



GREEN AND ENVIRONMENT AUDIT DHING COLLEGE

For the session 2023-2024



Prepared by

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PREFACE

Green Audit in the Institutions of Higher Education (IHEs) is an important aspect of self-assessment within the framework of National Assessment and Accreditation Council (NAAC) process. NAAC, Bengaluru has made it mandatory for colleges and universities to submit the Green Audit report (Criteria 7) annually. Further, raising concerns about the degrading quality of natural environment and imbibing the values of environment is a natural outcome of the teaching-learning process in IHEs. Therefore, it becomes imperative that all such institutes should carry out a self-inquiry/assessment with regard to its contribution towards environmental sustainability. Green Audit is a method of such self-inquiry which has been adopted by various colleges and Universities throughout India.

Dhing college has taken up an initiative of carrying out a self-assessment through Green Audit with the following objectives:

- * To establish a baseline of existing environmental conditions
- * To document the best practices already adopted by the college to achieve environmental sustainability
- * To promote environmental awareness through the participatory auditing process and
- * To generate a report based on the auditing process that would contain the baseline environmental data, best practices with regard to pollution control, waste management, energy conservation, biodiversity conservation and also the future strategies for achieving environmental sustainability.

The college authority in order to maintain transparency and avoid self-biasness had decided to entrust the undersigned as an external expert to carry out the green and environment audit of the college.

In absence of a standardized model of Green Audit of Institute of Higher Education (IHEs), the undersigned decided to carry out a rapid assessment through questionnaire method and also analyse relevant environmental dataset available from secondary sources. Based on the data generated, the audit team has recommended some short term and long term suggestive measures which would be instrumental in improving the overall environmental quality of the Dhing college campus.

It is hoped that this report will receive due attention of all the stakeholders of the college and shall help in bringing about a paradigm shift in the administrative policy of the college which will ultimately lead to environmental sustainability.

Prof. (Dr.) Hari Prasad Sarma

Retd. Prof. & Head Dept. of Environmental Science

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05/12/2023



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CERTIFICATE

This is to certify that the Green and Environment Audit of Dhing College, Nagaon, Assam for the session 2023-2024 has been carried out by the Green and Environment Audit Team under the supervision and guidance of the undersigned. The rapid assessment work was carried out within a very short period of time and therefore there remains more to be investigated for a comprehensive Green and Environment Audit of the college.

I take this opportunity to offer my best wishes to the college in the pursuit of higher education and their future endeavour.

Place : Guwahati

Date: 05/12/2023

(Hari Prasad Sarma)



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ACKNOWLEDGEMENT

I, on behalf of the Green Audit Team hereby express my sincere gratitude and thanks to Dr. Biman Hazarika, Principal of Dhing College, Nagaon, Assam for assigning the important task of Green and Environment Audit of the college to us. We are grateful for the cooperation and help extended to us by the college authorities during the completion of the work. We sincerely thank Dr.Pankaj Saikia, Coordinator of IQAC and Dr. Mukut Moni Saikia, Coordinator, Green and Environment Audit of Dhing College along with the team members for their help and encouragement during the auditing process. We have taken help from the previous Green Audit report of the college and express our gratitude to the authority for allowing us.

Place : Guwahati

Date: 05/12/2023

(Hari Prasad Sarma)

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1. EXECUTIVE SUMMARY

Eco-friendly 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 into the environment. Waste minimization plans for the educational institute are now mandatory to maintain the cleanliness of the campus. To find out the environmental performance of the educational institutions and to analyze the possible solutions for converting the educational campus as eco-friendly campus, the conduction of Green and Environmental Audit of an educational institution is essential.

The green and Environment audit of Dhing College, Nagaon enables to assess the life style, action and its impact on the environment. This is a sincere attempt to conduct green auditing of this college campus. This audit was mainly focused on greening indicators like biodiversity resources and their preservation, water use and management, consumption of energy in terms of electricity and utilization of fossil fuel, quality of drinking water, vegetation cover, land use and land cover, waste management practices etc. Initially a questionnaire survey was conducted to know about the existing resources of the campus and resource consumption pattern in the college. In order to assess the quality of water, samples were collected from three different locations of the college campus and analysed for their physico-chemical parameters. Collected data were grouped, tabulated and conclusions were drawn after proper discussion on the experimental results. Finally, a report pertaining to environmental management plan with strength, weakness and suggestion on the environmental issues of the campus has been documented.

2. INTRODUCTION

The development of a nation starts from its educational institutions, where the environment is considered as a prime factor. Educational institutions, now a days, are becoming more sensitive to environmental factors and more concepts are being introduced to make them eco-friendly. To preserve the environment within the campus, various viewpoints are applied by the several educational institutes to solve their environmental problems such as promotion of the energy savings, recycle of waste, reduction in water use and consumption, water harvesting, underground water recharging system, green buildings etc. The human centric activities pursued by colleges can also create a variety of adverse environmental impacts.

Green audit is a process whereby an organization's environmental performance is tested against its environmental policies and objectives. Green audit is an official and systematic examination of the different environmental factors that affects living organisms which include human resources associated with the college. As a part of such practice, internal Green and Environmental audit is conducted to evaluate the actual scenario inside the campus.

Green audit can be a useful tool for a college to determine how and where they are using the most energy or water or other resources. The college can then consider how to implement changes and make savings. It can also be used to determine the type and volume of waste, which can be used for a recycling project or to improve waste minimization plan. Green auditing and the implementation of mitigation measures is a win-win situation for all the colleges, the learners and the planet. It can also create health consciousness and promote environmental awareness, values and ethics. It provides staff and students better understanding of Green impact on campus. Green auditing promotes financial savings through reduction of resource use. It gives an opportunity for the development of ownership, personal and social responsibility for the students and teachers. Thus it is imperative that the college evaluates its own contributions toward a sustainable future. As environmental sustainability is becoming an increasingly important issue for the nation, the role of higher educational institutions in relation to environmental sustainability is more prevalent. A clean and healthy environment helps effective learning and provides a conducive learning

environment. There are various efforts around the world to address environmental education issues.

Green Audit is a process of systematic identification, quantification, recording, reporting and analysis of components of environmental diversity of various establishments. It aims to analyze environmental practices within and outside of the concerned sites, which will have an impact on the eco-friendly ambience.

Green Audit was initiated with the beginning of 1970s with the motive of inspecting the work within the organizations whose exercises can cause risk to the health of inhabitants and the environment.

The National Assessment and Accreditation Council (NAAC), Bengaluru has made it mandatory that all Higher Educational Institutions in our country should prepare and submit an annual Green and Environment Audit Report. Moreover, it is part of Corporate Social Responsibility of the Higher Educational Institutions to ensure that they contribute towards the reduction of global warming through Carbon Footprint reduction measures.

Therefore, the purpose of green audit is to upgrade the condition of the environment in and around institutes, colleges, companies and other organizations. It is carried out with the aid of performing tasks like waste management, energy saving and others to turn into a better environment friendly institute. Many institutions undertake a lot of good measures to resolve the problems but are not documented due to lack of green documentation awareness. All these efforts of the administrations play an important role in ensuring the green quotient of the campus is intact.

Green Audit is assigned to the criteria 7 of National Assessment and Accreditation Council (NAAC), which is a self-governing organization of India that declares the institutions under different Grades according to the scores assigned at the time of accreditation. The main objectives of carrying out Green and Environment Audit are:

- To map the geographical location of the college.
- To document the floral and faunal diversity of the college
- To document the ambient environmental conditions of weather, air, water and noise level of the college.
- To document the waste disposal system.
- To estimate the energy consumption and requirements of the college

3. ABOUT DHING COLLEGE



Dhing College was established in 1965 with the untiring efforts of the people of the greater Dhing area considering the necessity of an institute of higher studies owing to the increasing number of passed out students from schools as well as well development of the society through the enlightenment of education. Education can alone be the instrumental in bringing about social change and promote culture and human values. With this noble vision, the setting up of this institution came into a reality for facilitating education to those who are being deprived of higher studies due to poor economic condition.

Dhing college, now a premier institute of higher education, is located at Latitude, 27.71 (N) and Longitude 94.88 (E) of Dhing under Nagaon District, Assam inhabited largely by the people of different culture, tradition, religion and languages. The college is located at a distance 35.5 kilometres from Nagaon, the district headquarter and 136.5 kilometres from Guwahati. The College is affiliated to Gauhati University.

Since its inception, the college has been run under the able guidance and supervision of the Governing Body and with the cooperation of local people. In 1975, the college was brought under the deficit grants-in-aid system by the Govt. of Assam. Gradually, this institution has developed to be one of the most coveted centres of learning in Arts education of under graduate level. Science stream was introduced in 1987 which was brought under deficit grants-in-aid system in 1998. The third academic stream i.e. Commerce was introduced in 2016. The college has 75 bighas of land in two campuses in a serene atmosphere. The college authorities have invested their efforts well for impartment of quality education in three different Streams (Arts, Science and Commerce) of Undergraduate level with parental care by creating sound educational environment among the students, providing pure and safe drinking facility, spacious nature of classroom apartments, open air playground, greenish garden, guidance and counselling etc. Care is also taken for the growth of physical, mental and social health of the students through proper suggestion, interaction, workshops and training like yoga exercises and meditation.

The aim of this college is to be a part of the nation in creating good and cultured human resources with proper intelligence and skilfulness to run a good societal life and livelihood.

The College celebrated its Golden Jubilee in 2015. It is worth mentioning that the college was accredited by NAAC and was awarded B+ Grade (2.52/3.0) in third cycle in 2023. The college has been awarded Star College Status by the Department of Biotechnology (DBT), Govt. of India during 2022 – 23.

Vision:

The institution envisions for augmenting quality education through pragmatic approach with a view to improving socio-economic and cultural sides of the society. The main focus is

- To promote quality education in higher studies for both boys and girls with harmonious relationships among all.
- To inspire the learners towards higher education.
- To motivate learners for capacity building and self-reliance.
- To generate self-employable skills in collaboration with other Govt. agencies, NGO's etc.
- To inculcate moral and ethical values for being responsible citizens who may contribute well to the development of society.
- To imbibe leadership qualities in students.
- To work for socio-economic and cultural development of the society.
- To develop this college as one of the reputed institutes in the future.

Mission:

Inculcate moral and ethical values; develop skills, aptitude for a healthy culture; infuse the spirit of nationalism and also generate human resources.

The following facts reveal the mission of our college:

- The main objective of the college is to make the students aware of the present day world competitiveness in various professions.
- To make the teaching learning process more students-centric,
- Quality enhancement of the professional development of the faculties.
- The college determines to support students in the development of their personality engaging them in the different co-curricular and extra-curricular activities.

- The college has been playing a pivotal role in acquainting students with the new trends of learning.
- We also devote our time and energy for bringing about the innate potentialities of the learners through team work as well as academic activities.

Infrastructure

The infrastructure of the college is quite satisfactory with more than 28747.71 sq.m. built up area out of 75.0 Bigha (1,00,981.5 sqm) of land. The college has the advantage of two nearby plots of land, Plot A -16.25 Acres (49 bigha 0 katha 16.75 lessa) and Plot B - 6.19 Acres (18 bigha 3 katha 12.57 lessa) with a PWD road in between. Plot A land has been utilised for all academic activities and Plot B for hostels, quarters, playground and an indoor stadium. The college has very sophisticated administrative building with conference hall, well-equipped Science Laboratories (Physics, Chemistry, Botany & Zoology) Computer Laboratory, Language Laboratory, Education Laboratory, Digital Classrooms, Play Ground, Canteen, two units of Botanical Garden and separate hostel facilities for boys and girls etc. The college has a very effective Students' Support Services Centre with Students' Union office, NCC and NSS offices, Women cell, Health Cell, Career Counselling & Guidance Cell, Equal Opportunity Centre etc. The College has facilities like ramps, wash rooms, toilets etc.

The state of the art Library named Ratna Kanta Barkakati Central Library with Digital Lounge, Book Bank, Mini Conference Room having more than 19500 books, 97000+ e books, 6000+ e journals, 14 journals and a good number of magazines, newspapers. Through N-List programme students and faculty members can search a good number of national and international-journals.

The Governing Body, the highest statutory body of the college, provides the road map and overall guidelines for quality policy in order to create a conducive teaching-learning environment and to acquire the academic excellence of the college. The various sub-committees are formed with Principal, Teaching and Non-teaching staff to manage different aspects relating to discipline, grievances, examination, admission, sports, cultural activities, hostels etc. The IQAC of the College provide all round supports for enhancement of quality policies and plans. Different sub-committees are formed under IQAC for proper

implementation of the plans and objectives for quality policy. Dhing College Students' Union is a general body of the students of the college. The Alumni Association of the college work for the development of the institution. The college has formed environment committees such as Eco Club for conservation of nature and clean & green environment.

The college is very much conscious about the environment. To provide an eco-friendly environment, the college emphasized on plantation, plan for setting up of rain water harvesting system, Recharging of underground water, Vermi-compost plant, garden, pond and recycle of non-biodegradable waste in a very organized manner.

The NSS and NCC units of the college are fully functional. A significant number of students are involved as NCC and NSS volunteers. The NSS unit provides assistance and conducts awareness programmes during lockdown period, blood donation, tree plantation, disaster relief, Swachha Bharat Abhiyan, Yoga Camps, fire safety, health, voter awareness campaign etc. NCC cadets are involved in social services, environmental awareness issues disaster relief, adventure and sports activities and other nation building programmes.

Over the years, the college has grown into an institution of significant stature in the educational scene not only in this area, but also in the entire educational field of Assam. During 1965-2023, the college has involved to attain its visionary goals through its activities in the fields of academic and co-curricular along with its missionary approach. Hima Das, international athlete, happens to be the proud alumna of this college. To meet the demands of globalization and competition, the college is trying to offer and improve a vast of range of study options to widen the horizons of knowledge, awareness and outlook of the students. The experienced and dedicated faculties of the college are well versed in innovative teaching techniques supplemented with practical learning experiences that contributed to the academic excellence achieved by the students. Seminars, Discussions, Symposia, Project Presentation, Workshops, Educational Tours, Cultural Activities, Games & Sports, NCC, NSS & other co-curricular activities have now become a part of the learning process.

4. OBJECTIVES OF GREEN AND ENVIRONMENT AUDIT

The main objectives of this green and environment audit are to assess the environmental quality and the management strategies being adopted and to be implemented in Dhing College. The objectives are:

- To assess the quality of drinking water in the college campus
- To examine the energy consumption pattern of the college
- To quantify the liquid and solid waste generation and management plans in the campus.
- To impart environment management plans to restore the rich biodiversity of the college
- Providing a database for corrective actions and future plans.
- To assess whether extracurricular activities of the Institution support the collection, recovery, reuse and recycling of solid wastes.
- To identify the gap areas and suggest recommendations to improve the Green Campus status of Dhing College.

5. MANPOWER

Total number of persons that includes teachers, students and supporting staff visiting the college daily is shown in Table 1. The total number is 2501.

Over and above this, the daily visitors of the college include guardians, Ex students, other people, daily wage workers, contractors, plumbers, electricians, carpenters, masons and their helpers etc. are visiting the college for different purposes. So the college remains vibrant during college hours by the visit of the different people.

Table 1 : Total staff and students of the college (2021 -2022)

Total no. of teaching staff	Permanent	39
	Others	10
Total No. of non-teaching staff	permanent	20

	others	10
No. of students	P.G.	35
	U.G.	1650
	H.S.	816
Total no. of students		2501

6. LAND USE

The Master plan (Table 2) reveals the actual land use pattern of the college. It also envisions the future strategic plan for different constructions and proper maintenance of the overall environment of the campus.

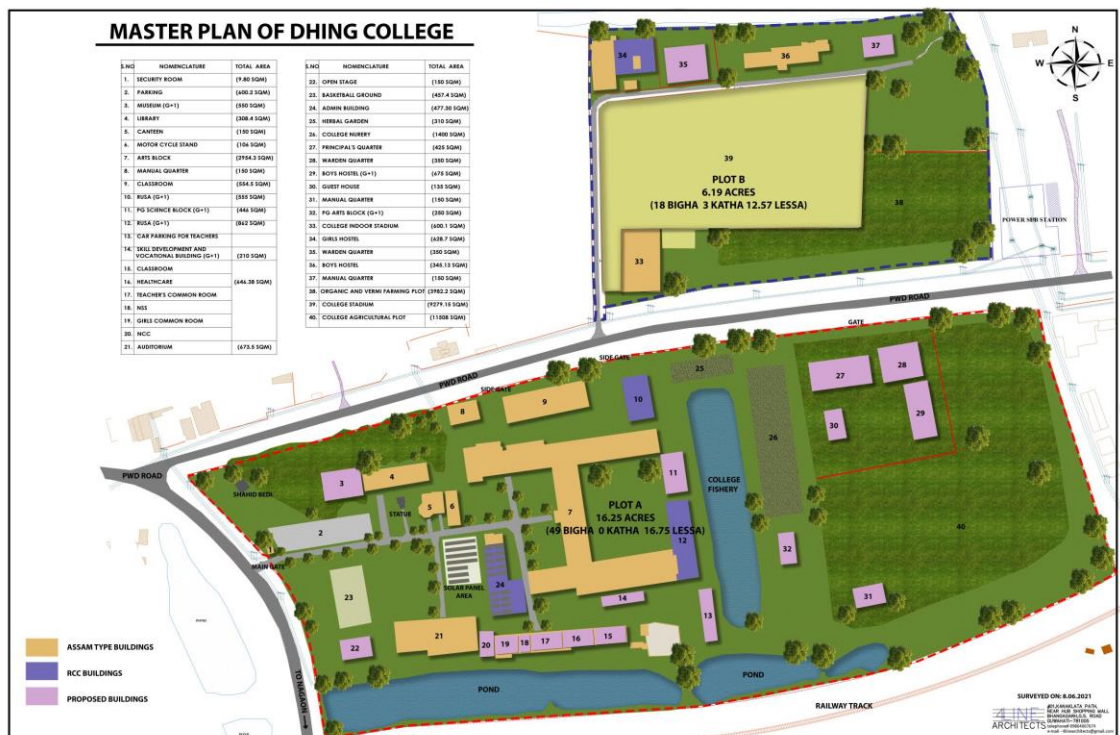


Fig. 1 Master Plan of Dhing College

Table 2 : Master Plan of Dhing College

Sl. No.		Area in Sq.m	Sl. No.		Area in Sq.m
1	Security room	9.80	16	Administrative building	477.3
2	Parking	600.2	17	Herbal garden	310.0
3	Museum	550.0	18	College Nursery	1400.0
4	Library	308.4	19	Principal's Quarter	425.0
5	Canteen	150.0	20	Warden Quarter	700.0
6	Motor cycle stand	106.0	21	Boys' Hostel	1020.13
7	Arts Block	2954.3	22	Guest House	135.0
8	Manual Quarter	450.0	23	College Indoor stadium	600.1
9	Classroom	554.5	24	Organic & Vermi Farming plot	3982.2
10	RUSA G+1	1417	25	College stadium	9279.15
11	PG Science Block	446.0	26	College Agricultural plot	11508.0
12	PG Arts Block	250.0	27	Girls' Hostel	628.7
13	Skill Dev. & Voc. Building	210.0	28	Open space	150.0
14	Classroom+ Health care+ Teachers' common room+ Girls' common room+ NSS+NCC	646.38	29	Basketball ground	457.4
15	Auditorium	673.5	30	Pond	6781.7

Dhing College college has a total land holding of about 75 Bighas (100981.5 sq.m). Of this, an area of 23981.9 sq.m is covered by garden, natural pond, agricultural plot, organic and vermi compost farming plot etc. (Table 3). Total built up area covered by Assam Type, RCC buildings etc is 28747.71 sq. m (Table 4). More than 70 % of the total land holding can be classified as green cover (grass, trees etc). The presence of gardens and big trees inside the college campus augments the aesthetic value of the institution. Drainage system inside the campus is not found during the visit period.

Table 3: Area covered by the garden, pond etc.

Name	Area (in square meter)
Botanical Garden	1710
Pond	6781.7
Agricultural land	11508
Organic farming land	3982.2

Table 4: Area covered by Pucca roads, Kutchha roads, utilized land etc.

Name	Area (in square meter)
Pucca road	1610.0
Total built up area	28747.71
Green covered area	70623.79
Total area	100981.5

7. CAMPUS BIODIVERSITY

FLORA AND FAUNA OF THE COLLEGE

Biodiversity or biological diversity is the variety and variability of life on earth. It is a measure of variation at the genetic, species and ecosystem level. The college campus is full of greenery and is a site of rich biodiversity. Out of a total 25 acres of campus land, only about 28747.7 sq.m is covered by built-up structures. Natural forests cover about 65452.5 sq.m of the campus while natural ponds cover about 6781.7 sq.m of the area.

Ecology is the study of the relation and interactions between organisms and their environment. It comprises the floral and faunal communities of an area. With changes in environmental conditions, some characteristics of the plants and animals also undergo changes. For the proposed study, the study area has been identified within the college campus with the following aims.

- To assess the nature and distribution of vegetation in and around the college site;
- To assess the distribution of animal life;
- To assess the biodiversity and to understand the resource potential
- To ascertain migratory routes of fauna and possibility of breeding grounds

Methodology

To achieve the above objectives, a detailed study of the area was undertaken inside the college campus. The different methods adopted were

- Generation of primary data by undertaking systematic ecological studies in the area
- Interaction with the college authority and academic departments
- Discussion with local people so as to elicit information about local plants, animals and birds.
- Preparing a general checklist of all plants found in the study area. This would indicate the diversity for plants
- Determining the diversity of animal population such as mammals, amphibians and reptiles, noting their calls, droppings, burrows, pugmarks and other signs

8. FLORAL DIVERSITY

The college campus harbors a diverse range of medicinal, timber yielding, fruit bearing, flowering plants and varieties of higher herbs and shrubs. There are around 167 such species of plants which really enhance the floral diversity of the college campus. A detailed list of the floristic diversity (Tables 5, 6, 7, 8, 9 and 10) of the College campus is provided below

Table 5: List of major indigenous medicinal plants in the college

Sl. No.	Common name	Scientific name	Family
1	Musk mallow	Abelmoscus Medikus	<i>Malvaceae</i>
2	Bonsoth Obhat kata	Achyranthes aspera L.	<i>Amaranthaceae</i>
3	Bel	Aegle marmelos Lour	<i>Rutaceae</i>
4	Bhedailata	Paederia foetida	<i>Rubiaceae</i>
5	Boromankachu	Araceae	<i>Alocasia macrorrhiza</i>
6	Agaru	Aquilaria malaccensis	<i>Thymelaeaceae</i>
7	Gendali - bon	Ageratum conyzoides L.	<i>Asteraceae</i>
8	Matikunduri	<i>Alternanthera sessilis.</i>	<i>Amaranthaceae</i>
9	Saru Matikunduri	Amaranthus sessilis (L) R.Br. ex DC	<i>Amaranthaceae</i>
10	Kalmegh kalpa-tita	Andrographis paniculate (Burm F)	<i>Acanthaceae</i>
11	Satmul	Asparagus racemosus wild	<i>Liliaceae</i>
12	Maha Neem	Azadirachta Indica A. Juss	<i>Meliaceae</i>
13	Brahmi shak	Bacopa mannieri (L) Pennell	<i>Scrophulariaceae</i>
14	Simolu	Bombax ceiba L.	<i>Bombacaceae</i>
15	Parijat/kolaboti	Canna indica L. var.orientalis Rose	<i>Cannaceae</i>
16	Kapal phuta lata	Cardiaspermum halicachum L	<i>Sapindaceae</i>
17	Sonaru	Cassia fistula L	<i>Caesalpinaceae</i>
18	Soru medelua	Cassia tora L	<i>Caesalpinaceae</i>
19	Manimuni	Centella asiatica L Urban	<i>Ulmaceae</i>
20	Bhotua shak	Chenopodium album L	<i>Chenopodiaceae</i>
21	Bhant	Clerodendrum viscosum wall	<i>Verbenaceae</i>
22	Bon kachu	Colocasia esculenta L Schott	<i>Araceae</i>
23	Akashi lata	Cuscuta reflexa Roxb.	<i>Cuscutaceae</i>
24	Bermuda grass	Cyno dactylon L Pers	<i>Poaceae</i>
25	Keya bon	Cyperus rotundus L.	<i>Cyperaceae</i>
26	Dhatura	Datura metel L.	<i>Solanaceae</i>
27	Dupor bon tenga	Bryophyllum Pinnatum	
28	Ou-tenga	Dillenia indica L	<i>Dilleniaceae</i>

29	Kath alu	Dioscorea alanta L	<i>Dioscoreaceae</i>
30	Duranta kata	Durantaerecta L.	Verbenaceae
31	Gakhitati Bon	Euphorbia hirla L	<i>Euphorboaceae</i>
32	Bot goch	Ficus benghalensis L	<i>Moraceae</i>
33	Aanhot/pipal tree	Ficus religiosa L	<i>Moraceae</i>
34	Gomari	Gmelina arborea Roxb.	<i>Verbenaceae</i>
35	Lemon grass	<i>Cymbopogon flexuosus</i>	Poaceae
36	Doron Bon	<i>Leucas aspera</i>	<i>Lamiaceae</i>
37	Neem	Melia azedarach L.	Meliaceae
38	Aam	Mangifera indica L.	
39	Lajuki lata	Mimosa pudica L.	<i>Mimusaceae</i>
40	Pani meteka	Monochoria hastata L.	<i>Pontederiaceae</i>
41	Sajina	Moringa aleifera Lam	<i>Moringaceae</i>
42	Narasingha	Murrayakoenigii (L.) Spreng.	Rutaceae
43	Jahaji kol	Musa paradisica	<i>Musaceae</i>
44	Tulsi	Ocimum basilicum L	<i>Lamiaceae</i>
45	Ram tulosi	Ocimum sanctum L	<i>Lamiaceae</i>
46	Bhatghila	Oroxylum indicum L.	<i>Bignoniaceae</i>
47	Pan	<i>Piper betle</i>	Piperaceae
48	Siju	Euphorbia splendens	<i>Euphorbiaceae</i>
49	Pononowa shak	Peperomia pellucida L	<i>Piperaceae</i>
50	Pani morich	Polygonum hydropiper L	<i>Polygonaceae</i>
51	Madhuri aam	Psidium guajava L	<i>Myrtaceae</i>
52	Sarpagandha	Rauvalfia serpentina L.	<i>Apocynaceae</i>
53	Kapou phul	Rhynchostylis retusa L	<i>Orchidaceae</i>
54	Era goch	Ricinus communis L	<i>Euphorbiaceae</i>
55	Bon dhania	Scoparia duicis L	<i>Scrophutariaceae</i>
56	Bok phul	Sesbania grandiflora L Poir	<i>Papilionaceae</i>
57	Boriala	Sida acuta Burm f.	<i>Malvaceae</i>
58	Kochi los kochi	Solanum nigrum L	<i>Solanaceae</i>
59	Bhrigaraj shak	Spilanthes paniculate Wall ex DC	<i>Asteraceae</i>
60	Amora	Spondias pinnata L.f. Kurz	<i>Anacardiaceae</i>
61	Segun	Tectona Grandis L. f.	<i>Verbenaceae</i>
62	Jongli neel	Tephrosia purpurea L	<i>Papilionaceae</i>
63	Arjun	Terminalia arjuna (DC), W & A	<i>Combretaceae</i>
64	Shilikha	Terminalia chebula Retz	<i>Combretaceae</i>
65	Tengesi tenga	Oxalis corniculata	
66	Tita-phul	<i>Phlogocanthusthysiflorus</i>	Acanthaceae
67	Tita bhakuri	<i>Solanum indicum</i>	Solanaceae
68	Baisalya karani,	Tridax procumbens L	<i>Asteraceae</i>

	Daisy		
69	Bogori	Zizyphus mauritiana Lamk	<i>Rhamnaceae</i>
70	Zil mil saak	Chenopodium album	

Manimuni or Indian pennywort: This plant is native to the wetlands in Asia and is found in abundance in Assam. Its scientific name is *Centella Asiatica* and grows in gardens or damp uncultivated areas. *Manimuni*, as we call it in Assamese, has many health benefits but the one which we widely believe is that it helps cure dysentery when consumed raw after pound crushing, especially the juice. Apart from this *manimuni* have other health benefits too. It helps improve memory and is best taken early morning by extracting the juice. It is a blood purifier and helps relieve menstrual pain, it heals wounds, is effective in hair growth, promotes flow of urine and is helpful in Gonorrhoea too. It is generally consumed raw like chutney or after extracting the juice.



Doron bon or Leucas: The scientific name of this plant is *Leucas aspera* and is commonly used as an insecticide. In Assamese it is called *Doron bon*. This plant is also used as an edible vegetable and herbal remedy as well. In many parts of India people plant this weed in front of their homes to repel snakes and other venomous animals. It is, in fact, most commonly used in the treatment of snakebites.



MatiKanduri or Dwarf copperleaf: This is an aquatic plant and its scientific name is *Alternanthera sessilis*. As a herbal medicine the plant has diuretic, cooling, tonic and laxative properties. Its stem and leaves are normally consumed as vegetables here in Assam. The juice of the leaves increases milk production and hence is good for lactating mothers; it increases milk production in cows also. It helps in skin related diseases like leprosy and minor itching. It is very beneficial for treating loose bowels, helpful in curing night blindness and fever.



The college campus harbors a diverse range of medicinal (70 nos.), timber yielding (19 nos), fruit bearing (18 nos), flowering (16 nos) plants and varieties of higher herbs (34 nos.) and shrubs (8 nos.). There are around 165 such species of plants which really enhance the floral

diversity of the college campus. A detailed list of the floristic diversity of the College campus is provided below.



Bhedai lata



Satmul



Bhatua Shak



Bon Kochu



Dhatura



Ou-tenga

Table 6 : List of Timber yielding plants inside the college campus

Sl. No.	Local Name	Scientific name
1	Aahot	<i>Ficus religiosa</i> L.
2	Banyan	<i>Ficus bengalensis</i>
3	Bhatgilha	<i>Oroxylum indicum</i>
4	Bot Goch	<i>Ficus benghalensis</i> L.
5	Debdaru	<i>Polyalthia longifolia</i>
6	Eucalyptus	<i>Eucalyptus tereticornis</i> Sim.
7	Gamari	<i>Gmelina arborea</i>
8	Kadam	<i>Anthocephalus chinensis</i>
9	Mango	<i>Mangifera indica</i>
10	Neem	<i>Azadirachia indica</i>
11	Outenga	<i>Dillenia indica</i>
12	Peepal	<i>Ficus religosa</i>
13	Saral Goch	<i>Pinus roxburghii</i> Sarg.
14	Segun	<i>Tectona grandis</i>
15	Simolu	<i>Bombax ceiba</i>
16	Sonaru	<i>Cassia fistula</i>
17	Soura Goch	Moraceae
18	Arjun	<i>Terminalia arjuna</i> (Roxb.ex DC.)Wight& Arn.
19	Poma Goch	<i>Toona ciliata</i> M. Roem.



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Mango tree



Gamari tree



Arjun

Table 7. List of Fruit Bearing Plants

Sl. No.	Local Name	Family	Scientific Name
1	Aam Goch	Anacardiaceae	Mangifera indica L.
2	Agathis	Auracariaceae	Aegle marmelos (L.) Mast
3	Amlakhi	Phyllanthaceae	Phyllanthus emblica L.
4	Amora	Anacardiaceae	Spondias Pinnata (L.f.) Kurz
5	Ataphal	Annonaceae	Annona squamosa L.
6	Banana	Musaceae	Musa acuminata
7	Bel Goch	Rutaceae	<i>Bacopa monnieri</i> Correa
8	Bogori	Rhamnaceae	Ziziphus jujuba Mill.
9	Cycas	Cycadaceae	Cycas circinalis L.
10	Dimoru	Moraceae	Ficus hirta Vahl.
11	Hilikha	Combretaceae	Terminolia Chebula Retz
12	Kola Jamu	Myrtaceae	Syzygiumcumini (L.) Skeels
13	Kothal	Moraceae	Artocarpus heterophyllus Lam.
14	Lichu	Sapindaceae	Litchi chinensis Sonn
15	Madhuriaam	Myrtaceae	Psidium guajava L.
16	Momai Tamul	Arecaceae	Pinangagracilis Blume
17	Tamul	Arecaceae	Areca catechu L.
18	Teteli	Leguminosae	Tamarindus indica L.

Fruit bearing plants



Mango tree



Banana tree



Hilikha tree



Lichu tree

Table 8: List of Flowering Plants

Sl. No.	Local Name	Family	<i>Scientific Name</i>
1	Azar	Lythraceae	Lagerstroemia speciosa (L.) Pers.
2	Bakul	Sapotaceae	Mimusopselengi L.
3	Crape myrtle	Lythraceae	Lagerstroemia indica (L.) Pers
4	Dhatura	Solanaceae	<i>Datura fastuosa</i>
5	Golap (rose)	Rosaceae	Rosa rubiginosa (Rosa indica)
6	Gulabi Mussaenda	Rubiaceae	MussaendaerythrophyllaSchumach&Thonn
7	Gul mohar	Fabaceae	Caesalpinia pulcherrima (L.)Sw.
8	Ixora	Rubiaceae	Ixora alba L
9	Kagozphul	Nyctaginaceae	Bougainvillea spinosa (Cav.) Heimerl
10	Karabi	Apocynaceae	Cascabelathevetia (L.) Lippold
11	Kamini	Rutaceae	Murrayapaniculata (L.) Jack
12	Kapou phul	Orchidaceae	Rhycostylis retusa
13	Thuja	Cupressaceae	Platycladusorientalis (L.) Franco
14	Togor	Apocynaceae	Tabernaemontanadivaricata cv. Plena
15	Putranjiva	Putranjivaceae	Putranjivaroxburghii Wall
16	Nayantara	Apocynaceae	<i>Catharanthus rose us</i>



Rose



Togor



Nayantara



Bakul

Table 9 : Herbs of Dhing College campus

Sl. No.	Scientific name
1	<i>Achyranthus aspera</i> L.
2	<i>Ageratum conyzoides</i>
3	<i>Alternanthera sessilis</i> L. R.Br. ex.DC
4	<i>Amaranthus spinosus</i> L.
5	<i>Amaranthus viridis</i> L.
6	<i>Andrographis paniculata</i> (Burm f.) Wall.ex Nees
7	<i>Cassia sophera</i> L.
8	<i>Cassia tora</i> L.
9	<i>Centella asiatica</i> (L.) Urban

10	<i>Chenopodium album</i> L.
11	<i>Clerodendrum viscosum</i> (L.) Kuntz
12	<i>Cynodon dactylon</i> (L.) Pers
13	<i>Cyperus pilosus</i> Vahl.
14	<i>Cyperus rotundus</i> L.
15	<i>Dentella repens</i> (L) J.R. & Forst
16	<i>Dioscorea alata</i> L.
17	<i>Eclipta prostrata</i> (L) L.
18	<i>Euphorbia hirta</i> L.
19	<i>Evolvulus nummularius</i> (L.) L.
20	<i>Fimbristylis aestivalis</i> (Retz) Vahl.
21	<i>Heliotropium indicum</i> L.
22	<i>Imperata cylindrica</i> (L.) Raeuschel
23	<i>Leucus plukenetti</i> (Roth) Spreng.
24	<i>Mikania micrantha</i> , Kunth
25	<i>Monochoria hastata</i> (L.) Solms
26	<i>Ocimum basilicum</i> L.
27	<i>Oxalis corniculata</i> L.
28	<i>Paederia foetida</i> L.
29	<i>Panicum auritum</i> Presl. Ex Nees
30	<i>Polygonum hydropiper</i> L.
31	<i>Scoparia dulcis</i> L.
32	<i>Solanum nigrum</i> L.
33	<i>Spilanthes paniculate</i> Wall.ex DC
34	<i>Teprosia purpurea</i> (L) Pers

35	Tridax procumbens L.
36	Venonia cinerea (L.) Less

Table 10 : SHRUBS OF DHING COLLEGE COLLEGE

Sl. No.	Scientific name
1	Chromolaena Odorata (L.) R.King & H.Robin
2	Clerodendrum viscosum Vent.
3	Croton bonplandiaanus Baill.
4	Mimosa pudica L.
5	Rauvolfia serpantina (L.) Benth ex Kurz.
6	Ricinus communis L.
7	Sida rhombifolia L.
8	Vitex negundo L.

FAUNAL DIVERSITY

The landscape of Dhing College campus includes natural vegetation cover, botanical garden and few old trees, ponds, agricultural plots etc. which provide a unique environmental setting conducive for a wide range of faunal diversity. From the data collected from the college authority and team observations, it has been noted the following varieties of fauna inside the campus (Table 11)



Table 11 : List of Faunal diversity






Species	Nos.
Annelida	2
Arthropoda	27
Mollusca	2







Snakes	6
Lizard	6
Mammal	5
Birds	14
Amphibian	6
Butterfly	17
Moth	6
Insect	22






Apart from these, there are 13 species of fishes distributed in the ponds of the college. The list of faunal species are provided below as per different categorization.

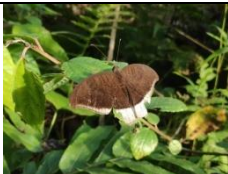





Table 12: List of annelida, arthropoda & mollusca






PHYLUM		Scientific name	Common name	Photograph
Annelida	1.	<i>Pheretimaposthuma</i>	Earthworm	
	2.	<i>Haemadipsa sp.</i>	Jawed land leech	- 

Arthropoda	1.	<i>Anoplodesmus sp.</i>	Millipede	
	2.	<i>Papilio polytes</i>	Common mormon	
	3.	<i>P. memnon</i>	Great mormon	
	4.	<i>Graphium doson</i>	Common jay	
	5	<i>P. clytia</i>	Mime butterfly	

6	<i>P. demoleus</i>	Lime butterfly	
7	<i>Melanitis leda</i>	Common evening brown	
8	<i>Ariadne merione</i>	Common castor	
9	<i>Cethosia cyane</i>	Leopard lacewing	
10	<i>Euploea core</i>	Common crow	
11	<i>Euthalia aconthea</i>	Common baron	

12	<i>J. almana</i>	Peacock pansy	
13	<i>J. lemonias</i>	Lemon pansy	
14	<i>J. atlites</i>	Grey pansy	
15	<i>Hypolimnasbolina</i>	Great eggfly	
16	<i>Orsotriaenamedus</i>	Nigger butterfly	

17	<i>Tanaecialepidea</i>	Grey count	
19	<i>Parnara sp.</i>	Skipper	
20	<i>Neptis sp.</i>	Sailer butterfly	
21	<i>Apis sp.</i>	Honey bee	
22	<i>Camponotus</i> sp.	Carpenter ant	
23	<i>Dysdercus</i> <i>cingulatus</i>	Red cotton bug	

	24	<i>Alticini sp.</i>	Flea beetle	
	25	Unidentified (Family: Acrididae)	Short-horned grasshopper	
	27	<i>Argiope sp.</i>	Orb-weaver spider	
Mollusca	1.	<i>Bradybaena sp.</i>	Land snail	
	2.	<i>Lissachatina fulica</i>	Land snail	

Other varieties of fauna

Snakes

	Common Name	Scientific Name	Local Name (Assamese)
1	Checkered Keelback	<i>Xenochorphis piscator</i>	Dhora, Koudia Dhora
2	Monocled Cobra	<i>Naja kaouthia</i>	Chakari Feti
3	Painted Bronzeback	<i>Dendrelaphis pictus</i>	Karsola, Achari
4	Blue Bronzeback	<i>Dendrelaphiscyanochloris</i>	Karsola
5	Banded Krait	<i>Bungarus fasciatus</i>	Sankhasur, Guala
6	Indian Rat Snake	<i>Ptyas mucosa</i>	Gom Pheti



Indian Garden Lizard (*Calotes versicolor*)



Red Necked Keelback (*Rhabdophis subminiatus*)



Pained Brozeback (*Dendrolaphistris*)



Indian Rat Snake (*Ptyas mucosa*)

Lizards

1	Jerdon's Forest Lizard	<i>Calotesjerdoni</i>	Heujia Tezpia
2	Indian Garden Lizard	<i>Calotes versicolor</i>	Dingi Ronga Tezpia
3	Asian House Gecko	<i>Hemidactylus frenatus</i>	Tik-tik Jethi
4	Many-lined Grass Skink	<i>Eutrophismultifasciata</i>	Monikira, Naipia
5	White-spotted Supple Skink	<i>Lygosomaalbopunctata</i>	Boga Futuki Lahi Manikara
6	Forest Garden Lizard	<i>Calotesemma</i>	Dingi Ronga Tezpia

Mammals			
1	Indian Palm Squirrel	<i>Funambulus palmarum</i>	Kerketua
2	Indian Grey Mongoose	<i>Urva edwardsii</i>	Neul
3	Assamese Macaque	<i>Macaca assamensis</i>	Moluwabandor
4	Indian Flying Fox	<i>Pteropus medius</i>	PholkhuwaBorbaduli
5	Short Nosed Indian Fruit Bat	<i>Cyanopterus sphinx</i>	Sunga Baduli

Birds

	Common name	Scientific name
1	Common Pigeon	<i>Columba livia domestica</i>
2	Common Myna	<i>Acridotheres tristis</i>
3	Jungle Myna	<i>Acridotheres fuscus</i>
4	House Sparrow (Ghanchirika)	<i>Passer domesticus</i>
5	Indian Cuckoo	<i>Cuculus micropterus</i>
6	Common Emerald Dove	<i>Chalcophaps indica</i>
7	Common Tailorbird	<i>Orthotomus sutorius</i>
8	Common Emerald Dove	<i>Chalcophaps indica</i>
9	Indian Jungle Crow	<i>Corvus culminatus</i>
10	Common Wood Pigeon	<i>Columba oenas</i>
11	Red Vented Bulbul	<i>Pycnonotus cafer</i>
12	House Crow	<i>Corvus splendens</i>
13	Little Cormorant (Pani Kauri)	<i>Phalacrocorax niger</i>
14	Rose Ringed Parakeet (Tiya)	<i>Ceryle lugubris</i>

Lizard



Asian Barred Owlet (*Glaucidium cuculoides*)

Indian Jungle Crow (*Corvus culminatus*)



Domestic Pigeon (*Columba livia Domestica*)

Common Myna (*Acridotherestrictis*)

Amphibian

1	Indian Skipping frog	<i>Euphlyctiscyanophlyctis</i>
2	Pierre's Cricket Frog	<i>Zakeranapierrei</i>
3	Common Asian Toad	<i>Duttaphrynusmelanostictus</i>
4	Ornamented Pygmy Frog	<i>Microhylaornata</i>
5	Taipeh Frog	<i>Hylaranataipehensis</i>
6	Common Tree Frog	<i>Polypedates maculatus</i>

Butterfly

1	Grass Yellow	<i>Euremahecabe</i>
2	Common Bluebottle	<i>Graphiumsarpedon</i>
3	Lemon Pansy	<i>Junonialemonias</i>
4	Colour Sergeant	<i>Athymanefte</i>
5	Typical Blues	<i>Tribe polyommagini</i>
6	Glistening Cerulean	<i>Ajmideskankena</i>
7	Common Pierrot	<i>Castaliusrosimon</i>
8	Bush Hopper	<i>Ampittiadioscorides</i>
9	Rusty Sailer	<i>Neptissappho</i>
10	Common five ring	<i>Ypthimabaldus</i>
11	Common Palmfly	<i>Elymniashypermnestra</i>
12	Common Tit	<i>Hypolycaenaerylus</i>
13	Common Tiger Butterfly	<i>Danas genutia</i>
14	Tiny Grass Blue	<i>Zizulahylax</i>
15	Pygmy Scrub Hooper	<i>Aeromachus pygmaeus</i>

16	Common Ciliate Blue	<i>Anthenedefinita</i>
17	Psyche Butterfly	<i>Leptosianina</i>
Moths		
1	Blue Bernet Moth	<i>Zygaenalonicerae</i>
2	Common Baron	<i>Euthalia aconthea</i>
3	Common Duffer	<i>Discophorasondaica</i>
4	Red Head Moth	<i>Pidorusglaucopis</i>
5	Moth Caterpillar	<i>Trypanophorasemihyalina</i>
6	Wooly Bear Caterpillar	<i>Pyrrharctia Isabella</i>

Insects		
1	Fruitfly	<i>Drosophila melangaster</i>
2	Housefly	<i>Masca domestica</i>
3	Honeybee	<i>Apismalifera</i>
4	Mosquito	<i>Aedes sp.</i>
5	Mosquito	<i>Culex sp.</i>
6	Praying Mantis	<i>Mantis religiosa</i>
7	Millipede	<i>Haroagomorpha dentata</i>
8	Common Julus	<i>Julus terrestris</i>
9	Wasp	<i>Vespa crabro</i>
10	Common Wasp	<i>Vespula vulgaris</i>
11	Weaver Ant	<i>Formica virescens</i>
12	Fire Ant	<i>Solenopsis sp.</i>
13	Black Garden Ant	<i>Lasiusniger</i>

14	Little Black ant	<i>Monomorium minimum</i>
15	Garden Cross Spider	<i>Argiope pulcella</i>
16	Andrew Cross Spider	<i>Argiope magnifica</i>
17	Common House Spider	<i>Parasteatodiatepidariorum</i>
18	Gandhi Bug	<i>Leptocoris avericornis</i>
19	Clubtail Dragonfly	<i>Gomphus vulgatissimus</i>
20	Dung Beetle	<i>SQUI</i>
21	Grasshoper	<i>Mecostethus grossus</i>
22	Blue Mud Wasp	<i>Chalybion californium</i>

Amphibians



Butterflies



Insects



WATER BODIES

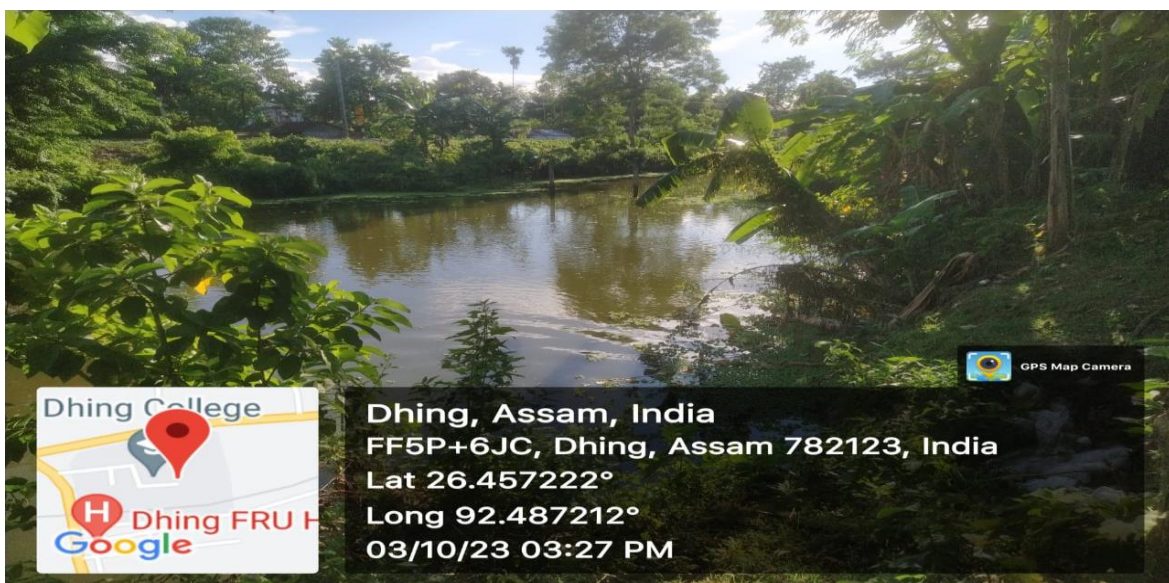
There are two large water bodies inside the College campus which includes a pond and a fishery. The fishery is situated in the backside of the Department of Physics with 2601.2 sq.m area and the natural pond is situated in the backside of the Boys' hostel covering an area of 4180.5 sq.m. The total area of the two water bodies is 6781.7 sq.m (5.04 bighas). The water bodies are rich in nutrient content which is essential for aquatic growth of life in them. Moreover they also act as the sink for carbon-di-oxide. The fish species found in these two water bodies are shown below.

Table 14 : Fishes in the water bodies.

Sl. No.	Local Name	Scientific name
1	Bhangon	Labeo bata
2	Bhakua	Labeo Katla
3	Goroi	Channa punciatus
4	Kanduli	Notopterus Notopterus
5	Kaoi	Anabas testudineus
6	Kholihana	Colisa fasciatus
7	Kuchia	Monopterus cuchia
8	Kuhi	Labeo gonius
9	Magur	Charius batrachus
10	Mowa	Amblypharyngodon mola
11	Puthi	Puntus sophore
12	Rou	Labeo rohita
13	Sol	Channa striatus



Pond inside the college campus





Fishery behind the Physics Department



Fishery



Fishery behind the physics Department



Trees on the bank of the pond

Fish in the water bodies





Thus the college water bodies provide 13 different varieties of fish species and 6 species of frogs.

A unique initiative of the college towards biodiversity conservation is the massive plantation of different trees inside the college campus.

Thus the college has been considered as one of the rich biodiversity areas of the northern bank of the mighty river Brahmaputra.

10. DRINKING WATER QUALITY

Drinking water quality is a major issue in any educational institution. The primary reason is that the students and the staff (teaching and non-teaching) spend approximately 9 – 10 hours a day in the institute and for 10 – 11 months a year. Therefore, through consumption of unsafe water for both short and long durations can cause severe health issues among the students and staff members. Since Dhing College is utilizing ground water sources for drinking and other purposes, so it is necessary to examine the quality of drinking water inside the college campus.

Water quality analyses were carried out with the samples collected from the main water tank (Table 7). The water quality analysis was carried out for 10 parameters (pH, Total Dissolved Solids (TDS), Temperature, Electrical Conductivity (EC), Total Hardness (TH), Iron (Fe), Nitrate (NO_3^-), Sulphate (SO_4^{2-}), Chloride (Cl^-) and Fluoride (F^-) as per standard procedures prescribed by APHA (1984). The water analyses revealed that the tested water parameters were well within the permissible limits for drinking purpose as set by the WHO (Table 15).

Table 15: Drinking water quality

Sampling sites	Sample ID	pH	TDS ppm	Temp 0 C	EC μS	TH ppm	Fe ppm	NO_3^- ppm	SO_4^{2-} ppm	Cl^- ppm	F^- ppm
Canteen	S-01	7.1	200	25	290	134	0.08	8.56	24.28	75	BDL
Outside Tape	S-02	7.2	200	25.6	300	134	0.07	8.80	24.0	75	BDL

BDL = Below Detection Level

Table 16: Capacities of the water tanks in the college

Tank No	Location	Capacity (L)
01	Dept. of Physics	1000
02	Dept. of Chemistry	2000
03	Dept. of Mathematics	2000
04	Administrative Building	2000
05	Dept. of Commerce	1000
06	Dept. of Geography	1000
07	Library Building	1000
08	Boys' Hostel	1000
09	Girls' Hostel	4500
10	College Canteen	500
Total		16000

WATER USE AND CONSERVATION

The college campus has a total of 10 numbers of water tanks which can store a total volume of 16000 litres of water as detailed in Table 16 It has been observed that the college has no rainwater harvesting or ground water recharging systems. More or less underground water is utilised for meeting the needs of the total water requirement. The college has two large ponds to collect rain water of the college campus. By these efforts the college authority has been trying to meet up the demands.

12. AMBIENT NOISE LEVEL

The noise level measurements were carried out within the college at 5 different sites using a portable noise level meter. The noise levels as detected at different locations are tabulated as follows (Table 17).

Table 17 : Noise levels in different sites of the college

Sl.no.	Site name	Sound pressure (dB)
1	Canteen	30.0
2	College main gate	46.0
3	Administrative building	40.0
4	Academic Building	45.0
5	Library	30.0

All the locations had noise level within the permissible limit of 50 dB. The college authority has implemented “No Horn Day/ No Vehicle Day” strategy. There is no use of personal vehicle in the campus on two working days in a month. This has helped in promoting an environment friendly campus along with the culture of use of public transport. Use of bicycle by students as well as staff members has been found to be eco-friendly for the campus (Table 10). It sets an example for others to follow.

Table 18: No. of vehicles used by college community on daily basis

Type of the vehicle	Quantity
Bi-cycle	30
Two wheelers	200
Four-Wheelers	15

13. WASTE MANAGEMENT

The college authorities have taken some good initiatives for waste management within the campus. The initiatives have been taken up for both liquid waste and solid wastes. Some of the initiatives taken up by the college are as follows:

- i. The solid waste produced in the college offices, different academic departments and library are deposited in specified bin and then cleared by local authority.
- ii. The college has installed dustbins in different corners of the college campus as well as in every academic department. A total number of 16 colourful dust bins have been found during the audit period.
- iii. The e-waste, mainly the computer and computer accessories, are stored in a room and scraped afterwards.
- iv. The college has also recently taken initiatives to set up one bio-composting unit for conversion of biomass. The bio-composting unit set up by the college is aimed to recycle the biomass generated in the campus and convert into bio fertilizer for the use in the college nursery and gardens. It is also aimed to inspire the nearby farmer's society to undertake the activity and thereby shift to organic farming for the betterment of human health and clean environment.

The bio-composting unit also aims to undertake demonstration of the activity among the students to aware about the process and benefits of the activity.

- v. The college has installed one unit of waste management vermicompost pit for solid waste management which processes and convert biodegradable solid waste into organic fertilizer/manure.
- vi. The college spreads awareness through posters among the stakeholders to make the campus plastic free. On different occasions plantation programs are organized in the campus with the help of NSS and NCC units of the college. District Forest Department, Govt. Department and some NGOs are also involved in certain programmes.
- vii. There is no radioactive material, other toxic chemicals and bio-medical wastes to be disposed off.
- viii. Single use plastics or polythene carry bags are completely banned inside the college campus.
- ix. The college authority has taken special care for the disposal of sanitary napkins for the benefit of the girl students (both resident and non-resident) by installation of incinerators at Girls' common room and Girls' Hostel.
- x. Two units of Napkin Banding and Inject Machine for Girls' Common Room and Girls' Hostel are installed.

14. CAMPUS CLEANLINESS

The college authority has maintained cleanliness throughout the year inside college campus which has been observed by the audit team during its visit. During interaction with students and teachers and from the data provided, it is learnt that the students and the other members of the fraternity has been actively taking part in cleanliness drives organized on monthly basis. A special Campus Cleaning Drive for Green College on monthly basis was organised by the students of college where members of Eco Club, NSS and NCC took active part.

ENVIRONMENT FRIENDLY PROGRAMMES

Eco-Club, NCC unit, Institutions Innovation Council, NSS Unit, Department of Botany, Institutional Biotech Hub and other unit of the College celebrates days like World Earth Day, World Day to combat Desertification, World Environment Day, Biodiversity day, International Science Day, International Yoga Day to arouse awareness the importance on environment among the students, teaching and non-teaching members. Seminars, Popular talks and various competitions like painting, poster, essay etc related to environment are organized. Besides, these herbal, medicinal, indigenous plants are also planted to mark the occasions.

Cleanliness activities outside the college campus (specially at the adopted villages by the college) are also conducted by the students of Dhing College.

Eco Club, Academic Departments, NSS and NCC units of the college have taken responsibility for looking after the restoration of the clean and green environment the college

Few plantation programmes taken by the college on different dates are mentioned below.

Table 19 : Plantation programmes taken up by the college

Sl.No.	Date	Initiative taken by	locations
1.	22/04/2023 World Earth day	Teachers, Students and Non teaching staff of Dhing College	Dhing College Campus
2.	05/06/2023 World Environment Day	Dhing College Students' Union	Dhing College Campus
3.	16/09/2023 Ozone layer day	Dhing College Teachers' Unit	Dhing College Campus
4.	22/03/2023 Water day	Dhing College Students' Union	Dhing College Campus
5.	02/02/2023 World Wetland day	Non Teaching staff & Dhing College Students' Union	Dhing College Campus
6.	15/06.2023 Road safety week	Eco Club and Dept. of Botany Dhing College	Dhing College Campus

7.	23/07/2023 College Foundation Day	Teachers, students and Non- teaching staff, Alumni Association of Dhing College	Dhing College Campus
8.	Amrit Brikhya Ropan Programme Govt. of Assam 14 – 17 September, 2023	Principal, Teachers, students and Non-teaching staff Dhing College	Dhing College Campus

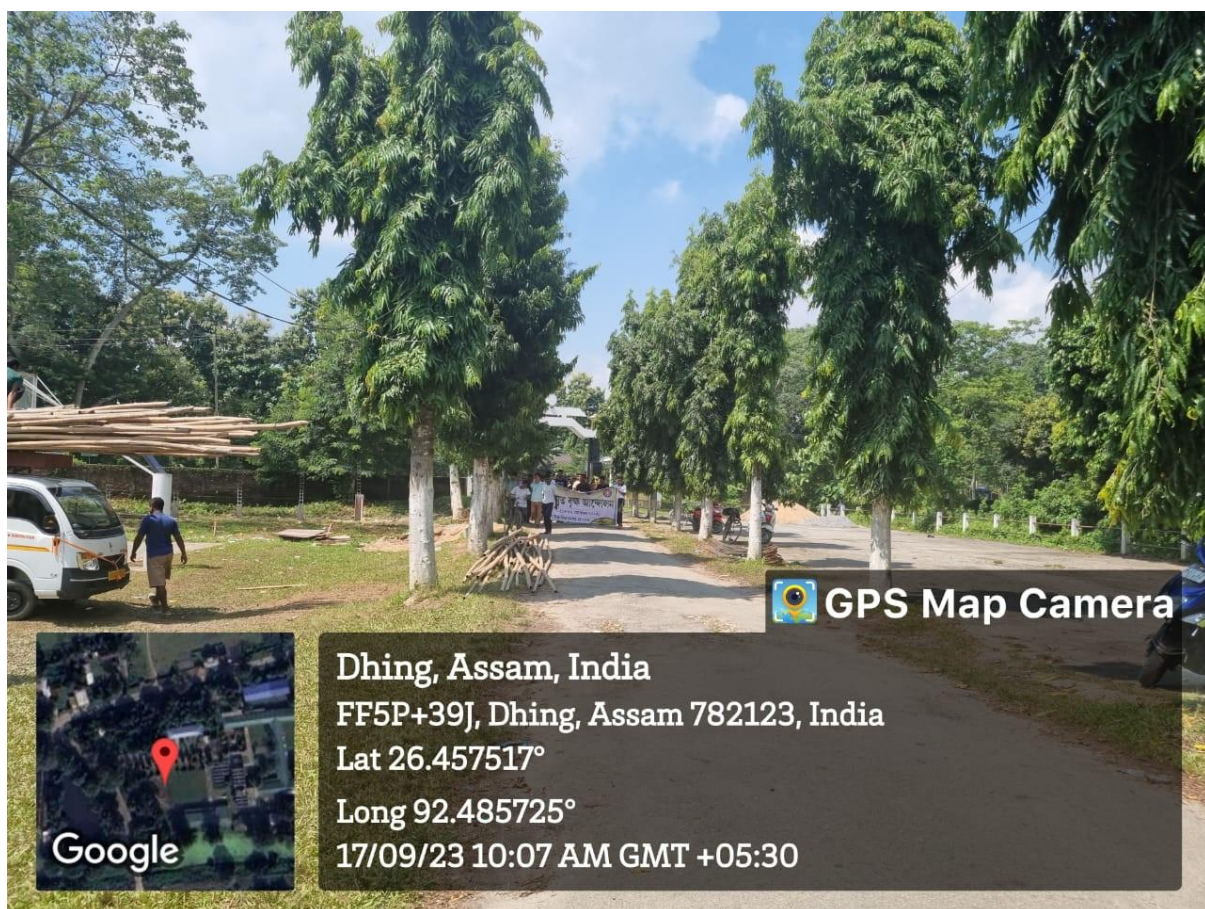
Few cleanliness drives/ environmental awareness programmes taken by the college on different dates are mentioned below. NSS and NCC cadets take active part in this programme.

Table 20: Cleanliness drive/environmental awareness programmes within and outside the college campus

Sl.No.	Date	Initiative taken by	locations
1.	08.04.2023	NSS Unit, Dhing College	College Campus
2.	05.06.2023	NSS Unit, Dhing College	College Campus
3.	29.07.2023		
4.	02.10.2023	NSS Unit, Dhing College	Dhupa Guri Kachari Gaon
5.	03.10.2023	NSS Unit, Dhing College	Outside College Campus
6.	16.11.2023	NSS Unit, Dhing College	College Campus
7.		Eco Club, Dhing College	College Campus
8.		Eco Club, NSS Unit Dhing College	College Campus
9.		Eco Club, Dhing College	College Campus
10.		Eco Club, Dhing College	College Campus
11.		Eco Club, NSS Unit Dhing College	College Campus
12.		Eco Club, NSS Unit Dhing College	Circle Office Campus, Dhing

The names of the teacher and student in-charge for this programme are mentioned below.

	Teacher in-charge	Student in-charge
NSS - Progr. Officer	Dr. Mukut Moni Saikia	Group Leader - Bishal Chakravorty
NCC – CTO	Mr. Purandar Gogoi	2 nd Commander Mr. Lakhyajyoti Nath









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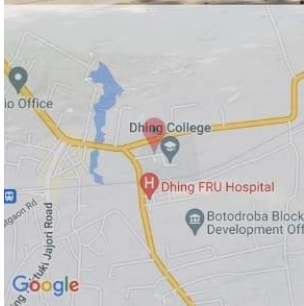
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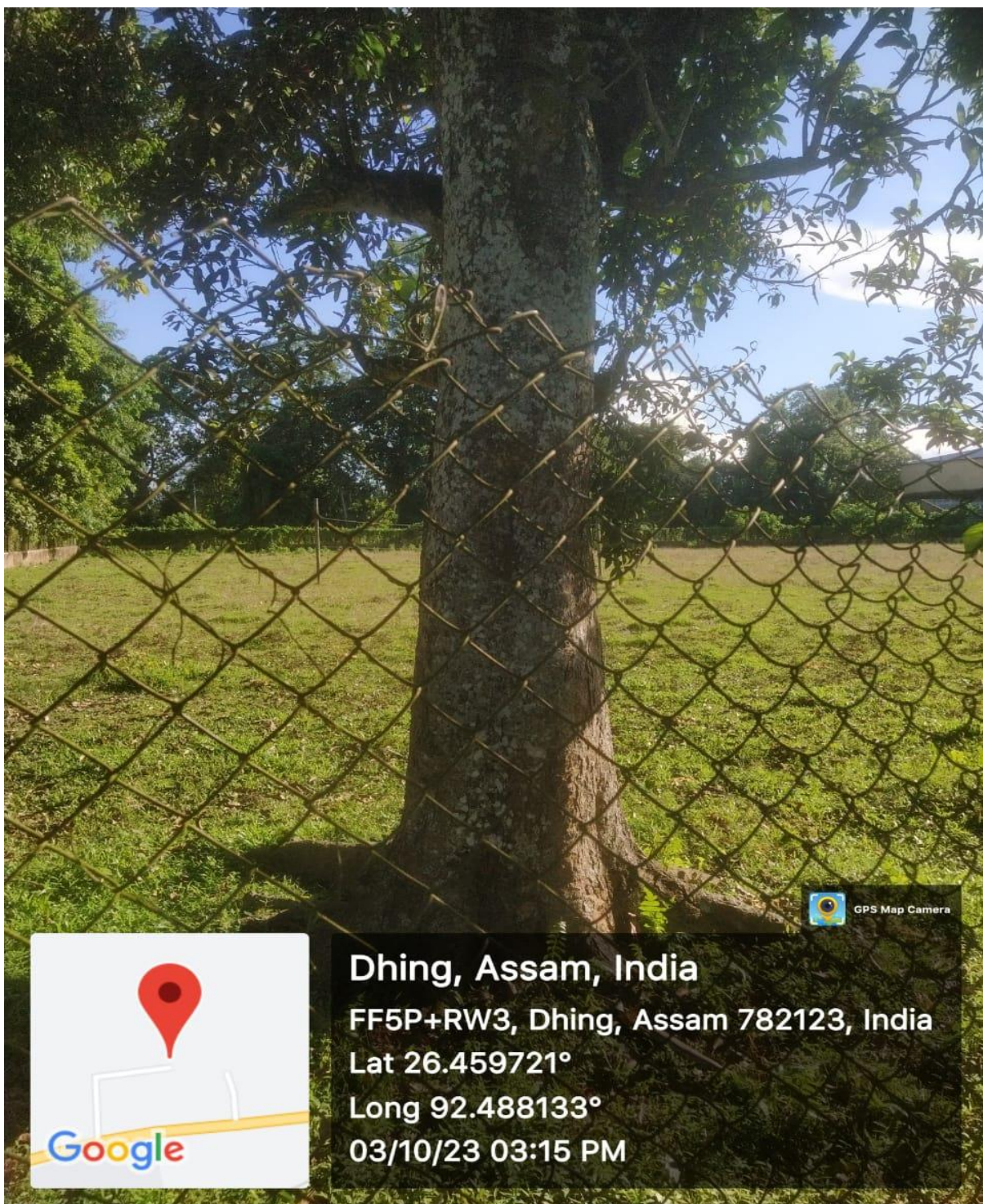


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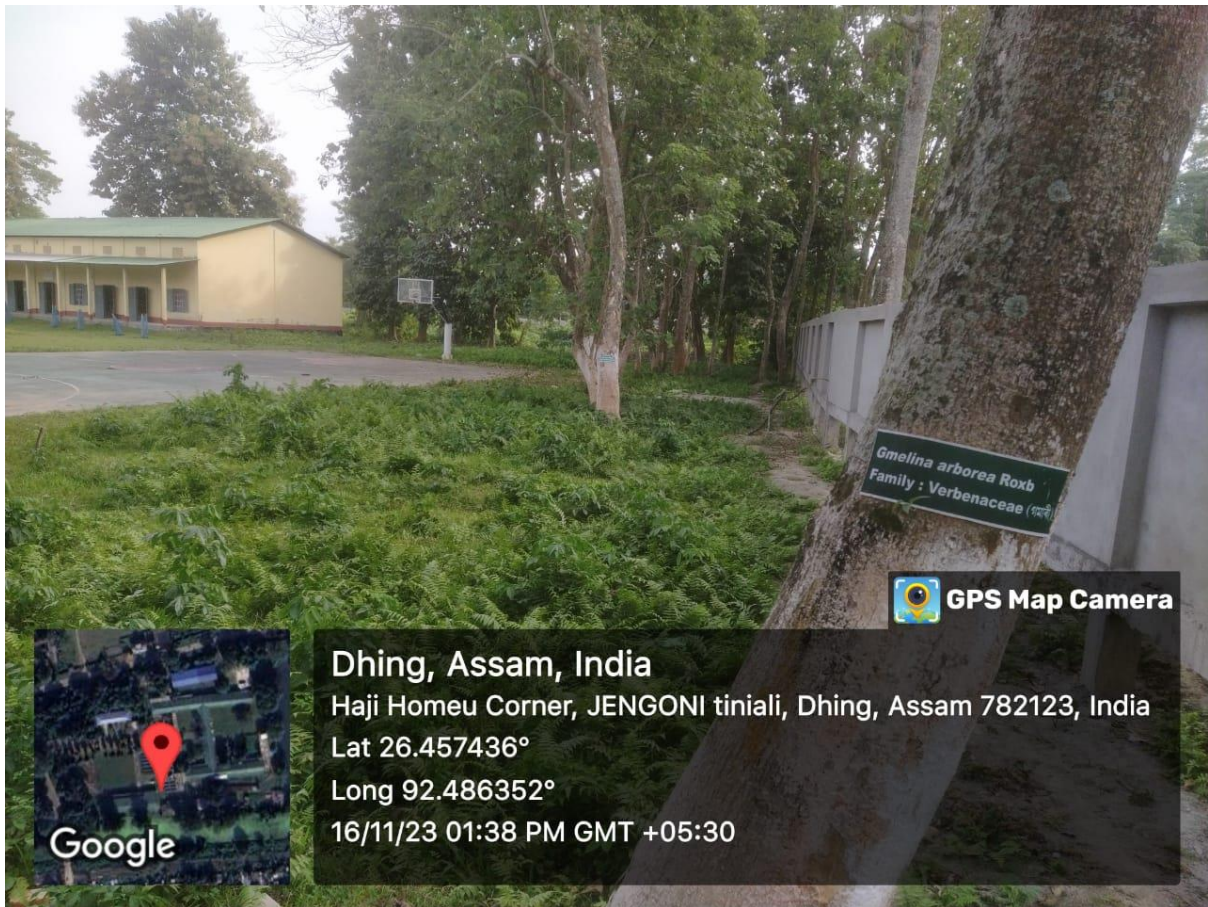
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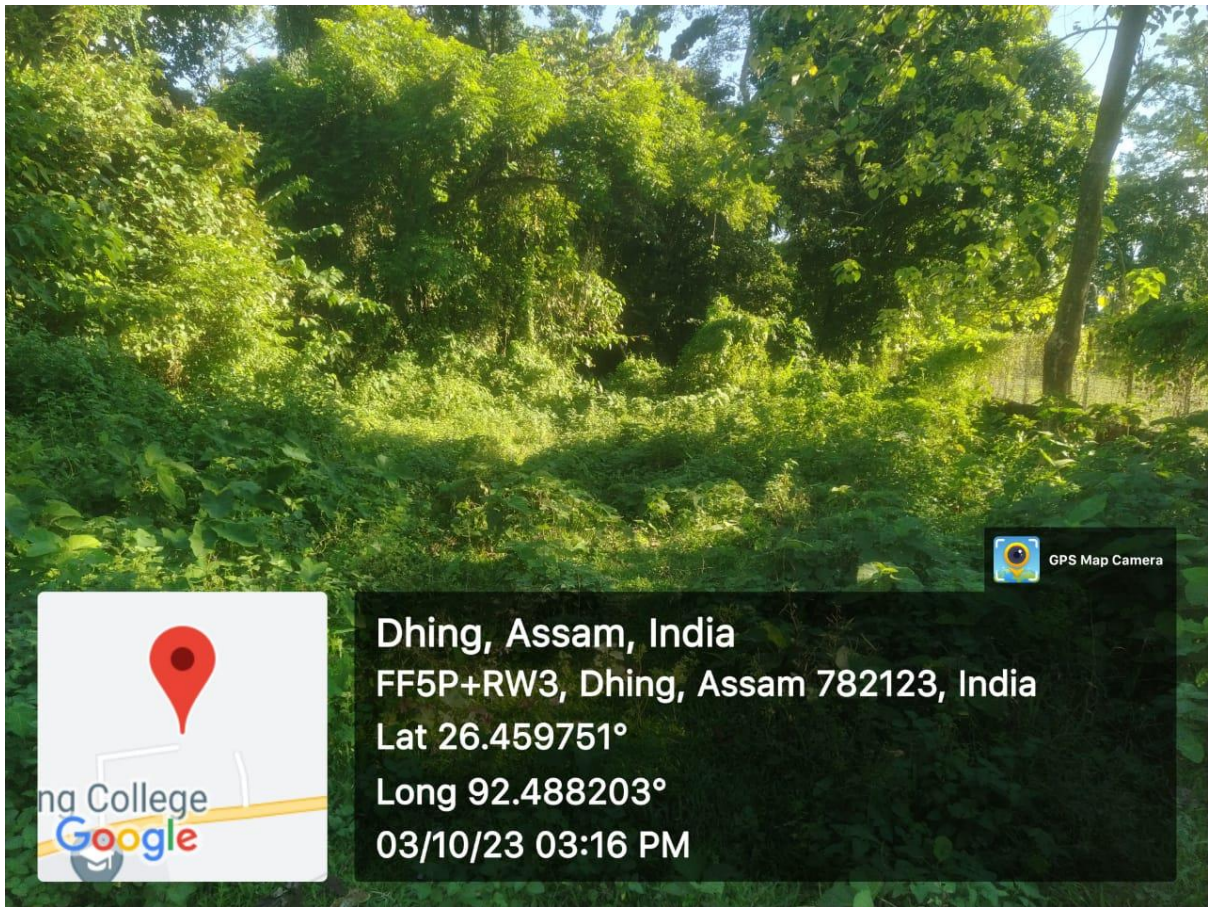
Mango tree



Gamari tree




Lichu tree garden



Green plants inside the campus



 **GPS Map Camera**



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WASTE MANAGEMENT PLAN:

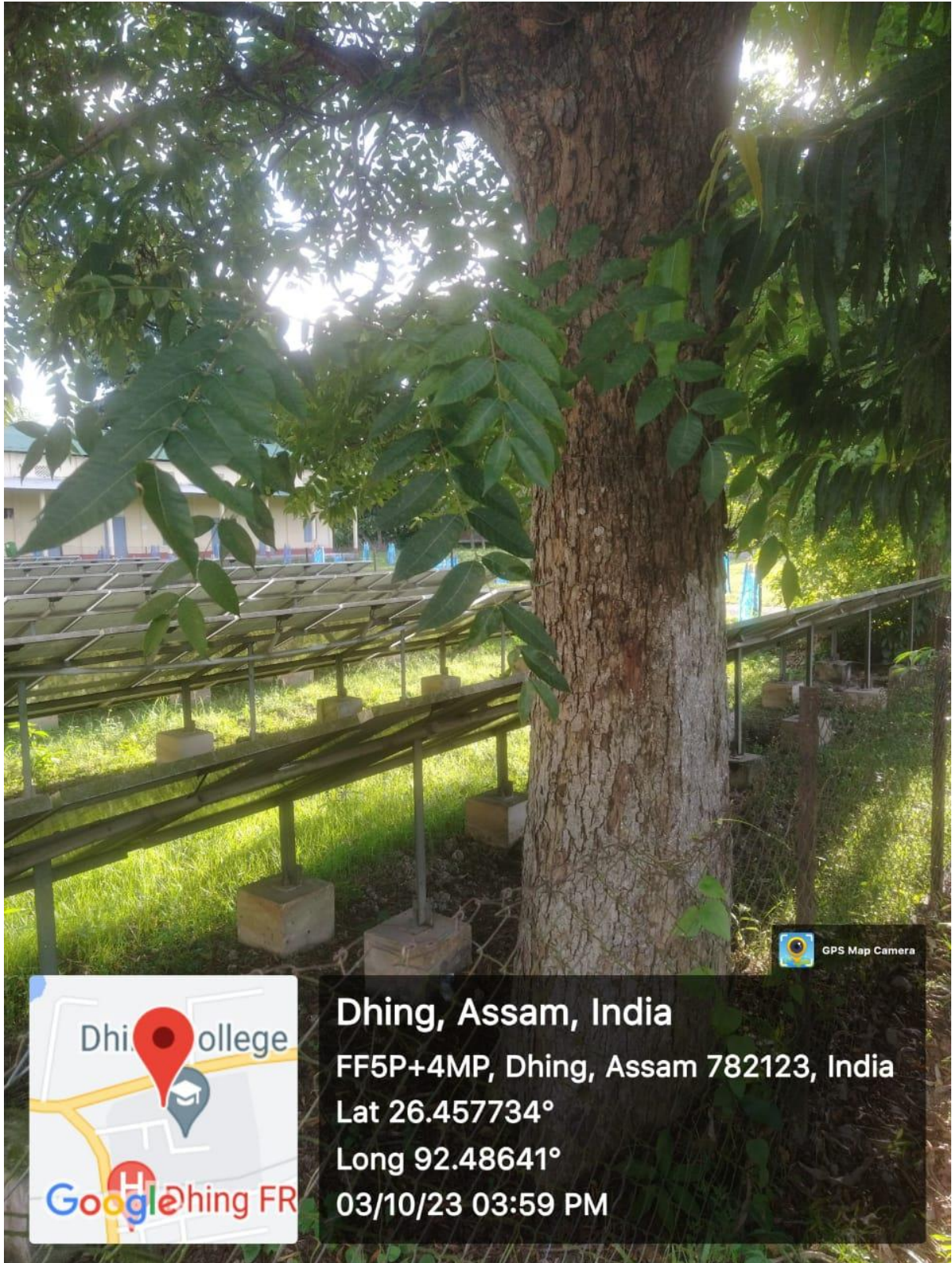
The College has its waste management plan and system. The College contributes to reduce plastic waste and sanitary waste by separating them in order to dump them so that the College campus can be made clean and hygiene. The disposable waste which can be converted into fertilizer are dumped separately in a large compost bin constructed in the College campus. The compost bin is constructed away from the academic blocks so that it cannot affect the healthy atmosphere of the campus. The bin was constructed in an open space so that it could get plenty of sunlight through the day as heat is essential for the decomposing process. Though the single used plastic wastes are banned, however if some small amount is generated, these are collected and stored in a separate bin constructed in the campus and once the bin got full these wastes are safely transported to some other places from where it could be recycled. For disposal of the sanitary napkins for the benefit of the girl students the college has taken appropriate measures.

Energy use and conservation :

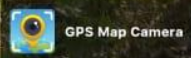
Energy saving through the replacement of incandescent bulbs to LED light may be a good energy management system for the college. Awareness programmes for the stakeholders to save energy may also increase sustainability in the utilization of various energy sources. Although staff are encouraged to switch off their own lights, monitors and other equipment, the college administrative staff should carry out a lock down of the building at the end of every day and switch off any lights or equipment that have been left on. All the incandescent bulbs have to be replaced by low energy bulbs. The College should improve its monitoring and reporting of energy usage and provide information to campus users. Old wiring, if necessary, has to be replaced. Solar energy utilization in the entire campus is the need of the hour and it is in process.

USE OF SOLAR ENERGY

The college has been able to utilize the solar power for different purposes. But they are planning to do this in phased manner. The process has been going on in full swing as observed during the audit period.



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16. BEST PRACTICES

The College has been continuously taking initiatives for the promotion of environmental sustainability and able to achieve success at different times.

<p>BEST PRACTICES</p> <p>(Go green, Lichu Plantation, No Horn Day, re-charging of ground water, internal Env. Audit)</p>	<p>A) The College maintains an environment protection and research site by covering a sizable area as undisturbed. The college has been taking continuous efforts to Plantation Programs and Environmental Awareness Programs in order to make the stakeholders and common public aware about the importance of environmental sustainability. Again the college has taken initiative for recharging of ground water inside the college campus and rainwater harvesting systems in a very scientific manner. Recharging of ground water is said to be the best practice. In the different environment related programs many environmentalists were invited as guests to deliver lecture on different environmental issues and make the people aware. The College takes initiative for No Vehicle Day/No Horn Day in the College campus with prior information to the stakeholders to create awareness among the students and the common people as well.</p> <p>B) It is mandatory for students to plant a tree at the time of admission and to take full care of the plant afterwards.</p> <p>C) Field trip of students to eco-friendly sites to make them aware about environment.</p> <p>D) It is mandatory to celebrate environment related days such as World Environment Day, World Earth Day, Wetland Day etc in the college.</p> <p>E) The college management has taken appropriate measures to tackle the environmental problems by creation of separate committees not only for the college but for the fringe villages for which some fund allocation has been done.</p>
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17. SUGGESTIVE MEASURES

- i. The college should emphasize on the regular monitoring of the water quality used for drinking purposes as the college mostly depends upon the ground water sources. Emphasis should be given for quarterly monitoring of the microbial, physico-chemical including trace metal level of water as the age group of the students is between 15-16 years to 20-21 years that constitutes the major part of the population.
- ii. The college authority should take steps for rainwater harvesting facility inside the campus to reduce the dependency on ground water resources.
- iii. Alumni association may be involved in contributing a lot for more environmental protection activities inside the college campus and the association can be entrusted for resource mobilization to make more visible eco-friendly works.
- iv. Internal environment monitoring system should be developed extensively for various programmes in and outside the campus.
- v. Permanent waste management plan should be prepared for the campus.
- vi. The monthly inventory of e-waste and hazardous waste is required to be maintained in formats on regular basis.
- vii. Fire Safety System should be strengthened.
- viii. Storage of chemicals like; paints, gums resins, oils, lubricants, acids etc. in designated place and safety/warning signs should be displayed.
- ix. Auto switch off system should be adopted in street lights inside the college campus.

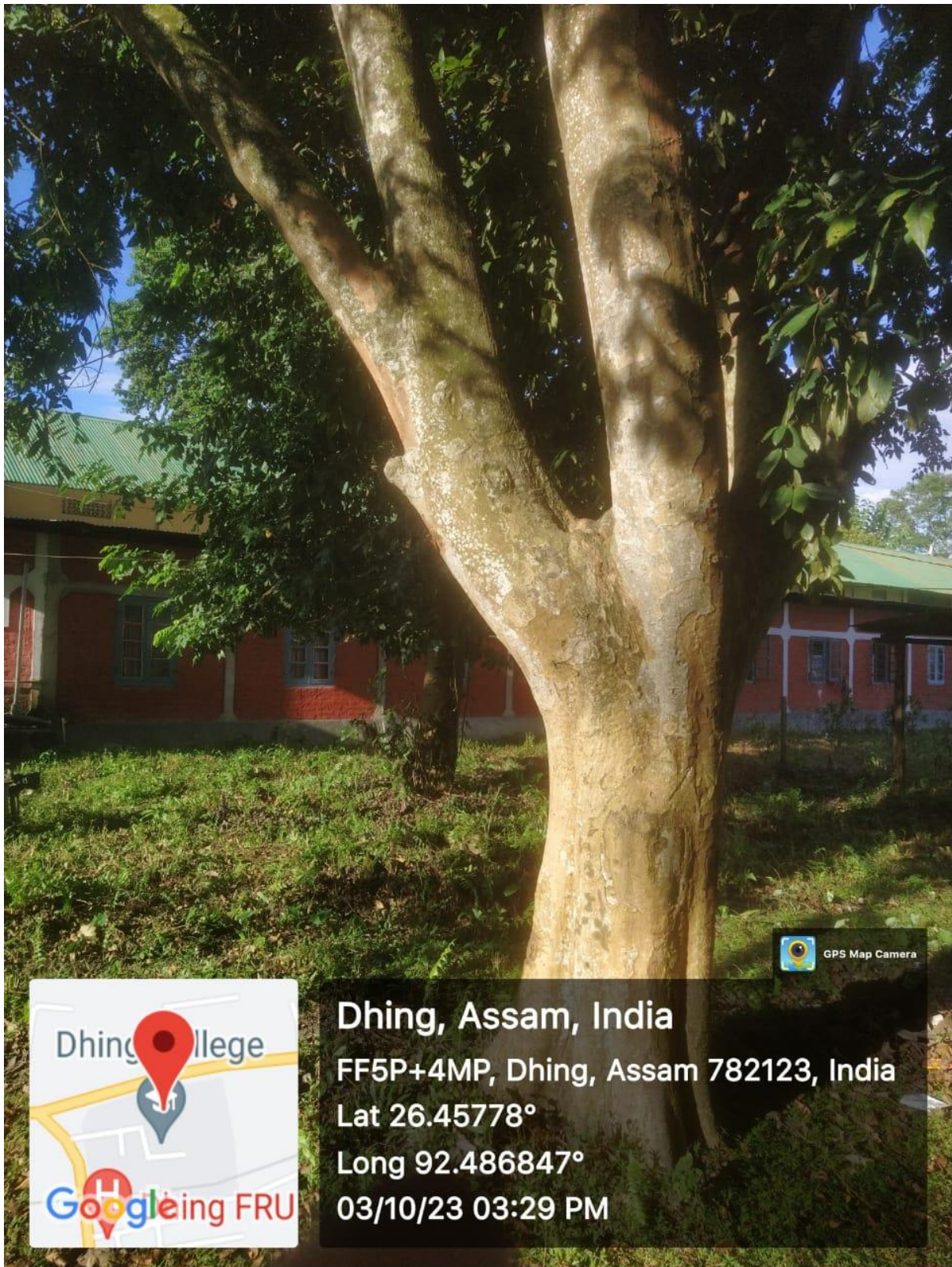
18. PHOTOGRAPHS

The part played by the college management in bringing the campus to a green one is adorable. The following were the initiatives by the college authorities in green management. The supporting photographs also speak for themselves.

- i. The college management developed separate teams for implementing green policy in the campus.
- ii. Regular evaluation system has been established with monitoring cells for green activities in the campus.
- iii. The management has allotted little budget for implementing green policies in the campus.
- iv. The green monitoring cell evaluates developmental and functional activities and makes recommendations for improvement of the green aspects.
- v. Students and teacher in-charge associated with NSS, NCC, Eco club are involved in green activities to conduct programs in and around the campus.
- vi. The management is keen on the social commitments and tries to reach out to the general public through teachers and students.



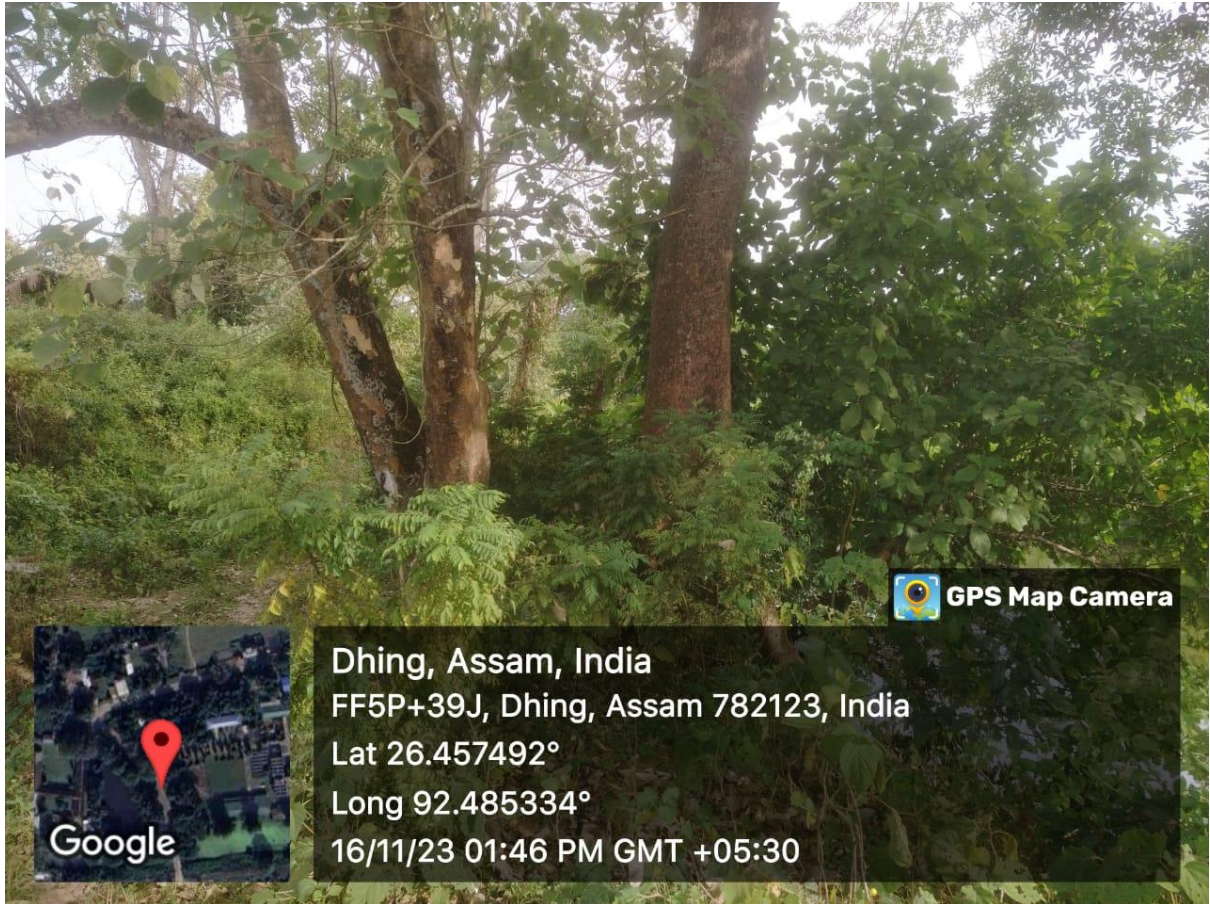




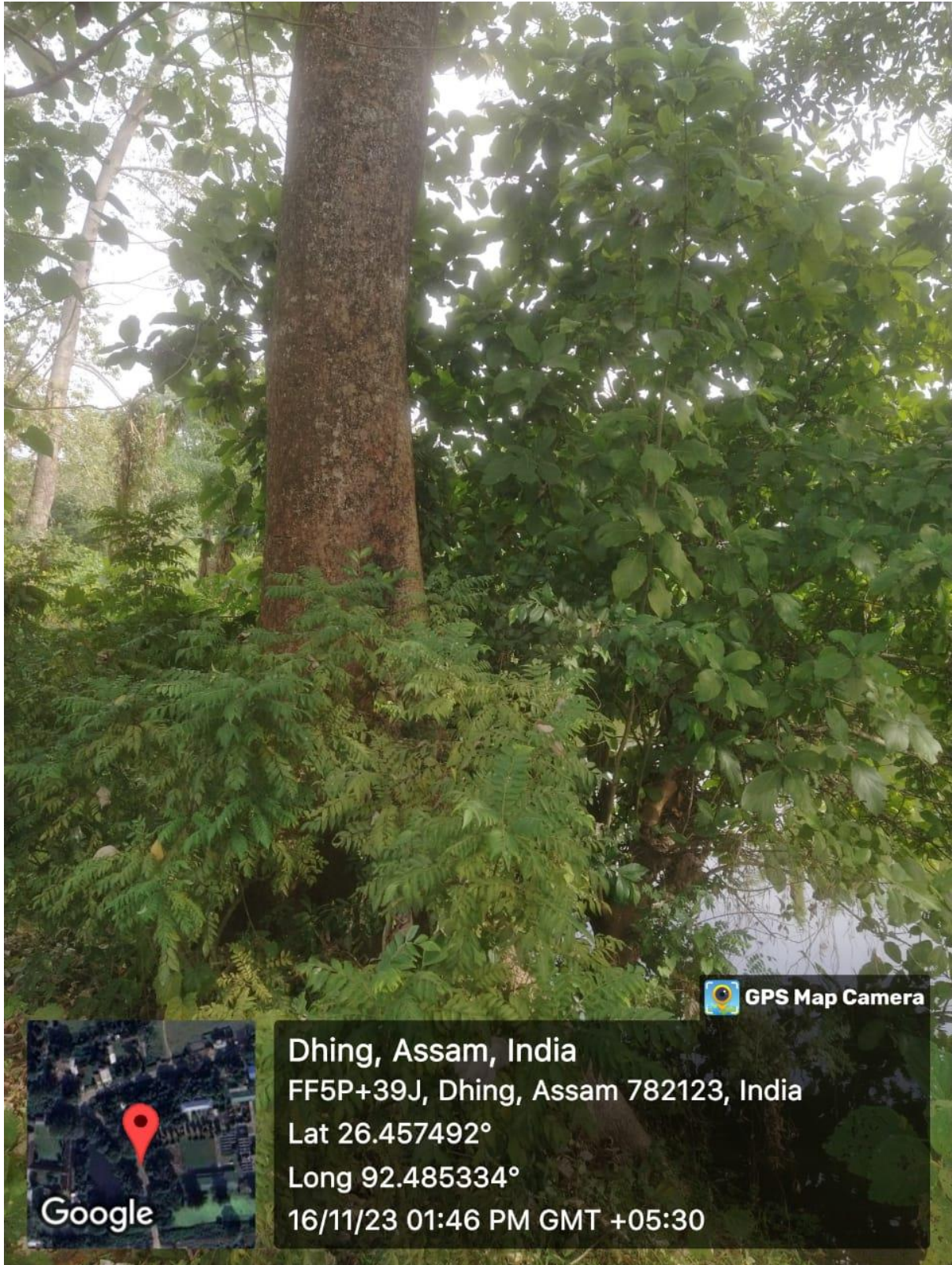
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