

Socio-cultural and Religious plants used by BODO tribes of BTC, Assam, India

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Abstract- *Bodos* are the major tribe inhabiting in BTC. The *Bodos* have rich cultural and social heritage. They have their own religion and language. Since *Bodos* are living around the forest and nature; they have some traditional believes and knowledge in plants and forests. Perhaps the availability and richness of forest and plants of the areas where they inhabit may be the important reasons how they get influence with plants and forests in their socio-cultural and religious life. The Scientific documentation of the plant species which are used in socio-cultural and religious activities will definitely give encouragement to the community tribal people. The preservation of their indigenous knowledge with plant and forest may be important tools for conservation of these plant species. In this paper, a total of 48 plant species from 36 different families are documented.

Index Terms- Socio-cultural and religious plant, Traditional, *Bodo* tribe, Assam

I. INTRODUCTION

The state of Assam is constituent unit of Eastern Himalayan Biodiversity region. Assam (89°50'E to 96°10' E and 24°30' N to 28°10' N), a North Eastern state of India, is rich in biological diversity [8]. The total geographical area of the state is 78438 sq. km. out of which 28761 sq. km. is covered by forest. Assam has been endowed with a variety of forest types on account of its unique geographical terrain. The array of floristic richness has permitted many scholars to describe Assam as the 'Biological Gateway' of North East India

The Bodoland Territorial Council (BTC) occurs in lower Assam. It covers 3539.95 sq. km. area of forest which is located along the international boundary with Bhutan. The entire northern belt of the forest is situated in sub Himalayan alluvial tract of typical formation known as Bhabar tract. The demography of BTC is dominated by Bodos, an aboriginal tribal community of Assam and has distinct culture and heritage. The Bodos in the course of time have synthesized a vast knowledge in respect of acquiring and gathering knowledge of herbal medicines out of wild plants for healing and curing of ailments and they are culturally and socially intertwined with forest around them [9]. They worship their God near 'Bathou Gudi' is the usual sacred place. This type of sacred place is found in every courtyard in the north-east side of its followers. When this place is taken for social gathering in a field, it is called 'Bathou Shalee'. The supreme God of the Bathouists is 'Anan Gosai' or 'Bathoubari' or 'Sibrai'. 'Sibrai' is called by more names also. 'Shiva' is his Hindu counterpart [10]. The socio-cultural and religious activity of Bodos has served the purpose of conserving their traditional heritage with plants since the time immemorial. Though Bodos have their own traditional religions the modern Bodos follows different religions like Bathou-Kherai, Brahma, Hinduism, and Christianity.

II. MATERIALS AND METHOD

The present study was carried out among the Bodo Tribe inhabiting in four districts viz. Kokrajhar, Chirang, Baksa and Udalguri district of BTC, Assam, India. The information regarding the utility of different plants in different religious and socio-cultural activities was collected from elderly person and religious headman. The survey was carried out among local population and the community people was met in their residential areas. The visit was repeated for several times as requisite information for proposed work until was completed. Data was collected by questionnaire, interviews and discussion among local headman in their local language.

The knowledgeable person was engaged with us to the location site where they have seen the plants. The collected plant specimens were carefully identified with the help of experts and by referring relevant scientific literatures [1,4-7]. The specimens have been preserved at Department of Botany, Science College, Kokrajhar. Few of the plant species were photographed during field study and sample collection.

III. RESULT AND DISCUSSION

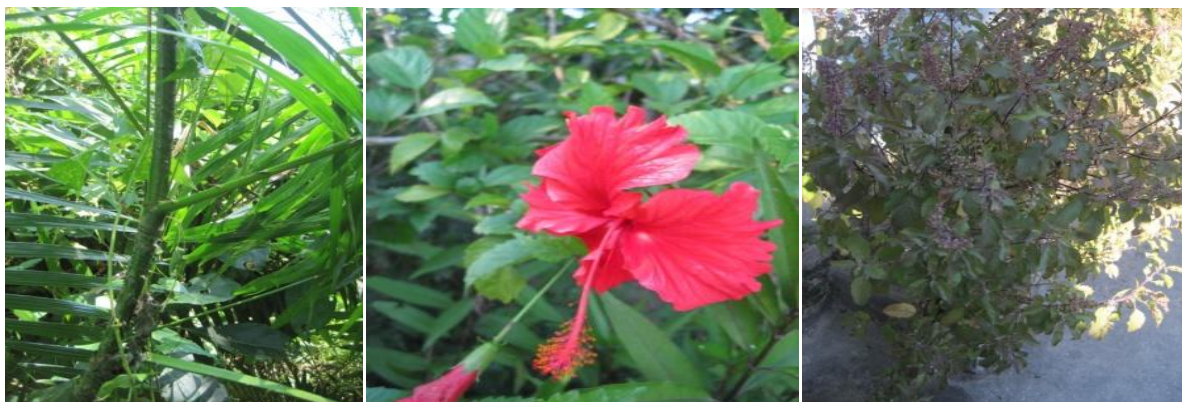
The present study could document 48 plant species from 36 families which are associated with the socio-cultural and religious beliefs among the Bodo tribe of BTC. These plant species are used regularly by them in various socio-cultural and religious activities. The plant species of the present study are arranged in alphabetically with their Botanical name, family, Bodo name and uses as shown in **Table 1**. A total of 49 photographs of 49 plant species are also presented in this paper.

Table 1. List of plant species used by Bodo tribe in socio-cultural and religious activities.				
Sl.no	Scientific name	Family	Bodo name	Uses
1	<i>Aegle marmelos</i> (L) Corr. Serr.	Rutaceae	Bel	Leaves are used in offering to please Lord Shiva. This plant is considered as plant of 'Bwrai Bathou' (Lord Shiva).
2	<i>Allium sativum</i> L.	Amaryllidaceae.	Sambram gupur	Plant is used to drive away the evil spirits.
3	<i>Alpina allughas</i> Rose.	Zingiberaceae	Tarai	Used in 'Gwka-gwkwi'a kind of social curry prepared during 'Bwisagu' the Assam new year.
4	<i>Ananas comosus</i> (L.) Merr.	Bromeliaceae	Anaros	Young leaves are used in the preparation of 'Amao' the starter cake for 'Jwo' a kind of country made rice beer which is cultural and social drinks of Bodos.
5	<i>Anthocephalus cadamba</i> (Roxb.) Miq.	Rubiaceae	Kwdwm	The plant is believed as a plant of Lord Krishna.
6	<i>Antidesma diandrum</i> (Roxb.)	Phyllanthaceae	Lapasaiko	Used in Gwka-gwkwi a kind of social curry prepared during 'Bwisagu' the Assam new year.
7	<i>Aquilaria agallocha</i> Roxb.	Thymelaeaceae	Agru	Agru aroma is used as fragrance during worship. This aroma is believed as fragrance of heaven.
8	<i>Areca catechu</i> L.	Arecaceae	Goi	It considered as holy fruits and used in offering to God and Goddess.
9	<i>Bambusa tulda</i> Roxb.	Poaceae	Owa	Bamboo plant has relation from birth to death of Bodo people. Sharp bamboo stick is used to cut the nari() of new born baby. They also use bamboo shang (carriage) which is prepared by tying with rope of cane (raidwng) strictly to carry the death soul.
10	<i>Benincasa hispida</i> Thunb.	Cucurbitaceae	Kumbra	Mature enough fruits called 'kunbra bwrai' are used in preparation of 'Napam' a fermented fish. 'Napam' is a traditional heritage and social dish of Bodos.
11	<i>Bixa orellana</i> Linn	Bixaceae.	Sindur bipang	The red dyes over the seed coat are used during worship.
12	<i>Brassica compestris</i> L.	Brassicaceae	Besor	Seeds are used to drive away the evil spirits. Seed oil is used

				to lighten the lamp during worship.
13	<i>Clerodendum infortunatum</i> Gaertn.	Verbenaceae	Lwkwna	Twig of flowers are used in celebration of 'Bwisagu' the Assam new year. Young leaves are used in the preparation of 'Amao' the starter cake for 'Jwo' a kind of country made rice beer which is cultural and social drinks of Bodos.
14	<i>Calamus latifolius</i> Roxb.	Arecaceae	Raidwng	The plant is used as rope to tie during preparation of many social and cultural articles of Bodos. Young tendered shoot-apex is used in 'Gwka-gwkwi' a kind of social curry prepared during Assam new year.
15	<i>Curcuma amarissima</i> L.Roscoe.	Zingiberaceae	Katri bipang	Twig of flowers are used in celebration of 'Bwisagu' the Assam new year. Leaves are used as traditional packaging materials.
16	<i>Cannabis sativa</i> L.	Cannabaceae	Ganja	Used during worship of Lord Shiva.
17	<i>Costus speciosus</i> Koen ex.Retz.	Costaceae	Buritokon	Young shoots are used in celebration of 'Bwisagu' the Assam new year. Used in Gwka-gwkwi a kind of social curry prepared during 'Bwisagu' the Assam new year.
18	<i>Canna indica</i> L.	Cannaceae	Pajati	The flower of this plant is believed as flower of heaven.
19	<i>Canarium bengalensis</i> Roxb.	Burseraceae	Dhuna	The brownish clear resin of this plant is use as fragrance during worship.
20	<i>Catharanthus roseus</i> (L.)G.Don	Apocynaceae	Parvati pul	Flower is used to offer Goddess 'Parvati'.
21	<i>Curcuma longa</i> L.	Zingiberaceae	Haldwi	This plant is regarded as holy plant. Bathing with rhizome extract before doing any sacred work is seen among the Bodos.
22	<i>Cocos nucifera</i> L.	Arecaceae	Narengkol	It is considered as holy fruits and used in offering to God and Goddess.
23	<i>Colocasia esculenta</i> (L.)Schott.	Araceae	Taso	Used in preparation of 'Napam' a fermented fish. 'Napam' is a traditional heritage and social dish of Bodos.
24	<i>Corchorus capsularis</i> L.	Malvaceae	Patw (Narji)	Dry leaves are used in preparation of a social curry 'narji wngkri'. Dry leaves are also used in ritual believes of Bodos to cut off relation with departed soul.
25	<i>Cynodon dactylon</i> (L)Pers.	Poaceae	Dubri hagra	The twigs of leaves are used in holy water (Dwi Santi) during worship.
26	<i>Datura stramonium</i> L.	Solanaceae	Datura	Used during worship of Lord Shiva.

27	<i>Dillenia indica</i> L.	Dilleniaceae	Taigir	The persistent calyx (false fruit) is used in lightning during Kartik gasa i.e. lamp of 'Kartik' the Assam month. The five persistent calyx of this plant is significantly mentioned in 'Bathou' prayer.
28	<i>Eleocarpus ganitrus</i> (Roxb.)	Eleocarpaceae	Undurmala	The beaded chain prepared from the seeds of this plant is used during the worship of 'Bwrai Bathou' (Lord Shiva).
29	<i>Erianthus</i> spp.	Poaceae	Engkwr	Plants are used in 'Bathou' the alter of <i>Bodos</i> . This plant is also use in construction of traditional kutch house of <i>Bodos</i> .
30	<i>Euphorbia nerifolia</i> Linn.	Euphorbiaceae	Sejou	In the preparation of 'Bathou' the alther of <i>Bodos</i> this plant is surrounded by a round fence of five bamboo strips. This plant is regarded as plants of 'Bwrai Bathou' (Lord Shiva).
31	<i>Entada gigas</i> (L)Fawc&Rendle	Fabaceae	Gila	Seeds are used in indigenous sports 'Gila gelenai'.
32	<i>Ficus religiosa</i> Linn.	Moraceae	Pakri	<i>Bodos</i> worship their God under this tree. It is believed as a plant of Lord Krishna. They have ritual of offering drinking water to death soul with leaves of this plant.
33	<i>Ficus bengalensis</i> L.	Moraceae	Dhob	This plant is considered as devils plant.
34	<i>Hibiscus rosa sinensis</i> L.	Malvaceae	Joba pul	This flower is used for offering to God and Goddess.
35	<i>Imperata cylindrical</i> (L)P.Beauv.	Poaceae	Turi	The plant is used as tacht for rooping for a kutch house. <i>Bodos</i> have their own traditionally design kutch house.
36	<i>Justicia gendarussa</i> Burm.f.	Acanthaceae	Jatrasa	The twig of leaves is used in holy water (Dwi Santi) during worship.
37	<i>Leucas aspera</i> (Willd.) Linn.	Lamiaceae	Kansingsa	The flower of this plant is specially used in offering to please the Lord Shiva.
38	<i>Laportea crenulata</i> Goud	Urticaceae	Koma	The leaves with stinging hairs of this plant are used for irritating the guilty person as a social punishment.
39	<i>Musa paradisiacal</i> L.	Musaceae	Tailir	Whole parts of the plant are used in social and religious activities. Fruits are used for offering. Portion of leave apex called 'lajwo' and portion of petiole called laikong are used as article for offering.
40	<i>Maranta</i> sp.	Marantaceae	Laihulai	Used in making of 'Kopri' a

				traditional and cultural bamboo article. Bodos are use Kopri as umbrella in rain.
41	<i>Mangifera indica</i> L.	Anacardiaceae	Taijwo	Leaves are used in offering.
42	<i>Nephrodium cucullatum</i> (Blume) Baker.	Dryopteridaceae	Saldaokumwi	This plant is used to keep away of evil spirit from ill soul of humans.
43	<i>Ocimum sanctum</i> Linn.	Lamiaceae	Tulsi	The twig of leaves is used in holy water (Dwi Santi) during worship.
	<i>Oryza sativa</i>	Poaceae	Mai	Seeds are used in many religious occasion of Bodos.
44	<i>Piper betle</i> L.	Piperaceae	Patwi	Leaves are used in offering. Bodos have rituals of ‘Patwi lai bisinai’ i.e. teacing of betel leaves during divorce.
45	<i>Ricinus communis</i> Linn.	Euphorbiaceae	Indi bipang	Leaves are used as food plant for eri-silk. The rearing of eri-silk worm is traditional heritage of Bodo women.
46	<i>Scoparia dulcis</i> L.	Plantaginaceae	Bongpang rakeb	Young leaves are used in the preparation of ‘Amao’ the starter cake for ‘Jwo’ a country made rice beer which is cultural and social drinks of Bodos.
47	<i>Sesamum indicum</i> L.	Pedaliaceae	Sebeng	Seeds are used in preparation of rice cake (pitha) a social cake during festival “Domasi”.
48	<i>Tabernaemontana divaricata</i> R.Br. ex Roem & Schult.	Apocynaceae	Pul daodwi	This flower is used in offering God and Goddess.

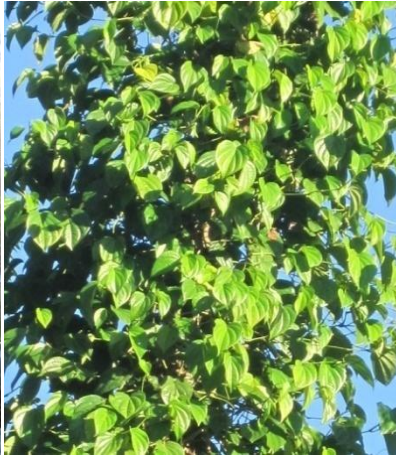


Daemonorops angustifolia *Hibiscus rosa sinensis* L. *Ocimum sanctum* Linn

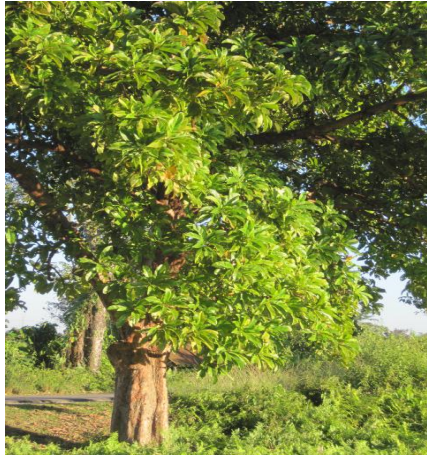
(Giff) Mart.



Canna indica L.



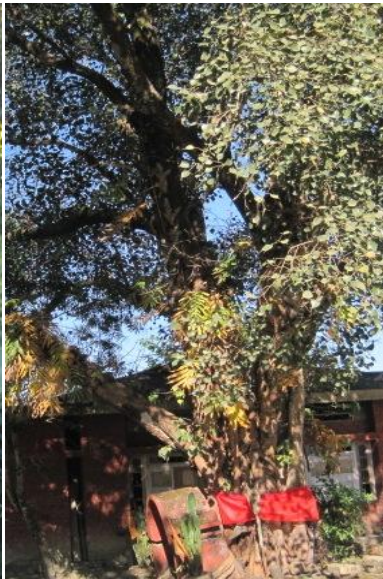
Piper bittle L.



Dillenia indica L.



Alpina allughas Rose



Ficus religiosa Linn



Justicia gendarussa Burm.f.



Ficus bengalensis L



Aegle marmelos (L) Corr. Serr.



Datura stramonium L.



Ricinus communis Linn.



Nephrodium cucullatum



Leucas aspera (Willd.) Linn.
(Blume) Baker.



Laportea crenulata Goud



Imperata cylindrical (L) P. Beauv.



Sesum indicum L.



Bambusa tulda Roxb. *Eleocarpus ganitrus* (Roxb). *Clerodendrum infortunatum* Gaertn.



Curcuma longa L.



Cocos nucifera L.



Euphorbia neriifolia Linn.



Cynodon dactylon (L) Pers

Ananas comosus (L) Merr *Musa paradisiacal* L.



Scoparia dulcis L.

Mangifera indica L. *Tabernaemontana divaricata*

R .Br.ex Roem & Schult.



Brassica compestris L.

Cannabis sativa L.

Allium sativum L.



Corchorus capsularis L.



Colocasia esculanta (L) Schott.



Anyhocephalus cadamba
(Roxb) Miq.



Oryza sativa L.



Areca catechu L.



Benincasa hispida Thunb.

IV. CONCLUSION

These studies of socio-cultural and religious plant of Bodos make us understand that how plants are important in human life. Though we frequently talk about some commercial species which are used in Food, medicine, cloth and shelters, but there are plants which are less known to us and without of which the socio-cultural and religious heritage of human kind is incomplete.

On the other hand these studies make us understand how community people are contributing in conservation of plants and forest of their own interest to check their inherent socio-culture and religious activities. These activities of conserving and using of plant species in the name of socio-cultural and religion has significance in today's crisis of biodiversity conservation.

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REFERENCES

- [1] H. Narzary, S. Brahma, S. Basumatary; Wild Edible Vegetables Consumed by Bodo Tribe of Kokrajhar District (Assam), North- East India , Arch. Appl. Sci. Res., 2013, 5(5): 182-190.
- [2] Vijay Shirma and B.D. Joshi; Role of Sacred Plants in Religion and Health-care system of local people of Almora district of Uttarakhand State (India), Academic Arena, 2010; 2(6).
- [3] Ahirwar J.R.; Socio-Religious Importance of Plants in Bundelkhand Region of India; Res. J. Recent Sci., Vol. 2(ISC-2012), 1-4 (2013) .
- [4] J.D. Hooker; The Flora of British India, L.Reeve & Co., London, 1872-1897, Vol. 1-7.
- [5] B. Patiri, A. Borah; Wild edible plants of Assam, Director, Forest communication, Forest Department, Assam, 2007.
- [6] U.N. Kanjilal et.al.; Flora of Assam, Govt. of Assam, Shillong, 1934-1940, Vol 1-4.
- [7] H. Hara; The Flora of Eastern Himalaya, Reports I&II, Tokyo University, Tokyo, 1966.
- [8] S. Basumatary, J. Chem. Bio. Phy. Sci., 2012-2013, 3(1), 551-558.
- [9] BTC Forest Department, Profile on Forest and Wildlife of Bodoland Territorial Council.
- [10] L. Brahma, Religion and dances of the Bodos., 1993

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