GREEN AUDIT REPORT
(2022-2023)

GOGAMUKH COLLEGE
P.O: GOGAMUKH, DIST: DHEMAJI, ASSAM
PIN-787034

Gogamukh College, Dhemaji

A report on Green Audit

- Internal Audit Team:

  - Ms Kanchan K Sharma, IQAC Coordinator, Gogamukh College
  - Mr Bijoy Konwar, Coordinator, Green Audit Committee, Gogamukh College
  - Mr Humen Gogoi, Internal Expert, Green Audit Committee, Gogamukh College
  - Mrs Bidisha Barthakur, Member, Green Audit Committee, Gogamukh College
  - Mrs Reema Pegu, Member, Green Audit Committee, Gogamukh College
  - Mrs Ushamoni Gogoi, Member, Green Audit Committee, Gogamukh College
  - Dr. G Vandana Sharma, Member, Green Audit Committee, Gogamukh College

- External Audit Team:

  - Dr. Lohit Kumar Baishya, Scientist In-Charge & Head (NRM), ICAR, IARI, Dirpai Chapori Gogamukh, Assam.
  - Dr. Sunil Mandi, Scientist, Agronomy, ICAR, IARI. Dirpai Chapori Gogamukh, Assam.
  - Dr. Machanuru Raviteja, Scientist, Environmental Science ICAR, IARI. Dirpai Chapori Gogamukh, Assam.

- Report Compiled By: Mr Humen Gogoi and Mrs Bidisha Barthakur.

CERTIFICATE

This is to certify that my team and I visited **Gogamukh College** on 29th April, 2024 for the purpose of conducting **'Green Audit'** in collaboration with Internal Green Audit team of Gogamukh College. The report has been prepared which includes land use system of the College, Climatic parameters like average rainfall, rainwater harvesting, biodiversity, pollution, water resource management, waste disposal management, energy consumption and management, suggestions and recommendations. The initiatives of the college authority and his team are commendable one. We wish Gogamukh College a brilliant success for accelerating the welfare of the society in the field of academic and non-academic work.

06/05/2024

Dr. Lohit Kr. Baishya
Scientist In-Charge & Head (NRM)
ICAR, IARI, Gogamukh, Assam

06/05/24

Dr. Sunil Mandi
Scientist, Agronomy
ICAR, IARI, Gogamukh, Assam

06/05/24

Dr. Machanuru Raviteja
Scientist, Environmental Science
ICAR, IARI, Gogamukh, Assam

Recommendation by the External Green Audit team:

1. The External Green Audit team headed by Dr. Lohit Kr. Baishya recommended to modify the length of the vermicompost pit to 10-meter, breadth 1.25 meter and height 1 meter.
2. Training will be provided to the faculty members as well as to the students by ICAR, IARI regarding construction and maintenance of vermicompost pit and collection of raw materials.
3. ICAR-IARI will provide vermicompost unit to Gogamukh College for demonstration.
4. Regarding fishery, the External Green Audit team recommended to maintain the water supply throughout the year. For this purpose, the base of the pond should be polished with bentonite clay which will cost approximately Rs 10000.
5. The External Green Audit team recommended that the fish pond has a carrying capacity of about 1400 fishes.
6. The team suggested to start integrated fish farming with agriculture, horticulture and animal husbandry within the campus.
7. The team suggested for proper nutrient management to the plantation (beetle nuts, tea plants etc).
8. The team suggested that the department of Botany should take initiative in tissue culture techniques for the production of variety of cultivable plants and flowers. They also suggested to plant dwarf variety of banana trees.
9. The team suggested using solar energy as a renewable energy source.
10. Regarding hostel, the External Green Audit team suggested constructing another vermicompost pit within the hostel campus and boarders should take initiative in making a flower garden within the hostel campus. The flower should be sprayed by copper sulphate for its longevity.
11. The External Green Audit team assured to provide technical help to Gogamukh College if necessary.

6/05/2024.

Dr. Lohit Kr. Baishya

Scientist In-Charge & Head (NRM)

ICAR, IARI, Gogamukh, Assam

06/05/24

Dr. Sunil Mandi

Scientist, Agronomy

ICAR, IARI, Gogamukh, Assam

06/05/24

Dr. Machanuru Raviteja

Scientist, Environmental Science

ICAR, IARI, Gogamukh, Assam

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1. INTRODUCTION:

Green audit is a process of systematic identification, quantification, recording, reporting and analysis of components of environmental diversity of various establishments. Green audit reflects evaluations that help us to identify environmental compliance and management system, implementation gaps, along with related corrective action. Green audit is a useful tool to determine how and where the most energy or water resources are being used, the type and volume of waste generated and can then consideration to given on how to implement changes and make saving. It can create health consciousness and promote environmental awareness, volume and ethics overall, it plays a vital role in imparting on campus to staff and students.

Green auditing is an umbrella term which is known by another name '**Environmental Auditing.'** The green audit aims to analyze environmental practices within and outside the college campus, which will have an impact on the eco-friendly ambience.

1.1 NEED FOR GREEN REPORT:

The rapid urbanization and economic development at local, regional and global level has led to several environmental and ecological crisis. On this background it becomes essential to adopt the system of the green campus for the institutes which will lead for sustainable development and at the same time it reduces sizable amount of atmospheric CO_2 from the environment.

Green audit is assigned to the criteria 7 of NAAC, National Assessment and Accreditation Council which is a self- governing organization of India that accredits the institutions according to the scores assigned at the time accreditation. NAAC has made it mandatory that all higher educational institution should submit an annual green audit report. Moreover, it is a part of social responsibility of the higher warning through carbon foot print reduction measures.

2. ABOUT THE COLLEGE:

Gogamukh college, a pioneer institution of higher education in Dhemaji district which is situated in the north-eastern corner of Assam, India. The college was established in the year 1981. It is a co-educational institution and is affiliated to the Dibrugarh University. It is full-fledged degree college with Arts and science Streams. The science stream is still to be provincialized by the government. Inhabitants of the area are mostly belongs tribal castes like Mishing, Bodo, Sonowal Kachari, Deuri, Tiwa etc. The whole area is still socio-economically and educationally backward.

It is ideally situated between Gogamukh Higher Secondary School and Gogamukh Girl's High school about 1.2 kms away from Gogamukh Chariali. Gogamukh is also situated in almost equal distance from its head quarter Dhemaji town(30Kms) in the east. North Lakhimpur town (38Kms) in the west and Dhakuakhana at own (36kms) in the south having colleges at the times of its inception creating the need of a college in Gogamukh area.

Campus Sites:

Entrance of the college campus

Academic building

Entrance of Administrative Block

3. OBJECTIVES OF THE REPORT:

The main objective of the report is to promote the environment management and conversation in the college campus. The purpose of the audit is to identify quality, describe and prioritize frame work of environment sustainability in compliance with the applicable regulations policies and standards.

The main objective of carrying out green audit are-

I. To introduce and aware students about the factual concerns of environment and its sustainability.
II. To secure the environment and cut down the threats posed to human health by analyzing the pattern and extent of resources use of the campus.
III. Understanding the current practices of sustainability with regards to the use of water and energy, generation of wastes, transportation purchase of goods etc.
IV. To document the waste disposal system.
V. To estimate the energy requirement of the college.
VI. To report the expenditure on green initiative during the last five years.

4. METHODOLOGY:

In order to perform green audit, the methodology included different tools such as preparation of questionnaire, physical inspection of the campus, observation and review of the documentation, interviewing key persons and data analysis, measurements and recommendations. The study covered the following areas to summaries the present status of environment management in the campus:

- Water management
- Energy conservation
- Waste management
- Green area management

5. SCOPE AND GOALS OF GREEN AUDITING:

Government of India through its National environment policy in 2006 has made mandatory for every organization to conduct green audit in order to ensure a clear and healthy environment within and outside the institution. Further, it also helps in effective learning and provides a conductive learning and provides a conductive environment. The scope of a green audit can range from an assessment of all environmental aspects of a complex activity to a focused assessment of a small component of an activity. Green audit helps reduce energy and water consumption, reduce wastage. Reduce our carbon foot print and improves business efficiency by lowering cost, while improving the product design and creating new jobs.

- The objective of carrying out green audit is securing the environment and cut down the threats posed to human health.
- To make sure that rules and regulations are taken care of.
- To save the planet and the students become good citizens of our country.
- To help the institution to set environmental examples for the community and to educate the young learners.

6. AUDIT REPORT:

Green Audit Report of Gogamukh College can be overviewed with the following aspects:

6.1. Land use system: -

The total plinth area of Gogamukh College is 156690.27 sqfts and total built up area is166310.01 sqfts. The area specification of built up, building at Gogamukh College can be categorized as follows:

- Union office cum canteen :total plinth area is 4974.26sqft
- Cycle stand and chawkider shade: the total plinth area is 2273.39sqft
- DG cum notice board and dustbin: total plinth area is 632.5sqft
- Block A(GF): Administrative building cum Departmental room–total plinth area is 5689.25 sqfts.
- Block B(FF): Library, Computer Science, Departmental room cum class room, total built up area under Block B(FF); 3383.92 sqfts.
- Block C(AT) Auditorium, Classroom, Science Laboratory, total plinth area is10,627sqfts.
- Miscellaneous setup; total plinth area is 146916 sqfts (Girls common room, toilet, water plant and corridor)
- Tennis court cum open yard: total area covered is7452.75sqfts.
- Block D(AT)total plinth area is 8661.98sqfts

- RUSA building (Digital classroom, RUSA cum distance education and KKHSOU office) total plinth area is 3520 sqfts.
- Department of political science and Gymnasiums Hall: total plinth area is1409.85sqfts.
- Sports and play ground: total plinth area is 92862 sqfts.
- Play ground infrastructural facilities: total plinth area is 2073.34sqfts.
- Girls hostel (AT); total plinth area is5254.98 sqfts.
- Girls hostel (RCC-GF); total plinth area is 2733.5sqfts.
- Girls hostel (RCC-GF); total built up area is 2455.93 sqfts.
- Warden Residence; total plinth up area is1259.25sqfts.

Thus the total plinth area is 156690.27sqfts and the total built up area is 166310.01sqfts

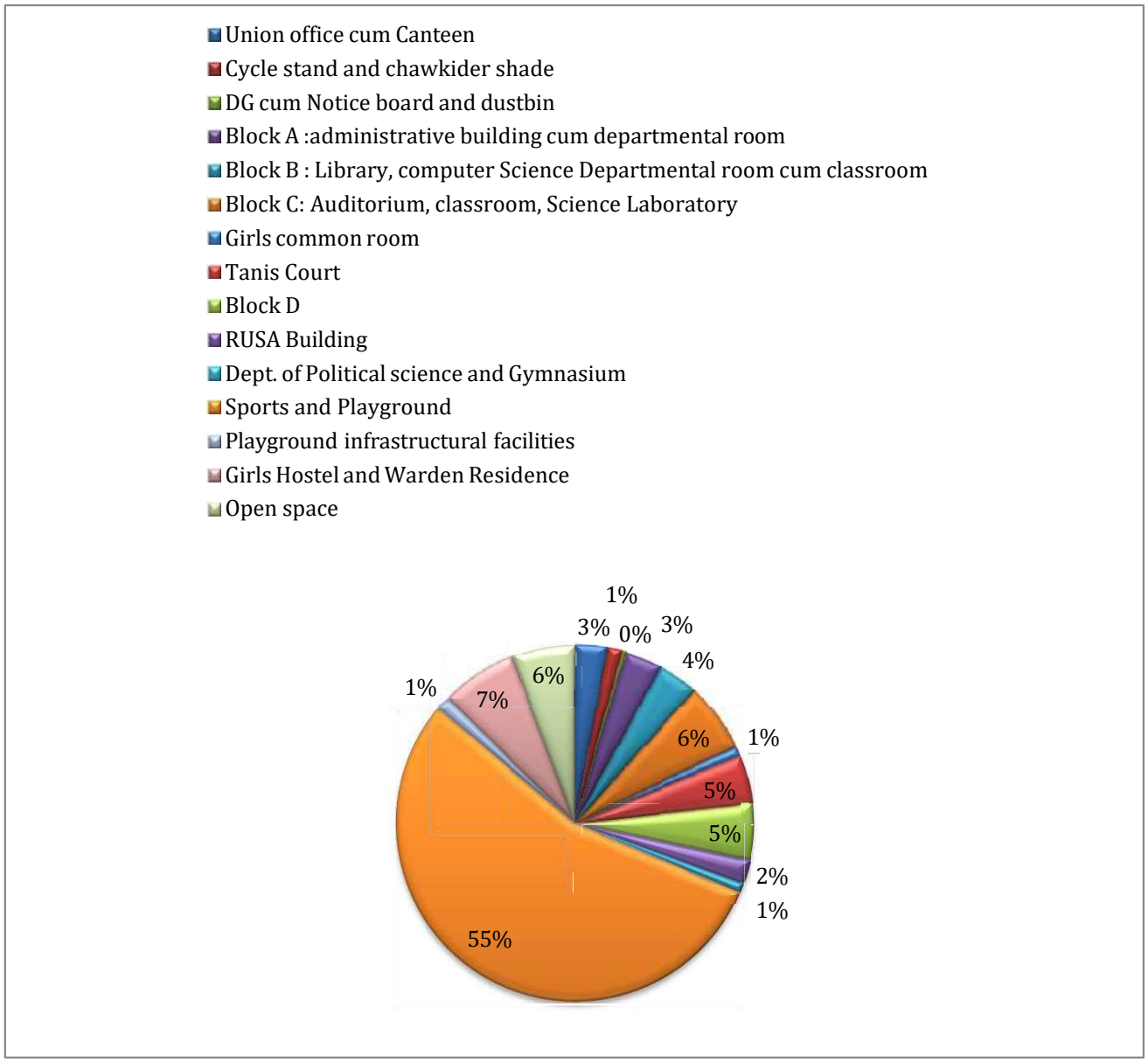


Figure1: Use of land in the campus.

6.2. **Climatic parameters:-**

A climatic parameter is a measured parameter which helps to specify the climate of a specific location such as temperature, humidity vegetation etc.

6.2.1. Climate: Gogamukh college is situated at south of Gogamukh chariali of Bordoloni Tehsil and the college falls under Assam and Arunachal Pradesh border area (foot hills of Arunachal Pradesh). The basic climatic pattern is mainly based on presiding monsoon condition. The winter of Gogamukh is very cold with slight rain fall (November to march). In summer season temperature rises making the climatic condition warm and dry (April to June). During rainy season with warm and humidity increases. The rainfall of Gogamukh is much higher in comparison to other places of Assam. The summer continues from mid of June to September. The period between winter and summer can be recognized as autumn (October to mid of November) and spring (February to March).

6.2.2. Rainfall: Gogamukh college is located near the foothills of Arunachal Pradesh, it exhibits a difference in temperature, rainfall, fog, wind etc. The climate of the district is pre-humid characterized by high rainfall mid-summer and winter and falls under cool to warm per humid thermic agro-ecological subzone. The relative humidity varies from 90 to 70 percent. The temperature varies between 39.9^{o}C in summer and 5.9^{o}C in winter.

The rainfall of Gogamukh is much higher as compared to other places of Assam. The rainfall starts from March/April to September /October. The maximum rainfall occurs during July and August. Sometimes occasional rainfall occurs in the odd months also. The temperature is highest in the month of August and lowest in the month of January.

6.2.3. Rainwater harvesting: Gogamukh College is situated in an area where rainfall is said to be high. Water table is also not lowering so much. The rain water that runs off from the roof tops, open ground and the roads of the college campus are collected and stored in the fishery pond of the college. The pond is about 16128sqfts. Different types of carps are cultured within thin pond. The harvested rain water is mainly used for fish farming.

Fishery Pond of Fish Farming

6.2.4. Biodiversity status:

Conservation is the protecting, preservation, management or restoration of natural resources such as trees, medicinal plants botanical garden and water. Through the conservation of biodiversity and the survival of many species and habitats which are threatened due to human activities can be ensured. There is urgent need, not only to manage and conserve the biotic wealth, but also restore the degraded ecosystem.

Ex-situ conservation is the preservation of components of biological diversity outside their natural habitats. This involves conservation of genetic resources as well as wild and cultivated and facilities. Such strategies included establishment of botanical gardens, medicinal plants and important trees.

Botanical gardens are a plane where flowers, fruits and vegetables are grown. The botanical gardens provide beauty and calm environment and the medicinal plants have started keeping exotic plants for educational and research purpose

Gogamukh College is situated at a subtropical climate condition. A number of animal and plant species are found in the college campus through the ex-situ conservation. The following table shows the Floral and faunal diversity of Gogamukh College.

Table 01: List of Birds found in the college campus

S.L No	Common name	Scientific Name
1	House Crow	*Corvus splendens*
2	Common kingfisher	*Alcedo atthis*
3	Red-vented bulbul	*Pycnonotus cafer*
4	Jungle Myna	*Acridotheres foscus*
5	Parrot	*Psittaci formes*
6	Spotted dove	*Spilopelia Chinensis*

Table 02: Moth diversity of Gogamukh college area

Sl.No	Common name	Scientific Name
1	Assam silk moth	*Antheraea assamensis*
2	Assam hawk moth	*Enpinagee assamensis*
3	False tiger moth	*Dysphania millitaris*
4	Blood vein moth	*Timandra comae*
5	Rice leaf roller	*Cnaphalocrocis medinalis*
6.	Agathia lycaenaria	*agathialycaenaria*
7.	Leaf miner moths	*Liriomyza sativae blanchard*
8.	Harasa	*parasapatorallis*
9.	Owlet moths	*Noctuidae.sp*
10.	Herpetogramma	*Herpetogrammalicarsisalis*
11.	Yellow wooly bear	*spilosomavirginica*
12.	Velvet hawk moth	*Clanis titan*
13.	Humming bird hawkmoth	*Marcoglossum sp.*

Table 03: Amphibian diversity of Gogamukh College area

Sl . No	Common name	Scientific name
1	Indian bull frog	*Hoplobatrachus tigerinus*
2	Asian common toad	*Duttaphrynus melanostictus*
3	Bhamo from	*Hummrana humeralis*
4	Grays streamfrog	*Strongycopus grayii*
5	Bangladesh skittering frog	*Euphlyctis adolfi*
6	Indian skipper frog	*Euphlyctis cynophlyctis*
7	Common tree frog	*Polypedates leucomystax*
8	Himalayan tree frog	*Polypedates himalayensis*
9	Indian tree frog	*Polypedates maculates*

Table 04: Spider diversity of Gogamukh College area

Sl no.	Common name	Scientific name
1	Pantropical jumper spider	*Plexippus paykulli*
2	Andonson's house jumper	*Hasarius adanson*
3	Twin flagged jumping spider	*Anasaitis canosa*
4	Two striped jumper	*Telamonia dionidiats*
5	Shere ground spider	*Pardosa sp.*
6	Rustic wolf spider	*Trochosa urbana*
7	Wolf spider	*Arctosa sp.*
8	Jumping spider	*Carrhatus viduus*
9	Long bodied cellar spider	*Pholcus planangioides*
10	Signature spider	*Argiope pulchella*
11	Huntsman spider	*Heteropoda venatoria*
12	Crossed lynx spider	*Oxyopes bimanicus*
13	Giant little spider	*Heteropoda nilgirina*
14	Dark fishing spider	*Dolomedes sp.*

Table 05: Butterfly diversity of Gogamukh College area

Sl no.	Common name	Scientific name
1	Elbowed pierrot	*Caleta elna*
2	Pea blue	*Lampides boeticus*
3	Psyche	*Leptosia nina*
4	Yellow helen	*Princeps nephelus*
5	Common raven	*Princeps castor*
6	Great zebra	*Graphium xenocles*
7	Common batwing	*Atrophaneura aidoneus*
8	Lesser gull	*Cepora nadina*
9	Great orange tip	*Hebomoia glaucippe*
10	Indian skipper	*Spialia galba*
11	Tiger hopper	*Ochus atkinsoni*
12	Spotted demon	*Notocrypta feisthameli*

Table06: Aquatic water insects of Gogamukh College area

Sl no.	Common name	Scientific name
1	Water scorpion	*Laccotrephes ruber*
2	Water stick insect	*Ranatra linearis*
3	Toe bitter	*Abedus herbeteti*
4	Water scorpion	*Laccotrephes tristis*
5	Giant water bug	*Lethocerus sp.*
6	Lesser water boatman	*Sigara stritata*
7	Fringed diving beetle	*Cybister fimbriolatus*
8.	Emperor drangonfly nymph	*Anax imperator*
9	Migrant hawker dragonfly nymph	*Aeshna mixta*
10	Common green dragonfly nymph	*Anax junius*
11	Common darter dragonfly nymph	*Sympetrum striolatum*
12	Four spotted chaser dragonfly nymph	*Libellulla quadrimaculata*
13	Yellow ledged meadow hawk lymph	*Sympetrum vicinum*
14	Slaty skimmer nymph	*Libellulla insecta*
15	Pygmy water boatman	*Micronecta haliploides*

Table 07: Insect diversity of Gogamukh college area

Sl no	Common name	Scientific name
1	Red cotton stainer	*Dysdercus koengii*
2	Greensting bug	*Nizara virudula*
3	Redspot assessin bug	*Platymeris laevicollis*
4	Brown plant hopper	*Sogotella furcifera*
5	Honey bee	*Apisdorsata a. indiaca*
6	Carpenter bee	*Xylocopa fenestrata*
7	Diving beetle	*Copelatus indicus*
8	House fly	*Musca domestica*
9	termite	*Odontotermis obesus*
10	Lesser emperor dragon fly	*Anaxparthan ope*
11	Mosquito	*Culiceta longiareolata*
12	Swallowtail butterfly	*Papilio demoleus*
13	Seven spoted ladybird beetle	*Coccinella septempunctata*
14	Orange butterfly	*Ergolis merione*
15	Shining leaf chafer	*Anomala binotata*
16	Jute-hairy caterpiller	*Spilosom obliqua*

Table 08: Odonata insecta diversity of Gogamukh diversity

Sl no.	Common name	Scientific name
1	Common cubtail	*Ictinogamphus rapax*
2	Common hooktail	*Paragomphus lineatus*
3	Trumpet tail	*Acisoma panorpoides*
4	Scarlet marsh hawk	*Aethriamanta brevipennis*
5	Granite ghost	*Bradinopga geminata*
6	Asiatis bloodtail	*Lathrecista asistica*
7	Little bloodtail	*Lyriothemis acigastra*
8	Green marsh hawk	*Orthtrum sabina*
9	Blue tailed yellow skimmer	*Palpopleura sexmaculata*
10	Great blue ring	*Rhyothemis plutoniaselys*
11	Brown-backed red marsh hawk	*Orthetrum chrysis*
12	Light tipped demon	*Indothemis carnatica*
13	Wandering glider	*Pantal flavesens*
14	Brown dusk hawk	*Zyxomma petiolatum*
15	Great crimson glider	*Urothemis signata*
16	Common picture wing	*Rhyothemis variegata*
17	Ruddy meadow skimmer	*Neurothemis intermedia*

Table 09: Snakes diversity of Gogamukh College area

Sl no	Common name	Scientific name
1	Assam snail eater	*Pareas monticola*
2	Banded krait	*Bungarus fassiatus*
3	Brahminy worm snake	*Ramphotyphlopes braminus*
4	Indian rat snake	*Ptyas mucosa*
5	Monocled cobra	*Naja kaouthia*
6	Spotted cat snake	*Boiga multomaculata*
7	Common wolf snake	*Lycodon aulicus*
8	King cobra	*Ophinophagus hannah*
9	Rainbow water snake	*Enhydris enhydris*

Table 10: List of Edible Plants with their scientific name:

S.L No	Common name	Scientific Name
1	Kachu	*Colocasia esculanta*
2	Orbak	*Black Nightshade*
3	Outenga	*Dillenia indica L.*
4	Sajina	*Moringa olerifera*
5	Tenga	*Citrus Medical L.*
6	Bake (Bheruri)	*Solanum Torvum*
7	Dhekia	*Diplazium Esculentum*
8	Khutura	*Amaranthus spinosus*
9	Dhrunban	*Leucas plukeneti*
10	Jamu	*Syzygicen cumini*
11	Tengeshi Tenga	*Oxalis corniculata L.*
12	Wild stroberry	*Fragaria vesca*
13	Modhuhuleng	*Polygonum microcephalum*
14	Madhuri	*Psidium guajava*
15	Bogori	*Zizyphus jujube*
16	Dimoru	*Ficus lamponga*

Table11: List of Medicinal Plants with their scientific name:

S.L No	Common name	Scientific Name
1	Bhilongoni	*Cyclosorus extensa*
2	Nefafu	*Cleodendedrum giendulosum*
3	Marshang(mising) jati malkathi (assamese)	*Spilanthes panieulata wall. Ex Dc*
4	Laijabori	*Drymaria cordata*
5	Manimuni	*Centella asiatica*
6	Arjun	*Teanehalia arjuna*
7	Neem	*Azadirchta indica*
8	Kolgos	*Musa paradisca*
9	Narikol	*Cocos nucifera*
10	Tea	*Camellia sinensis*
11	Pononua	*Boerhavia diffusa L*
12	Amlokhi	*Emblica officinalis gaertn*
13	Ashok	*Saraca indica*
14	Jamu	*Syzygicen cumini*

Table 12: List of Economic Plants with their scientific name:

S.L No	Common name	Scientific Name
1	Hunaru	*Cassia fislata*
2	Ajar	*Lagerstroemia speciosa*
3	Radhachura	*Caesalpineis pulchemina*
4	Puja	*Prunus cerasoides var*
5	Nahar	*Mesua ferra*
6	Akhuk	*Saraca asoca*
7	Meteka	*Water hyacinth*

Table 13: List of ornamental Plants with their scientific name:

S.L No	Common name	Scientific Name
1	Pine	*Pinus roxburghii*
2	Kopouful	*Rhynchostylis retusa*

Table 14 : List of decoration flower Plants with their scientific name:

S.L No	Common name	Scientific Name
1	Dahlia	*Dahlia pinnata*
2	Narji-phul	*Tagetes erecta linn*
3	Korobi	*Nerium oleander*
4	Joba	*Hibiscus rosa-sinensis*
5	Gulab	*Rosa hybrid*
6	Debadaru	*Monsoon longotolium*

Table 15: List of social valued Plants with their scientific name:

S.L No	Common name	Scientific Name
1	Chotiyana	*Alstonia scholaris*
2	Tamul	*Areca catechu*
3	Aam	*Mengifera indica*
4	Hilikha	*Terminalia chebula retz*
5	Kanchan	*Bauhinia variegate*

Table 16: List of Religious Plants with their scientific name:

S.L No	Common name	Scientific Name
1	Korobi phul	*Nerium oleander*
2	Aahot	*Ficus religiosa L*
3	Tulokhi	*Ocimum sanctum*

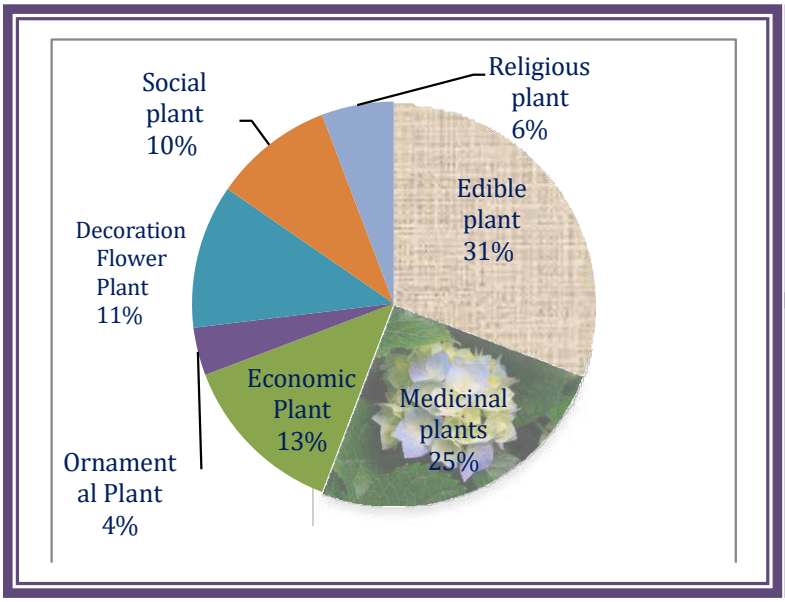


Figure 02: Richness and abundance of different plants from the present study.

Green cover of the college campus

6.2.5. Pollution: The only possible source of pollution in College campus are use of diesel/petrol vehicles, air conditioners, power generator, kitchen waste and other biodegradable waste from canteen, use of electronic appliances and others. However pollution in Gogamukh college campus is very less. It is observed that no industrial and sound generating activities near Gogamukh college campus and it was revealed from that due to limited number of vehicles the chance of noise pollution seems to be quite below of standard limit. Also the generator of the College produces less sound. There is no other source of pollution in the College campus.

Pollution may be air, water, noise and soil. Soil pollution is not so much in Gogamukh College. Soil may get polluted due to use of plastic which is strictly prohibited within the campus. Use of plastic bottles are also prohibited in canteen. Only organic manure is used for plantation of the campus.

Water pollution is also negligible. But air may get polluted due to use of vehicles (car, bike, scooty etc). the power generator may also create a little amount of air pollution. The following are the types of vehicles used by students and teachers.

I. Scooty(mostly used by students)
II. Bikes (students as well as teachers)
III. Cars (only teachers)

There is only one power generator which may cause a little amount of pollution.

The source of noise pollution are the vehicles used by the students and teachers. The number of vehicles are increasing day by day. The disel power generator is also produce noise during power cut off.

6.2.6. Water resource and Management: Gogamukh College has its own boring Well for meeting its water requirements for various purposes such as drinking, use in washrooms, toilet, Canteen and Gardening. College has no domestic water demand since there is no staff quarter except hostel warden's quarter. There are two water coolers funded by RUSA and maintained by College. Besides these RO filters are also available for drinking water. There are four nos of electric motors within the college campus and 2 no's in girls hostel. The water is lifted overhead with the use of these motors. Water storage tanks as well as sand filters are also available. The water quality of Gogamukh is not so good, so people use sand filters to purify the water after drowing out from ground with tube wells.

Wise use of water is general practice in the departments and office of the college. In this regard, the arrangement of piped water is the primary sources of water consumption within the college campus. Water tap, toilet flush are the basic water-efficient appliances used in the college campus. But, during the survey, it was observed that some water outlets are not functional hence, for the proper functioning it should be one of the responsibilities of the college to keep a regular check on it. It was also found that Rain water harvesting is not a practice in the college yet as of now.

Natural water preservation in ponds

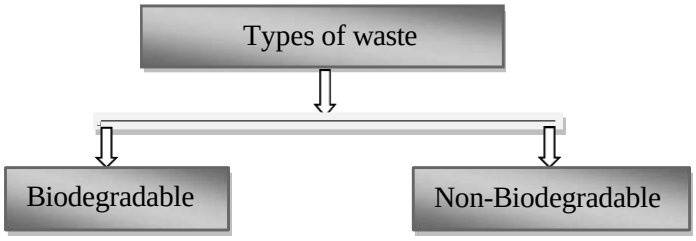
6.2.7. Energy consumption and Management: The main use of electricity is for lightening the rooms, running fans, AC during summer and running the computer system. However, the use of air conditioner is very less. Energy is also used to lift the water overhead. The average electricity consumption is 2906KWH/month and the average amount Rs 25000.00 per month is paid by the College as electricity bill. In addition to these there is a diesel generator installed for providing energy requirements during power cut-off. On an average one to two hours a day, electricity is generated from this generator.

List of electrical appliances within college campus including hostel

Sl. No	Name	Quantity
1	LED bulb	142
2	Tube light	74
3	Fans	127
4	AC	12
5	Water Pumps	06
6	R.O Filter	08
7	Inverter	03
8	Computer	37
9	Biometric cum face recognization Machine	01
10	Refrigerator	01

6.2.8. Waste disposal and Management:

Waste generated within the college can be classified as-



Biodegradable as well as non-biodegradable waste is generated within the college campus. The principal waste includes paper, grasses, electronic waste, canteen waste and solid waste. Both biodegradable and non-biodegradable waste is mostly generated from canteen. However, college is awaring the students to use plastic as less as possible. However, the waste generated in Gogamukh College is less compared to other places. The waste generated through classroom activity and student activity is also less. The following provision is made for waste disposal and management;

6.2.8.1. Biodegradable: There are green dustbins placed at different places to collect the biodegradable wastes. There after the biodegradable waste produce from various departments, canteen or other areas are put into compost pits for making compost to use in maturing garden plants and seedling planted during planting seasons.

6.2.8.2. Non-biodegradable: There are yellow dustbins in different areas of the college campus to collect non-biodegradable wastes. Though Science laboratories are present in the college the waste generation is very less. Non-biodegradable and recyclable waste are sent for recycling.

6.2.8.3. **Organic waste**: organic waste is collected in a compost pit for further use as manures.

6.2.8.4. **E-waste**: The E- waste also generated very less till date within the college campus. This category of waste include computer, laptop, pen drives, printers, hard disk, CDs and other solid wastes, electrical and electronic equipment's generated by different departments/sections. The various departments categories the useless items into the wastes and dispose through auction and buy back from authorize buyers.

Bins are provided at different places of the college campus.

6.3. **Environmental awareness**: Gogamukh College conducts awareness program by observing the **World Environment Day** on 5thJune every year. The College family carry out plantation program in this particular day. Further Gogamukh College has been conducting many awareness and environmental health campus and other Community programs in nearby villages with the help of NSS team of Gogamukh College.

World environment Day 2023 **Amrit brikshya abhiyan 2023**

7. Conclusion: In this way, Gogamukh College has taken leadership in making awareness among the students and nearby community about environment protection and enhancement of our surrounding environment. All total as a rural college, our college campus and the nearby area is a green campus and green area. Besides, we are successful in making our college campus plastic free and smoking prohibited zone.

In this way we are able to make our future generation environment conscious and also able to make the community help to keep our environment better.

8. Recommendations:

- Review periodically the list of trees planted in the garden, allot numbers to the trees and keep records. Assign scientific names to the trees.
- Promote environmental awareness as a part of course work in various circular areas, independent research projects, and community service.
- Celebrate every year 5th June as 'Environment Day' and plant trees on this day to make the campus Greener.

- Indoor plantation to inculcate interest in students, Bonsai can be planted in the corridor to bond a relation with nature.
- Green library should be established.
- The Green Audit Report on environment must reach the public so that it would succeed in reducing the environmental issues and its popularization among the stakeholders.

9. References:

- NEP (2006). National Environment Policy, 2006, Ministry of Environment, Forest and Climate Change, govt.
- The Environment [protection] Act-19869 Amended19910& Rules-1986 (Amended 2010)
- E-waste management rules-2016
- Energy Conservation Act 2010