 2005- 2010)

Month	2005	2006	2007	2008	2009	2010
January	Nil	Nil	Nil	27.3	Nil	Nil
February	99.0	35.4	58.1	59.0	29.4	5.0
March	580.4	17.5	63.3	265.4	102.7	264.5
April	292.6	271.2	829.6	164.7	318.8	866.4
May	800.2	845.6	429.6	552.2	573.6	705.7
June	450.5	760.1	829.7	518.6	637.6	1.0
July	1192.1	559.3	555.1	525.7	523.2	40.1
August	539.6	349.3	533.3	723.7	948.4	551.8
September	340.9	484.1	631.8	297.0	379.3	1008.2
October	267	2847	138.1	198.4	97.1	75.0
November	Nil	13.6	125.0	Nil	33.4	5.0
December	Nil	14.5	Nil	Nil	Nil	22
Total	4563.2	3635.3	4186.6	3332	3643.5	3544.7

In 2005 district suffer from grave flood (intensified flood)

Average rainfall = 3817.55

Courtesy: Regional Agriculture Research Station (Rars) Akbarpur, Karimganj

Table– 3: Number of Rainy Days (Month wise) for Karimganj District for 2005– 2010

Month	2005	2006	2007	2008	2009	2010
January	Nil	Nil	Nil	0.05	Nil	Nil
February	03	04	08	05	2	2
March	16	01	05	17	6	12
April	15	14	19	10	12	23
Month	2005	2006	2007	2008	2009	2010
May	24	18	18	18	20	25
June	24	26	22	22	21	28
July	27	22	27	28	24	25
August	26	20	20	27	24	24
September	12	14	18	19	18	24
October	09	18	12	11	18	22
November	Nil	02	03	Nil	01	Nil
December	Nil	01	Nil	Nil	Nil	Nil
Total	156	130	152	162	146	185

Average rainy days per annum = 155

Courtesy: Regional Agriculture Research Station (Rars) Akbarpur, Karimganj

Temperature: The average mean annual maximum temperature is 32^oC and the average mean minimum temperature is 17^oC in the district as a whole. The average minimum temperature of 10.2 is recorded in the month of August.

The temperature range is therefore, moderate and winter is less severe than in other parts of the state.

Table- 4: Temperature in Centrigade for the Karimganj District for 2005 -2010

	2005		2006		2007		2008		2009		2010	
	Max ^m	Min ^m	Max ^m	Min ^m	Max ^m	Min ^m	Max ^m	Min ^m	Max ^m	Min ^m	Max ^m	Min ^m
Mon												
Jan	25.3	9.7	26.8	9.6	26.0	7.8	25.2	9.3	27.1	13.9	28.0	13.0
Feb	28.5	13.8	30.0	14.2	29.9	11.7	25.8	8.6	30.0	14.1	28.9	13.4
Mar	29.3	17.1	32.8	16.2	30.7	13.3	30.1	14.2	31.2	14.4	32.5	18.9
Apr	31.6	18.9	31.5	19.2	31.3	18.7	33.1	17.5	32.7	17.5	30.4	16.8
May	29.8	21.4	32.5	21.8	32.8	23.4	33.2	18.6	33.2	18.6	30.9	16.5
Jun	32.7	24.4	30.8	24.1	31.2	23.9	32.7	19.0	32.7	18.0	29.7	15.9
Jul	31.5	24.1	33.0	24.6	31.8	23.9	31.8	17.9	33.9	19.5	32.8	19.4
Aug	32.0	24.4	33.4	23.6	32.9	23.3	31.7	16.7	32.5	19.7	32.7	18.2
Sep	33.7	23.9	33.0	22.7	32.0	22.2	32.8	19.7	33.9	19.7	31.3	17.9
Oct	32.2	22.1	30.8	21.1	32.2	19.2	31.7	16.7	33.5	19.3	34.2	20.8
Nov	30.9	30.9	15.9	30.5	16.3	30.9	31.3	13.4	30.7	14.2	30.2	11.2
Dec	29.4	11.6	28.1	10.6	27.5	9.6	28.8	11.0	27.9	12.9	28.2	8.5
Average:	30.57	18.94	31.18	18.66	30.77	17.56	30.69	15.2	31.57	16.82	30.82	15.81

Courtesy: Regional Agriculture Research Station (Rars) Akbarpur, Karimganj

Relative Humidity: The morning relative humidity is much (above 90%) than in the afternoon (66.75%). Further, monthly variation in relative humidity much less in the morning ranging from 92-97% as compared to that of afternoon varying from 43 -78%. Normally the morning relative humidity is higher due to foggy weather in winter than rainy seasons.

Table– 5: Monthly Relative Humidity (Morning and Evening) in Percentage (%) for the Karimganj District

Month	2005		2006		2007		2008		2009		2010	
	M	E	M	E	M	E	M	E	M	E	M	E
January	95	54	94	50	96	48	97	64	97	53	96	44
February	94	51	94	51	93	51	96	49	95	42	94	37
March	91	62	84	80	91	40	93	60	89	47	91	56
April	90	68	84	65	91	68	87	59	88	63	92	72
May	94	77	85	70	90	72	89	69	89	68	92	75
June	93	80	93	83	94	81	93	75	93	78	96	87
July	92	80	92	76	93	81	96	78	91	72	93	92
August	92	72	92	68	94	75	96	80	95	79	94	77
September	92	72	93	74	89	76	92	73	93	72	95	81
October	92	71	91	72	91	67	92	72	94	67	95	68
November	94	54	96	56	94	61	93	51	95	58	92	75.2
December	96	49	95	58	98	56	96.6	56	97	52	96	55.2

Courtesy: Regional Agriculture Research Station (Rars) Akbarpur, Karimganj

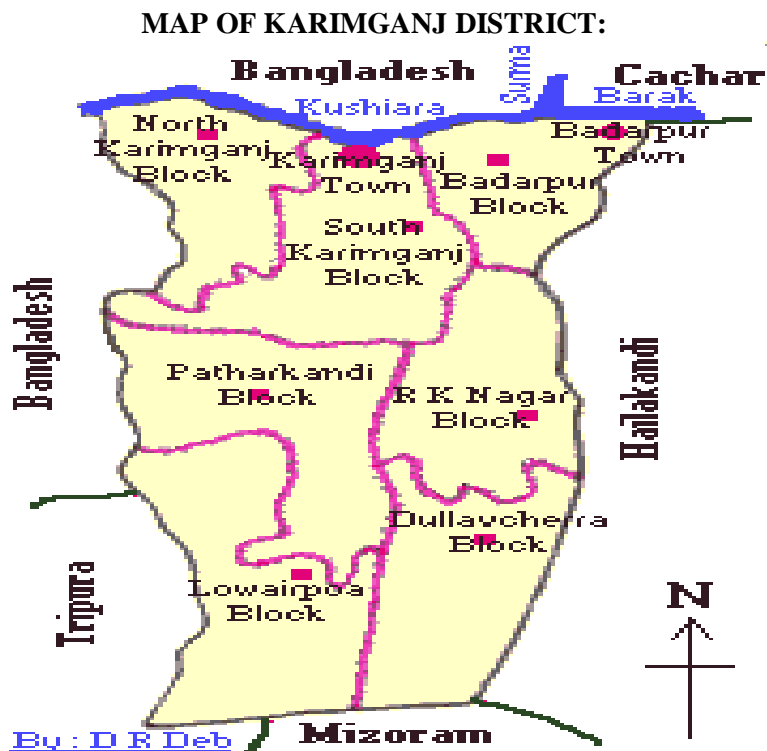
Bright Sunshine Hours (Bssh): BSSH is the duration of intense sunshine in a day and measured in hours. The apparatus consists of a sunshine recorded with calibrated recorder card. Each calibrated recorder card unit burns in one hour and total no. of unit burnt in a day represents BSSH of the day. Generally BSSH is more during winter season and the average value is 5.6 hours.

Table– 6: Monthly Bssh for the Karimganj District for 2005- 2010

Month	2005	2006	2007	2008	2009	2010
January	5.7	5.7	5.7	5.3	5.4	6.6
February	6.1	6.1	6.6	6.7	7.4	5.3
March	5.9	6.4	7.5	5.6	5.1	5.6
April	7.6	8.1	5.9	8.5	6.1	4.5
May	5.3	6.7	5.6	5.9	6.2	4.5
June	4.2	6.1	3.1	3.5	4.2	1.6
July	4.5	3.5	2.8	2.8	5.5	5.2
August	2.5	4.3	4.8	2.4	3.4	3.4
September	5.4	6.7	4.2	5.6	5.6	3.5
October	6.0	4.7	6.4	6.2	6.3	8.6
November	8.5	6.2	7.9	9.6	6.5	7.8
December	8.3	7.4	8.1	6.3	6.5	7.5
Average	5.8	6.72	5.72	5.7	5.69	5.30

Average from 2005- 2010 = 5.82

Courtesy: Regional Agriculture Research Station (Rars) Akbarpur, Karimganj



Introduction: Medicinal plants, herbs, spices and herbal remedies are known to Ayurveda in India since long times. The value of medicinal plants, herbs, spices and herbal remedies is being lost due to lack of awareness and deforestation. The result is many medicinal herbs are becoming rare and precious information is lost. Less pollution we make, more ecological balance we maintain, will add to happiness of humankind.

History of herbal remedies is very old. Since old times before modern medicine, people became ill and suffered from various ailments. In absence of modern medicinal remedies people tried on herbal remedies derived from herbs and spices. There are many medicinal herbs and spices, which find place in day to day uses, many of these are used as herbal remedies. Many cooked foods contain spices. Some minor ailments like common cold, cough etc. may be cured by herbal remedies with use of medicinal properties of spices. Herbal remedies can be taken in many forms. Infusion is steeping herbs or spices with parts like leaves and flowers with boiling water for some time. Filtered or unfiltered use of this water extracts of spices acts as herbal remedies. Decoction is boiling roots, bark and hard parts of herbs and spices with water for a long time. Infusion and decoction both are known as herbal teas. Sometimes essential oil of herbs and spices are also used as herbal remedies. Action of herbal remedies may vary from human to human and care should be observed in using it. India enjoys the privilege of having time treated traditional systems of medicines based on natural products. Plant based products have been in use for medicinal, therapeutic or other purposes right from the dawn of history. The traditional remedies of the ancient world were all based on natural products e.g. Morphine from opium for use of narcotic and analgesic, latex exuded from the poppy seed of gout, cocaine from cocoa- leaf as potential local anesthetic, ergot for obstetric use, castor oil, senna etc. as laxative, turmeric as an antiseptic, garlic for blood and heart remedies. The traditional

Indian system of medicine, namely Ayurveda which involves dispensing of herbal and plant products in various forms such as powders, extracts, decoctions etc. dates back to the vedic period.

During the past seven or eight decades, there has been a rapid extension of the allopathic system of medicinal treatment in India. It has generated a huge demand for pharmaceutical drugs and their product in the country. Thus efforts were made to introduce many of these drug plants into Indian agriculture, and studies on the cultivation practices were undertaken for those plants which were found suitable and remunerative for commercial cultivation. The average annual foreign trade in crude drugs and their photochemicals is between 60- 80 million rupees and this accounts for a little over 0.5% of the world trade in these commodities.

The curative properties of drugs due to the presence of complex chemical substances of varied composition (present as secondary plant metabolites) in one or more plants of these plants. The plant metabolites, according to their composition are grouped as alkaloids, glycosides, corticosteroids, essential oils etc. The alkaloids from the largest group which includes morphine and codein (poppy), strychnine and brucine, quinine (cinchona), ergotamine (ergot), hyoscyamine (belladonna), scopolamine (datura) etc. now command a large world demand.

However, it should be stated in fairness that our knowledge of most of the medicinal plants is poor and we know still less about the biosynthetic pathways leading to the formation of active constituents for which these crops are valued. During the last two decades, the pharmaceutical industry has made massive investment on pharmacological, clinical and chemical research all over the world in an effort to discover and still more potent plants have successfully passed the tests of commercial earning. In the agricultural studies, on medicinal plants by its very nature, demand an equally large investment and higher priority. India, in particular, has a big scope for the development of pharmaceutical and photochemical industry.

Methodology: For successful completion of the present study “a survey on medicinal plants of Karimganj district with reference to their taxonomy and uses”, following methodologies have been adopted.

1. Extensive field survey and collection has been done in different parts of Karimganj district so as to collect (information) regarding medicinal plants which are commonly used.
2. Information regarding the parts used, mode of use and disease against which the plants are applied were gathered in consultation with the elderly people of the surveyed area.
3. The plants were then identified in consultation with different herbaria, floras and reference book.
4. Identified plants were then enumerated alphabetically with proper scientific names, family names, vernacular names, parts used, mode of use, giving much stress on chemical composition and application.
5. Physiogeographical and meteorological data have been collected from Regional Agriculture Research Station (RARS), Akbarpur, Karimganj.

Enumeration of Medicinal Plants of Karimganj District

Sl. No.	Scientific Name	Family	Vern Name	Parts Used	Local Used	Established Report/ Use	Comments
1	Ocinum Sanctium Linn	Lamiaceae	Tulsi	Leaves	Leaf juice along with honey is taken during cough and leaf juice is also used in headache problem.	It can treat coughs, colds, bronchitis, asthma, influenza, headache, skin disease such as ringworm, bad breathe and pyorrhea, digestive problem, heart diseases, insect bites. It can also be used as a brain tonic which can sharpen memory. It is also used as an anti-malarial drug and a pain killer.	Both local and establishment used/ report are similar as it is used in cough problems but establishment report show various uses like cold bronchitis, asthma, influenza etc. diseases.
2	Centella asiatica Linn	Apiaceae	Thankuni	Leaves	Leaf juice is taken during dysentery.	Used in the treatment of epilepsy and as tonic for brain. It is also been reputed to improve the power of speech and poetic imagination. It is a useful remedy for mentally retarded children.	Both local and establishment used are quite dissimilar to each other.
3	Adhatoda Vasica	Acanthaceae	Basak	Leaves, fruits, roots and flowers	Leaf juice along with honey and ginger is taken during cough.	Leaves and flowers contain alkaloids vaccine.	Both local and establishment used are dissimilar.

4	Aeglema- melos L. Corn	Rutaceae	Bel	Leaf and fruits	Extract obtained by crushing the leaves and is drunk in empty stomach to get relief from jaundice. Ripe fruit is mixed with milk and taken during constipation .	Fruit is aromatic astringent cooling and laxative. The ripe fruit is given for chronic constipation and dyspepsia.	Both local and establishment used are similar as it is used in constipation problem, but establishment used show various uses like dyspepsia dysentery, dyrrheroea etc. problem.
5	Phyllanthu s emblica Linn	Euforbia ceae	Amloki	Fruit leaves	Fruits are used in liver disorder and constipation .	Leaf juice is taken in stomach pain. It is a rich source of vitamin 'C'. Infusion of seed is a useful eye wash in opthalmic diseases.	Both local and establishment used is similar in case is used in constipation, but establishment report shows various uses like fever, vomiting, ingestion etc.
6	Datura metal	Solanace ae	Datura	Fruit leaves, seeds, roots	Crashing fruit is used in body pain. The leaf juice along with ghee is used in skin diseases.	The plant is used in asthma, blisters, cough, leprosy, fever, epilepsy and headache.	Both local and establishment used is similar in case of skin disease problem but established used show various uses like mouth diseases of cattle cough,

							toothache problem etc.
7	Ficus cunia	Moraceae	Jagya dumur	Fruits, bark and leaves	Leaf crust along with honey is taken during acid problem.	Fruits are used in aphthous complaints, decoction of bark found beneficial for washing ulcers in leprosy, root juice useful in bladder ailments, and when boiled in milk found efficacious in visceral troubles.	Both local and establishment used are dissimilar.
8	Averrhocarambola Linn	Averrhocaceae	Kamranga	Fruit leaves	Fruits are taken during Jaundice	Fruits are taken during Jaundice. All the parts are crashed together and taken to overcome weakness.	Both local and establishment used are similar to each other.
9	Aloebarbendensis Mill	Liliaceae	Gritakumari	Fashy leaves	The leaf juice is taken in liver disorder, worm problem, and headache and applied to cure the injury portion.	The leaves after removing skin is used in fever, enlargement of liver, spleen and glands, skin diseases, gonorrhoea, constipation, pile, jaundice, rheumatic affections.	Both local and establishment used is same in case of liver disorder problem but establishment report shows various uses like skin diseases, gonorrhoea, constipation, piles, jaundice etc.
10	Bryophyllum pinnatum	Crassulaceae	Patharkuchi	Leaves	The leaf juice is taken to cure of stone of stomach and body pain.	Leaves are externally applied after toasting in the treatment of bruises boils and bites of	Both local and establishment used are dissimilar to each other.

						venomous insects poultice or powder applied to sloughing ulcers.	
11	Allium sativum Linn	Liliaceae	Rasun	Bulb	The juice of it is taken during acidic problem. One seed bulb is used to reduce the heart diseases.	It is given in fevers, coughs, disorders of the nervous system, pulmonary phthisis, whopping cough, and delayed bronchitis. Garlic and milk discoctionis is used in hysteria and flatulence sciatica etc.	Both local and establishment used are same in case of flatulence problem but establishment report show various uses like fever, cough, nervous problem etc.
12	Terminalia arjuna (Roxb.ex. Dc)	Combr-etac-eae	Arjun	Bark and flowers	The dust of bark of stem is mixed with milk to cure heart diseases.	Bark as well as flowers is used in cardiac troubles in Ayurveda and other Indian system of medicine. Bark is also used in fractures, liver cirrhosis and hypertension.	Both local and establishment used are dissimilar to each other.
13	Polygonum recumbens	Polygo-nac-eae	Vishal-ya karani	Whole part	The paste of leaf is used in injury of any place, as to reduce bleeding.	Leaf juice acts as a homeostasis and beneficial in blood dysentery, crushed plant material made into a paste and applied to boil 3-4 hour before operation so as to reduce bleeding during operation and help quick healing.	Both local and establishment used are dissimilar to each other.

14	Piper nigrum	Pipaceae	Golmo-rich	Fruits	The fruit is mixed with honey and used in cough and breathing problem.	Dried fruits known in the market as black pepper are used as aromatic stimulant and stomachic in the treatment of dyspepsia, flatulence malarial fever and arthritis.	Both local and establishment used are dissimilar to each other.
15	Terminalia chebula Retz	Combr-etaceae	Horith=okhi	Fruits	Fruit is taken in acidic problem, constipation and to reduce the chance of vomiting.	Fruit controls indigestion, asthma, cough, vomiting, heart diseases and eye disease.	Both local and establishment used are similar as it is used in indigestion and vomiting problem. Other than this they are dis-similar.
16	Carotropis-gigantea Linn	Asclepia-daceae	Akanda	Leaves and flowers	The leaf of the plant is used to cure the pain of rheumatism.	Leafs are useful in rheumatic pain, pain of belly. The extract of the plant is used in leprosy, flowers are useful in piles problem.	Both local and establishment used are similar as it is used in rheumatic pain, but establishment report show various uses like leprosy, pain of belly, piles problems.
17	Saccharum officinarum Linn	Poaceae	kushiar	Roots and cane	Cane juice is taken in jaundice problem.	Juice obtained by crashing culm is taken during jaundice to reduce the bilirium and aphrodisiac.	Both local and establishment used are similar in each other.

18	Leucusas- p era Linn	Lamia- ceae	Donkal -ash	Leaves, flowers , and roots	The leaf juice is taken in cure in cold, cough and dysentery problem.	Plant juice is an antidote for snake bite, controls cough, skin diseases, epilepsy, headache, jaundice, asthama, rheumatism, bowel. Complaints conjunctivitis (as eye drops) as nasal drops in catarrh, and cephalagia.	Both local and establishment used are similar in case of cough but establishment report show various uses like skin diseases, rheumatism, jaundice, headache, asthama etc.
19	Clitoriater- nata Linn	Papilion- ceae	Aparaj- ita	Seeds, roots and leaves	The root of it mixed with ghee, honey, sugar, is crust together to use in pain of belly and leaves are used in liver diseases.	The roots are useful in eye diseases; tubercular glands retarded brain development, migraine, leprosy, leucoderma ulcers, and pulmonary tuberculosis. Leaves are useful in ear pain, liver disease and eruptions.	Both local and establishment used are similar in case of cough but establishment report show various uses like eye diseases, tuberculosis, leprosy, leucoderma, ulcers diseases.
20	Mikaniasc- ndens	Asterac- eae	Refugee	Leaves	The leaf juice is used in cutting any parts of the body.	Leaf juice extract and paste is applied to check bleeding and dysentery.	Both local and establishment used are similar, it is used in injury portion but establishment report show use like dysentery problem.

21	Tagatespata	Asteraceae	Ganda	Leaves	The leaf juice is used in cutting any parts of the body.	Leaf juice extract and paste is applied to check bleeding.	Both local and establishment used are similar to each other.
22	Solanumtorvum Swartz	Solanaceae	Bonegun	Fruits	Fruits are taken in rheumatic problem.	Fruits are used in curing of wound of cattle.	Both local and establishment used are quite dissimilar to each other.
23	Minosapudica	Mimosoideae	Lajjabati	Roots and leaves	The leaf paste is taken in pimple and injury portion.	Root tied on hand with thread in asthma. The leaf paste is useful in leucoderma	Both local and establishment used are quite dissimilar to each other.
24	Cajanuscajan Linn	Fabaceae	Arhor	Leaves	The leaf juice is used in jaundice.	The leaf juice is taken in jaundice	Both local and establishment used are similar to each other
25	Euphorbiatirucali Linn	Euphorbiceae	Brazaban	Roots and latex	Milky latex is used in cough and cold.	Milky latex is used to control cough, rheumatism cold and nervous diseases. It is used for toothache and ear pain.	Both local and establishment used are same in case of cough and cold but establishment report show use like rheumatism, nervous diseases, toothache, ear pain etc.
26	Piper bite	Piparceae	Pan	Leaves and roots	The leaf is taken in disorder of mouth and	Leaf juice is used in eye drops ophthalmic and other painful eye diseases and in	Both local and establishment used are similar in

					it increases the tastiness of mouth and digestion process.	night blindness, it is also helpful in digestion, cathartic.	case of digestion, other than they are quite dis-similar.
27	Hibiscusrosasinensis Linn	Malvac- eae	Joba	Leaves, flowers , roots and buds	The young leaf and flower are taken in dysentery	Buds are helpful in seminal weakness. Roots are useful in cough.	Both local and establishment used are quite dis-similar to each other.
28	Zingibero- fficinale Rose	Zingibe- rceae	Ginger	Rhizo- me	The juice of it is mixed with honey and is used in cold and indigestion.	Rhizome is carminative stimulant and is given in dyspepsia and flatulent colic. It is also described as an adjacent to many tonic and stimulating remedies.	Both local and establishment used are quite dis-similar to each other.
29	Cynodon- dactylon	Poaceae	Durba	Leaves	The leaf juice is mixed with til oil and is used in skin diseases.	The leaf of it is useful in skin diseases, vomiting, and injury portion.	Both local and establishment used are same in case of skin disease but establishment report show use like vomiting and injury portion.
30	Curmuma- longa	Zingibe- raceae	Halud	Rhizo- me	The juice of it is mixed with honey, used in liver problem; when it is mixed with cream, it is used in	Turmeric is used as tonic blood purifier. It is used with warm milk, and used in common cold. Juice of fresh rhizomes is used as an anti-	Both local and establishment used are similar to each other.

					fairness of face.	parasite for many skin infections. Externally it is applied for inflamed joints.	
31	Pederiafoei tide	Aterac-eae	Ganda-vaduly	Leaves	Leaf juice is taken in dysentery	Leaf juice is taken in dysentery and indigestion.	Both local and establishment used are similar.
32	Dioscore-aalata	Dioscore-ceae	Yams/mistilau	Tubers	The tuber is used in piles	The tuber is used in piles and leprosy.	Both local and establishment used are similar.
33	Pesidium-guajava	Myrtac-eae	Sofri/pyara	Leaves	Young leaf is useful in pyrrohoea	Leaf juice is taken in stomach pain.	Both local and establishment used are quite dissimilar to each other.
34	Dentellar-epents	Rubiac-eae	Apang	Leaves	Leaf paste is used in teeth and this paste is mixed with honey and is useful in purifying blood.	The plant leaves are useful in ear problem, disturbances of sleeping. The roots are useful in cholera. Seeds are useful in piles diseases.	Both local and establishment used are dissimilar to each other.
35	Citrus cancer			Fruits and leaves	The smell of lemon leaf is used in the vomiting. Its fruit is used in fever.	Lemon juice is widely known as diuretic, antiscorbutic, astringent and febrifuge. Lemon juice in hot water has been widely advocated as a daily laxative and preventive of the common cold but daily doses have been found to erode the	Both local and establishment used are dissimilar to each other.

						enamel of teeth. Prolonged use will reduce the teeth to the level of the gums. Lemon juice and honey or lemon juice with salt or ginger is taken when needed as cold remedy.	
36	Glycyrrhiza a Glabra Linn	Fabaceae	Yastimadhu	Root, stem and leaf	It is used in cough, respiratory disorder. The powder of leaf and stem is used in pan shop.	Yastimadhu is used for various ailments like throat congestions, cough, and respiratory disorder in tuberculosis. Some recent studies have shown that yastimadhu also acts as a memory enhancer and mental rejuvenator.	Both local and establishment used are dissimilar to each other.
37	Meusa ferea	Guttiferae	Nageshwar	Flowers	Flowers are used in cough and vomiting problem.	The flowers are astringent and stomachic. The dried flowers are given in vomiting, dysentery, and cough, irritability of the stomach, excessive perspiration and bleeding piles.	Both local and establishment used are similar like cough, vomiting, but establishment report show extended uses like stomachic dysentery perspiration, piles diseases.

Discussion: In the present work entitled “A survey on medicinal plants of Karimganj district with reference to their taxonomy and uses” a total of 37 medicinal plants were reported. The plants represent 26 families out of which 25 dicots, 7 species are monocot. The survey shows that the most dominating family is Euphorbiaceae with numbers species which is followed by 2 zingiberaceae, 3 asteraceae, 2 poaceae, lamiaceae, family with each no. of species. Other families of high medicinal value like liliaceae, solanaceae, 3 lamiaceae, each one contains 2 nos. of species. Some of the important plants of the surveyed area have medicinal value because they contain chemical compounds which are listed in a few cases. In majority of the cases it has been observed that leaves, stems and roots of the collected plants are most important as regard to their medicinal value. It has been further noted that a number of plants are being employed in the treatment of the diseases such as Heart diseases, Coughs, Jaundices, Dysentery, Diarrhea, Asthma, Fever, Pains, and Infections etc.

Conclusion: After doing this project work on “A survey on medicinal plants of karimganj district with reference to their taxonomy and uses”, it can be clearly concluded that the medicinal plants available in the karimganj district can be known and identified. It is now possible to assess and identify taxonomically the diversities of medicinal plants available in the karimganj district. The said work enables to know the vernacular name of various medicinal plants along with scientific name, parts used and mode of use etc., which will definitely help in identifying the medicinal plants resource of the district. The work is a time-bound, basic approach as per the academic need and hence there is tremendous scope in this regard if someone carries the same work in future time.

References:

1. Ambasta, S. P. et al (1992). *The useful plants of India*. CSIR: New Delhi
2. Arora, R.K. & Pandey, A.K. (1996). *Wild edible plants of India*. Nbpgr: New Delhi
3. Asolkar, I.V., Kokor, K.K., & Calrke, O.J. (1992). *Glossary of Indian medicinal plants with active principle part– I (A & K)*. CSIR: New Delhi.
4. Borthakur, S. K., & Goswami, N. (1995). Herbal Remedies from Demoria of Kamrup district of Assam in North-East India. *Fitoterapia*, 66(4), Pp 333-339.
5. Jain, S. K. (1987). *A Manual of Ethno botany*. Scientific publisher: Jodhpur
6. Jain, S. K., & Rao, R. R. (1977). *A Handbook of Field and Herbarium Technique*. New Delhi: Today & tomorrow Publication
7. Mohd, M., Taqi, A. K., & Firoz, M. (2012). Medicinal Plants of Rural India: A Review of Use by Indian Folks. *Indo Global Journal of Pharmaceutical Sciences*, 2(3), Pp 286-304.
8. Paul, S., Devi, N., & Sarma, G. C. (2011). Medicinal Plants of Ultapani Forest Range under Holtugaon Division, Manas Biosphere Reserve (Assam). *International Journal of Applied Biology and Pharmaceutical Technology*, 2 (4), Pp 257– 263.