

GREEN AUDIT REPORT

Session 2024-25 & 2025-26



KAMARGAON COLLEGE

P.O.: Kamargaon, District: Golaghat,

Assam - 785619

(Affiliated to Dibrugarh University)

UGC 2(f) & 12(B) | NAAC Accredited (B⁺⁺)

Prepared by

Internal Quality Assurance Cell (IQAC)



DECLARATION BY THE INSTITUTION

This is to declare that the information, data and documents presented in this Green Audit Report for the session 2024-25 & 2025-26 of Kamargaon College, Kamargaon, Golaghat, Assam are true, authentic and based on the official records of the institution.

The report has been prepared by the Internal Quality Assurance Cell (IQAC) after collecting and verifying the relevant information from the concerned departments, committees and institutional records. To the best of our knowledge and belief, the contents of this report are correct and valid.



(Ankita Kalita)
Coordinator, IQAC
Kamargaon College

Co-ordinator
IQAC
Kamargaon
Golaghat
Kamargaon College
Golaghat, Assam.



(Dr. Gautom Kumar Saikia)
Principal
Kamargaon College

PRINCIPAL
KAMARGAON COLLEGE
KAMARGAON- 785619
GOLAGHAT, ASSAM

CERTIFICATE OF VERIFICATION AND APPROVAL

This is to certify that the **Green Audit** for the session 2024-25 & 2025-26 of **Kamargaon College, Kamargaon, Golaghat, Assam** has been conducted by verifying the relevant records, documents and institutional practices related to gender equity and inclusiveness.

Based on the verification of the available records and observations made during the audit, I am satisfied that the Green Audit Report of the institution is a true and fair representation of the environment-related initiatives and practices adopted by the college during the assessment period. The report is hereby **verified and approved** for academic and institutional quality assurance purposes.

I appreciate the sincere efforts made by the institution towards promoting an equitable, inclusive, safe and environment-friendly campus and encourage the college to continue strengthening its initiatives in accordance with the relevant guidelines and best practices.

Verified and approved by:

Signature 

Name of Auditor: Aihom Shyam, Forester Grd - I

Designation: Forester Grade - I

Name of the Institution: Numaligarh Forest Beat Officer
Numaligarh Beal

Place:

Date:

1. Introduction and Rationale

1.1 Conceptual framework

A green audit is a systematic, documented and objective examination of an institution's environmental performance. It assesses the use of natural resources, generation and disposal of waste, biodiversity profile and the institutional culture of sustainability. The audit aligns with NAAC Criterion VII on Institutional Values and Best Practices (sub-indicators 7.1.4 on water conservation, 7.1.5 on green campus initiatives and 7.1.7 on barrier-free environment), the UGC's directive on energy and environment audits (2019) and applicable Sustainable Development Goals — notably SDG 6 (Clean Water), SDG 7 (Affordable and Clean Energy), SDG 12 (Responsible Consumption), SDG 13 (Climate Action) and SDG 15 (Life on Land).

1.2 Institutional rationale

Kamargaon College is situated in a rural setting in the Bokakhat sub-division of Golaghat district, in close proximity to the buffer zone of Kaziranga National Park and Tiger Reserve. The campus covers approximately 7.17 acres and forms part of a landscape ecologically connected to one of the most significant biodiversity hotspots of South Asia. Conducting periodic green audits is therefore not merely an exercise in NAAC compliance but a substantive contribution to regional ecological stewardship and to environmental pedagogy in the catchment community.

1.3 Objectives

- To record the biodiversity of the campus, including trees, plants and birds.
- To assess the use of electricity and water and identify ways to reduce consumption.
- To examine the management of solid waste, including paper, plastic, e-waste and biodegradable waste.
- To evaluate the quality of air and soil within the campus.
- To review environmental activities such as plantation drives, NSS programmes and awareness campaigns.
- To suggest measures for improving environmental sustainability on the campus.

1.4 Scope and reporting period

The audit covers two consecutive academic sessions: 2024–25 (1 July 2024 to 30 June 2025) and 2025–26 (1 July 2025 to 30 June 2026), per the Dibrugarh University calendar.

2. Methodology

2.1 Audit protocol

The audit follows a five-stage protocol: (i) pre-audit planning and team orientation; (ii) on-site walk-through and infrastructure mapping; (iii) data collection through measurement, metering and document review; (iv) analysis and (v) reporting and dissemination.

2.2 Sources of data

- Office of the Principal: utility records.
- Assam Power Distribution Company Limited (APDCL): monthly electricity bills for both sessions.
- Public Health Engineering Department / institutional borewell records: water extraction and supply.
- NSS Programme Officer's diary: plantation drives, awareness rallies, Swachh Bharat activities.
- College horticulture / maintenance section: tree census, garden maintenance log.
- Canteen contractor: estimated daily waste generation, segregation practice.
- Library: paper consumption, journal subscriptions, and digital migration data.
- On-site instrument-based readings

2.3 Indicators used

- Energy: total annual consumption (kWh)
- Water: total annual draw (kL)
- Waste: total generation (kg/day), proportion segregated at source, proportion composted.
- Biodiversity: number of tree species, total tree count, canopy cover.

3. Institutional and Campus Profile

Particular	Detail
Name of the institution	Kamargaon College
Year of establishment	1972 (under Tribal Sub-Plan, Golaghat district)
Location	P.O. Kamargaon, Bokakhat Sub-Division, District Golaghat, Assam — 785619
Geographical setting	Rural; approximately 400 metres north of NH-37; in proximity to Kaziranga National Park buffer zone
Affiliation and recognition	Dibrugarh University; UGC 2(f) and 12(B); NAAC accredited B++
Total campus area	Approximately 7.17 acres
Number of academic blocks	1
Number of administrative blocks	1
Hostel(s)	Women's hostel on campus
Canteen	Operational on campus

Particular	Detail
Major plant and equipment	Library, Computer Lab (20 workstations), Language Lab

4. Campus Biodiversity

4.1 Tree census — summary

A tree census was conducted on the campus to record all woody plants. Information such as the botanical and Assamese names was collected. The summary below presents the total numbers.

4.2 Indicative species inventory

The audit team has recorded both Assamese vernacular names and botanical names.

Native trees: Xaal (*Shorea robusta*), Xim (*Toona ciliata*), Xilikha (*Terminalia chebula*), Bhomora (*Terminalia bellirica*), Outenga (*Dillenia indica*), Bogori (*Ziziphus mauritiana*), Bel (*Aegle marmelos*), Kadam (*Neolamarckia cadamba*).

- Bamboo and grasses: Jati Bāh (*Bambusa tulda*), Bijuli Bāh, kūsh and dūbori grasses.
- Fruit and economic trees: Coconut, Areca, Mango, Jackfruit, Lemon, Litchi, Guava.
- Ornamentals: Krishnachura (*Delonix regia*), Radhachura (*Caesalpinia pulcherrima*), Champa, Hibiscus, Bougainvillea.
- Medicinal plants: Tulsi (*Ocimum sanctum*), Neem (*Azadirachta indica*), Bhringaraj, Aloe vera, Mānimuni (*Centella asiatica*).

List of Plants and Trees in the Campus

A. Trees

Sl. No.	Local Name	English Name	Scientific Name
1	Chandan	Sandal wood	Genus Santalum
2	Nahar	Ceylon ironwood	Mesua ferrea
3	Neem tree	Neem	Azadirachta indica
4	Eucalyptus	Eucalyptus	Eucalyptus spp.
5	Debadaru	Monoon Longifolium	Polyalthia longifolia
6	Sanchi	Agarwood	Aquilaria malaccensis
7	Rudra Palash	Flame of the Forest	Butea monosperma
8	Kadam	Burflower tree	Neolamarckia cadamba
9	Royal Palm	Cuban Royal Palm	Roystonea regia
10	Foxtail Palm	Foxtail Palm	Wodyetia bifurcate
11	Bokul	Spanish cherry	Mimusops elengi

B. Herbs

Sl. No.	Local Name	English Name	Scientific Name
1	Narasingha	Curry Leaves	Murraya koenigii
2	Mosundori	Fish mint	Houttuynia cordata
3	Nefafu	East Indian glory bower	Clerodendrum colebrookianum
4	Bhadailata	Skunk vine	Paederia foetida
5	Salkuwari	Aloe vera	Aloe barbadensis miller
6	Bhekuri Tita	Turkey berry	Solanum torvum
7	Tejpat	Indian Bay leaf	Cinnamomum tamala
8.	Manimuni	Asiatic pennywort	Centella Asiatica
9.	Tengesi	Indian Sorrel	Oxalis Corniculata
10.	Modhusuleng	Chinese knotweed	Persicaria Chinensis
11.	Drunbon	Common Leucas	Leucas Aspera
12	Suklati	Indian patchouli	Pogostemon benghalensis
13.	Dupor tenga	Bryophyllum	Kalanchoe pinnata
14.	Jomlakhuti	Crepe ginger	Hellenia speciosa
15.	Tulshi	Basil	Ocimum tenuiflorum
16.	Pudina	Mint	Mentha spicata
17.	Amarlata	Giloy	Tinospora cordifolia
18.	Xiju	Antique spurge	Euphorbia Antiquorum
19.	Kosu	Taro	Colocasia esculenta
20.	Man dhoniya	Culantro	Eryngium foetidum
21.	Nayantara	Periwinkle	Catharanthus roseus
22.	Bangali era	Physic nut	Jatropha curcas
23.	Lajuki lata	Touch-me-not	Mimosa pudica

C. Fruit-bearing Trees

Sl. No.	Local Name	English Name	Scientific Name
1	Amlakhi	Indian gooseberry	Phyllanthus emblica
2	Jalphai	Olive	Olea europaea
3	Bagari	Jujube	Ziziphus jujuba
4	Bal	Bael	Aegle marmelos
5	Aam	Mango	Mangifera indica

Sl. No.	Local Name	English Name	Scientific Name
6	Tamol	Betel nut	Areca catechu
7	Amora	Ambarella / Hog plum	Spondias dulcis
8	Narikal	Coconut	Cocos nucifera
9	Nemu	Lemon	Citrus limon L.
10	Madhuriam	Guava	Psidium guajava
11	Takau	Doub palm	Borassus flabellifer
12	Jamuk	Black berry	Syzygium cumini

D. Flowering Plants

Sl. No.	Local Name	English Name	Scientific Name
1	Krishnachura	Royal Poinciana	Delonix regia
2	Radhachura	Peacock Flower	Caesalpinia pulcherrima
3	Kanchan	Kachnar	Bauhinia variegata var. candida
4	Jaba	Hibiscus	Hibiscus rosa-sinensis Linn
5	Golap	Rose	Rosa spp.
6	Xewali	Night jasmine	Nyctanthes arbor-tristis
7	Tagar	Gardenia	Tabernaemontana divaricata
8	Bougainvillea	Bougainvillea	Bougainvillea spectabilis
9	Nayantara	Periwinkle	Catharanthus roseus
10	Modhumalati	Rangoon creeper	Combretum indicum
11	Ashok	Ashoka tree	Saraca asoca
12	Orchids	Orchid	Orchidaceae spp.
13	Mosunda	Mussaenda	Mussaenda philippica
14	Kharikajai	Malabar jashmin	Jashminam malabaricum
15	Japanish Ajar	Japanish Azalea	Rhododendron japonicum
16	Rain lily	Rain lily	Zephyranthes carinata
17	Bleeding heart	Asian Bleeding heart	Lamprocapnos spectabilis
18	Crinum lily	Crinum lily	Crinum asiaticum
19	Gulonch	Plumeria	Plumeria Rubra

4.3 Avifauna and minor fauna observed

Observation of birds, butterflies, and small mammals provides an indirect but reliable index of campus ecological health. The audit team has recorded opportunistic sightings during the survey period .

5. Energy Audit

5.1 Electricity consumption

Monthly consumption is sourced from APDCL bills.

Indicator	Session 2024–25	Session 2025–26	Source / Remarks
Average monthly consumption (kWh)	27,200 kWh	27,200 kWh	APDCL bill
Average monthly electricity bill (INR)	25,000	25,000	APDCL bill

5.2 Equipment inventory and efficiency

Indicator	Session 2024–25	Session 2025–26	Source / Remarks
Total number of tube-lights / CFLs	96	96	Tube-lights: 83; CFLs: 13 (per maintenance inventory)
Total number of LED fixtures	171	171	Per maintenance inventory
Percentage of lighting load that is LED	61%	61%	LED 171 of 267 lighting fixtures
Total number of ceiling fans	227	227	Per maintenance inventory
Number of air-conditioners (split / window)	5	5	Per maintenance inventory
Number of computers and printers	63	63	Computers: 47; Printers: 16
Number of photocopiers	6	6	College infrastructure
Generator capacity and fuel use	30 kVA, 1.5 litres per hour	30kVA, 1.5 litres per hour	Generator capacity: 30kVA Fuel use: 1.5 litres per hour
Total number of solar street light	08	23	Increased from the last academic year

5.3 Renewable energy and energy conservation measures

- Solar street lights: number installed: 23 (of which 15 were installed in May 2026).
- Star-rated electrical equipment in office and laboratory: yes.
- Display of energy-saving notices in classrooms and offices: yes.
- Automatic switch-off protocol for vacant rooms: yes .

6. Water Audit

6.1 Water sources and consumption

Indicator	Session 2024–25	Session 2025–26	Source / Remarks
Primary source of water (borewell)	borewell	borewell	
Total per day use (kilolitres)	8000	8300	—
Number of taps on campus	46	46	Per maintenance survey

6.2 Conservation infrastructure

Facility	Session 2024–25	Session 2025–26	Source / Remarks
Rainwater harvesting structure (present / absent)	Present	Present	Storage tank installed
Rainwater harvesting capacity (kL)	1,100	1,100	Tank capacity 1,100 kL
Recharge pits / soak pits on campus	2	2	—

6.3 Water quality

This section presents the results of the laboratory analysis of campus drinking water carried out as part of the Green Audit. The objective was to verify the potability of the institutional drinking-water supply against the applicable national standard and to document the source as safe for human consumption.

A. Sample and Testing Details

Testing Laboratory	District Level Laboratory, Jorhat PHE Division, Jorhat, Assam
Report No. (ULR)	TC-165162600000269F / TC-16516
Sample Code	JRT/DLL/P06-19 (chemical); JRT/DLL/P06-B19 (bacteriological)
Source / Nature	Drinking Water
Location	Kamargaon College, Golaghat
Sample Collected By	Staff
Date of Collection	22 June 2026
Date of Testing	22 June 2026 – 24 June 2026
Report Issue Date	24 June 2026
Reference Standard	IS 10500:2012 (Second Revision) – Indian Standard for Drinking Water

B. Physico-Chemical Parameters

Parameter	Result	Desirable Limit	Status
Odour	Agreeable	Agreeable	Conforms
Taste	Agreeable	Agreeable	Conforms
pH @ 25 °C	6.58	6.5 – 8.5	Conforms
Turbidity (NTU)	0	1	Conforms
Total Dissolved Solids (mg/L)	78	500	Conforms
Iron (mg/L)	0.05	1.0	Conforms
Nitrate (mg/L)	BDL	45	Conforms
Chloride (mg/L)	6.38	250	Conforms
Total Alkalinity as CaCO ₃ (mg/L)	65	200	Conforms
Total Hardness as CaCO ₃ (mg/L)	70	200	Conforms
Calcium (mg/L)	13.63	75	Conforms
Magnesium (mg/L)	8.75	30	Conforms
Arsenic (mg/L)	BDL	0.01	Conforms
Fluoride (mg/L)	BDL	1.0	Conforms
Residual Free Chlorine (mg/L)	0	0.2 – 1.0	Below range

BDL = Below Detection Level. All parameters tested against IS 10500:2012 (Second Revision).

C. Bacteriological Parameters

Parameter	Result	Desirable Limit	Status
Total Coliform (CFU/100 ml)	0	Absent	Conforms
E. coli (CFU/100 ml)	0	Absent	Conforms

Method: Membrane Filtration Method. "Absent" denotes no detectable colony-forming units per 100 ml.

7. Solid and Liquid Waste Management

7.1 Waste generation and segregation

Indicator	Session 2024-25	Session 2025-26	Source / Remarks
Total solid waste generated (kg / day)	6.5	8.5	College campus
Biodegradable waste (kg / day)	5	7	College Campus
Non-biodegradable waste (kg / day)	1.5	1.5	College Campus
Hazardous / e-waste (kg / year)	20	20	College Campus
Source segregation practice (yes / partial / no)	yes	yes	—

Indicator	Session 2024–25	Session 2025–26	Source / Remarks
Number of dustbin pairs (green + blue) installed	7	7	7 green and 7 blue bins for source segregation

7.2 Disposal arrangements

- Disposal channel for biodegradable waste: composting
- Vermicomposting unit on campus: yes. Annual input 80 kg and compost output: 2 qntl
- Disposal arrangement for non-biodegradable waste: rag-picker
- Arrangement for e-waste: authorised vendor
- Sanitary waste disposal: incinerator
- Organic waste utilisation: biodegradable solid waste generated daily from the college canteen and the hostel is not discarded but is used as feed for livestock such as pigs, cows and goats thereby closing the organic-waste loop on campus. During the present session the college itself reared four goats, sustained substantially on this canteen and hostel waste stream.
- Source segregation is supported by seven green and seven blue bins distributed across the campus, separating biodegradable from non-biodegradable waste at the point of generation.

7.3 Paper and printing

Indicator	Session 2024–25	Session 2025–26
Annual paper consumption (reams)	60	55
Two-sided printing default in office (yes / no)	yes	yes

7.4 Liquid waste and sanitation

- Type of sewage disposal: soak pit / septic tank
- Number of septic tanks and frequency of clearance: 8, yes.
- Use of biological cleaning agents in toilets: yes .

8. Carbon Footprint Estimation

Estimation is undertaken on a partial-scope basis. Scope 1 covers direct emissions from on-site fuel combustion (DG set, kitchen LPG). Scope 2 covers indirect emissions from purchased electricity.

Component	Session 2024–25	Session 2025–26
Scope 1 — Diesel for DG set (litres → kg CO ₂ e)	45 litres per month	41L per month
Scope 1 — LPG for canteen and hostel (cylinders → kg CO ₂ e)	76 cylinder per month (15.3kg per cylinder)	Same as 2024-25__

10. SWOC Analysis (Environmental Dimension)

Strengths	Weaknesses
• Rural campus with substantial open and green area • Proximity to Kaziranga landscape — opportunities for field-based ecological pedagogy • Active NSS unit with documented community-engagement record • Indigenous flora and traditional ecological knowledge within the catchment community	• Absence of in-house instrumentation for ambient monitoring
Opportunities	Challenges
• Solar rooftop installation under State and Central schemes • MoUs with the Forest Department, KVK, and Kaziranga authorities • Use of the campus as a demonstration site for sustainable practices	• Proximity to NH-37: noise and air-quality pressure • Budgetary constraints for capital investment in green infrastructure


 Numaligarh Forest Beat Officer
 Numaligarh Beat