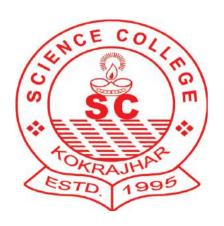
# A Report On Green Audit in Science College Kokrajhar



**Submitted to** 

**Principal** 

Science College, Kokrajhar

Kokrajhar, BTAD (Assam), 783370

GREEN AUDIT - SCIENCE COLLEGE, KOKRAJHAR

CERTIFICATE

Date: 20-06-2024

This is to certify that a Green Audit has been carried out in Science College, Kokrajhar, P.O.:

Kokrajhar on .. 2.0.th June 024.

The college has provided necessary data and credential evidence for scrutiny. The green activities and measures carried out by the college have been verified. Water, air and soil test report are examined. After collecting the data's for use of water, electricity, natural resources and analysing them, Green audit cell have prepared the report and submitted as per the procedure.

The data and photographs provided by the college authority or collected by the cell are not published elsewhere.

The efforts taken by the college to make it sustainable is highly appreciable and commendable. We are sincerely thankful to the college management for taking such initiatives for sustainable environment in the college.

Thanking you

Divisional Forest Officer

Hallugaon Division, Kokrajhar

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#### ACKNOWLEDGEMENT

The Green Audit report assists in the process of attaining an eco-friendly approach to the sustainable development of the college. The green audit Assessment team sincerely thank the Science College, Kokrajhar authorities for assigning the task. We appreciate the cooperation extended to our team during the entire process.

Our special thanks to Dr. Ramananda Sinha, Principal, Science College, Kokrajhar, all governing body Mr. Lawrence Islary, Hon'ble MLA, Assam; Smt. K. Basumatary, Mr. K. C. Boro; Mr. A. Goyari, Mr. J. C. Dey, Dr. Mridula Devi; Dr. Sharmistha Chakraborty; Dr. Sanjib Brahma; Dr Anuradha Sinha and Mr. S.N Brahma; IQAC Coordinator of the college, Dr. Biswajit Nath and all members of the green audit cell for giving us the necessary inputs to exercise Green Audit.

Hope that the results presented in the Green Audit Report will serve as a guide for educating the college community on the existing environment related practices and resource usage in the college that will also help to spawn new activities along with innovative practices. We thus expect that the college authorities will be committed to implement the Green Audit recommendations. We are happy to submit this Green Audit report to the authorities of Science College, Kokrajhar.

formina Brahma)

(Dr. Femina Brahma)

Convenor, Green Audit cell

Science College, Kokrajhar

#### 1. INTRODUCTION:

The green audit aims to analyse environmental practices within and outside the university or college campuses, which will have an impact on the eco-friendly atmosphere. Green audit can be defined as systematic identification, quantification, recording, reporting and analysis of components of university or college environment. It helps to collect and prepare base line and appropriate database pertaining to environmental parameters which can be used to resolve environmental issues. It was initiated with the motive of inspecting the effort within the institutions whose exercises can cause threat to the health of inhabitants and the environment. Through green audit, a direction can be set as how to improve the structure of the environment including several factors that can be determined for the growth and benefit of the environment.

Science College, Kokrajhar takes initiatives to contribute in sustainable development goals by reducing a significant amount of Green House Gas (GHG) from the atmosphere. As a part of this initiative, the "Green Audit" of the college campus was established with a primary aim for self-assessment of the institution which will reflect the role of the college in mitigating the present environmental problems. Thus, Science college formed a green audit cell where this cell organizes many programmes related to the sustainable environment and also look into the matter of green audit in the campus.

Green Audit is an effective tool to formulate a culture of sustainability by implementing it through systematic identification, quantification, documentation, reportingandmonitoringofenvironmentally important components. Green audit will also help in preserving the rich floral and faunal diversity in and around the campus.

## 1.1. NEED FOR GREEN AUDITING

Green auditing is the process of identifying and determining whether institutions practices are eco-friendly and sustainable. Traditionally, we are good and efficient users of natural resources. But over the period of time excess use of resources like energy, water and natural gaseshave become habitual for everyone especially, in common areas. Now, it is necessary to check whether our processes are consuming more than required resources orwhether we are handling resources carefully. Green audit regulates all such practices and gives an efficient way of natural resource utilization. In the era of climate change and resource depletion it is necessary to verify the processes and convert it in to green and clean ones.

Green audit provides an approach for it. It also increases overall consciousness among the people working in institution towards an environment.

## 1.2. OBJECTIVES OF GREEN AUDIT

The Green Audit of Science College, Kokrajhar campus has been carried out by the Green Audit Committee of the college with the following objectives:

- 1. To examine the current practices, which can impact on environment such as of resource utilization, waste management etc.
- 2. To identify and analyze significant environmental issues within the campus.
- 3. Setup goal, vision, and mission for Green practices in campus.
- 4. Establish and implement Environment Management in various departments.
- 5. Continuous assessment for betterment in performance and follow up action plans

# 1.2. BENEFITS OF GREEN AUDIT TO EDUCATIONAL INSTITUTIONS

There are many advantages of green audit to an Educational Institute:

- 1. It would help to protect the environment in and around the campus.
- 2. Recognize the cost saving methods through waste minimization and energy conservation.
- 3. Empower the organization to frame a better environmental performance.
- 4. It portrays good image of institution through its clean and green campus. Finally, it will help to built positive impression for through green initiatives the upcoming NAAC visit.

#### 2. OBJECTIVE AND SCOPE

The broad aims/benefits of the eco-auditing system would be

- o Environmental education through systematic environmental management approach
- o Improving environmental standards
- o Benchmarking for environmental protection initiatives
- O Sustainable use of natural resource in the campus.
- o Financial savings through a reduction in resource use
- o Curriculum enrichment through practical experience
- Development of ownership, personal and social responsibility for the College campus and its environment
- o Enhancement of College profile
- O Developing an environmental ethic and value systems in young people.

## 3. PARAMETERS OF OBSERVATION:

- Land use analysis of Science College.
- o Tree diversity of the college campus.
- o Faunal diversity of the college camp
- o Soil properties of the college campus
- Water analysis of the college.
- Waste disposal of college
- Electrical power consumption of the college
- o Green initiative carried out by the college

## 4. METHODOLOGY ADOPTED FOR GREEN AUDIT:

The methodology adopted to perform the entire Green Audit exercise includes: collection of data, physical inspection of the campus, observation and review of the documentation, data analysis and reporting.

Following steps were taken for data collection:

# **Step 1: Field visit**

- The audit team visited each building and department, library, canteen, open space, gardens of the campus and information was collected by interviewing with the responsible person.
- Land use data of the college has been collected.
- The energy data such as monthly electricity consumption and fuel consumption was collected from the officials and analysed.
- Waste management facility such as waste bins etc. has been visited, other waste disposal process adopted by the college has been discussed and noted.
- All flora and fauna found in the college campus has been identified and listed out
- Water quality, soil property of the campus has been measured

# Step 2: Campus tour and physical inspection

The audit team conducted campus tour on 7<sup>th</sup> July2024 to collect the data.

# **Step 3: Document review and verification**

Available facility documentation is reviewed with facility representatives. This documentation review includes data related to-

## Step 4: Key parameter measurement and testing

- Water test of the college
- Soil property test of the college

# **Step 5: Data Analysis**

- Energyconsumption data analysis (Electricity and fuel consumption data)
- Water test report analysis.

# **Step 6: Prepare a Report Summarizing Audit Findings**

The results of our findings are summarized in this report. The report includes a description of the college campus including different facilities. The energy and environmental conservation initiatives already taken by the college authority has been mentioned in the report along with the necessary observation and requirements to fulfil the green campus. Discussion of all major energy consuming systems and their operation were done. The report incorporates a summary of all the activities and effort performed in past few years to conserve environment and energy within the campus or outside the college campus. The report also includes the activities performed by the college authorities along with the local communities for awareness generation and community participation towards better environmental practices to address the present environmental challenges.

#### 5. DESCRIPTIONOF THE COLLEGE CAMPUS:

Kokrajhar Science College is located in the western part of Kokrajhar Town approximately 500 meter away. The campus covers an area of 4.5 Acres and it is situated in the eastern part of the Gaurang River in the between 26°24' N latitude and 90°15' E longitude, at an average elevation of 30-45.5 meters above sea level. The campus is bounded by urban villages in the east and south. The total campus area of the college is 2,19,384 sq. ft. and the build up area of the building is 41,692 sq. ft. The average temperature ranges from minimum 15° C to maximum 35° C throughout the year. The average humidity remains almost the same with variation from 62% in winter to 87% in post monsoon period. The average annual rainfall of the district is 3102.4 mm with 110 annual average rainy days. The maximum rainfall occurs during the period from April to August.

Science College, Kokrajhar was established in the year 1995 and is situated at Bhatarmari Village of Kokrajhar district. The College was affiliated under Gauhati University and recognized by University Grants Commission (UGC), New Delhi, Govt of India u/s 2f and 12B of UGC Act 1956. No.F. 8-381/2005(PPP-I) Visit www.ugc.ac.in and Provincialized by Govt.of Assam,was started with 17 Numbers of students in Higher Secondary Science section at the temporary venue of Rastrabhasha Vidyapeeth School, Kokrajhar in morning shift. On 26th of July 1996, Mr. Rajendra Kumar Mushahary, the then State Minister WPT & BC, Assam first laid the foundation stone of the College Building and since then Science College came to the existence. In the year

1999 Degree (B.Sc.) Courses were started. Thanks to the band of dedicated social workers Sri Partha Sarathi Bhattacharjee, Late Phanindra Narayan Ray, Sri Rukendra Nath Brahma, Late Kamal Kumar Brahma and Dr. Ramananda Sinha, the present Principal for their relentless efforts to build up the College.Dr.Ramananda Sinha was the founder of the College to this locality. Since inception the College has grown in leaps and bounds and has created an atmosphere in Science Education.

Presently our college is affiliated under the Bodoland University.

# 6. ELECTRICAL POWER CONSUMPTION AT SCIENCE COLLEGE

Type of energy consumed in the campus includes electricity and solar energy. In order to meet the required demand of energy, the supply of energy in the campus is obtained from electricity connection from Assam State Electricity Board and solar power from the roof- top Solar panels obtained from Assam Energy Development Agency (AEDA). Since the use of renewable sources of energy should be encouraged, therefore a number of solar panels are also installed in the campus which is a good source of renewable solar energy use. Appropriate measures have also been taken to reduce current use by creating awareness and using solar power in day time. For this purpose, common electric bulbs and tubes are basically replaced phase wise by LED bulbs and tubes throughout the campus which are power efficient as well as low power consuming ones. Moreover for reduction of electricity consumption, hostellers were educated to minimise the use of electrical appliances like heater, hair dryer etc., inside the hostels. Standard norms were also followed by electricians to develop efficient power supply network to reduce excess use and proper inspection were carried on time to time to identify the defects in power supply and prompt replacement of the same. Records on electricity consumption show that per year energy of 30,195.000 unit/KWh is required. Thus per month an energy of 2,516.25 unit/KWh is required which is 84.817 unit/KWh. The pattern of electricity power use in the college campus indicates that 87.00 units of electricity were consumed on a monthly average during the year July 2022 up till June 2023. Statics indicate that there is steady average electricity consumption on the campus.



# OFFICE OF THE PRINCIPAL

# SCIENCE COLLEGE, KOKRAJHAR

P.O & Dist: Kokrajhar- 783370 B.T. C., ASSAM, INDIA

Ph.No : +91 3661796091 (O) E-mail ID: sciencecollege95@smail.com Website : www.sciencecollege.ac.in

Ref. No:

Date:

# **ELECTRICITY BILLS FOR THE ACADEMIC YEAR 2022 2023**

Sl no.	Month	Year	Consumption (KWH)	Amount (Rs)
1	July	2022	87.00 KW	38,276.00
2	August	2022	87.00 KW	81,243.00
3	September	2022	87.00 KW	45,632.00
4	October	2022	87.00 KW	31,766.00
5	November	2022	87.00 KW	32,066.00
6	December	2022	87.00 KW	31,066.00
7	January	2023	87.00 KW	27,861.00
8	February	2023	87.00 KW	31,648.00
9	March	2023	87.00 KW	34,450.00
10	April	2023	87.00 KW	36,509.00
11	May	2023	87.00 KW	41,345.00
12	June	2023	87.00 KW	39,066.00

Science College, Kokrajhar

# 7. LAND USE ANALYSIS:

Data related to land use in the Science College, Kokrajhar:

1. The Total campus area of the college: 2,19,384 Sq ft.

2. Built up area of the building: 41,692 Sq. ft

3. Open space area: 1,77,692 Sq ft

4. Administrative building: 4,624 Sq.ft

5. Class room building: 16,694 Sq. ft

6. Laboratory: 7,340 Sq.ft

# 8. WATER QUALITYOF THE COLLEGE CAMPUS:

Water quality testing is an important task of green audit as it identifies contaminants and avoids water borne diseases. Science College uses ground water for their daily needs. Water is being used in the campus as drinking water, used in washrooms and for gardening and other purposes. Therefore, it is very important to test the water to ensure the quality to use for all purposes. Water used for drinking is filtered by using water purifier system installed in different locations of academic buildings. Cleaning of the water filter is carried out on regular basis to ensure the better quality of drinking water.



# DISTRICT LEVEL LABORATORY KOKRAJHAR OFFICE OF THE EXECUTIVE ENGINEER (PHE), KOKRAJHAR DIVISION NO.I KOKRAJHAR, ASSAM PIN - 783370 Email id: dllkokrajhar@gmail.com

Har Ghar Jal

TC-11009

# DRINKING WATER TEST REPORT

ULR NO	TC11009 24000000311F						
Source Type	Тар	Tap Work Order No.: NIL					
Village	Andujhar Pt-I		Block	Kokrajhar	Se district Level		
Pin Point Location	Science College B	Cokrajhar			इं रिल्ली		
Contact No	-		Report Issue Date:	20/00/2024			
Sample Description:	Drinking water		Date Of Receipt:	12/06/2024	Makraphat Deli		
Test Start Date:	12/06/2024		Test End Date:	15/06/2024	akrajtant on		
Sample Condition	Good, Maintaine	ed at 4°C					

Sample Collected By:	Ranjit	
Sample ID:	S20898541	

Sr. No	Parameters	Methods	Units	Results	Acceptable Limits	Permissible limits
1	Colour	IS 3025 (Part 4)	Hazen units	0	5	15
2	Odour	IS 3025 (Part 5)	7 10 -	Agreeable	Agreeable	Agreeable
3	pH at 25°C	IS 3025 (Part 11)		6.81	6.5 to 8.5	No relaxation
4	Taste	IS 3025 (Part 8)	1 2	Agreeable	Agreeable	Agreeable
5	Turbidity	IS 3025 (Part 10)	NTU	0.5	1	5
6	Total dissolved solids	1S 3025 (Part 16)	mg/l	82	500	2000
7	Total Hardness	IS 3025 (Part 21)	mg/l	56	200	600
8	Total Alkalinity	IS 3025 (Part 23)	mg/l	55	200	600
9	Chloride	IS 3025 (Part 32)	mg/l	15.99	250	1000
10	Calcium	IS 3025 (Part 40)	mg/l	16.83	75	200
11	Magnesium	ALPHA 24th EDITION -3500- Mg Method B (By Calculation)	mg/l	3.40	30	100
13	Nitrate	IS 3025 (Part 34)	mg/l	0.83	45	No relaxation
14	Iron	ALPHA 24th EDITION -3500-Fe Method B (PhenanthrolineMethod)	mg/l	0.13	1	No relaxation
15	Fluoride	ALPHA 24th EDITION -4500-F Method D (SPADNS Method)	mg/l	0.46	1	1.5
16	Arsenic	IS 3025 (Part 37)	Mg/l	0.000	0.01	No relaxation

Opinion: The Parameters tested above meet the requirement of IS 10500:2012 (Second Revision). \_END OF REPORT\_

#### Note:

- The test report and result relate to the sample as received and tested in the laboratory
  The test reports shall not be reproduced in whole or in parts, without the prior consent of the laboratory.
  The test report is not intended for any publicity or any legal purposes.
  Any correction invalidates this test reports

- •The test sample meant for chemical analysis will be disposed of after 15 days from the date of issue of test report unless specified bycustomer for retaining over a longer period.

Tested by

DLL Kokrajhar (PHE)

LAB/QF-7.8

NODAL Officer (i/c) DLL, Kokrajhar

Approved By

# 9. SOIL PROPERTY OF THE COLLEGE CAMPUS:

The soil quality inside the campus of Science College was tested by the office of the Assistant Soil Chemist, Soil Testing Laboratory, Kokrajhar BTC, Assam. Parameters like pH, TSS, organic carbon, potassium, nitrate and phosphate etc. were tested. The detailed test result is given in figure below

GRAIN SIZE ANALYSIS IN %

BH. NO.	Depth (M)	CLAY Less than 0.002 mm	SILT 0.002 mm to 0.075 mm	SAND 0.075 mm to 4.75 mm	GRAVEL Greater Than 4.75 mm	IS :1498	Specific Gravity
1	1.50	18.00	60.00			1	1
1	3.00	13.00	67.00	15.00		CI	2.61
1 -1 -	6.00	13.00	61.00	26.00	1	CL	2.62
1	9.00		9.00	81.00	10.00	SP	2.65
1	12.00	1	6.00	83.00	11.00	SP-GP	2.67
	12.00			85.00	15.00	SP-GP	2.68
-				-		1	
2 -	- 0.50	5.00	27.00	68.00	1	SM-SP	2.64
2	1.50		12.00	84.00	4.00	SP	2.65
2	4.50		8.00	87.00	5.00	SP	2.66
2 -	7.50			89.00	11.00	SP-GP	2.68
2	10.50			81.00	19.00	SP-GP	2.68
	4.4.1						S. 18
. 3	1.50	21.00	68.00	11.00		CL	2.61
3	3.00		18.00	82.00		SP	2.65
3	6.00		12.00	85.00	3.00	SP	2.66
3	9.00		7.00	88.00	5.00	SP-GP	2.67
3	12.00		3.00	90.00	3.00	SP-GP	2.68
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# 10. FAUNAL DIVERSITY OF THE COLLEGE CAMPUS

The college campus area is vastly diverse with a variety of plant species. These plant species are the integral part of the college. Most of these plant species are planted by the college authority through various tree plantation programs conducted in different periods of time. These plants have increased the quality of life by providing oxygen, improving air quality, climate amelioration, conservation of water, preserving soil, and supporting wildlife. The impact of these plants is not only with in the college fraternity but also with the people surrounding the college. They contribute the environment by moderating the effects of the sun, rain and wind and by absorbing and filtering the sun's radiant energy, keeping the campus cool in summer. Many

species of birds and animals are dependent on these trees and plants mainly for food and shelter. Thus, the college campus has been playing a significant role in maintaining the environment of the entire area. The study was carried out in the entire college campus to identify the various tree species and reveals that a total 39 numbers of tree and other plant species belonging to different families are found in the campus.

# I) The Plant diversity of the college campus:

Scientific Name	Common Name(English)
Clerodendrum thomsoniae Balf.f.	Dlanding hoort
Cierodenarum thomsoniae Ball.1.	Bleeding- heart
Araucaria heterophylla (Salisb.) Franco	Norfolk IslandPine
Dracaena fragrans(L.) Ker Gawl.	Corn plant
Hibiscus rosa-sinensisL	Rokto-joba
MelastomamalabathricumL.	Futuka
Aglaonema costatumN.E.Br	Spotted evergreen
Areca catechuL.	Tamul
Cocus nuciferaL.	Narikol
Syzygiumcumini(L.) Skeels.	Kola Jam
Camellia sinensis(L.) Kuntze	Chah-pat
Ananas comosus(L.) Merr.	Anaras
Cupressus lusitanicaMill.	Mexican cypress
Psidium guajavaL.	Modhuriam
Delonix regia(Boj. Ex Hook.) Raf.	Krishnachura
Allamanda catharticaL.	Ghanta-phul
Ficus benghalensisL.	Bor-naheri-bor
Tabernaemontanadivaricata	Kathanda
R.Br. ex Roem. & Schult.	
Asplenium nidusL.	Bird's nest fern
.Ixora chinensisLam.	Rongon-Phul
Saccharum officinarumL.	Kuhiar

Solanum nigrumL.	Los kochi
Tridax procumbensL	Kurkuri bon
Pongamia pinnata(L.) Pierre	Karanch
Acmella paniculata (Wall. Ex DC.)R.K.Jansen	Bon narji
Equisetum arvenseL.	Field horsetail
Cycas revolta Thunb. Sago	Cycas
Terminalia arjuna	Arjun
(Roxb.) Wight & Arn.	
Bambusabalcooa Roxb.	BhalukaBaah
Bougainvillea glabraChoisy.	Kagas phul
Rosa rubiginosaL.	Golap
Axadirachtaindica A.Juss.	Neem
Ficus religiosaL.	Ahotgos
Monoonlongifolium	Debadaru
Sonn. B. Xue & R.M.K. Saunders	
DurantaerectaL.	Duronta-kanta
Dypsislutescens	Momai-tamol
(Wendland) Beentje & Dransfield	
Artocarpus heterophyllusLam.	Kothal
Albizia procera(Roxb.) Benth	Koroi
Pyrrosiaeleagnifolia	Fern
(Bory)Hovenkamp	
Ecliptaprostrata(L.) L.	Kehraaj
Foliose lichen	Lichen

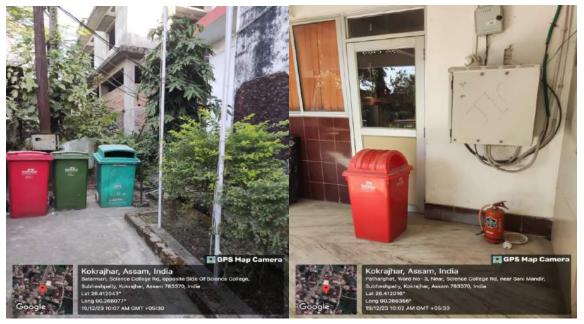
# II) Faunal Diversity of Science College:

Sl.	Phylum	Common Name	Scientific Name	Local name
no.				
1	Arthropoda	Tailed cellar spider	Crossoprizalyoni	Mokora
2	Arthropoda	Gray wall jumper	Menemerus sp.	Mokora

3	Arthropoda	Nursery web spider	Pisaura sp.	Mokora
4	Arthropoda	Rusty millipede	Trigoniuluscorallinus	Kereluwa
5	Arthropoda	Greenhouse millipede	Oxidus sp.	Kereluwa
6	Arthropoda	Little black ant	Monomorium minimum	Pipora
7	Arthropoda	Asian Weaver ant	Oeophyllasmaragdina	Mjaroli
9	Arthropoda	Tent catterpillar	Malacosoma sp.	Bisa
10	Arthropoda	Common evening brown	Melanitis sp.	Pokhila
11	Arthropoda	Lemon Emigrant	Catopsiliapomona	NemutengaPokhila
12	Arthropoda	Small blue	Cupido minimus	Pokhila
13	Arthropoda	Striped albatross	Appiaslibythea	Pokhila
14	Arthropoda	Pale grass blue	Pseudozizeeriamaha	Pokhila
15	Arthropoda	Yellow Waxtail	Ceriagrioncoromandelia num	Jinga
16	Arthropoda	Mud dauber wasp	Sceliphron sp.	Kumaroni
17	Arthropoda	28-Spotted potato ladybird	Henosepilachnavigintioct opunctata	Khunapok
18	Annelids	Earthworm	Lumbricusterrestris	Kesu
19	Aves	Common Myna	Acridotheres tristis	Xalika
20	Aves	House Sparrow	Passer domesticus	Gharsirika
21	Aves	Tree Sparrow	Passer montanus	Gharsirika
22	Aves	House Crow	Corvus splendens	Kauri
23	Aves	Red vented bulbul	Pycnonotuscafer	Bulbul
24	Aves	Indian Pied Myna	Gracupica contra	Kan kurika
25	Molluses	Apple snail	Pomacea sp.	Khamuk

# 11.a WASTE DISPOSALOF THE COLLEGE

The activity and actions required to manage the waste from beginning to the final disposal is called as waste disposal process. The activities include the collection of waste, transportation, treatment and disposal of waste considering waste management process. At present the biodegradable waste are decomposed within the college campus, non-biodegradable waste such as single used plastics are burned out periodically. E-waste is generally kept in the store room. On the other hand, the wet waste such as vegetable, excess food is taken by the local vendor.





Pic. Waste disposal management in the campus

# 11.b WASTE MANAGEMENT:

The college administration kept waste bins in suitable location of the building from where cleaning staffs take the wastes. From these waste bins, wastes are dumped in a designated place to decompose regularly. There are different types of waste generated within the campus. Out of these some of the major wastes are as paper waste, organic waste, e-waste etc. Separation of bio degradable waste and non-biodegradable waste is one of the major tasks of solid waste management. Biodegradable waste is taken to generate organic fertilizer through

vermicomposting unit within the campus which are further used in the gardens as organic manure. Science College practices the separation of these two types of waste by keeping different waste bins for different waste.

- Solid waste management (both biodegradable and non-biodegradable): To develop a vermin compost unit in the college premises to convert biodegradable solid waste (3 kg as per data) into organic manure and to collect the non-biodegradable waste, segregate and reuse by using waste disposal shed in proper method.
- E- waste (electronic waste) management: in order to check hazardous effects created by electronic wastes, a room has been developed scientifically for storing the e- waste and toxic chemical wastes by Department of Chemistry where all the wastes will be neutralized before releasing into nature.

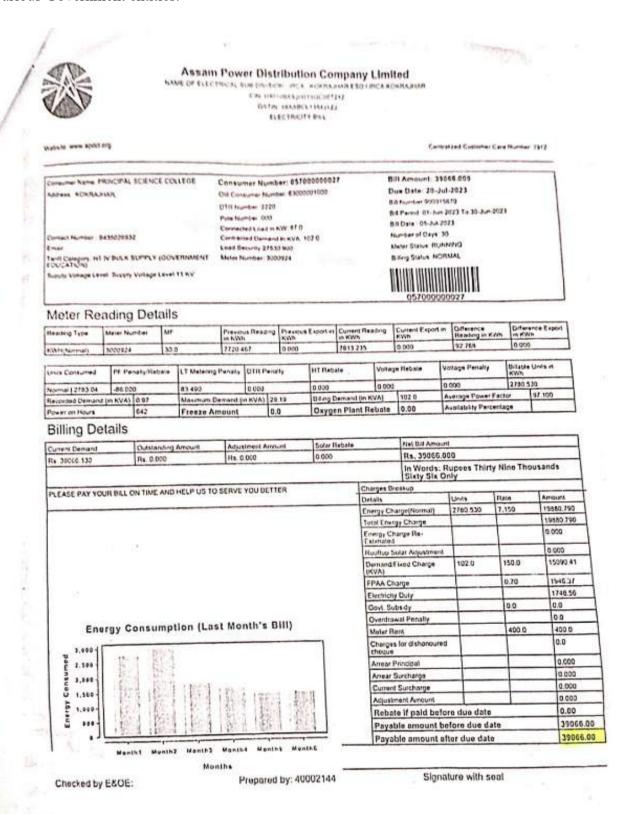


E-waste collection drive

# 12. ELECTRICAL POWER CONSUMPTION AND ENERGY CONSERVATION INITIATIVES

Energy consumption in different forms has been continuously rising almost in all the sectors-agriculture, industry, transport, commercial, residential (domestic) and educational institutions. This has increased the dependency on fossil fuels and electricity. Therefore, energy efficiency improvement and possible energy conservation became a necessary objective for energy consumers. The Government of India enacted the Energy Conservation Act, 2001 in October

2001. The Energy Conservation Act, 2001 became effective from 1st March, 2002. The Act provides for institutionalizing and strengthening delivery mechanism for energy efficiency programs in the country and provides a framework for the much-needed coordination between various Government entities.



# **ELECTRICITY BILLS FOR THE ACADEMIC YEAR 2022-23**

Sl no.	Month	Year	Consumption (KWH)	Amount (Rs)
1	July	2022	87.00 KW	38,276.00
2	August	2022	87.00 KW	81,243.00
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5	November	2022	87.00 KW	32,066.00
6	December	2022	87.00 KW	31,066.00
7	January	2023	87.00 KW	27,861.00
8	February	2023	87.00 KW	31,648.00
9	March	2023	87.00 KW	34,450.00
10	April	2023	87.00 KW	36,509.00
11	May	2023	87.00 KW	41,345.00
12	June	2023	87.00 KW	39,066.00

# 13. RENEWABLE ENERGY INTEGRATION IN THE CAMPUS:

Renewable energy means the energy which we can use again and again without harming the environment. In our campus also we have practice of renewable energy from the Sun. In the campus we use on grid solar panel for the power supply.

# 14. GREEN PRACTICES IN THE COLLEGE:

- **I. Plantation and Cleanliness Drive on the occasion of Gandhi Jayanti:** Gandhi Jayanti is observed on 2nd, October every year to honour Mahatma Gandhi for his invaluable contributions to India's freedom struggle. To mark the 152nd birth anniversary of Mahatma Gandhi, on 2nd October, 2021, Science College, Kokrajhar, organized the following events: (i) Homage to the Father of Nation (ii) Plantation of saplings (iii) Collection of wastes.
- II. World Environment Day Celebration: The Science college celebrates world environment day every year through a participatory event not only within the barrier of college campus but also along with the local community. Awareness campaign were organized on various environmental issues along with tree plantation within and outside the campus were carried out during the day.



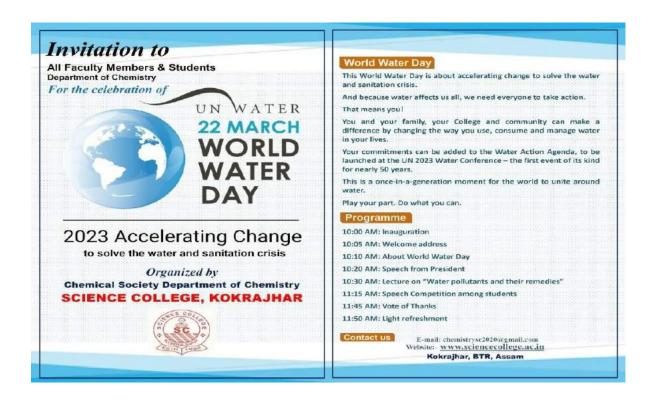






Pic. Some glimpse of Gandhi Jayanthi Celebration in the Science College, Kokrajhar

III. Observation of World Water Day: World Water Day (WWD) is an event observed on 22<sup>nd</sup> March, annually to raise awareness about the importance of freshwater and promote the sustainable management of freshwater resources. The primary purpose of celebrating this day is to promote the achievement of Sustainable Development Goal no.6, which aims to provide access to clean water and sanitation for every one by 2030. The day is dedicated to raising awareness about water-related issues, such as water pollution, water scarcity, insufficient water supply, and inadequate sanitation. The objective is to inspire individuals to manage freshwater resources sustainably and take necessary actions to address these issues. Due to some reasons, it was not possible to organize the programme on 22<sup>nd</sup> March. But, the Department of Chemistry under the banner Chemical Society Department of Chemistry have celebrated the same on 25<sup>th</sup> March, 2023.



Pic. Programme Brochure









Pic. SomesnapstakenduringtheProgramme

# IV. Observation of Earth Week

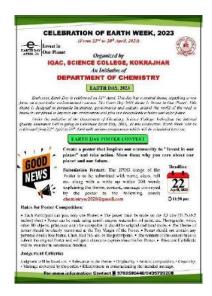
Each year, Earth Day is celebrated on 22<sup>nd</sup> April. This day has a central theme, signifying a new focus on a particular environmental concern. The Earth Day 2023 theme is 'Invest in Our Planet'. This theme is designed to persuade businesses, governments and citizens around theworldoftheneedtoinvestinourplanettoimproveourenvironmentandgiveourdescendantsa better and safer future.

Under the initiative of the Department of Chemistry, Science College, Kokrajhar withthe help of Chemical Society Department of Chemistry and the Internal Quality Assurance Cell had celebrated the Earth Day, 2023,. In this connection 'Earth Week' was also celebrated at Science College, Kokrajhar from 22<sup>nd</sup> April to 28<sup>th</sup>April with various programmes.

The closing ceremony of the Programme was organized on 28<sup>th</sup> April, 2023 at the Neelkamal Brahma Auditorium Hall. The Programme was organized for all the students of Science College, Kokrajhar.

- ThemeoftheProgramme: 'Invest inOurPlanet'
- Aimofthe

Programme: Toraiseawarenessaboutthe Protection of Our Mother Earth from Pollution and defore station by various solo and group activities.







Pic. ProgrammeBrochure&AwarenessPoster



Pic. Bannerfortheprogram

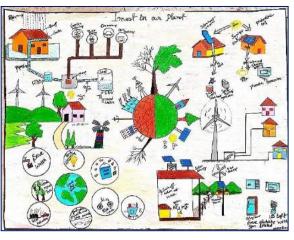




Pic. Some memories of the Earth Day Celebration









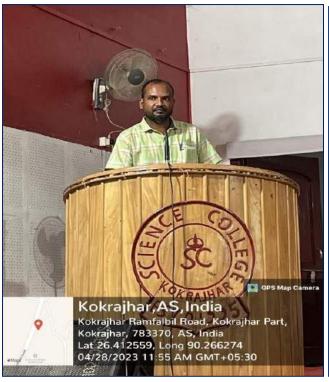




Pic. Best posters on the occasion of celebration of Earth day

# V. Solid and E- waste management programmes:

The chemistry department of the college organised aawareness programme on the solid and e-waste management with the help of volunteer students. Student volunteers collected unused  $\rm e-gadgets$  from people of local area by going door to door . the aim of the programme is to aware people about the harmful effect of these kind of material to environment.









Pic. Awareness Programme of E- waste management

# VI. WorldEnvironment Day:

World Environment Day is celebrated annually on 5<sup>th</sup> June. This year's campaign is celebrated under the theme "Beat Plastic Pollution." This theme emphasized the urgent need to address the growing plastic pollution crisis, highlighting both the environmental impact of plastic waste and the steps that individuals, communities, and governments can take to reduce plastic usage and enhance recycling efforts. World Environment Day 2023 served as a crucial reminder of the collective responsibility to address environmental challenges and fostered a global movement toward a more sustainable future. Under the initiative of the Green Audit Cell, in collaboration with the Internal Quality Assurance Cell, Science College, Kokrajhar observed World Environment Day on June 6, 2023. The event took place in Gallery 1 at 12:00 pm and featured a panel discussion focused on the theme "Beat Plastic Pollution." The host of the event was Dr. Femina Brahma, Assistant Professor and Co-Ordinator Green Audit Cell.



Pic. Brochure of the event

# VII. Awareness Programme on Environment:

On 13<sup>th</sup> August, 2023, Dr. Biswajit Nath, Associate Professor, Department of Chemistry, Science College, Kokrajhar, was invited as a resource person to Salkocha H.S School, District – Dhubri to deliver a talk on "Environment, We and Our Responsibility".





Pic. Awareness Programme on Environment

# VIII. Vehicle free campus

No vehicles are allowed to enter inside the campus. Photographs of some vehicle free and green campus are shown below:





Pic. Some images of our Campus

# IX. Usage of bicycles and public transport

The college administration always promotes the use of bicycles among the staff and students. Hostellers are discouraged from having two wheelers/cars. Three-wheeler E-rickshaw are one of the sustainable transports adopted



Pic. We appreciate for the use of bicycles.

# X. Installation of Signboard and Posters

To create an awareness among all the stakeholders of the college and to initiate the behavioural change towards the sustainable environmental practices the college authority has install several posters, stickers and signboards. It is expected that this may reduce the wastage of resources. Chemistry department of the college have taken the responsibility of tagging switch off stickers to switch boards on behalf of the college to save energy.



Pic. Ban on use of plastic



Pic. Save energy mobilisation

## 15. Some Future Commitments:

Earth is the only Planet which has capability of nourishing life. So we as a human being it is our responsibility that we have to take the responsibility of the environment. So our college have many policies to save the environment. Among them one of the most important commitment is that our college have ready to make a Mou with some institutions to manage E-waste in future. Along with that our college will always stay in the front foot to save the environment with the motto of save energy, save water, reduce noise pollution, air pollution, soil pollution by aware people through students and practising good practices for environment.

(On Sangh Broken)

Jayanta Rr. Brahma., AFS, Districted Forces Offices Restricted Finance, Rottoffiest

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