



গড়গাঁও মহাবিদ্যালয়
GARGAON COLLEGE
NAAC accredited with 'B' Grade

REPORT ON GREEN AND ENVIRONMENT AUDIT

Prepared by
Green Audit Team
Gargaon College, Simaluguri



Green Audit team

Sl. No.	Name	Designation
1	Dr. Rina Handique	HOD, Department of Zoology
2	Dr. Dimbeshwar Das	Coordinator Institutional Level Biotech Hub, Gargaon College
3	Dr. SurajitSaikia	Assistant Professor, Gargaon College
4	Dr. Prabhat Ch. Nath	Coordinator Institutional Level Biotech Hub, Sibsagar college
5	Dr. Rashmi Dutta	Assistant Professor, Gargaon College
6	Ms. Sangeeta Chetia	Assistant Professor, Gargaon College
7	Ms. Saheen Shehnaz Begum	Assistant Professor, Gargaon College
8	Ms. Pimily Langthasa	Assistant Professor, Gargaon College
9	Mr. Bikash Singh	Student representative
10	Mr. Kaushik Kr. Mech	Student representative



CERTIFICATE OF GREEN AUDIT

This is to certify that the Green Audit Report of Gargaon College has prepared based on the findings of green and environmental audit conducted the college based on the tour of the college, review of the records and interaction of faculty, non-teaching staff and the students.

The Green Audit Report also presents the green initiatives followed taken up by the college based on recommendations for better environmental sustainability.

(Dr. Sabyasachi Mahanta)

Principal

Gargaon College

Principal

Gargaon College

Simaluguri, Sivasagar (Assam)

(Dr. Prabhat Nath)

Coordinator

Institutional Biotech Hub

Sibsagar College

Co-ordinator

Biotech Hub

Sibsagar College Jyoti

(Dr. Dimbeswar Das)

Coordinator

(Jayanta Kr. Dutta)

Assistant Executive Engineer



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Green and Environment Audit Summary

Sl. No.	Area	Observation
1.	Water Usage and Conservation	<ul style="list-style-type: none">• Water reservoirs for rain water harvesting are present (pond)• Ground level water recharging unit under guidance of Public Health Department, Nazira is under construction.
2.	Soil quality management	<ul style="list-style-type: none">• Organic manure like leaf compost, vermi-compost are used to replace the chemical fertilizers.• Improve fertility of soil by plantation.• Avoid littering by preventing waste disposal.
3.	Air quality management	<ul style="list-style-type: none">• College campus is filled with enormous numbers of plants to enhance the air quality.
4.	Solid Waste Management	<ul style="list-style-type: none">• Wet and dry dustbins are placed in corridors, in front of the classrooms.• Composting pits are created for biodegradable waste like leaves, food waste.• Vermi-composting units are created to convert the organic waste (food waste).
5.	Plastic Free campus	<ul style="list-style-type: none">• College has strict regulation towards ban on single use plastic.• College is taking initiative by displaying boards to create awareness.• College canteen use reusable utensils to reduce plastic use.
6.	E-Waste management	<ul style="list-style-type: none">• The E-waste are utilised as part of Add on course on Computer Hardware Networking .
7.	Human safety and Management	<ul style="list-style-type: none">• Sanitary napkin incinerators are present.• Fire extinguishers are installed in the campus.• Use of tobacco and smoking is completely banned inside the campus.
8.	Energy usage and conservation	<ul style="list-style-type: none">• 90% of the conventional bulbs are replaced by LED bulbs to reduce energy consumption.• Installation of roof tops solar panels of 300 W• Solar street lights are present inside the campus.



INTRODUCTION

Green auditing and energy auditing are the systematic identification, quantification, recording, reporting, and analysis of environmental diversity and components of energy usage. The goal of the 'Green Audit' is to examine environmental behaviours both on and off the college campus that have an influence on the environment. It was established with the goal of inspecting the work done within organisations whose activities might endanger the health of the stakeholders and the environment. Green Audit provides directives on how to improve the state of the environment, and there are several elements that have influenced the rise of Green Audit.

The goal of the 'energy audit' is to pave a strategy for determining the pattern of energy use and identifying locations where energy may be saved or used wisely. An energy audit is a thorough assessment of how a facility consumes energy, how much it spends for it, and, eventually, a suggested programme for changes in operational methods or energy-consuming equipment that would successfully reduce energy expenses. Green auditing and energy auditing are allocated to NAAC's criterion 7 (National Assessment and Accreditation Council), a self-governing agency in India that assigns grades to universities based on the scores provided during accreditation.

Corporate responsibility is at the heart of green auditing. It reveals the truth about government and institution comments concerning the consequences of pollution on the environment. The goal of a green audit is to examine the company's pollution-prevention efforts. "A formal study of a company's effects on the environment," according to the definition of a green audit. Environmental Audit is another name for it. Green auditing is also known as environmental law compliance, environmental cost auditing, and environmental impact assessment, as well as carbon credit. We at Gargaon College believe that conserving "Mother Earth" is an important component of education, and that the college's carbon footprint may be decreased through sustainable practises.



About the College

Located at a place of historical and cultural significance, Gargaon College is not only better positioned in terms of its setting and environment but also in respect of infrastructure and courses offered. From smart classrooms, state-of-the-art digital library, conference rooms for academics to gymnasium, indoor stadium and a sports ground for various sporting activities, the college has it all to nurture and mould the spirited youths. Besides the regular courses, the college offers postgraduate courses (in distance mode) along with a gamut of competence-based courses helping students to hone their talents and attain employability skills. Moreover, the institute has a good student-teacher ratio helping the teacher to focus on the individual requirements of each student and mentor them in the right direction. As such, over the years, students have shown outstanding exam results. Every year, a significant number of students opt for higher education as well as professional courses. It is noteworthy that the students of the college have brought laurels in various fields from academics to sports – qualifying in national level competitive examinations, occupying coveted research positions in international universities and even playing in the prestigious Indian Super League. Gargaon College is thus committed to help students develop their skills and chart out successful careers.

Vision of the College

Education is the fulcrum to actualize human potential in this rapidly changing world landscape. In this direction, Gargaon College is committed towards accomplishing the following visions:

- Imparting highest quality education to its students and bringing them on par with the world.
- Providing quality teaching and guidance to the diverse student community and enabling them to realize and utilize their potentials and creativity to the fullest.
- Providing best possible classroom environment, strong student-teacher relationship and an enhanced campus life.
- Providing strong support services to the students towards successful completion of degrees as well as successful career advancement and employment opportunities.



- Promoting continuous educational innovations, creative expressions and artistic productivity by fostering a vibrant knowledge-based atmosphere.
- Generating research and extension activities for the development of the society.

Mission of the College

The motto of Gargaon College is “*to provide quality education by infusing a new spirit among the learners.*” Keeping with the motto, the college aims at the following endeavours:

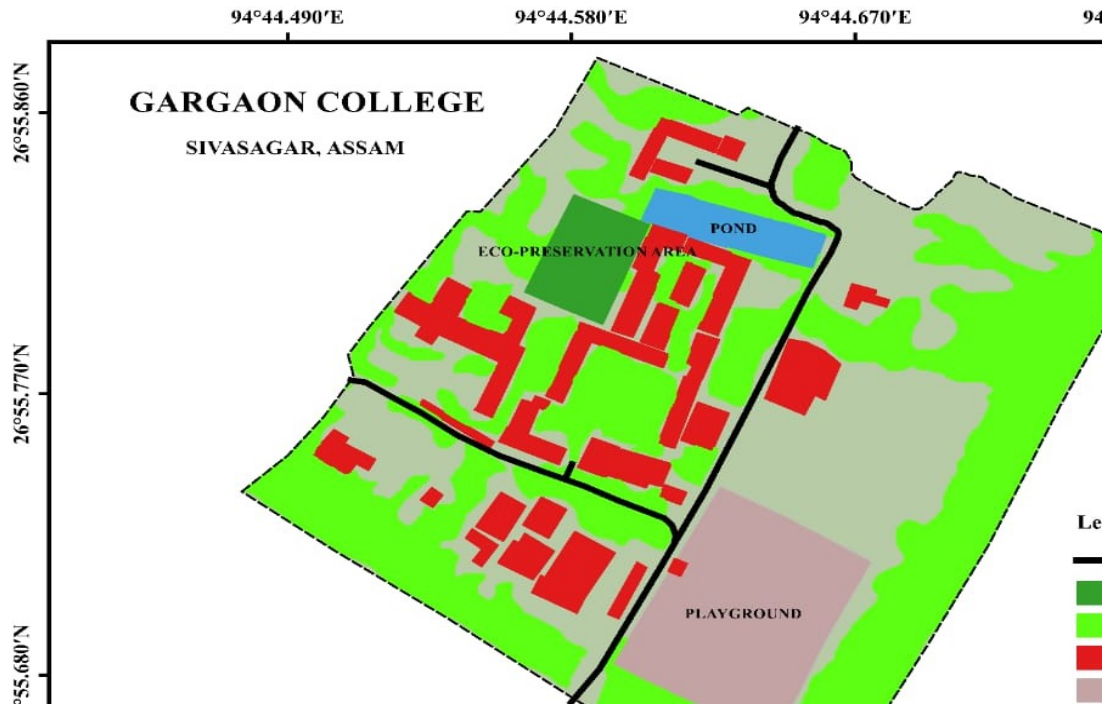
- Imparting quality education of national standards.
- Expanding the knowledge base and mindset of the students by emphasizing upon both traditional as well as modern value-based education.
- Inculcating positive thinking, honesty, integrity and a sense of moral and social belongingness among the learners so as to empower them to shape the future of our society.
- Emphasizing on extracurricular activities in various fields to nurture the talents and skills of the learners.

Environmental Setting

- The college is spread over 75 acres area which includes about 500-meter square sports ground and more than 1.5acresdedicatedgreen area for eco-preservation. Notably, more than 47 % area of the college is covered with greenery. Located in the heart of Gargaon, the college is fourteen kilometres to the east of Sivasagar town and well connected by road and rail. The Simaluguri Railway Station lies at a distance of 2.2 kilometres from the college premises.
- The college has a vast green campus set in peaceful surroundings. Its verdant setting makes it an exclusive destination from the environmental and ecological point of view. About 33 numbers of bird diversity, 32 numbers of fish diversity and more than two hundred varieties of medicinal plants have been identified at the college campus. The college has also initiated an organic garden and a vermicompost project for promoting sustainable agricultural practices in the campus.



- The of green belt including trees, gardens, lawns and an herbal garden has considerably reduced noise pollution in the campus. College green operations/ infrastructures include roof-top solar system, ground water recharge units, ponds, clean water-supply provision for students, leaf composting pits and vermicomposting unit.



OBJECTIVES OF THE GREEN AUDIT

The green audit process assesses and identifies the opportunities for sustainable development processes, enhance the quality of environment, improve health and hygiene, energy saving processes, water management, waste management etc.

The main objective of green and environmental auditing is to help the college to adopt sustainable development practices and also to be an example to society and young learners.

The specific objectives of green audit are-

- Enhance awareness towards the environment management and sustainability.
- Promote sustainability through efficient resource management and adoption of cost saving methods.



- To monitor the quality of air, water and soil and sustainable usage of energy, water and water conservation practices.
- To monitor the waste management system of the college.
- Promote to build a safe, clean and green campus.

METHODOLOGY

The approach for doing a green audit comprised several instruments such as data gathering, physical inspection of the campus, observation and study of paperwork, interviewing key people, data analysis, measurements, and suggestions. To describe the current state of environmental management on campus, the research looked at the following topics.:

- Water Management and Usage
- Soil Quality Management
- Air Quality Management
- Green Campus Management
- Waste Management
- Human Health and Safety Management
- Noise Pollution Management
- Energy Use and Conservation

Water Management and Usage

Water usage, water sources, irrigation, appliances, and fixtures are all addressed within this indicator. Water audit is a non-onsite study and evaluation used to identify water usage so as to improve the efficiency with which water is used.

Water audit is done during February-March period when usage of water is at the peak. The main source of water is ground water. It must be noted that water supplied by the government



is also utilised within the campus and the hostels. Other than that, rain water collecting pit or pond is present in order to recharge ground water. Water is used for drinking purpose, toilets and gardening. There is no loss of water by any leakage or overflow from overhead tanks. Water reservoirs for rain water harvesting is present and are well maintained. To ensure safe drinking water for all, several water purifying units are present – in most departments, in common areas as well as the canteen, available to all. Gardens are watered by using drip/sprinkler irrigation system to minimize water use. Under the guidance of Public Health Department, Nazira ground level water recharging unit is under construction.

Vegetable garden 1 acre	200 L/day during winter during summer
Drinking (No of students, approx. fig)	1000L per day



Figure: Rain water harvesting for recharging of ground water

Soil Quality Management

This indicator takes into account measures to improve soil fertility so as to have better quality nutrients for the plants in the campus. With careful consideration, organic manure such as compost of leaves, vermi-compost has replaced the use of chemical fertilisers all together. Planned and better plantation leads to improved fertility of the soil and to achieve these stakeholders of the college avoid littering by cost and time efficient waste



disposal. More greenery has been added consistently in order to improve ground water resource.

To elaborate upon the ways, the waste management point 3.5 provides an elaborate insight into management of different types of wastes that would otherwise deteriorate soil quality.

Air Quality Management

This indicator includes the management, initiatives taken by college to clean and enhance the air quality within campus. All the activities and actions undertaken helps protect human health and the environment from the harmful effects of air pollution. College campus is filled with enormous numbers of plants to enhance the air quality. Different kinds of trees, shrubs, herb present inside the campus play a very major role in reducing carbon footprint.



Figure: Green campus of Gargaon College

The college has also taken initiative of “No Vehicle Day” once a year. A strict regulation followed by all faculty members and workers of the college to bring no car on that day to the college campus.

Green Campus Management

This includes greenery, plants, sustainability of the campus to ensure that the Environmental policy is enacted and enforced in the college campus using various environmental awareness programs.

Green Area

This covers the campus's flora, greenery, and sustainability to guarantee that the structures meet green construction requirements. This also aids in the enactment, enforcement, and revision of the Environmental Policy through different environmental awareness initiatives.



To sustain bio-diversity, the campus is situated with a large number of trees. The NSS (National Service Scheme) unit, Gargaon college Eco club organises several tree planting initiatives on the college campus and in the nearby communities. This initiative promotes an environmentally friendly atmosphere within the institute by providing pure air and raising awareness among the people. The planting programme comprises a variety of beautiful and therapeutic wild plant species native to the area.



There is periodical review of the list of trees planted in the garden, records are kept and scientific names are assigned to the trees. While carrying out the different activities within the campus, environmental awareness and sustainability is promoted amongst students and staff. World Environment Day is enthusiastically celebrated with the objective of not just making the campus greener but towards a greener planet.

Tree plantation program

- Gargaon College has undertaken tree plantation programme on various occasion like World Environment Day, Teachers Day etc.
- Although there was an ongoing lockdown and we could not celebrate World Environment Day in 2020-21 inside the campus, the college has taken initiatives as part of our social responsibility and increased awareness college family planted saplings at their homes.



Figure: Tree Plantation Drive by Gargaon College fraternity



Figure: Plantation by Students in the area surrounding the campus

Botanical Garden

Gargaon college maintains a botanical garden with aim to collect, cultivate and preserve wide range of plants, animal, birds, snakes and other species. Different types of species provide richness to the biodiversity of the region. Since the garden has a huge number of plants, seasonal fruits so several birds, animals are attracted towards this.

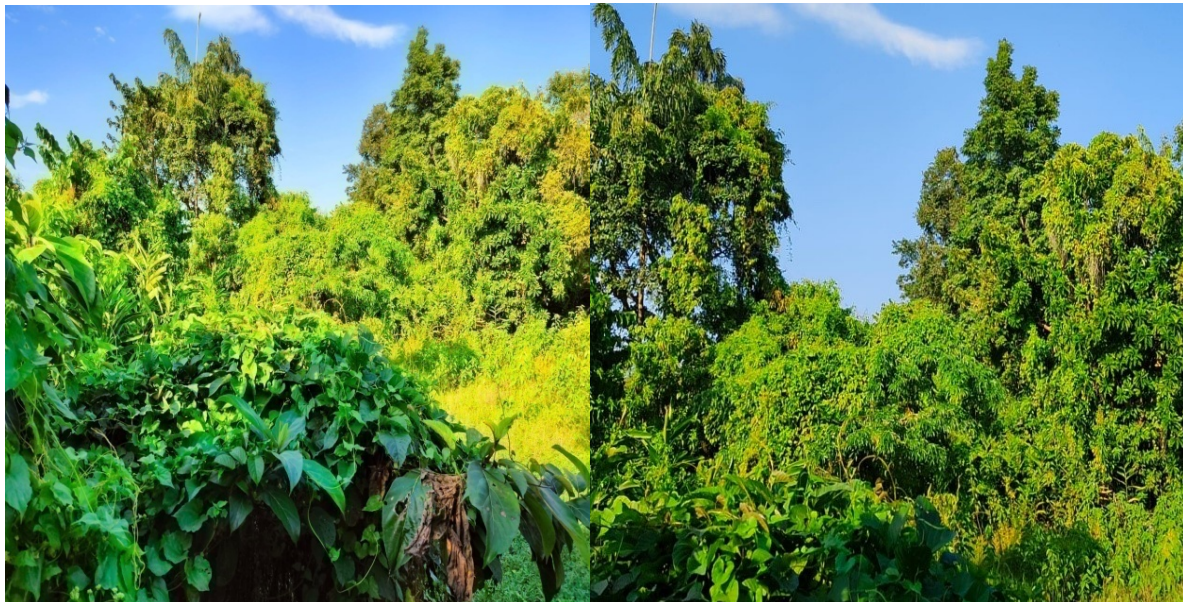


Figure: A glimpse of the Botanical Garden



Organic garden

The college has an organic garden or farm to cultivate vegetables and fruits. The organic vegetable farm covers area approximately 1 acre. Along with the vegetables medicinal plants are also planted and maintained within the area.



Figure: A glimpse of the organic garden



Figure: Fish harvesting from the pond inside the college campus

Waste Management

This indicator looks at the production and disposal of various wastes such as paper, food, plastic, construction, glass, dust, and so on, as well as recycling. Furthermore, solid trash frequently contains squandered material resources that may be put to greater use through recycling, repair, and reuse. The formation and management of solid waste is a burning topic. Unscientific waste disposal can endanger everyone. Gargaon College fraternity is conscious about the amount, kind, and present handling of waste created on campus and how to reuse and properly dispose them.

The campus generates a substantial amount of solid trash through tree droppings. Leaf composting pits are present inside the campus to convert dried leaves into manure. Students are also encouraged to participate in this regard. Separate dustbins for biodegradable and plastic garbage are provided at the point of collection. In all departments, single-sided old



sheets are reused for writing and printing, and both side printing is encouraged. Some selected old newspapers are preserved for further research, issue analysis, etc. and rest are handed over to local vendors and old magazines are archived. The department, office, garden, and other areas create very little plastic garbage (0.1 kg per day), which is not classified at the moment of generation nor sent for recycling. Metal and timber trash are collected and sent to licenced scrap dealers for further processing. The existing plastic waste and E-waste are disposed at municipal collection centre. The municipal corporation collects solid garbage and disposes of it according to their procedures. Installation of sanitary napkin incinerator at ladies waiting room and in girl's common room to reduce plastic waste is also a good and hygienic practice.

We want to reduce the total quantity of garbage generated by college staff offices and make use of all municipal and private recycling facilities, such as glass, cans, white, coloured, and brown paper, plastic bottles, batteries, print cartridges, cardboard, and furniture. Biodegradable garbage, such as leaves and food waste, is composted in pits, while organic waste (food waste) is converted into organic manure in vermi-composting units.



Figure: Leaf composting unit

Solid Waste Management

a) **Segregation of waste:** Segregation of waste begins in the classroom. Each classroom has two dust bins and the common areas have two dust-bins, one for biodegradable materials and the other for non-biodegradable materials. Wet and dry dustbins are placed in corridors, in front of the classrooms.

b) **Plastic Free campus:** Gargaon College has strict regulations towards plastic use and complete ban on single use plastics. Creating awareness towards the environment is one of the significant mandates. It is done by putting up display boards as well as awareness programmes. In practice, besides banning single use plastic, the college canteen uses reusable utensils as well as paper cups and plates to become environmentally more friendly.



Figure: Cleanliness drive of the road leading upto college gate by NSS unit of the college



Figure: Cleanliness drive and collection of waste inside the college campus



Figure: Decorative crafts prepared by students from plastic waste



E-Waste Management

Electronic components contain cadmium, lead, mercury, and polychlorinated biphenyls (PCBs), which can harm human health and the environment. The amount of e-waste created on campus is quite little. E-waste and damaged items from the computer lab are appropriately stored. As a measure of good practice, Gargaon College has an Add-on course on computer hardware networking for utilisation and re-utilisation of e-wastes. In order to dispose of E-waste in a scientific way, the institution has opted to contact a vendor to collect E-waste from the college to be taken to disposal facility.

Human Health and Safety Management

This indicator takes into account the parameters for the betterment of health and safety of all individuals. The first step of doing this is awareness programmes inside college premises. To ensure the safety and with concern of reproductive health of women sanitary napkin dispenser as well as used sanitary napkin incinerator are fully functional in girls' common room and also in ladies waiting room.

To ensure safe fire measures fire-extinguishing mechanisms are put in common places. Fire extinguishers are installed in the campus. Moreover, smoking and selling and use of tobacco and tobacco infused products is strictly banned inside the campus and 300 meters around the institution. The other measures for better health and hygiene are well-ventilated rooms – offices, classrooms, laboratories and corridors. These also have wide doors, large windows and high ceilings to receive adequate sunlight. Air conditioners are used in the offices computer laboratories and exhaust fans are provided in washrooms, kitchen area of the canteen and chemistry laboratories.



Extension Programme	Date of organised
Awareness by NSS volunteers on Spit Free India Movement, 2020	Letter of Appreciation from Sambandh Health Foundation July, 2020
International Women's Day	08/03/2021
World tobacco Day	31/05/ 2021
Environment Day Celebration	05/06/2021
International Yoga Day in collaboration with Purbanchal Yoga Mahavidyalaya, Maligaon, Guwahati	21/06/2021

The NSS Unit of Gargaon College celebrated International women's day on 8th March,2021. On this occasion, the unit organised Slogan writing, Poster making and Art competition related with Gender issues. On 31st May, 2021, the NSS unit of Gargaon college organised an online Pledge taking ceremony on the occasion of 'World No Tobacco Day' with the theme"Quit tobacco to be a Winner".

The Gargaon College NSS unit organised an online prize money video making competition among students on the occasion of World Environment Day,2021on 5th June, 2021.More than 50 students from different colleges of Assam participated in this competition.

On the occasion of International Yoga day, 21st June 2021, jointly the NSS unit,Eco club, IQAC of Gargaon college organised a National Webinar. Two resource persons - Anil Sarma, Incharge of Yogatheraphy Dept, GMCH,Assam and Vikas Prajapati, (Chattisgarh Ratna Awardee) , Director of Nav Jan Jyoti Smaj Sevi Samstha, Chattisgarh delivered their valuable speech and share their knowledgeable experience with us. Both the resource persons focused on importance of yoga for maintaining a balanced and healthy life. Pratyusha Shyamoli Gogoi,a talented little girl with many achievements in her bag demonstrated Artistic yoga in this virtual platform.All participants were extremely thrilled with her demonstration. More than 100 partipants participated in this webinar both on zoom and livestream YouTube platform.

Noise Pollution management

This indicator includes the management, control and reduces the noise pollution within the campus. Regular maintenance of vehicles by preventing pressure horns and plantation is done to keep the campus noise free. By controlling noise, we can control negative health effects that noise pollution has on everyone.



Energy Usage and Conservation

This inclusion indicates energy sources, energy monitoring, lighting, appliance and energy saving practices. Sustainable uses of energy implicit the uses and conservation of energy without cause long term damage to the environment and in other words “meet the needs of present without compromising the ability of future generations to meet their own needs.

Items	Average Load of Quantity (Watt)	Total Load (Average) for each item
Bulb (CFL)	10	6380
Bulb (Tube)	20	1300
Fan	70	27860
Computer	100	10500
Printer	100	2700
Inverter	1000	4000
Stand Fan	65	585
Projector	100	800
Refrigerator	100	1200
Exhaust Fan	60	240
Oven	1000	5000
pH Meter	100	600
Conductometer	100	500
Polarimeter	100	700
Magnetic Stirrer	100	400
Heating Mantel	100	300
Distilled Water Plant	100	300
Water Bath	100	500
Microscope	100	800
Air Conditioner	6000	48000
Laminar Air Flow	100	100
Centrifuge	100	200
UV Transilluminator	220	220
Spectrophotometer	100	100
PCR	100	100
Incubator	100	300
FPM Compressor	150	150
Double Distillatioin	100	100
Muffle Furnace	4000	4000
Electric Kettle	400	800



Vortex Shaker	100	400
Pad Dispenser Machine	100	300
Water Pump	250	2500
BSNL Router	20	20
CCTV DVR	100	200
CCTV Camera Displayer	60	120
Vacuum Cleaner	750	750
XEROX Machine	1000	4000
Water Purifier	60	360
TV	90	180
Online UPS	13	26
Flash Light	100	1200

Main energy source utilized by the campus is electricity. In order to save and conserve energy several steps are taken by the college. 90% bulbs of the campus are LED bulbs and LED tube lights. Besides this, rooftop solar panel is installed in campus to create electricity which is also an alternative source of energy in the move to clean energy production. In addition, greenhouse gas emission to environment is prevented by use of solar panels. The campus is equipped with solar street lights which also save electricity consumption. The classrooms, laboratories, offices have wide doors, large windows and have high ceiling which receive enough sunlight. The classrooms, laboratories are well lighted and ventilated due to large windows on both sides of some classrooms. Air conditioners are used in the offices, computer laboratories. LPG gas is used in canteen and laboratories. Judicious use of electricity is practiced by every member of the college. Staffs are encouraged to switch off the lights, computers, equipment after use. Awareness programmes for the stakeholders to save energy is also increase sustainable use of energy.

Energy consumption Analysis

An energy audit is a visual inspection, survey, and analysis of energy flows in a building, processing system, with the goal of reducing the amount of energy input while maintaining the system's output (s). An energy audit is the first step toward identifying ways to save money on energy and lower your carbon impact. Due to use of solar panels of 300 W on rooftop and 55 number of 18 W each solar LED lights, electricity consumption is reduced.



Electricity Bill Analysis, Gargaon College

Sl. No.	Bill Name	Connected Load (kW)	Contracted Demand (kVA)	Units Consumed (kW h)	Average Power Factor
1	The Principal Gargaon College	12	14.12	135	
2	Gargaon Class Room Building	1	1.18	339	
3	Gargaon Science Building	2	2.35	1092	
4	The Principal, Gargaon College Gargaon Girls Hostel	7	8.24	274	
5	Gargaon Girls Hostel	2	2.35	300	

Sl. No.	Area	Load (Watt)	Load (kVA)
1	Departments Load	64906	~64.9
2	Class Rooms Load	4130	~4.13
3	Auditorium Load	3890	~3.89
4	Office Load	13910	~13.91
5	Library Load	16940	~16.94
6	Stadium Load	1000	~1k
7	Girls Hostel Load	7710	~7.71
	Boys Hostel	1140	~1.14



Biodiversity Audit

All lives present on earth are interlinked with each other. Plants, animal species including human are linked together and forms a complex web of life. Biodiversity of a particular area is the key to a healthy ecosystem. It enhances the air quality, keeps the water clean and also regulates the climate cycle. Our college campus is filled with an enormous number of trees which provide the clean air that we need for healthy living and also reduce the carbon footprint. The college has lots of seasonal fruits and vegetables which attracts several birds and animal species to the campus. The ornamental flowers within the campus bring home several butterfly species. The plants and animal species that are seen within the college campus are listed below.

Some fruit yielding plants present in college campus

Common Name/ Local name	Scientific name
Mango	<i>Mangifera indica</i>
Banana	<i>Musa sp.</i>
Aamlokhi	<i>Phyllanthus emblica</i>
Kothal	<i>Artocarpus heterophyllus</i>
Bogori	<i>Ziziphus mauritiana</i>
Olive	<i>Elaeocarpus floribundus</i>
Black-berry	<i>Syzygiumcumini</i>
Litchi	<i>Litchi chinensis</i>
Outenga	<i>Dillenia indica</i>
Guava	<i>Psidium guajava</i>
Lemon	<i>Citrus limon</i>
Pine-apple	<i>Ananas comosus</i>
Custard-apple	<i>Annona reticulate</i>
Pomegranate	<i>Punica granatum</i>
Wood-apple	<i>Aegle marmelos</i>
Orange	<i>Citrus reticulate</i>
Coconut	<i>Cocos nucifera</i>
Tamul	<i>Areca catechu</i>
Bokul	<i>Mimusopselengi</i>
Teteli	<i>Tamarindus indica</i>
Papaya	<i>Carica papaya</i>
Areca-nut	<i>Areca catechu</i>



BogiJamuk	<i>Syzygiumjambos</i>
Leteku	<i>Baccaurearamiflora</i>
Nogatenga	<i>Myrica rubra</i>
Ahom Bogori	<i>Prunus persica</i>
Nora Bogori	<i>Prunus domestica</i>
Poniol	<i>Flacourtiajangomas</i>
Silikha	<i>Terminalia chebula</i>
Akhrot	<i>Juglans regia</i>
Miricatenga	<i>Elaeagnus angustifolia</i>
Coffee	<i>Coffee robusta</i>
Sewatamul	<i>Caryotaurens</i>
Robabtenga	<i>Citrus grandis</i>
Karjatenga	<i>Carissa carandas</i>
Kordoi	<i>Averrhoa carambola</i>
Akhrot	<i>Aesculus indica</i>
Khejur	<i>Phoenix dactylifera</i>

Some timber yielding plants present in college campus

Common Name/ Local name	Scientific name
Shegun	<i>Tectona grandis</i>
Dimoru	<i>Ficus hispida</i>
Satiana	<i>Alstoniascholaris</i>
Sopa	<i>Micheliachampaca</i>
Debodaru	<i>Polyalthia longifolia</i>
Krishnachura	<i>Delonix regia</i>
Kadom	<i>Neolamarckiacadamba</i>
Sasi	<i>Aquililaariamalaccensis</i>
Nahar	<i>Mesua ferrea</i>
Gomari	<i>Gmelina arborea</i>
Sonaru	<i>Cassia fistula</i>
Shimolu	<i>Bombax ceiba</i>
Ajar	<i>Lagerstroemia speciosa</i>
Modar	<i>Erythrina variegata</i>
Sissoo	<i>Dalbergia sissoo</i>

Some medicinal plants present in college campus

Local name	Scientific name
Sarpagandha	<i>Rauwolfia serpentina</i>
Bhomora	<i>Terminalia bellirica</i>
Arjun	<i>Terminalia arjuna</i>
Pipoli	<i>Piper longum</i>
Borial	<i>Sidarhombifolia</i>
Jaluk	<i>Piper nigrum</i>



Mandhonia	<i>Eryngiumfoetidum</i>
Sal kuwori	<i>Aloe barbadensis</i>
Bhedai-lota	<i>Paederiafoetida</i>
Mosondori	<i>Houttuyniacordata</i>
Satmul	<i>Asparagus racemosus</i>
Konashimolu	<i>Commelinabenghalensis</i>
Khutura	<i>Amaranthusspinosus</i>
Matikanduri	<i>Alternantherasessilis</i>
Durun bon	<i>Leucasplukeneti</i>
Bor-manimuni	<i>Centellaasiatica</i>
Soru-manimuni	<i>Hydrocotylesibthorpioides</i>
Bon-jaluk	<i>Hedyotisdiffusa</i>
Horu-tengesi	<i>Oxalis corniculata</i>
Bor-tengesi	<i>Oxalis debilis</i>
Jilmilhak	<i>Chenopodium album</i>
Dhekia	<i>Diplanziumesculantum</i>
Kola Kosu	<i>Colocasiaesculenta</i>
Jarmani Bon	<i>Eupatorium odoratum</i>
Huhoni bon	<i>Spilanthesacmella</i>
Gakhioti bon	<i>Euphorbia hirta</i>
Kalmegh	<i>Andrographis paniculata</i>
Hatikhutura	<i>Amaranthusspinosus</i>
Tita-bhekuri	<i>Solanumindicum</i>
Nephaphu	<i>Clerodendrumcolebrookianum</i>
Dhopattita	<i>Clerodendruminfortunatum</i>
Aparajita	<i>Clitoriaternatea</i>
Kenharaj	<i>Eclipta alba</i>
Tita-phul	<i>Phlogocanthusthysiflorus</i>
Akashi lota	<i>Cuscutareflexa</i>
Gorukhis	<i>Frageriavesca</i>
Joba	<i>Hibiscus rosa sinensis</i>
Era gos	<i>Riccinus communis</i>
Jetuka	<i>Lawsoniainermis</i>
Dighloti	<i>Litseasalicifolia</i>
Harjura lota	<i>Cissusquadrangularis</i>
Duportenga	<i>Bryophyllumpinnatum</i>
Futukola	<i>Melastomamelabathricum</i>
BhuiAamllokhi	<i>Phyllanthus fraternus</i>
Nilajibon	<i>Mimosa pudica</i>
Bhatghila	<i>Oroxylum indicum</i>
Lai jabori	<i>Drymaria cordata</i>
Tezmooi	<i>Xanthoxylumnitidum</i>
Prem lota	<i>Mikania micrantha</i>
Hoguni lota	<i>Tinospora cordifolia</i>
Kopoudhekia	<i>Lygodiumflexuosum</i>
Duboribon	<i>Cynodondactylon</i>



Tikoniborua	<i>Smilax zeylanica</i>
Teportenga	<i>Garcinia xanthochymus</i>
Ghura Neem	<i>Melia azedarach</i>
Moha Neem	<i>Azadirachta indica</i>
Selaginella	<i>Selaginella sp.</i>

Some ornamental plants present in college campus

Common Name/ Local name	Scientific name
Bleeding Heart Vine	<i>Clerodendrumthomsoniae</i>
Rangoon creeper	<i>Combretum indicum</i>
Money plant	<i>Epipremnumaureum</i>
Dragon-tail plant	<i>Epipremnumpinnatum</i>
Garlic vine	<i>Mansoaalliaceae</i>
Swiss cheese plant	<i>Monstera deliciosa</i>
Philodendron	<i>Philodendron cordatum</i>
Modhumaloti	<i>Quisqualis indica</i>
Mini monstera	<i>Rhaphidophoratetrasperma</i>
Arrowhead vine	<i>Syngonium podophyllum</i>
Curtain creeper	<i>Vernonia elaeagnifolia</i>
Sewali	<i>Nyctanthes arbor-tristis</i>
Krishnachura	<i>Delonix regia</i>
Aloe leafed cymbidium	<i>Cymbidium aloifolium</i>
Hooded orchid	<i>Dendrobium aphyllum</i>
Pale Micropera	<i>Micropera pallid</i>
Orchid	<i>Goodyeraprocera</i>
Fringe-Lipped Dendrobium	<i>Dendrobium fimbriatum</i>
Noble Dendrobium	<i>Dendrobium nobile</i>
Musky-smelling Dendrobium	<i>Dendrobium moschatum</i>
Angelfish orchid	<i>Dendrobium aduncum</i>
Golden-bow Dendrobium	<i>Dendrobium chrysotoxum</i>
Bent-racemed Dendrobium	<i>Dendrobium lituiflorum</i>
Dendrobium	<i>Dendrobium polyanthum</i>
Cat's tail orchid	<i>Aerides odorata</i>
Ground orchid	<i>Spathoglottis plicata</i>
Chinese Ixora	<i>Ixora chinensis</i>
Snake plant	<i>Dracaena trifasciata</i>
Oleander	<i>Nerium oleander</i>
Pine	<i>Pinus sp.</i>
Cycas	<i>Cycas sp.</i>
Spider plant	<i>Chlorophytum comosum</i>
Kanchan	<i>Bauhinia variegata</i>
Rose	<i>Rosa sp.</i>
Marigold	<i>Tagets. sp.</i>
Jewlweed	<i>Impatiens sp.</i>



Figure: Green Corridor of the campus

Annexure 2: Photographs of different plant species present in college campus



Philodendron sp.



Piper longum



Selaginella sp.



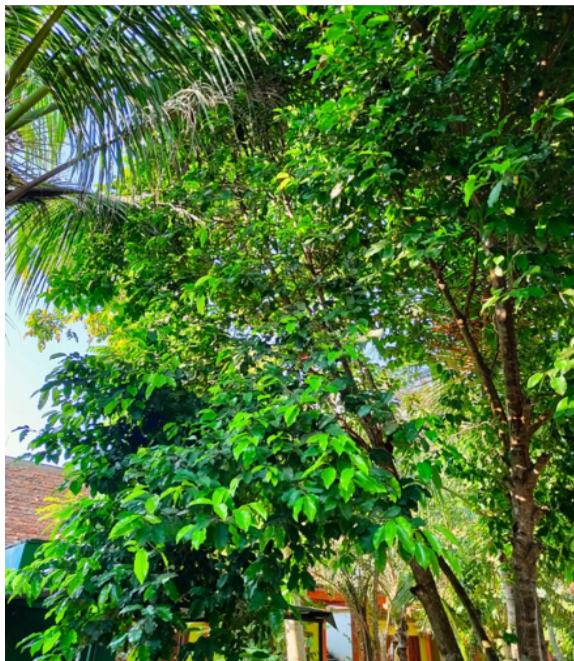
Oxalis debilis



Ziziphus mauritiana



Ixora chinensis



Mimusops elengi



Averrhoa carambola



Oxalis corniculata



Solanum torvum

Animal Diversity of Gargaon College Campus

The Gargaon college has a vast green campus set in peaceful surroundings. Its verdant setting makes it an exclusive destination from the environmental and ecological point of view. The college has also initiated an organic garden and a vermicompost project for promoting sustainable agricultural practices in the campus. The Gargaon College has luxuriant vegetation with big trees and dense vegetation and 1/3 of the college area is covered by trees to maintain the ecosystem. The Green environment of the college is due to tree plantation which is carried out every year regularly. The College has formed a green team comprising faculty of various departments. The campus with various fruit bearing, flowering and ornamental plants, various medicinal plants and valuable wood trees. The college campus has a well-maintained pond and various small logs and marshlands available in and around which are rich in piscine diversity along with various species of planktons, aquatic weeds and aquatic animals. Green campus is home for many species of birds like Indian paradise flycatcher, drongo, barbet, owl, parakeet, munia, bulbul, bee-eater, hoopoe, magpie, koel, oriole etc. About 42 numbers of bird diversity, 47 numbers of fish diversity, 40 numbers of butterfly diversity, 5 numbers of reptile diversity, a few mammals' diversity and various species of moths, spiders, ants, dragonflies and more than two hundred varieties of medicinal plants have been identified at the college campus. Every year in month of March to August, saplings are planted within the campus.



List of Birds available in and around Gargaon College Campus

Sl. No.	Local Name	Common Name	Scientific Name
1	Panikawori	Little cormorant	<i>Phalacrocorax niger</i>
2	Bar Aajan	White-Billed Heron	<i>Ardea insignis</i>
3	Konamosuri	Indian pond Heron	<i>Ardeolagrayii</i>
4	Bar Bog	Great Egret	<i>Ardea alba</i>
5	Gubag	Cattle Egret	<i>Bulbulcus ibis</i>
6	Majubag	Intermediate Egret	<i>Egratta intermedia</i>
7	Hamukbhanga	Asian openbill	<i>Anastomusoscitans</i>
8	Bartokula	Lesser Adjutant	<i>Leptoptiosjavanicus</i>
9	Dawok	White-breasted waterhen	<i>Amaurornis pheoniceus</i>
10	Haitha	Green pigeon	<i>Treronpompadora</i>
11	Paracharai	Pigeon	<i>Columba livia</i>
12	Pati/photukikapuo	Spotted dove	<i>Streptoplia chinensis</i>
13	Galmonibhatuo	Rose-ringed parakeet	<i>Psittaculameri</i>
14	Latkonbhatuo	Vernal hanging parrot	<i>Loriculus vernalis</i>
15	Koli	Asian koel	<i>Eudynamis scolopacea</i>
16	Kateki	Plaintive cuckoo	<i>Cacomantis merulinus</i>
17	Malkhowa	Green billed malkhowa	<i>Rhopodytes tristis</i>
18	Kokoha	Greater coucal	<i>Centropus sinensis</i>
19	Phansa	Barred owlet	<i>Glaucidium cuculoides</i>
20	Kalphansa	Spotted owlet	<i>Athene brama</i>
21	Masaruka	Common kingfisher	<i>Alcedo atthis</i>
22	Gobarkhosura	Common hoopoe	<i>Upupa epops</i>
23	Ban hatlike	Common barbet	<i>Megalaima lineata</i>
24	Nilkonthihatuloka	Blue-throated barbet	<i>Megalaima asiatica</i>
25	Kathoruka	Greater yellow nape	<i>Picus flavinucha</i>
26	Arakhati	Strike	<i>Lanius schach</i>
27	Hakhioti	Black hooded oriole	<i>Oriolus xanthornus</i>
28	Bhimraj/phansu	Lesser racket tailed drongo	<i>Dicrurus remifer</i>
29	Gang halika	Bank myna	<i>Acridotheres ginginianus</i>
30	Chutihalika	Jungle myna	<i>Acridotheres fuscus</i>
31	Pati kawri	House crow	<i>Corvus splendens</i>
32	Sairangiphasuloka	Ashy bulbul	<i>Hypsipetes flavalis</i>
33	Phasuloka	Red Whiskered bulbul	<i>Pycnonotus jocosus</i>
34	Dhaplika	Jungle babbler	<i>Turdoides striata</i>
35	Chatchati	Warbler	<i>Acrocephalus agricola</i>
36	Nilkanthi	Bluthroat	<i>Erithacus svecicus</i>
37	Dahikatora	Oriental magpie robin	<i>Copsychus saularis</i>
38	SHYAMA	Shama	<i>Copsychus malabaricus</i>
39	Bhadarkali	Great tit	<i>Parus major</i>
40	Moupia	Crimson sunbird	<i>Aethopygia siparaja</i>
41	Moupia	Ruby cheeked sunbird	<i>Antheptes singalensis</i>
42	Moupia	Purple sunbird	<i>Nectarinia asiatica</i>



List of Fishes available in Gargaon College Ponds, and other marshland area available in and around the campus of Gargaon College.

Sl. No.	Local Name	Common Name	Scientific Name
1	Rou	Rohu	<i>Labeorohita</i>
2	Grass carp	Grass carp	<i>Ctenopharyngodonidella</i>
3	Silver carp	Silver carp	<i>Hypophthalmichthys molitrix</i>
4	Big head carp	Big head carp	<i>Hypophthalmichthys nobilis</i>
5	Mali	Black Rohu	<i>Labeocalbasu</i>
6	Kurhi	Kuria Labeo	<i>Labeogonius</i>
7	Kandhuli	Feather back	<i>Notopterusnotopterus</i>
8	Bhangone	Boga Labeo	<i>Labeoboga</i>
9	Mirika	Mrigal	<i>Cirrihinusmrigala</i>
10	Puthi	Spot fin Swan barb	<i>Puntius sophore</i>
11	Puthi	Golden barb	<i>Puntius gelius</i>
12	Puthi	barb	<i>Puntius ticto</i>
13	Puthi	barb	<i>Puntius chonconius</i>
14	Cheniputhi	Olive barb	<i>Puntius sarana</i>
15	Horudorikona	Zebra fish	<i>Danio rerio</i>
16	DangorDorikona	Rasbora	<i>Rasbora doniconius</i>
17	Mua mass	Mola	<i>Amblypharyngodon mola</i>
18	Selkona	Gora	<i>Oxygastergora</i>
19	Botia	Loach	<i>Lepidocephalichthysguntea</i>
20	Rani mass/Gethu mass	Loach	<i>Botiaderio</i>
21	Magur	Magur	<i>Clariusmagur</i>
22	Singhi	Catfish	<i>Heteropneustesfossilis</i>
23	Chengeli	Snake headed	<i>Channa gochua</i>
24	Goroi	Spotted Snake headed	<i>Channa punctata</i>
25	Hol mass	Stripe Snake headed	<i>Channa striatus</i>
26	Haal mass	Snake head	<i>Channa marulius</i>
27	Noga Cheng	Snake head	<i>Channa aurantimaculata</i>
28	Cheng	Snake head	<i>Channa stewartii</i>
29	Kuchia	Mud eel	<i>Monopterusucuchia</i>
30	Chanda	Parchlet	<i>Chanda nama</i>
31	Chanda	Parchlet	<i>Chanda ranga</i>
32	Vacheli	Dwarf gourami	<i>Trichogasterlalia</i>
33	Kholihona	Banded or Striped gourami	<i>Trichogaster fasciatus</i>
34	Vacheli	Colisa	<i>Colisacholisa</i>
35	Dum bhecheli	Blue perch	<i>Badisbadis</i>
36	Randhonee mass	Assam bluespotbadis	<i>Badisassamensis</i>
37	Gedgedi	Mottled nandus	<i>Nandus nandus</i>
38	Kawoi	Climbing perch	<i>Anabas testudineus</i>
39	Tura	One striped spinny eel	<i>Macrognathusaral</i>
40	Bami	Spiny eel/Zig-zag eel	<i>Mastacembelusarmatus</i>
41	Kaibai/pankal	Barred spiny eel	<i>Macrognathuspancalus</i>
42	Hingora	Tengra	<i>Mystustengra</i>
43	Boga Hingora	Tengra	<i>Mystuscavasius</i>
44	Hingora	Tengra	<i>Mystusdibrugarensis</i>
45	Hingora	Tengra	<i>Mystusvittatus</i>
46	Keyakata	Sisorid catfish	<i>Gagatacencia</i>
47	Kurkuri mass	Frogmouth catfish	<i>Chacachaca</i>
48	Bordua mass	Indian potasi	<i>Pachypterusathreinooides</i>
49	Patimutura mass	Tank goby	<i>Glossogobiusgiuris</i>



List of Reptiles found in Gargaon College Campus

Sl. No.	Family	Common Name	Scientific Name
1	Scincidae	Bronze Grass skink	<i>Eutropismacularia</i>
2	Scincidae	Spotted Litter skink	<i>Sphenomorphus maculatus</i>
3	Varanidae	Bengal Monitor	<i>Varanus bengalensis</i>
4	Gekkonidae	Brook's House Gecko	<i>Hemidactylus brookii</i>
5	Scincidae	Many-lined Grass Skink	<i>Eutropismultifasciata</i>
6	Chamaeleonidae	Chameleon	<i>Chamaeleozeylanicus</i>
7	Sciuridae	Orange bellied Himalayan squirrel	<i>Dremomyslokriah</i>
8.	Sciuridae	Hoary-bellied Himalayan Squirrel	<i>Callosciuruspygery</i>
9.	Colubridae	Red necked keelback	<i>Rhabdophissubminiatus</i>
10	Colubridae	Assamese cat snake	<i>Boiga quincunciata</i>
11	Colubridae	Painted bronzeback snake	<i>Dendralephis pictus</i>

List of Butterflies found in the Gargaon College Campus

Sl. No.	Family	Common Name	Scientific Name
1	Nymphalidae	Lemon pansy	<i>Junonialemonias</i> (Linnaeus)
2	Hesperiidae	Small-branded swift	<i>Pelopidas mathias</i> (Fabricius)
3	Nymphalidae	Chocolate pansy	<i>Junoniaiphita</i> (Cramer)
4	Nymphalidae	Leopard lacewing	<i>Cethosiacyane</i> (Drury)
5	Hesperiidae	Coon	<i>Sancusfuligo</i> (Mabille)
6	Nymphalidae	Blue spotted crow	<i>Euploeamidamus</i> (Linnaeus)
7	Hesperiidae	Common banded demon	<i>Notocryptaparalysos</i>
8	Nymphalidae	Common evening brown	<i>Melanitisleda</i> (Linnaeus)
9	Hesperiidae	Fulvous pied flat	<i>Pseudocoladenia dan</i> (Fabricius)
10	Nymphalidae	Grey count	<i>Tanaecialepidea</i> (Butler)
11	Nymphalidae	Common sailor	<i>Eptishylas</i> (Linnaeus)
12	Nymphalidae	Common crow	<i>Euploea core</i> (Cramer)
13	Lycaenidae	Zebra blue	<i>Leptotesplinius</i> (Fabricius)
14	Nymphalidae	Great egg fly	<i>Hypolimnasbolina</i> (Linnaeus)
15	Lycaenidae	Yamfly	<i>Loxuraatymnus</i> (Stoll)
16	Nymphalidae	Common bush brown	<i>Mycalasisperseus</i> (Fabricius)
17	Pieridae	Common grass yellow	<i>Euremahecabe</i> (Linnaeus)
18	Nymphalidae	Common five ring	<i>Ypthimabaldus</i> (Fabricius)
19	Nymphalidae	Knight	<i>Lebadeamartha</i> (Fabricius)
20	Nymphalidae	Eastern five ring	<i>Ypthimapersimilis</i> (Elwes& Edwards)
21	Nymphalidae	Striped tiger	<i>Danaus genutia</i> (Cramer)
22	Nymphalidae	Common palm fly	<i>Elymniashypermnestra</i> (Linnaeus)
23	Lycaenidae	Red pierrot	<i>Talicaadanyseus</i> (Guerin-Meneville)
24	Nymphalidae	Large yeoman	<i>Cirrochroaaoris</i> (Doubleday)
25	Lycaenidae	Common pierrot	<i>Castaliusrosimon</i> (Fabricius)
26	Nymphalidae	Common baron	<i>Euthaliaaconthea</i> (Cramer)
27	Hesperiidae	Grass demon	<i>Udaspesfolus</i> (Cramer)
28	Nymphalidae	Plain tiger	<i>Danaus chrysippus</i> (Linnaeus)
29	Nymphalidae	Grey pansy	<i>Junoniaatlites</i> (Linnaeus)
30	Lycaenidae	Common tit	<i>Hypolycaenaerylus</i> (Godart)
31	Nymphalidae	Banded tree brown	<i>Lethe confusa</i> (Aurivillius)
32	Pieridae	Mottled emigrant	<i>Catopsiliapyranthe</i> (Linnaeus)
33	Lycaenidae	Common silverline	<i>Spindasisvulcanus</i> (Fabricius)



34	Pieridae	Red base jezebel	<i>Deliaspasithoe</i> (Linnaeus)
36	Lycaenidae	Chocolate royal	<i>Remelanajungala</i> (Horsfield)
37	Nymphalidae	Peacock pansy	<i>Junoniaalmana</i> (Linnaeus)
38	Pieridae	Common emigrant	<i>Catopsiliapomona</i> (Fabricius)
39	Lycaenidae	Common imperial	<i>Cheritrafreja</i> (Fabricius)
40	Lycaenidae	Pale grass blue	<i>Pseudozizeerimaha</i> (Kollar)

List of Mammal available in Gargaon College Campus

Sl. No.	Local Name	Common Name	Scientific Name
1.	AsomiyaBandor	Assamese macaque	<i>Macaca assamensis</i>

Source: These data are collected by Department of Zoology, Gargaon College

Conclusions

Environmental education and awareness are extensive. Solar panels and a rainwater collection system have been installed, which is remarkable. Furthermore, the administration's environmental awareness programmes demonstrate how the campus is becoming more environmentally friendly. A few suggestions are made to reduce the threat of waste management by employing environmentally friendly and scientific methods. This might pave the way for a bright future in the framework of Green Campus, as well as a more sustainable environment and community development. We carried out environmental monitoring of campus, including classroom lighting and ventilation, as part of the green audit. In the presence of natural light, Illumination and Ventilation were found to be adequate.



Photographs of Birds available in Gargaon College Campus



Parakeet species



Brown Hawk Owl



White breasted water hen



Photographs of Birds of Gargaon College Campus



Common barbet



Wild Moina



Red-vented Bulbul



Rufous treepie



Photographs of Butterflies available in Gargaon College Campus



Striped tiger



Common pierrot



Dark Grass Blue



Photographs of Mammals and Reptiles



Assamese macaque



Hoary-bellied Squirrel



Varanus bengalensis



Red necked keelback snake



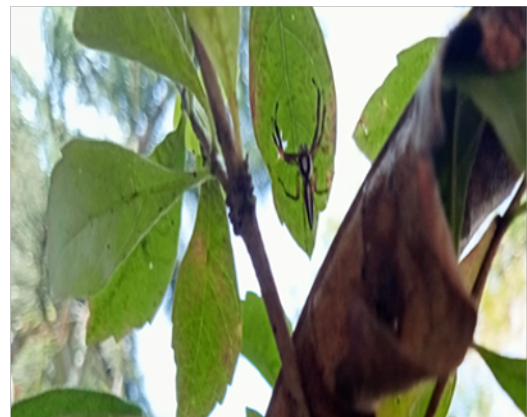
Milk snake



Assamese cat snake



Photographs of insects available in Gargaon College Campus





Photographs of different species of insects available in Gargaon College Campus



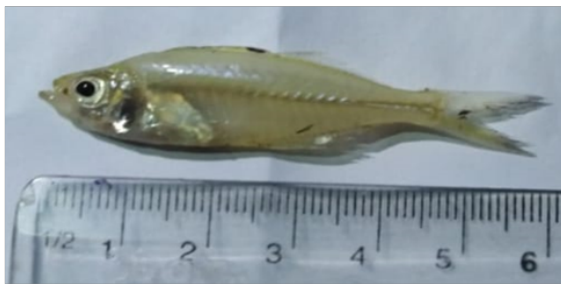
Photographs of Fishes available in Gargaon College Campus



Trichogaster fasciatus



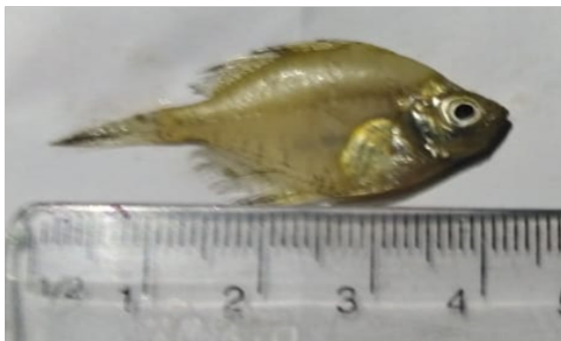
Glossogobius giuris



Chanda nama



Nandus nandus



Chanda ranga



Lepidocephalichthys guntea



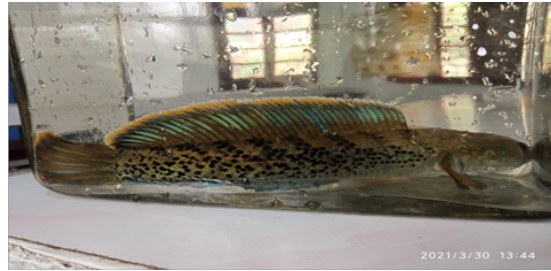
Pachypterus athrenoides



Badis assamensis



Mastacembelus macrognathus



Channa aurentimaculata



Amblypharyngodon mola



Botia dero



Anabas testudineus



Channa punctata



Puntius sophore



Labeo boga



Channa stewartii



Trichogaster chota



Heteropneustes fossilis



Lepidocephalichthys spp



Mystus cavasius



Puntius sarana



Xenontodon cancella

Source: Photographs of fish species were collected from Department of Zoology, Gargaon College.



Photographs of Gargaon College Pond





Annexure 1: YouTube links

1. Tree plantation program by college staff and students in World Environment Day 2021.	(135) WORLD ENVIRONMENT DAY, 5TH JUNE, GARGAON COLLEGE, 2021 PART I – YouTube (135) WORLD ENVIRONMENT DAY, 5TH JUNE, GARGAON COLLEGE, 2021, PART II – YouTube
2. View of Botanical Garden of the college.	(135) BOTANICAL GARDEN- GARGAON COLLEGE – YouTube
3. Potato Harvesting in our Organic Garden	(148) POTATO HARVESTING SEASON- COLLEGE ORGANIC FARM - YouTube



Annexure 2: Water Quality Report

WATER ANALYSIS REPORT
NAZIRA SUB-DIVISIONAL LEVEL LABORATORY
NAZIRA P.H.E. SUB-DIVISION, NAZIRA

Date: 8/9/20

1. Report No. : 1
2. Name of Organization : Gargaon College
3. Pin-Point Location : College Canteen
4. Date & Time of Sample Collection : 4/9/2020
5. Date of Examination : 4/9/2020
6. Source of Sample : Bore - well
7. Nature of Test : Physical / Chemical / Bacteriological (Parameter)
8. Name of Sample Collector : Swajit Saikia (Prof. Garga)

Sl No.	PARAMETERS	DESIRABLE LIMIT	PERMISSIBLE LIMIT	RESULT
1	Alkalinity	200	600	93
2	Arsenic As	0.01	0.05	0.00
3	Chloride as Cl	250	1000	14
4	Fluoride as F	1	1.5	0.03
5	Hardness as CaCO ₃	300	600	120
6	Iron as Fe	0.3	1	0.13
7	Nitrate as NO ₃	45	No Relaxation	0.0
8	PH	6.5 to 8.5	No Relaxation	7.5
9	Total Dissolved Solid	500	2000	146
10	Turbidity (N.T.U.)	1	5	7

11 BACTERIOLOGICAL TEST

- a) Total Bacilli Coliform MPN / 100 ml : Absent.
b) Total F.E. Coliform MPN / 100 ml. :

REMARKS :



WATER ANALYSIS REPORT
NAZIRA SUB-DIVISIONAL LEVEL LABORATORY
NAZIRA P.H.E. SUB-DIVISION, NAZIRA

Date: 8/9/2020

1. Report No. : 2
2. Name of Organization : Gargaon College
3. Pin-Point Location : Girls' Common Room
4. Date & Time of Sample Collection : 4/9/2020
5. Date of Examination : 4/9/2020
6. Source of Sample : Bore - well
7. Nature of Test : Physical / Chemical / Bacteriological (Parameter)
8. Name of Sample Collector : Surejit Saikia (Prof. Gargaon)

Sl No.	PARAMETERS	DESIRABLE LIMIT	PERMISSIBLE LIMIT	RESU
1	Alkalinity	200	600	163
2	Arsenic As	0.01	0.05	0.00
3	Chloride as Cl	250	1000	16
4	Fluoride as F	1	1.5	0.08
5	Hardness as CaCO ₃	300	600	145
6	Iron as Fe	0.3	1	0.46
7	Nitrate as NO ₃	45	No Relaxation	0.0
8	PH	6.5 to 8.5	No Relaxation	7.05
9	Total Dissolved Solid	500	2000	185
10	Turbidity (N.T.U.)	1	5	12

11 BACTERIOLOGICAL TEST

- a) Total Bacilli Coliform MPN / 100 ml : Absent
b) Total F.E. Coliform MPN / 100 ml. :

REMARKS :



WATER ANALYSIS REPORT
NAZIRA SUB-DIVISIONAL LEVEL LABORATORY
NAZIRA P.H.E. SUB-DIVISION, NAZIRA

Date: 8/9/2020

1. Report No. : 3
2. Name of Organization : Gargaon College
3. Pin-Point Location : Boy's Common Room.
4. Date & Time of Sample Collection : 4/9/2020
5. Date of Examination : 4/9/2020
6. Source of Sample : Boree. - well
7. Nature of Test : Physical / Chemical / Bacteriological (Parameters)
8. Name of Sample Collector : Swajit Saikia (Prof. Garga)

Sl No.	PARAMETERS	DESIRABLE LIMIT	PERMISSIBLE LIMIT	RESULT
1	Alkalinity	200	600	112
2	Arsenic As	0.01	0.05	0.00
3	Chloride as Cl	250	1000	15
4	Fluoride as F	1	1.5	0.05
5	Hardness as CaCO ₃	300	600	197
6	Iron as Fe	0.3	1	0.294
7	Nitrate as NO ₃	45	No Relaxation	0.0
8	PH	6.5 to 8.5	No Relaxation	7.04
9	Total Dissolved Solid	500	2000	163
10	Turbidity (N.T.U.)	1	5	9

11 BACTERIOLOGICAL TEST

- a) Total Bacilli Coliform MPN / 100 ml : Absent
b) Total F.E. Coliform MPN / 100 ml. :

REMARKS :



WATER ANALYSIS REPORT
NAZIRA SUB-DIVISIONAL LEVEL LABORATORY
NAZIRA P.H.E. SUB-DIVISION, NAZIRA

Date: 8/9/20

1. Report No. : 4
2. Name of Organization : Gargaon College
3. Pin-Point Location : College Girls' Hostel (u
4. Date & Time of Sample Collection : 4/9/2020
5. Date of Examination : 4/9/2020
6. Source of Sample : Boree. - well
7. Nature of Test : Physical / Chemical / Bacteriological (Parameter
8. Name of Sample Collector : Swrajit Saikia (Prof. Gorge)

Sl No.	PARAMETERS	DESIRABLE LIMIT	PERMISSIBLE LIMIT	RESU
1	Alkalinity	200	600	191
2	Arsenic As	0.01	0.05	0.00
3	Chloride as Cl	250	1000	17
4	Fluoride as F	1	1.5	0.04
5	Hardness as CaCO ₃	300	600	166
6	Iron as Fe	0.3	1	0.41
7	Nitrate as NO ₃	45	No Relaxation	0.0
8	PH	6.5 to 8.5	No Relaxation	7.01
9	Total Dissolved Solid	500	2000	156
10	Turbidity (N.T.U.)	1	5	7

11 BACTERIOLOGICAL TEST

- a) Total Bacilli Coliform MPN / 100 ml :
b) Total F.E. Coliform MPN / 100 ml. :

REMARKS :



WATER ANALYSIS REPORT
NAZIRA SUB-DIVISIONAL LEVEL LABORATORY
NAZIRA P.H.E. SUB-DIVISION, NAZIRA

Date: 8/9/20

1. Report No. : 5
2. Name of Organization : Gargaon College
3. Pin-Point Location : Girls' Hostel (well B)
4. Date & Time of Sample Collection : 4/9/2020
5. Date of Examination : 4/9/2020
6. Source of Sample : Bore-well
7. Nature of Test : Physical / Chemical / Bacteriological (Parameters)
8. Name of Sample Collector : Swrajit Saikia (Prof. Gargaon)

Sl No.	PARAMETERS	DESIRABLE LIMIT	PERMISSIBLE LIMIT	RESULT
1	Alkalinity	200	600	188
2	Arsenic As	0.01	0.05	0.00
3	Chloride as Cl	250	1000	25
4	Fluoride as F	1	1.5	0.14
5	Hardness as CaCO ₃	300	600	206
6	Iron as Fe	0.3	1	1.026
7	Nitrate as NO ₃	45	No Relaxation	0.0
8	PH	6.5 to 8.5	No Relaxation	6.88
9	Total Dissolved Solid	500	2000	177
10	Turbidity (N.T.U.)	1	5	19

11 BACTERIOLOGICAL TEST

- a) Total Bacilli Coliform MPN / 100 ml : absent
b) Total F.E. Coliform MPN / 100 ml. :

REMARKS :



WATER ANALYSIS REPORT
NAZIRA SUB-DIVISIONAL LEVEL LABORATORY
NAZIRA P.H.E. SUB-DIVISION, NAZIRA

Date: 8/9/20

1. Report No. : 6
2. Name of Organization : Gargaon College
3. Pin-Point Location : Girls' Hostel Warden's Q.
4. Date & Time of Sample Collection : 4/9/2020
5. Date of Examination : 4/9/2020
6. Source of Sample : Bore-well
7. Nature of Test : Physical / Chemical / Bacteriological (Parameters)
8. Name of Sample Collector : Swrajit Saikia (Prof. Gargaon)

Sl No.	PARAMETERS	DESIRABLE LIMIT	PERMISSIBLE LIMIT	RESULT
1	Alkalinity	200	600	156
2	Arsenic As	0.01	0.05	0.00
3	Chloride as Cl	250	1000	25
4	Fluoride as F	1	1.5	0.15
5	Hardness as CaCO ₃	300	600	118
6	Iron as Fe	0.3	1	1.079
7	Nitrate as NO ₃	45	No Relaxation	0.0
8	PH	6.5 to 8.5	No Relaxation	6.9
9	Total Dissolved Solid	500	2000	151
10	Turbidity (N.T.U.)	1	5	10

11 BACTERIOLOGICAL TEST

- a) Total Bacilli Coliform MPN / 100 ml: absent
b) Total F.E. Coliform MPN / 100 ml. :

REMARKS :



WATER ANALYSIS REPORT
NAZIRA SUB-DIVISIONAL LEVEL LABORATORY
NAZIRA P.H.E. SUB-DIVISION, NAZIRA

Date: 8/9/20

1. Report No. : 7
2. Name of Organization : Gargaon College.
3. Pin-Point Location : Boys' Hostel
4. Date & Time of Sample Collection : 4/9/2020
5. Date of Examination : 4/9/2020
6. Source of Sample : Borewell
7. Nature of Test : Physical / Chemical / Bacteriological (Parameter)
8. Name of Sample Collector : Swrajit Saikia (Prof. Gargaon)

Sl No.	PARAMETERS	DESIRABLE LIMIT	PERMISSIBLE LIMIT	RES
1	Alkalinity	200	600	142
2	Arsenic As	0.01	0.05	0.00
3	Chloride as Cl	250	1000	14
4	Fluoride as F	1	1.5	0.03
5	Hardness as CaCO ₃	300	600	98
6	Iron as Fe	0.3	1	0.25
7	Nitrate as NO ₃	45	No Relaxation	0.0
8	PH	6.5 to 8.5	No Relaxation	6.91
9	Total Dissolved Solid	500	2000	139
10	Turbidity (N.T.U.)	1	5	5

11 BACTERIOLOGICAL TEST

- ✓ a) Total Bacilli Coliform MPN / 100 ml : absent.
b) Total F.E. Coliform MPN / 100 ml. :

REMARKS :



WATER ANALYSIS REPORT
NAZIRA SUB-DIVISIONAL LEVEL LABORATORY
NAZIRA P.H.E. SUB-DIVISION, NAZIRA

Date: 8/9/20

1. Report No. : 8
2. Name of Organization : Gargaon College
3. Pin-Point Location : office
4. Date & Time of Sample Collection : 4/9/2020
5. Date of Examination : 4/9/2020
6. Source of Sample : Bore - well
7. Nature of Test : Physical / Chemical / Bacteriological (Parameter)
8. Name of Sample Collector : Swrajit Saikia (Prof. Garg)

Sl No.	PARAMETERS	DESIRABLE LIMIT	PERMISSIBLE LIMIT	RESU
1	Alkalinity	200	600	167
2	Arsenic As	0.01	0.05	0.00
3	Chloride as Cl	250	1000	16
4	Fluoride as F	1	1.5	0.08
5	Hardness as CaCO ₃	300	600	115
6	Iron as Fe	0.3	1	0.081
7	Nitrate as NO ₃	45	No Relaxation	0.0
8	PH	6.5 to 8.5	No Relaxation	6.99
9	Total Dissolved Solid	500	2000	130
10	Turbidity (N.T.U.)	1	5	3

11 BACTERIOLOGICAL TEST

✓ a) Total Bacilli Coliform MPN / 100 ml : Absent.

b) Total F.E. Coliform MPN / 100 ml. :

REMARKS :



WATER ANALYSIS REPORT
NAZIRA SUB-DIVISIONAL LEVEL LABORATORY
NAZIRA P.H.E. SUB-DIVISION, NAZIRA

Date: 8/9/2022

1. Report No. : 9
2. Name of Organization : Gargaon College
3. Pin-Point Location : Gargaon College Central
4. Date & Time of Sample Collection : 4/9/2020
5. Date of Examination : 4/9/2020
6. Source of Sample : Bore - well
7. Nature of Test : Physical / Chemical / Bacteriological (Parameters)
8. Name of Sample Collector : Sweajit Saikia (Prof. Garg)

Sl No.	PARAMETERS	DESIRABLE LIMIT	PERMISSIBLE LIMIT	RESUL
1	Alkalinity	200	600	131
2	Arsenic As	0.01	0.05	0.00
3	Chloride as Cl	250	1000	13
4	Fluoride as F	1	1.5	0.03
5	Hardness as CaCO ₃	300	600	109
6	Iron as Fe	0.3	1	0.155
7	Nitrate as NO ₃	45	No Relaxation	0.0
8	PH	6.5 to 8.5	No Relaxation	7.8
9	Total Dissolved Solid	500	2000	118
10	Turbidity (N.T.U.)	1	5	4

11 BACTERIOLOGICAL TEST

- a) Total Bacilli Coliform MPN / 100 ml : absent.
b) Total F.E. Coliform MPN / 100 ml. :

REMARKS :



WATER ANALYSIS REPORT
NAZIRA SUB-DIVISIONAL LEVEL LABORATORY
NAZIRA P.H.E. SUB-DIVISION, NAZIRA

Date: 8/9/2020

1. Report No. : 10
2. Name of Organization : Gargaon College
3. Pin-Point Location : Indore Stadium
4. Date & Time of Sample Collection : 4/9/2020
5. Date of Examination : 4/9/2020
6. Source of Sample : Bore - well
7. Nature of Test : Physical / Chemical / Bacteriological (Parameter
8. Name of Sample Collector : Surejit Saikia (Prof. Garga)

Sl No.	PARAMETERS	DESIRABLE LIMIT	PERMISSIBLE LIMIT	RESULT
1	Alkalinity	200	600	295
2	Arsenic As	0.01	0.05	0.00
3	Chloride as Cl	250	1000	10
4	Fluoride as F	1	1.5	0.03
5	Hardness as CaCO ₃	300	600	139
6	Iron as Fe	0.3	1	0.076
7	Nitrate as NO ₃	45	No Relaxation	0.00
8	PH	6.5 to 8.5	No Relaxation	7.5
9	Total Dissolved Solid	500	2000	100
10	Turbidity (N.T.U.)	1	5	3

11 BACTERIOLOGICAL TEST

Total Bacilli Coliform MPN / 100 ml : absent.

b) Total F.E. Coliform MPN / 100 ml. :

REMARKS :



WATER ANALYSIS REPORT
NAZIRA SUB-DIVISIONAL LEVEL LABORATORY
NAZIRA P.H.E. SUB-DIVISION, NAZIRA

Date: ৪/১১/২০

1. Report No. : 11
2. Name of Organization : Gargaon College
3. Pin-Point Location : Mathematics Deptt.
4. Date & Time of Sample Collection : 4/9/2020
5. Date of Examination : 4/9/2020
6. Source of Sample : Boree-well
7. Nature of Test : Physical / Chemical / Bacteriological (Paramet
8. Name of Sample Collector : Swrajit Saikia. (Prof. Garg)

Sl No.	PARAMETERS	DESIRABLE LIMIT	PERMISSIBLE LIMIT	RESI
1	Alkalinity	200	600	146
2	Arsenic As	0.01	0.05	0.00
3	Chloride as Cl	250	1000	17
4	Fluoride as F	1	1.5	0.05
5	Hardness as CaCO ₃	300	600	110
6	Iron as Fe	0.3	1	0.02
7	Nitrate as NO ₃	45	No Relaxation	0.0
8	PH	6.5 to 8.5	No Relaxation	7.1
9	Total Dissolved Solid	500	2000	139
10	Turbidity (N.T.U.)	1	5	6

11 BACTERIOLOGICAL TEST

- ✓ a) Total Bacilli Coliform MPN / 100 ml : absent.
b) Total F.E. Coliform MPN / 100 ml. :

REMARKS :



Annexure 3: Soil Quality Report by Assam Agricultural University



Assam Agricultural University
Krishi Vigyan Kendra :: Sivasagar
Rohdoi pukhuri

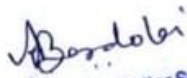


SOIL TESTING PARAMETERS REPORT

Name: The Principal, Gargaon College
Address : Gargaon college, Balighat
P.O.: Gargaon
PIN: 785686
Dist: Sivasagar

Sample No.

Sr.No	Total Parameters	Test Value	Unit	Rating
1	pH	5.1		Strongly
2	EC			
3	Organic Carbon (C)	0.70	%	Medium
4	Available Nitrogen (N)	312.7	kg/ha	Medium
5	Available Phosphorus (P)	17.5	kg/ha	Low
6	Available Potassium (K)	131.7	kg/ha	Low
7	Available Sulphur (S)			
8	Available Zinc (Zn)			
9	Available Iron (Fe)			
10	Available Boron (B)			

Analysis By : Dr. 
Sujanta Borah, Specialist (Soil Science)
Krishi Vigyan Kendra, Sivasagar
SMS, Soil Science

Date : 11.11.2020

General Recommendation

1. Maintain your soil around 4.5-5.5 pH
2. Make maximum use of organic manure/compost/biofertilizers.
3. Check your water quality for irrigation.
4. Regular check your soil quality.
5. Along with traditional fertilizer also use micronutrients both for soil application and application.



Annexure 4: Air Quality Report



Envirocon Building, I.O.C.L (AOD) New Market
P.O.: Digboi, Dist.: Tinsukia, Assam – 786 171
Ph: 03761-264414, 9435008657, 8876028672
E-mail: envirocon@rediffmail.com



Report No.: ENV/GGC/SIV/20-21/AA-01
Date : 18/03/2021

Order No.: Telecon
Date :

Report Issued To : **GARGAON COLLEGE**
Simaluguri, Sivasagar - 785686, Assam

AMBIENT AIR QUALITY TEST RESULTS

Sl. No.	LOCATION(S) ↓ LIMIT(S) →	Date of Sampling	PM 2.5 (µg/m ³)	PM 10 (µg/m ³)	SO ₂ (µg/m ³)	
		—	60	100	80	
01	Front of Girls Hostel	12.03.2021	21	42	6	
02	Front of College Auditorium	12.03.2021	29	48	8	

Analysis Protocol: IS 5182





Annexure 5: Noise Pollution Report



Envirocon Building, I.O.C.L (AOD) New Market
P.O.: Digboi, Dist.: Tinsukia, Assam – 786 171
Ph: 03781-264414, 9435008657, 8876028672
E-mail: envirocon@rediffmail.com

ISO
ISO

Report No.: ENV/GGC/SIV/20-21/N-01
Date : 18/03/2021

Order No.: Telecon
Date :

Report Issued To : **GARGAON COLLEGE**
Simaluguri, Sivasagar - 785686, Assam

AMBIENT NOISE LEVEL MEASUREMENT RESULTS

Sl. No.	Location(s)	Date Of Measurement	Day Time L_{eq} (dB-A)
1	Near College Main Gate	12.03.2021	48.6
2	Front of Girls Hostel	12.03.2021	42.6
3	Front of Auditorium	12.03.2021	45.1
4	Front of Administrative Building	12.03.2021	42.9

Limit: Day Time- 50 dB-A.

