

GREEN AUDIT REPORT



2022-23

**Madhab Choudhury
College, Barpeta, Assam**



**PREPARED
BY:**

*Green Audit
Committee,
Madhab
Choudhury
College,
Barpeta,
Assam*

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**MADHAB CHOUDHURY COLLEGE,
BARPETA, ASSAM**



PREPARED BY:

**GREEN AUDIT COMMITTEE,
MADHAB CHOUDHURY COLLEGE,
BARPETA, ASSAM**



DEPARTMENT OF BOTANY GAUHATI UNIVERSITY

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12 December, 2023

Certificate

This is to certify that Madhab Choudhury College, Barpeta, Assam has conducted a detailed “Green Audit” for its campus during the academic year 2022-2023. The green audit was conducted in accordance with the applicable standards prescribed norms of the Ministry of Environment, Forest and Climate Change, New Delhi. The audit involves water, waste water, energy, air, green inventory, solid waste, etc., and gives an 'Environmental Management Plan', which the college can follow to minimize the impact on the institutional working framework. In an opinion and to the best of my knowledge and according to the information given to me, said green audit gives a true and fair view in conformity with environmental auditing principles' accepted in India.

(Bhaben Tanti)

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Date: 28.01.2024

Certificate

It is hereby certified that Madhab Choudhury College, Barpeta, Assam has conducted a Green Audit of its campus during the Academic year 2022-23. To the best of my knowledge, the Green Audit Report prepared by the College has reflected the true scenario of the college comprising the current environmental (soil, air and water) conditions, green coverage, plantation, waste management, biodiversity conservation, sustainable resource management and utilization within the college campus. The Eco Club unit conducts cleanliness drive and awareness program time to time as per the report. The college is maintaining healthy ecological environment within the premises which is necessary for long-term sustaining and maintaining healthy education environment in an academic institution.

Nonetheless, there is a scope for more plantation and solar panel installation within the campus. The normal electric bulbs (as evident from the report too) in use can be replaced with more energy saving LED lights. As the college is developing with new RCC buildings, the college should ensure to compensate the loss of big trees through re-plantation in open areas while constructing new RCC buildings within the campus. The college can also conduct fox census to reveal its success story of fox conservation initiatives as claimed in the report.

(Diganta Narzary)

PREFACE

The surrounding and everything that affect an organism during its lifetime is collectively known as its environment. In another words “Environment is sum total of water, air and land interrelationships among themselves and also with the human being, other living organisms and property”. It includes all the physical and biological surrounding and their interactions. Environmental studies provide an approach towards understanding the environment of our planet and the impact of human life upon the environment.

The Green Audit Committee discusses the environment related issues and problems in the college campus within the following parameter:

Land use pattern and built-up area, biodiversity of the campus, activities of club/body in the college, drinking water, water use and management in the campus, air quality in the campus, noise level in the campus, energy requirement and management in the campus, generation of waste materials and waste disposal system, cleanliness practices, Best Practices and Suggestions.



GREEN AUDIT COMMITTEE
MADHAB CHOUDHURY COLLEGE, BARPETA
ASSAM

TEAM MEMBERS

Sl. No.	Name of the member	Designation	Duty performed
1	Dr. Prakash Sarma	Chairman, Green Audit Committee & Principal, M.C. College Barpeta	Facilitator and chief patron
2	Dr. Dip Kumar Bhattacharjya	Co-ordinator, Green Audit Committee & Asstt. Professor, M.C. College Barpeta	Technical advisor, field surveyor, data keeper and compiler
2	Dr. Sanjib Deuri	Member, Green Audit Committee & Associate Professor, M.C. College Barpeta	Technical consultant
3	Dr. Chiranjit Baruah	Member, Green Audit Committee & Asstt. Professor, M.C. College Barpeta	Technical consultant
4	Dr. Hitesh Das	Member, Green Audit Committee & Asstt. Professor, M.C. College Barpeta	Technical consultant
5	Dr. Eushah Ali	Member, Green Audit Committee & Asstt. Professor, M.C. College Barpeta	Field surveyor
6	Dr. Jaydev Mandal	Member, Green Audit Committee & Asstt. Professor, M.C. College Barpeta	Field surveyor
7	Mr. Kuldeep Das	Member, Green Audit Committee & Secretary, Subham NGO, Barpeta	Technical consultant
8	Hangsha Barman	Member, Green Audit Committee & Contractual Faculty, M.C. College Barpeta	Field survey assistance provider
9	Abhinob Kr. Nath	Member, Green Audit Committee & PG student, M.C. College Barpeta	Field survey assistance provider
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32	Manas jyoti das	3 rd semester undergraduate student (Botany Honours), 2021, M.C. College Barpeta	Field survey assistance provider

33	Manirul islam	3 rd semester undergraduate student (Botany Honours), 2021, M.C. College Barpeta	Field survey assistance provider
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CONTENT

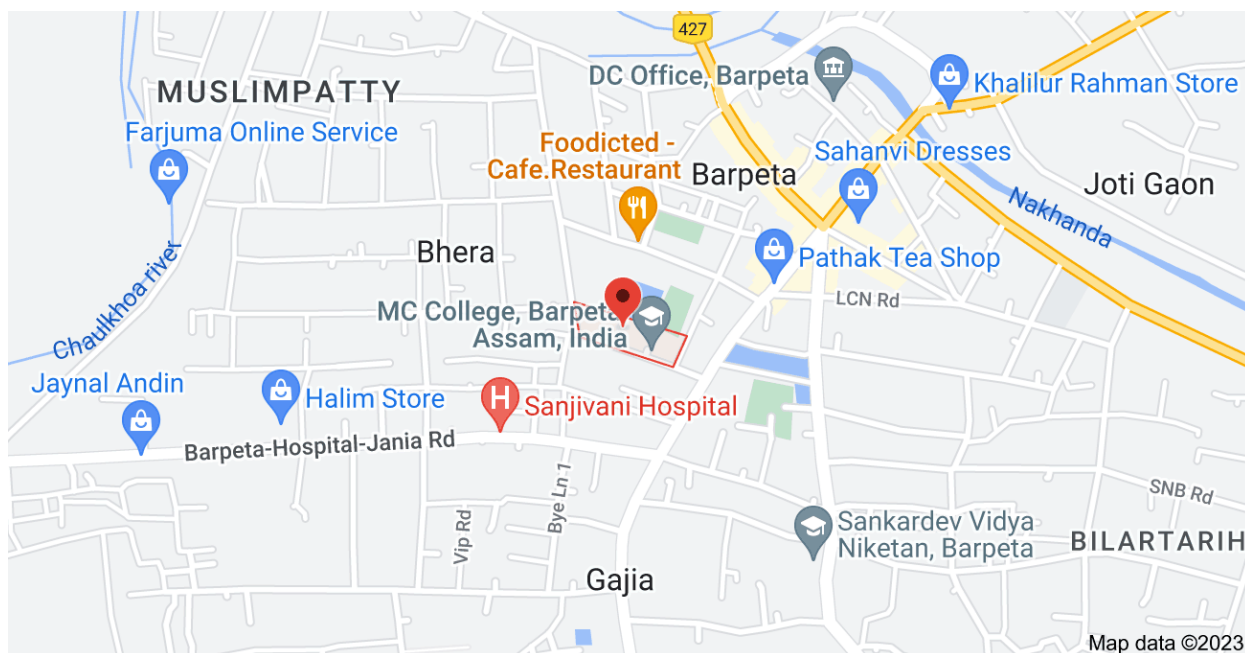
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INTRODUCTION

In 2015, the institution, which is the third-oldest in Assam's undivided history, achieved its Platinum Jubilee. The college has been providing higher education to the public since its foundation in 1939. The addition of the science stream to the college in 1959 brought a new chapter to the institution's illustrious history. The college was founded with just twelve teachers and thirty students in its first year. Today, it employs nearly seventy teachers, thirty non-teaching staff members, and two thousand five hundred students in two streams of arts and science for both undergraduate and postgraduate study. Currently, a total of fifteen departments from both streams are involved in offering higher education to students; the department of botany in the science stream and Assamese in the arts stream are running postgraduate programmes under Gauhati University, the college's affiliating university.



Situated in the centre of Barpeta town, the college occupies around 15.76 acres of land in the Satra Nagari of Assam (Annexure-I). The entire college campus is covered by vegetation, which is adorned with a considerable variety of floral features. Rich faunistic variety on the college campus is also supported by the floristic features, a medicinal plant garden, a regulated water body (pond), and a site set aside for fox conservation and breeding.



LAND USE PATTERN AND BUILT-UP AREA:

The college has been occupying an area of 15.76 acre of which ~ 10.533 acre of land is in use for various purposes and ~5.227 acre is lying free contributing towards the greenery of the campus.

The buildings:

At first, the college's buildings were completely indigenous in design, showcasing native building techniques combined with regional customs. Today, the bulk of the structures are likewise historic Assamese-style buildings that are utilised as offices and classrooms. The Assam-style boys' hostel continues to provide nice lodging for students. Hostel-wardens' Quarter is another example of an Assamese-style architecture. Thus, these buildings occupy an area of approximately 1.651 acres. All new construction, however, is intended to be multi-story RCC buildings, and efforts are underway to rebuild a few older, partially damaged buildings with RCC structures. The department building of Botany and Zoology continues to showcase the harmonious combination of local art, technology, and culture.



There are nine structures that remain in their original locations, taking up around 1.651 acres of land. The new multi-story RCC structure built with funding from the RUSA grant houses the principal's offices and administrative buildings. These days, a multi-story RCC building serves as a seminar hall in addition to being used as a digital classroom, a GIS lab, a Incubation centre, and a guest house. Geography, Education, and Anthropology

departments are situated in a third, three-story structure adjacent to that one. Beside the playground, there is another RCC building that houses a multi-level gym, a boys' common-room and a classroom that doubles as a laboratory for the Beauty and Wellness course. A new RCC building was finished to accommodate the PG Botany course's theoretical classrooms and practical laboratories. A multi-story building that houses the cafeteria and girls' common room, an auditorium, and a multi-story girls' hostel are among the other structures that are currently in place. As a result, the RCC buildings cover an area of around 1.303 acres.

The remaining acreage is used for structures such as the ~1.247-acre concrete drainage system, bicycle shelters (two numbers), quiet generator sheds (three numbers), and on-campus concrete pathways that connect the buildings.

The college campus is made more beautiful and greener with features like the play area, pond, badminton court, little flower beds, etc. The goal of the fox conservation site near the auditorium is to preserve the campus's floristic



and faunistic features. When combined, they make up an area of around 6.611 acres (Table 1).

Table 1: Land use pattern in the college campus

Sl. No.	Land use category	Nature of land use	Area occupied (Acre)	% of total area occupied (Acre)
1	Building construction – Assam type	Assam type double-storeyed building occupied by the department of Botany and Zoology	0.150	0.95
		Assam type L-shaped house occupied by the department of Physics and Chemistry	0.365	2.32
		Assam type I-shaped house occupied by the College office	0.070	0.82
		Assam type I-shaped house occupied by the department of Philosophy and Political Science	0.130	0.82
		Cluster of connected houses used as Office of the Principal, Office of the Examination Board, Department of History, Staff common room, Department of Assamese, Office of the IQAC, Classroom, Department of Economics.	0.530	3.36
		Assam type house used as Fourth grade employee's quarter located close to the Auditorium	0.013	0.82
		Assam type house used as used as classroom for Community College	0.027	0.17

		towards West bank of the pond		
		Assam type house used as fish-fry production towards West bank of the pond	0.014	0.89
		Assam type house used as Apiculture classroom cum laboratory towards West bank of the pond	0.007	0.04
		Boys' Hostel	0.300	1.90
		Hostel Warden's quarter	0.045	0.29
2	RCC buildings	Multi-storeyed building with completed ground-floor under RUSA grant	0.231	1.47
		Double storied building being used as Career Counselling cell, Health Centre, Department of Computer Science, Kameswar Das Library, classroom.	0.099	0.63
		Three storeyed building being used as Seminar hall, Digital Class room, GIS lab, Incubation Centre and Guest House.	0.137	1.10
		Three storeyed building being used as the department of Anthropology, Education and Geography.	0.084	0.53
		Two storeyed building being used as Pavilion, Gymnasium, Boys' Common room and classroom cum laboratory of the Beauty and Wellness course.	0.091	0.58

		Two storeyed building being used as Canteen and Girls' Common-room.	0.065	0.41
		Single storied RCC construction being used as College Auditorium	0.285	1.81
		Two storeyed Girls' Hostel.	0.140	0.89
		Proposed three storeyed PG building with completed foundation	0.114	0.72
3	Other RCC constructions	Toilets close to the Seminar Hall	0.007	0.04
		Toilets close to the department of Zoology and Botany	0.020	0.13
4	Store-house	Used as store of construction materials	0.010	0.06
5	Semi-concrete construction	Bi-cycle-shed in front of the department of Physics and Chemistry throughout the length of the boundary wall	0.074	0.47
		Bi-cycle-shed in front of the department of Zoology and Botany throughout the length of the boundary wall	0.001	0.01
		Proposed Vermicompost unit in the Botanical garden with completed foundation	0.001	0.01
		Proposed Poly-house unit in the Botanical garden with completed foundation	0.014	0.09

		Generator shed in front of Seminar hall	0.001	0.01
		Generator shed in front of Library	0.001	0.01
		Electricity transformer close to the Botanical garden	0.001	0.01
6	Concrete ground	Basket-ball court	0.114	0.72
		Entry-exit gate at five sites	0.011	0.07
7	Play ground	Used for outdoor sports activities	1.482	9.40
		Used as Badminton court	0.068	0.43
8	Water body	A big pond for beautification and hands-on activities for the Fishery course	1.262	8.01
9	Botanical garden	A site for plantation of medicinal, aromatic and other plants for teaching and research purpose.	0.068	0.43
10	Fox conservation centre	Unfenced land providing natural habitat to the fox	3.720	23.60
11	Flower garden	Beautification purpose in front of Principal's office	0.004	0.03
		Beautification purpose in front of the Kameswar Das Library	0.005	0.03
		Beautification purpose in front of in front of the department of Physics and Chemistry close to the boundary wall	0.002	0.01
12	Drain	Drains are under construction from East to West direction to connect the outlet with municipality drains	0.030	0.19
13	In-campus lanes	Both <i>pakka</i> and <i>katcha</i> lanes are connecting the	0.792	5.03

		buildings in the campus.		
14	Café cum Photostat stall	On the ground floor of the Library building towards South side	0.002	0.01
15	Water pump-house	On the ground floor of the Library building towards North side	0.007	0.04
16	Rain gauge installation	Rain gauge installed by the Indian Meteorological Department adjacent to the auditorium	0.006	0.04
17	Water tank installation	Water reservoir towards back side of the Physics department	0.001	0.01
		Water reservoir cum toilet towards back side of the Zoology department	0.020	0.13
18	Drinking water plant installation	Drinking water purification plant close to the Economics department	0.001	0.01
		Drinking water purification plant close to the office	0.001	0.01
19	Unused area (free-land)	South part of the Auditorium and North part of the Play-ground	5.227	33.17



BIODIVERSITY OF THE CAMPUS

The flora:

The variety of plants and animals in college campuses is noteworthy. There are several plant and animal species that are found throughout the year. The campus is more verdant because to the presence of some very old trees. In addition to this, planned plantings on other significant occasions, such as World Environment Day, help to improve campus landscaping, preserve biodiversity, and make the campus more aesthetically pleasing. Numerous animal species have found a beneficial home on campus thanks to the floristic features of the public property. The two main categories of plants that make up the campus biodiversity's flora are cultivated and wild. As was previously indicated, plantings under various special occasions may be found in the Medicinal Plant Garden, on open areas, next to buildings, and around the campus perimeter. However, for various



unavoidable reasons, certain plant species are either completely absent or not present in large quantities. (Table 2).

Table 2: List of planted species in the college campus

Sl. No.	Species	Family	Local name	Habit	Current status of existence
1	<i>Acacia auriculiformis</i> A. Cunn. ex Benth.	Mimosaceae	---	Tree	Absent – cut down for building construction
2	<i>Aegle marmelos</i> (L.) Corrêa	Rutaceae	Bel	Tree	Absent – cut down for building construction
3	<i>Alstonia scholaris</i> (L.) R. Br.	Apocynaceae	Chatiyana	Tree	Absent – cut down for connecting-lane construction
4	<i>Anthocephalus cadamba</i> (Roxb.) Miq.	Rubiaceae	Kadam	Tree	Present
5	<i>Araucaria araucana</i> (Molina) Koch.	Araucareaceae	---	Tree	Present
6	<i>Azadirachta indica</i> A. Juss	Meliaceae	Neem	Tree	Present
7	<i>Bixa orellana</i> L.	Bixaceae	Sendur sash	Tree	Absent – cut down for building construction
8	<i>Bombax ceiba</i> L.	Bombacaceae	Shimalu	Tree	Absent – cut down for building construction
9	<i>Caesalpinia pulcherrima</i> (L.) Sw.	Fabaceae	Krishnachur a	Tree	Present
10	<i>Duranta erecta</i> L.	Verbenaceae	---	Shrub	Present
11	<i>Erythrina stricta</i> Roxb.	Fabaceae	Madar	Tree	Present
12	<i>Ficus elastica</i> Roxb.	Moraceae	Robar	Tree	Present
13	<i>Ficus racemosa</i> L., Syn. <i>Ficus glomerata</i> Roxb.	Moraceae	Dimaru	Tree	Present
14	<i>Ficus religiosa</i> L.	Moraceae	Aahot	Tree	Present

15	<i>Grevillea robusta</i> A.Cunn. ex R.Br.	Proteaceae	Silver oak	Tree	Absent – cut down for connecting- lane construction
16	<i>Hibiscus rosa- sinensis</i> L.	Malvaceae	Joba	Shrub	Present
17	<i>Murraya paniculata</i> (L.) Jack	Rutaceae	Kamini ful	Shrub	Present
18	<i>Mussaenda erythrophylla</i> Schumach. & Thonn.	Rubiaceae	Musanda	Shrub	Present
19	<i>Nerium indicum</i> Mill.	Apocynaceae	Korabi	Small tree	Present
20	<i>Nyctanthes arbor- tristis</i> L.	Oleaceae	Sewali	Small tree	Absent – cut down for building construction
21	<i>Phyllanthus emblica</i> L.	Euphorbiaceae	Aamlkhi	Tree	Present
22	<i>Polyalthia longifolia</i> Sonn.	Annonaceae	Debodaru	Tree	Present
23	<i>Psidium guajava</i> L.	Myrtaceae	Madhuri Aam	Tree	Present
24	<i>Tabernaemontana divaricata</i> (L.)R.Br. ex Roem. & Schult.	Apocynaceae	Kathanda	Shrub	Present
25	<i>Callistemon citrinus</i> (Curtis) Skeels	Myrtaceae	Botol brash	Shrub	Present
26	<i>Caryota urens</i> L.	Myrtaceae	Chao	Tree	Present
27	<i>Cassia fistula</i> L.	Caesalpinaceae	Sonaru	Tree	Present
28	<i>Cephalotaxus</i> sp.	Cephalotaxaceae	---	Tree	Absent – cut down for garden re- construction
29	<i>Cocos nucifera</i> L.	Arecaceae	Narikol	Tree	Present
30	<i>Codiaeum variegatum</i> (L.) A.Juss.	Euphorbiaceae	Patabahar	Small tree	Present
31	<i>Cycas revoluta</i> Thunb.	Cycadaceae	---	Small tree	Present
32	<i>Dalbergia sissoo</i> Roxb.	Caesalpinaceae	Sisu	Tree	Present
33	<i>Lannea coromandeli- ca</i> (Houtt.) Merr.	Anacardiaceae	Bhelkor	Tree	Present
34	<i>Livistona rotundifolia</i> (Lam.) Mart.	Arecaceae	Tokou	Tree	Present

35	<i>Malvaviscus arboreus</i> Cav.	Malvaceae	Soru joba	Small tree	Present
36	<i>Melia azedarach</i> L.	Meliaceae	Ghora neem	Tree	Present
37	<i>Mesua ferrea</i> Linn.	Clusiaceae	Nahor	Tree	Present
38	<i>Mimusops elengi</i> L.	Sapotaceae	Bakul	Tree	Present
39	<i>Morus alba</i> L.	Moraceae	Nooni	Tree	Present
40	<i>Murraya koenigii</i> (L.) Sprengel	Rutaceae	Norasingha	Tree	Present
41	<i>Tectona grandis</i> L.	Verbenaceae	Segun	Tree	Present
42	<i>Terminalia arjuna</i> (Roxb.) Wight & Arn.	Combretaceae	Arjun	Tree	Present
43	<i>Terminalia chebula</i> Retz.	Combretaceae	Silikha	Tree	Absent – cut down for building construction
44	<i>Trewia nudiflora</i> L.	Euphorbiaceae	Bhelkor	Tree	Present
45	<i>Ziziphus mauritiana</i> Lam.	Rhamnaceae	Bogari	Tree	Present
46	<i>Delonix regia</i> (Hook.) Raf.	Caesalpiniaceae	Radhachura	Tree	Present
47	<i>Plumeria rubra</i> L.	Apocynaceae	Champa	Small tree	Present

(Specimen identification: Dr. D.K. Bhattacharjya)

Wild vegetation occurs in the undisturbed areas including the Fox Conservation Centre, back side of the hostels and along the boundary wall and on either side of the connecting lanes (Table 3).



Table 3: List of wild species in the college campus (Angiosperms only)

Sl. No.	Species	Family	Local name	Habit	Current status of existence
1	<i>Leucas aspera</i> (Wild.) Link	Lamiaceae	Doron	Herb	Available – occurring in wild condition
2	<i>Amaranthus spinosus</i> L.	Amaranthaceae	Kata-khutura	Herb	Available – occurring in wild condition
3	<i>Cyperus brevifolius</i> Rottb.	Cyperaceae	----	Herb	Available – occurring in wild condition
4	<i>Cleome hassleriana</i>	Cleomaceae		Herb	Available – occurring in wild condition
5	<i>Cynodon dactylon</i> (L.) Pers.	Poaceae	Dubari	Herb	Available – occurring in wild condition
6	<i>Cyanotis axilaris</i> (L.) D.Don ex Sweet	Commelinaceae	---	Herb	Available – occurring in wild condition
7	<i>Eleusine indica</i>	Poaceae	Bobosa bon	Herb	Available – occurring in wild condition
8	<i>Paspalum conjugatum</i>	Poaceae	---		
9	<i>Oplismenus burmanni</i>	Poaceae	---		
10	<i>Evolvulus numularis</i>	Convolvulaceae	---		
11	<i>Digitaria ciliaris</i>	Poaceae	---	Herb	Available – occurring in wild condition
12	<i>Scoparia dulcis</i>	Scrophulariaceae	---	Herb	Available – occurring in wild condition
13	<i>Desmodium triflorum</i>	Papilionaceae	---	Herb	Available – occurring in wild condition
14	<i>Physalis minima</i>	Solanaceae	---	Herb	Available – occurring in wild condition
15	<i>Boerhavia sp.</i>	Nyctaginaceae	---	Herb	Available – occurring in

					wild condition
16	<i>Eragrostis congesta</i>	Poaceae	---	Herb	Available – occurring in wild condition
17	<i>Paspalum scrobiculatum</i>	Poaceae	---	Herb	Available – occurring in wild condition
18	<i>Cyperus halpan</i>	Cyperaceae	---	Herb	Available – occurring in wild condition
19	<i>Colocasia esculenta</i>	Araceae	Kachu	Herb	Available – occurring in wild condition
20	<i>Ludwigia octavalvis</i>	Onagraceae	---	Herb	Available – occurring in wild condition
21	<i>Typhonium trilobatum</i>	Araceae	---	Herb	Available – occurring in wild condition
22	<i>Piperomia pelucida</i>	Piperaceae	---	Herb	Available – occurring in wild condition
23	<i>Gnaphalium polycaulon</i>	Asteraceae	---	Herb	Available – occurring in wild condition
24	<i>Cleome viscosa</i>	Cleomaceae	---	Herb	Available – occurring in wild condition
25	<i>Pouzolzia zeylenica</i>	Urticaceae	---	Herb	Available – occurring in wild condition
26	<i>Psidium guajava</i>	Myrtaceae	Madhuriaa m	Small tree	Available
27	<i>Ricinus communis</i>	Euphorbiaceae	Era	Shrub	Available- Available – occurring in wild condition
28	<i>Clerodendrum infortunatum</i>	Lamiaceae	---	Shrub	Available- Available – occurring in

					wild condition
29	<i>Solanum nigrum</i>	Solanaceae	Fiskuti	Herb	Available-Available – occurring in wild condition
30	<i>Phyllanthus fraternus</i>	Phyllanthaceae	Bhui aamlokhi	Herb	Available-Available – occurring in wild condition
31	<i>Drymeria diandra</i>	Caryophyllaceae	Laai-jabori	Herb	Available-Available – occurring in wild condition
32	<i>Murraya koenigii</i>	Rutaceae	Norasingsha	Small tree	Available-Available – occurring in wild condition
33	<i>Echinochloa colona</i>	Poaceae	Jaitar	Herb	Available-Available – occurring in wild condition
34	<i>Ageratum conyzoides</i>	Asteraceae	Gendheli-bon	Herb	Available-Available – occurring in wild condition
35	<i>Commelina caroliniana</i>	Commelinaceae	---	Herb	Available-Available – occurring in wild condition
36	<i>Oxalis corniculate</i>	Oxalidaceae	Tengeshi	Herb	Available-Available – occurring in wild condition
37	<i>Commelina benghalensis</i>	Commelinaceae	Kona-shimalu	Herb	Available-Available – occurring in wild condition
38	<i>Murdannia nodiflora</i>	Commelinaceae	---	Herb	Available-Available – occurring in wild condition

39	<i>Oldenlindia corymbosa</i>	Rubiaceae	Sarpajiva	Herb	Available – Available – occurring in wild condition
40	<i>Ocimum gratissimum</i>	Lamiaceae	Ram- Tulashi	Shrub	Available – occurring in wild condition
41	<i>Cassia tora</i>	Caesalpiniaceae	---	Herb	Available – occurring in wild condition
42	<i>Euphorbia hirta</i>	Euphorbiaceae	---	Herb	Available – occurring in wild condition
43	<i>Blumea lacera</i>	Asteraceae	---	Herb	Available – occurring in wild condition
44	<i>Hydrocotyle javanica</i>	Apiaceae	Saru- manimuni	Herb	Available – occurring in wild condition
45	<i>Hydrocotyle sibthorpioides</i>	Apiaceae	---	Herb	Available – occurring in wild condition
46	<i>Centella asiatica</i>	Apiaceae	Bor- manimuni	Herb	Available – occurring in wild condition
47	<i>Cyanthillium cinereum</i>	Asteraceae	---	Herb	Available – occurring in wild condition
48	<i>Oxalis debilis</i>	Oxalidaceae	---	Herb	Available
49	<i>Cannabis sativa</i>	Cannabinaceae	---	Shrub	Available – occurring in wild condition
50	<i>Glycosmis pentaphylla</i>	Rutaceae	---	Shrub	Available
51	<i>Grewia sapida</i>	Tiliaceae	---	Small tree	Available
52	<i>Imperata cylindrica</i>	Poaceae	Kanhi-bon	Herb	Available – occurring in wild condition
53	<i>Tephrosia purpurea</i>	Caesalpiniaceae	---	Shrub	Available
54	<i>Calamus L.</i>	Arecaceae	---	Shrub	Available

55	<i>Lagerstroemia speciosa</i>	Lythraceae	Ejar	Small tree	Available
56	<i>Syzygium cumini</i>	Myrtaceae	Jamu	Tree	Available
57	<i>Calotropis gigantea</i>	Apocynaceae	Akon	Shrub	Available
58	<i>Persicaria hydropiper</i>	Polygonaceae	Bihlongoni	Herb	Available
59	<i>Polygonum orientale</i>	Polygonaceae	Bor-bihu	Herb	Available – occurring in wild condition
60	<i>Rumex nepalensis</i>	Polygonaceae	---	Herb	Available – occurring in wild condition
61	<i>Solanum torvum</i>	Solanaceae	Kotahi bengena	Herb	Available – occurring in wild condition
62	<i>Ipomea carnea</i>	Convolvulaceae	Amor	Shrub	Available – occurring in wild condition
63	<i>Polygonum plebeium</i>	Polygonaceae	---	Herb	Available – occurring in wild condition
64	<i>Rumex maritimus</i>	Polygonaceae	---	Herb	Available – occurring in wild condition
65	<i>Lindernia crustacea</i>	Scrophulariaceae	---	Herb	Available – occurring in wild condition
66	<i>Grangea maderaspatana</i>	Asteraceae	----	Herb	Available – occurring in wild condition
67	<i>Stellaria media</i>	Caryophyllaceae	---	Herb	Available – occurring in wild condition
68	<i>Senna siamea</i>	Caesalpiniaceae	---	Shrub	Available
69	<i>Amaranthus viridis</i>	Amaranthaceae	---	Herb	Available – occurring in wild condition
70	<i>Desmodium triflorum</i>	Papilionaceae	---	Herb	Available – occurring in wild condition
71	<i>Andropogon ascinoides</i>	Poaceae	---	Herb	Available – occurring in

					wild condition
72	<i>Cardiospermum helicacabum</i>	Sapindaceae	---	Climber	Available
73	<i>Alternanthera sessilis</i>	Amaranthaceae	---	Herb	Available – occurring in wild condition
74	<i>Alternanthera philoxeroides</i>	Amaranthaceae	---	Herb	Available – occurring in wild condition

(Specimen identification: Dr. D.K. Bhattacharjya)

The Medicinal plant garden:

The campus's Medicinal Plant Garden (also known as the Botanical Garden) also has a few carefully chosen plant species. While several plant species of varying relevance are also planted as a step to in situ conservation, most of the plants are therapeutic in nature (Table 4).



Table 4: List of species conserved in the Botanical Garden of the college

Sl. No.	Species	Family	Local name	Habit	Current status of existence
1	<i>Bauhinia variegata</i>	Fabaceae	Kanchan	Small tree	Available
2	<i>Aloe vera</i>	Asphodelaceae	Chalkun wari	Herb	Available
3	<i>Eringium foetidum</i>	Apiaceae	Man-dhaniya	Herb	Available
4	<i>Cycas sp.</i>	Cycadaceae	---	Small tree	Available
5	<i>Vitex negundo</i>	Verbenaceae	Pachatiya	Small tree	Available
6	<i>Tabernaemontana divericata</i>	Apocynaceae	Kathanda phool	Shrub	Available
7	<i>Mimosa pudica</i>	Mimosaceae	Lajukibon	Herb	Available
8	<i>Alternanthera brassiliana</i>	Amaranthaceae	Bishlyakarni	Herb	Available
9	<i>Nepenthes khasiana</i>	Nepenthaceae	Kolashi udvid	Shrub	Available
10	<i>Hibiscus rosa-sinensis</i>	Malvaceae	Joba	Small tree	Available

11	<i>Litchi chinensis</i>	Sapindaceae	Lichu	Small tree	Available
12	<i>Saraca indica</i>	Fabaceae	Ashok	Small tree	Available
13	<i>Paederia foetida</i>	Rubiaceae	Bhedai lota	Climber	Available
14	<i>Adhatoda vasica</i>	Acanthaceae	Bashok	Shrub	Available
15	<i>Clerodendrum coleobrookianum</i>	Lamiaceae	Nefafu	Shrub	Available
16	<i>Myrraya paniculata</i>	Rutaceae	Mamini kanchon	Shrub	Available
17	<i>Glycyrrhiza glabra</i>	Fabaceae	Jyesta madhu	Cliber	Available
18	<i>Sauropus androgynus</i> (L.) Merr.	Phyllanthaceae	Multivita min	Shrub	Available
19	<i>Swertia chirayita</i>	Gentianaceae	Chirota	Shrub	Available
20	<i>Tradescantia spathacea</i>	Commelinaceae	---	Herb	Available
21	<i>Mangifera indica</i>	Anacardiaceae	Aam	Tree	Available
22	<i>Bryophyllum pinnatum</i>	Crassulaceae	Dupor tenga	Herb	Available
23	<i>Nyctenthes arbor-tristis</i>	Oleaceae	Sewali	Small tree	Available
24	<i>Euphorbia antiquorum</i>	Euphorbiaceae	Siju	Herb	Available
25	<i>Datura stramonium</i>	Solanaceae	Dhatura	Shrub	Available
26	<i>Araucaria araucana</i>	Araucariaceae	---	Tree	Available

(Specimen identification: Dr. D.K. Bhattacharjya)



The garden also possesses a “Polyhouse” and a vermicompost plant.

The polyhouse (Greenhouse): The purpose of the polyhouse is to grow a small number of plants, such as orchids and plants of medicinal value, in a controlled environment. The plantation will be easier to manage throughout the year thanks to the structure.



The vermicompost plant: The plant is situated on the garden campus to serve two purposes. The plant performs the dual roles of producing compost and acting as a storage facility for organic waste. The plant keeps certain earthworm strains that are gathered from the Krishi Vigyan Kendra in Howly to process organic wastes into compost.



The fauna:



Numerous animal species can also be found on college campuses, in addition to floral aspects. Throughout the year, a wide range of animal species, including fish, arthropods, mammals, odonates (Table 6), and bird species (Table 5) can be seen on campus.

Table 5: Birds of M C College campus

Family	Common Name	Scientific Name
Columbidae	Rock Pigeon	<i>Columba livia</i>
	Spotted Dove	<i>Streptopelia chinensis</i>
	Yellow-footed Green-Pigeon	<i>Treron phoenicopterus</i>
Cuculidae	Greater Coucal	<i>Centropus sinensis</i>
	Asian Koel	<i>Eudynamys scolopaceus</i>
	Common Hawk-Cuckoo	<i>Hierococcyx varius</i>
Apodidae	Asian Palm-Swift	<i>Cypsiurus balasiensis</i>
Rallidae	White-breasted Waterhen	<i>Amaurornis phoenicurus</i>
Charadriidae	Little Ringed Plover	<i>Charadrius dubius</i>
Scolopacidae	Common Sandpiper	<i>Actitis hypoleucos</i>
Ciconiidae	Asian Openbill	<i>Anastomus oscitans</i>
	Lesser Adjutant	<i>Leptoptilos javanicus</i>

Anhingidae	Oriental Darter	<i>Anhinga melanogaster</i>
	Great Cormorant	<i>Phalacrocorax carbo</i>
Phalacrocoracidae	Little Cormorant	<i>Microcarbo niger</i>
Ardeidae	Little Egret	<i>Egretta garzetta</i>
	Cattle Egret	<i>Bubulcus ibis</i>
	Indian Pond-Heron	<i>Ardeola grayii</i>
Accipitridae	Oriental Honey-buzzard	<i>Pernis ptilorhynchus</i>
	Booted Eagle	<i>Hieraaetus pennatus</i>
	White-eyed Buzzard	<i>Butastur teesa</i>
	Black Kite	<i>Milvus migrans</i>
Strigidae	Asian Barred Owlet	<i>Glaucidium cuculoides</i>
	Spotted Owlet	<i>Athene brama</i>
Alcedinidae	Common Kingfisher	<i>Alcedo atthis</i>
	White-throated Kingfisher	<i>Halcyon smyrnensis</i>
Meropidae	Green Bee-eater	<i>Merops orientalis</i>
	Blue-tailed Bee-eater	<i>Merops philippinus</i>
Megalaimidae	Coppersmith Barbet	<i>Psilopogon haemacephalus</i>
	Blue-eared Barbet	<i>Psilopogon duvaucelii</i>
	Lineated Barbet	<i>Psilopogon lineatus</i>
	Blue-throated Barbet	<i>Psilopogon asiaticus</i>
Picidae	Fulvous-breasted Woodpecker	<i>Dendrocopos macei</i>
	Black-rumped Flameback	<i>Dinopium benghalense</i>
Psittaculidae	Rose-ringed Parakeet	<i>Psittacula krameri</i>
	Red-breasted Parakeet	<i>Psittacula alexandri</i>
Oriolidae	Black-hooded Oriole	<i>Oriolus xanthornus</i>
Artamidae	Ashy Woodswallow	<i>Artamus fuscus</i>
Aegithinidae	Common Iora	<i>Aegithina tiphia</i>
Rhipiduridae	White-throated Fantail	<i>Rhipidura albicollis</i>
Dicruridae	Black Drongo	<i>Dicrurus macrocercus</i>
	Hair-crested Drongo	<i>Dicrurus hottentottus</i>
Laniidae	Brown Shrike	<i>Lanius cristatus</i>
	Grey-backed Shrike	<i>Lanius tephronotus</i>
Corvidae	Rufous Treepie	<i>Dendrocitta vagabunda</i>
	House Crow	<i>Corvus splendens</i>
	Large-billed Crow	<i>Corvus macrorhynchos</i>
Stenostiridae	Grey-headed Canary-Flycatcher	<i>Culicicapa ceylonensis</i>
Paridae	Cinereous Tit	<i>Parus cinereus</i>
Cisticolidae	Common Tailorbird	<i>Orthotomus sutorius</i>
Hirundinidae	Barn Swallow	<i>Hirundo rustica</i>
Pycnonotidae	Red-vented Bulbul	<i>Pycnonotus cafer</i>
Phylloscopidae	Dusky Warbler	<i>Phylloscopus fuscatus</i>
	Greenish Warbler	<i>Phylloscopus trochiloides</i>
Zosteropidae	Indian White-eye	<i>Zosterops palpebrosus</i>
Leiothrichidae	Jungle Babbler	<i>Turdoides striata</i>
Sturnidae	Common Hill Myna	<i>Gracula religiosa</i>
	Asian Pied Starling (Pied Myna)	<i>Gracupica contra</i>
	Chestnut-tailed Starling	<i>Sturnia malabarica</i>
	Common Myna	<i>Acridotheres tristis</i>
	Jungle Myna	<i>Acridotheres fuscus</i>
	Great Myna	<i>Acridotheres grandis</i>

Muscicapidae	Oriental Magpie-Robin	<i>Copsychus saularis</i>
	Taiga Flycatcher	<i>Ficedula albicilla</i>
Dicaeidae	Scarlet-backed Flowerpecker	<i>Dicaeum cruentatum</i>
Nectariniidae	Purple Sunbird	<i>Cinnyris asiaticus</i>
	Crimson Sunbird	<i>Aethopyga siparaja</i>
Estrildidae	Scaly-breasted Munia	<i>Lonchura punctulata</i>
Passeridae	House Sparrow	<i>Passer domesticus</i>
	Eurasian Tree Sparrow	<i>Passer montanus</i>
Motacillidae	Grey Wagtail	<i>Motacilla cinerea</i>
	Citrine Wagtail	<i>Motacilla citreola</i>
	White Wagtail	<i>Motacilla alba</i>

Table 6: List of Odonates (Dragonflies and Damselflies) spotted in M.C. college campus

Order- Odonata	
Sub-order-Zygoptera	
Sl. No.	Family- Lestidae
1	<i>Lestes praemorsus</i> (Hagen in Selys, 1862)
	Family- Chlorocyphidae
2	<i>Libellago lineata</i> (Burmeister, 1839)
	Family- Coenagrionidae
3	<i>Aciagrion hisopa</i> (Selys, 1876)
4	<i>Aciagrion pallidum</i> (Selys, 1891)
5	<i>Agriocnemis femina</i> (Brauer, 1868)
6	<i>Agriocnemis lacteola</i> (Selys, 1877)
7	<i>Agriocnemis pygmaea pygmaea</i> (Rambur, 1842)
8	<i>Ceriagrion cerinorubellum</i> (Brauer, 1865)
9	<i>Ceriagrion coromandelianum</i> (Fabricius, 1798)
10	<i>Ceriagrion olivaceum</i> (Laidlaw, 1914)
11	<i>Enallagma parvum</i> (Selys, 1876)
12	<i>Ischnura aurora</i> (Brauer, 1865)
13	<i>Ischnura forcipata</i> (Morton, 1907)
14	<i>Mortonagrion aborense</i> (Laidlaw, 1914)
15	<i>Onychargia atrocyana</i> (Selys, 1865)
16	<i>Pseudagrion microcephalum</i> (Rambur, 1842)
17	<i>Pseudagrion rubriceps</i> (Selys, 1876)
Sub-order-Anisoptera	
	Family- Aeshnidae
18	<i>Anax guttatus</i> (Burmeister, 1839)
19	<i>Gynacantha bainbriggei</i> (Fraser, 1922)
	Family- Gomphidae
20	<i>Ictinogomphus angulosus</i> (Selys, 1854)
	Family- Libellulidae
21	<i>Aethriamanta brevipennis</i> (Rambur, 1842)
22	<i>Brachydiplax chalybea</i> (Brauer, 1868)
23	<i>Brachydiplax farinosa</i> (Kruger, 1902)
24	<i>Brachydiplax sobrina</i> (Rambur, 1842)
25	<i>Brachythemis contaminata</i> (Fabricius, 1793)
26	<i>Crocothemis servilia</i> (Drury, 1770)

27	<i>Diplacodes nebulosa</i> (Fabricius, 1793)
28	<i>Diplacodes trivialis</i> (Rambur, 1842)
29	<i>Neurothemis fulvia</i> (Drury, 1773)
30	<i>Neurothemis intermedia</i> (Rambur, 1842)
31	<i>Orthetrum glaucum</i> (Brauer, 1865)
32	<i>Orthetrum sabina</i> (Drury, 1770)
33	<i>Pantala flavescens</i> (Fabricius, 1798)
34	<i>Potamarcha congener</i> (Rambur, 1842)
35	<i>Rhodothemis rufa</i> (Rambur, 1842)
36	<i>Rhyothemis variegata</i> (Linnaeus, 1763)
37	<i>Tholymis tillarga</i> (Fabricius, 1798)
38	<i>Tramea basilaris burmeisteri</i> (Kirby, 1889)
39	<i>Trithemis pallidinervis</i> (Kirby, 1889)
40	<i>Urothemis signata</i> (Rambur, 1842)
41	<i>Zyxomma petiolatum</i> (Rambur, 1842)



Fox conservation centre:

The college campus maintains a Fox Conservation Centre facilitating undisturbed habitat and providing suitable environment for fox breeding. The centre occupies an area of 3.720 acre which is 23.60 % of the total land area of the campus. A few mounds are constructed by damping soil on the ground to support the burrowing nature of the animal. The growing commercial and residential pressure outside the college campus is being one of the major causes in losing the suitable habitat of a variety of animals. The initiative adopted by the college authority in conserving the habitat will certainly help the foxes for their comfortable living on one hand and for other animals on the other.

The Eco Club Unit:

Eco Club, M.C. College unit has been organizing various programmes and plantation drives to create awareness among the students and teaching faculty of M.C. College and students of other institutions.



A popular talk on “Fixing the ozone layer and reducing climate change” was organized on 15 th of September, 2023 in commemoration with the

“World Ozone Day, 2023” in the Department of Physics, Madhab Choudhury College, Barpeta. This programme was catalysed and supported by Assam Science Technology and Environment



Council and Science Technology & Climate Change Department, Govt. of Assam. A Week for Life was celebrated from 22nd to 28th March 2023 where poster making on various themes was organized. A talk was also given by Dr. Hitesh Das, Dept of Chemistry on “Impact of Single use Plastic on Environment”. The “World Wetland Day” was celebrated on 2nd February, 2023.

Drinking water, water use and management in the campus:



The college campus has a number of water sources, including ponds, tube wells, and groundwater drawn from deep bore wells utilising submersible and external water pumps. The main supply of drinking water, deep earthed water, is kept apart in large tanks in each of the different buildings. Separate units for extracting and storing groundwater are in the hostels for boys and girls. Utilising plants that are suggested for water purification, the stored water is made safe to consume. Additionally, a rainwater harvesting plant has been erected near the department of zoology and botany building. (Table 7 & 8).

Rain-water harvesting: Adjacent to the Department of Zoology is a rainwater collection plant. The plant has two outlets: one to feed water to the garden of medicinal plants, and the other to the zoology department's laboratory. The plant is made up of a sizable 1000-liter water tank that is connected to two-way outlets and rainwater inlets.



Water quality of the college campus has been assessed by Enviro-Testing-Services (Accredited by SPCB Assam, ISO 9001, ISO 45001, MSME) Bijoy Nagar, House No – 35, Noonmati, Guwahati -781020, Assam. The assessment record has been presented as follows:

Table 7: Methodology along with respective standards

S/N	Parameters	Test Methods	IS-10500
1	Odour	APHA 20 th Edition, 2150 B	Unobjectionable
2	Temperature (°C)	Thermometry Method	50
3	Turbidity (NTU)	APHA 20 th Edition, 2130B	5
4	pH	APHA 20 th Edition, 4500-H+B	6.5 – 8.5
5	Conductance (mS/cm)	APHA 20 th Edition, 2510B	-
6	Total Dissolved Solid	APHA 20 th Edition, 2540 B	500
7	Total Suspended Solid	APHA 20 th Edition, 2540 B	-



8	Chloride (mg/L)	APHA 20 th Edition, 4500-Cl-	250
9	Residual Chlorine (mg/L)	APHA 20 th Edition, 4500-Cl-B	0.2
10	Sulphates as SO ₄ (mg/L))	APHA 20 th Edition, 4500-SO ₄ ²⁻	250
11	Nitrate (mg/L)	APHA 20 th Edition, 4500-NO ₃ -	45
12	Fluoride (mg/L)	APHA 20 th Edition, 4500-F ⁻ D	1
13	Calcium (mg/L)	APHA 20 th Edition, 3500 B	75
14	Magnesium (mg/L)	APHA 20 th Edition, 3500 B	-
15	Iron (mg/L)	APHA 20 th Edition, 3111 B	0.3
16	Manganese	APHA 20 th Edition, 3111 B	0.1
17	Zinc	APHA 20 th Edition, 3111 B	5
18	Arsenic	APHA 20 th Edition, 3112 B	0.01
19	Total Coliform (MPN/100 mL)	APHA 20 th Edition, 3111 B	0
20	Faecal Coliform (MPN/100 mL)	APHA 20 th Edition, 9221 E	0

Table 8: Result of water testing

S/N	Parameters	Unit	DW1	DW2	DW3
1	Odour	--	NS	NS	NS
2	Temperature (°C)	°C	22	22	22
3	Turbidity (NTU)	NTU	0.6	0.6	0.8
4	pH	-	7.1	7.1	7.2
5	Conductance (mS/cm)	mS/cm	0.42	0.62	0.48
6	Total Dissolved Solid (mg/L)	mg/L	68.0	64.0	66.0
7	Total Suspended Solid (mg/L)	mg/L	24.0	28.0	31.0
8	Chloride (mg/L)	mg/L	24.1	26.2	24.1
9	Residual Chlorine (mg/L)	mg/L	<0.01	<0.01	<0.01
10	Sulphates as SO ₄ (mg/L))	mg/L	8.8	8.7	9.2
11	Nitrate (mg/L)	mg/L	4.8	6.4	7.1
12	Fluoride (mg/L)	mg/L	0.16	0.13	0.12
13	Calcium (mg/L)	mg/L	24.6	21.6	26.8
14	Magnesium (mg/L)	mg/L	26.3	22.3	28.1

15	Iron (mg/L)	mg/L	0.18	0.12	0.13
16	Manganese	mg/L	0.006	0.004	0.006
17	Zinc	mg/L	0.08	0.06	0.08
18	Arsenic	mg/L	<0.001	<0.001	<0.001
19	Total Coliform (MPN/100 mL)	mg/L	03	03	03
20	Faecal Coliform (MPN/100 mL)	mg /L	NIL	NIL	NIL

Air quality in the campus:

Air quality of the college campus has been assessed by Enviro-Testing-Services (Accredited by SPCB Assam, ISO 9001, ISO 45001, MSME) Bijoy Nagar, House No – 35, Noonmati, Guwahati -781020, Assam. The assessment record has been presented as follows (**Table 9**):



Table 9: Result of the air quality test

AMBIENT AIR QUALITY						
Duration (24 Hour)			Average			
S/N	Parameters	Unit	Concentration	Limit	Weather Condition*	Test Method
1	Particulate Matter (PM10)	µg/m ³	72.4	100		IS5182(23)
2	Particulate Matter (PM2.5)	µg/m ³	46.2	60		CPCB Guideline
3	Sulphur Dioxide (SO ₂)	µg/m ³	14.2	80		IS5182(2)
4	Nitrogen Dioxide(NO ₂)	µg/m ³	16.8	80		IS5182(vi)
5	Pb in PM 10	µg/m ³	<0.2	1.0		IS5182(vi)
6	Pb in PM2.5	µg/m ³	<0.2	1.0		IS5182(vi)
7	Ni in PM10	ng/m ³	2.2	20		IS5182(vi)

8	Ni in PM2.5	ng/m ³	<2.0	20	Clear	IS5182(vi)
9	As in PM10	ng/m ³	BDL	06		IS5182(vi)
10	As in PM2.5	ng/m ³	BDL	06		IS5182(vi)

Noise level in the campus:

Ambient noise quality of the college campus has been assessed by Enviro-Testing-Services (Accredited by SPCB Assam, ISO 9001, ISO 45001, MSME) Bijoy Nagar, House No – 35, Noonmati, Guwahati -781020, Assam. The assessment record has been presented as follows (**Table 10**):

Table 10: Ambient noise quality of the college campus

S/N	Locations	GPS Co-ordinate		Daytime SPL(dB) [6 am to 10 pm]		CPCB Limit SPL(dB)
				Leq	Range	
1	College Main Gate	N26°19'36.4"	E091°00'06.9"	68.5	55 – 72	75
3	Principal Office	N26°19'38.5"	E091°00'04.7"	64.2	58 – 71	
4	Play Ground	N26°19'38.3"	E091°00'07.3"	52.2	45 – 62	
5	Near Chemistry Department	N26°19'38.5"	E091°00'05.3"	56.1	49 – 66	
6	Near Physics Department	N26°19'37.9"	E091°00'01.7"	56.8	49 - 69	
6	Near Zoology Department	N26°19'43.6"	E091°00'00.7"	61.3	46 - 63	
7	Boy's Hostel	N26°19'39.7"	E091°00'01.9"	61.4	39 - 65	
8	Girls Hostel	N26°19'41.0"	E091°00'01.6"	58.1	43 – 67	

Soil quality of the college campus:

Soil is the principal substratum for all living organisms. Soil determines the vegetation type of an area. Physicochemical properties of soil directly influence the biodiversity of an area. The soil condition of the college campus has been assessed by Enviro-Testing-Services (Accredited by SPCB Assam, ISO 9001, ISO 45001, MSME) Bijoy Nagar, House No – 35, Noonmati, Guwahati -781020, Assam. The assessment record has been presented as follows (**Table 11**):



Table 11: Study of soil quality in the college campus

S/N	Parameters	[S1]	[S2]	[S3]
1	PH (1: 2)	8.1	7.8	8.2
2	Conductance (ms)	0.36	0.23	0.26
3	Sand (%)	87.0	84.6	83.4
	Silt (%)	1.04	3.01	0.06
	Clay (%)	11.9	12.4	16.6
4	Water Holding Capacity (%)	41.3	46.1	48.3
5	Bulk Density (gcm^{-3})	1.2	1.1	1.3
6	Cation Exchange capacity (meq/kg)	0.28	0.26	0.27
7	Nitrogen (%)	0.06	0.08	0.07
8	Potassium (mg/kg)	16.2	12.8	17.4
9	Sodium (mg/kg)	23.6	26.1	21.2
10	Calcium (g/kg)	18.3	16.6	19.6
11	Magnesium (mg/kg)	38.2	34.1	39.2
12	Phosphorous (mg/kg)	11.2	12.4	7.6
13	Organic matter (%)	0.68	0.54	0.64
14	Sodium Absorption Ratio (SAR)	1.8	1.4	2.8
15	Zinc (mg/kg)	19.3	22.4	18.6
16	Copper (mg/kg)	6.4	8.6	7.4

Energy Audit in College Premises:

An energy audit is a methodical examination of the organization's power usage to pinpoint and measure energy waste. It will support the optimisation of energy costs, pollution control, safety concerns, and offer recommendations for how to enhance the system's operating procedures. It is essential to the system's programming in order to demonstrate and seek total energy. The audit process will put defensive measurements into reality by providing the best technically feasible advise with regard to organisational, economic, and other aspects within a certain time frame. The review creates organisation references for better energy utilisation.



Table 12: Energy consumption

sources in the college campus (Bot: Botany, Zoo: Zoology; Phy: Physics, Che: Chemistry, Phyl: Philosophy, PSc: Political Science, Eco: Economics, Eng: English, Math: Mathematics, Asm: Assamese, Comp: Computer Science, Anth: Anthropology, Edu: Education, Hist: History, Geo: Geography, Lib: Library, Mhos: Men's hostel, Whos: Women's hostel, AC: Air conditioner, LED: Light Emitting diode)

Room s/Hall s/Dep artme nts	Tub e	Led tub e	Bul b	LE D bul b	Ceil ing Fan	Sta nd Fan	AC	Ref rig- erat or	Pad bur ner	Co mp u ter	Pri n- ter	Pu mp	Mot or	Mis c
Bot	03	-	01	08	-	-	1	-	-	08	01	-	-	30
Zoo	09	-	-	-	12	-	-	01	-	02	01	-	-	03
Phy	10	-	-	07	23	-	-	-	-	10	01	-	-	1+6
Che	16	24	06	06	41	-	-	-	-	-	-	01	-	12+ 2
Phyl	02	-	-	04	10	-	-	-	-	-	-	-	-	-
PSc	-	-	02	-	02	-	-	-	-	-	-	-	-	01
Eco	01	-	-	-	-	-	-	-	-	-	-	-	-	01
Eng	01	-	-	-	01	-	-	-	-	-	-	-	-	01
Math	08	-	-	-	13	-	-	-	-	01	01	-	-	01
Asm	01	-	-	-	02	-	-	-	-	01	01	-	-	03
Comp	10	-	-	-	09	-	-	-	-	18	01	-	-	-
Anth	-	27	-	-	10	-	-	01	-	01	-	-	-	-

Edu	08				10									1,1,6
Hist	01	-	-	-	01	-	-	-	-	-	-	-	-	-
Geo	-	18	08	-	-	-	-	-	-	-	-	-	-	-
Lib	12	39	-	-	24	06	-	-	-	20	01	-	-	1,1,1
MHos	26	-	02	-	29	-	-	-	-	-	-	-	01	01
WHos	11			122	57				02				03	6+1
Office	04	05	00	22	08	02	03	00	00	04	04	01	01	02



The average unit consumption against all the electrical appliances in the college has been estimated to be 3409.933 KWh. (Annexure-II). College authority has, however, initiated steps to harvest the green energy. As a part of that, six numbers of solar panels have been installed with an attached battery of 12 volt in each. Six numbers of electric bulbs (LED bulb) are being lightened in six different convenient locations in the

college campus. The total green energy harvested is estimated to be 45 watt per day in an average. College authority is also planning to extend solar power to a number of electrical inputs within this year.

Waste materials and waste disposal system:



It is discovered that the operations of many departments, college offices, canteens, and students create a range of waste items. The departments produce a variety of non-biodegradable and biodegradable trash, as do the office, canteen, and students. Typically, waste products are gathered in separate dustbins and disposed of at the municipality's landfill.



Nonetheless, the college administration intends to set quite a few effective waste management facilities on campus. A non-biodegradable waste disposal facility has been installed as part of the effort, for which the college administration has made necessary agreement with famous innovator Padmashree Dr. Uddhab Bharali. Along with the college's PG Department of Botany, the authorities have also taken the effort to plant the

vermicompost. The various waste kinds and their management systems are shown in the table below (Table 12).

Table 12: Generated wastes and their management

Source of Waste	Biodegradable waste	Non-degradable waste (solid & liquid)	Disposal system
Department of Botany	Plant parts, paper, tea residues, fallen leaves, wood etc.	Glass particles, chemical residues, packaged materials, polythene bags, used pen, pencil, glass/board markers, battery, chalk-pencils etc.	Biodegradable suitable wastes are mixed with the soil of planted pots, others are collected in the separate dustbins.
Department of Zoology	Animal parts, paper, tea residues, fallen leaves, wood etc.	Glass particles, chemical residues, packaged materials, polythene bags, used pen, pencil, glass/board markers, battery chalk-pencils etc.	Biodegradable and non-degradable wastes are collected separately.
Department of Physics	Plant parts, fallen leaves are being collected and dumped in pit for biodegradation. Old papers are archived at the department for official record.	Glass particles, chemical residues, packaged materials, polythene bags, used pen, pencil, glass/board, markers are dumped in separate dustbin. Batteries are being sent for recycling.	Separate dustbins are used for biodegradable and non-degradable wastes.
Department of Chemistry	Packaged materials, chalk-pencils etc.	Glass particles, chemical residues, packaged materials, polythene bags, used pen, pencil, glass/board, markers are dumped in separate dustbin. Batteries are being sent for recycling.	Separate dustbins are used for biodegradable and non-degradable wastes.
Department of Mathematics	Chalk-pencil, tea residues, fallen leaves, wood etc.	Glass particles, packaged materials, polythene bags, used pen, pencil, glass/board, computer hardware parts etc.	Separate dustbins are used for biodegradable and non-degradable wastes.
Department of Computer Science	Chalk-pencil, tea residues, fallen leaves, wood etc.	Glass particles, packaged materials, polythene bags, used pen, pencil, glass/board,	Separate dustbins are used for biodegradable

		computer hardware parts etc.	and non-degradable wastes.
Department of Political Science	Plant parts, paper, tea residues, fallen leaves, wood etc.	Glass particles, packaged materials, polythene bags, used pen, pencil, glass/board markers, battery, chalk-pencils etc.	Biodegradable and non-degradable wastes are collected separately.
Department of Philosophy	Plant parts, paper, tea residues, fallen leaves, wood etc.	Glass particles, packaged materials, polythene bags, used pen, pencil, glass/board markers, battery, chalk-pencils etc.	Biodegradable and non-degradable wastes are collected separately.
Department of Assamese	Plant parts, paper, tea residues, fallen leaves, wood etc.	Glass particles, packaged materials, polythene bags, used pen, pencil, glass/board markers, battery, chalk-pencils etc.	Biodegradable and non-degradable wastes are collected separately.
Department of Economics	Plant parts, paper, tea residues, fallen leaves, wood etc.	Glass particles, packaged materials, polythene bags, used pen, pencil, glass/board markers, battery, chalk-pencils etc.	Biodegradable and non-degradable wastes are collected separately.
Department of Geography	Plant parts, paper, tea residues, fallen leaves, wood etc.	Glass particles, packaged materials, polythene bags, used pen, pencil, glass/board markers, battery, chalk-pencils etc.	Separate dustbins are used for biodegradable and non-degradable wastes.
Department of Education	Plant parts, paper, tea residues, fallen leaves, wood etc.	Glass particles, packaged materials, polythene bags, used pen, pencil, glass/board markers, battery, chalk-pencils etc.	Biodegradable and non-degradable wastes are collected separately.
Department of Anthropology	Paper, tea residues, cotton, cotton cloths etc.	Glass particles, packaged materials, polythene bags, used pen, pencil, battery etc.	Collected in the dustbins.
Department of History	Paper, tea residues etc.	Packaged materials, polythene bags, used pen, pencil, glass/board markers, chalk-pencils etc.	Separate dustbins are used for biodegradable and non-degradable wastes.

Department of English	Plant parts, paper, tea residues, fallen leaves, wood etc.	Glass particles, packaged materials, polythene bags, used pen, pencil, glass/board markers, battery, chalk-pencils etc.	Biodegradable and non-degradable wastes are collected separately.
Kameswar Das Library	Plant debris, paper, tea residues, fallen leaves, wood pieces etc.	Glass particles, packaged materials, disposable plastic glass, plates and cups, polythene bags, used pen, pencil, glass markers, battery, Printer and photostat machine parts, printer's cartridge, other debris etc.	Biodegradable and non-degradable wastes are collected separately.
College Office	Paper, tea residues, fallen leaves, wood, disposable paper glass and cups, other debris etc.	Glass particles, packaged materials, disposable plastic glass, plates and cups, polythene bags, used pen, pencil, glass markers, battery, Printer and photostat machine parts, printer's cartridge, other debris etc.	Biodegradable and non-degradable wastes are collected separately.
Canteen	Tea residues, fallen leaves, wood, disposable paper glass and cups, soup, uncooked and cooked residues, other debris etc.	Packaged materials, disposable plastic glass, plates and cups, polythene bags, other debris etc.	Biodegradable and non-degradable wastes are collected separately.
Café cum Photostat stall	Tea residues, fallen leaves, wood, disposable paper glass and cups, soup, processed and unprocessed tea-coffee items, snacks residues, other debris etc.	Packaged materials, disposable plastic glass, plates and cups, polythene bags, other debris etc.	Biodegradable and non-degradable wastes are collected separately.
Students related	Paper, snacks residues, other debris etc.	Disposable water bottle, packets of food items, polythene bags, used pen, pencil, glass markers, battery, other debris etc.	Generally found scattered but periodically collected and disposed properly by the college authority.

Construction sites	Cement, sand etc.	Cement bags, polythene bags, iron, tin and other materials.	Generally found scattered but periodically collected and disposed properly by the college authority.
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Electronic waste management:

Electronic gadgets that are broken or outdated are produced by the College's Physics and Computer Science departments and are disposed of by approved merchants in Barpeta town. By having a separate storage space, the corresponding department separates its E garbage. The college administration makes money by selling the E garbage that the local vendor collects. As a result, the college administration is selling the outdated computers as well as any broken electrical or electronic components. Cartridges containing ink are replenished.

Cleanliness practices:

Maintaining a clean terrestrial and aquatic environment has been a major focus for the college authorities. Scouts from the NCC and NSS are assigned to clean the campus as a gauge of that practise. The Students' Union Body's Social Service Secretary organises group volunteer projects for the students, including campus cleanup. Aside from these regular procedures, the institution occasionally organises a few cleaning activities in accordance with certain national initiatives like *Swachhta Samaroh* and *Swach Bharat Abhiyan*.



BEST PRACTICES:

Maintaining the medicinal plant garden



Maintaining the vermicompost plant



Fox conservation centre



Plantation scheme



Solid waste disposal plant (chimney)



ACKNOWLEDGEMENT:

The Green Audit Committee is thankful to all the teachers and other employees of the college for their kind cooperation during field survey and data collection. The committee is grateful to Mr. Mukul Uzir, LDA, College office for his helping hand during compilation and final assessment of the report. Thanks also go to the students of different semesters within the period 2022-23 for their support and necessary cooperation during field survey and preparation of the report. The committee members and the college authority will remain always grateful to Prof. Bhaben Tanti and Dr. Diganta Narzary, Associate Professor, Department of Botany, Gauhati University, Guwahati (Assam) for their visit to the college and valuable suggestions regarding maintenance of the green environment.

ANNEXURES

Annexure-I

GOVERNMENT OF ASSAM
OFFICE OF THE CIRCLE OFFICER::: BARPETA REVENUE CIRCLE,
BARPETA.


No. 673

Dated :- 26/02/2016



TO WHOM SO EVER IT MAY CONCERN

This is to certify that a plot of land measuring 27 bigha 3 katha 6 lessa and 20 bigha covered by Dag No. 225 & 226 respectively and Short lease patta No. 30 of Barpeta Town under Barpeta Mouza is standing in the name of Madhab Choudhury College, Barpeta as per existing land record and report obtained from the recorder of this office.


Circle Officer,
Barpeta Revenue Circle,
Barpeta.

Circle Officer,
Barpeta Rev. Circle,
Barpeta

GOVERNMENT OF ASSAM

OFFICE OF THE CIRCLE OFFICER::: BARPETA REVENUE CIRCLE,
 BARPETA.


No. 673

Dated :- 26/02/2016



TO WHOM SO EVER IT MAY CONCERN

This is to certify that a plot of land measuring 27 bigha 3 katha 6 lessa and 20 bigha covered by Dag No. 225 & 226 respectively and Short lease patta No. 30 of Barpeta Town under Barpeta Mouza is standing in the name of Madhab Choudhury College, Barpeta as per existing land record and report obtained from the recorder of this office.


 Circle Officer,
 Barpeta Revenue Circle,

Barpeta
 Barpeta Rev. Circle
 Barpeta

GOVERNMENT OF ASSAM
 OFFICE OF THE CIRCLE OFFICER::: BARPETA, REVENUE CIRCLE,
 BARPETA.

No. 673

Dated :- 26/02/2016



TO WHOM SO EVER IT MAY CONCERN

This is to certify that a plot of land measuring 27 bigha 3 katha 6 lessa and 20 bigha covered by Dag No. 225 & 226 respectively and Short lease patta No. 30 of Barpeta Town under Barpeta Mouza is standing in the name of Madhab Choudhury College, Barpeta as per existing land record and report obtained from the recorder of this office.


 Circle Officer,
 Barpeta Revenue Circle,
 Barpeta.





Assam Power Distribution Company Limited

NAME OF ELECTRICAL SUB-DIVISION / IRCA : IRCA BARPETA

CIN: U40108AS2003SGC007242

GSTIN: 18AABCL1354J1ZJ

ELECTRICITY BILL

Website: www.apdcl.org

Centralized Customer Care Number: 1912

Consumer Name: PRINCIPAL M.C.COLLEGE Address: MC COLLEGE BARPETA,BARPETA Contact Number: 9435024357 Email: info@mcacasam.org Tariff Category: HT IV BULK SUPPLY (GOVERNMENT EDUCATION) Supply Voltage Level: HT	Consumer Number: 063000000003 Old Consumer Number: 63000000904 DTR Number: M101HDI1 Pole Number: :000 Connected Load in KW: 200.0 Contracted Demand in KVA: 75.0 Load Security: 441825.430 Meter Number: X1476341	Bill Amount: 32201.000 Due Date: 21-Feb-2022 Bill Number: 900007523 Bill Period: 01-Jan-2022 To 31-Jan-2022 Bill Date: 05-Feb-2022 Number of Days: 31 Meter Status: RUNNING Billing Status: NORMAL
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Meter Reading Details

Reading Type	Meter Number	MF	Previous Reading in KWh	Previous Export in KWh	Current Reading in KWh	Current Export in KWh	Difference Reading in KWh	Difference Export in KWh
KWH(Normal)	X1476341	200.0	128.670	0.000	144.430	0.000	15.760	0.000

Units Consumed	PF Penalty/Rebate	LT Metering Penalty	DTR Penalty	HT Rebate	Voltage Rebate	Voltage Penalty	Billable Units in KWh
Normal 3152.000	-32.470	94.560	0.000	0.000	0.000	0.000	3214.090
Recorded Demand (in KVA)	0.05	Maximum Demand (in KVA)		10.8	Billing Demand (in KVA)		75.0
Power on Hours	744.0	Availability Percentage		Average Power Factor		91.8	

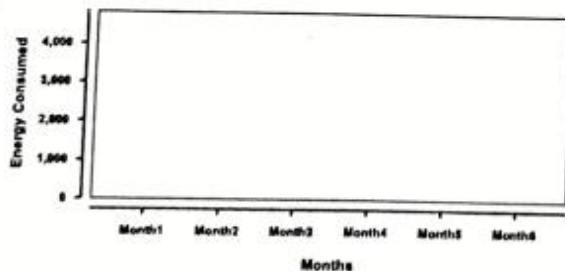
Billing Details

Current Demand	Outstanding Amount	Adjustment Amount	Solar Rebate	Net Bill Amount
Rs. 32201.260	Rs. 0.000	Rs. 0.000	0.00	Rs. 32201.000

In Words: Rupees Thirty Two Thousands Two Hundred One Only

PLEASE PAY YOUR BILL ON TIME AND HELP US TO SERVE YOU BETTER

Energy Consumption (Last Month's Bill)



Charges Breakup			
Details	Units	Rate	Amount
Energy Charge(Normal)	3214.090	6.450	20730.880
Total Energy Charge			20730.88
Energy Charge Re-Estimated			0.000
Rooftop Solar Adjustment			0.00
Demand/Fixed Charge (KVA)	75.0	130.0	9936.99
Electricity Duty			1533.39
Govt. Subsidy		0.0	0.0
Overdrawal Penalty			0.0
Meter Rent		0.0	0.0
Charges for dishonoured cheque			0.0
Arrear Principal			0.000
Arrear Surcharge			0.000
Current Surcharge			0.000
Adjustment Amount			0.000
Rebate if paid before due date			0.00
Payable amount before due date			32201.00
Payable amount after due date			32201.00

Checked by E&OE:

Prepared by: 40003994

Signature with seal

Mr. 1
Mishra



(B-2)

Assam Power Distribution Company Limited

NAME OF ELECTRICAL SUB-DIVISION / IRCA : IRCA BARPETA

CIN: U40109AS20035GC007242

GSTIN: 18AABCL1354J1ZJ

ELECTRICITY BILL

Website: www.apdcl.org

Centralized Customer Care Number 1912

Consumer Name: PRINCIPAL M.C.COLLEGE	Consumer Number: 063000000003	Bill Amount: 30708.000
Address: MC COLLEGE BARPETA, BARPETA	Old Consumer Number: 63000000904	Due Date: 21-Mar-2022
Contact Number: 9435024357	DTR Number: M101H0U1	Bill Number: 900008060
Email: info@mccasam.org	Pole Number: 000	Bill Period: 01-Feb-2022 To 28-Feb-2022
Tariff Category: HT IV BULK SUPPLY (GOVERNMENT EDUCATION)	Connected Load in KW: 200.0	Bill Date: 08-Mar-2022
Supply Voltage Level: HT	Contracted Demand in KVA: 75.0	Number of Days: 28
	Load Security: 441825.430	Meter Status: RUNNING
	Meter Number: X1476341	Billing Status: NORMAL



063000000003

Meter Reading Details

Reading Type	Meter Number	MF	Previous Reading in KWh	Previous Export in KWh	Current Reading in KWh	Current Export in KWh	Difference Reading in KWh	Difference Export in KWh
KWH(Normal)	X1476341	200.0	144.430	0.000	159.840	0.000	15.410	0.000

Units Consumed	PF Penalty/Rebate	LT Metering Penalty	DTR Penalty	HT Rebate	Voltage Rebate	Voltage Penalty	Billable Units in KWh
Normal 3082.000	-31.750	92.460	0.000	0.000	0.000	0.000	3142.720
Recorded Demand (in KVA)	0.06	Maximum Demand (in KVA)		12.0	Billing Demand (in KVA)	75.0	Average Power Factor
Power on Hours	672.0						94.0
Billing Details						Availability Percentage	

Billing Details

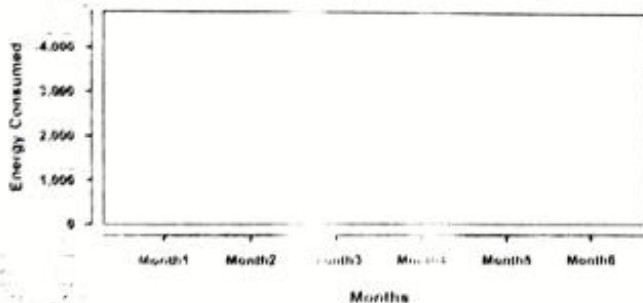
Current Demand	Outstanding Amount	Adjustment Amount	Solar Rebate	Net Bill Amount
Rs. 30708.170	Rs. 0.000	Rs. 0.000	0.00	Rs. 30708.000
In Words: Rupees Thirty Thousands Seven Hundred Eight Only				

PLEASE PAY YOUR BILL ON TIME AND HELP US TO SERVE YOU BETTER

Charges Breakup

Details	Units	Rate	Amount
Energy Charge(Normal)	3142.720	6.450	20270.540
Total Energy Charge			20270.54
Energy Charge Re-Estimated			0.000
Rooftop Solar Adjustment			0.00
Demand/Fixed Charge (KVA)	75.0	130.0	8975.34
Electricity Duty			1462.29
Govt. Subsidy		0.0	0.0
Overdrawal Penalty			0.0
Meter Rent		0.0	0.0
Charges for dishonoured cheque			0.0
Arrear Principal			0.000
Arrear Surcharge			0.000
Current Surcharge			0.000
Adjustment Amount			0.000
Rebate if paid before due date			0.00
Payable amount before due date			30708.00
Payable amount after due date			30708.00

Energy Consumption (Last Month's Bill)



Checked by E&OE:

Prepared by: 40003994

Signature with seal

Veri
MUBH2



Assam Power Distribution Company Limited

NAME OF ELECTRICAL SUB-DIVISION / IRCA : IRCA BARPETA

CIN: U40109AS2003SGC007242

GSTIN: 18AABCL1354J1ZJ

ELECTRICITY B'LL

Website: www.apdcl.org

Centralized Customer Care Number: 1912

Consumer Name: PRINCIPAL M.C.COLLEGE
Address: MC COLLEGE BARPETA, BARPETA

Contact Number : 9435024357

Email : info@mccasam.org

Tariff Category: HT IV BULK SUPPLY (GOVERNMENT EDUCATION)

Supply Voltage Level: HT

Consumer Number: 063000000003

Old Consumer Number: 63000000904

DTR Number: M101H0U1

Pole Number : 000

Connected Load in KW: 200.0

Contracted Demand in KVA: 75.0

Load Security: 441825.430

Meter Number: X1086975

Bill Amount: 44664.000

Due Date: 21-Apr-2022

Bill Number: 900008592

Bill Period: 01-Mar-2022 To 31-Mar-2022

Bill Date : 06-Apr-2022

Number of Days: 31

Meter Status: RUNNING

Billing Status: NORMAL



063000000003

Meter Reading Details

Reading Type	Meter Number	MF	Previous Reading in KWh	Previous Export in KWh	Current Reading in KWh	Current Export in KWh	Difference Reading in KWh	Difference Export in KWh
KWH(Normal)	X1086975	200.0	0.000	0.000	23.100	0.000	23.100	0.000
KWH(Normal)	X1476341	200.0	159.840	0.000	161.990	0.000	2.150	0.000

Units Consumed	PF Penalty/Rebate	LT Metering Penalty	DTR Penalty	HT Rebate	Voltage Rebate	Voltage Penalty	Billable Units in KWh
Normal 4620.000	-142.750	138.600	0.000	0.000	0.000	0.000	4615.840
Normal 430.000	-4.430	12.900	0.000	0.000	0.000	0.000	438.470
Recorded Demand (in KVA)	0.12	Maximum Demand (in KVA)	24.0	Billing Demand (in KVA)	75.0	Average Power Factor	97.8
Power on Hours	648.0	Availability Percentage					

Billing Details

Current Demand	Outstanding Amount	Adjustment Amount	Solar Rebate	Net Bill Amount
Rs. 44664.150	Rs. 0.000	Rs. 0.000	0.00	Rs. 44664.000

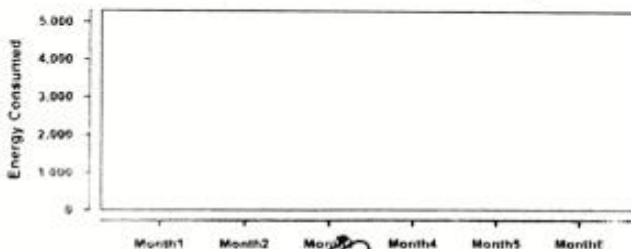
In Words: Rupees Forty Four Thousands Six Hundred Sixty Four Only

PLEASE PAY YOUR BILL ON TIME AND HELP US TO SERVE YOU BETTER

Charges Breakup

Details	Units	Rate	Amount
Energy Charge(Normal)	4615.840	6.450	29772.170
Energy Charge(Normal)	438.470	6.450	2828.130
Total Energy Charge			32600.30
Energy Charge Re-Estimated			0.000
Rooftop Solar Adjustment			0.00
Demand/Fixed Charge (KVA)	75.0	130.0	9654.79
Demand/Fixed Charge (KVA)	75.0	130.0	1282.19
Electricity Duty			2126.87
Govt. Subsidy		0.0	0.0
Overdrawal Penalty			0.0
Meter Rent		0.0	0.0
Charges for dishonoured cheque			0.0
Arrear Principal			0.000
Arrear Surcharge			0.000
Current Surcharge			0.000
Adjustment Amount			0.000
Rebate if paid before due date			0.00
Payable amount before due date			44664.00
Payable amount after due date			44664.00

Energy Consumption (Last Month's Bill)



Checked by E&OE:

Prepared by: 40003994

Signature with seal



Assam Power Distribution Company Limited
 NAME OF ELECTRICAL SUB-DIVISION / IRCA : BARPETA ESD / IRCA BARPETA
 CIN: U40109AS2003SGC007242
 GSTIN: 18AABCL1354J1ZJ
 ELECTRICITY BILL

Website: www.apdcl.org

Centralized Customer Care Number: 1912

Consumer Name: PRINCIPAL M.C.COLLEGE Address: MC COLLEGE BARPETA, BARPETA	Consumer Number: 063000000003 Old Consumer Number: 63000000904 DTR Number: M101H0U1 Pole Number: 000 Connected Load in KW: 200.0 Contracted Demand in KVA: 75.0 Load Security: 441825,430 Meter Number: X1086975	Bill Amount: 45071.000 Due Date: 24-May-2022 Bill Number: 900009171 Bill Period: 01-Apr-2022 To 30-Apr-2022 Bill Date: 09-May-2022 Number of Days: 30 Meter Status: RUNNING Billing Status: NORMAL
Contact Number: 9435024357 Email: info@mccasam.org Tariff Category: HT IV BULK SUPPLY (GOVERNMENT EDUCATION) Supply Voltage Level: Supply Voltage Level 11 KV		 063000000003

Meter Reading Details

Reading Type	Meter Number	MF	Previous Reading in KWh	Previous Export in KWh	Current Reading in KWh	Current Export in KWh	Difference Reading in KWh	Difference Export in KWh
KWH(Normal)S	X1086975	200.0	23.100	0.000	47.000	0.000	23.900	0.000

Units Consumed	PF Penalty/Rebate	LT Metering Penalty	DTR Penalty	HT Rebate	Voltage Rebate	Voltage Penalty	Billable Units in KWh
Normal(S) 4780.000	-98.470	143.400	0.000	0.000	0.000	0.000	4824.930
Recorded Demand (in KVA)	0.12	Maximum Demand (in KVA)	24.0	Billing Demand (in KVA)	75.0	Average Power Factor	96.6
Power on Hours	720.0	Availability Percentage					

Billing Details

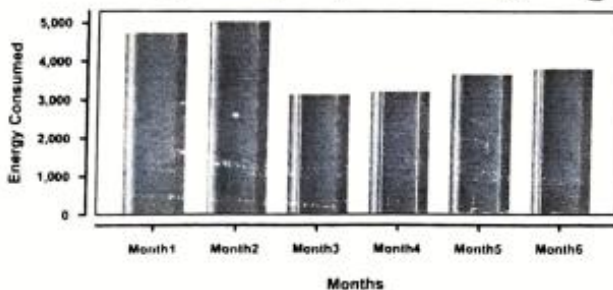
Current Demand	Outstanding Amount	Adjustment Amount	Solar Rebate	Net Bill Amount
Rs. 45070.660	Rs. 0.000	Rs. 0.000	0.00	Rs. 45071.000
				In Words: Rupees Forty Five Thousands Seventy One Only

PLEASE PAY YOUR BILL ON TIME AND HELP US TO SERVE YOU BETTER

Charges Breakup

Details	Units	Rate	Amount
Energy Charge(Normal)S	4824.930	6.750	32568.280
Total Energy Charge			32568.28
Energy Charge Re-Estimated			0.000
Rooftop Solar Adjustment			0.00
Demand/Fixed Charge (KVA)	75.0	140.0	10356.16
Electricity Duty			2146.22
Govt. Subsidy		0.0	0.0
Overdrawal Penalty			0.0
Meter Rent		0.0	0.0
Charges for dishonoured cheque			0.0
Arrear Principal			0.000
Arrear Surcharge			0.000
Current Surcharge			0.000
Adjustment Amount			0.000
Rebate if paid before due date			0.00
Payable amount before due date			45071.00
Payable amount after due date			45071.00

Energy Consumption (Last Month's Bill)



Checked by E&OE:

Prepared by: 40003994

Signature with seal

Handwritten signature/initials



Assam Power Distribution Company Limited
 NAME OF ELECTRICAL SUB-DIVISION / IRCA : BARPETA ESD / IRCA BARPETA
 CIN : U40109AS2003SGC007242
 GSTIN: 18AABCI1354J1ZJ
 ELECTRICITY BILL

B-5

Website: www.apdcl.org

Centralized Customer Care Number: 1912

Consumer Name: PRINCIPAL M.C.COLLEGE Address: MC COLLEGE BARPETA, BARPETA Contact Number: 9435024357 Email: info@mccasam.org Tariff Category: H1 IV BULK SUPPLY (GOVERNMENT EDUCATION) Supply Voltage Level: Supply Voltage Level 11 KV	Consumer Number: 063000000003 Old Consumer Number: 63000000904 DTR Number: M101HDI1 Pole Number: 000 Connected Load in KW: 200.0 Contracted Demand in KVA: 75.0 Load Security: 441825.430 Meter Number: X1086975	Bill Amount: 59257.000 Due Date: 20-Jun-2022 Bill Number: 900009405 Bill Period: 01-May-2022 To 31-May-2022 Bill Date: 05-Jun-2022 Number of Days: 31 Meter Status: RUNNING Billing Status: NORMAL 063000000003
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Meter Reading Details

Reading Type	Meter Number	MF	Previous Reading in KWh	Previous Export in KWh	Current Reading in KWh	Current Export in KWh	Difference Reading in KWh	Difference Export in KWh
KWH(Normal)S	X1086975	200.0	47.000	0.000	80.800	0.000	33.800	0.000

Units Consumed	PF Penalty/Rebate	LT Metering Penalty	DTR Penalty	HT Rebate	Voltage Rebate	Voltage Penalty	Reliable Units in KWh
Normal(S) 6750.000	-139.260	202.800	0.000	0.000	0.000	0.000	6823.540
Recorded Demand (in KVA)	0.17	Maximum Demand (in KVA)	34.0	Billing Demand (in KVA)	75.0	Average Power Factor	96.6
Power on Hours	744.0	Availability Percentage					

Billing Details

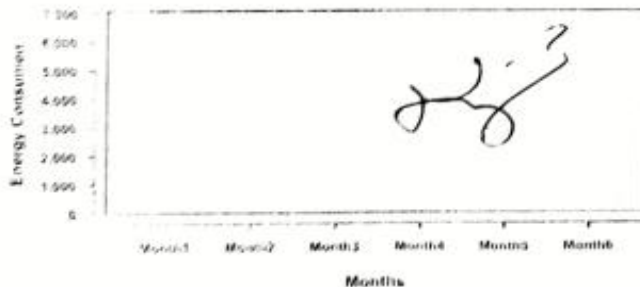
Current Demand	Outstanding Amount	Adjustment Amount	Solar Rebate	Net Bill Amount
Rs. 59257.090	Rs. 0.000	Rs. 0.000	0.00	Rs. 59257.000
				In Words: Rupees Fifty Nine Thousands Two Hundred Fifty Seven Only

PLEASE PAY YOUR BILL ON TIME AND HELP US TO SERVE YOU BETTER

Charges Breakup

Details	Units	Rate	Amount
Energy Charge(Normal)S	6823.540	6.750	46058.890
Total Energy Charge			46058.89
Energy Charge Re-Estimated			0.000
Rooftop Solar Adjustment			0.00
Demand/Fixed Charge (KVA)	75.0	140.0	10701.37
Electricity Duty			2838.01
Govt. Subsidy		0.0	0.0
Overdrawal Penalty			0.0
Meter Rent		0.0	0.0
Charges for dishonoured cheque			0.0
Arrear Principal			0.000
Arrear Surcharge			0.000
Current Surcharge			0.000
Adjustment Amount			0.000
Rebate if paid before due date			0.00
Payable amount before due date			59257.00
Payable amount after due date			59257.00

Energy Consumption (Last Month's Bill)



Checked by E&OE

Prepared by: 40003994

Signature with seal

Handwritten signature: V. Pr. 1



Assam Power Distribution Company Limited
 NAME OF ELECTRICAL SUB-DIVISION / IRCA : BARPETA ESD / IRCA BARPETA
 CIN: U40109AS2003SGC007242
 GSTIN: 18AABCL1354J1ZJ
 ELECTRICITY BILL

Website: www.apdcl.org

Centralized Customer Care Number: 1912

Consumer Name: PRINCIPAL M.C.COLLEGE Address: MC COLLEGE BARPETA, BARPETA	Consumer Number: 063000000003 Old Consumer Number: 6300000904 DTR Number: M101HDI1 Pole Number: 000 Connected Load in KW: 200.0 Contracted Demand in KVA: 75.0 Load Security: 441825.430 Meter Number: X1086975	Bill Amount: 83998.000 Due Date: 21-Jul-2022 Bill Number: 900010163 Bill Period: 01-Jun-2022 To 30-Jun-2022 Bill Date: 06-Jul-2022 Number of Days: 30 Meter Status: RUNNING Billing Status: NORMAL
Contact Number : 9435024357 Email : info@mccasam.org Tariff Category: HT IV BULK SUPPLY (GOVERNMENT EDUCATION) Supply Voltage Level: Supply Voltage Level 11 KV		 063000000003

Meter Reading Details

Reading Type	Meter Number	MF	Previous Reading in KWh	Previous Export in KWh	Current Reading in KWh	Current Export in KWh	Difference Reading in KWh	Difference Export in KWh
KWH(Normal)S	X1086975	200.0	80.800	0.000	132.800	0.000	52.000	0.000

Units Consumed	PF Penalty/Rebate	LT Metering Penalty	DTR Penalty	HT Rebate	Voltage Rebate	Voltage Penalty	Bilable Units in KWh
Normal(S) 10400.000	-321.360	312.000	0.000	0.000	0.000	0.000	10390.640
Recorded Demand (in KVA)	0.17	Maximum Demand (in KVA)	34.0	Billing Demand (in KVA)	75.0	Average Power Factor	98.1
Power on Hours	720.0	Freeze Amount	0.0	Availability Percentage			

Billing Details

Current Demand	Outstanding Amount	Adjustment Amount	Solar Rebate	Net Bill Amount
Rs. 83998.100	Rs. 0.000	Rs. 0.000	0.00	Rs. 83998.000

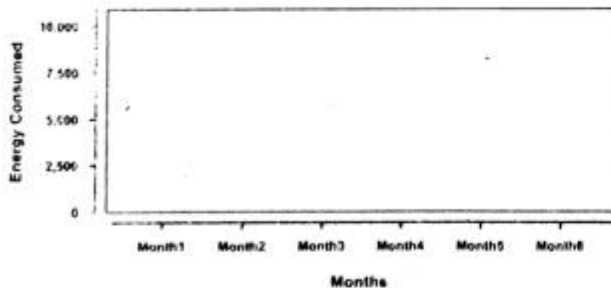
In Words: Rupees Eighty Three Thousands Nine Hundred Ninety Eight Only

PLEASE PAY YOUR BILL ON TIME AND HELP US TO SERVE YOU BETTER

Charges Breakup

Details	Units	Rate	Amount
Energy Charge(Normal)S	10390.640	6.750	70136.820
Total Energy Charge			70136.82
Energy Charge Re-Estimated			0.000
Rooftop Solar Adjustment			0.00
Demand/Fixed Charge (KVA)	75.0	140.0	10358.16
FPPPA Charge		-0.05	-519.53
Electricity Duty			4024.65
Govt. Subsidy		0.0	0.0
Overdrawal Penalty			0.0
Meter Rent		0.0	0.0
Charges for dishonoured cheque			0.0
Arrear Principal			0.000
Arrear Surcharge			0.000
Current Surcharge			0.000
Adjustment Amount			0.000
Rebate if paid before due date			0.00
Payable amount before due date			83998.00
Payable amount after due date			83998.00

Energy Consumption (Last Month's Bill)



Checked by E&OE: *[Signature]*

Prepared by: 40003011

Signature with seal