

GREEN AUDIT REPORT

SONARI COLLEGE Charaideo, Assam



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ACKNOWLEDGEMENT

At the very outset, we the Green Audit Assessment team would like to thank Dr. Bimal Chandra Gogoi, Principal, Sonari College for assigning us to paramount task of performing the Green Audit of our college. We would like to express our deepest sense of gratitude to all the teaching and non-teaching staff for their constant encouragement and valuable suggestions. We would like to express our heartfelt gratitude to the advisors of the Green Audit team- Jyoti Prasad Phukan and Dr. Paranan Konwar for their valuable guidance and consistent encouragements.

Special thanks to the Forest Range Officer, Sonari Range, Napuk for verifying the Self Study Green Audit Report prepared by the Audit Team.

GREEN AUDIT TEAM, SONARI COLLEGE


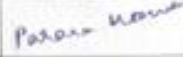
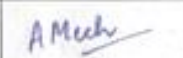



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GREEN AUDIT ASSESSMENT TEAM, SONARI COLLEGE

A committee was formed in the name of "Green Audit Committee" constituting of the following members, who were entrusted to take necessary steps for preparation of the Green Audit Report. A Green Audit Assessment Team was formed which prepared the Green Audit Report.

Sl No	Name of the Auditor	Designation	Signature
1.	Mr. Jyoti Prasad Phukon (Advisor)	Assistant Professor, Dept of Zoology	
2.	Dr. Paranan Konwar (Advisor)	Assistant Professor, Dept of Economics	
3.	Dr. Amrita Mech (Convenor)	Assistant Professor, Dept of Zoology	
4.	Ms. Suman Gogoi (Member)	Assistant Professor, Dept of Botany	
5.	Ms. Pranati Gogoi (Member)	Assistant Professor, Dept of Botany	


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GOVT. OF ASSAM
ENVIRONMENT & FOREST DEPARTMENT
OFFICE OF THE FOREST RANGE OFFICER, SONARI RANGE:: NAPUK
(Under Sivasagar (T) Division, Sivasagar)

GREEN AUDIT CERTIFICATE

This is to certify that Sonari College, Sonari, Charaideo, Assam-785690 has prepared a Self Study Report for Green Audit of the year 2021. After going through the report, I have visited the college campus and made a study of the various provisions as shown in the report and found everything correct. The college has maintained eco-friendly campus with commendable measures like raising valuable trees, tobacco free campus, management of the waste and rain water harvesting system for collection and conservation of rain water in the building those have come recently. The college also involved in awareness activities on environment and bio-diversity etc. within and out side the campus. In overall assessment of the contribution of the college towards protection of environment is satisfactory.

Forest Range Officer,
Sonari Range, Napok
Forest Range Officer
Sonari Rang, Napuk

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1. INTRODUCTION:

1.1 GREEN AUDIT AND ITS OBJECTIVES:

Green audit is a self-assessment tool, by which an institution can systematically quantify, record, report and analyse the components of its environmental diversity. It reflects the institution's role in mitigating the present environmental problems and shows direction how it needs to make improvement in its contribution towards a sustainable future.

The main objective of Green Audit is to promote Environment Management and Conservation in the College campus. Green Audit promotes financial savings through reduction of use of resources. A clean and healthy environment aids in effective learning. It creates health consciousness, promote environmental awareness, values and ethics. It helps students to become responsible citizens.

Green plants and grasslands are involved in sequestering carbon dioxide (CO₂), via photosynthesis; the carbon is stored in plant biomass or exudates in soil through roots, thus reducing the Carbon footprint in the atmosphere to a great extent, generated by anthropogenic actions. CO₂ is a Green House Gas involved in Global Warming. Plants release oxygen, a by-product of photosynthesis which is essential for humans and all animals for respiration. Green plant improves air quality, they have high aesthetic value. They increase positivity, reduce stress and depression. Taking a break from a busy schedule and spending time amidst nature and greenery results in a peaceful and energetic mind and better performance in work. Plants provide shade, bring down ambient temperature and also act as air humidifier.

Conducting a Green audit is thus a necessity to ensure that the campus is greenish and rich in biodiversity.


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1.2 ABOUT THE COLLEGE

The Sonari College is situated in the heart of Sonari town, the head quarter of the historical Charaideo district of Assam which was carved from Sivasagar district in 2015. It is the lead college of Charaideo district and one of the most reputed colleges of Upper Assam, disseminating quality education over the last 50 glorious years since its inception in 1970. The college is located at 27.02°N. 95.02°E. To the East of the college are the Sonari Commerce College and the Sonari Public Playground. To the west is the Sonari Public Auditorium and residential area. To the North is present the Teok Tea Garden and to the South the college is bordered by commercial buildings. Sonari College offers undergraduate courses in both Science and Arts streams. A study centre of Krishna Kanta Handique State Open University (KKHSOU), established in 2008, under Govt of Assam, approved by DDE, UGC and HRD, aimed to provide quality education to deprived students is also running successfully in the College. Charaideo also shares borders with the states of Nagaland and Arunachal Pradesh in the south. The college have also been able to attract students from these nearby states also. The experienced teachers combine traditional learning and modern modes of teaching for all round development of the students. The passed out students are responsible citizens and many of them are well established, contributing to the nation's economy and working for the upliftment of the society.

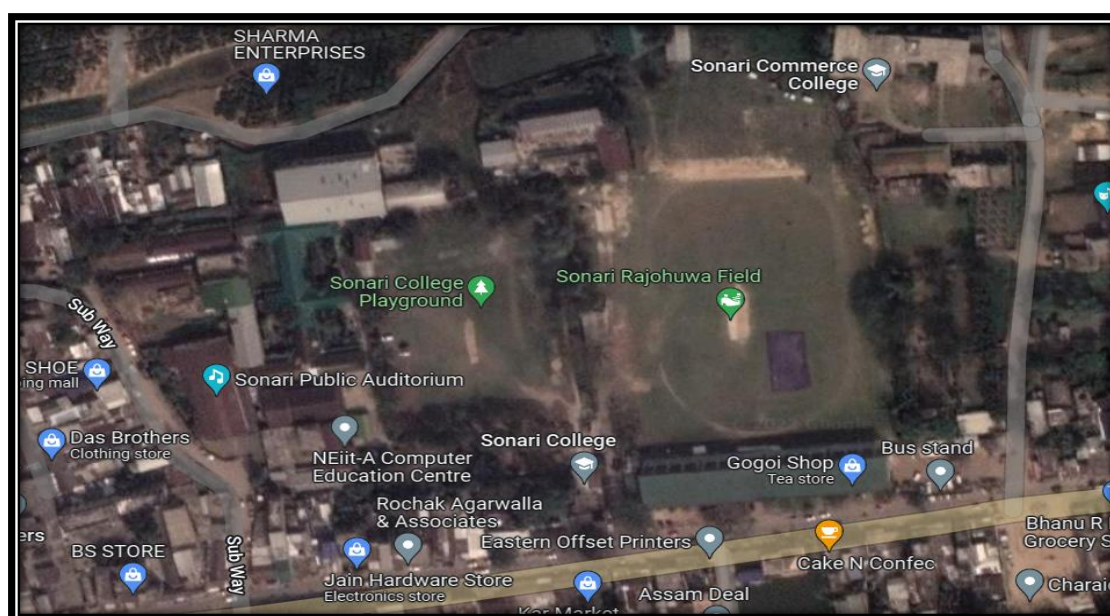


Fig 1: Satellite map showing Sonari College and its neighbouring areas.

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Affiliated to Dibrugarh University, an with a total strength of 1800 students, Sonari College offers Honours Courses at the Degree Level in 11 subjects- Assamese, Economics, English, Education, History, Political Science, Botany, Chemistry, Mathematics, Physics and Zoology. Non Honours Degree is also awarded in Arts Stream subjects. Sonari College also imparts education at Higher Secondary level in both Arts and Science Stream. KKHSOU offers Master's Degree in Arts Subjects.

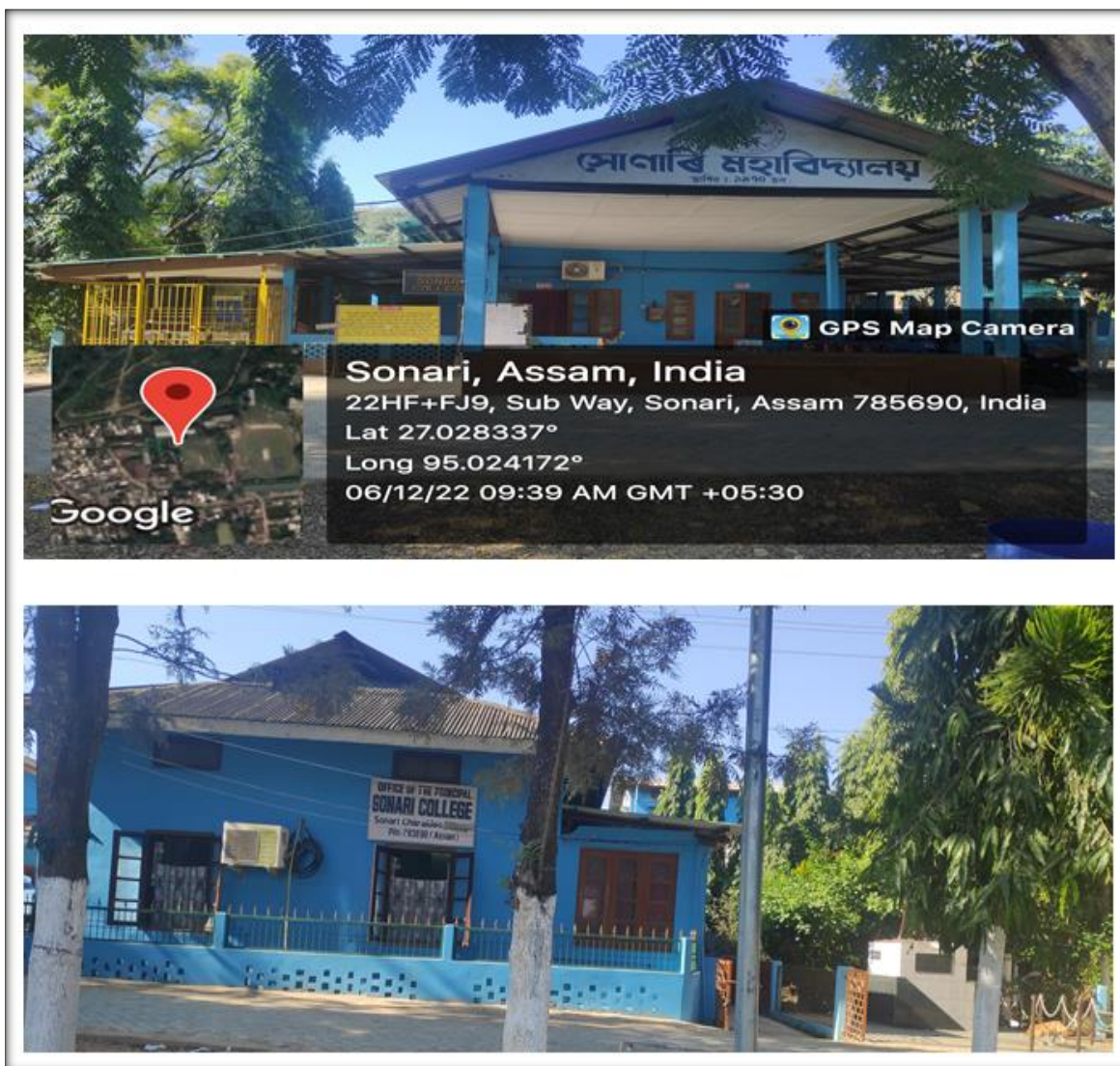


Fig 2: Sonari College Principal and Vice Principal's Office

The College has two Science and Arts buildings- A and B (shown in the Campus map), Building A houses the Departments of History, Political Science, English, Botany, Maths and Zoology. Building B houses the Computer Labs, Chemistry department and other classrooms. Physics department is present in another block. There is an another 3 storeyed

building with Examination branch, Economics, Assamese departments and study centre of KKHSOU.

The library of the college was established simultaneously with the parent organization in 1970. Sonari College library is one of the best college libraries in Assam in providing efficient services to the readers. It is well stocked with more than 21,603 texts and reference books, local and national newspapers, journals and CD- ROMs etc. The library has a huge collection of dictionaries, encyclopaedias, atlas, maps and rare books. The library is availing membership of INFLIBNET consortia. The NLIST provides access to 6000+ e-journals and more than 1,64,300 e books.



Fig 3: Sonari College Library

The college has two hostels one for boys and other for girls which are well protected within the campus. An indoor stadium with gymnasium facility is present where students can play indoor games.

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2. METHODOLOGY:

The green audit study was conducted by first reviewing documents related to it. Then the campus map was studied for getting an idea about the land use pattern- the built up areas, playground and green areas. Next surveys were conducted. Floral and faunal diversity in the college were recorded and photographs were also taken. The engagement and active participation of Environment related Activity groups of the College in plantation and conservation drives were also studied. The Waste Management System of the College was also studied.

3. OBSERVATIONS: 3.1 LANDUSE PATTERN OF SONARI COLLEGE CAMPUS:

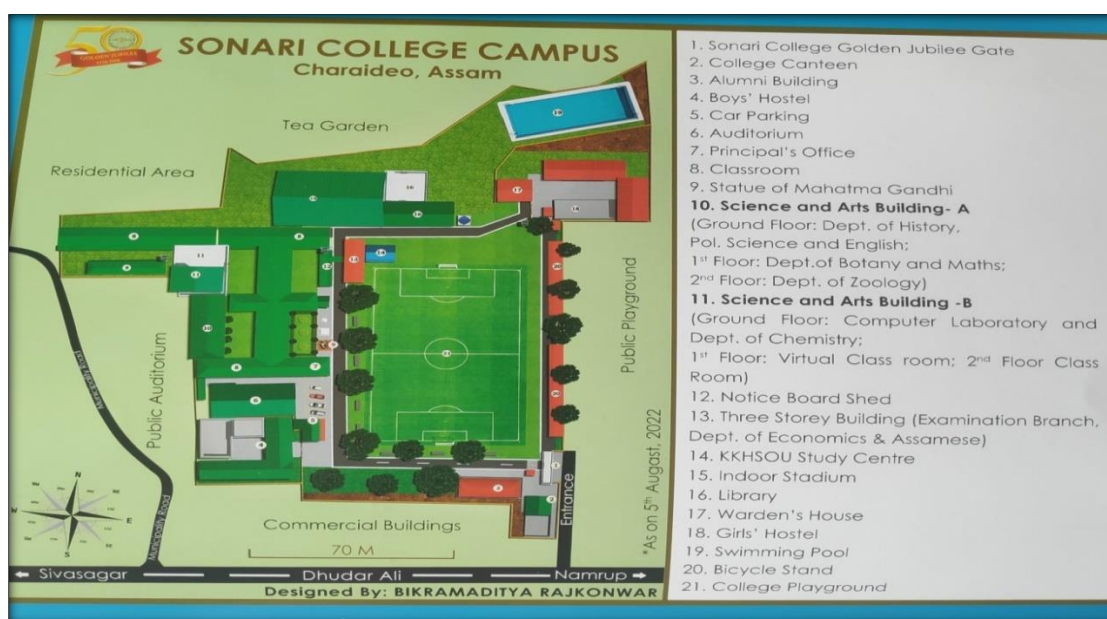


Fig 4: Map showing Sonari College Campus

Table 1: Campus infrastructure:

Sl No.	Description	Area in Sqm
1	Total area	26,755.20
2	Playground	7042
3	Vacant Areas (With greenery)	8671
4	Infrastructure	11,042.20

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3.2 LANDSCAPING AND PLANTATION IN SONARI COLLEGE:

Sonari College is spread over an area of 26,755.20 sqm. On entering the college campus a 7,042 sqm lush green playground on the right welcomes one and all. *Axonopus compressus*, *Cynodon dactylon*, *Eleusine indica*, are the important grass types of the playground. These grasses have been protecting the playground against soil erosion, absorbing water and purifying the air.

The pedestrian friendly pavement which leads to the main college campus is adorned on both sides by evergreen trees each having their own importance, some medicinally important like the *Nyctanthes arbor-tristis*, *Mimusops elengi*, which also bear small scented white flowers, *Terminalia arjuna*, *Terminalia bellirica*, *Terminalia chebula* and some fruit trees like *Litchi chinensis*, *Psidium guajava*, *Phyllanthus emblica*, *Elaeocarpus serratus*. The yellow flowering Fabaceae plant –*Senna sophora* beautifies the campus when in full bloom. The Debadaru plant (*Monoon longifolia*) are highest in number. These plants also provides shade and maintains ecological balance and provides cool breeze during the summer season. Twenty two numbers of the ornamental tree- *Monoon longifolia* defines the beauty of departments of Political Science, History, Botany and Zoology. In addition, these evergreen trees are effective in alleviating noise pollution. Seventeen more *Monoon longifolia* trees borders the flower garden in front of the Principal's Office and behind the Gandhi's Statue. Ornamental flowers like Marigold, Dahlias, Salvias, roses, hibiscus, ixoras are grown in this garden which catches attention of any visitor. The fruit plant, *Syzygium cumini* is also a common plant found in the campus. Departments are being beautified by potted plants mainly the leafy ornamentals like the snake plant, which are also known to purify the air, *Tradescantia* sp plants etc.

The plants recorded in the college campus is being listed in Table 2.


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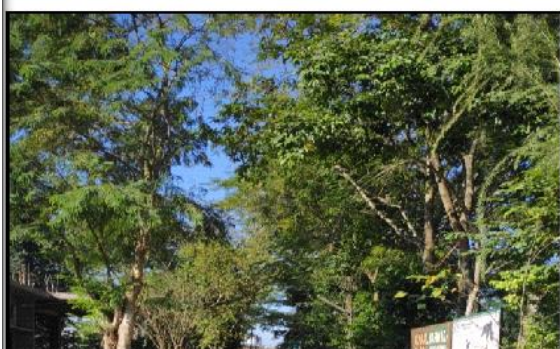


Fig 5: Landscaping of Sonari College with trees.

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Fig 6: Greenery defining beauty in front of departments.

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3.2.1 Biodiversity of Sonari College Table 2 : The list of plants present in the campus

SI No	Botanical Name	Common Name	Family	Habit	Total
1	<i>Andrographis paniculata</i>	Chireta/ Kalmegh	Acanthaceae	Herb	3
2	<i>Abroma augusta</i>	Ulat-Kombol	Malvaceae	Shrub	1
3	<i>Aegle marmelos</i>	Bel	Rutaceae	Shrub	1
4	<i>Aglaonema costatum</i>		Araceae	Herb	6
5	<i>Aloe vera</i>	Salkuwor	Asphodelaceae	Herb	2
6	<i>Alstonia scholaris</i>	Sotiyona	Apocynaceae	Tree	7
7	<i>Annona reticulata</i>	Atlas	Annonaceae	Tree	1
8	<i>Aquilaria malaccensis</i>	Sasi	Thymelaeaceae	Tree	1
9	<i>Araucaria columnaris</i>		Araucariaceae	Tree	3
10	<i>Areca catechu</i>	Tamul	Arecaceae	Tree	1
11	<i>Artocarpus heterophyllus</i>	Kothal	Moraceae	Tree	
12	<i>Asparagus racemosus</i>	Satmul	Asparagaceae	Herb	1
13	<i>Averrhoa carambola</i>	Kordoi	Oxalidaceae	Shrub	1
14	<i>Axonopus compressus</i>	Ghah	Poaceae	Herb	-
15	<i>Azadirachta indica</i>	Neem	Meliaceae	Tree	4
16	<i>Baccaurea ramiflora</i>	Leteku	Phyllanthaceae	Tree	1
17	<i>Bombax ceiba</i>	Simolu	Malvaceae	Tree	1
18	<i>Caesalpinia pulcherrima</i>	Radhachura	Caesalpiniaceae	Tree	1
19	<i>Caladium bicolor</i>		Araceae	Herb	1
20	<i>Calathea ornata</i>		Marantaceae	Herb	1
21	<i>Cascabela thevetia</i>		Apocynaceae	Shrub	5
22	<i>Cassia fistula</i>	Sonaru	Fabaceae	Tree	3
23	<i>Catharanthus roseus</i>	Nayantora	Apocynaceae	Herb	5
24	<i>Cinnamomum tamala</i>	Tejpat	Lauraceae	Tree	1
25	<i>Citrus limon</i>	Kaji Nemu	Rutaceae	Shrub	1
26	<i>Citrus jambhiri</i>	Gol Nemu	Rutaceae		
27	<i>Citrus maxima</i>	Robab tanga	Rutaceae	Shrub	4
28	<i>Clitoria ternatea</i>	Aparajita	Fabaceae	Climber	1
29	<i>Clerodendrum colebrookeanum</i>	Nephaphu	Lamiaceae	Shrub	
30	<i>Cocos nucifera</i>	Narikol	Arecaceae	Tree	2

SI No	Botanical Name	Common Name	Family	Habit	Total
31	<i>Coleus scutellarioides</i>		Lamiaceae	Herb	7
32	<i>Cordyline fruticosa</i>		Asparagaceae	Herb	6
33	<i>Cynodon dactylon</i>	Dubori bon	Poaceae	Herb	-
34	<i>Delonix regia</i>	Krishno-Chura	Fabaceae	Tree	7
35	<i>Dillenia indica</i>	Owtenga	Dilleniaceae	Tree	2
36	<i>Dracaena trifasciata</i>		Asparagaceae	Herb	2
37	<i>Duranta erecta</i>		Verbenaceae	Shrub	6
38	<i>Dyopsis lutescens</i>	Mamoi Tamul	Arecaceae	Shrub	2
39	<i>Elaeocarpus serratus</i>	Jolphai	Elaeocarpaceae	Tree	8
40	<i>Eleusine indica</i>	Ghah	Poaceae	Herb	-
41	<i>Epipremnum aureum</i>		Araceae	Climber	1
42	<i>Eucalyptus regnans</i>		Myrtaceae	Tree	2
43	<i>Euphorbia milii</i>		Euphorbiaceae	Herb	15
44	<i>Euphorbia neriifolia</i>	Hiju	Euphorbiaceae	Shrub	1
45	<i>Euphorbia tithymaloides</i>		Euphorbiaceae	Herb	2
46	<i>Flacourtia jangomas</i>	Poniyol	Salicaceae	Shrub	2
47	<i>Garcinia xanthochymus</i>	Tapor-tenga	Clusiaceae	Tree	2
48	<i>Gardenia jasminoides</i>	Togor	Rubiaceae	Shrub	
49	<i>Gmelia arborea</i>	Gomari	Lamiaceae	Tree	1
50	<i>Grevillea robusta</i>		Proteaceae	Tree	10
51	<i>Hemelia patens</i>		Rubiaceae	Shrub	1
52	<i>Hibiscus rosa-sinensis</i>	Joba Phul	Malvaceae	Shrub	9
53	<i>Ixora chinensis</i>		Rubiaceae	Shrub	3
54	<i>Jasminum multiflorum</i>	Khorikajai	Oleaceae	Shrub	1
55	<i>Kalanchoe pinnata</i>	Dupor tenga	Crassulaceae	Herb	3
56	<i>Lagerstroemia indica</i>	Japani ajar	Lythraceae	Shrub	4
57	<i>Litchi chinensis</i>	Lichu	Sapindaceae	Tree	4
58	<i>Litsea monopetala</i>	Soalu	Lauraceae	Tree	1
59	<i>Machilus gamblei</i>	Som	Lauraceae	Tree	6
60	<i>Magnifera indica</i>	Aam	Anacardiaceae	Tree	5
61	<i>Magnolia insignis</i>	Titasopa	Magnoliaceae	Tree	3
62	<i>Manilkara zapota</i>	Chiku	Sapotaceae	Tree	

SI No	Botanical Name	Common Name	Family	Habit	Total
63	<i>Malvaviscus penduliflorus</i>		Malvaceae	Shrub	
64	<i>Melaleuca citrina</i>		Myrtaceae	Shrub	5
65	<i>Melia azadirach</i>	Ghura Neem	Meliaceae	Tree	1
66	<i>Mesua ferrea</i>	Nahor	Calophyllaceae	Tree	4
67	<i>Mimusops elengi</i>	Bokul	Sapotaceae	Shrub	6
68	<i>Mirabilis jalapa</i>	Godhuli Gopal	Nyctaginaceae	Shrub	6
69	<i>Monoon longifolia</i>	Debodaru	Annonaceae	Tree	42
70	<i>Morus indica</i>	Nuni	Moraceae	Shrub	1
71	<i>Murraya koenigii</i>	Narasingha	Rutaceae	Shrub	4
72	<i>Musa acuminata</i>	Kol	Musaceae	Herb	4
73	<i>Mussaenda erythrophylla</i>		Rubiaceae	Shrub	2
74	<i>Myrtus communis</i>		Myrtaceae	Tree	2
75	<i>Nyctanthes arbor-tristis</i>	Sewali	Oleaceae	Shrub	2
76	<i>Opuntia stricta</i>		Cactaceae	Herb	2
77	<i>Phlogacanthus thyrsoiflorus</i>	Titaphool		Shrub	1
78	<i>Phyllanthus acidus</i>	Pora amlokhi	Phyllanthaceae	Tree	2
79	<i>Phyllanthus emblica</i>	Amlokhi	Phyllanthaceae	Tree	10
80	<i>Piper nigrum</i>	Jaluk	Piperaceae	Climber	2
81	<i>Pongamia pinnata</i>	Koros	Fabaceae	Tree	1
82	<i>Putranjiva roxburghii</i>	Putranjiva	Putranjivaceae	Tree	2
83	<i>Psidium guajava</i>	Modhuri	Myrtaceae	Shrub	2
84	<i>Pyrus communis</i>	Naspoti	Rosaceae	Tree	1
85	<i>Rosa indica</i>	Gulap	Rosaceae	Shrub	5
86	<i>Saccharum officinarum</i>	Kuhiya	Poaceae	Shrub	1
87	<i>Samanea saman</i>		Fabaceae	Tree	2
88	<i>Senna sophera</i>		Fabaceae	Tree	13
89	<i>Smilax perfoliata</i>	Tikoni Borua	Smilacaceae	Climber	1
90	<i>Spinacea oleracea</i>	Pirali paleng	Amaranthaceae	Herb	2
91	<i>Spondias pinnata</i>	Amora	Anacardiaceae	Tree	1
92	<i>Swietenia mahagoni</i>	Mahagony	Meliaceae	Tree	1


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SI No	Botanical Name	Common Name	Family	Habit	Total
93	<i>Syngonium podophyllum</i>		Araceae	Herb	1
94	<i>Syzygium cumini</i>	Jamuk	Myrtaceae	Tree	2
95	<i>Syzygium fruticosum</i>	Kutahi jamuk	Myrtaceae	Tree	1
96	<i>Syzygium jambos</i>	Bogi jamuk	Myrtaceae	Tree	1
97	<i>Tabernaemontana divaricata</i>	Kothona	Apocynaceae	Shrub	1
98	<i>Tamarindus indica</i>	Teteli	Fabaceae	Tree	1
99	<i>Terminalia arjuna</i>	Arjun	Combretaceae	Tree	3
100	<i>Terminalia bellirica</i>	Bhumura	Combretaceae	Tree	1
101	<i>Terminalia chebula</i>	Hilikha	Combretaceae	Tree	
102	<i>Tradescantia zebrina</i>		Commelinaceae	Herb	30
103	<i>Xanthostemon chrysanthus</i>		Myrtaceae	Shrub	1
104	<i>Ziziphus jujuba</i>	Bogori	Rhamnaceae	Tree	2
105	<i>Curcuma longa</i>	Haldhi	Zingiberaceae	Herb	
106	<i>Ocimum tenuiflorum</i>	Tulsi	Lamiaceae	Herb	
107	<i>Capsicum chinese</i>	Bhoot or bih jolokia	Solanaceae	Shrub	4
108	<i>Anacardium occidentale</i>	Kaju	Anacardiaceae	Tree	1
109	<i>Rhododendron indicum</i>	Azalea	Ericaceae	Shrub	1
110	<i>Carica papaya</i>	Amita	Caricaceae	Small tree	6
111	<i>Rhynchosytilis retusa</i>	Kopou phul	Orchidaceae	Epiphyte	
112.	<i>Chukrasia tabularis</i>	Bogi -poma	Meliaceae	Tree	


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3.2.2 MEDICINAL PLANTS:

A medicinal plant garden is maintained in the college campus in front of the computer laboratory. A number of plants recorded in the campus survey also have medicinal values. Some of them are: *Alstonia scholaris*, *Azadirachta indica*, *Nyctanthes arbor-tristis*, *Terminalia bellirica*, *Aloe vera*, *Terminalia arjuna*, *Asparagus racemosus*, *Murraya koenigii*, *Phlogacanthus thyrsoiflorus*, *Syzygium cumini*, *Psidium guajava*, *Terminalia chebula*, *Saccharum officinarum*, *Dillenia indica*, *Flacourtia jangomas*, *Smilax perfoliata*, *Kalanchoe pinnata*, *Catharanthus roseus*, *Putranjiva roxburghii*, *Clitoria ternatea*, *Ocimum tenuiflorum*, *Capiscum chinese*, *Curcuma longa*.

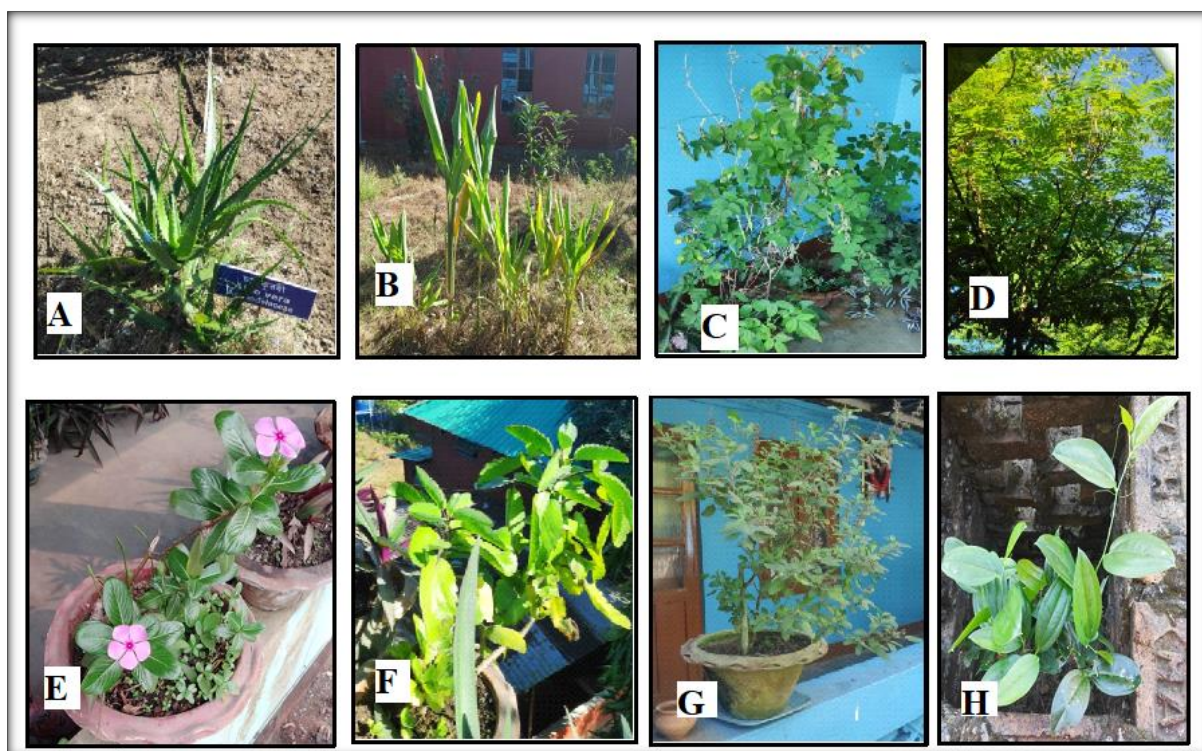


Fig 7: Some of the medicinal plants recorded: (A) *Aloe vera* (B) *Curcuma longa* (C) *Clitoria ternatea* (D) *Azadirachta indica*, (E) *Catharanthus roseus*, (F) *Kalanchoe pinnata*, (G) *Ocimum tenuiflorum* (H) *Smilax perfoliata*


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3.2.3 EDIBLE FRUIT PLANTS:

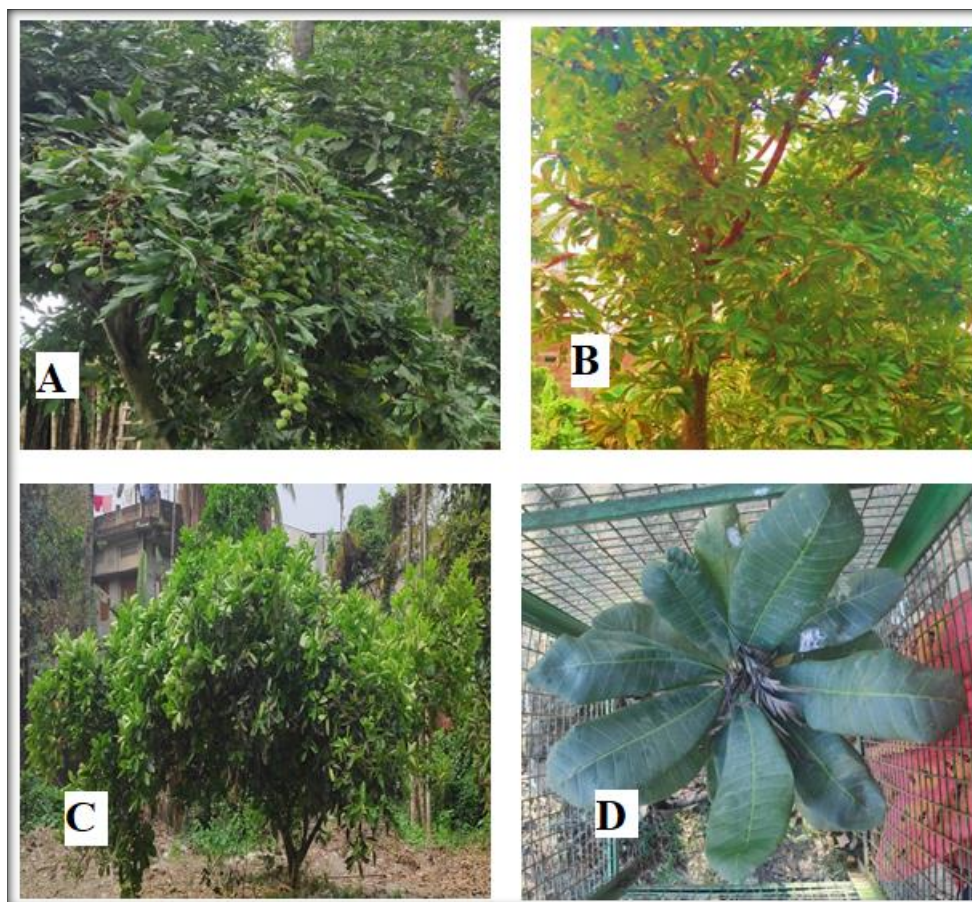


Fig 8: Few edible fruit plants growing in the campus (A) *Litchi chinensis*, (B) *Dillenia indica* (C) *Citrus maxima*. (D) *Anacardium occidentale*

Some of the edible fruit plants present in Sonari College Campus are:

Averrhoa carambola, *Elaeocarpus serratus*, *Phyllanthus emblica*, *Mimusops elengi*, *Citrus maxima*, *Litchi chinensis*, *Magnifera indica*, *Musa acuminata*, *Areca catechu*, *Syzygium cumini*, *Psidium guajava*, *Citrus limon*, *Dillenia indica*, *Cocos nucifera*, *Terminalia bellirica*, *Ziziphus jujube*, *Saccharum officinarum*, *Terminalia chebula*, *Carica papaya*, *Anacardium occidentale*, *Pyrus communis*, *Manilkara zapota*,


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3.2.4 LIST OF ORNAMENTAL PLANTS

Melaleuca citrina, Mesua ferrea, Delonix regia, Monoon longifolia, Grevillea robusta

Dypsis lutescens, Senna sophera, Araucaria columnaris, Abroma augusta, Melia azadirach, Gmelia arborea, Caesalpinia pulcherrima, Hibiscus rosa-sinensis, Rosa indica, Mussaenda erythrophylla, Ixora chinensis, Tabernaemontana divaricate, Cordyline fruticosa, Euphorbia tithymaloides, Asparagus racemosus, Aglaonema costatum, Mirabilis jalapa, Cascabela thevetia, Hemelia patens, Coleus scutellarioides, Duranta erecta, Xanthostemon chrysanthus, Myrtus communis, Tradescantia zebrine, Rhododendron indicum.

3.2.5 LIST OF TIMBER YIELDING PLANTS:

Terminalia arjuna, Mimusops elengi, Gmelia arborea, Mesua ferrea, Swietenia mahagoni, Artocarpus heterophyllus, Melia azadirach, Bombax ceiba, Mangifera indica, Morus alba, Syzygium cumini, Delonix regia, Ziziphus jujube, Langerstroemia speciosa, Pongamia pinnata, Monoon longifolia,


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3.3 FAUNAL DIVERSITY IN SONARI COLLEGE

TABLE 3: DIVERSITY OF BIRDS FOUND IN THE CAMPUS:

S.I. No.	Common Name	Scientific Name	Family
1.	Common Myna	<i>Acridotheres tristis</i>	Sturnidae
2.	Spotted Dove	<i>Spilopelia chinensis</i>	Columbidae
3.	House sparrow	<i>Passer domesticus</i>	Passeridae
4.	Pigeon	<i>Columba livia</i>	Columbidae
5.	Crow	<i>Corvus splendens</i>	Corvidae
6.	Owl	<i>Athene noctua</i>	Strigidae
7.	Black-hooded oriole	<i>Oriolus xanthornus</i>	Oriolidae
8.	Cattle egret	<i>Bubulcus ibis</i>	Ardeidae
9.	Eastern cattle egret	<i>Bubulcus coromandus</i>	Ardeidae
10.	Red-vented bulbul	<i>Pycnonotos cafer</i>	Passeridae
11.	Black drongo	<i>Dicrurus macrocercus</i>	Dicruridae
12.	Orange-breasted green pigeon	<i>Treon bicinctus</i>	Columbidae
13.	Oriental magpie-robin	<i>Copsychus saularis</i>	Turdidae



Common myna



Owl

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TABLE 4: DIVERSITY OF BUTTERFLIES (ORDER:LEPIDOPTERA) FOUND IN THE CAMPUS

S.I. No.	Common Name	Scientific Name	Family
1.	Plain tiger	<i>Danaus chrysippus</i>	Nymphalidae
2.	Great Eggfly	<i>Hypolimnas bolina</i>	Nymphalidae
3.	Large cabbage white	<i>Pieris brassicae</i>	Pieridae
4.	Common grass yellow	<i>Eurena hecabe</i>	Pieridae
5.	Common sergeant	<i>Athyma perius</i>	Nymphalidae
6.	Short-banded sailer	<i>Phaedyma columella</i>	Nymphalidae
7.	Indian Cabbage white	<i>Pieris canidia</i>	Pieridae
8.	Three spot grass yellow	<i>Eurema blanda</i>	Pieridae
9.	Ape butterfly	<i>Spalgis epius</i>	Lycaenidae
10.	Common Evening brown	<i>Melanitis leda</i>	Nymphalidae
11.	Grey Pansy	<i>Junonia atlites</i>	Nymphalidae
12.	Peacock pansy	<i>Junonia almana</i>	Nymphalidae
13.	Lime butterfly	<i>Papilio demoleus</i>	Papilionidae
14.	Grey count	<i>Tanaecia lepidea</i>	Nymphalidae
15.	Common Pierrot	<i>Castalius rosimon</i>	Lycaenidae
16.	Common mormon	<i>Papilio polytes</i>	Papilionidae
17.	Common palmfly	<i>Elymnias hypermnestra</i>	Nymphalidae
18.	Common fivering	<i>Ypthima baldus</i>	Nymphalidae
19.	Mottled emigrant	<i>Catopsilia pyranthe</i>	Pieridae
20.	Common dartlet	<i>Oriens goloides</i>	Hesperiidae

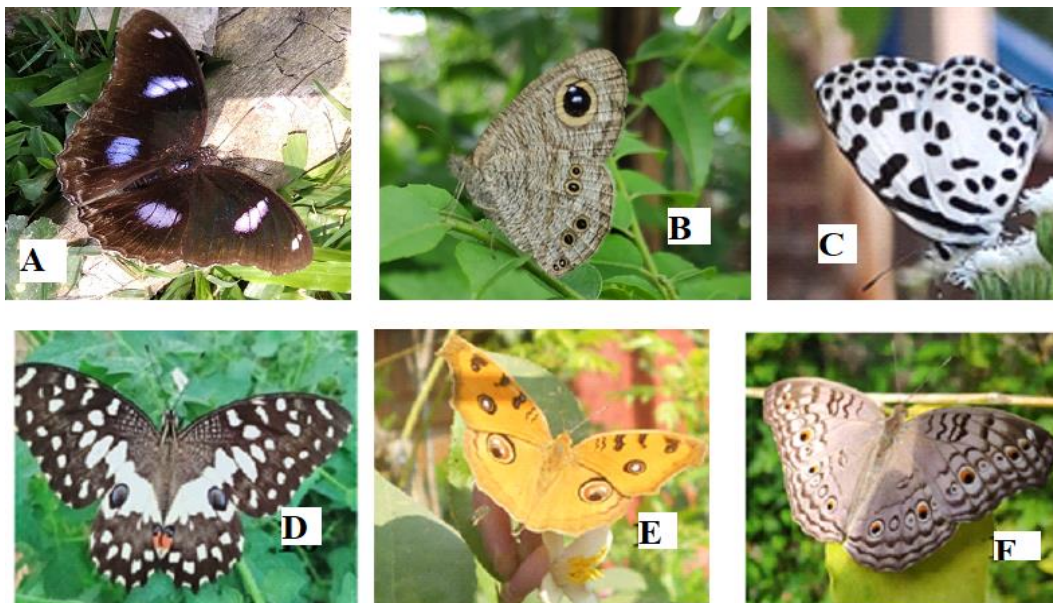


Fig: A. Great Egg fly B. Common fivering C. Common Pierrot D. Lime butterfly E. Peacock pansy F. Grey Pansy

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TABLE 5: DIVERSITY OF OTHER INSECTS FOUND IN THE CAMPUS

S.I. No.	Common Name	Scientific Name	Order	Family
1.	Silver fish	<i>Lepisma saccharina</i>	Zygentoma	Lepismatidae
2.	Cockroach	<i>Periplaneta americana</i>	Blattodea	Blattidae
3.	Aphids	<i>Aphis gossypii</i>	Hemiptera	Aphididae
4.	Mealy bug	<i>Paracoccus marginatus</i>	Hemiptera	Pseudococcidae
5.	Honeybee	<i>Apis mellifera</i>	Hymenoptera	Apidae
6.	Tropical Swallow tail moth	<i>Lyssa zampa</i>	Lepidoptera	Uraniidae
7.	Handmaiden moth	<i>Syntomoides imacon</i>	Lepidoptera	Erebidae
8.	Red slug caterpillar moth	<i>Eterusia aedea</i>	Lepidoptera	Zygaenidae
9.	Black Lawn Beetle	<i>Heteronychus arator</i>	Coleoptera	Scarabaeidae
10.	Lesser banded hornet	<i>Vespa affinis</i>	Hymenoptera	Vespidae
11.	Common wasp	<i>Vespula vulgaris</i>	Hymenoptera	Vespidae
12.	Carpenter bee	<i>Xylocopa micans</i>	Hymenoptera	Apidae
13.	False tiger moth	<i>Dysphania millitaris</i>	Lepidoptera	Geometridae
14.	Hawk moth	<i>Sphinx linguistri</i>	Lepidoptera	Sphingidae
15.	Green marsh hawk,	<i>Orthetrum sabina</i>	Odonata	Libellulidae
16.	Chalky Percher	<i>Diplacodes trivialis</i>	Odonata	Libellulidae
17.	Jewel Bug	<i>Chrysocoris pulchellus</i>	Hemiptera	Scutelleridae
18.	Grasshopper	<i>Hieroglyphus banian</i>	Orthoptera	Acrididae
19.	Golden Dartlet	<i>Ischnura aurora</i>	Odonata	Coenagrionidae
20.	Milky Dartlet	<i>Agriocnemis lacteola</i>	Odonata	Coenagrionidae



Fig: Tropical S



Fig: Mealy bugs on marigold flowers.

leaves



Fig: Thrips feeding

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TABLE 6: DIVERSITY OF LIZARDS FOUND IN THE CAMPUS

S.I. No.	Common Name	Scientific Name
1.	Many lined grass skink	<i>Eutropis multifasciata</i>
2.	Oriental garden lizard	<i>Calotes versicolor</i>
3.	House lizard	<i>Hemidactylus frenatus</i>

TABLE 7: DIVERSITY OF SNAKES FOUND IN THE CAMPUS

S.I. No.	Common Name	Scientific Name
1.	Cooper Headed Trinket Snake	<i>Coelognathus helena</i>
2.	Indian cobra	<i>Naja naja</i>
3.	Indian rat snake	<i>Ptyas mucosa</i>
4.	Checkered Keelback	<i>Xenochrophis piscator</i>
5.	Bronze backed tree snake	<i>Dendrelaphis tristis</i>
6.	Common Krait	<i>Bungarus caeruleus</i>
7.	Banded krait	<i>Bungarus fasciatus</i>

TABLE 8: DIVERSITY OF AMPHIBIANS FOUND IN THE CAMPUS

S.I. No.	Common name	Scientific name
1.	Asia bullfrog	<i>Hoplobatrachus tigerinus</i>
2.	Common toad	<i>Bufo bufo</i>
3.	Tree frog	<i>Hyla sp.</i>

TABLE 9: DIVERSITY OF MAMMALS FOUND IN THE CAMPUS

S.I. No.	Common Name	Scientific Name
1.	Rat	<i>Rattus rattus</i>
2.	Mouse	<i>Mus musculus</i>
3.	Cat	<i>Felis catus</i>
4.	Otter	<i>Lutrinae</i>
5.	Dog	<i>Canis lupus familiaris</i>
6.	Monkey	
7.	Bat	<i>Chiroptera</i>
8.	Squirrel	

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3.4 PLANTATION AND ENVIRONMENT AWARENESS PROGRAMMES:

“Save Tree and Save Earth” is one of the best Practices of the college.

In order to create an eco-friendly campus, the students and teachers are engaged in plantation and conservation drives through the initiatives of the Sonari College Eco Club, Sonari College Environment Cell, Sonari College Swachhta Action Plan and NSS, Sonari College. These programmes engages younger generation in conservation of nature and its resources, involve them in planting and caring the saplings and thus make them responsible citizens, protecting the environment and working for its sustainable development.

Plantation drives and awareness programmes are held annually on the World Environment Day and Ozone Day.



Fig 9 : (A) Eco Club, Sonari College (B) Environment and Climate Cell, Sonari College (C) Plantation of *Magnolia insignis* (Titachapa) and (D) Plantation of *Artocarpus heterophyllus* (Kothal) by Eco Club, Sonari College.

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3.4.1 CELEBRATION OF WORLD ENVIRONMENT DAY 2018



3.4.1 CELEBRATION OF WORLD ENVIRONMENT DAY 2020



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3.4.1 CELEBRATION OF WORLD ENVIRONMENT DAY 2021



3.4.1 CELEBRATION OF WORLD ENVIRONMENT DAY 2022.



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3.4.1 CELEBRATION OF WORLD ENVIRONMENT DAY 2023



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3.4.2 OTHER CLEANLINES AND PLANTATION PROGRAMMES:



Fig 13: CHIEF MINISTER'S INSTITUTIONAL PLANTATION PROGRAM

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**CELEBRATION OF WORLD OZONE DAY – 16th
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3.4.2 OTHER CLEANLINESS AND PLANTATION PROGRAMMES:



**CLEANLINESS PROGRAMME ON 24/11/2022, ORGANISED BY
NSS UNIT, SONARI COLLEGE ON OCCASION OF LACHIT
DIVAS**

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3.4.2 OTHER CLEANLINESS AND PLANTATION PROGRAMMES:



**CLEANLINESS PROGRAMME, ORGANISED BY NSS UNIT,
SONARI COLLEGE IN COLLABORATION WITH SWACHH
SUJAL GAON CAMPAIGN**

3.5 VERMICOMPOSTING

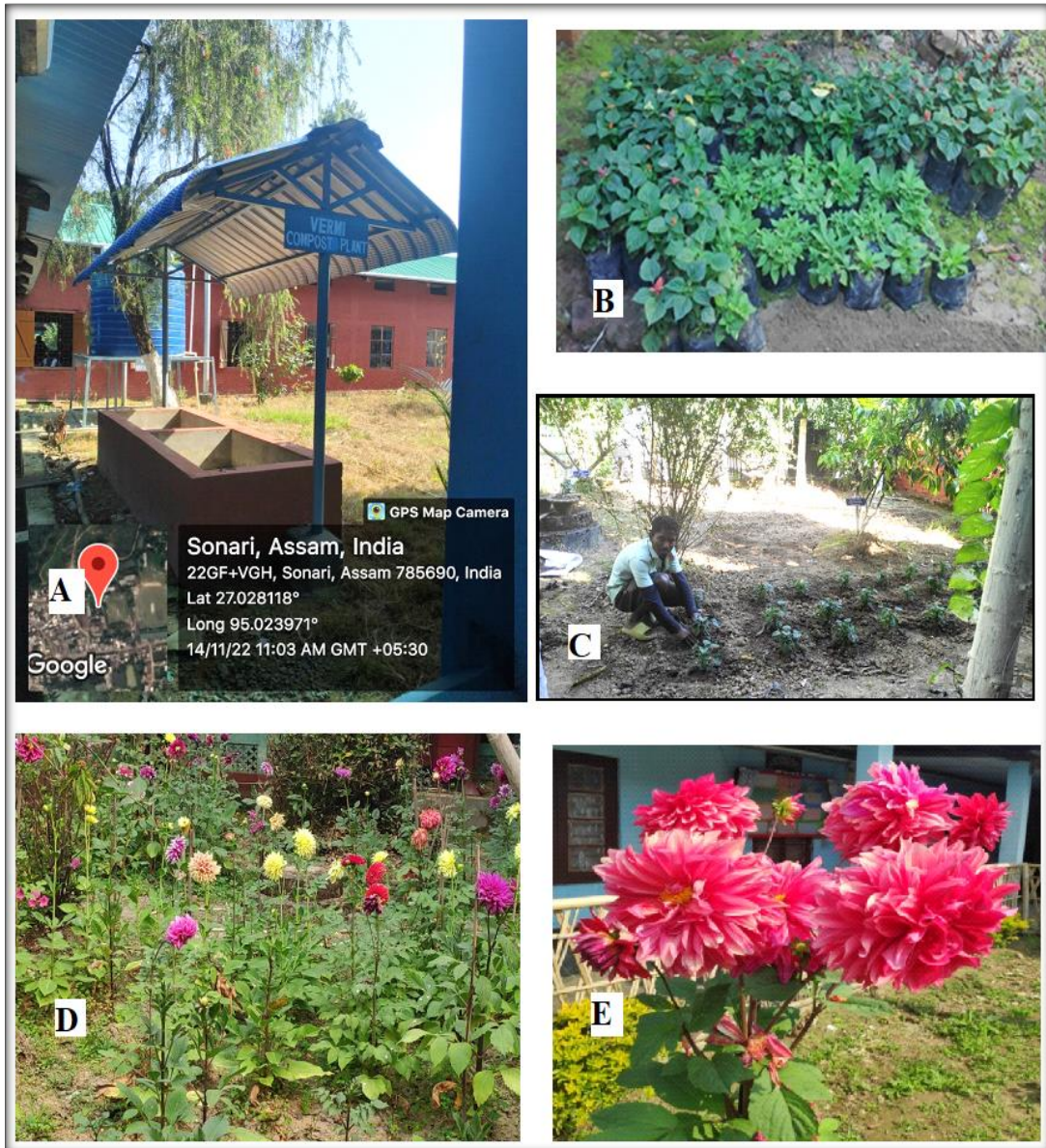


Fig 12: (A) Vermicomposting Unit (B), (C), (D) and (E) are flower beds where compost is used

A vermicomposting unit has been set up in the college and production is under process. Organic waste collected from Girls' Hostel's kitchen and College Canteen is used for the process.

In the near future the college will be self-reliant in compost and fertilizer needs and moreover will be able to start this low investment, economically feasible and environment friendly technology and into a profitable business.

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3.6 ORCHID PLANTATION:

With the aim of Conservation, Awareness and Beautification a number of orchids dedicated to renowned personalities of Assam were planted on trees in the Sonari College Campus by a Social and Cultural organization of Jorhat named “The Event”



Fig 13: Orchid plantation.

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3.7 LED Wind Solar Hybrid Street Lights

A total of **eight numbers of LED Wind Solar Hybrid Street Lights** are present in the college which lightens the college campus at night.



Fig 14: A LED Wind Solar Hybrid Street Light

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3.8 WASTE MANAGEMENT AND GREEN ENVIRONMENT:

As initiatives to create a green environment, there is restricted entry of vehicles within the campus. The vehicles of students are allowed upto the designated parking place which is situated near the gate, thus creating least disturbance. Teachers park their vehicles in the specified parking lot present near the boys hostel and beyond that all are allowed to walk in pedestrian friendly pathways upto the College building.

Most of the students use public transport for transportation. Some prefer the eco-friendly bicycles. Both reduces traffic congestion, and reduces pollution to a great extent.

There is ban on use of plastics. There is arrangement of dust bins all-round the campus. The organic solid waste is collected and converted to compost in the vermicomposting unit and used to manure plants in the college gardens. The non-biodegradable waste is collected and disposed off by town municipality. Incinerators are present in the common room of girls and lady teachers.

Liquid waste is disposed off through proper drainage systems.

The college stores the e-waste due to lack of government approved e-waste recycling or disposal agency. Immediate drop-off of the e-waste will has be conducted once under contact with any stakeholder or the municipality.


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3.8.1 SOLID WASTE MANAGEMENT

MANAGEMENT OF BIODEGRADABLE SOLID WASTE



Fig 15: DRY AND WET WASTE COLLECTION BINS PLACED ALL AROUND THE COLLEGE CAMPUS

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VERMICOMPOSTING UNIT



Fig 16: ORGANIC WASTE AND DRY LEAVES OF TREES COLLECTED IS USED FOR VERMICOMPOSTING

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MANAGEMENT OF NON-BIODEGRADABLE SOLID WASTE



Fig 17: DISPOSAL OF NON-BIODEGRADABLE SOLID WASTE TO NOTIFIED MUNICIPAL COLLECTION

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Fig 18: INCINERATORS FOR DISPOSAL OF SANITARY NAPKINS

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LIQUID WASTE MANAGEMENT:

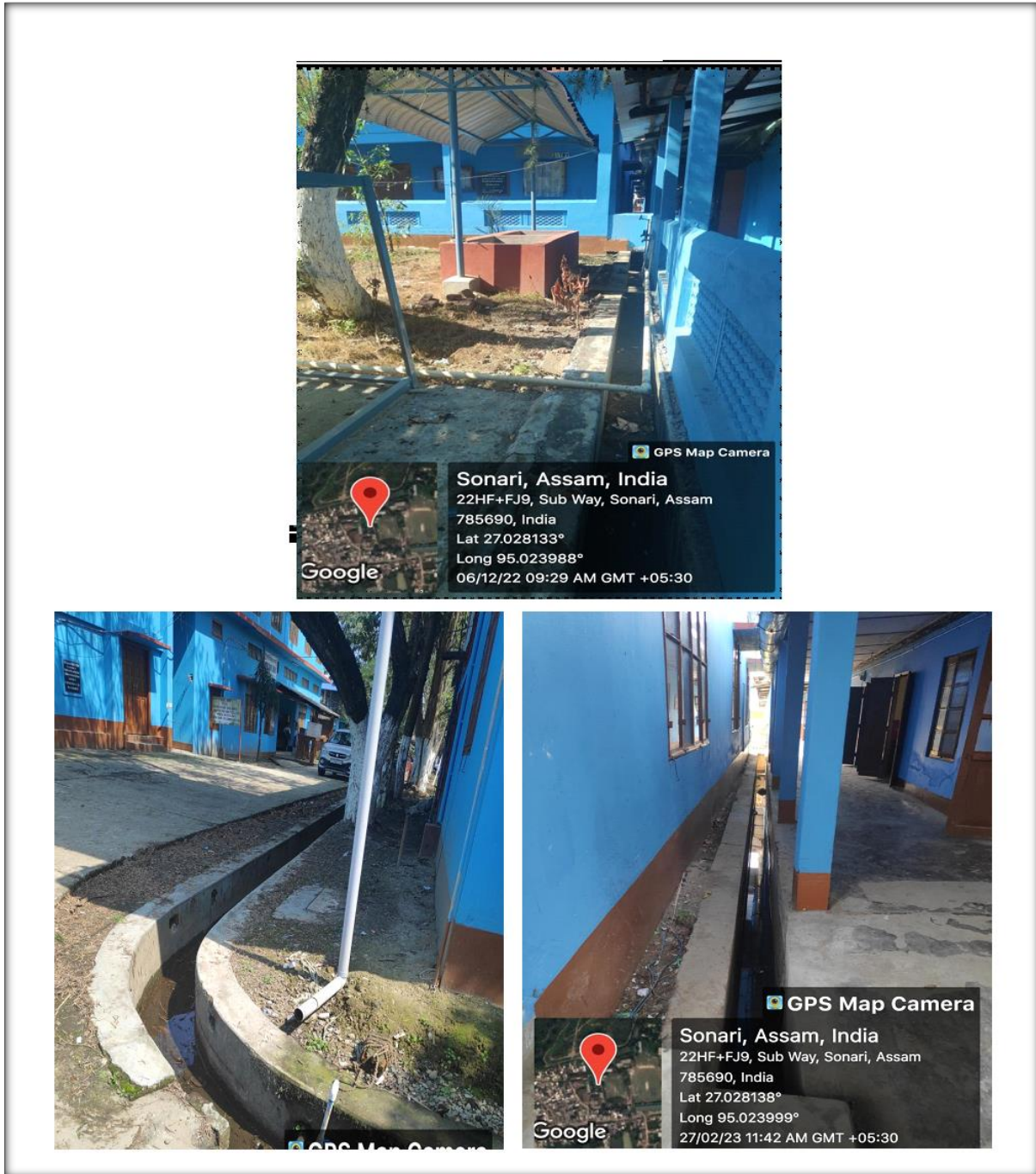


Fig: 19 WASTE WATER IS DISPOSED OFF THROUGH PROPER DRAINAGE SYSTEMS.

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E-WASTE MANAGEMENT:



Fig 20: E- GARBAGE OF THE COLLEGE IS BEING STORED AS THERE UNTIL PROPER DISPOSAL. (MOU SIGNED BETWEEN SONARI COLLEGE AND SONARI MUNICIPALITY

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OTHER AWARENESS PROGRAMMES:

BAN ON SINGLE USE PLASTICS



Fig 21: THERE IS BAN ON SINGLE USE PLASTICS IN THE COLLEGE CAMPUS. SPECIAL WEBINARS ARE ARRANGED FOR THE STUDENTS FOR UNDERSTANDING ABOUT NOT USING PLASTICS AND THE CONSEQUENCES OF USING THEM.

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STUDENTS PROMOTING AWARENESS ON ENVIRONMENTAL ISSUES



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4. CONCLUSION AND RECOMMENDATION:

CONCLUSION:

The Green Audit helped to monitor, identify, and document the natural resources of the College and also helped to determine whether the institutional practices are environment friendly and sustainable. It helped to ensure that the campus is greenish and rich in biodiversity.

Recommendations:

After completion of the Green Audit, the Green Audit Team recommends the following

1. Create awareness among students about planting and most importantly caring about the planted trees.
2. The green Campus policy of the College should be strictly followed.
3. The new saplings planted should be well guarded by fencing so that no animals devour them.
4. To monitor the developmental activities and their effect on the biodiversity of the campus.
5. If any trees are cut for developing infrastructure, there is need for planting more trees but the new plantations should be well planned.
6. Encouraging paperless office work and communication purposes.
7. There is need for installing solar panels as an alternative source of energy.
8. More Rain water harvesting units should be installed
9. To implement thoroughly the ban of single use plastics.
10. To grow a vegetable garden.
11. Recycling of paper and water to be advocated.
12. Students should be sensitized about the 3 R's of waste management- Reduce, reuse and recycle. They should be involved in each program to make the college campus green.
13. Green audit should be conducted annually and needful should be carried out.

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