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Studies on the Anthropogenic impact on leafy vegetables of forest coverage area of Goalpara district, Assam, India.

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Abstract

The present study exploring the forest diversity status of the Goalpara district of Assam, particularly on edible leafy vegetables. Study indicates presently, a large scale of forest land of the district is undergoing rampant deterioration due to high rate of anthropogenic disturbances resulting in serious threat to the forest diversity, as well as leafy vegetables and herbs including forest Eco-system. The district has 36430.83-hectare forest land and it consist of total RF 56 numbers and total PRF 47 numbers. There is no forest village in the district. Study indicates that encroachment area of forest land, RF 5278.64 and PRF 2743.50 hectare respectively. The present endeavour is an attempt to assess the impact of anthropogenic activities or disturbance on the forest diversity especially wild green leafy vegetables of district. The geographical area of forest land in Goalpara district 36430.83 hectare out of total geographical area of 253045 hectare. The encroachment statistics analysis revealed that the forest land status has been found to be gradually declining tendency due to population explosion, lack of proper awareness, over extensive exploitation and a war between development and nature. The present study on forest land encroachment and indiscriminate collection in Goalpara district reveals the main root cause of sharply decline of forest area, as well as loss of edible ethnobotanical leafy vegetables. It is urgent to need restore forest diversity of natural habitat of leafy vegetables in the district. Leafy vegetables are traditionally used in edible vegetable, as well as natural medicine by different tribes in Goalpara district such as Rabha, Bodo, Garo and other indigenous communities.

Keywords:

Forest diversity, leafy vegetables, anthropogenic disturbance, encroachment, natural medicine.

INTRODUCTION:

Forests are compact area of tree and animals naturally born and grown up. They constitute one of the major forms of natural landscape. Forests primarily play the pivotal role to keep it up healthy environment, besides it provides habitat of biodiversity and human livelihood. (Bhagabati, et *al,*.2012). Forest green plants are next to the sun which provides dynamism to the living world. According to survey reports, green plants of one hectare area produce 600-650kg of oxygen and absorb carbon dioxide 900-950kg per day. Higher the number of green plants lowers the amount of CO_2 in the atmosphere (Saikia *et al,*.2015). Therefore, conserving forests green plants and vegetables is becoming the prime role of human beings for security as well as future achievement. The phenomenon of climate change, deforestation, natural calamities like drought, flood etc are the consequence of anthropogenic activities and prolonged continuity which may result total depletion of biodiversity. (Pathak, B. 2016).

The area of forest land originally was managed by Zamindar. Earlier, the forest area was managed and ruled by the Zamindar. In 1951, the Govt of Assam introduced the Assam State Aquision of Zamindar Act and under the provision of said Act the government acquired the forest land from Zamindar during the month of April 1956 and annexed to the Forest department. Subsequently constituted jungle patch into P.R.F and R.F. The jungle patches are declared P.R.F. and R.F under section 5 and 17 of

Assam Forest Regulation Act (1891) by publishing Govt. Notification in Assam Gazette. At present administrative status includes 1(one) division head quarter, 4(four) nos. of territorial range, 1(one) consolidation and 1(one) forest protection squad range in Goalpara district. (Assam Forest Regulation Act1891). The present studies let us comprehend about anthropogenic factors as well as encroachment status of the forest land of Goalpara District in Assam.

MATERIALS AND METHODS:

Study of the area:

The study was conducted in forest coverage area of Goalpara district ($25^0 33'$N to $26^0 12'$N Latitude and $90^0 7'$E to $91^0 5'$ E Longitude) of Assam, India. In this study both primary and secondary data were used. Secondary data were collected from the standard published literature such as projects, reputed forest manual, official document etc. Primary data were collected through structured and validated questionnaire to illicit information from the respondents. The forest surroundings area was visited personally to collect data. Survey was conducted between April 2023 and March 2025.The study area or plot was selected randomly and local weekly market. Discussions of various standard literature and survey were useful in collecting the information. The secondary data regarding the present and past land record of the studied area have been collected from the respective office.

Survey method: A survey was conducted during the study period from 2024 March to 2025 April. All the information collected through semi-structure questionaries and interview with respondents. Personal observation also one of the parts of our study.

Data collection: 101 leafy vegetables were collected from wild natural habitat, as well as local weekly market of Goalpara district. They were documented on the basis of availability or unavailability, as well as ethnomedicinal point of view. The leafy vegetables and herbs were identified by standard literature and consultation with taxonomist in the department of Botany, Dudhnoi college, Dudhnoi, Assam under affiliation of Gauhati University, Guwahati, Gopinath Bordoloi Nagar, pin: 781014, India. leafy vegetables were identified through consultation of standard literature. (Kanjilal 1984).

RESULTS AND DISCUSSIONS:

The forest range total no. 6 which include forest territorial range no.6, consolidation no.1 and forest protection squad with one divisional head quarter in the district. The forest range are: Goalpara, Lakhipur, Krishnai and Rang Juli. There are PRF no.47 and RF no 56 in the district. The total area of R. F 25250.12(in ha.) and P.R.F. 11180.71(in ha.). The area of the forest coverage land of all ranges are found gradually decline by human encroachment. The following Tables shows the present encroachment status of the P.R.F and R.F. area of the district.

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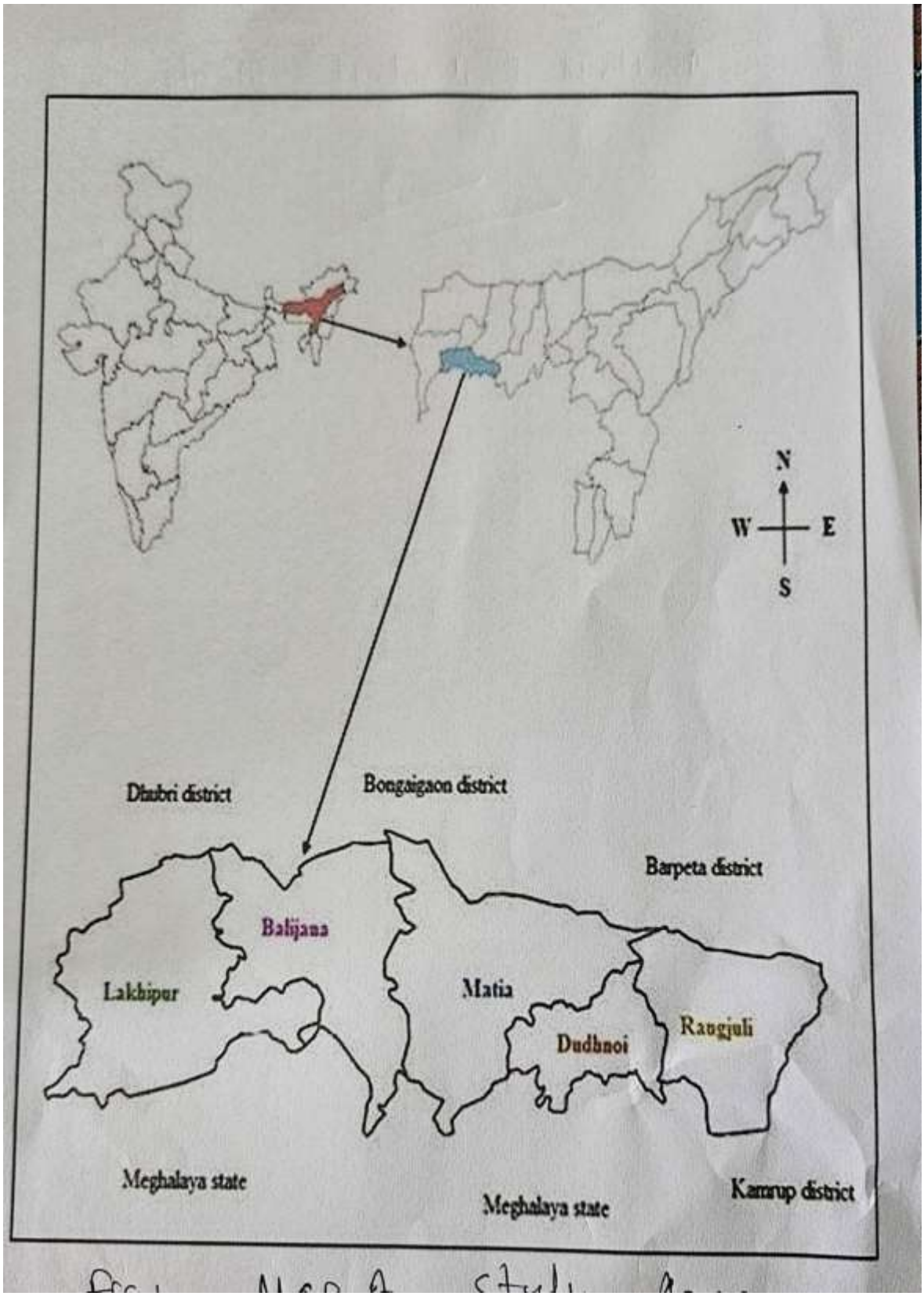

Figure: Map of Goalpara District of Assam (Study Area)

Table No. 1 shows the Reserve Forest under Lakhipur range.

Sl. No.	Name of RF	Area (in ha.)	Area encroachment in ha.
1	Bandarmatha	118.16	35.25
2	Bamundanga	228.60	50.00
3	Bardal	86.00	0.60
4	Chatabari	702.83	53.79
5	Dipkai	193.00	1.75
6	Dhamar	176.03	17.94
7	Dipalchang	277.74	23.49
8	Magho	373.00	229.91
9	Nalbari	166.00	10.17
10	Nakkati	212.00	44.72
11	Kumarkhali	884.62	33.00
12	Saikiabhasa	162.94	167.00
Total	12	3585.82	667.62

Source: office of the DFO, Goalpara (2025)

Table No. 2 Shows the Reserve Forest under Goalpara range.

Sl.no	Name of R.F.	Area (in ha.)	Area encroachment (in ha.)
1	Dashikata	1685.05	154.25
2	Dewlee	190.00	41.50
3	Dwarka	181.29	156.00
4	Ghanbina	117.00	97.50
5	Matia	766.46	163.00
5	Nalanga	838.46	380.00
7	Pancharattana	976.51	18.50
8	Rendu	245.00	102.00
9	Rakhapara	195.00	40.00
10	segunbashi	238.35	71.50
11	Total no.11	5434.92	1224.25

Source: office of the DFO, Goalpara (2025)

Table No. 3 Shows the Reserve Forest under Krishnai range of Goalpara district

Sl.no.	Name of R.F.	Area (in ha)	Area encroachment (in ha)
1	Ajagar hill	4240.00	1069.00
2	Borjhar	807.00	37.00
3	Chikisim	21.00	14.00
4	Dabli hill	140.12	52.00
5	Gendabari	528.50	193.50
6	Geradubi	71.62	33.00
7	Guriajhar	1030.00	121.50
8	Paikan	711.11	131.00
9	Fofonga	277.00	94.00
10	Zangrajangsa	1539.20	301.00
11	Total no.R.F. 10	9365.34	2046.00

Source: office of the DFO, Goalpara (2025)

Table No. 4 shows the Reserve Forest under Rang Juli range of Goalpara District.

Sl.no.	Name of R.F.	Area in ha.	Area encroachment in ha.
1	Ambuk	377.96	26.40
2	Athiabari	1659.58	477.64
3	Aouimari	92.65	26.59
4	Allibari	21.05	12.00
5	Buraburi	291.00	105.83
6	Badlung	286.91	26.00
7	Baghmara	94.28	8.66
8	Chekowary	538.62	59.00
9	Chitalmari	336.70	15.79
10	Dakuakata	189.79	23.91
11	Dewsila	408.72	30.60
12	Damra	336.50	270,53
13	Dhanubangha	46.53	18.00
14	Ghagra hill	408.74	17.32
15	Kanyakuchi	517.98	105.58
16	Kothakuthi	25.10	15.32
17	Kahibari	181.30	7.00
18	Kurhiamari	80.16	30.00
19	Kachadol	176.04	5.00
20	Kheropara	308.76	13.15
21	Lankee	137.50	19.20
22	Rongpather	58.00	4.80
23	Salpara	246.00	17.46
24	uportola	44.07	4.99
Total	R.F.24	6864.84	1340.77

Source: office of the DFO, Goalpara (2025)

The encroachment statistics analysis results revealed that a vast area of reserve forest land undergoes encroaches by various anthropogenic factors as well as natural habitat destruction a serious threat to flora and fauna, particularly edible leafy vegetables and medicinal plant. The study findings that that the natural habitat of elephant in Goalpara district is gradually decreasing due to massive deforestation and other anthropogenic activities like construction of roads, railway tract, human habitation etc. within the forest area.

Table No. 5 shows the proposed reserve forest under Lakhipur range.

Sl. no.	Name P.R.F.	Area (in ha.)	Area encroachment in ha.
1	Jangipara pt. I	355.34	19.17
2	Jangipara pt. II	112.15	17.20
3	Kurshapakhri	49.00	10.00
4	Rongsai	62.20	5.00
5	Sorpani	101.00	43.81
6	Thorko nalbari	132.18	5.00
7	Hatisila	74.80	17.36
8	tichimkali	34.06	33.52
9	Total No. PRF 08	920.73	151.06

Source: office of the DFO, Goalpara (2025)

Table No. 6 shows the proposed Reserve Forest under Goalpara range.

Sl. No	Name of P.R. F	Area (in ha)	Area encroachment in ha.
1	Add to matia	40.00	10.00
2	Add to dewlee	42.30	21.00
3	Bagulamari	1258.54	136.50
4	Degdhhowa	41.00	1.50
5	Kumri-khutamari	668.00	77.00
6	Nadiapara	161.00	67.00
7	Rakyashini	2755.85	547.56
8	Kharmuja	31.00	31.00
9	dorni	197.00	197.00
Total	P.R.F 09	5194.69	1088.56

Source: office of the DFO, Goalpara (2025)

Table No. 7 shows the Proposed Reserve Forest under Krishnai range.

Sl. No.	Name of P.R. F	Area (in ha.)	Area encroachment in ha.
1	Baijuri part i &ii	79.45	24.70
2	Borali pt I& II	65.18	49.00
3	Bormatia	54.00	16.00
4	Bormohora	345.00	74.00
5	Dewagiri	75.00	47.00
6	Dairanghar	83.40	46.00
7	Kochubari	263.00	152.00
8	Kachumari part I	85.13	33.00
9	Kachumari part II	21.66	19.00
10	Khangkhal	264.00	52.00
11	Khardang	937.69	228.00
12	Silabori	52.00	5.20

13	Salpara	166.00	78.00
14	Tukra hill	196.50	68.00
15	Tukreswari	344.00	82.00
Total	PRF 15	3032.01	973.90

Source: office of the DFO, Goalpara (2025)

Table No. 8 shows the proposed Reserve Forest under Rangjuli range.

Sl. No.	PRF	Area (in ha)	Area encroachment in ha.
1	Add to ambuk	86.50	15.50
2	Add to checkowary	124.00	9.50
3	Amguri	289.00	6.00
4	Amjonga	41.88	4.60
5	Dalangdova	51.82	11.20
6	Daopara	60.30	10.00
7	Gathiapara	401.84	91.93
8	Ganeshpahar	92.50	8.00
9	Gudra	82.00	6.00
10	Kachibari	132.00	50.00
11	Madang	361.50	32.00
12	Nidanpur	47.00	42.00
12	Sarakpara	33.69	14.00
13	Letkubari	66.25	66.25
14	Bakrakhuti	163.00	163.00
Total	14	2033.28	529.98

Source: office of the DFO, Goalpara (2025)

Study reveals that a vast number of Valuable Edible vegetables and medicinal plant are sharply decline in natural wild habitat of forest area. Now they are facing endangered and rare status. Table 1 shows plant species which are found in forest area of the district. Few endemic species also recorded.

Table 1. Plant species (leafy Vegetables) were recorded and documented of their status on the basis of availability and rare and unavailability.

SL. NO.	BOTANICAL NAME	VERNACULAR NAME	FAMILY	TYPES OF PLANT	STATUS
1	*Sarcochlamys pulcherrima* (Roxb). Gaud	Fok saak	Urticaceae	Small tree or herbs	Very rare and unavailable
2	*Ipomoea batatas* Linn.	Mitha alu	Convolvulaceae	Perennial herb	available

3	*Carica papaya* Linn	Amita pat	Caricaceae	Small tree	Available
4	*Beta vulgaris* Linn.	Beet paleng	Chenopodiaceae	herb	available
5	*Hydrocotyle sibthorpioides*Lam	Soru mani Muni	Apiaceae	herb	Rare and unavailable.
6	*Physalis minima Linn*	Pok mou	Solanaceae	climber	rare
7	*Allium cepa* Linn.	Piyajor- pat	Liliaceae	Biennial plant	available
8	*Zingiber officinale Linn*	Ada	Zingiberaceae	Evergreen herbaceous Plant	available
9	*Lablab purpureus*	Urohi	Fabaceae	climber	available
10	*Solanum nigrum L*	Laskowski	Solanaceae	Shrub unavailable	unavailable
11	*Solanum melongena Linn.*	Begena agg	Solanaceae	Shrub available	available
12	*Amorphophallus bulbiter Roxb*	Ol kosu, Vusi	Bignoniaceae	herb	unavailable
13	*Nycthanithes arbor tristis L*	Sewali gosor pat	Nyctaginaceae	Tree	Unavailable
14	*Colocasia esculenta (L) Schott*	Kola kosur thuri	Araneae	herb	
15	*Zanthoxylum oxyphylum*	Mejenga	Rutaceae	spiny shrub	available
16	*Oroxylum indicum (L.),*	Bhat ghila	Bignoniaceae	Small tree	rare
17	*Zanthoxylum nitidum Roxb.*	Tejmui	Rutaceae	Small tree	rare
18	*Vitex negundo Linn.*	Posotia	Verbenaceae	Small tree	Rare, unavailable

19	*Acmella paniculate*	Suhani ban	Asteraceae	herb	Rare, unavailable
20	*Corchorus olitorius*	Mithamora	Malvaceae	Annual shrub	available
21	*Calamus rotang*	Bettor Gaj	Aceraceae	Climber plant	Rare, unavailable
22	*Coriandrum sativum L*	Dhaniya	Apiaceae	Annual herb	available
23	*Peperomia pellusida.*	Ponou noa	sapindaceae	Herbs	Rare, unavailable
24	*Cardiospermum halicacabum L*	Kopal futah lota	Sapindaceae	climber	Rare, unavailable
25	*Gardenia angusta*	Togoror agg	Rubiaceae	Evergreen shrub	Rare, unavailable
26	*Curcuma longa L syn. C. domestica Vail.*	Halodir agg	Zingiberaceae.	small tree	available
27	*Pogostemon bengalensis.*	Suk loti	Lemnaceae	herbs	Rare, unavailable
28	*Piper nigrum Linn.*	Jaluk pat	Piperaceae	climber	Rare, unavailable
29	*Justicia adhatoda L*	Boga bahok	Acanthaceae	shrub	Rare, unavailable
30	*Hedyotis corymbosa L*	Saliki thengia xaak	Rubiaceae	herbs	Rare, unavailable
31	*Polygonum esculentumD. Don*	Modu suleng	Polygonaceae	herbs	Rare, unavailable
32	*Clerodendrum colebrookianum Walp.*	Nepha Phu	Lamiaceae/ Verbenaceae	shrub	Rare, unavailable
33	*Rumex martimus L*	Lo Barua	Polygonaceae	shrub	Rare, unavailable

34	*Smilax perfoliata Lour*	Tikoni barual	Malvaceae	shrub	Rare, unavailable
35	*Leucas aspera (Roth) Spreng*	Dronful	Lamiaceae	Herbs, annual plant	available
36	*Alternanthera sesilis (L.) R. Br. ex-DC.*	Mati kaduri	Amaranthaceae	Perennial herb	available
37	*Typhonium trilobatum L Schott.*	Syama kosu	Araceae	wild herbs	Rare, unavailable
38	*Drymaria diandra L*	Lai Jabari	Caryophyllaceae	Annual herb	Rare, unavailable
39	*Kalanchoe pinnata Linn.*	Pate gaja	Crassulaceae	herbs	Rare, unavailable
40	*Basella alba*	Puroi xaak	Basellaceae	Climber Plant	available
41	*Eclipta alba*	Keh raj	Asteraceae	annual dwarf plant	Rare, unavailable
42	*Cassia occidentalis*	Medelua xaak	Fabaceae	herbs	Rare, unavailable
43	*Azadirachta indica A. Juss*	Neem pat	Meliaceae	tree	available
44	*Musa balbisiana*	Kol posola	musaceae	Perennial herb	available
45	*Zanthoxylum armatum*	Mejenga	Rutaceae	small tree	available
46	*Rubus elipticus*	Jetuli poka aag	Rosaceae	Small tree	Rare, unavailable
47	*Glebionis coronaria*	Babri xaak	Asteraceae	herbs	Rare, unavailable
48	*Lactuca sativa Linn.*	Salad	Asteraceae	Annual herbs	available

49	*Elaeagnus latifolia Linn.*	Mirika tengar aag	Elaeagnaceae	shrub	Rare, unavailable
50	*Spondius pinnata*	Amora aag	Anacardiaceae	Climber plant	Rare, unavailable
51	*Phlogacanthus thyresiformis*	Ronga bahok	Acanthaceae	shrub	Rare, unavailable
52	*Portulaca oleracea Linn*	Malvog khutura	Portulacaceae	herbs	available
53	*Ficus racemosa Linn.*	Bor dimoru aag	Moraceae	herbs	Rare, unavailable
54	*Ardisia colorata Roxb.)*	Nol tenga	Vitaceae	Small tree	Rare, unavailable
55	*Moringa olifera, Lam*	Sojina	moringaceae.	Medium tree	available
56	*Psidium guajava Linn*	Modhuriam aag	Myrtaceae	Medium tree	available
57	*Cinnamomum tamala*	Tej pat	Lauraceae.	small tree	available
58	*Brassica Alba (Linn)*	Boga soriyoh	Brassicaceae	herbs	Rare, unavailable
59	*Pogostemon parviflora*	Sukoloti	Lamiaceae	shrub	Rare, unavailable
60	*Bacopa monnieriLinn*	Brahmi xaak	Schrophuriacea	Creeping herb	Rare, unavailable
61	*Rumex vesicariusLinn*	Xuka xaak	polygonaceae.	herb	available
62	*Stellaria himalayensis*	Moroliya xaak	Caryophyllaceae	herbs	Rare, unavailable
63	*Trigonella foenum-graecum*	Mithi xaak	Fabaceae	herbs	available

64	*Eryngium foetidumL*	Man dhoniya,	Apiaceae	Perennial and annual herb	available
65	*Coriendum sativum Linn*	Dhoniya	Apiaceae	Perennial herb	available
66	*Paederia foetida Linn*	Bhedailota	Rubiaceae	climber	Rare, unavailable
67	*Talinum fruticosum*	Pireli paleng	Talinaceae	herbs	Rare, unavailable
68	*Fagopyrum esculentum D. Don*	Modhu suleng	Polygonaceae	Annual herbaceous plant	Rare, unavailable
69	*Corchorus capsularies*	Titamora	Malvaceae	Annual plant	available
70	*Hibiscus sabdariffa Linn*	Mesta-tenga	Malvaceae	shrub	available
71	*Momordica cochinchinensis Spreng*	Bhat kerelar agg	Cucurbitaceae	climber	available
72	*Benincasa hispida Savi*	Kumara	Cucurbitaceae	Climber,	available
73	*Lagenaria siceraria (Molina) Standl.*	Pani lau, Jati-lau	Cucurbitaceae	climber	available
74	*Cucurbita maximaDuch.ex Linn*	Ronga lau aag	Cucurbitaceae	Climber, annual plant	available
75	*Lasia spinosa (L) thw.*	Sengmora xaak	Araceae	herb	Very rare
76	*Mentha viridis Linn*	Pudina	Lamiaceae	Herbaceous perennial plant	available
77	*Murraya koenigii (L)*	Noro-singha	Rutaceae	Small tree	available
78	*Alocasia tornicata (Roxb) Schott*	Kasur thuri	Araceae	Annual herb	available

79	*Brassica oleracea Linn*	Bandha Kobi pat	Brassicaceae	Perennial herbs	available
80	*Raphanus sativus Linn*	Mulla xaak	Brassicaceae	herb	available
81	*Spinacia oleracea Linn*	Paleng	Chenopodiaceae	herbs	available
82	*Malva verticillate L*	Lofa xaak	Malvaceae	annual herbs	available
83	*Brassica juncea(L) Czern*	Lai xaak	Brassicaceae	Perennial herbs	available
84	*Diplazium esculentum (Retz). Sw.*	Dhaniya xaak	Anthyriaceae	Perennial fern	available
85	*Amaranthus tricolor*	Datha xaak	Amaranthaceae	Annual herbs	available
86	*Chenopodium album Linn.*	Bothua xaak. Jill mil	Amaranthaceae	Herbaceous plant	Rare, unavailable
87	*Ipomoea aquatica Forsk*	Kolmou xaak	Convolvulaceae	Climber plant	Rare, unavailable
88	*Enhydra fluctuant Lour*	Halacha xaak	Asteraceae	March herb	
89	*Amaranthus viridis Linn*	Khutura xaak	Amaranthaceae	Herbaceous plant	available
90	*Oxalis corniculata L*	Soru tengesi tenga	oxalidaceae	Creeping herbs	Rare, unavailable
91	*Houttuynia cordata Thunb*	Mosunduri	Saururaceae	Perennial herb	Rare, unavailable
92	*Centella asiatica(L) Urban*	Boor man Muni	Apiaceae	herb	available
93	*Amaranthus spinosusL*	Hati khutura	Amaranthaceae	Herbaceous plant	available

94	*Oxalis debilis var. corymbose (DC) Lour.*	Boor tengesi	Oxalidaceae.	herb	Rare, unavailable
95	*Pisum sativum*	Motor Mah gosor pat	Fabaceae	Annual climber plant	available
96	*Garcinia lanceaefolia Roxb*	Rupohi thekera	clusiaceae	small tree	Rare, unavailable
97	*Solanum lycopersicum*	Kon bilahir agg	Solanaceae	shrub	Rare, unavailable
98	*Solanum torvum SW.*	Hati bhekurir aag	Solanaceae	shrub	Rare, unavailable
99	*Solanum nigrumLinn*	Tita bhekurir aag	Solanaceae	shrub	Rare, unavailable
100	*Momordica Charania Linn.*	Tita kerelar ag	Cucurbitaceae	climber	available
101	*Solanum nigrumLinn*	Tita bhekurir aag	Solanaceae	shrub	Rare, unavailable

Study indicates that forest diversity along with leafy vegetables and herbs are sharply decrease due to various anthropogenic disturbances. Large scale of forest land encroachment by human. Human-elephant conflict also one of the major causes of loss of large scale of forest land. Study reveals that most dominated timber plants are *Shorea robusta,* commonly called "sal" are found in the district. The high density of *Shorea robusta* in the district it can be say district is the mother land of "Sal tree". Moreover, *Tectona grandis* L, commonly called in assamese "segun" are another exotic plant species are found in the district. Other associated species of Sal tree are Makri Sal (*Schima wallichii*) sida (*Legerstroemia parviflora*), Kum (Careya arborea), Gomari (Gmolina *arborea*) are still available here. Study indicates that Sal tree is abundantly found where "vete tita", scientific name *Clrodundum unfortunatum* have been seen. So, this plant species can be recognising as "sal indicator plant". Some dominant plant species are *like Chromolaena odorata, Cassia tora, Ludwigia octavalvis, Mikania chordate, Halarrhena antidysenterica, Ipomoca carnea, Melastoma malabathricum, Cassia siamea, cassia fistula* etc, are found during the study period. (Kanjilal.U. N and Das. A, (1984) Earlier Bonsom, scientific name *Phoebe goalpariansis* was available but now it is under category of Endangered species in the district. Flora and fauna of the district which is reported to be decreasing at alarming rate due to population growth and deforestation caused by manmade factors. Study indicate that traditionally used various leafy vegetables are sharply decrease due to various factors like indiscriminate extensive collection, wild habitat destruction, environmental degradation, and no proper scientific management.

Study reveals that main cause of the encroachment factor is migration of people from other area. People are migrated due to erosion of the Brahmaputra River nearby sour rending area of it and population explosion is the main root cause especially in Goalpara district. Besides, it may too be worth mentioning that lots of people are proceeding in the district for their livelihood we cannot avoid this reason for population explosion also.

Conclusion: The district of Goalpara treasure house of rich biodiversity, particularly edible wild leafy vegetables and forest diversity. Tribal people earn their livelihood through selling edible vegetables. Recent study finding that that alarming decrease of forest cover in Assam has become a major cause of concern as the state lost more than three thousand square kilometres of forest cover in the past twenty-eight years. According to the forest survey of India first report published in 1987, the forest cover in Assam was 30,708 square kilometres, but the latest report revealed that the forest cover in the state came down to 27,623 square kilometres. The fact that Assam lost 3,085 square kilometres of forest cover in a span of 28 years. In the district of Goalpara large scale encroachment of the forests is a major cause of concern. Erosion has also resulted in decrease of forest cover in parts of the district. Social forestry plantation drive in the different parts of the district is taken for activation but, practically it is not fruitful because of mortality rate is high in seedling plant.

It has now become highly obligatory for mankind not only to check these alarming changes but also to reconstruct and restore the changes ecosystems to their original state. Studies emphasize the need to prevent anthropogenic activities to conserve leafy vegetables with forest diversity. It is urgent to need scientific management of leafy vegetables in forest ecosystem.

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