

Green Audit Report, Lanka Mahavidyalaya, Lanka, Hojai, Assam

GREEN AUDIT REPORT

2022-2023

LANKA MAHAVIDYALAYA, LANKA , ASSAM

INTERNAL QUALITY ASSURANCE CELL (IQAC)

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CONTENTS

INTRODUCTION

OBJECTIVES

METHODOLOGY

GEOGRAPHICAL LOCATION WITH CAMPUS MAP IN SCALE

LAND USE ANALYSIS, LANKA MAHAVIDYALAYA, LANKA , ASSAM (As on 12-06-

2023)TREE DIVERSITY OF LANKA MAHAVIDYALAYA, LANKA

FAUNAL DIVERSITY IN LANKA MAHAVIDYALAYA

CAMPUS ELECTRICAL POWER CONSUMPTION AT LANKA

MAHAVIDYALAYAWEATHER DATA OF LANKA:LANKA

MAHAVIDYALAYA

AIR QUALITY IN LANKA : LANKA

MAHAVIDYALAYA WATER ANALYSIS REPORT OF

LANKA MAHAVIDYALAYA

NOISE LEVEL IN THE SURROUNDING OF LANKA

MAHAVIDYALAYAWASTE DISPOSAL OF LANKA

MAHAVIDYALAYA

## INTRODUCTION

The future of humankind depends very much on our ability to change our lifestyles and agree to follow a low consumption pattern of living in terms of resources taken from the globe and return to a sustainable development path at the earliest. The opportunity window for restoring nature to its prolonged state of hosting life forms to flourish under its caring environs is according to scientists, very short and lasting only up to 2030. Within this time, with the willing actions of every citizen wherever they are, coordinated and directed actions should start and continue thereafter till a balancing stage is reached where moderate use of resources and mitigation actions for healing the hurts already inflicted, balance positively to a sustainable nature.

Eco campus is a concept implemented in many educational institutions, all over the world to make them sustainable because of their mass resource utilization and waste discharge in to the environment. PIT College believes that there is an urgent need to address these fundamental environmental problems and reverse the trends. The purpose of the audit was to ensure that the practices followed in the campus are in accordance with the Green Policy adopted by the institution.

Green Auditing of a Higher Education Institution is required as a part of Criterion VII (of the 7 criteria prescribed) under the Guidelines for Submission of the mandatory annual Internal Quality Assurance Report (IQAR) by Accredited Institutions.

It works on the several facets of Green Campus including Water Conservation, Tree Plantation, Waste Management, Paperless Work, and Alternative Energy. With this in mind, the specific objectives of the audit was to evaluate the adequacy of the management control framework of environment sustainability as well as the degree to which the Departments are in compliance with the applicable regulations, policies and standards.

Initially a questionnaire survey was conducted to know about the existing resources of the campus and resource consumption pattern of the students and staff in the college. In order to assess the quality of water and soil, water and soil samples were collected from different locations of the college campus and analysed for its parameters. Collected data was grouped, tabulated and analyzed. Finally a report pertaining environmental management plan with strength, weakness and suggestion on the environmental issue of campus is documented.

OBJECTIVES:

In recent time, the Green Audit of an institution has been becoming a paramount important for self assessment of the institution which reflects the role of the institution in mitigating the present environmental problems. The college has been putting efforts to keep our environment clean since its inception. But the auditing of this non-scholastic effort of the college has not been documented. Therefore, the purpose of the present green audit is to identify, quantify, describe and prioritize framework of Environment Sustainability in compliance with the applicable regulations, policies and standards. The main objectives of carrying out Green Audit are:

1. To map the Geographical Location of the college
2. To document the floral and faunal diversity of the college.
3. To record the meteorological parameter of Lanka where college is situated.
4. To estimate the Energy requirements of the college
5. To document the Waste disposal system
6. To document the ambient environmental condition of air, water and noise of the college
7. To introduce and aware students to real concerns of environment and its sustainability

## METHODOLOGY:

The purpose of the green audit of Lanka Mahavidyalaya is to ensure that the practices followed in the campus are in accordance with the Green Policy adopted by the institution. The methodology include: preparation and filling up of questionnaire, physical inspection of the campus, observation and review of the documentation, interviewing key persons and data analysis, measurements and recommendations. Some data have also been taken from the students' research works carried out by various departments of the college.

## ABOUT THE COLLEGE

Lanka Mahavidyalaya was established on the 20th July, 1979 in the northern outskirts of Lanka town which is situated in the southernmost part of the district of Hojai, Assam. Lanka is situated at a distance of about 180 kms from Guwahati, the capital city of Assam and about 10 kms. from Hojai, the district headquarter town. The site where the college stands today spreads over an area of about 7 Acres amid green surroundings.

Lanka Mahavidyalaya is an affiliated college of Gauhati University and enlisted University Grants Commission (UGC), offers higher secondary (10+2) and three year degree course in arts and commerce streams. Lanka being a backward area, there was no institution of higher education within a distance of 20 kms. of Lanka before the establishment of Lanka Mahavidyalaya and a vast majority of students could not offer higher education due to financial constraint. As the college community has been exerting its sincere and untiring efforts to enlighten the economically and educationally backward people of the area, the scenario has changed for the better to a great extent.

The college started its mission with only 130 students at Lanka higher school premises. It was shifted in 1982 to its present site which spreads over a sprawling area amid green surroundings. At present the college is having a total strength of about 1750 enrollments which reflects the progress of the institution day by day.

The college has been accredited 'B' grade by the National Assessment And Accreditation Council (NAAC) in 15th November, 2015.

## GREEN AUDITING

The college has adopted the 'Green Campus' system for environmental conservation and sustainability. There are main three pillars i.e. zero environmental foot print, positive impact on occupant health and performance and 100% graduates demonstrating environmental literacy. The goal is to reduce CO2 emission, energy and water use, while creating atmosphere where students can learn and be healthy.

Since inception the College has been uninterruptedly working for fruitful dissemination of knowledge to its pupils with the solemn aim of making them worthy citizens of the country. The claim has been vindicated by a large number of alumni glittering in the national and international arena.

## OBSERVATIONS

Geographical location with campus map in scale Land use analysis, Lanka Mahavidyalaya, lanka assam (as on 12-06-2023)general overview of the concept of land use:

Land use refers to man's activities and the various uses which are carried on and derived from land. Viewing the earth from space, it is now very crucial in man's activities on natural resource. In situations of rapid changes in land use, observations of the Earth from space give the information of human activities and utilization of the landscape (Howarth 1981).

Remote sensing and GIS techniques are now providing new tools for advanced land use mapping and planning. The collection of remotely sensed data facilitates the synoptic analyses of earth system, functions, patterning, and change in the local, regional as well as at global scales over time .Satellite imagery particularly is a valuable tool for generating land use map.

## METHODOLOGY ADOPTED FOR LAND USE MAPPING

Three types of data that are Gps points, field survey data and Google earth data for Geo referencing have been used in this study. Land use map of the study area have been prepared using the above three types of data with the help of Arc Gis 10.2.2 software

## DATA PROCESSING AND ANALYSIS

Land use map preparation is executed through the following steps:

Acquisition of data, Geo-coding and Geo referencing of satellite imageries by extracting the ground control points. Supervised classification was carried out with the aid of ground truth data collected during field survey. Scanning and digitisation of maps and editing of all the Geo referenced maps were done using GIS. Data manipulation and analysis and linking the spatial data with the attribute data for creation of topology was carried out using GIS software. Creation of GIS output in the form of land use map showing various land use have been prepared.



CLASSIFICATION SCHEME FOR LAND USE ANALYSIS OF BUILT UP AREA Level II  
Therefore, attempt has been made in this study to map land use for Lanka Mahavidyalaya, Hojai, Assam with a view to detect the land consumption in the built-up land area using both remote sensing and GIS techniques.

Level I

1. Built-up land area: 6084.78sq.m

Dense 1.2 Moderate 1.3 Sparse

LAND USE DATA OF LANKA MAHAVIDYALAYA,

TOTAL AREA AREA IN SQ METRES: 57.151.00 sq.m

The total area of Lanka Mahavidyalaya is 57.151.00 sq metres out of which the built up area is 6084.78sq.m. sq meters and open space & plantation area is 51,066.22sq metres.

CATEGORIES OF LAND USE

OPEN SPACE AND PLANTATION

BUILT UP AREA

PLAYGROUND

MAIN FACULTY BUILDING WITH ADMINISTRATIVE BLOCK

ACADEMIC BUILDING

GIRLS HOSTEL

AUDITORIUM

N.C.C AND CANTEEN

INDOOR STADIUM

AREA IN SQ METRES

CYCLE STAND

BUILDING UNDER CONSTRUCTION

GENERAL LIBRARY

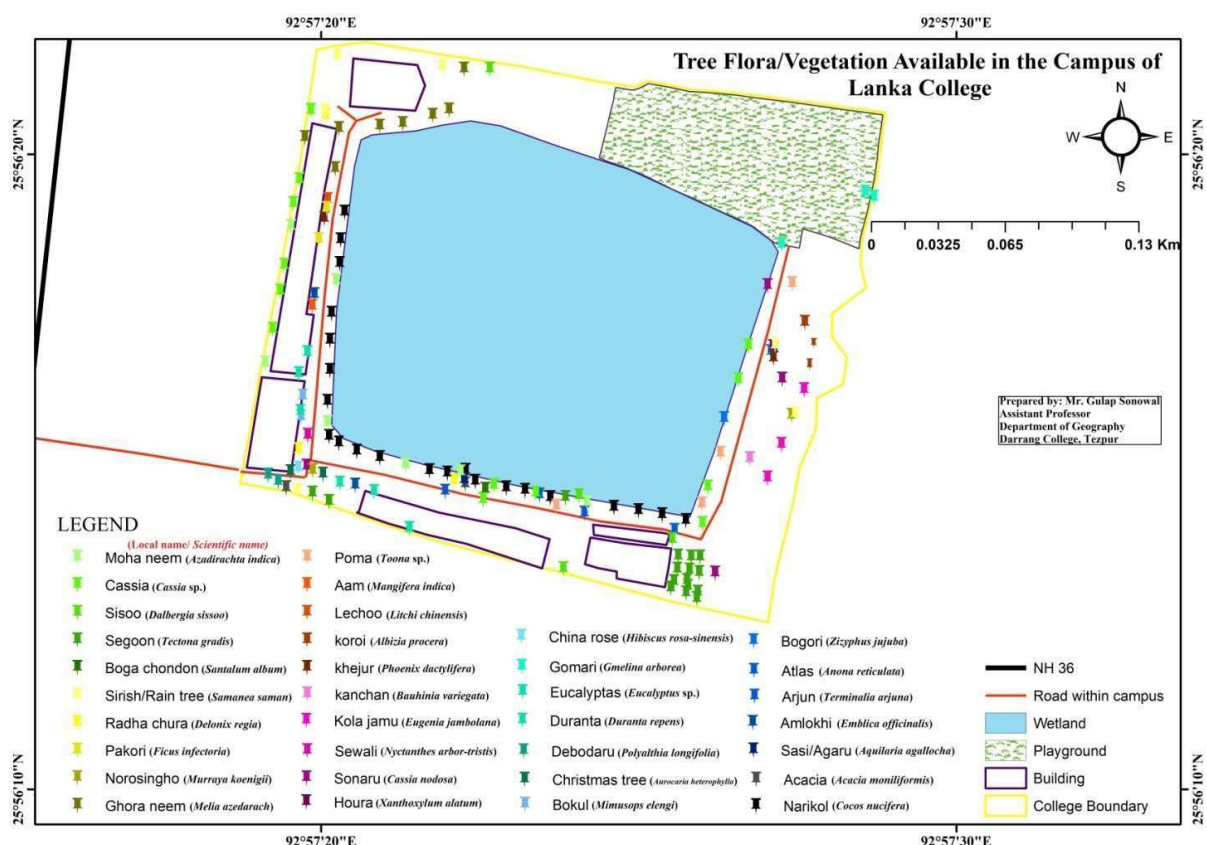
STUDENTS AND TEACHER CANTEEN

SECURITY QUATER

ALUMNI BUILDING

TOILET

The built up area of 6084.78 sq metres) consists of the following regions as stated below for land consumption in built up area of Lanka Mahavidyalaya :The northern region of Lanka Mahavidyalaya is densely built up having Main faculty Building with Administrative blocks, Arts Building, Girls hostel, Gym, career counselling, Environmental, studies centre, Students and Teachers Canteen, North Toilet and the newly under construction North Toilet which results in 166.98 sq metres of built up area. The central region having playground sums up to 7200 sq metres of built up area and also falls in the densely built up area region of the college. The southern region and the western region of Lanka Mahavidyalaya is moderately built up having Union office, Staff Co-operative Society, Boys' Hostel, Common Room, NSS Office.



**FINDINGS:**

Lanka Mahavidyalaya, which was established in the year 1979, has an eco-friendly environment. It has a long legacy of healthy environmental practices including periodic plantation, their preservation and maintenance. Its land use is such that about 37.77 % of the total area is occupied by open land and plantation that generates a better and sustainable campus environment.

## FLORAL DIVERSITY OF LANKA MAHAVIDYALAYA, LANKA:

Lanka Mahavidyalaya is within the geo-position between latitude 25.933533N and longitude 92.953726 E in Hojai, Assam, India. It encompasses an area of about 57,151.00 sq.m. The area is immensely diverse with a variety of tree species performing a variety of functions. Most of these tree species are planted in different periods of time through various plantation programmes organised by the authority and have become an integral part of the college. The trees of the college have increased the quality of life, not only the college fraternity but also the people around of the college in terms of contributing to our environment by providing oxygen, improving air quality, climate amelioration, conservation of water, preserving soil, and supporting wildlife, controlling climate by moderating the effects of the sun, rain and wind. Leaves absorb and filter the sun's radiant energy, keeping things cool in summer. Many animals are dependent on these trees mainly for food and shelter. Flowers and fruits are eaten by monkeys, and nectar is a favorite of birds and many insects. Leaf – covered branches keep many animals, such as birds and squirrels, out of reach of predators. Different species display a seemingly endless variety of shapes, forms, texture and vibrant colors. Even individual trees vary their appearance throughout the course of the year as the seasons change. The strength, long lifespan and regal stature of trees give them a monument – like quality. They also remind us the glorious history of our institution. We often make an emotional connection with these trees and sometime become personally attached to the ones that we see every day. A thick belt of large shady trees in the periphery of the college have found to be bringing down noise and cut down dust and storms. A recent study has revealed that the rich diversity of tree species of about 48 species belonging to 13 families have sequestered a total of 1.5 ton of organic carbon. Thus, the college has been playing a significant role in maintaining the environment of the entire Lanka town and its surrounding areas. The following are the tree species with whom we are being attached-

The family of plants of the College campus are as follows:

Phyllanthaceae Moraceae Arecaceae Rhamnaceae Myrtaceae Myrtaceae Fabaceae  
Combretaceae Oleaceae Rutaceae Sapindaceae Lythraceae Calophyllaceae Proteaceae Cycadaceae  
Myrtaceae Apocynaceae Rubiaceae Magnoliaceae Oxalidaceae Fabaceae Fabaceae  
Annonaceae Fabaceae Fabaceae Combretaceae Rutaceae Apocynaceae Malvaceae Bignoniaceae  
Pinaceae Bignoniaceae Sterculiaceae

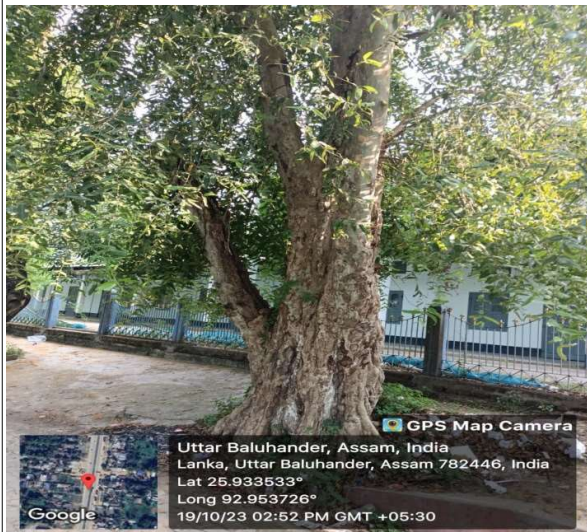
## Tree Flora/Vegetation of Lanka Mahavidyalaya:

A total of 34 tree species (woody perennial plants) belonging to 19 families (18 Angiosperms + 01 Gymnosperm) are found available in the campus of Lanka Mahavidyalaya, Lanka, District Hojai, Assam. All the tree species grown/found available in college campus are enlisted in the following Table along with their family, common names and local names.

Table: Tree Flora/vegetation available in the campus of Lanka Mahavidyalaya

SN	Botanical Name of the Tree species	Family	Common Name	Local Name (Assamese)
1	<i>Terminalia arjuna</i> Wight & Arn.	Combretaceae	The Arjun tree	Arjun gach
2	<i>Azadirachta indica</i> A. Juss.	Meliaceae	The Margosa tree	Moha neem
3	<i>Cassia</i> sp.	Fabaceae	Cassia	--
4	<i>Melia azedarach</i> Linn.	Meliaceae	Umbrella tree	Ghora neem
5	<i>Cocos nucifera</i> Linn.	Arecaceae	Coconut	Narikol
6	<i>Delonix regia</i> (Boj.) Raf.	Fabaceae	Golmuhar tree	Radhasura
7	<i>Acacia moniliformis</i> Griseb.	Fabaceae	Acacia	Acacia
8	<i>Aquilaria agallocha</i> Roxb.	Thymelaeaceae	The Eagle wood tree	Sasi/Agaru
9	<i>Santalum album</i> Linn.	Santalaceae	White Sandal wood tree	Boga chondon
10	<i>Toona</i> sp.	Meliaceae	The Toon tree	Poma
11	<i>Tectona gradis</i> Linn.	Verbenaceae	Teak tree	Segoon
12	<i>Dalbergia sissoo</i> Roxb.	Fabaceae	The Sisoo tree	Sisoo
13	<i>Anona reticulata</i> Linn.	Annonaceae	Bullock's heart	Atlas
14	<i>Cassia nodosa</i> Buch-Ham.	Fabaceae	Pink mohur	Sonaru
15	<i>Eugenia jambolana</i> Lam.	Myrtaceae	Lambolana	Kola jamu
16	<i>Bauhinia variegata</i> Linn.	Fabaceae	Variegated Bauhinia	Kanchan
17	<i>Samanea saman</i> (Jack.) Merr.	Fabaceae	The Rain tree	Sirish
18	<i>Zizyphus jujuba</i> Lamk.	Rhamnaceae	Common jujube	Bogori
19	<i>Murraya koenigii</i> Spreng.	Rutaceae	Indian Curry leaf	Norosingho
20	<i>Phoenix dactylifera</i> Linn	Arecaceae	The Date palm	Khejur

21	<i>Xanthoxylum alatum</i> Roxb.	Rutaceae	Rattan pepper	Houra
22	<i>Gmelina arborea</i> Linn.	Verbenaceae	Hill teak	Gomari
23	<i>Albizia procera</i> Benth.	Fabaceae	White Siris	Koroi
24	<i>Duranta repens</i> Linn.	Verbenaceae	Pigeon berry	Duranta
25	<i>Emblica officinalis</i> Greatn.	Euphorbiaceae	Emblic Myrobalans	Amlokhi
26	<i>Eucalyptus</i> sp.	Myrtaceae	Eucalyptus	Eucalyptus
27	<i>Araucaria heterophylla</i> (Salisb.) Franco	Araucariaceae*	Chrismass tree	--
28	<i>Hibiscus rosa-sinensis</i> Linn.	Malvaceae	China rose	Joba phool
29	<i>Polyalthia longifolia</i> Benth.	Anonaceae	Mast tree	Debodaru
30	<i>Nyctanthes arbor-tristis</i> Linn.	Oleaceae	Night blooming Jasmine	Sewali
31	<i>Mimusops elengi</i> Linn.	Sapotaceae	Bullet wood tree	Bokul
32	<i>Mangifera indica</i> Linn.	Anacardiaceae	Mango	Aam
33	<i>Ficus infectoria</i> Roxb.	Moraceae	--	Pakori
34	<i>Litchi chinensis</i> Sonn.	Sapindaceae	Litchi	Lechoo



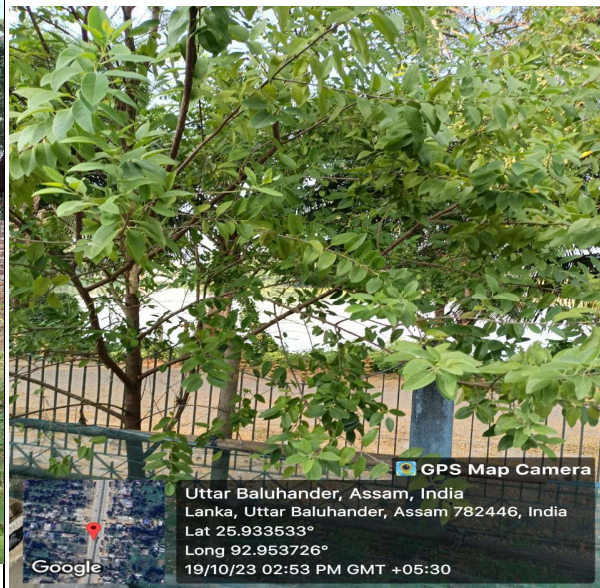
The Arjun tree: *Terminalia arjuna*



Coconut: *Cocos nucifera*



The Eagle wood tree: *Aquilaria agallocha*



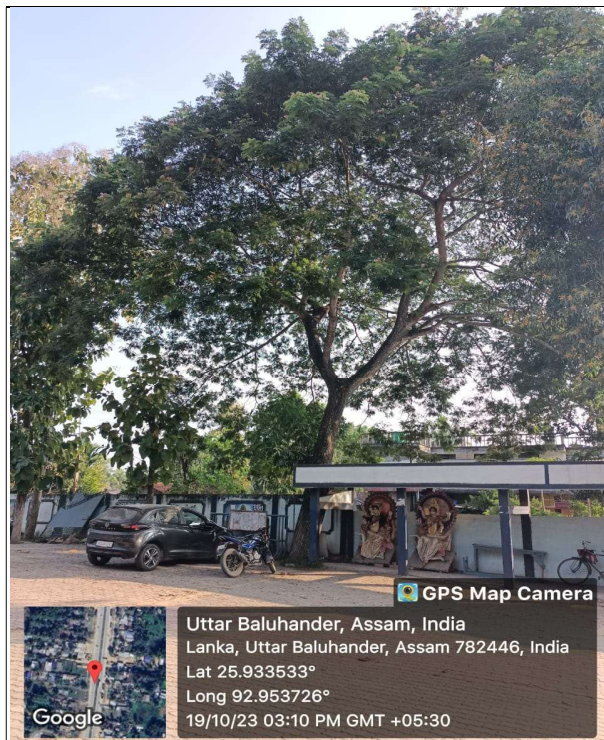
White Sandal wood tree: *Santalum album*



Teak tree: *Tectona grandis*



The Sisoo tree: *Dalbergia sissoo*



The Rain tree: *Samanea saman*



Emblc Myrobalans: *Emblia officinalis*



Chrissmass tree: *Araucaria heterophylla*



Mast tree: *Polyalthia longifolia*





Fig 2: Some tree species grown in the campus of Lanka Mahavidyalaya.

On the basis of economic importance, the tree species available/grown in the Lanka Mahavidyalaya campus may be categorized as follows.

- A. Medicinal Plants/Tree species:** The tree species having significant medicinal values found in the campus are *Azadirachta indica*, *Eugenia jambolana*, *Mimusops elengi*, *Murraya koenigii*, *Terminalia arjuna*, *Xanthoxylum alatum*, etc.
- B. Fruit Plants/Trees:** The edible fruit bearing tree species are *Anona reticulata*, *Cocos nucifera*, *Emblica officinalis*, *Eugenia jambolana*, *Litchi chinensis*, *Mangifera indica*, *Phoenix dactylifera*, *Zizyphus jujuba*, etc.
- C. Ornamental Plants/Trees:** The ornamental tree species are *Acacia moniliformis*, *Araucaria heterophylla*, *Bauhinia variegata*, *Cassia nodosa*, *Delonix regia*, *Duranta repens*, *Hibiscus rosa-sinensis*, *Polyalthia longifolia*, *Nyctanthes arbor-tristis*, etc.
- D. Essential Oil bearing Plants/Trees:** The essential oil yielding tree species are *Aquilaria agallocha* and *Santalum album*.
- E. Timber Plants:** The timber yielding tree species are *Albizia procera*, *Dalbergia sissoo*, *Gmelina arborea*, *Tectona gradis*, *Toona* sp., etc.

#### FAUNAL DIVERSITY IN LANKA MAHAVIDYALAYA CAMPUS

Lanka Mahavidyalaya is located in Hojai district of Assam at the southern bank of river Brahmaputra, at the conjunction of Himalayan and Indo-Malayan Biodiversity hotspots. The College of falls in the Sub-Tropical climate region, and enjoys monsoon type of climate. The highest temperature is recorded just prior to the onset of monsoon (around May- early June). Summer rain is heavy, and is principally caused from late June to August by the moisture-laden South-West Monsoon, on striking the Himalayan foothills of the north. The climatic condition of the Sonitpur district as a whole and Lanka Mahavidyalaya in particular is very suitable for a wide variety of flora and fauna to support its rich biodiversity. The faunal Diversity of Lanka Mahavidyalaya campus has been studied and documented as below-

#### SCIENTIFIC NAMES FAUNAL GROUP, SPIDERS, AMPHIBIANS

*Myrmachne orientalis* (Family Salticidae); *Nephila plipes* (Family-Nephilidae); *Heteropoda* sp (Family-Sparassidae); *Phintella vitatta* (Family Salticidae)

#### MOTHS & BUTTERFLIES

*Antheria assmensis*; *Bombyx mori*; *Philosamia ricini*; *Junonia atlites atlites* ; *Commander* (*Moduza procris procris*); *Ethope himachala* ; *Melanitis leda leda* ; *Paltoporia paraka paraka*; *Ypthima baldus* ; *Acraea terpsicore* ; *Elymnias hypermnestra undularis* ; *Mycalesis perseus blasius* ; *Tanaecia lepidea lepidae* ; *Euploea core core*

#### OTHER INSECTS

*Apis indica*; *Apis dorsata*; *Apis florea*, (Scarlet dragonfly); *Pantala flavescens* (wandering glider) *Crocothemis erythraea* *Duttaphrynus melanostictus* (Asian common toad), *Leptobrachium smithi*; *Fejervarya pierrei*; *Hoplobatrachus tigerinus*; *Hylarana tytleri*; *Humerana humeralis*; *Hylarana leptoglossa*; *Polypedates leucomystax*.

#### REPTILES, BIRDS, MAMMALS

*Calotes versicolor*; *Hemidactylus frenatus*; *Hemidactylus brookii*; *Hemidactylus platyurus*; *Hemidactylus flaviviridis*; *Gekko gecko*; *Eutropis multifasciata*; *H. Sphenomorphus maculates* *Enhydryis enhydryis*; *Xenochrophis schnurrenbergeri*; *Xenochrophis cerasogaster*; *Rhabdophis subminiatus*; *Amphiesma stolatum*; *Chrysopelea ornate*

*Acridotheres tristis* (Common myna); *Streptopelia orientalis* (Oriental Turtle Dove); *Pycnonotus cafer* (Red-vented Bulbul) *Athene noctua* ( little owl ); *Macaca mulatta* (The rhesus macaque): *Sciurus carolinensis* (Eastern gray squirrel); *Pteropus giganteus* (The Indian flying fox) *Apis dorsata* (*Myrmachne orientalis* *Heteropoda* sp *Striped Tiger* (*Danaus genutia*) *Junonia atlitesatlites* (Grey Pansy) *Pantala flavescens* (wandering glider) Eastern Garden Lizard (*Calotes versicolor* Little owl (*Athene noctua*) Red-vented Bulbul (*Pycnonotus cafer*) Oriental Turtle Dove(*Streptopelia orientalis*); Gre*Macaca mulatta* (The rhesus macaque)

## List of fish species found in the campus pond of Lanka Mahavidyalaya, Lanka, Nagaon

Sl. No.	Scientific name	Frequency of abundance
1	<i>Labeo rohita</i>	A
2	<i>Labeo gonius</i>	A
3	<i>Labeo calbasu</i>	C
4	<i>Cirrhinus mrigala</i>	A
5	<i>Amblypharyngodon mola</i>	C
6	<i>Puntius sophore</i>	C
7	<i>Pethia sarana</i>	C
8	<i>Esomus danrica</i>	O
9	<i>Rasbora elanga</i>	R
10	<i>Mystus bleekeri</i>	O
11	<i>Mystus cavasius</i>	O
12	<i>Mystus vittatus</i>	C
13	<i>Wallago attu</i>	O
14	<i>Clarias magur</i>	C
15	<i>Heteropneustes fossilis</i>	C
16	<i>Monopterusuchia</i>	O
17	<i>Nandus nandus</i>	R
18	<i>Chanda nama</i>	R
19	<i>Anabas testudineus</i>	O
20	<i>Trichogaster fasciatus</i>	R
21	<i>Channa punctata</i>	C
22	<i>Channa striata</i>	R
23	<i>Glossogobius giuris</i>	R
24	<i>Notopterus notopterus</i>	O
25	<i>Macrornathus pancalus</i>	R
26	<i>Macrornathus aral</i>	R

\*R = Rare, \*O = Occasional, \*C = Common & \*A = Abundant

## List of avian species observed in the campus of Lanka Mahavidyalaya, Lanka, Nagaon

Sl. No.	Common name	Scientific name
1	Little Cormorant	<i>Phalacrocorax niger</i>
2	Great Cormorant	<i>Phalacrocorax carbo</i>
3	Cattle Egret	<i>Bubulcus ibis</i>
4	Lesser Whistling-duck	<i>Dendrocygna javanica</i>
5	White-breasted Waterhen	<i>Amaurornis phoenicurus</i>
6	Yellow-legged Green-pegion	<i>Treron phoenicoptera</i>
7	Spotted Dove	<i>Streptopelia chinensis</i>
8	Rose-ringed Parakeet	<i>Psittacula krameria</i>
9	Brown Fish-owl	<i>Ketupa zeylonensis</i>
10	Jungle Owlet	<i>Glaucidium radiatum</i>
11	White-breasted Kingfisher	<i>Halcyon smyrnensis</i>
12	Blue-tailed Bee-eater	<i>Merops philippinus</i>
13	Rufous Woodpecker	<i>Celeus brachyurus</i>
14	Blue-throated Barbet	<i>Megalaima asiatica</i>
15	Indian Short-toed Lark	<i>Calandrella raytal</i>
16	Black-headed Oriole	<i>Oriolus xanthornus</i>
17	Black Drongo	<i>Dicrurus macrocercus</i>
18	Common Myna	<i>Acridotheres tristis</i>
19	Indian Treepie	<i>Dendrocitta vagabunda</i>
20	Red-vented Bulbul	<i>Pycnonotus cafer</i>
21	White-eared Bulbul	<i>Pycnonotus leucotis</i>
22	Oriental Magpie-robin	<i>Copsychus saularis</i>
23	Great Tit	<i>Parus major</i>
24	White Wagtail	<i>Motacilla alba</i>
25	Purple Sunbird	<i>Nectarinia asiatica</i>
26	Green Munia	<i>Avandava Formosa</i>
27	Spotted Munia	<i>Lonchura punctulate</i>

**ELECTRICAL POWER CONSUMPTION AT LANKA MAHAVIDYALAYA**

Lanka Mahavidyalaya, consumes on an average 1.5kW/hr (units) of electricity which turns out to be 7 kW- hr per year only to maintain its volumetric activities throughout the year. A small fraction, i.e., 0.5kW-hr of this power requirement is met through the installed solar LED lights. In terms of percentage, this contribution turns out to be 7%. The college authority is planning to install more solar lights to increase this contribution. The contribution of LED bulbs and LED tubes to the net power consumption is 38.9%. The authority keep on replacing the old filament bulbs, CFL bulbs and tube lights by low energy consuming LED bulbs and LED tubes and bulky high power consuming fans by energy efficient fans in order to keep the electricity consumption of the college as low as possible. (Annexure : power consumption)

**ELECTRICAL EQUIPMENTS DATA**

SL. No	Item	Quantity	Watts	
1	Celling Fan	330	85 Watt each	
2	LED Bulb	437	12 Watt each	
3	Tube Light	98	40 Watt each	
4	Tube Light	10	20 Watt each	
5	Computer	81	600 Watt each	
6	Printer	17	500 Watt each	
7	Inverter	03	800 Watts each	
8	Inverter	07	1050 Watts Each	
9	AC-LG	09	2500 Watts each	1052.49 unit per year
10	Water Purifier	02	500 Watt each	
11	CC TV Full Set	02 Set	300 Watts each	
12	Amplifier	04 Nos	500 Watts	
13	Electronics Attendance Machine	02	100 Watts each	
14	Weight Measurement Machine	02 Nos	100 Watts Each	
15	Projectors	06	750 Watts each	
16	Freezer	02	2000 Watts Each	
17	Freezer	02	1500 Watts each	
18	Electric Kettle	03 Nos	1000 Watt each	
19	Mixture Grinder	01	750 Watts	

## ELECTRICITY CONSUMPTION

YEAR	SUMMER( Units) / Per Moth	WINTER( Units) /Per Month	
2019	2605	2418	
2020	2446	1706	
2021	1670	1537	
2022	2616	1953	
2023	April-2210	January-1530	

## WATER QUALITY

(TESTED IN THE LABORATORY OF JAL- JEEVAN MISSION , HOJAI, GOVT.OF ASSAM)  
POND WATER:

SL. No	Parameter Tested	Units of measurement	Test Result Value	Permissible Limit
1	Chloride	Mg/L	10.00	250
2	Colour	Hazen Units	10.00	15
3	Florida	Mg/L	0.50	1.5
4	Free Residual Chlorine	Mg/L	0.00	1.00
5	pH*	NA	6.6	6.5 to 8.5
6	Taste	NA	0.00	Aggreeable
7	TDS	Mg/L	200.00	500.00
8	Total Alkalinity	Mg/L	100.00	600.00
9	Total hardness ( As CaCO3)	Mg/L	100.00	600.00
10	Turbidity	NTU	4.000	5.000

## DRINKING WATER

SL. No	Parameter Tested	Units of measurement	Test Result Value	Permissible Limit	
1	Chloride	Mg/L	16.00	250.00 ( As per BIS)	
2	Colour	Hazen Units	0.00	15.00	
3	Florida	Mg/L	0.48	1.5	
4	Free Residual Chlorine	Mg/L	0.00	1.00	
5	pH*	NA	6.890	6.5 to 8.5	
6	Taste	NA	0.00	Agreeable	
7	TDS	Mg/L	160.00	500	
8	Total Alkalinity	Mg/L	40.00	600	
9	Total hardness ( As CaCO3)	Mg/L	80.00	600	
10	Turbidity	NTU	1.00	5.00	

#### WEATHER DATA OF LANKA : LANKA MAHAVIDYALAYA

Station : LANKA (INDIA (atitude 25.933533N and longitude92.953726 E in Hojai,

#### AIR QUALITY IN TEZPUR: LANKA MAHAVIDYALAYA

The climate of Lanka Mahavidyalaya campus located in Hojai District of Assam is Sub-Tropical in nature and temperature varies from 70 C in January and highest 380 C in May. The average maximum temperature of the district varies from 24.090 C in the month of January to 33.120 C in the month of August. Average minimum temperature varies between 10.970 C in January to 25.230 C in the month of August. This indicates that, the coldest month during winter is January and warmest month during summer is August.

The average maximum temperature of the district varies from 24.090 C in the month of January to 33.120 C in the month of August. Average minimum temperature varies between 10.970 C in January to 25.230 C in the month of August. This indicates that, the coldest month during winter is January and warmest month during summer 31.86 µg/m<sup>3</sup>, AQI 39 10.09 µg/m<sup>3</sup>, AQI 10 31.49 µg/m<sup>3</sup>, AQI 31 28.13 µg/m<sup>3</sup>, AQI 28 79.08 µg/m<sup>3</sup>, AQI 79 630.0 µg/m<sup>3</sup>, AQI 31 76.0 % 1003.59 hPa 3.85 m/s 28.0013 degrees 05:28:47 AM 04:35:37 PMTemp: 35.48 0C

#### NOISE LEVEL IN THE SURROUNDING OF LANKA MAHAVIDYALAYA

The human ear is constantly being assailed by man-made sounds from all sides, and there remain few places in populous areas where relative quiet prevails. There are two basic properties of sound, (1) loudness and (2) frequency. Loudness is the strength of sensation of sound perceived by the individual. It is measured in terms of Decibels. Just audible sound is about 10 dB, a whisper about 20 dB, library place 30 dB, normal conversation about 35-60 dB, heavy street traffic 60-0 dB, boiler factories 120 dB, jet planes during take-off is about 150 dB, rocket engine about 180 dB . The loudest sound a person can stand without much discomfort is about 80 dB. Sounds beyond 80 dB can be safely regarded as Pollutant as it harms hearing system. The WHO has fixed 45 dB as the safe noise level for a city. For international standards a noise level upto 65 dB is considered tolerate. Loudness is also expressed in Sones. One some equals the loudness of 40 dB sound pressure at 1000 Hz. Frequency is defined as the number of vibration per second. It is denoted as Hertz (Hz).



## OBJECTIVES OF THE STUDY

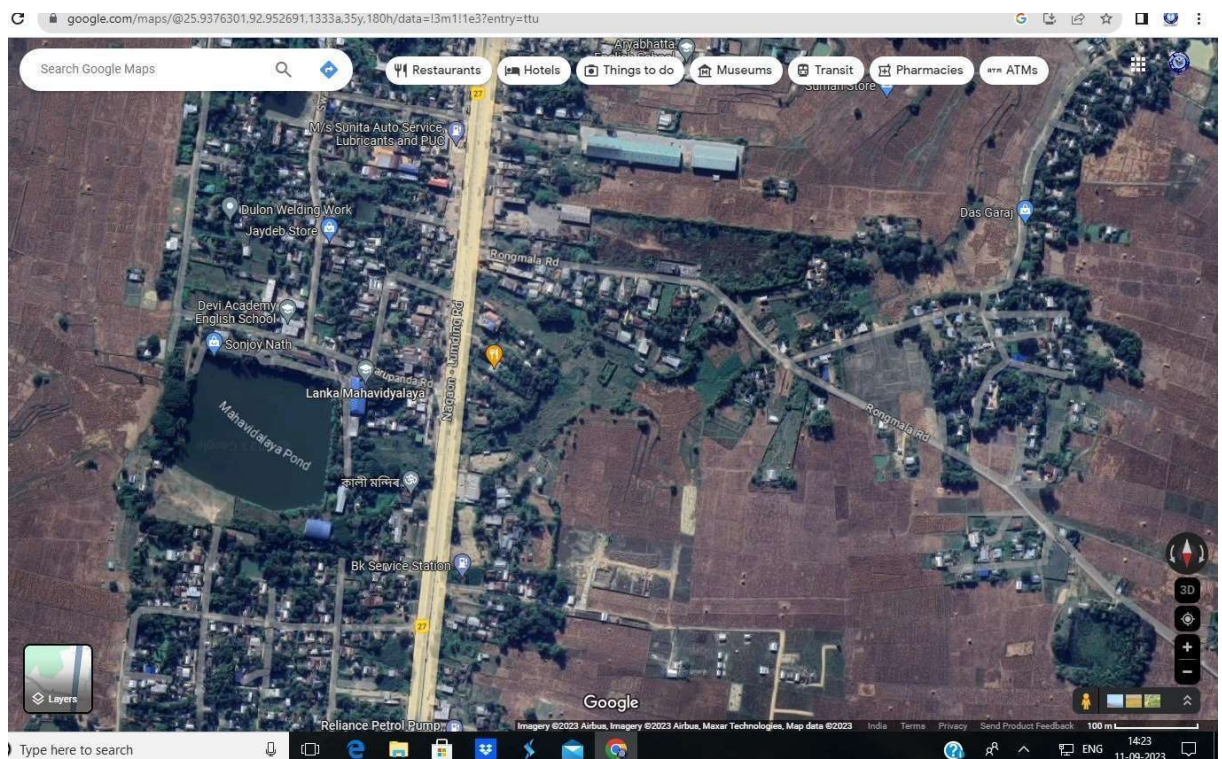
The objectives of the study were as the following:

- \* To assess the impact on human work efficiency due to road traffic parameters, different noise indices, and attitudinal response.
- \* To study the temporal pattern of road traffic the study area.
- \* To study the existing status of noise levels in the study area by recording the noise intensity at various locations.
- \* Identification and consideration of suitable mitigation and abatement measures.

## MATERIALS, STUDY AREA & METHODS

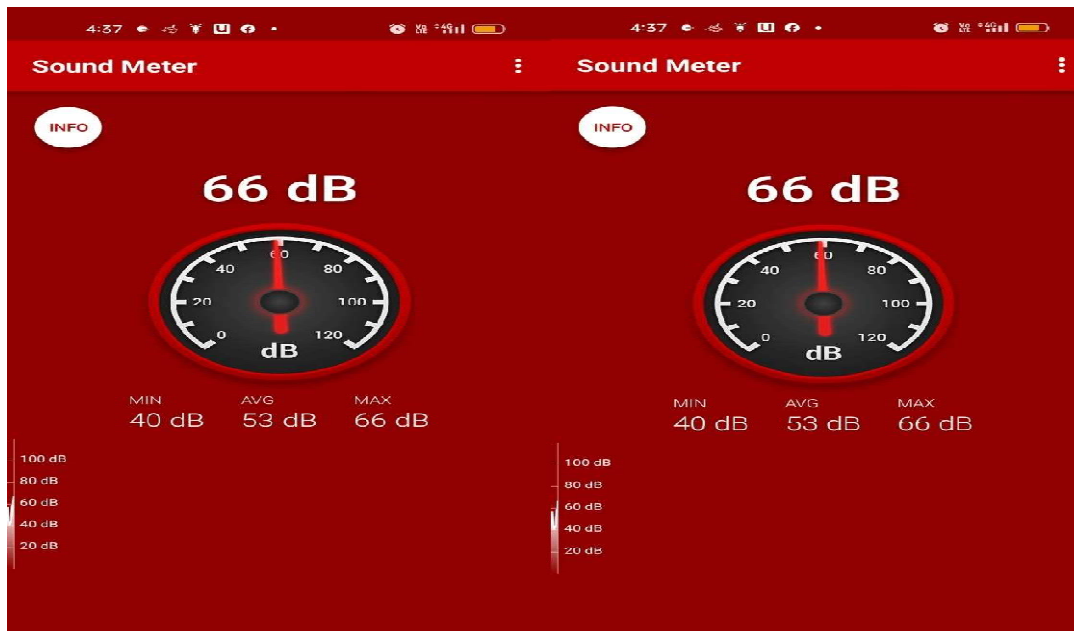
Noise level meter or noise measuring app, NoiseTube (version: 2.0.2), was used to measure the noise level. NoiseTube is a participatory noise sensing project started in 2008 at the Sony Computer Science Laboratory, Paris in collaboration with the Vrije Universiteit Brussel.

The site of the Lanka Mahavidyalaya is bounded to the North by residential, commercial properties, to the East by the road with various book stalls, shops, restaurants, hawkers etc., to the South by a side road and to the west by the college back gate road, residential properties. Fig.2. shows the satellite image of the college site.



## MEASUREMENT PROCEDURE

The noise level was recorded from the road side offices, organizations, and commercial business center of the road, located at the Front & Back gate areas of College. At different selected sites of Lanka Mahavidyalaya, noise level had been measured. At each spot, the measurements were taken for 60 seconds during day time (6 AM- 6 PM) and noted down the measurements. Screen shots of the measurements of noise were taken immediately on the app at the time of 60th second of each measurement. 44 to 68 db of sound level was recorded.



### Conclusion:

With smart initiatives like our Think Green Campus Model, Waste Management is helping colleges and universities to achieve a higher level of environmental performance. By reusing or recycling we are: Contributing to the conservation of natural resources, Saving energy, Helping to protect the environment, Reducing landfill, reduce our impact on the environment by minimizing the carbon emissions associated with both disposing of old products and obtaining new ones.

Lanka Mahavidyalaya adopts environment friendly practices and takes necessary actions such as – energy conservation, waste recycling, carbon neutral, water conservation, green campus initiatives etc. The biological reusable waste generated is processed as organic manure for the plants available in the college campus and the other solid waste generated in the college campus is taken to the community bin of Lanka.

Editor-in-Chief Editor



Dr. Phatik Tamuli

Principal  
Lanka Mahavidyalaya  
Lanka Hojai : Assam

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