Green Audit Report
2023-24

Barpeta Girls' College

Krishnanagar, Kalayahati
Barpeta, Assam, 781301

P.G. DEPARTMENT OF BOTANY

MADHAB CHOUDHURY COLLEGE

BARPETA :: ASSAM :: PIN-781301

Ref. No..... ***Date:.....***

This Green Audit has been conducted for Barpeta Girls' College, Barpeta for the academic year 2023-24 in accordance with the applicable standards and prescribed norms of the Ministry of Environment, Forest and Climate Change. New Delhi and other relevant mandates for promotion of sustainable living and education in a healthy environment.

In our opinion. the Institution has presented true and up-to-date data on various aspects in relation to the audit and proper and suitable audit procedures have been adopted by the Committee members for preparing this report. The assessments and recommendations are based on verified data presented before the audit team at the time of audit.

In order to meet the objective of the audit, the methodology did combine physical inspection of the campus on several working days and holidays, with analytical reviews of relevant documents and activities, as well as interviews with the Principal, selected staff and students of the college.

This Green Audit is conducted to ensure that a Green Policy is followed and implemented in the campus across all academic departments, college office, central Library and students' Welfare Centre, so as to make all stakeholders aware of the need for individual efforts in perpetuating green living habits among the people of the state and the entire country.

The Green Audit encompassing the fields including water management, waste management, plantation programme and survey of the in-campus biodiversity are some of the remarkable ones. In our opinion and to the best of our knowledge and according to the information given to us, the Green Audit Report gives a true and fair view in conformity with environment audit principles accepted in the country.

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MADHAB CHOUDHURY COLLEGE, BARPETA

A green audit was conducted for Barpeta Girls College for the academic year 2023-24.

It was done in accordance with the standards and prescribed norms applicable as per the Ministry of Environment Forest and Climate Change New Delhi and other relevant mandates. Its main purpose is the promotion of sustainable living and education in a healthy environment.

The various data provided by the college for a green audit were found to be true and up to date and appropriate for a suitable audit procedure by the Green Audit Committee.

For the conduction of the green audit the college campus was physically inspected on several days. An analytical review of relevant documents and activities as well as interaction with the principal staff and student community of the college was also done.

The green audit covered various aspects like water management, waste management, plantation and also surveys inside the campus was conducted for documentation of various flora and fauna.

To the best of our knowledge and in accordance to the information given by the college authority the green audit report shall give it true and fair picture in conformity with environment audit and principles accepted in the country.

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GREEN AUDIT COMMITTEE OF BARPETA GIRLS' COLLEGE

Sl. No.	Name of the member	Designation	Duty performed
1	Dr. Birinchi Kumar Das	Chairman, Green Audit Committee & Principal, Barpeta Girls' College Barpeta	Facilitator and chief patron
2	Hiranmayee Pathak	Co-ordinator, Green Audit Committee & Associate Professor, Barpeta Girls' College Barpeta	Technical advisor, field surveyor, data keeper and compiler
2	Dr. Akbar Ali Ahmed	Member, Green Audit Committee & Associate Professor & IQAC Co-ordinator, Barpeta Girls' College Barpeta	Technical consultant
3	Dr. Abhijeet Borah	Member, Green Audit Committee & Asstt. Professor, Barpeta Girls' College Barpeta	Technical consultant
4	Rajesh Kumar Das	Member, Green Audit Committee & Librarian, Barpeta Girls' College Barpeta	Technical consultant
5	Dr.Kashmiri Saikia	Member, Green Audit Committee & Asstt. Professor, Barpeta Girls' College Barpeta	Field surveyor
6	Dr. Dhaneswar Pathak	Member, Green Audit Committee & Asstt. Professor, Barpeta Girls' College Barpeta	Field surveyor
7	Dr. Kamali Deuri	Member, Green Audit Committee & Asstt. Professor, Barpeta Girls' College Barpeta	Technical consultant
8	Dhiraj Das	Member, Green Audit Committee & Grade-IV, Barpeta Girls' College Barpeta	Field survey assistance provider
9	Jyotish Talukdar	Member, Green Audit Committee & Grade-IV, Barpeta Girls' College Barpeta	Field survey assistance provider
10	Hitankhi Bayan	Member, Green Audit Committee & UG student, Barpeta Girls' College Barpeta	Field survey assistance provider
11	Papari Das	Member, Green Audit Committee & UG student, Barpeta Girls' College Barpeta	Field survey assistance provider
12.	Jamiran Begum	Member, Green Audit Committee & UG student, Barpeta Girls' College Barpeta	Field survey assistance provider

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1. Executive Summary

This Green Audit Report for Barpeta Girls' College assesses the institution's environmental practices and suggests measures to enhance sustainability and minimize its ecological footprint. The audit focused on energy consumption, greenery, land use pattern, water usage, waste management, biodiversity, and carbon footprint. Key findings revealed the presence of diverse flora and fauna on campus and existing efforts in waste management and energy usage. However, there are substantial opportunities to improve efficiency and sustainability, particularly in enhancing waste segregation and recycling, reducing energy consumption, and optimizing water usage and lowering.

To address these issues, the report recommends several strategies: implementing energy-efficient lighting and appliances, utilizing renewable energy; installing low-flow fixtures, developing rainwater harvesting systems, and encouraging water-saving practices; establishing comprehensive waste segregation and recycling programs, conducting awareness campaigns, and collaborating with recycling companies; increasing green cover with native species, creating a biodiversity action plan, and involving students in conservation projects; and promoting public transport, cycling, and carpooling, alongside virtual meetings to reduce travel-related emissions. By adopting these measures, the can significantly reduce its environmental impact, foster a culture of sustainability, and serve as a model for other institutions, leading to a greener, more sustainable future.

2.0. Introduction:

Nation-building begins with educational institutions that prioritize environmental ecology as crucial for development. Today, Higher Educational Institutions (HEI) are increasingly focused on being eco-friendly, implementing ideas such as energy saving, waste recycling, water reduction, and harvesting. However, these efforts can sometimes result in negative environmental impacts.

The term "Green" refers to being eco-friendly and minimizing environmental damage. A green audit, or environmental audit, assesses a HEI's impact on the environment, reviewing measures to combat pollution. It involves compliance with environmental laws, auditing environmental costs, and assessing environmental impact and carbon credits. Green audits systematically identify, quantify, record, report, and analyze environmental practices within and outside establishments to maintain an eco-friendly atmosphere. This is also part of their Corporate Social Responsibility to reduce global warming.

3.0. Scope of the Study: Purpose, Objectives and Methodology

3.1. Purpose of the Green Audit:

The green audit offers many benefits for educational institutions, including:

a) Helping to manage and protect the environment on and around the campus.
b) Identifying cost-saving methods for environmental protection through waste reduction and energy conservation.
c) Empowering the institution to create better policies for following environmental rules and regulations.
d) Allowing the college or university to monitor its environmental performance.
e) Enhancing the institution's image with a clean and green campus.
f) Building a positive societal impression through green initiatives.

3.2. Objectives of Green Audit

The main objectives of conducting the Green Audit at Barpeta Girls' College are:

1. To describe the general land use pattern of the college.
2. To document the biodiversity of the college.
3. To review the status of water, air, and noise conditions at the college against applicable standards.
4. To document the waste generation and review the waste disposal system of the college.
5. To document the energy use and conservation in the college.
6. To analyze the awareness level within the college about environmental policies and objectives.

3.3. Methodology

To perform the green audit for the college, various approaches and tools were used, including:

1. Conducting physical inspections of the campus
2. Observing and reviewing documentation
3. Interviewing key personnel
4. Analyzing data

Based on the collected data and standard rules, regulations, and literature, suggestions and recommendations were formulated. The study covered the following areas to describe the current environmental conditions and management of the campus:

1. Land use
2. Campus biodiversity
3. Energy usage and conservation
4. Water quality, use, and management
5. Waste generation and management
6. Campus cleanliness

4.0. Observations:

4.1. Overview of the College:

Barpeta Girls' College, the only institution of higher education for women in Barpeta district, was established on 7th September,1978, within the vicinity of Barpeta Town popularly known as Satra Nagari, which is also the headquarter of Barpeta District. Since inception the college has been disseminating higher education to the girl students of Barpeta and its surrounding areas at both HS and UG level. The college at the time of its birth had strong shoulders to rest on, such as Sri Nibaran Chandra Choudhury, noted

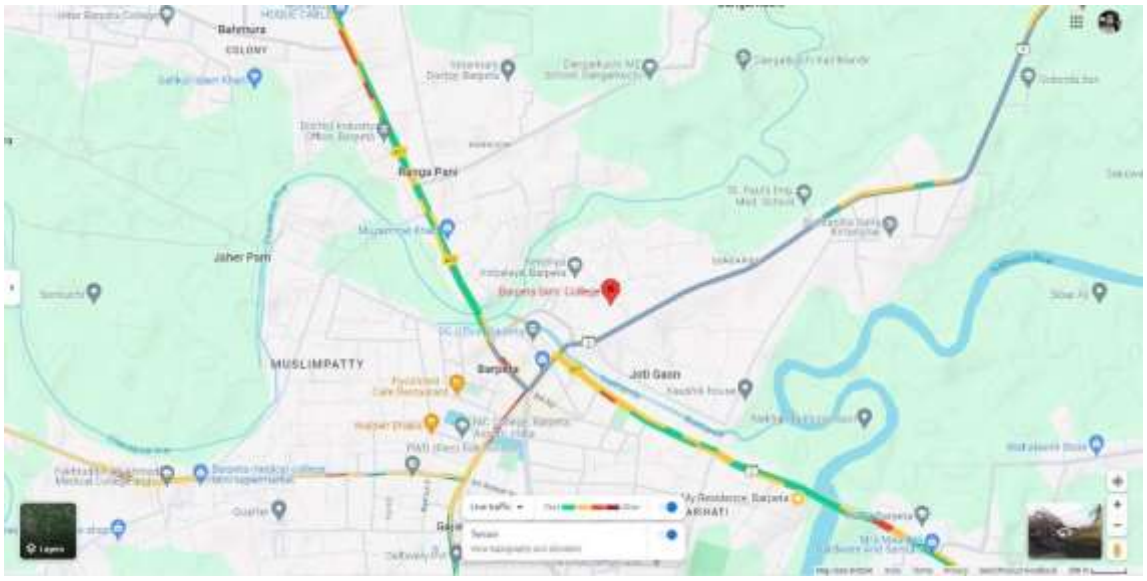


Fig. 1 Google Map of Barpeta Girls' College

academician and sportsperson of Barpeta as the secretary of the Governing Body and Sri Jnanaranjan Das, another noted academician and also an advocate, as its principal. Later, the college was served by several noted personalities, prominent in their own ways, as presidents of the Governing Body and Principals.

The College got govt. concurrence at the HS and the UG level in 1984 and 1994 respectively. Later, the college was brought under the deficit grants-in aid system on the 25th of March, 1998 and subsequently, under provincialized system in 2005. It obtained UGC u/s 2(f) and 12 (B) on 5th Jan.2007, three years after the first cycle of the NAAC assessment and accreditation of the college, in which the college maintained 'C' grade. The college secured Grade "B" in the second cycle of NAAC assessment and accreditation in 2016. Barpeta Girls' College, currently an Arts stream college with its 8 (eight) departments, is currently imparting higher education in the subjects English, Assamese, Education,

Economics, Political Science, Philosophy, Anthropology and Home Science, though it has its dream to expand its arena in the coming days.

The college also has the scope for imparting computer education with its well-equipped computer lab, and currently the college is making its plan in this direction. Besides these, the college offers Diploma, Degree and Masters' Degree programs through distance mode under Krishna Kanta Handiqui State Open University (KKHSOU) as one of its active study centres.

The college fraternity humbly pays their gratitude to all those who have left no stone unturned to bring this institution up to this level and hope that the people of Barpeta as well as the entire Assam will surely extend their love and cooperation in all aspects to make this institution a centre of excellence in the near future.

Table: 1 Numbers of Students and Staff

Total Numbers of Students	Undergraduate	288
No. of Teaching Staff	Permanent	18
	Others	4
No, of Non-Teaching Staff	Permanent	11
	Others	5

4.2. General Environmental Setting:

Barpeta Town, situated in Assam's Barpeta district, lies at approximately 26.32° North latitude and 91.00° East longitude within the Brahmaputra Valley. It enjoys a subtropical monsoon climate characterized by distinct seasons: hot and humid summers, heavy monsoon rains from June to September, and mild, pleasant winters. The region's geology is predominantly alluvial, fostering fertile soil ideal for agriculture, interspersed with occasional undulating terrain.

Fig. 2 Administrative Map of Barpeta District

Hydrologically, Barpeta benefits from its proximity to the Brahmaputra River and its tributaries, which provide crucial irrigation and sustain local water requirements. The area is dotted with numerous ponds and wetlands that play vital roles in supporting biodiversity and agricultural activities. Despite these natural advantages, Barpeta Town contends with environmental challenges such as seasonal flooding and issues related to waste management. Nevertheless, its rich natural resources, including diverse flora and fauna, underscore its environmental significance and potential for sustainable development initiatives.

4.3. Land Use:

Barpeta Girls' College has a total land holding of 28328 square meters of which approximately 836 square meter is classified as water bodies mainly ponds. Approximately 408 square meter of the total area can be classified purely as under green cover and 22462 square meter is under unutilized area (Table 2). The presence of three gardens inside the campus augments the aesthetic value of the college.

Table 2: Land Use pattern

Land Use Category	Type	Area (Square Meter)
Gardens	Garden-I (Infront of Admin Block)	148.62
	Garden-II (Backyards of Admin Block)	185.80
	Garden-III (Hostel Premise)	74.32
Water Bodies	Pond	836
Roads	Concrete	112
	Paver Block	83.61
	Kutcha	112
Unutilized Green Area		22462
Built-Up Area		4312
	Total Land Holding	**28328**

4.4. Biodiversity of the campus

4.4.1. The flora:

It is remarkable how different the flora and fauna are on college campuses. A variety of plant and animal species are present all year round. The presence of several extremely old trees has made the campus greener. Furthermore, intentional plantings on other noteworthy days, including World Environment Day, contribute to the enhancement of campus landscaping, the preservation of biodiversity, and the general aesthetic appeal of the campus. The public property's floristic qualities have made campus a beneficial habitat for a multitude of animal species. Cultivated and wild

plants are the two main types of plants that comprise the campus biodiversity's flora. As previously mentioned, there are special occasion plantings in open spaces, adjacent to buildings, and all throughout the campus (Table 3). Evaluate the management and maintenance of green spaces on campus, including gardens, lawns, and trees. Assess the impact on local biodiversity.

Table 3: List of planted species in the college campus

Sl. No.	Species	Family	Local name	Habit
1	*Platycladus orientalis* (L.) Franco	Cupressaceae	Thuja	Shrub
2	*Aegle marmelos* (L.) Corrêa	Rutaceae	Bel	Tree
3	*Alstonia scholaris* (L.) R. Br.	Apocynaceae	Chatiyana	Tree
4	*Anthocephalus cadamba* (Roxb.) Miq.	Rubiaceae	Kadam	Tree
5	*Araucaria araucana* (Molina) Koch.	Araucareaceae	---	Tree
6	*Azadirachta indica* A. Juss	Meliaceae	Neem	Tree
7	*Shorea borneensis* (Scheff, ex Burck) Pierre	Dipterocarpaceae	Malaysian sal	Tree
8	*Bombax ceiba* L.	Bombacaceae	Shimalu	Tree
9	*Caesalpinia pulcherrima* (L.) Sw.	Fabaceae	Krishnachura	Tree
10	*Duranta erecta* L.	Verbenaceae	---	Shrub
11	*Erythrina stricta* Roxb.	Fabaceae	Madar	Tree
12	*Swietenia mahagoni*(L.) Jacq.	Meliaceae	Mehegoni	Tree
13	*Tamarindus indiac* L.	Fabaceae	Teteli	Tree
14	*Ficus religiosa* L.	Moraceae	Aahot	Tree
15	*Phoenix sylvestris* (L.) Roxb.	Arecaceae	Khejur	Tree
16	*Hibiscus rosa-sinensis* L.	Malvaceae	Joba	Shrub
17	*Nerium indicum* Mill.	Apocynaceae	Korabi	Small tree
18	*Nyctanthes arbor-tristis* L.	Oleaceae	Sewali	Small tree
19	*Phyllanthus emblica* L.	Euphorbiaceae	Aamlkhi	Tree
20	*Polyalthia longifolia* Sonn.	Annonaceae	Debodaru	Tree
21	*Psidium guajava* L.	Myrtaceae	Madhuri Aam	Tree
22	*Caryota urens* L.	Myrtaceae	Chao	Tree
23	*Cassia fistula* L	Caesalpiniaceae	Sonaru	Tree
24	*Cocos nucifera* L.	Arecaceae	Narikol	Tree
25	*Dalbergia sissoo* Roxb.	Caesalpianaceae	Sisu	Tree
26	*Olea europea* L.	Oleaceae	Jolphai	Tree
27	*Livistona rotundifolia* (Lam.) Mart.	Arecaceae	Tokou	Tree
28	*Tectona grandis* L.	Verbenaceae	Segun	Tree
29	*Terminalia arjuna* (Roxb.) Wight & Arn.	Combretaceae	Arjun	Tree
30	*Trewia nudiflora* L.	Euphorbiaceae	Bhelkor	Tree
31	*Ziziphus mauritiana* Lam.	Rhamnaceae	Bogari	Tree
32	*Delonix regia* (Hook.) Raf.	Caesalpiniaceae	Radhachura	Tree
33	*Litsea monopetala* (Roxb.) Pers.	Lauraceae	---	Large tree

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

Wild vegetation occurs in the undisturbed areas including open fields, along the boundary wall and bank of the pond (Table 2). Occurrence of such wild species indicate the richness of phytodiversity in the college campus.

Table 4: List of planted species in the college campus

Sl. No.	Species	Family	Local name	Habit
1	*Leucas aspera* (Wild.) Link	Lamiaceae	Doron	Herb
2	*Amaranthus spinosus* L.	Amaranthaceae	Kata-khutura	Herb
3	*Cyperus brevifolius* Rottb.	Cyperaceae	----	Herb
4	*Mikania micrantha* Kunth	Asteraceae	---	Climber
5	*Cynodon dactylon* (L.) Pers.	Poaceae	Dubari	Herb
6	*Eleusine indica* (L.) Gaertn.	Poaceae	Bobosa bon	Herb
7	*Paspalum conjugatum* P.J. Bergius	Poaceae	---	Herb
8	*Oplismenus burmannii* (Retz.) P. Beauv.	Poaceae	---	Herb
9	*Evolvulus numularis* (L.) L.	Convolvulaceae	---	Herb
10	*Digitaria ciliaris* (Retz.) Koeler	Poaceae	---	Herb
11	*Scoparia dulcis* L.	Scrophulariaceae	---	Herb
12	*Grona trifloral* (L.) H. Ohashi & K. Ohashi	Fabaceae	---	Herb
13	*Physalis angulate* L.	Solanaceae	---	Herb
14	*Boerhavia sp.*	Nyctaginaceae	---	Herb
15	*Eragrostis congesta* Oliv.	Poaceae	---	Herb
16	*Cyperus halpan* L.	Cyperaceae	---	Herb
17	*Colocasia esculenta* (L.) Schott.	Araceae	Kachu	Herb
18	*Ludwigia octavalvis* (Jack.) Raven.	Onagraceae	---	Herb
19	*Typhonium trilobatum* (L.) Schott.	Araceae	---	Herb
20	*Nastertium indicum* (L.) DC.	Brassicaceae	---	Herb
21	*Gnaphalium polycaulon* Pers.	Asteraceae	---	Herb
22	*Pouzolzia zeylenica* (L.) Benn.	Urticaceae	---	Herb
23	*Solanum viarum* Dunal	Solanaceae	---	Herb
24	*Ricinus communis* L.	Euphorbiaceae	Era	Shrub
25	*Clerodendrum infortunatum* L.	Lamiaceae	---	Shrub
26	*Solanum nigrum* L.	Solanaceae	Fiskuti	Herb
27	*Phyllanthus fraternus* G.L. Web.	Phyllanthaceae	Bhui aamlokhi	Herb

28	*Lindernia anagalis* (Burm. f.) Pannell	Linderniaceae	---	Herb
29	*Echinochloa colonum* (L.) Link	Poaceae	Jaitar	Herb
30	*Ageratum conyzoides* L.	Asteraceae	Gendheli-bon	Herb
31	*Commelina caroliniana* Walter	Commelinaceae	---	Herb
32	*Oxalis corniculate* L.	Oxalidaceae	Tengeshi	Herb
33	*Commelina benghalensis* L.	Commelinaceae	Kona-shimalu	Herb
34	*Oldenlendia corymbose* L.	Rubiaceae	Sarpajiva	Herb
35	*Nicotiana plumbaginifolia* Viv.	Solanaceae	Bon-dhopat	Herb
36	*Senna tora* (L.) Roxb.	Caesalpiniaceae	---	Herb
37	*Euphorbia hirta* L.	Euphorbiaceae	---	Herb
38	*Blumea lacera* (Burm. f.) DC.	Asteraceae	---	Herb
39	*Hydrocotyle javanica* Thunb.	Apiaceae	Saru-manimuni	Herb
40	*Xanthium strumarium* L.	Asteraceae	Aagra	Herb
41	*Centella asiatica* (L.) Urban	Apiaceae	Bor-manimuni	Herb
42	*Cyanthillium cinereum* (L.) H. Rob.	Asteraceae	---	Herb
43	*Sida cordifolia* L.	Malvaceae	Borial	Herb
44	*Cannabis sativa* L.	Cannabinaceae	---	Shrub
45	*Cyperus iria* L.	Cyperaceae	---	Herb
46	*Molugo pentaphylla* L.	Moluginaceae	---	Herb
47	*Imperata cylindrica* (L.) P. Beauv.	Poaceae	Kanhi-bon	Herb
48	*Phylla nodiflora* (L.) Greene	Verbenaceae	---	Herb
49	*Calamus tenuis* Roxb.	Arecaceae	Bet	Shrub
50	*Crotolaria pallida* Aiton	Fabaceae	---	Shrub
51	*Auxonopus compressus* (Sw.) P. Beauv.	Poaceae	---	Herb
52	*Calotropis gigantea* (L.) Dryand	Apocynaceae	Akon	Shrub
53	*Persicaria hydropiper* (L.) Delabre	Polygonaceae	Bihlongoni	Herb
54	*Persicaria orientalis* (L.) Spach	Polygonaceae	Bor-bihu	Herb
55	*Rumex nepalensis* Spreng	Polygonaceae	---	Herb
56	*Solanum torvum* Sw.	Solanaceae	Kotahi bengena	Herb
57	*Ipomea carnea* Jacq.	Convolvulaceae	Amor	Shrub
58	*Lindernia crustacea* (L.) F. Muell.	Scrophulariaceae	---	Herb
59	*Grangea maderaspatana* (L.) L. Poir.	Asteraceae	----	Herb
60	*Stellaria media* (L.) Vill.	Caryophyllaceae	---	Herb
61	*Senna siamea* (Lam.) Irwin et Barneby	Caesalpiniaceae	---	Shrub
62	*Amaranthus viridis* L.	Amaranthaceae	---	Herb
63	*Desmodium triflorum* (L.) DC.	Papilionaceae	---	Herb
64	*Chrysopogon aciculatus* (Ritz.) Trin.	Poaceae	Sagungatha	Herb
65	*Alternanthera sessilis* (L.) R. Br.	Amaranthaceae	---	Herb
66	*Alternanthera philoxeroides* (Mart.) Griseb.	Amaranthaceae	---	Herb
67	*Achyranthus aspera* L.	Amaranthaceae	---	Herb
68	*Rubus alcerifolius* Poir.	Rosaceae	Jetuli poka	Shrub
69	*Acalypha indica* L.	Euphorbiaceae	---	Herb
70	*Perthanium hysterphorus* L.	Asteraceae	Congress bon	Herb
71	*Dentella repens* (L.) J.R. Forst & G. Forst	Rubiaceae	Sarpa jibha	Herb

72	*Senna alata* (L.) Roxb.	Fabaceae	---	Shrub
73	*Ipomia aquatica* Forsskal	Convolvulaceae	Kalmou	Aquatic herb
74	*Casuarina equisetifolia* L.	Casuarinaceae	Jhau bon	Large shrub
75	*Abroma augustum* L.	Malvaceae	---	Shrub
76	*Diplazium esculentum* (Retz.) Sw.	Athyriaceae	Dhekia	Herb

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

4.4.2. The Fauna:

A total of six mammalian species belonging to five families could be spotted during survey work. However, intensive survey will further increase the list of mammals (Table 5). Avian diversity has been recorded highest among all the animal species in the college campus (Table 6). A total of 63 bird species belonging to 36 families were recorded during the survey. As far as the reptilian diversity is concerned, 14 numbers of species were recorded under 08 families (Table 7). A high ichthyofaunal diversity was also recorded with 23 numbers of different species under 08 families (Table 8) in the college campus. Thus, the college campus exhibits a rich faunistic diversity in different seasons of the year.

Table 5: Mammals of Barpeta Girls' College

Family	**Common Name**	**Scientific Name**
Caninae	Golden Indian Jackal	*Canis aureus*
Viverridae	Asian Palm Civet	*Paradoxurus hermaphroditus*
Muridae	House Mouse	*Mus musculus*
Pteropodidae	Indian Flying Fox	*Pteropus giganteus*
Herpestidae	Indian Grey Mongoose	*Herpestes edwardsii*
	Small Indian Mongoose	*Herpestes auropunctatus*

Table 6: Birds of Barpeta Girls' College

Family	Common Name	Scientific Name
Columbidae	Spotted Dove	*Streptopelia chinensis*
	Yellow-footed Green-Pigeon	*Treron phoenicopterus*
Cuculidae	Greater Coucal	*Centropus sinensis*
	Asian Koel	*Eudynamys scolopaceus*
	Common Hawk-Cuckoo	*Hierococcyx varius*
	Indian Cuckoo	
Apodidae	Asian Palm-Swift	*Cypsiurus balasiensis*
Rallidae	White-breasted Waterhen	*Amaurornis phoenicurus*
Ciconiidae	Asian Openbill	*Anastomus oscitans*
	Lesser Adjutant	*Leptoptilos javanicus*
Phalacrocoracidae	Little Cormorant	*Microcarbo niger*
Ardeidae	Cattle Egret	*Bubulcus ibis*
	Indian Pond-Heron	*Ardeola grayii*
	Striated Heron	
Accipitridae	Black Kite	*Milvus migrans*
Strigidae	Asian Barred Owlet	*Glaucidium cuculoides*
	Spotted Owlet	*Athene brama*
Alcedinidae	Common Kingfisher	*Alcedo atthis*
	White-throated Kingfisher	*Halcyon smyrnensis*
	Stork Billed Kingfisher	
Meropidae	Green Bee-eater	*Merops orientalis*
	Blue-tailed Bee-eater	*Merops philippinus*
Megalaimidae	Coppersmith Barbet	*Psilopogon haemacephalus*

Family	Common Name	Scientific Name
	Lineated Barbet	*Psilopogon lineatus*
	Blue-throated Barbet	*Psilopogon asiaticus*
Picidae	Fulvous-breasted Woodpecker	*Dendrocopos macei*
	Black-rumped Flameback	*Dinopium benghalense*
Psittaculidae	Rose-ringed Parakeet	*Psittacula krameria*
Oriolidae	Black-hooded Oriole	*Oriolus xanthornus*
Artamidae	Ashy Woodswallow	*Artamus fuscus*
Aegithinidae	Common Iora	*Aegithina tiphia*
Rhipiduridae	White-throated Fantail	*Rhipidura albicollis*
Dicruridae	Black Drongo	*Dicrurus macrocercus*
	Hair-crested Drongo	*Dicrurus hottentottus*
Laniidae	Brown Shrike	*Lanius cristatus*
	Grey-backed Shrike	*Lanius tephronotus*
Corvidae	Rufous Treepie	*Dendrocitta vagabunda*
	House Crow	*Corvus splendens*
	Large-billed Crow	*Corvus macrorhynchos*
Stenostiridae	Grey-headed Canary-Flycatcher	*Culicicapa ceylonensis*
Paridae	Cinereous Tit	*Parus cinereus*
Cisticolidae	Common Tailorbird	*Orthotomus sutorius*
Hirundinidae	Barn Swallow	*Hirundo rustica*
Pycnonotidae	Red-vented Bulbul	*Pycnonotus cafer*
Phylloscopidae	Dusky Warbler	*Phylloscopus fuscatus*
	Greenish Warbler	*Phylloscopus trochiloides*
Zosteropidae	Indian White-eye	*Zosterops palpebrosus*
Leiothrichidae	Jungle Babbler	*Turdoides striata*
Sturnidae	Common Hill Myna	*Gracula religiosa*
	Asian Pied Starling (Pied Myna)	*Gracupica contra*
	Chestnut-tailed Starling	*Sturnia malabarica*
	Common Myna	*Acridotheres tristis*
	Jungle Myna	*Acridotheres fuscus*
Muscicapidae	Oriental Magpie-Robin	*Copsychus saularis*
	Taiga Flycatcher	*Ficedula albicilla*
Dicaeidae	Scarlet-backed Flowerpecker	*Dicaeum cruentatum*
Nectariniidae	Purple Sunbird	*Cinnyris asiaticus*
	Crimson Sunbird	*Aethopyga siparaja*
Estrildidae	Scaly-breasted Munia	*Lonchura punctulate*
Passeridae	House Sparrow	*Passer domesticus*
	Eurasian Tree Sparrow	*Passer montanus*

Family	Common Name	Scientific Name
Motacillidae	Grey Wagtail	*Motacilla cinerea*
	Citrine Wagtail	*Motacilla citreola*
	White Wagtail	*Motacilla alba*

Table 7: Reptiles of Barpeta Girls' College

Family	Common Name	Scientific Name
Bufonidae	Asian Common Toad	*Duttaphrynus melanostictus*
Dicroglossidae	Indian Bull Frog	*Hoplobatrachus tigerinus*
Rhacophoridae	Common Tree Frog	*Polypedates leucomystax*
Microhylidae	Indian Balloon Frog	*Uperodon globulosus*
Agamidae	Oriental Garden Lizard	*Calotes versicolor*
Scincidae	Many-spotted Skink	*Eutropis multifasciata*
Colubridae	Buff-striped Keelback	*Amphiesma stolatum*
	Checkered Keelback	*Xenochrophis piscator*
	Common Wolf Snake	*Lycodon capucinus*
	Indian Rat Snake	*Ptyas mucosa*
	Indo-chinese Rat Snake	*Ptyas korros*
Elapidae	Banded Krait	*Bungarus fasciatus*
	Greater Black Krait	*Bungarus niger*
	Spectacled cobra	*Naja naja*

Table 8: Fishes of Barpeta Girls' College

Family	Common Name	Scientific Name
Cyprinidae	Rohu	*Labeo rohita*
	Catla	*Catla catla*
	Mrigal	*Cirrhinus cirrhosus*
	Common Carp	*Cyprinus carpio*
	Pool Barb	*Puntius sophore*
	Twospot Barb	*Pethia ticto*
	Olive Barb	*Systomus sarana*
	Swamp Barb	*Puntius chola*
	Silver Barb	*Barbonymus gonionotus*
	Silver Carp	*Hypophthalmichthys molitrix*
	Grass Carp	*Ctenopharyngodon idella*
	Big Head	*Hypophthalmichthys nobilis*
	Indian Flying Barb	*Esomus danrica*
Channidae	Striped Snakehead	*Channa striata*
	Great Snakehead	*Channa marulius*
	Dwarf Snakehead	*Channa stewartii*
	Spotted Snakehead	*Channa punctatus*
Bagridae	Striped Dwarf Catfish	*Mystus vittatus*
Heteropneustidae	Asian stinging catfish	*Heteropneustes fossilis*
Clariidae	Walking Catfish	*Clarias batrachus*
Anabantidae	Climbing Perch	*Anabas testudineus*
Osphronemidae	Banded Gourami	*Trichogaster fasciata*
Ambassidae	Elongate Glassy Perchle	*Chanda nama*

4.5. Energy Use and Conservation:

4.5.1. Energy Consumption Analysis:

The energy crisis stands as one of the most critical environmental challenges in the Anthropocene era. It is imperative for both individuals and organizations to work towards conserving energy and reducing reliance on conventional energy sources. Educational institutions, in particular, bear a significant moral responsibility to both advocate for and implement energy conservation practices.

Barpeta Girls' College currently consumes electricity at a contracted load of 37 kW, against a connected demand of 55 kW for the entire campus. The college heavily relies on conventional electricity supplied by APDCL, resulting in substantial electricity bills amounting to approximately Rs. 2.20 lakhs per year, based on data from the last financial year (Annexure-I).

4.5.2. Energy Efficiency Measures:

Upon evaluating the current energy-saving initiatives at Barpeta Girls' College, it has been found that the institution has implemented several effective measures. These include reducing the electrical load by replacing ordinary fans and other devices with energy-efficient alternatives and switching ordinary lights to LED bulbs. Additionally, the college has regularly organized programs to educate stakeholders on energy saving and conservation, fostering a culture of energy awareness within the campus community.

4.6. Water Audit

4.6.1. Drinking Water Quality:

Ensuring safe drinking water at Barpeta Girls' College is imperative for the health and well-being of the college community. The drinking water facility at Barpeta Girls' College, focusing on groundwater treatment through Reverse Osmosis (RO) filtration and findings from a water quality test conducted by the District Level Water Testing Lab, Barpeta (Annexure-II)

4.6.2. Groundwater Treatment and Quality

Barpeta Girls' College relies on groundwater as its primary source of drinking water, treated through an RO filtration system designed to remove contaminants. A recent water quality test revealed arsenic and iron levels exceeding desirable limits, with arsenic at 0.062 mg/L (limit 0.01 mg/L) and iron at 4.62 mg/L (limit

1.0 mg/L). These elevated levels pose health risks, highlighting the need for robust treatment and monitoring.

4.6.3. Water Usage Analysis:

Water use and conservation is a very important issue that comes within the ambit of environmental audit. The Barpeta Girls' college is highly dependent upon groundwater for carrying out daily activities. The college has 4 (four) numbers of boring wells and equivalent numbers of submersible pumps. The college has to cater to water needs of a population of more than 600 person per day. To meet those needs, the college has set up several polymer (PVC) water tanks across the campus (Table No. 5).

Table 9: List of Water Tanks in the college campus

Sl No	Location	Nos of Tank	Size (ltr.)	Total capacity (ltr.)
1	Hostel	1	1500	1500
2	Administrative Block	1	1000	1000
3	Academic Block	1	1000	1000
4	RUSA Building	1	1000	1000
5	Canteen	1	1000	1000
		05	**5500**	**5500**

4.6.4. Water Conservation Strategies: Water conservation strategies at Barpeta Girls' College include installing low-flow faucets and toilets to reduce water usage to some extent. Besides, the college promotes water conservation awareness among students and staff to encourage responsible for water uses.

4.7. Waste Management:

4.7.1. Waste Generation and Disposal Practices at Barpeta Girls' College

Barpeta Girls' College generates various types of waste, including food waste, paper, and plastics. Being a Arts stream college, there are no any chemical and hazardous waste not produced. Besides, the possibility of e-waste also negligible in the campus. The college practices waste segregation by categorizing waste into wet and dry types through placement of different kind of dustbins in the proper places.

4.7.2. Current Waste Management Practices:

The college has established a Memorandum of Understanding (MoU) with the Barpeta Municipal Board for the disposal of segregated waste. The wet waste primarily consists of food waste from the canteen, while dry waste includes paper and plastics generated from administrative and academic activities.

4.8. Campus Cleanliness Practices at Barpeta Girls' College

Barpeta Girls' College is dedicated to keeping its campus clean and healthy, inspired by the Swachh Bharat Abhiyan campaign. This national initiative has motivated the college to conduct regular cleanliness drives involving students, teachers, and staff, working together to maintain a spotless campus.

4.8.1. Cleanliness Drive:

As part of the Swachh Bharat Abhiyan, the college regularly organizes cleanliness drives. These events involve the entire college community, encouraging everyone to take responsibility for a clean environment. Activities include sweeping and cleaning classrooms, corridors, gardens, and other common areas.

4.8.2. Infrastructure Enhancements:

To support cleanliness efforts, the college has placed plastic dustbins at key spots around the campus. These bins are clearly marked for different types of waste to ensure proper disposal. Additionally, signs have been put up to remind everyone of their role in keeping the campus clean. These signs provide instructions on waste separation, emphasize the importance of cleanliness, and offer tips for maintaining tidiness.

4.8.3. Sustained Efforts:

Beyond occasional drives, the college has made cleanliness a daily routine. A dedicated cleaning staff are appointed to handle daily cleaning tasks, ensuring the campus stays clean. Regular checks and feedback help identify areas needing improvement, ensuring cleanliness standards are always met. Through these initiatives, Barpeta Girls' College not only supports the goals of the Swachh Bharat Abhiyan but also fosters a culture of cleanliness and environmental responsibility among its community members (Annexure-III).

4.9. Best Environmental Practices

Nowadays, many educational institutions engage in activities to promote environmental sustainability. However, only a few of these activities are implemented for the long term or set up to last for many years. These enduring activities help instill a positive mindset among staff and students and are known as best environmental practices. Over time, they can bring about behavioral change and truly contribute to sustainability.

Barpeta Girls' College has adopted several best practices, with the help of the NSS Unit and Student Body. They have played key roles in developing and

implementing the environmental management plan. These groups actively engage in initiatives such as seminars, tree plantation programs, awareness campaigns, and celebrating important environmental days, promoting sustainability and environmental awareness on campus. Four such practices observed by the audit team are:

4.9.1. Seminars and Talks: The college organizes educational seminars and talks focused on environmental issues, providing valuable knowledge and fostering discussions among students and staff.

4.9.2. Plantation Program: Regular tree planting activities are conducted to enhance greenery on campus and promote the importance of trees for the environment.

4.9.3. Environment Awareness Program: Programs are designed to raise awareness about environmental conservation and sustainable practices among the college community.

4.9.4. Celebration of Environmental Days: The college celebrates important environmental days, such as World Earth Day and Environment Day, to emphasize the significance of these occasions and encourage active participation in environmental preservation.

These activities collectively help inculcate a culture of environmental responsibility and contribute to the long-term sustainability goals of Barpeta Girls' College.

5.0. Suggestive Measures/Recommendations:

i. The college should create a comprehensive land use plan using geo-informatics. This plan should aim to maintain at least 35-40% green cover on campus. Doing so will help preserve green spaces, reduce noise pollution, improve air quality, and provide habitats for various animal species.

ii. The college should regularly monitor the drinking water quality, as it relies on groundwater. Immediate actions include maintaining and monitoring the existing RO system to ensure it effectively reduces arsenic and iron levels. Additionally, installing advanced filtration stages or exploring alternative water sources is crucial. Periodic water quality tests are advised to continually assess and address any contamination issues.

iii. The college authority should take up steps for regular survey of flora and fauna of the campus and its surroundings. This activity should be made an annual event and include the participation of local citizens. The college can also prepare People's Biodiversity register through such activity.

iv. The college authority should invest in installing rainwater harvesting system across all the buildings and reduce its dependence upon groundwater.

v. The college authority can seek assistance from AEDA for installing and generating a grid-connected rooftop solar power plant on campus. Additionally, installing Miniature Circuit Breakers (MCBs) in all classrooms can ensure that electrical appliances are turned off after classes.

vi. The college can utilize its organic waste for composting, converting it into manure for gardening purposes. Additionally, establishing partnerships with recycling firms for the collection and recycling of paper and plastics is recommended. Regular awareness programs for students and staff on the importance of waste segregation and reduction should be conducted. Encouraging the use of reusable materials to minimize plastic waste is essential. Implementing a waste monitoring system to track the types and amounts of waste generated will help in continuously improving waste management practices.

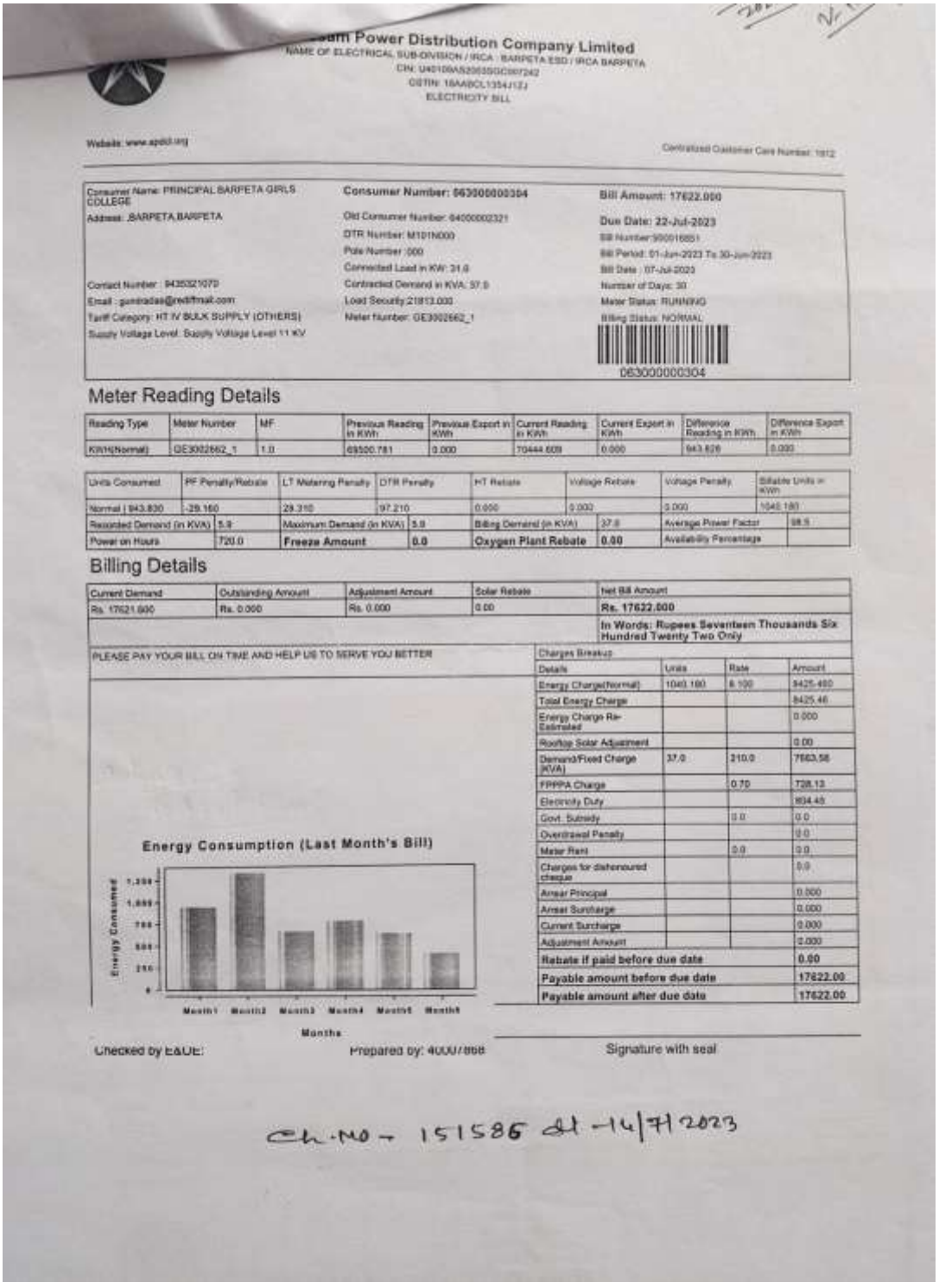
vii. The college should form an Eco Club to spearhead sustainability initiatives. Utilizing organic waste for composting can create manure for gardening purposes. Establish partnerships with recycling firms for paper and plastics collection. Conduct regular awareness programs for students and staff on the importance of waste segregation and reduction. Encourage the use of reusable materials to minimize plastic waste. Implement a waste monitoring system to track and improve waste management practices continuously.

6.0. Conclusion

The Green Audit Team is impressed on the Green Audit Committee of the college for their relentless effort in maintaining a green environment in the college campus, that too within several limitations including insufficient staff, inadequate infrastructure, low financial grants and many others. The well-planned greenery accompanied with the undisturbed habitat for both floristic and faunistic elements within the institution premises provide a new dimension in maintaining the biodiversity of the campus. More plantation programmes may be implemented around the newly constructed RCC buildings in a view to compensate the already destructed vegetation. Principal of the college including other faculty members and non-teaching staff were found enthusiastic and cooperative in achieving a perfect ‘green campus’ in near future.

7.0 Annexures:

Annexure-I



...outh 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 BARPETA GIRLS COLLEGE
Address: ,BARPETA,BARPETA

Contact Number : 9435321079
Email : gurindas@rediffmail.com
Tariff Category: HT IV BULK SUPPLY (OTHERS)
Supply Voltage Level: Supply Voltage Level 11 KV

Consumer Number: 063000000304
Old Consumer Number: 64000002321
DTR Number: M101N000
Pole Number :000
Connected Load in KW: 31.0
Contracted Demand in KVA: 37.0
Load Security:21813.000
Meter Number: GE3002662_1

Bill Amount: 17622.000
Due Date: 22-Jul-2023
Bill Number:900016851
Bill Period: 01-Jun-2023 To 30-Jun-2023
Bill Date : 07-Jul-2023
Number of Days: 30
Meter Status: RUNNING
Billing Status: NORMAL
063000000304

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)	GE3002662_1	1.0	69500.781	0.000	70444.609	0.000	943.828	0.000

Units Consumed	PF Penalty/Rebate	LT Metering Penalty	DTR Penalty	HT Rebate	Voltage Rebate	Voltage Penalty	Billable Units in KWh
Normal (943.830	-29.160	29.310	97.210	0.000	0.000	0.000	1040.190

Recorded Demand (in KVA)	5.9	Maximum Demand (in KVA)	5.9	Billing Demand (in KVA)	37.0	Average Power Factor	98.5
Power on Hours	720.0	**Freeze Amount**	**0.0**	**Oxygen Plant Rebate**	**0.00**	Availability Percentage	

Billing Details

Current Demand	Outstanding Amount	Adjustment Amount	Solar Rebate	Net Bill Amount
Rs. 17621.900	Rs. 0.000	Rs. 0.000	0.00	**Rs. 17622.000**
				In Words: Rupees Seventeen Thousands Six Hundred Twenty Two Only

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

Charges Breakup

Details	Units	Rate	Amount
Energy Charge(Normal)	1040.190	8.100	8425.460
Total Energy Charge			8425.46
Energy Charge Re-Estimated			0.000
Rooftop Solar Adjustment			0.00
Demand/Fixed Charge (KVA)	37.0	210.0	7863.56
FPPPA Charge		0.70	728.13
Electricity Duty			804.46
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			**17622.00**
Payable amount after due date			**17622.00**

Energy Consumption (Last Month's Bill)

Checked by E&UE:
Prepared by: 4000/868
Signature with seal

Ch.No - 151586 dt - 14/7/2023

Assam Power Distribution Company Limited

NAME OF ELECTRICAL SUB-DIVISION / IRCA : BARPETA ESD / IRCA BARPETA
CIN: U40109AS2003SGC007242
GSTIN: 18AABCL1394J1ZJ
ELECTRICITY BILL

Website: www.apdcl.org

Centralized Customer Care Number: 1912

Consumer Name: PRINCIPAL BARPETA GIRLS COLLEGE
Address : BARPETA,BARPETA

Contact Number : 9435321070
Email : gurumedas@rediffmail.com
Tariff Category: HT IV BULK SUPPLY (OTHERS)
Supply Voltage Level: Supply Voltage Level 11 KV

Consumer Number: 063000000304

Old Consumer Number: 84000002221
UTR Number: M101N000
Pole Number: 000
Connected Load in KW: 31.0
Contracted Demand in KVA: 37.0
Load Security:21813.000
Meter Number: GE3002662_1

Bill Amount: 12673.000

Due Date: 22-Aug-2023

Bill Number:900017427
Bill Period: 01-Jul-2023 To 31-Jul-2023
Bill Date : 07-Aug-2023
Number of Days: 31
Meter Status: RUNNING
Billing Status: NORMAL

063000000304

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)	GE3002662_1	1.0	70444.609	0.000	70870.187	0.000	425.578	0.000

Units Consumed	PF Penalty/Rebate	LT Metering Penalty	DTR Penalty	HT Rebate	Voltage Rebate	Voltage Penalty	Billable Units in KWh
Normal (425.580	-8.770	12.770	43.840	0.000	0.000	0.000	473.420

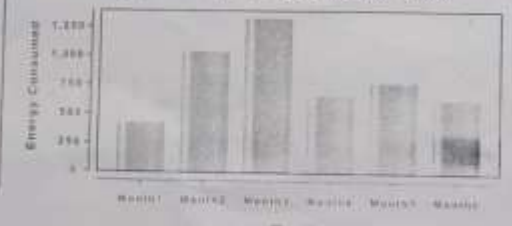
Recorded Demand (in KVA)	2.9	Maximum Demand (in KVA)	2.9	Billing Demand (in KVA)	37.0	Average Power Factor	96.3
Power on Hours	723.0	**Freeze Amount**	**0.0**	**Oxygen Plant Rebate**	**0.00**	Availability Percentage	

Billing Details

Current Demand	Outstanding Amount	Adjustment Amount	Solar Rebate	Net Bill Amount
Rs. 12672.790	Rs. 0.000	Rs. 0.000	0.00	**Rs. 12673.000**
				In Words: Rupees Twelve Thousands Six Hundred Seventy Three 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)	473.420	8.100	3834.700
Total Energy Charge			3834.70
Energy Charge Re-Estimated			0.000
Rooftop Solar Adjustment			0.00
Demand/Fixed Charge (KVA)	37.0	210.0	7919.01
FPPPA Charge		0.70	331.39
Electricity Duty			567.69
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			**12673.00**
Payable amount after due date			**12673.00**

Checked by EA/JE

Prepared by: AUUUZ911

Signature with seal

ch-No - 93741 dt. 17/8/2023

Passed for Rs. 12,673/-

17/08/2023

APDCL (6)

Assam Power Distribution Company Limited

NAME OF ELECTRICAL SUB-DIVISION / IRCA : BARPETA ESD / IRCA BARPETA
CIN: U40108AS2003SGC007242
GSTIN: 18AABCL1354J1ZJ
ELECTRICITY BILL

Website: www.apdcl.org

Centralized Customer Care Number: 1912

Consumer Name: PRINCIPAL BARPETA GIRLS COLLEGE
Address: ,BARPETA,BARPETA

Contact Number : 9435321070
Email : gurindas@rediffmail.com
Tariff Category: HT IV BULK SUPPLY (OTHERS)
Supply Voltage Level: Supply Voltage Level 11 KV

Consumer Number: 063000000304

Old Consumer Number: 64000002321
DTR Number: M101N000
Pole Number :000
Connected Load in KW: 31.0
Contracted Demand in KVA: 37.0
Load Security:21813.000
Meter Number: GE3002662_1

Bill Amount: 28483.000

Due Date: 22-May-2023

Bill Number:900015800
Bill Period: 01-Apr-2023 To 30-Apr-2023
Bill Date : 07-May-2023
Number of Days: 30
Meter Status: RUNNING
Billing Status: NORMAL

063000000304

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)	GE3002662_1	1.0	67893.578	0.000	68293.156	0.000	599.578	0.000

Units Consumed	PF Penalty/Rebate	LT Metering Penalty	DTR Penalty	HT Rebate	Voltage Rebate	Voltage Penalty	Billable Units in KWh
Normal (599.580	-18.530	17.990	61.760	0.000	0.000	0.000	660.800

Recorded Demand (in KVA)	4.44	Maximum Demand (in KVA)	4.44	Billing Demand (in KVA)	37.0	Average Power Factor	97.5
Power on Hours	720.0	**Freeze Amount**	**0.0**	**Oxygen Plant Rebate**	**0.00**	Availability Percentage	

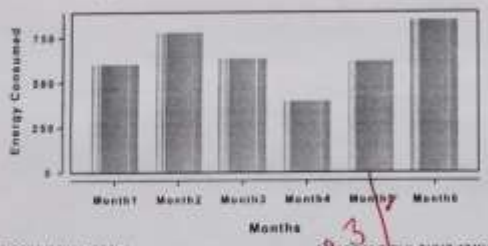
Billing Details

Current Demand	Outstanding Amount	Adjustment Amount	Solar Rebate	Net Bill Amount
Rs. 13885.800	Rs. 14597.370	Rs. 0.000	0.00	**Rs. 28483.000**
				In Words: Rupees Twenty Eight Thousands Four Hundred Eighty Three Only

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

Charges Breakup			
Details	Units	Rate	Amount
Energy Charge(Normal)	660.800	8.100	5352.480
Total Energy Charge			5352.48
Energy Charge Re-Estimated			0.000
Rooftop Solar Adjustment			0.00
Demand/Fixed Charge (KVA)	37.0	210.0	7663.56
FPPPA Charge		0.00	0.00
Electricity Duty			650.8
Govt. Subsidy		0.0	0.0
Overdrawal Penalty			0.0
Meter Rent		0.0	0.0
Charges for dishonoured cheque			0.0
Arrear Principal			14597.370
Arrear Surcharge			0.000
Current Surcharge			218.960
Adjustment Amount			0.000
Rebate if paid before due date			**0.00**
Payable amount before due date			**28483.00**
Payable amount after due date			**28483.00**

Energy Consumption (Last Month's Bill)



Checked by E&UE:

Prepared by: 4UU13182

Signature with seal

28483/-

Passed for Rs. 28483/-
16/05/2023

ch-No – 151288 dt. 16/5/2023

Annexure-II

DISTRICT LEVEL WATER TESTING LABORATORY, BARPETA

ADDRESS: OFFICE OF THE EXECUTIVE ENGINEER (PHE) BARPETA DIVISION: BARPETA

Email ID: dllbarpeta@gmail.com Ph. No: 9854126343/7002265769

TEST REPORT

Test Report No: PHED/BAR/DLL/2024-2025/0088 Issue Date : 19/06/2024

ULR NO : XXXXXXXXXXXXXXXXXX

Humidity: 63% & Temperature: 26.9°C

Issued To : BARPETA GIRLS COLLEGE
Sample ID : BAR/DLL-0129
Sample Description : DRINKING WATER
Sample Type : BORE WELL
Sample collected on Dated : 10-06-2024
Sample Received on Dated : 10-06-2024
Date of Analysis Started : 10-06-2024
Dated of Analysis completed : 13-06-2024
Customer Name : JYOTISH TALUKDAR
Customer Contact No : 9678284719

Sample Quantity: 500 ML ACID & 500 ML NON ACID
Sample Condition: MAINTAINED AT 4° C

Sample Collected by : JYOTISH TALUKDAR

SAMPLE LOCATION
COLLEGE CAMPUS
BARPETA TOWN, BARPETA

RESULTS

SL. NO	NAME OF PARAMETERS	RESULTS	UNIT	IS 10500:2012 (Second Revision)		PROTOCOL USED
				DESIRABLE LIMIT	MAX. PERMISSIBLE LIMIT (IN ABSENCE BETTER ALTERNATE SOURCE)	
1	Turbidity	0.4	NTU	1	5	IS: 3025: (Part 10)
2	pH (at 25° C)	7.34	-----	6.5-8.5	No Relaxation	IS: 3025 (Part 11)
3	Total Dissolve Solid	252	mg/l	500	2000	IS: 3025 (Part 16)
4	Chloride	15.59	mg/l	250	1000	IS: 3025 (Part 32)
5	Total Alkalinity	234	mg/l	200	600	IS: 3025 (Part 23)
6	Total Hardness	238	mg/l	200	600	IS: 3025 (Part 21)
7	Total Iron	4.62	mg/l	1.0	No Relaxation	APHA 3500-Fe B
8	Arsenic	0.062	mg/l	0.01	No Relaxation	IS:3025 (Part 37)
9	Fluoride	0.49	mg/l	1	1.50	APHA-4500 - F D
10	Residual Chlorine	NA	mg/l	0.2	1	APHA 4500-Cl B
11	Bacteriological	Negative	Positive/ Negative			H2S Strip

Remarks: Tested at Sl. No. 7 & 8 in the test reports do not meet the requirement of IS 10500:2012 (Second Revision)

NOTES:

- The Results given above are related to the sample as received and tested in this Laboratory. Reliability of Sample lies with the sender.
- The Test Report cannot be regenerated/ re-produced in whole or in part without written permission of Laboratory
- The Test report cannot be used for any publicity or any legal purpose.
- The Test sample meant for Chemical analysis will be disposed of after 15 days from the date of issue of test report unless Until specifically requested by the customer for retaining over a longer period.
- BDL- Below Detection Limit (For <0.001)
- Laboratory is responsible for all the information provided in the report.

Reviewed By,

Signature :
Name : Shirin Parbin
Designation : Quality Manager

Authorized By,

Signature :
Name : Shirin Parbin
Designation : Quality Manager

END OF TEST REPORT

Page No: 1 of 1

Annexure-II

सत्यमेव जयते

INDIA NON JUDICIAL

Government of Assam

e-Stamp

Certificate No.	:	**IN-AS94831770093159W**
Certificate Issued Date	:	13-Jun-2024 11:10 AM
Account Reference	:	CSCACC (GV)/ ascsceg07/ AS-BRPAR0240/ AS-BR
Unique Doc. Reference	:	SUBIN-ASASCSCEG07782854228939 35W
Purchased by	:	BARPETA GIRLS COLLEGE
Description of Document	:	Article 5 Agreement or Memorandum of an agreement
Property Description	:	Not Applicable
Consideration Price (Rs.)	:	0 (Zero)
First Party	:	BARPETA GIRLS COLLEGE
Second Party	:	BARPETA MUNICIPAL BOARD
Stamp Duty Paid By	:	BARPETA GIRLS COLLEGE
Stamp Duty Amount(Rs.)	:	100 (One Hundred only)

Chairman, Barpeta Municipal Board

Principal
Barpeta Girl's College

Please write or type below this line

Memorandum of Understanding (MoU)

Between
Barpeta Girls' College
(Hereinafter referred to as "The College")
And
Barpeta Municipal Board
(Hereinafter referred to as "The Board")

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Statutory Alert:
1. The authenticity of this Stamp certificate should be verified at 'www.shcilestamp.com' or using e-Stamp Mobile App of Stock Holding. Any discrepancy in the details on this Certificate and as available on the website / Mobile App renders it invalid.
2. The onus of checking the legitimacy is on the users of the certificate.
3. In case of any discrepancy please inform the Competent Authority.

Purpose:

The purpose of this Memorandum of Understanding (MoU) is to establish a collaborative framework between The College and The Board for the effective management and disposal of waste generated within the premises of Barpeta Girls' College.

Scope:

This MoU covers the collection and disposal of waste from The College premises by The Board on a weekly basis.

Terms and Conditions:

Responsibilities of Barpeta Girls' College:

1. To segregate waste into biodegradable and non-biodegradable categories.
2. To ensure that the waste is properly packed and stored in designated areas for collection.
3. To provide access to The Board's waste collection team for the removal of waste.

Responsibilities of Barpeta Municipal Board:

1. To collect and dispose of the waste from The College premises once a week.
2. To ensure that the waste collection process is conducted in an environmentally friendly manner.
3. To provide necessary support and guidance to The College for effective waste management practices.

Collection Schedule:

Waste will be collected from The College premises every Saturday of the week.
Any changes to the schedule will be communicated at least 48 hours in advance.

Duration and Review:

This MoU is effective from 13-06-2024 and will remain in force for a period of two year.
The MoU may be reviewed and renewed upon mutual agreement of both parties.

Termination:

Either party may terminate this MoU with a 30-day written notice to the other party.

Dispute Resolution:

Any disputes arising from the execution of this MoU shall be resolved through mutual discussions and negotiations between the parties.

Principal
Barpeta Girl's College

Chairman,
Barpeta Municipal Board
Barpeta

Miscellaneous:

This MoU is not legally binding but represents the goodwill and commitment of both parties to collaborate on waste management.

Amendments to this MoU can be made with the written consent of both parties.

Signatories

For Barpeta Girls' College:

Birinchi Kumar Das

Name: Dr. Birinchi Kumar Das
Position: Principal, Barpeta Girls' College
Date: 13-06-2024

BARPETA GIRLS' COLLEGE Estd.-1978 BARPETA

Principal
Barpeta Girl's College

For Barpeta Municipal Board:

Chairman, 13/6/24
Barpeta Municipal Board
Barpeta

Name: Chabilal Das
Position: Chairman, Barpeta Municipal Board
Date: 13-06-2024

This MoU is signed on this 13th of June, 2024 at Barpeta.