

PANDIT DEENDAYAL UPADHYAYA ADARSHA MAHAVIDYALAYA, AMJONGA

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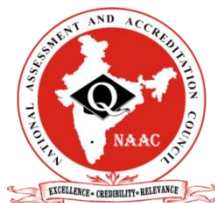
FIRST CYCLE NAAC ACCREDITATION 2024

CRITERION VII (INSTITUTIONAL VALUES AND BEST PRACTICES)

Key Indicator - 7.1

Institutional Values and Social Responsibilities

Submitted to



THE NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

Bangalore, Karnataka, India

Metric No:	Heading
7.1.3	Quality audits on environment and energy regularly undertaken by the Institution are confirmed by the following activities: 1. Green audit/Environment audit 2. Energy audit 3. Clean and green campus initiative 4. Beyond the campus environmental promotion activities

1. GREEN AUDIT/ ENVIRONMENT AUDIT

Green audit

GREEN AUDIT REPORT 2022-23



**PANDIT DEENDAYAL UPADHYAYA ADARSHA
MAHAVIDYALAYA, AMJONGA**

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ACKNOWLEDGEMENT

Pandit Deendayal Upadhyaya Adarsha Mahavidyalaya, Amjonga has created an ecologically sound campus by implementing some eco-friendly practices. The present report is the recent Green Audit Report of the College which looked forward to identify the environment related issues in the College campus and to monitor the environmental management practices adopted by the College. A few suggestions are also made to take environmental protection to higher levels in the College campus and its vicinity. It is hoped that there port will certainly receive due attention of the concerned authority and the College shall implement the green practices whatever suggested for better future of all stakeholders of the Pandit Deendayal Upadhyaya Adarsha Mahavidyalaya, Amjonga.

We, the Green Audit Assessment Team expresses our gratitude to Dr. Navajyoti Sarmah, Principal and Dr. Rupam Kalita, IQAC Coordinator at Pandit Deendayal Upadhyaya Adarsha Mahavidyalaya for providing us the necessary green audit related data and leading our team with their valuable suggestions while compiling the report. We are also grateful to the entire teaching and non-teaching staff of the college for their kind cooperation during the data collection process. Lastly, we thank everyone who helped us directly or indirectly in finalizing the Report.

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&

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Pandit Deendayal Upadhyaya Adarsha Mahavidyalaya
(Amjonga), GreenAudit- 2023-24

&

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INTRODUCTION

Pandit Deendayal Upadhyaya Adarsha Mahavidyalaya, Amjonga was established at Amjonga in the district of Goalpara under the co-venture of the Central Government and the Government of Assam with the financial assistance from centrally sponsored scheme – RashtriyaUchchatarShikshaAbhiyan (RUSA). The institution was named after Pandit Deendayal Upadhyaya, a great thinker, philosopher and a renowned sociologist of the country. The government initiative to establish the college was to provide quality higher education compatible to one available in the best institutes of the country along with a distinct focus on science education, which is affordable and accessible to all section of the society. The foundation of the college was laid on 29th October, 2014 and through continuous effort of the Department of Higher Education and RUSA, the institution has finally able to open the gate of the institution to the first batch of students from the academic year 2017-2018. The college is located at Amjonga, a very beautiful and mesmerising tiny hamlet, about 7 kms from Dudhnoi, the head quarter of Rabha Hasong Autonomous Council in the district of Goalpara. The college has an infrastructure built on a sprawling campus spreading over 25 bighas of land. The serene and the green campus of the college have the best of ambience including well stock library, digital classrooms, up to date laboratories conducive for teaching, learning, research along with residential facilities for college staff and girls students. The infrastructure of the college has been completed and the first session of the institution has started from 16th August, 2017. A galaxy of highly qualified dedicated faculties are putting their best efforts to impart education along with continuous monitoring of students for their overall improvement. At present, the college is offering Higher Secondary course in science stream under Assam Higher Secondary Education Council (AHSEC) and under graduate programme leading to Bachelor Degree in Science (B.Sc.) under Gauhati University. The college has an ambitious plan to introduce Post Graduate courses along with several Skill Development courses in the years to come.

From the initial stage the college authority has maintained a careful attitude in terms of environmental protection and safeguard. The institution believes that a sound academic environment can be built up only in a healthy environment. A healthy and green environment builds a positive vibe among the students and improves academic achievements. The core elements of a healthy campus environment includes access to healthcare, healthy food, physical activity and most importantly access to clean air and water. Clean air and water, proper sanitation and green spaces enhance the quality of life within the campus. Healthier lifestyle improves academic activity of the students, advances teaching-learning process, and develops the

administrative skills. Healthy environment boost up mental health and facilitate effective learning along with improved performance. In order to build a healthy environment we must prioritize the importance and need of environment well-being. An environment is indicated as healthy when it is clean and green that implies a surrounding with least pollution and capable to provide the basic needs of life i.e, access to safe drinking water, clean air to breathe in and rich base of soil for effective production.

A Green campus is characterized by the exercising of the environment friendly practices together with academic activities in order to promote sustainable utility and development of the campus resources. A green campus ensures protection and conservation of the environmental resources and ecological systems within the campus. The Green campus concept is not limited to plantation of trees in the campus but also emphasizes on adoption of a green lifestyle. Green campus initiative is more likely to be defined as an overall activity in terms of environmental and ecological management of the components of the ecosystem to create a sustainable campus. As defined by APSCC, “Green Campus Initiative is a program that plans, formulates, designs and implements a package of sustainable solutions by the campus community to reduce the environmental impact, enhance the campus sustainability and to protect the health and well-being of the surrounding community and ecosystems, implemented through selfless cooperation and coordination, by involving all stakeholders”. Green initiatives include organic plantation, minimize the use of paper, use-of eco-friendly items, using energy-saving equipment’s and most importantly self-consciousness among the stakeholders.

Since the establishment of the college the authority has framed environmental friendly policies to promote green practices in and within the campus. The ‘Green Campus’ concept justifies the institutions’ vision in formulating sustainable solutions to combat environmental, geographical, social, cultural and economic needs of the mankind. Growing a green campus has been one of the primary concern of the college. The greenery of the campus is in its budding phase. The college authority has been conducting plantation drives on a regular basis since the initiation and functioning of the college. The notable green initiatives of Pandit Deendayal Upadhyaya Adarsha Mahavidyalaya, Amjonga includes Solid waste management, E-waste management, Water Management/Rain Water Harvesting, Ban on Plastic Use, Restricted Vehicle Entry, Institutional Horticultural and Botanical Garden, Solar panel, Use of LEDs and Digital Library/E-learning Centre. As a proactive initiative the College Authority has formed a Green-Club comprising teaching, non-teaching staffs and students. The Club holds awareness programmes on various aspects of Environmental Sustainability and encourages the students to take up significant environmental activities and programs in the institute and at community level.

It initiates action based activities like plantation, cleanliness drives both outside and inside the campus, promote the practice of 3Rs- Reduce, Reuse and Recycle, organic practice, waste management, E-waste management etc.

Green Audit at Pandit Deendayal Upadhyaya Adarsha Mahavidyalaya, Amjonga

Participating in the “Green Campus, Clean Campus” mission launched by the University Grants Commission for all higher educational institution of India and in compliance with the ‘Environmental Consciousness’, a mandatory criterion (Criterion VII) of National Assessment and Accreditation Council (NAAC), the sustainability and sustainable development policies are kept on the agenda of Pandit Deendayal Upadhyaya Adarsha Mahavidyalaya, Amjonga. Green Audit is one of the steps taken up by the College in order to record, document, analyses and report the environmental constituents of the Campus through an impartial and inclusive method of auditing. It is anticipated that Green Auditing shall help the College in preserving the rich floral and faunal diversity in and around the campus and creating awareness’s among the stakeholders.

Pandit Deendayal Upadhyaya Adarsha Mahavidyalaya is committed to responsible stewardship of resources and to demonstrate leadership in sustainable academic practices for a better tomorrow with the policy goals of Green audit as follows:

1. Identification and Documentation of Eco-friendly Practices for a Sustainable College Campus:
 - Identify existing eco-friendly practices implemented within the college campus.
 - Document these practices systematically for reference and analysis.
 - Evaluate the effectiveness of these practices in promoting sustainability.
2. Increasing Awareness Among All Stakeholders for Sustainable Use of Available Resources:
 - Develop and implement awareness programs targeted at all stakeholders, including students, faculty, staff, and the local community.
 - Educate stakeholders about the importance of sustainable resource management.
 - Promote behaviors and practices that contribute to sustainable resource use.
3. Collection of Baseline Data on Different Components of Environment Before Converting into Threat to the College and the Society:
 - Conduct comprehensive data collection on various environmental factors within and around the college campus.

To achieve these policy goals and objectives, the Green Audit at Pandit Deendayal Upadhyaya Adarsha Mahavidyalaya aims to:

1. Identify Current and Emerging Environmental Issues:
 - Conduct thorough assessments to identify existing environmental issues.
 - Monitor changes and emerging trends in environmental conditions.
2. Monitor Environmental Management Practices:
 - Evaluate the effectiveness of existing environmental management practices.
3. Create Awareness Among the Various Stakeholders of the College:
 - Develop communication strategies to disseminate information about environmental issues and initiatives.
 - Engage stakeholders through workshops, seminars, and awareness campaigns.

Audit Stage

Green auditing is described as a process aimed at identifying and assessing whether an organization, in this case, the college, maintains eco-friendly and sustainable practices. It is recognized as an effective ecological tool that helps foster a culture of sustainability within an organization through administrative policies. This process involves regular identification, quantification, documenting, reporting, and monitoring of environmentally significant components.

In the context provided, green auditing at Pandit Deendayal Upadhyaya Adarsha Mahavidyalaya began with the formation of a Green Audit team comprising faculty members from both J N College, Boko, and Pandit Deendayal Upadhyaya Adarsha Mahavidyalaya. This interdisciplinary team visited the campus regularly to monitor various facilities from an auditing perspective. They assessed the status of the green cover of the institution, waste management practices, energy conservation strategies, and other relevant factors.

Data collection for the green audit was conducted through on-site visits and structured questionnaires covering different sectors such as water, energy, waste, and biodiversity status. The collected data were then analyzed to prepare the Green Audit report of Pandit Deendayal Upadhyaya Adarsha Mahavidyalaya, Amjonga.

The Green Audit team was led by Dr. Habibur Rahman, Head of Department and Associate Professor, along with Mr. Pinaki Kr. Rabha, Associate Professor from the Department of Botany at J. N. College, Boko, Kamrup, Assam. Their leadership and expertise guided the auditing process to ensure a comprehensive assessment of the college's environmental practices.

METHODOLOGY ADOPTED:

The methodology adopted to conduct the Green Audit of Pandit Deendayal Upadhyaya Adarsha Mahavidyalaya comprised the following components:

- **Onsite Field Visits by the Green Audit Team:**

The Green Audit Team conducted onsite visits to the college campus as and when necessary. These visits allowed the team to observe and assess various facilities, practices, and environmental conditions directly.

- **Data Collection:**

Data collection was carried out through the distribution of structured questionnaires among different stakeholders, including executives, official staff, and general students. Interviews were also conducted with these stakeholders to gather additional information and insights.

- **Water Quality Analysis:**

Water quality analysis was conducted at the Department of Chemistry Laboratory of J. N. College, Boko. This involved testing and analyzing water samples to assess their quality and identify any potential issues related to water management and pollution.

- **Biodiversity Audit:**

Different standard taxonomic and ecological protocols were followed to document and estimate the floral and faunal diversity within and around the college campus. This likely involved methods such as species identification, population assessments, and habitat evaluations to provide a comprehensive overview of biodiversity.

By incorporating these components into the methodology, the Green Audit team was able to gather diverse and comprehensive data on various aspects of environmental sustainability within Pandit Deendayal Upadhyaya Adarsha Mahavidyalaya. This data served as the basis for evaluating the college's eco-friendly practices and identifying areas for improvement.

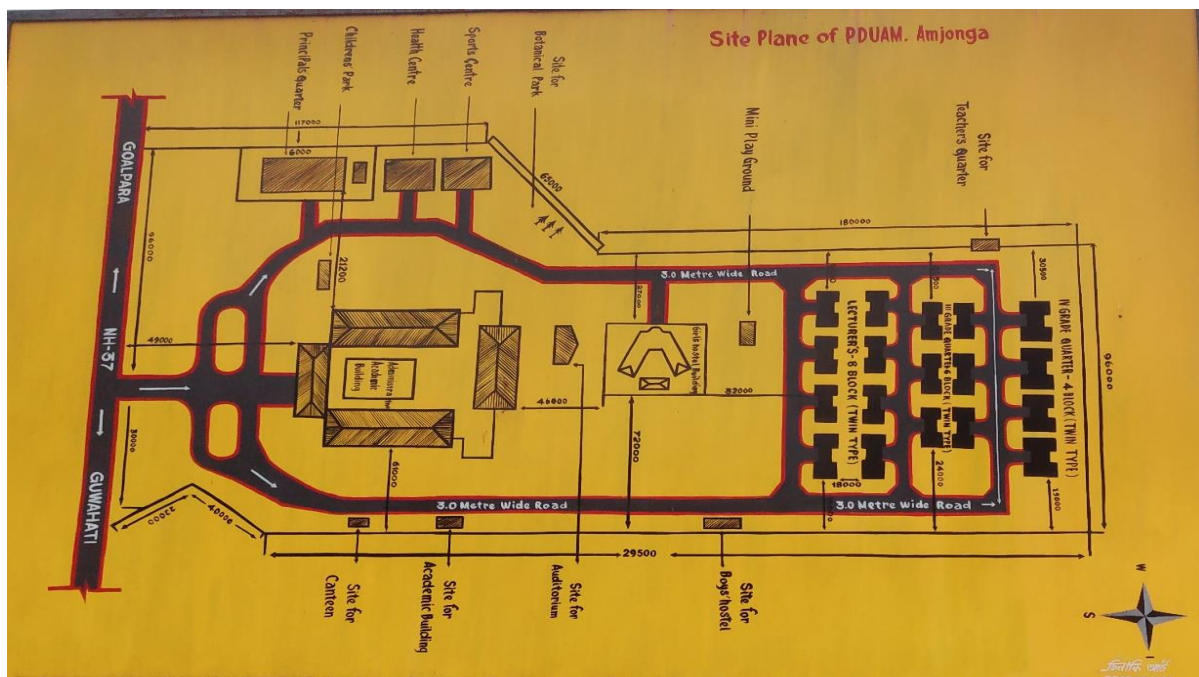
POST AUDIT STAGE

Land use and land cover

College area:

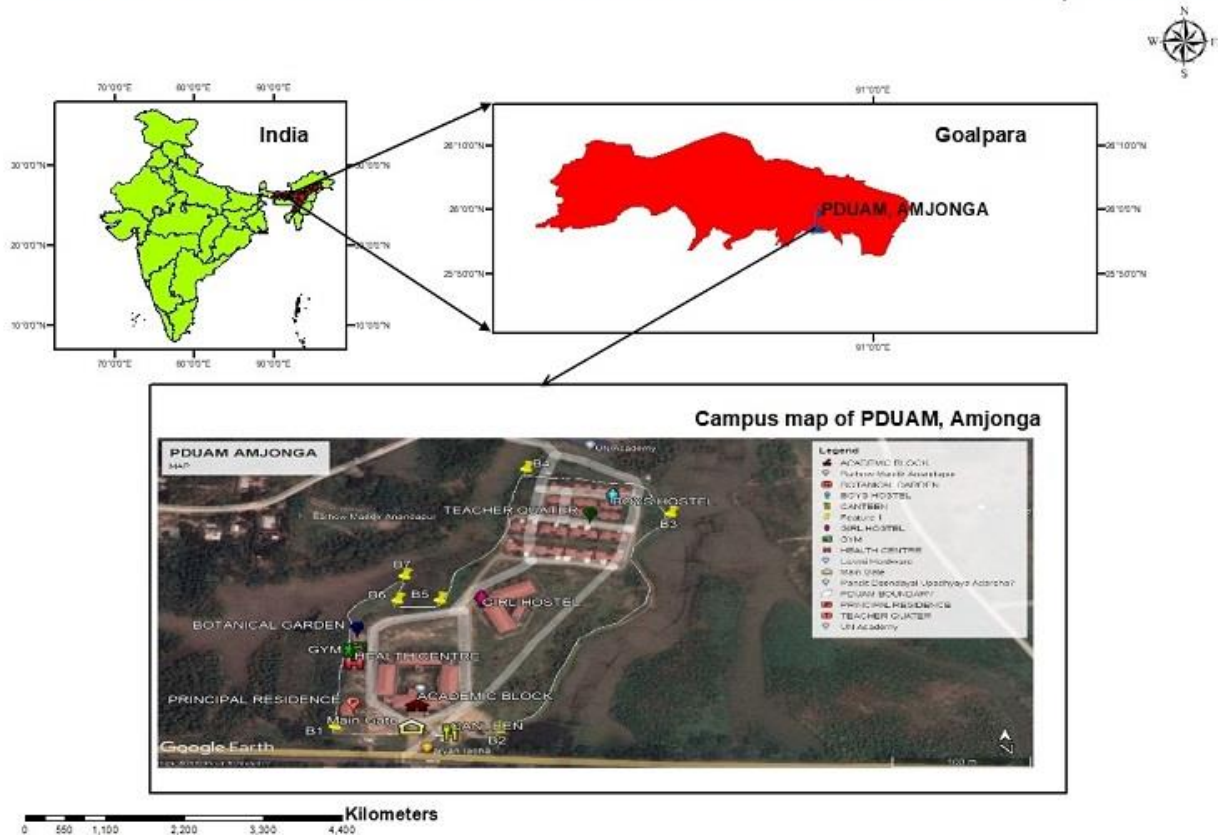
The College is located in the district of Goalpara, in western part of Assam situated in North-eastern part of India. The district is located in the southern bank of the mighty Brahmaputra and on the foot of Garo- Hills of Meghalaya. Endowed with scenic beauty and rich vegetation, the college campus is located amidst the natural Sal forest of Amjonga that enhances the scenic beauty of the campus location. The college is situated 7 kms away from Dudhnoi and about 47 km from Goalpara, the district head quarter. The NH-17 is the primary road way connected to PDUAM, Amjonga extended as its southern boundary. The campus has forest lands beyond both its eastern and western boundaries. On the northern boundary the college shares boundary with village Manupara. The college has an infrastructure built on a sprawling campus spreading over 25 bighas of land. The geographical location of the campus is between latitudes (25.9720 and 26.9690) North and (90.8560 and 90.8580) East Longitude. The campus is build up with academic building, residential area, health-care centre, gymnasium centre, botanical garden, horticultural garden, girls' and boys' hostel, sports centre and open field.

Site Plan for PDUAM, Amjonga



Location map of PDUAM, Amjonga

MAP OF PANDIT DEENDAYAL UPADHAYA ADARSHA MAHAVIDYALAYA, AMJONGA



WATER AUDIT

Water audit is a vital process for assessing the quality and usage of water within a campus or any other environment. It involves studying the balance between water demand and supply, as well as the quality of available water resources. Water auditing serves as an effective management tool for minimizing losses, optimizing various water uses, and ultimately conserving water resources.

Key aspects of water auditing include:

Balance between Demand and Supply: Water auditing examines the balance between the demand for water within the campus and the available supply. This includes assessing the quantity of potable and usable water required for various purposes such as drinking, sanitation, irrigation, and other campus activities.

Quality of Available Water:

Water auditing also evaluates the quality of the water sources available within the campus. This includes assessing parameters such as pH levels, dissolved solids, microbial contamination, and other factors that affect water quality and suitability for different uses.

Minimizing Losses:

Water auditing helps identify and address issues such as seepage, leakage, and inefficient water distribution systems that contribute to water losses within the campus. By addressing these issues, water losses can be minimized, leading to more efficient water management.

Recycling and Rainwater Harvesting:

Water auditing generates ideas for possible water recycling initiatives and the utilization of rainwater. These strategies help maximize the use of available water resources and reduce reliance on external water sources.

Water Management:

It appears that the primary source of water used in Pandit Deendayal Upadhyaya Adarsha Mahavidyalaya, Amjonga is groundwater. According to the provided information, approximately 3000 litres of water are pumped out daily through water pumps for various college activities, including day-to-day college activities, gardening, canteen uses (amount not estimated), laboratory uses, and lavatory uses.

Table: 1 Source and Usage of Water:

Sl. no	Parameters	Response
1	Source of water	Ground water
2	No of Wells	04
3	No of Hand pumps	03
4	No of Overhead tanks	20
5	No of water pumps used	05
6	Horse power-water pumps	2.5 hp.,2 hp&1 hp.
7	Depth of well (boring)	200ft.for submersible one 120ft.forothers
8	Water level	Normal
9	Type of water tanks	Reservoir
10	Capacity of Tank/reservoir (Total)	41 cubic meter
11	Quantity of water pumped everyday	3000L per day
12	Indication of water wastage with reasons	No wastage of water was seen Excluding little overflow from water tanks/ leakage from taps
13	Water usage for gardening	Yes

14	Use of waste water	In gardening
15	Fate of waste water from labs	Percolation to ground
16	Any waste water treatment for lab water	No
17	Whether any green chemistry method practiced in Labs	No
18	Rain water harvest available?	Yes
19	No of units and amount of water harvested	1 , 2000 L
20	No of leaky taps	NIL
21	Amount of water lost per day	As per need
21	Water management plan used	Roof water harvesting and watering the garden plants
22	Water saving techniques followed	Rain water harvesting
23	Signage for reminding peoples to turn Off tap	Available
24	Cleaning of the reservoir	Done regularly

WATER QUALITY ASSESSMENT:

Water samples were collected randomly from the sources and analyzed for various physico- chemical parameters (Table2). All parameters excluding iron were found under permissible limits as prescribed by different agencies.

Table 2: Water quality analysis report

Sl. No	Parameters	Values
1	pH	6.46±0.08
2	Total Hardness (mg/l)	249.6±59.17
3	Alkalinity (mg/l)	--
4	Turbidity (N.T.U)	--
5	Calcium Hardness (mg/l)	--
6	Total Dissolved Solids(mg/l)	0.06±0.01
7	Sulphates (mg/l)	--
8	Chloride(mg/l)	10.96±1.63
9	Fluoride(mg/l)	--
	Phosphate(mg/l)	--
10	Residual Chlorine(mg/l)	--
11	Iron(mg/l)	--
12	Nitrate(mg/l)	--

13	Arsenic(mg/l)	--
	Calcium(mg/l)	20.03±4.01
14	Manganese(mg/l)	--
15	Magnesium(mg/l)	14.52±0.81
16	Bacteriological count	--

The following parameters were tested for the water samples collected from various places within the campus:

Parameters	Source				
	Laboratory taps	Canteen	Refilling unit	Girls' Hostel	Teachers Quarter
pH	6.63±0.18	6.32±0.18	6.61±0.15	6.25±0.51	6.52±0.18
EC (mS/m)	0.09±0.01	0.05±0.00	0.15±0.04	0.08±0.01	0.07±0.03
TDS (mg/L)	0.05±0.01	0.07±0.02	0.04±0.01	0.09±0.04	0.05±0.02
DO (mg/L)	6.00±0.39	5.09±0.39	4.63±0.78	5.80±0.13	5.28±0.81
Total hardness(mgL-1)	285.00±21.28	374.33±19.01	285.00±53.63	23.67±60.94	280.00±24.17
Chloride (mg/L)	12.78±1.93	13.52±1.77	5.57±2.41	14.11±2.51	8.82±0.57
Ca ²⁺ (mg/L)	36.11±6.91	17.44±3.09	13.00±3.46	16.33±2.19	17.30±6.46
Mg ²⁺ (mg/L)	15.98±1.09	12.89±0.91	14.99±0.88	16.37±2.15	12.36±0.73

OBSERVATIONS:

- The college emphasizes the judicious use of water resources.
- Awareness of water conservation is relatively high among stakeholders.
- Attention is needed to address areas of little wastage of water.
- Display signage for water conservation and regular monitoring are properly maintained and monitored.
- The management of wastewater from canteens and kitchens needs improvement.
- The college has implemented a unique and commendable initiative for groundwater recharge by directing all rooftop water through drains to a well, allowing it to seep into the groundwater level, thereby conserving water in the vicinity of the campus.

Suggestions and Recommendations:

- Implement a proper water consumption monitoring system to minimize water loss.
- Construct rainwater harvesting systems for each building.
- Install automated sensors to prevent overflow from tanks.

- Conduct awareness campaigns for new students to promote water-saving practices.
- Perform periodic maintenance of water taps, pipes, and reservoirs to prevent water leakage.

Auditing for Waste Management

Any activities in an establishment inevitably generate waste, and the key concern is how efficiently this waste can be managed to avoid any health problems. Pollution from waste is not only aesthetically unpleasing but also results in the generation of large amounts of litter in our surroundings. In a college setting, three types of wastes are typically generated: solid waste, liquid waste and hazardous waste

Solid waste can further be categorized into three types: biodegradable, non-biodegradable, and hazardous waste. Biodegradable waste can be effectively utilized for energy generation purposes through anaerobic digestion or converted into fertilizer using composting technology. Non-biodegradable waste can be managed through recycling and reuse practices. However, special attention must be given to hazardous waste, as improper management can pose a threat to the environment and human health. Unscientific management practices such as dumping in pits or burning waste can lead to harmful discharge of contaminants into soil and water, as well as contribute to the emission of greenhouse gases, thereby contributing global climate change respectively, management of waste is utmost necessary. The auditor diagnoses the prevailing waste disposal policies of the college and suggests the best way to combat the problems.

Status of Waste Generation:

Based on the provided information, waste generation within the premises of Pandit Deendayal Upadhyaya Adarsha Mahavidyalaya, Amjonga is primarily categorized into paper, plastic, organic, bio-medical, and e-waste. Here is a summary of the estimated monthly waste generation in different categories:

- Administrative Blocks and Canteen:

Paper and plastic wastes were recorded to be generated in the Administrative Blocks and Canteen areas. Organic waste was found to be more prevalent in the Canteen premises and cultivation sites.

- **Academic Departments:**
Waste generation in academic departments was negligible. Whatever waste was generated in academic departments was systematically disposed of through the sweeping mechanism.
- **Faculty Involvement:**
Faculty members were actively engaged in segregating and disposing of waste.
- **Composting:**
Litters, including regularly fallen twigs and leaves from plants and trees, were found to be dumped in a compost pit.
- **Bio-medical and E-waste:**
Bio-medical waste and e-waste were almost negligible during the survey period.

It's evident that the college has a relatively organized waste management system in place, with faculty involvement and systematic disposal methods. The composting of organic waste demonstrates a sustainable approach to waste management by utilizing natural processes for decomposition. Additionally, the minimal generation of bio-medical and e-waste suggests effective measures in place to reduce hazardous waste streams.

Table 3: Waste generated in the campus (per monthly basis)

Sl. no.	Stakeholders	Types of solid waste	Average waste generated/month
1	Academic Department	Paper waste Plastic waste Organic waste E-waste Biomedical waste	4.73 kg 21.70 kg 0.00 kg 0.00 kg
2	Administrative Office	Paper waste Plastic waste Organic waste E-waste Biomedical waste	17.30 kg 3.67 kg 0.00 kg 0.00 kg
3	Hostels	Paper waste Plastic waste Organic waste E-waste Biomedical waste	25.78 kg 93.45 kg 0.00 kg 0.00 kg

4	Canteens	Paper waste	28.2 kg
		Plastic waste	51.9 kg
		Organic waste	0.00 kg
		E-waste	0.00 kg
		Biomedical waste	0.00 kg

Waste Management

The college has taken significant steps towards waste management with a commitment to maintaining a clean and green campus. Segregation practices have been adopted to separate different types of wastes, and the installation of dustbins has begun in a phased manner across the premises. Signage has also been installed to raise awareness among stakeholders about the proper use of different-colored dustbins for waste disposal. This proactive approach to waste management is commendable and reflects the college's dedication to environmental sustainability.

During a survey conducted among stakeholders of Pandit Deendayal Upadhyaya Adarsha Mahavidyalaya, Amjonga by the Green Audit Team, a majority of respondents (84%) expressed confidence in their understanding of waste management practices and their responsibility to properly dispose of waste. This indicates a positive attitude towards waste management and a willingness among stakeholders to actively contribute to keeping the campus clean and environmentally friendly.

Overall, the college efforts in waste management, including segregation practices, dustbin installation, and stakeholder awareness initiatives, demonstrate a proactive approach to environmental sustainability and reflect a commitment to maintaining a clean and green campus environment.

Waste Management Practices Adopted:

Sl No	Practice/Strategies adopted	Response	Quantification if any
1	Organized collection of organic waste	Yes	1
2	Leaf Litter disposal	Yes	NA
3	Vermicomposting Unit	Yes	1
4	Use of Plastic/plastic wares	In use	NA
5	Segregation of waste as per Govt. directives	Yes	NA
6	Dustbins proper place	Yes	40
7	Dustbin clearing	Yes	NA
8	Solid waste recycling process	No	NA
9	Awareness programme organized	Yes	-

Based on the provided table, the waste management practices and strategies adopted by Pandit Deendayal Upadhyaya Adarsha Mahavidyalaya, Amjonga are as follows:

- **Organized Collection of Organic Waste:** The College has organized the collection of organic waste, indicating a proactive approach to managing biodegradable waste materials.
- **Leaf Litter Disposal:** The College disposes of leaf litter, ensuring proper management of organic waste from fallen twigs and leaves.
- **Vermicomposting Unit:** A vermicomposting unit is in place, allowing for the composting of organic waste with the use of earthworms to facilitate decomposition.
- **Use of Plastic/Plastic Wares:** Plastic or plastic wares are in use within the college premises, though further quantification of usage is not provided.
- **Segregation of Waste as per Government Directives:** Waste segregation is practiced in accordance with government directives, emphasizing compliance with waste management regulations.
- **Placement of Dustbins:** A total of 40 dustbins have been placed in proper locations across the campus, facilitating waste disposal and segregation.
- **Dustbin Clearing:** Dustbins are regularly cleared, ensuring proper waste management and maintaining cleanliness within the campus environment.
- **Solid Waste Recycling Process:** While the table indicates that a solid waste recycling process is not currently in place, it could be an area for potential improvement in the college's waste management practices.
- **Awareness Programme Organized:** The College has organized awareness programs related to waste management, contributing to educating stakeholders about proper waste disposal practices.

Overall, these practices demonstrate the college's efforts to adopt various waste management strategies, including collection, segregation, disposal, and awareness programs, contributing to a cleaner and more sustainable campus environment.

Awareness for keeping all campus clean

“A Mega Cleanliness Drive was organised around the College Campus to make the Campus and its surroundings clean”

Photos:



A Plastic Cleanliness Drive under Clean India Campaign 2.0 and Fit India Freedom 3.0 of Swachha Bharat



An Awareness programme on “Reducing the use of Plastic”



Observations:

Based on the observations provided -

- Academic Departments' Waste Generation: It is noted that academic departments do not generate large quantities of waste, indicating potentially efficient waste management practices within these departments.
- Continued Use of Plastic Materials: Although plastic materials are still in use, the quantity appears to be reduced, suggesting efforts towards minimizing plastic usage or potentially transitioning to more sustainable alternatives.
- Adequate Garbage and Litter Collection: The frequency of garbage and litter collection is deemed sufficient, indicating effective management of waste collection and disposal services on campus.
- Waste Disposal Initiatives Reflected in Management Programs: The waste disposal initiatives of Pandit Deendayal Upadhyaya Adarsha Mahavidyalaya are reflected in management programs and efforts of the ground staff. This indicates that waste management practices are integrated into the overall management framework of the college, highlighting a comprehensive approach to waste disposal.

Overall, these observations suggest that the college has implemented various measures and initiatives to manage waste effectively, including minimizing waste generation, addressing plastic usage, ensuring adequate waste collection, and responsibly disposing of electronic waste. These efforts contribute to maintaining a clean, green, and sustainable campus environment.

Suggestions and Recommendations:

Based on the observations and practices noted, here are some suggestions and recommendations for further improving waste management practices at Pandit Deendayal Upadhyaya Adarsha Mahavidyalaya, Amjonga -

- **Declare the Campus as Plastic-Free:**

Consider declaring the campus as a total plastic-free zone to minimize plastic waste generation. Implement policies and initiatives to phase out the use of plastic materials across the campus, including in canteens, administrative buildings, and academic departments. Encourage the use of eco-friendly alternatives to plastic, such as biodegradable materials and reusable alternatives like cloth bags and metal utensils.

- **Promote the Use of Biodegradable Materials:**

Encourage and promote the use of biodegradable materials for packaging, serving food, and other purposes. Raise awareness among stakeholders about the environmental benefits of biodegradable materials and their role in reducing waste pollution.

- **Operationalize Vermicomposting Facilities:**

Ensure that vermicomposting facilities are operationalized and effectively managed to process organic waste. Provide training and resources to staff and students on how to use vermicomposting systems properly. Implement a system for collecting organic waste and diverting it to the vermicomposting facilities to avoid littering and dumping of organic waste in inappropriate areas.

By implementing these suggestions and recommendations, Pandit Deendayal Upadhyaya Adarsha Mahavidyalaya can further enhance its waste management practices and contribute to creating a cleaner, greener, and more sustainable campus environment.

HEALTH AUDIT

A healthy ecosystem directly means a healthy livelihood. Hence, to ascertain a healthy society inside the college campus and to create awareness among the individuals in taking actions against the growing strain on Earth's natural ecosystem, the Pandit Deendayal Upadhyaya Adarsha Mahavidyalaya, Amjonga fraternity took few initiatives through several events in past couple of years.

Activities of Eco-Club:

Activities of Eco-Club		
Sl. No	Date	Programmes
1	28.06.2023	Awareness programmes on Eco-brick making
2	From 06.06.2023 to present	Year Long E-Waste Donation



ENVIRONMENTAL QUALITY

Activities of NSS unit of the College		
Sl. No	Date	Programmes
1	24/06/2022	Awareness programme on, “Computer Science and its Future Scope”
2	27/09/2022	Mega Cleanliness Drive
3	21/10/2022	Plastic Cleanliness Drive under Clean India Campaign 2.0 and Fit India Freedom 3.0 of Swaacha Bharat Abhiyan
4	31/10/2022	National Unity Day Celebration
5	06/04/23 To 12/04/23	NSS Special Camp Awareness program by Dept. of Assamese, PDUAM, Amjonga Awareness program by Dept. Of Chemistry, PDUAM, Amjonga Awareness program by Dept. of Botany, PDUAM, Amjonga Awareness program by Dept. Of Physics, PDUAM, Amjonga Awareness program by Dept. of Zoology, PDUAM, Amjonga
6	11/04/2023	Free Health Camp
7	12/04/2023	Awareness on Stop Child Labour and Early Child Marriage
8	02/06/2023	Opening of Rural Library at Adopted Village
9	13/06/2023	Outreach Programme on Innovation and Entrepreneurship for School Students
10	22/06/2023	Extension Programme on “Popularization of Biological Sciences”
11	26/06/2023	Swachha Bharat Mission at Amjonga Bazar

Sl No.	1
Name of the activity	Awareness programme on, “ Computer Science and its Future Scope ”
Organising unit/ agency/ collaborating agency	Dept. of Computer Science
Name of the scheme	NSS
Year of the activity	2022 (24/06/2022)
Report	An awareness program was organised at Rangjuli High School, Rangjuli on “Computer Science and Its future Scope” by the Department of Computer Science, PDUAM Amjonga in association with IQAC, NSS and Extension Cell, PDUAM, Amjonga

Photos:



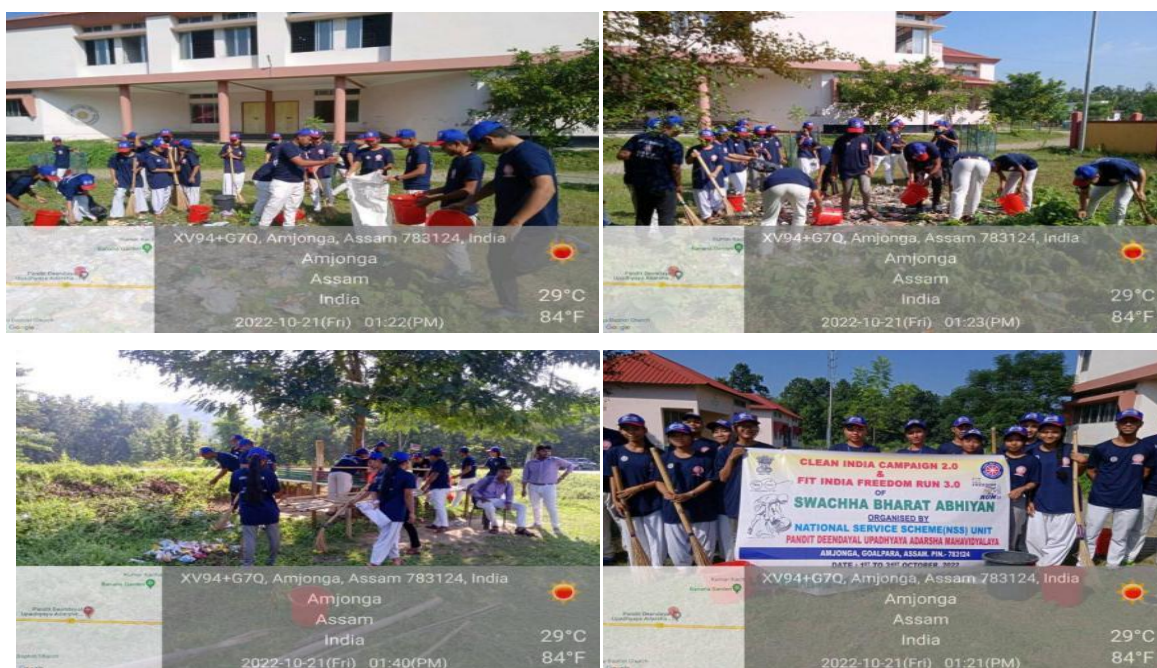
Sl No.	2
Name of the activity	Mega Cleanliness Drive
Organising unit/ agency/ collaborating agency	NSS
Name of the scheme	NSS
Year of the activity	2022 (27/09/2022)
Report	A Mega Cleanliness Drive was organised by the NSS Unit, PDUAM, Amjonga around the College Campus to make the Campus and its surroundings clean. It was carried out between 10:00am to 12:00pm.

Photos:



SI No.	3
Name of the activity	Plastic Cleanliness Drive under Clean India Campaign 2.0 and Fit India Freedom 3.0 of Swachha Bharat Abhiyan
Organising unit/ agency/ collaborating agency	NSS
Name of the scheme	NSS
Year of the activity	2022 (21/10/2022)
Report	A Plastic Cleanliness Drive under Clean India Campaign 2.0 and Fit India Freedom 3.0 of Swachha Bharat Abhiyan is organised by the NSS Unit of PDUAM, Amjonga of College Campus and Local (Amjonga) Bazar. It was carried out between 12:30pm to 2:30pm.

Photos:



SI No.	4
Name of the activity	National Unity Day Celebration
Organising unit/ agency/ collaborating agency	NSS
Name of the scheme	NSS
Year of the activity	2022 (31/10/2022)
Report	The NSS Unit of PDUAM, Amjonga celebrated the National Unity Day (Rastriya Ekta Diwas) and “RUN FOR UNITY” programme in the College Campus and nearby locality. A total of 50 NSS volunteers took part in the event.

Photos:



Sl No.	5
Name of the activity	NSS Special Camp
Organising unit/ agency/ collaborating agency	NSS
Name of the scheme	NSS
Year of the activity	2023 (06/04/23 to 12/04/23)
Report	A NSS Special Camp was organised in adopted village namely, Amjonga, Pahartoli, pt-2 for a total duration of 7 days. The event was organised to make the people of the village aware about various social problems and the ways to mitigate them.

Photos:



Amjonga, Assam, India
XV93+M9M, Amjonga Rd, Amjonga, Assam 783124, India
Lat 25.969056°
Long 90.853355°
06/04/23 01:03 PM GMT +05:30



Goalpara, Assam, India
Unnamed Road, Assam 783124, India
Lat 25.966106°
Long 90.856964°
06/04/23 11:05 AM GMT +05:30



Goalpara, Assam, India
Unnamed Road, Assam 783124, India
Lat 25.96616°
Long 90.856995°
06/04/23 12:25 PM GMT +05:30



Goalpara, Assam, India
Unnamed Road, Assam 783124, India
Lat 25.96616°
Long 90.856995°
06/04/23 12:25 PM GMT +05:30

Sl No.	6
Name of the activity	Awareness programme about “Women Education”
Organising unit/ agency/ collaborating agency	NSS & Deptt. Of Assamese
Name of the scheme	NSS
Year of the activity	2023 (06/04/23)
Report	A talk on women education relating to women empowerment has delivered by faculty of Assamese Department Dr.Binita Das .Among the session many women related problems had discussed with the village women those who participated in the programme.

Photos



Unnamed Road, Assam 783124, India
Goalpara
Assam
India
32°C
90°F
2023-04-06(Thu) 11:47(AM)

SI No.	7
Name of the activity	Awareness programme on Safe Drinking Water
Organising unit/ agency/ collaborating agency	NSS & Deptt. Of Chemistry
Name of the scheme	NSS
Year of the activity	2023 (06/04/23)
Report	The undergraduate students of the department took active part in the entire program.

Photos:



SI No.	8
Name of the activity	Awareness programme on "Importance of Plants and its Conservation".
Organising unit/ agency/ collaborating agency	NSS & Deptt. Of Botany
Name of the scheme	NSS
Year of the activity	2023 (08/04/23)
Report	PDUAM, Amjonga, Department of Botany in association with NSS, PDUAM, Amjonga made an awareness program at PAHARTOLI VILLAGE on the topic "Importance of Plants and its Conservation".

Photos:



Sl No.	9
Name of the activity	Awareness programme on awareness program on Green Technology
Organising unit/ agency/ collaborating agency	NSS & Deptt. Of Physics
Name of the scheme	NSS
Year of the activity	2023 (10/04/23)
Report	The students and teachers explained the importance of Green technology and application of green technology to aware the people of village towards green initiatives of government of India.

Photos:



Sl No.	10
Name of the activity	Awareness programme on awareness program on An awareness programme on “Snakebite”
Organising unit/ agency/ collaborating agency	NSS & Deptt. Of Zoology
Name of the scheme	NSS
Year of the activity	2023 (10/04/23)
Report	An awareness programme on “Snakebite” was organized by Dept. of Zoology, PDUAM, Amjonga in collaboration with the NSS unit of PDUAM Amjonga at the adopted village, SuchiyaPahar, Pahartoli, Amjonga.

Photos:



SI No.	11
Name of the activity	Free Health Camp
Organising unit/ agency/ collaborating agency	NSS & Amjonga PHC
Name of the scheme	NSS
Year of the activity	2023 (11/04/23)
Report	A Free Health Camp for the people of the adopted village Pahartoli was organised by the NSS Unit of the college in collaboration with the Amjonga PHC. A team of five (5) doctors and staff of the health team took part in the event.

Photos:



SI No.	12
Name of the activity	Awareness on Stop Child Labour and Early Child Marriage
Organising unit/ agency/ collaborating agency	NSS
Name of the scheme	NSS

Year of the activity	2023 (12/04/23)
Report	An Awareness program on child labour and child marriage was organised by the NSS Volunteers in the adopted village Pahartoli Gaon. The event was aimed at preventing child labour and making the people aware about the harms of early child marriage. The event also focused on explaining the importance of giving proper education to the students.

Photos:



SI No.	13
Name of the activity	Opening of Rural Library at Adopted Village
Organising unit/ agency/ collaborating agency	NSS
Name of the scheme	NSS
Year of the activity	2023 (02/06/23)
Report	A rural library was set up in our adopted village Pahartoli by the NSS Unit and Central Library of PDUAM, Amjonga for serving the local community as well as to increase the reading habits among the children of adopted school (Pahartoli LPS).

Photos:



SI No.	14
Name of the activity	Outreach Programme on Innovation and Entrepreneurship for School Students
Organising unit/ agency/ collaborating agency	NSS and IIC (Institution's Innovation Council)
Name of the scheme	NSS
Year of the activity	2023 (13/06/23)
Report	An outreach program on Innovation and Entrepreneurship for school students was organised by NSS and IIC, PDUAM, Amjonga at Kushdhowa High School. The talk was delivered by Er. Benzamin Kaman, Chief Asst. Technical officer, KVK

Photos:



I No.	15
Name of the activity	Extension Programme on “Popularization of Biological Sciences”
Organising unit/ agency/ collaborating agency	NSS and Dept. of Zoology, PDUAM, Amjonga
Name of the scheme	NSS
Year of the activity	2023 (22/06/23)
Report	An Extension Programme on the “Popularization of Biological Sciences” was organized on 22 nd June, 2023 by the Dept. of Zoology, PDUAM, Amjonga in collaboration with the NSS Unit, PDUAM, Amjonga at Amjonga High School, Amjonga. The event was organized to create awareness amongst the students about the biological sciences.

Photos:



Sl No.	16
Name of the activity	Swachha Bharat Mission at Amjonga Bazar
Organising unit/ agency/ collaborating agency	NSS
Name of the scheme	NSS
Year of the activity	2023 (26/06/23)
Report	A Cleanliness Drive was organized by the NSS Unit, PDUAM, Amjonga on 26 th June, 2023 at the Amjonga Bazar under the Swachha Bharat Mission. The NSS Volunteers took part in the event and cleaned the Bazar and its neighbouring area during the event.

Photos:



BIODIVERSITY AUDIT

Biodiversity is the key to a healthy ecosystem. Morton & Hill (2014) in a biodiversity book published by the “Commonwealth Scientific and Industrial Research Organisation (CSIRO)” nicely mentioned 5 core values of biodiversity, viz. economic, ecological, recreation, cultural and scientific values. Biodiversity provides humans with raw materials for consumption and production. Ecologically biodiversity take part in functioning of ecosystems that supply oxygen, clean air and water, felicitating pollination in plants, control of pest, waste water treatment and many ecosystem services. Scientific intervention may disclose a wealth of systematic ecological data that help us to understand the natural activities and necessities in the context of human behavior. Many recreational pursuits rely on the biodiversity of region, such as bird-watching, hiking, camping and fishing. The tourism industry also depends on biodiversity. Above all, our culture is closely connected to biodiversity through the expression of identity, through spirituality and through aesthetic appreciation. Any loss or deterioration in the condition of biodiversity can compromise all the values outlined above and affect the human wellbeing particularly in North Eastern region which is located between two biodiversity hotspot, Himalaya and Indo-Burma.

As the Biodiversity plays a key role in providing numerous irreplaceable services to any community, biodiversity audit is one of the best practices for sustainability of an institute. The main objective of biodiversity audit is therefore to document different biodiversity components within the College campus, to observe ecosystem structures and functions along with regular monitoring to check the new addition and analysis of biotic interactions amongst different components of biotic resources. The outcome of such audit will certainly be helpful in designing different conservation measures that need to be taken for a better and self-sustaining ecosystem in the campus.

The Pandit Deendayal Upadhyaya Adarsha Mahavidyalaya, Amjonga campus is spreading over a plot of 25 bighas i.e.15.6 Acre (as per land record) out of which around 25% area are under green coverage which houses different varieties of natural fauna and flora. A few plants are introduced to enhance the aesthetic beauty of the campus. The geographical location of the campus is between latitudes (25.9720 and 26.9690) North and (90.8560 and 90.8580) East Longitude. The campus is build up with academic building, residential area, health-care centre, gymnasium centre, botanical garden, horticultural garden, girls' and boys' hostel, sports centre and open field.

FAUNAL DIVERSITY:

The Pandit Deendayal Upadhyaya Adarsha Mahavidyalaya, Amjonga campus houses a good number of animals from each different phylum which on the other hand, indicates a good health of the campus .In the present study, 17 number of vertebrates were reported in the college campus belonging to different phylum and classes. Altogether 02 amphibians, 04 reptile species and 09 birds were recorded during the audit period. Mammalian diversity is poor and is represented by only 02 species. Invertebrates includes several species of butterflies, grasshoppers, earthworms, leech, many species of other insects like bees, wasps, ants, bugs, beetles, spiders etc.

It is very interesting to note that the college campus provide a sound nesting ground of Squirrel, mongoose, dove, crow, parrot, oriole, drogue and common mynas.

Birds			
SINo	Scientific Name	Common Name	Local Name
1	<i>Acrodothor estristis</i>	Indian myna	Xalika
2	<i>Passer domesticus</i>	House sparrow	Ghonsirika
3	<i>Spilopelia chinensis</i>	Spotted dove	Kopou
4	<i>Merops apiaster</i>	Bee-eater	Mou-khowa
5	<i>Amaurornis phoenicurus</i>	White breasted waterhen	Dawki

6	<i>Nectarina asiaticu</i>	Sun-bird	Mou-piya
7	<i>Corvusbrachy rhynchos</i>	Crow	Kawri
8	<i>Eudynamys scolopaceus</i>	Asian koel	Kuli
9	<i>Otus lettia</i>	Owl	Fesa
Mammals			
1	<i>Sciurus sp</i>	Squirrel	Kerkatuwa
2	<i>Macaca assamensis</i>	Assam Mcaque	Muluwa bandor
Reptiles			
1	<i>Coelognathus radiates</i>	Copper head rat snake	Gum xap
2	<i>Gekko sp</i>	Gekko	Keko
3	<i>Amphiesma stolatum</i>	Buff striped keelback	Bamunixap
4	<i>Fowlea piscator</i>	Checkered keelback	Dhoraxap
Amphibia			
1	<i>Duttaphrynus melanostictus</i>	Asian common toad	Chukbhekuli
2	<i>Polypedates leucomystax</i>	Tree frog	Pat beng

FLORAL DIVERSITY:

The College campus is an evergreen beautiful area with a variety of trees, bushes and grasses. The aesthetic beauty of the campus has been enhanced by introducing a few ornamental and economically important plants. All the plants provide good ecological services in maintaining a green College campus near the Boko town. Altogether 62 species of plants belonging to herb, shrub and 39 tree categories are recorded and enlisted below.

Tree diversity of PDUAM, Amjonga

SI No.	Species	Family	Common name
1.	<i>Aegle marmelos</i>	<i>Rutaceae</i>	Wood apple
2.	<i>Albizia sp.</i>	<i>Fabaceae</i>	Siris
3.	<i>Alstonia scholaris</i>	<i>Apocynaceae</i>	Devil tree
4.	<i>Aquilaria malaccensis</i>	<i>Thymelaceae</i>	Agar wood
5.	<i>Araucaria heterophylla</i>	<i>Araucariaceae</i>	Chilian pine
6.	<i>Artocapu shetrophyllus</i>	<i>Moraceae</i>	Jackfruit
7.	<i>Azadirachta indica</i>	<i>Meliaceae</i>	Neem
8.	<i>Bougainvillea sp.</i>	<i>Nyctaginaceae</i>	Papeflower
9.	<i>Caesalpinia pulcherrima</i>	<i>Fabaceae</i>	Peacock flower
10.	<i>Callicarpa arborea</i>	<i>Lamiaceae</i>	Beautyberry tree
11.	<i>Careya arborea</i>	<i>Lecythidaceae</i>	Ceylon oak

12.	<i>Carica papaya</i>	<i>Caricaceae</i>	Papaya
13.	<i>Chukrasia tubularis</i>	<i>Meliaceae</i>	Indian mahogany
14.	<i>Cinnamomum tamala</i>	<i>Lauraceae</i>	Tezpat
15.	<i>Citrus limon</i>	<i>Rutaceae</i>	Lemon
16.	<i>Gmelina arborea</i>	<i>Lamiaceae</i>	White teak
17.	<i>Lagerstroemia speciosa</i>	<i>Lythraceae</i>	Crepe Myrtle
18.	<i>Lannea coromandelica</i>	<i>Anacardiaceae</i>	Indian ash tree
19.	<i>Magnolia sp.</i>	<i>Magnoliaceae</i>	Magnolia
20.	<i>Mallotus sp.</i>	<i>Euphorbiaceae</i>	Kumkum tree
21.	<i>Mangifera indica</i>	<i>Anacardiaceae</i>	Mango
22.	<i>Melia azadirachta</i>	<i>Meliaceae</i>	Chinaberry tree
23.	<i>Mesua ferrea</i>	<i>Calophyllaceae</i>	Ceylon ironwood
24.	<i>Mimusops elengi</i>	<i>Sapotaceae</i>	Spanish cherry
25.	<i>Musa sp.</i>	<i>Musaceae</i>	Banana
26.	<i>Neolamarckia cadamba</i>	<i>Moraceae</i>	Kaddam
27.	<i>Nyctanthes arbor-tristis</i>	<i>Oleaceae</i>	Blomoming Jasmine
28.	<i>Phyllanthus emblica</i>	<i>Phyllanthaceae</i>	Indian gooseberry
29.	<i>Polyalthia longifolia</i>	<i>Annonaceae</i>	False Ashoka tree
30.	<i>Pongamia pinnata</i>	<i>Fabaceae</i>	Indian beech
31.	<i>Psidium guajava</i>	<i>Myrtaaceae</i>	Guava
32.	<i>Samanea saman</i>	<i>Fabaceae</i>	Rain tree
33.	<i>Shorea robusta</i>	<i>Dipterocarpaceae</i>	Sal
34.	<i>Syzygium cumini</i>	<i>Myrtaaceae</i>	Java plum
35.	<i>Tectona grandis</i>	<i>Lamiaceae</i>	Teak
36.	<i>Terminalia arjuna</i>	<i>Combretaceae</i>	Arjuna
37.	<i>Terminalia bellerica</i>	<i>Combretaceae</i>	Bahera
38.	<i>Thuja orientalis</i>	<i>Cupressaceae</i>	Oriental Arbor Vitae
39.	<i>Ziziphus jujuba</i>	<i>Rhamnaceae</i>	Common jujube

Shrub diversity of PDUAM, Amjonga

SI No.	Species	Family	Common Name
1.	<i>Melastomamalabathricum</i>	<i>Melastomaceae</i>	Indian Rhododendron
2.	<i>Urenalobata</i>	<i>Malvaceae</i>	Caesaeweed
3.	<i>Trifoniumtrilobatum</i>	<i>Araceae</i>	Bengal arum
4.	<i>Cassia sophora</i>	<i>Fabaceae</i>	Sennasophera
5.	<i>Mucunapruriens</i>	<i>Fabaceae</i>	Monkey tamarind
6.	<i>Amorphophalluspaeniifolius</i>	<i>Araceae</i>	Elephant foot yam
7.	<i>Lantana camara</i>	<i>Asteraceae</i>	Yellow sage
8.	<i>Sidacordifolia</i>	<i>Malvaceae</i>	Flannel weed
9.	<i>Hyptissuaveolens</i>	<i>Lamiaceae</i>	Bush tea
10.	<i>Bryophyllumpinnatum</i>	<i>Crassulaceae</i>	Miracle leaf
11.	<i>Ricinuscommunis</i>	<i>Euphorbiaceae</i>	Castor oil
12.	<i>Paederiafoetida</i>	<i>Rubiaceae</i>	Chinese fever vine
13.	<i>Murrayakoenigii</i>	<i>Rutaceae</i>	Curry leaf tree
14.	<i>Mikaniamicarantha</i>	<i>Asteraceae</i>	Bitter vine
15.	<i>Solanumnigrum</i>	<i>Solanaceae</i>	Black nightshade

16.	<i>Solanumtorvum</i>	<i>Solanaceae</i>	Turkey berry
17.	<i>Ageratum conyzoides</i>	<i>Asteraceae</i>	Goat weed
18.	<i>Clerodendrumpaniculatum</i>	<i>Lamiaceae</i>	Pagoda flower
19.	<i>Clerodendruminfortunatum</i>	<i>Lamiaceae</i>	Hill glory bower
20.	<i>Colocasiaesculanta</i>	<i>Araceae</i>	Yam
21.	<i>Heliotropiumindicum</i>	<i>Boraginaceae</i>	Indian Heliotrope
22.	<i>Phyllanthusniruri</i>	<i>Phyllanthaceae</i>	Stone breaker
23.	<i>Lygodium</i> sp.	<i>Lygodiaceae</i>	Maiden hair creeper
24.	<i>Holarrhenasp.</i>	<i>Apocynaceae</i>	Dudhkori

Herbs diversity of PDUAM, Amjonga

SI No.	Species	Family	Common Name
1.	<i>Acmellapaniculata</i>	Asteraceae	Toothche plant
2.	<i>Ageretum sp.</i>	Asteraceae	White weed
3.	<i>Ecliptaprostrata</i>	Asteraceae	Bhringraj
4.	<i>Curculigoorchioides</i>	Hypoxidaceae	Kali musli
5.	<i>Cynodondactylon</i>	Poaceae	Dhoob
6.	<i>Emilia sonchifolia</i>	Asteraceae	Cupid's shaving brush
7.	<i>Desmodiumtriflorum</i>	Fabaceae	Creeping Tick Trefoil
8.	<i>Centellaasiatica</i>	Asteraceae	Indian pennywort
9.	<i>Oxalis corniculata</i>	Oxalidaceae	Yellow wood sorrel
10.	<i>Scopariadulcis</i>	Scrophulariaceae	Licorice
11.	<i>Paspallumscrobiculatum</i>	Poaceae	Crown grass
12.	<i>Tragia involucrate</i>	Euphorbiaceae	Indian stinging nettle
13.	<i>Cyprus sp.</i>	Cyperaceae	Flat sedges
14.	<i>Blumeabalsimifera</i>	Asteraceae	Sambong
15.	<i>Mimosa pudica</i>	Fabaceae	Tuch-me-not
16.	<i>Oplismana sp.</i>	Poaceae	Basketgrass
17.	<i>Rungiasp.</i>	Acanthaceae	Creeping rungia
18.	<i>Axonopuscompressus</i>	Poaceae	Tropical carpet
19.	<i>Cyperusrotundus</i>	Cyperaceae	Nutgrass
20.	<i>Digitariasp.</i>	Poaceae	Foxglove
21.	<i>Centellaasiatica</i>	Apiaceae	Indian pennywort
22.	<i>Paspallumconjugatum</i>	Poaceae	Hilo grass
23.	<i>Drymeriacordata</i>	Caryophyllaceae	Tropical chickweed
24.	<i>Urenalobata</i>	Malvaceae	Caesar weed
25.	<i>Selaginella sp.</i>	Selaginellaceae	Spike moss
26.	<i>Phyllanthusniruri</i>	Phyllanthaceae	Stone breaker
27.	<i>Commelinabenghalensis</i>	Commelinaceae	Spiderworts
28.	<i>Euphorbia hirta</i>	Euphorbiaceae	Snake weed
29.	<i>Ecliptaprostrata</i>	Asteraceae	Bhringraj
30.	<i>Solanumnigrum</i>	Solanaceae	Black nightshade
31.	<i>Chenopodium album</i>	Amaranthaceae	Fat hen
32.	<i>Eichinochloacolona</i>	Paniaceae	Cockspur grass
33.	<i>Asystasiagangatica</i>	Acanthaceae	Chinese violet
34.	<i>Oxalis corniculata</i>	Oxalidaceae	Yellow wood sorrel

35.	<i>Seenaobtusifolia</i>	Fabaceae	Sicklepod
36.	<i>Mollugoverticillata</i> (Carpet weed)	Molluginaceae	Carpet weed
37.	<i>Cyperusesculentus</i>	Cyperaceae	Yellow Nut-grass
38.	<i>Chrysopogonaciculatus</i>	Poaceae	Love grass
39.	<i>Phyllanthusfraternus</i>	Phyllanthaceae	Gulf leaf flower
40.	<i>Cyperuslongus</i>	Cyperaceae	Sweet cyperus
41.	<i>Cymbopogancitratus</i>	Poaceae	Lemon grass
42.	<i>Panicumrepens</i>	Poaceae	Torpedo grass
43.	<i>Seteriasphacelata</i>	Poaceae	Bristle grass
44.	<i>Cleome rutidesperma</i>	Capparaceae	Fringed spiderflower
45.	<i>Blumealacera</i>	Asteraceae	Damong
46.	<i>Fimbristylismiliaceae</i>	Cyperaceae	Hoorah grass
47.	<i>Kyllingaerecta</i>	Cyperaceae	Navua sedge
48.	<i>Blumeaelanceolaria</i>	Asteraceae	LanceleafBlumea

Photographs



Pongamia pinnata



Callicarpa arborea



Albizia sp.



Melastoma malabathricum



Ageratum conyzoides



Hyptis suaveolens



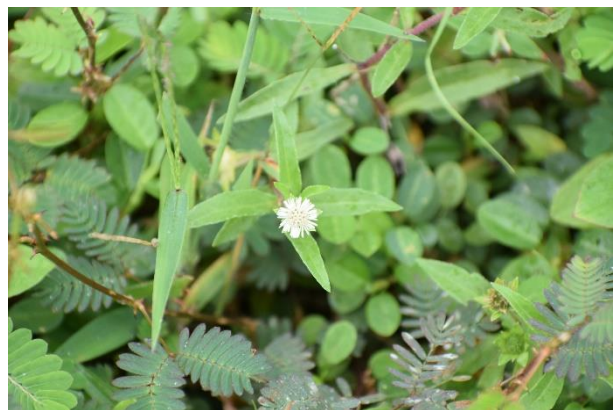
Borreria sp.



Borreria hispida



Alstonia scholaris



Eclipta prostrata



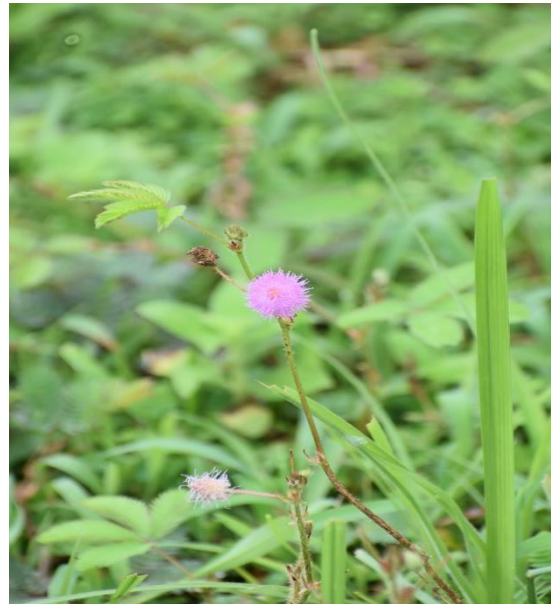
Urena lobata



Holarhena sp.



Heliotropium indicum



Mimosa pudica



Spilanthes acemella



Musa sp. plantation



Azadirachta indica



Polyalthia longifolia



Cymopogon sp.



Clitoria sp.



Citrus sp.

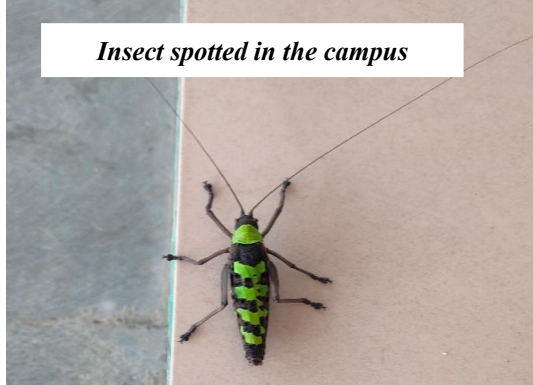


Ananas sp. Cultivation

Natural Bee Hive



Insect spotted in the campus



Butterfly species spotted in the campus

Rat snake spotted in the campus





Siberian Crane (*Grus leucojeranus*) Bogoli



Owl (*Athene noctua*)



Garden lizard spotted in the campus

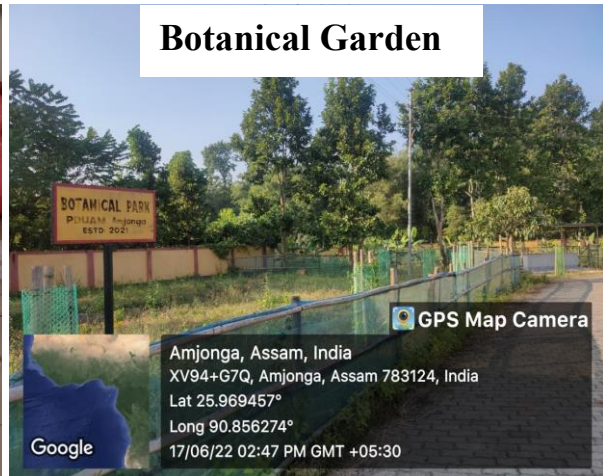
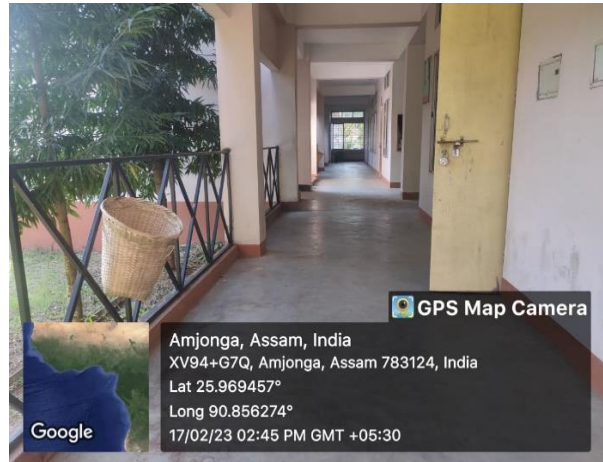
INSECTS:

Apis indica, Apis dorsata; Apis florea, Crocothemis erythraea; Pantala flavescens.

MOTHS & BUTTERFLIES:

Antheria assmensis; Bombyx mori; Philosamia ricini; Junonia atlites atlites ; Commander; Ethope himachala ; Melanitis leda leda ; Paltoporia paraka paraka; Ypthima baldus ; Acraea terpsicore ;Elymnias hypermnestraundularis ; Mycalesis perseus blasius ; Tanaecia lepidea lepidae ; Euploeacore core.

Dustbins Used in the College Campus



Vermicomposting Unit



Observations:

- The College maintains a sound green environment. It is commendable.
- Beautiful and well maintained gardens enhance the aesthetic beauty of the campus.
- The trees and bushes are providing nesting support to some specific indigenous wildlife. It is a specific sign of calm and quite eco- friendly environment of the campus.

Suggestions and Recommendations:

- The existing campus of Pandit Deendayal Upadhyaya Adarsha Mahavidyalaya, Amjonga supports a good number of plants and animals of which a few are ecologically, aesthetically and culturally important. All these plant species should be conserved in a proper way to support and to achieve more biodiversity values in future.
- The dedicated garden areas need to be monitored regularly to enhance the aesthetic beauty of the campus.
- Boundary areas may be systematically planted in consultation with a botanist or a horticulturist.
- Students may be encouraged to take care of the plants and the campus.

AUDIT SUMMARY

This report on “Green Audit” of Pandit Deendayal Upadhyaya Adarsha Mahavidyalaya, Amjonga for the year 2022-2023 was prepared with an objective to highlight and prepare a statement on the green practices followed by the College. The present Green auditing began with the assessment of the status of the green cover of the college followed by water audit, waste management practices and biodiversity etc. The audit team visited different facilities at the College campus, monitored different appliances/utilities and documented the relevant consumption patterns. The Faculty

members, staffs and learners were interviewed to get details of usage, frequency, or general characteristics of different appliances. Data collection was done by onsite visit in all the sectors related to environmental quality. The data thus collated were analyzed to prepare this audit report of Pandit Deendayal Upadhyaya Adarsha Mahavidyalaya, Amjonga.

The College is located on a huge plot of land of 25 bighas (15.6 Acre) and the campus is systematically arranged based on its master plan with dedicated spaces. The garden in front of administrative building enhance the aesthetic beauty of the college campus. Little disturbances within the dedicated green areas/gardens were observed that need monitoring and intervention. Boundaries of the college are almost covered with plantation which performs as sound barrier for the campus. Regular monitoring and trimming/pruning is therefore suggested at and when necessary. Cultivation of Assam lemon, jujube, turmeric etc. which highlight the best eco-friendly initiatives of skill development programmes for the students with the leadership of a few faculty members inside the college campus.

The Pandit Deendayal Upadhyaya Adarsha Mahavidyalaya, Amjonga extract @ 2000 L ground water per day to fill up the water reservoirs of the capacity 11000 L. It was noted that wastage of water is very meager which was also reflected in the consciousness of the stakeholders. Till now the potable water quality was within the permissible limit as prescribed by different agencies excluding the iron content which the College is trying to manage by installing necessary filters. The authority is proactive in conserving water and the awareness of Stakeholders on water conservation is commendable as well. Further, Display signage for water conservation and regular monitoring was found in their places which can be considered as one of the best green practices of the College for conservation of water. The initiative of rain water harvesting in each building are made and channels were connected to a 'Well' that was dug for recharge of groundwater. Though no fault was found, it is suggested for periodical maintenance of water taps/ water pipes/reservoirs to prevent the loss of water.

In the college, more paper and plastic wastes were recorded to be generated in the Administrative Blocks and from the Canteen whereas, organic waste was found to be more in the canteen and hostel premises. No report was found on generation of bio-medical waste. The e-waste generation is little in the campus which is disposed of through a registered firm. The college has a centralized collection mechanism for any kind of

waste excluding the litters and biomass generated due to shedding from trees and weeding in the campus. Further, in order to carry forward the commitment to keep the campus waste free, installation of dustbins has been started in phase manner. It is also noted that no visible segregation practice exists to separate different wastes which need active attention.

But, it is good to see that around 84 per cent of stakeholders were confident about their understanding of waste and their obligation in disposing of material. Academic Departments do not generate large quantities of waste. Plastic materials are still in use, of course, in small quantities. It is hence suggested that Pandit Deendayal Upadhyaya Adarsha Mahavidyalaya, Amjonga campus is to be declared as a 'Complete Plastic-Free Campus'.

In order to encourage students to respect the environment and think about conservation, the college in collaboration with NSS Cell and Eco Club regularly organise different awareness programme on Swachhata and maintenance of healthy environment. Cleanliness drive and plantation programmes were also organised in and around the Pandit Deendayal Upadhyaya Adarsha Mahavidyalaya, Amjonga campus during last couple of years.

Energy use is clearly an important aspect of campus sustainability and thus requires no explanation for its inclusion in the assessment. Energy is mainly used in this college campus for 1) lighting, 2) office equipment, 3) air conditioners, 4) Fan 5) water pump and 6) cleaning and construction purposes. The main source of electricity in PDUAM, College, Amjonga is Assam Power Distribution Company Limited. The College has one generator of 35 KVA capacity which are mainly used during power failure particularly during Examination seasons. LPG are utilised for cooking in Canteens and Hostels as well. The Energy efficiency assessment was conducted for the load connected to the mains supply of college buildings including canteen. The entire campus including common facility centres are equipped with LED lamps and LED tube lights which can be considered as one of the best practices of energy saving. Though percentage replacement of non-energy efficient machines/gadgets in last 2 years was almost nil, the percentage of increase LED installation in last 2 years was almost 100 per cent.

A good practice was noted that all the computers are set to automatic power saving mode when not in use. Monitoring mechanism exists in put-on and put-off the electrical appliances is a laudable eco-friendly effort of the College. Solar installation is poor which needs augmentation.

As the Biodiversity plays a key role in providing numerous irreplaceable services to any community, biodiversity audit is one of the best practices for sustainability of an institute. The PDUAM, College, Amjonga campus houses around 17 numbers of vertebrates under different phylum. The campus accommodates around 02 amphibians, 04 reptiles, 09 birds and 02 mammals. Invertebrates present in the campus includes several species of butterflies, grasshoppers, earthworms, leech, Many species of other insects like bees, wasps, ants, bugs, beetles, spiders etc. Harboring of rich faunal diversity indicates a good health of the campus.

The campus is evergreen with 39 species of trees, 24 shrubs and 48 herbs including grasses. A few ornamental and economically important plants are introduced into the campus not only to beautify the campus but also to add values to it. Since plants provide a good ecological services in maintaining a green campus these should be conserved in a proper way to support and to achieve more biodiversity values in future.

In spite of having budgetary and management constraints that limits the effectiveness of green practices, Pandit Deendayal Upadhyaya Adarsha Mahavidyalaya, Amjonga has put every effort to streamline all those practices to make and convert it into an eco-friendly and aesthetic campus.

The report contains some specific suggestions and recommendations in each category to be implemented to improve the existing environment-related practices of Pandit Deendayal Upadhyaya Adarsha Mahavidyalaya, Amjonga.



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Auditor

P. D. U. A. Mahavidyalaya, Amjonga
Green Audit 2022-23

&

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2. ENERGY AUDIT

Energy Audit

Energy Audit: 2022-23

PANDIT DEENDAYAL UPADHYAYA ADARSHA MAHAVIDYALAYA

AMJONGA, GOALPARA, ASSAM – 783124

According to Energy Conservation Act, 2001, Energy Audit is the verification, monitoring and analysis of the use of energy including submission of technical report containing recommendations for improving energy efficiency with cost benefit analysis and an action plan to reduce energy consumption.

Energy and electricity audit cover the average consumption of Electrical and Natural Gas energy within the campus. Electricity audit tries to give an idea about the consumption of average Electricity power within the various Academic and Administrative Blocks of the College campus. On the other hand, within the Faculty Quarters (16 Nos.) and Women's Hostel (01 No.) Natural gases (LPG cylinders) are primarily used for cooking purpose. Moreover, Pandit Deendayal Upadhyaya Adarsha Mahavidyalaya, Amjonga (PDUAM) is taking its initial initiatives to utilize renewable energy such as solar power energy to generate electricity to compensate the necessity of electrical energy within the campus. To achieve that goal, 08 Nos. of Integrated Solar Street light are already been installed within the different parts of the campus each of which generates 74KWH per day. On the other hand, to minimize the consumption of electrical energy highly efficient and low power consumable LED light panels are being installed within the various academic and Administrative departments as well as in the Women's Hotel and faculty quarters.

SOP for calculating electrical energy consumption:

Consumption of electrical energy depends on various factors like:

- 1) Initial load in KWA,
- 2) Electrical phase and thereby resistance,
- 3) Nature of the conducting material used,
- 4) Nature and type of electrical gadgets used and
- 5) Duration of the electrical appliances used.

Average energy consumed by various electrical gadgets per hour used within the College campus:

Serial No	Name of the Equipment	Energy consumed per hour in Watt
01	LED Tube Light	55
02	Ceiling Fan	75
03	Computer (Desktop & Laptop)	170
04	Printer (Colour, Black & White)	50
05	Xerox Machine	250
06	Television	30
07	CCTV Monitor	40
08	Server Computer	120
09	CRO	35
10	Refrigerator	130
11	Smart Board with inbuilt computer	150
12	Projector	150
13	Laboratory Equipment	300
14	Water Pump	750
15	Water Purifier (Reverse Osmosis)	25
16	Biometric Machine	5
17	Exhaust Fan	40
18	LED Bulb	30
19	Air conditioner 5-Star rated	150

Table drawn below shows the average consumption of electrical energy per annum from the financial year 2018 – 2019 to 2022 – 2023 by the Institution.

Sl. No	Financial Year	Average Energy consumption per Months (KVA)	Average Monthly Electricity Bill (Rupees)
1	2022 – 23	35142.9	2, 46, 000/-
2	2021 – 22	35142.9	2, 46, 000/-
3	2020 – 21	35714.3	2, 50, 000/-
4	2019 – 20	35714.3	2, 50, 000/-
5	2018 – 19	34285.7	2, 40, 000/-
Average		35200.02	2, 46, 400/-

From the data it is evident that the average 35200.02 KVA unit per annum of electricity energy has been consumed by the College in the last five financial years from 2018 – 2019 to 2022 – 2023. Data shows that the average power consumed by college is almost uniform with little fluctuation of average consumption. However, there will be a good possibility to increase the monthly average electrical energy power consumption as soon as the infrastructural developments activities were undertaken within the campus.

Figures given below shows the comparison of monthly average power consumption within the College campus

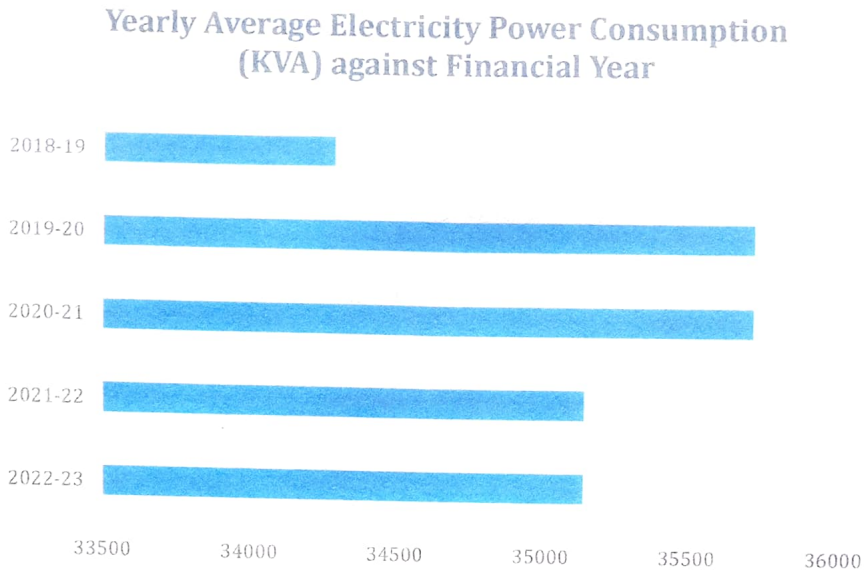


Figure 1: Average Yearly consumption of electric power within the campus since 2018-19 to 2022-23

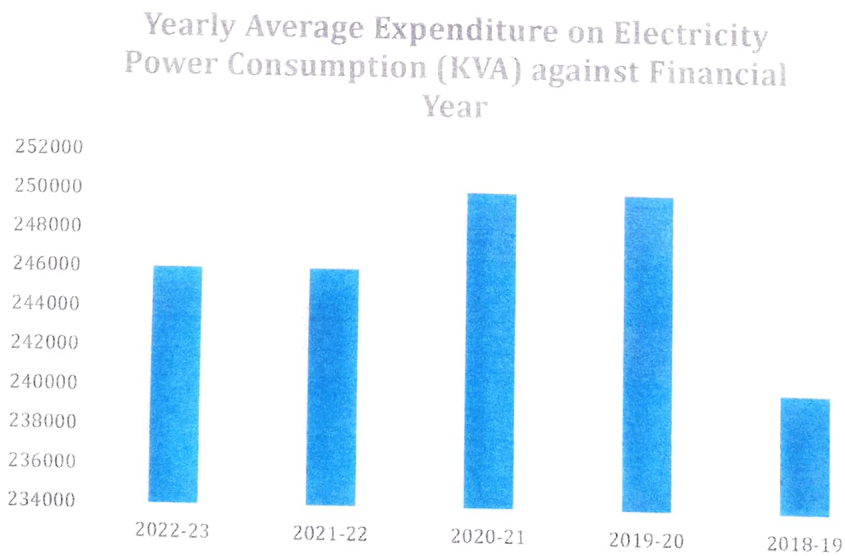


Figure 2: Yearly Average Expenditure on Electricity power consumption

Average monthly Solar Power Generated within the College Compus

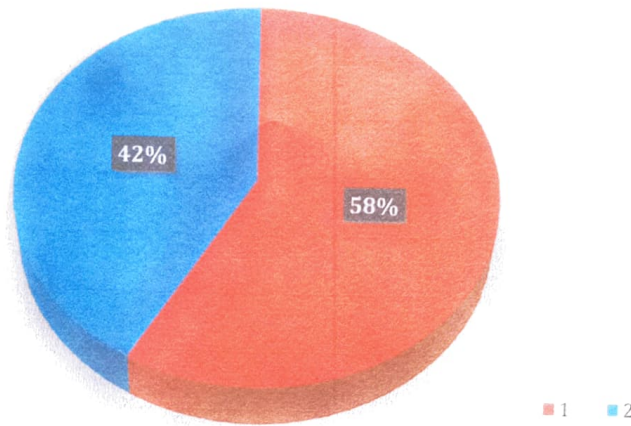


Figure 3: Monthly Solar power generated (Blue) and Electric Power Consumed (Red) within college campus

It has been observed from Figure 2, that there is an equilibrium demand in the electricity power requirement within the College campus. To compensate the rising power requirement 04 Nos of integrated solar street light are installed within the College campus. Annually, Pandit Deendayal Upadhyaya Adarsha Mahavidyalaya, Amjonga (PDUAM) has generated **296** KWH of electricity energy through integrated solar panels. Figure 3, gives the power generated from the solar power panels installed within the College campus. In the financial year 2023-2024 and 2024-2025, the College authority planned to install 10 KVA On-Grid Roof Top solar panel within the College campus to minimize regular electricity consumption and to keep pace with on-going sustainable development goal.

To minimize the power consumption within the campus, Pandit Deendayal Upadhyaya Adarsha Mahavidyalaya, Amjonga (PDUAM) is in a process of replacing old high-power Halogen and CFL blubs with low power consumption LED Bulbs. At present Pandit Deendayal Upadhyaya Adarsha Mahavidyalaya, Amjonga (PDUAM) have around 260 numbers of LED bulbs and LED tubes compared to 45 numbers of CFL bulbs and 2 numbers of high-power Halogen Bulbs in various academic and administrative blocks.

Number of various electrical gadgets used within the college campus are shown in the tabular form: On the other hand, on an average 96 numbers of natural gas (LPG cvlinders)

Serial No	Name of the Equipment	Quantity
01	LED Tube Light and Bulbs	643
02	Ceiling and Wall Fan	165
03	Computer (Desktop & Laptop)	25
04	Printer (Colour, Black & White)	04
05	Xerox Machine	01
06	Television	01
07	CCTV Monitor	01
08	Server Computer	01
09	CRO	02
10	Refrigerator	03
11	Smart Board with inbuilt computer	02
12	Projector	02
13	Laboratory Equipment	15
14	Water Pump	02
15	Water Purifier (Reverse Osmosis)	01
16	Biometric Machine	01
17	Exhaust Fan	20
18	Air conditioner 5-Star rated	01

Recommendations:

- Installation of Solar Panels should outmost priority
- Old cables should be immediately be replaced to minimize power loss
- Bulbs other than energy efficient LED must not be used
- All AC's should be upgraded to 5* (Five Star) operating at low voltage

Prepared by

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20.02.2024

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In Association with IQAC, Jawaharlal Nehru College, Boko

Signature of the College Authority

Navajyoti Sarmah
20.2.24
(Dr Navajyoti Sarmah)

Principal,
PDUAM, Amjonga, Goalpara

Principal
Pandit Deendayal Upadhyaya
Adarsha Mahavidyalaya, Amjonga

Metric No:	Heading
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3. CLEAN AND GREEN CAMPUS INITIATIVES

The college is located amidst the natural Sal forest of Amjonga that enhances the scenic beauty of the campus location. Since the establishment of the college the authority has framed environmental friendly policies to promote green practices in and within the campus. The 'Green Campus' concept justifies the institutions' vision in formulating sustainable solutions to combat environmental, geographical, social, cultural and economic needs of the mankind. Growing a green campus has been one of the primary concerns of the college. The greenery of the campus is in its budding phase. The college authority has been conducting plantation drives on a regular basis since the initiation and functioning of the college. The notable green initiatives of Pandit Deendayal Upadhyaya Adarsha Mahavidyalaya, Amjonga includes Solid waste management, E-waste management, Water Management/Rain Water Harvesting, Ban on Plastic Use, Restricted Vehicle Entry, Institutional Horticultural and Botanical Garden, Use of LEDs and Digital Library/E-learning Centre.

The institute has undertaken the following objectives as 'CLEAN AND GREEN CAMPUS' initiatives:

- i. Environmental education and awareness
- ii. Practice of energy efficient measures
- iii. Solid waste management
- iv. Bio-waste management
- v. E-waste management
- vi. Digital/ E-Learning
- vii. Green landscaping

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3. CLEAN AND GREEN CAMPUS INITIATIVES


3.1. Environmental education and awareness

The institution has been conducting various Environment Awareness Activities and capacity building programmes within the campus and beyond the campus at community level from time to time, with an aim to encourage the students to engage and protect the Environment and also help communities become more environmentally aware.

List of Programmes organised by PDUAM, Amjonga as Campus Green Initiative

Sl No.	Date	Event & Organiser	Venue /Themes
1	04/06/2022	Plantation Drive	College Campus
2	27/09/2022	Mega Cleanliness Drive by NSS, PDUAM	College Campus
3	21/10/2022	Plastic Cleanliness Drive by NSS, PDUAM, Amjonga	College Campus (under Clean India Campaign 2.0 and Fit India Freedom 3.0 of Swachha Bharat Abhiyan)
4	05/06/2023	Plantation Drive	College Campus
5	5/06/2023	Awareness on “ Say No to Single-Use Plastic”	PDUAM, Amjonga, Smart Class Room-2
6	26/06/23	Cleanliness Drive was organized by the NSS Unit, PDUAM, Amjonga	Swachha Bharat Mission at Amjonga Bazar and PDUAM Campus


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 Adarsha Mahavidyalaya, Amjonga

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3. CLEAN AND GREEN CAMPUS INITIATIVES

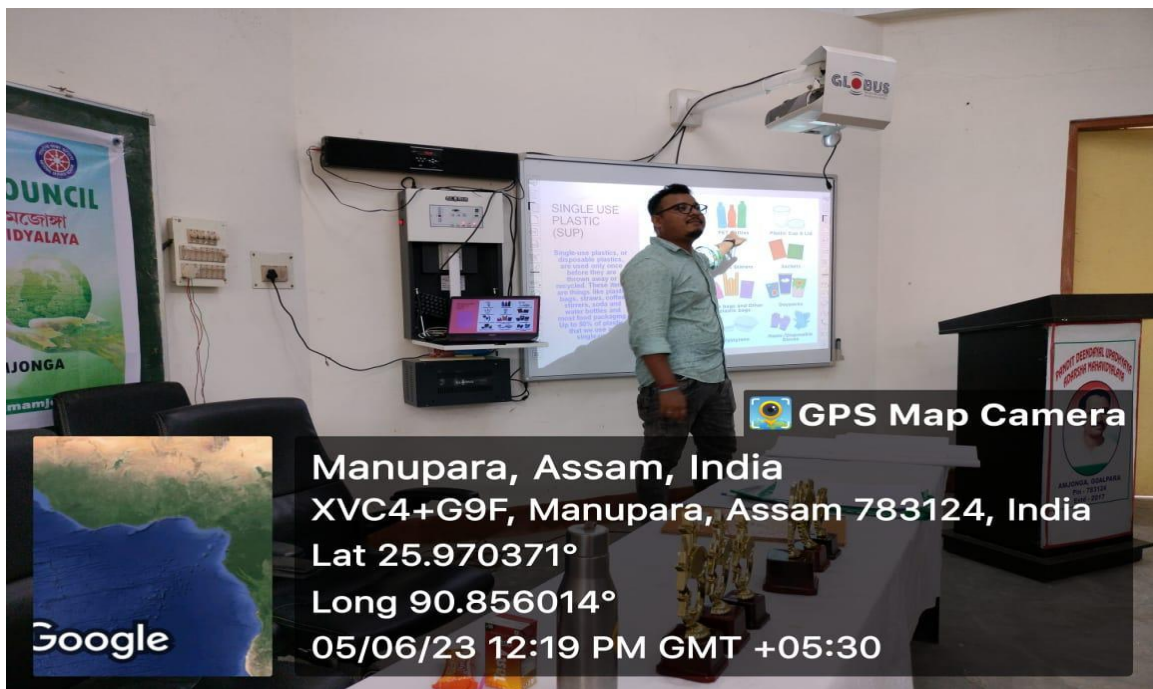


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3. CLEAN AND GREEN CAMPUS INITIATIVES



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3. CLEAN AND GREEN CAMPUS INITIATIVES

3.2. Practice of energy efficient measures

Energy conservation emphasizes on the decision and practice of using less energy or alternative source of energy. Energy should be conserved wherever possible. It is the effort to reduce wasteful energy consumption by minimizing the utility of energy services.

The college management has taken the following measures for conserving the energy.

- a. Use of LED lights in the institution and campus.
- b. Use of Signage stickers to unplug appliances and switch off lights and fans and water taps when not in use.
- c. Taking advantage of natural sunlight.
- d. Restricted entry of outsiders' vehicles within the college campus.

3.2.1. Use of LED lights in the institution and campus.

The institute has taken initiative in using LED (light emitting diode) lighting technology within the college campus instead of traditional lighting or incandescent bulbs. LED light bulbs use around 80-90 % less energy compared to traditional bulbs. The institute has a total of 260 LED tube lights in the current year (2023) consuming a total energy of 643 Kwh per month.

Table 1. Quantity of LED lights used in the campus

Year	Quantity	Expenditure
2018-2019	260	Not Applicable (Govt. Supplied)
2019-2020		
2020-2021		
2021-2022		
2022-2023		

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3. CLEAN AND GREEN CAMPUS INITIATIVES

3.2.2. Use of Signage stickers to unplug appliances and switch off lights and fans when not in use.

Energy saving signages are a range of signs which convey messages that promotes the way to save energy throughout a campus. Signage stickers enables to think and visualize one about the action to be performed. It also reminds or directs to follow up the written statement in a practical way. The institute has taken up green initiative to place signage stickers above or beside every switch boards to remind the need to save energy and turn off the lights when not in use. Also instructions in every labs to unplug the appliances when not in use.

The following energy saving signages are used in the college campus:

- a) TURN OFF LIGHTS WHEN NOT IN USE

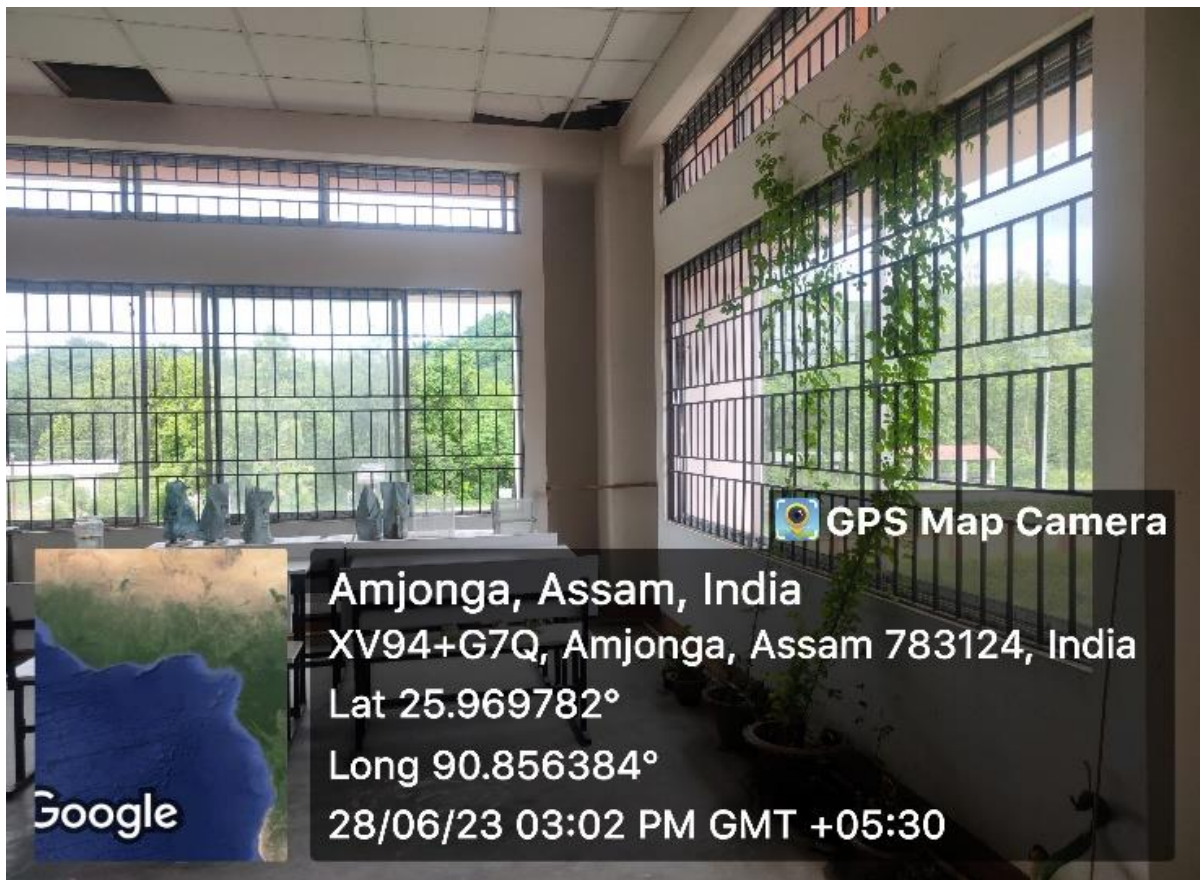


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3. CLEAN AND GREEN CAMPUS INITIATIVES

3.2.3. Taking advantage of natural sunlight.

The classrooms and laboratories of the institute are spacious and has a wide exposure to natural lights. Almost 80-90% of the classroom walls are fitted with large window panes allowing maximum light to enter. During day time, electric bulbs are not used as the sunlight is sufficient to illuminate the classroom. The large window panes with proper grilling system also helps to maintain proper ventilation system that allows natural air flow in and out of the room and supplies adequate fresh air. Ensuring enough of the natural light and air are the keys to physical and psychological wellbeing of the people in the college.




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3. CLEAN AND GREEN CAMPUS INITIATIVES

3.2.4. Restricted entry of vehicles on Saturday within the college campus : The institute encourages students, teachers and other staffs to use bicycles, battery powered vehicles and use of public transport. There is a complete ban on the entry of vehicles within the college campus on a particular day in a week.




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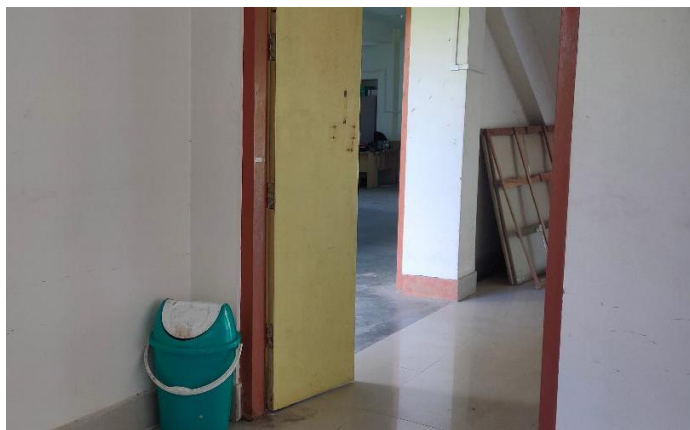
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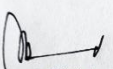
3.3. Solid waste management

3.3.1. Encourage to recycle: The college has set out distinct receptacles for trash and recycling to encourage the students to participate in sustainable acts. Different coloured bins for different materials with symbols and signages are placed in college campus for putting the recyclables in respective bins. The trashes are sent regularly to local trash collectors for recycling purposes. Time to time awarness talks are also given to the students to develop the habit of recycling the used materials generated within the campus.

DUSTBINS PLACED WITHIN THE CAMPUS




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3. CLEAN AND GREEN CAMPUS INITIATIVES

3.3.2. Practice of Reduce-Reuse and Recycle (3R): The institute had strictly followed the principles of 3Rs in management of the the campus non-degradable waste materials since its establishment. Separate dustbins for segregation of solid waste are installed in the campus. Based on the nature of the waste, the individuals theow the scrap in the respective bins. The institute encourages to REDUCE the usage of single-use plastic materials. The concept of Eco-brick preparation is dessiminated among the students to aware the students with the concept of REUSE. Non-degradable solid waste materials are handed over to the door-to-door scrap collector on a regular basis for recycling purpose.

STUDENTS MAKING ECO-BRICKS



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3. CLEAN AND GREEN CAMPUS INITIATIVES

3.3.3. Encourage to use reusable water bottles: Nowadays too many single-use plastic water bottles are used that end up in huge landfills and act as environmental hazards. The institution has therefore tried to counteract this problem by installing water fill stations within the college building.

WATER REFILLING UNIT



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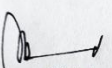
3.4. Biowaste- Management

3.4.1. Vermicomposting: A vermi-compost production unit had been set up in the college premises. The Department of Botany manages the production unit on a regular basis. The degradable solid waste materials that are generated in and within the campus are dumped in the compost bin for vermicompost production. This initiative has been beneficial to the institute in keeping the campus clean and healthy. It also fetches a good amount of revenue along with a supporting service (soil fertility balance) of the Botanical and Horticultural Garden of the college.

VERMICOMPOST UNIT




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3. CLEAN AND GREEN CAMPUS INITIATIVES

3. 5. E-Waste management

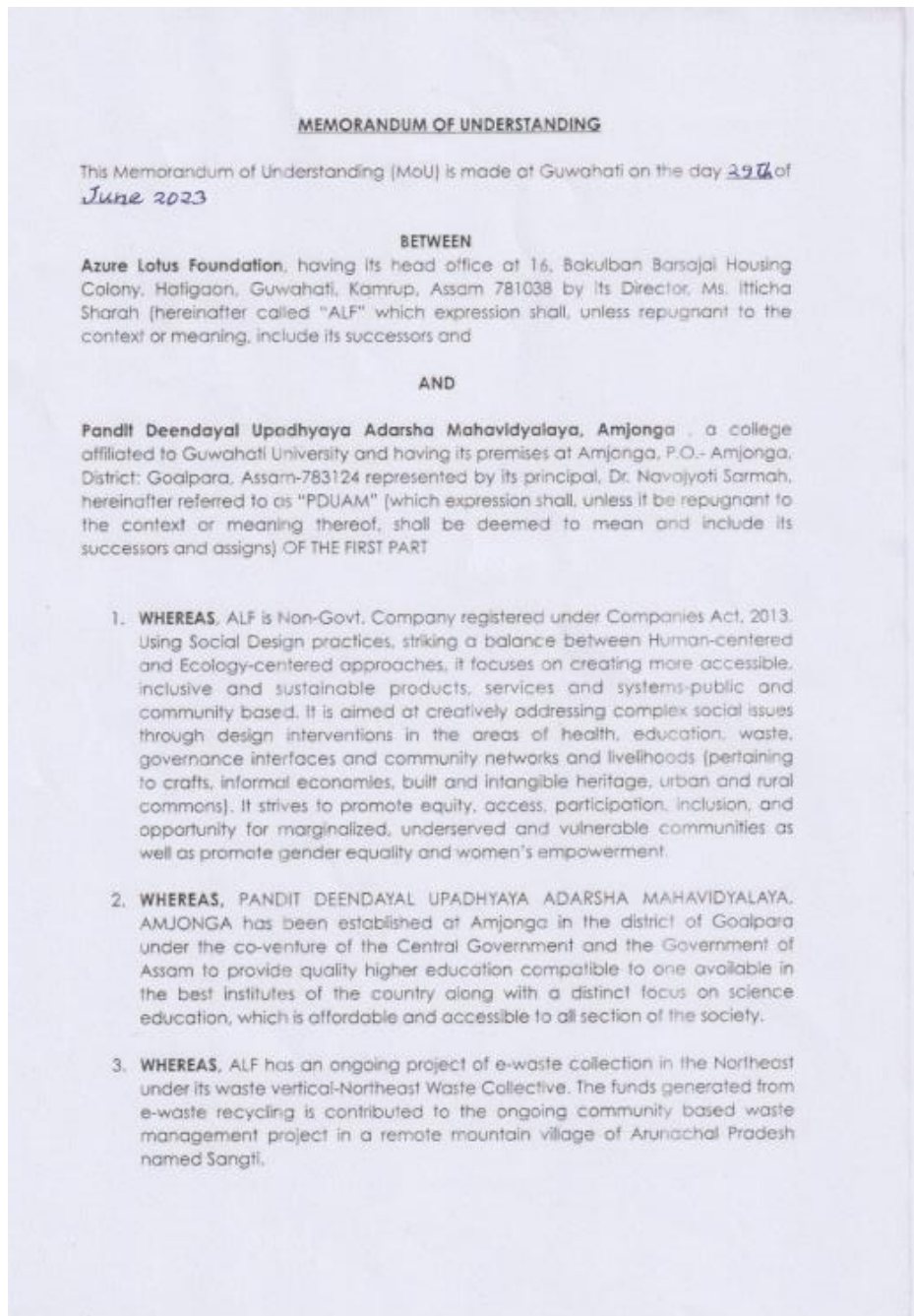
3.5.1. E-waste Donation: The institute has been practicing the habit of donating electronic waste in the E-waste bin installed in the college campus. The teaching and non-teaching staff of the college along with the students donates the electronic waste materials as and when generated. The collections are deposited to *Azure Lotus Foundation*, an organization that deals with E-waste management. The institute has signed an MoU with *Azure Lotus Foundation* in this aspect with a few terms and conditions related to E-waste management of the institute.

Metric No:	Heading
7.1.3	<p>Quality audits on environment and energy regularly undertaken by the Institution are confirmed by the following activities:</p> <ol style="list-style-type: none"> 1. Green audit/Environment audit 2. Energy audit 3. Clean and green campus initiatives 4. Beyond the campus environmental promotion activities

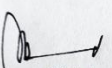
3. CLEAN AND GREEN CAMPUS INITIATIVES

3.5.2. Memorandum of Understanding between Azure Foundation, Guwahati and PDUAM, Amjonga

(1)




 Coordinator
 IOAC, PDUAM, Amjonga
 Phone No- 931124


 Principal
 Pandit Deendayal Upadhyaya
 Adarsha Mahavidyalaya, Amjonga

(4)


To PDUAM:

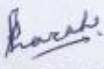
Principal, PDUAM
Amjanga, P.O.- Amjanga, District: Goalpara.
Assam-783124
E-mail: modelcc@geeamjonga@gmail.com Phone: +919435849434

THE PARTIES HAVE EXECUTED THIS MEMORANDUM OF UNDER-STANDING (MoU)
HERETO HAVE AFFIXED THEIR SIGNATURE WITH OFFICIAL STAMP ON THIS DAY OF IN THE
PRESENCE OF WITNESS INDICATED.

For and on behalf of
Pandit Deendayal Upadhyaya
Adarsha Mahavidyalaya

For and on behalf of
Azure Lotus Foundation



Dr. Navajyoti Sarmah
Principal,
PDUAM, Amjanga
Assam - 783124


Ms. Itticha Sharah
Director, Azure Lotus Foundation,
Bakulban Barsajal Housing Colony,
Hatigaon, Guwahati, Kamrup
Assam- 781038

Pandit Deendayal Upadhyaya
Adarsha Mahavidyalaya, Amjanga
In the presence of

For AZURE LOTUS FOUNDATION

DIRECTOR

1.  Vice Principal
Pandit Deendayal
Upadhyaya Adarsha
Mahavidyalaya, Amjanga,
Goalpara

1. 
2. _____
2. _____

—X—

Metric No:	Heading
7.1.3	<p>Quality audits on environment and energy regularly undertaken by the Institution are confirmed by the following activities:</p> <ol style="list-style-type: none"> 1. Green audit/Environment audit 2. Energy audit 3. Clean and green campus initiative 4. Beyond the campus environmental promotion activities

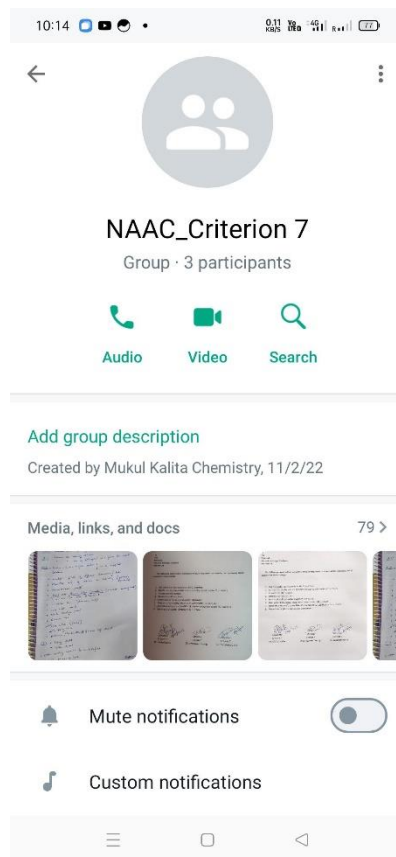
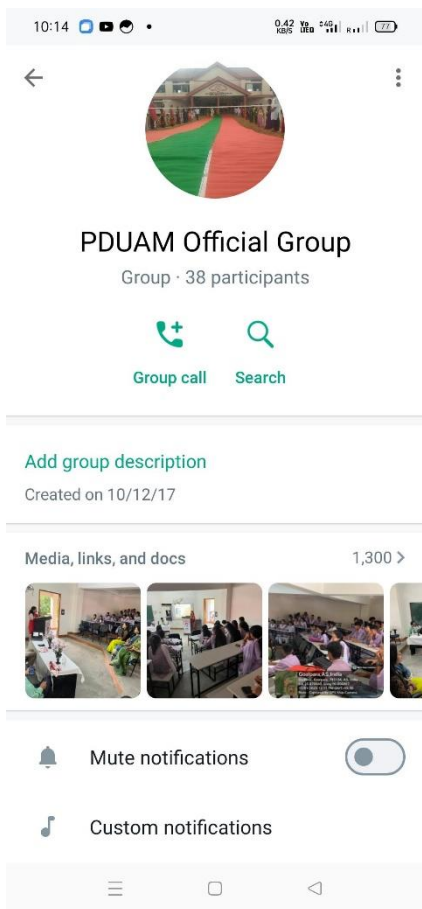
3. CLEAN AND GREEN CAMPUS INITIATIVES

3.6. Digital/ E-learning:

3.6.1. Choose Electronics over Paper:

The institution has adopted digital communication, learning and other applications. Office notices are also shared in digital platforms such as Whatsapp Groups, E-mail to promote the concept of “PAPERLESS OFFICE”

OFFICIAL WATSAPP GROUPS



Metric No:	Heading
7.1.3	<p>Quality audits on environment and energy regularly undertaken by the Institution are confirmed by the following activities:</p> <ol style="list-style-type: none"> 1. Green audit/Environment audit 2. Energy audit 3. Clean and green campus initiative 4. Beyond the campus environmental promotion activities

3. CLEAN AND GREEN CAMPUS INITIATIVES

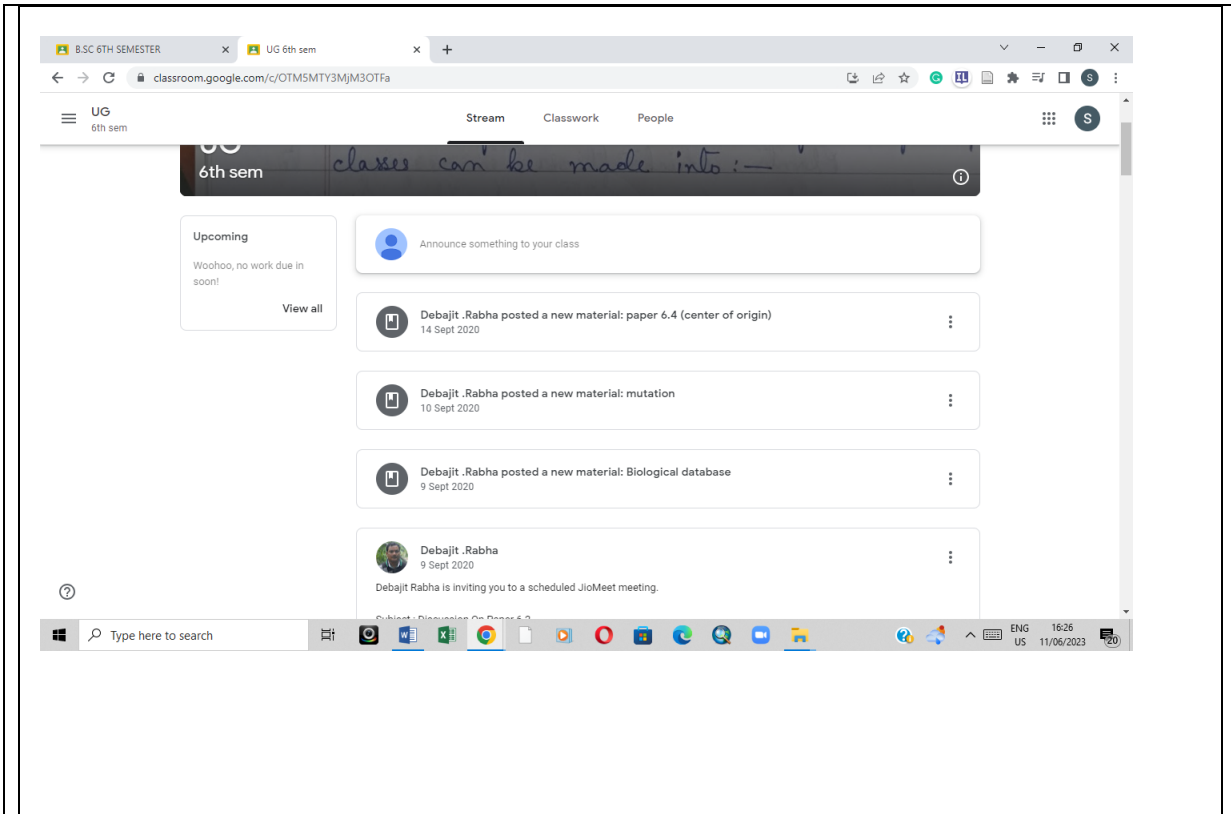
3.6. Digital/ E-learning:

3.6.2. Online classes/ ICT:

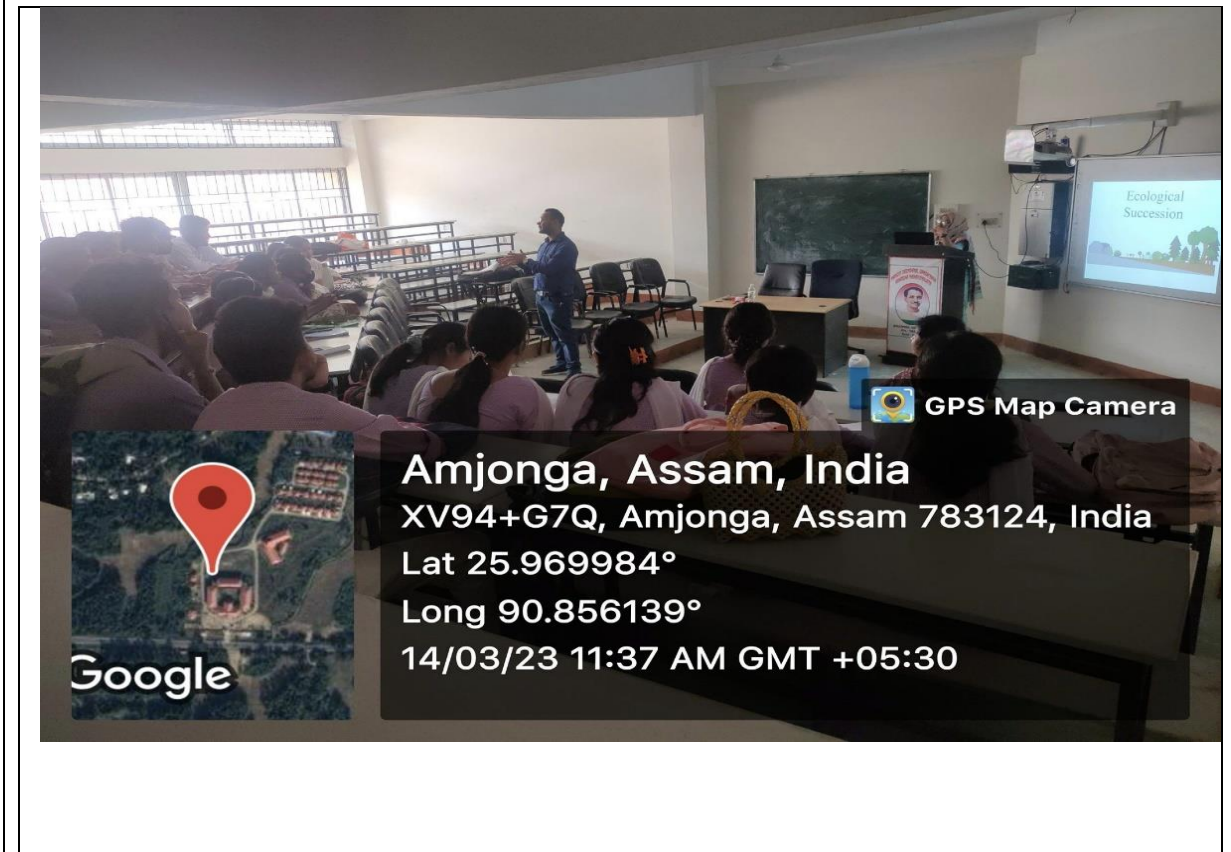
Teachers opt to use online versions of teaching along with classroom teachings. To use maximum ICT tools such as Google classrooms, smart boards, LCD screens, digital learning through electronic textbooks over paper are a few green initiatives taken by the college in terms of teaching-learning process.

LINKS	CODE
https://classroom.google.com/c/OTM5MTY3MjM3OTFa?cjc=23tcfyu	23tcfyu
https://classroom.google.com/c/NTE3MTY4OTMwMzMz?cjc=hpsvcp2	hpsvcp2
https://classroom.google.com/c/NTE2NDY0NzgxMjMy?cjc=lbjckx	lbjckx

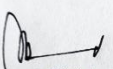
The screenshot shows a Google Classroom page for 'UG 6th sem'. A post by 'Insanara Rahman' (13 May 2020) contains the text 'Hi students, here are the notes from the chapter Photoperiodism.' and a PDF attachment named 'imgtopdf_generated_1305... PDF'. Below the post, there are 4 class comments. One comment from 'Marufa Ibnat' (13 May 2020) says 'Ys mam'. Another post by 'Insanara Rahman' (13 May 2020) says 'Hi students, here are the notes from the chapter Photoperiodism.' with 2 class comments, one from 'Insanara Rahman' (13 May 2020) saying 'Moi takei try Kori asu, pora nai.' The browser address bar shows 'classroom.google.com/c/OTM5MTY3MjM3OTFa'.



USE OF SMART BOARD IN TEACHING LEARNING




Coordinator
IOAC, PDUN, Amjonga
Pincode- 783124


Principal
Pandit Deendayal Upadhyaya
Adarsha Mahavidyalaya, Amjonga

Metric No:	Heading
7.1.3	<p>Quality audits on environment and energy regularly undertaken by the Institution are confirmed by the following activities:</p> <ol style="list-style-type: none"> 1. Green audit/Environment audit 2. Energy audit 3. Clean and green campus initiative 4. Beyond the campus environmental promotion activities

3. CLEAN AND GREEN CAMPUS INITIATIVES

3.7. Green landscaping: As a proactive initiative the College Authority has formed an Eco-Club comprising teaching, non-teaching staffs and students and build gardens to increase the green cover of the campus.

- i. Eco-club formation
- ii. Botanical garden
- iii. Horticultural Garden.



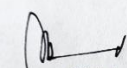
LANDSCAPE VIEW OF THE COLLEGE CAMPUS



LANDSCAPE VIEW OF THE COLLEGE CAMPUS





Coordinator
IOAC, POJAN, Amjonga
Phone No- 931124


Principal
Pandit Deendayal Upadhyaya
Adarsha Mahavidyalaya, Amjonga



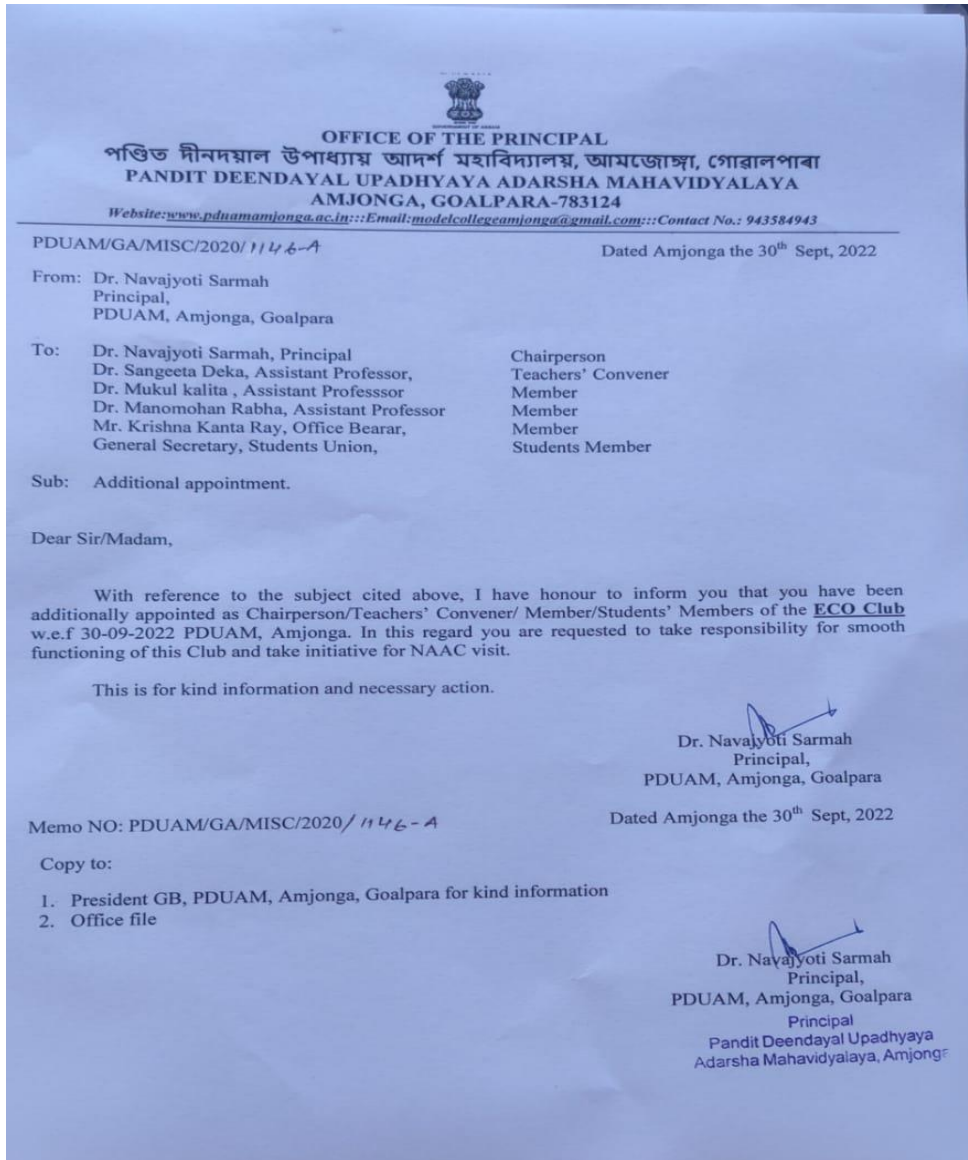

Coordinator
IOAC, POJAN, Amjonga
Phone No- 931124


Principal
Pandit Deendayal Upadhyaya
Adarsha Mahavidyalaya, Amjonga

Metric No:	Heading
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3. CLEAN AND GREEN CAMPUS INITIATIVES

3.7.1. Eco-club formation:



Metric No:	Heading
7.1.3	<p>Quality audits on environment and energy regularly undertaken by the Institution are confirmed by the following activities:</p> <ol style="list-style-type: none"> 1. Green audit/Environment audit 2. Energy audit 3. Clean and green campus initiative 4. Beyond the campus environmental promotion activities

3. CLEAN AND GREEN CAMPUS INITIATIVES

3.7.2. Botanical Garden:

The Botanical Garden of PDUAM has been designed to study and conserve plant species. It harbours locally available and some exotic plants required for botanical study and research activity. The garden is a museum to living plants which has been designed in various sections, each of which is devoted to certain group of plants or purpose. The garden has sections such as medicinal plants, aquatic plants, xerophytes, herbal leafy plants, dye-yielding plants, plants used in botanical practical experiments, lower group of plants and many others. Students' activities are also done within the garden to educate and provide a practical experience in the field of nursery and gardening. A small nursery is also maintained within the botanical garden.



Metric No:	Heading
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3. CLEAN AND GREEN CAMPUS INITIATIVES

3.7.3. Horticultural Garden: The Horticultural Garden of PDUAM is designed to grow some selected horticultural crops suitable for the region. It includes primarily *Musa* sp. (banana), *Citrus* sp. (lemon) and *Ananas comosus* (pineapple). The concept of intercropping is practiced in the horticultural garden between banana and lemon. The pineapple is grown by mulching (plastic-use) technique, a new scientific method in the field of agri-horticulture.

PINEAPPLE CULTIVATION BY PLASTIC MULCHING TECHNIQUE IN HORTICULTURAL GARDEN




Metric No:	Heading
7.1.3	<p>Quality audits on environment and energy regularly undertaken by the Institution are confirmed by the following activities:</p> <ol style="list-style-type: none"> 1. Green audit/Environment audit 2. Energy audit 3. Clean and green campus initiative 4. Beyond the campus environmental promotion activities

4. BEYOND THE CAMPUS ENVIRONMENTAL PROMOTION ACTIVITIES

List of Programmes organised by PDUAM, Amjonga beyond Campus

Sl No.	Date	Event & Organiser	Venue /Themes
1	21/10/2022	Plastic Cleanliness Drive under Clean India Campaign 2.0 and Fit India Freedom	Local (Amjonga) Bazar
2	06/04/2023	Awareness program on Safe Drinking Water by Dept. of Chemistry, PDUAM, Amjonga	Adopted village namely, Amjonga, Pahartoli, pt-2
3	08/04/2023	Awareness program by Dept. of Botany, PDUAM, Amjonga and NSS	PAHARTOLI VILLAGE on the topic" Importance of Plants and its Conservation".
4	10/04/2023	Awareness program by NSS and Dept. Of Physics, PDUAM, Amjonga	PAHARTOLI VILLAGE on Green Technology to aware the people towards green initiatives of government of India.
5	5/06/2023	Plantation Drive	Pahartoli LPS Campus, Suchiapara, Amjonga
6	26/06/2023	Cleanliness Drive was organized by the NSS Unit, PDUAM, Amjonga	Swachha Bharat Mission at Amjonga Bazar


 Coordinator
 IOAC, PDUAM, Amjonga
 Contact No- 931124


 Principal
 Pandit Deendayal Upadhyaya
 Adarsha Mahavidyalaya, Amjonga

Title: Plastic Cleanliness Drive under Clean India Campaign 2.0 and Fit India Freedom 3.0 of Swaacha Bharat Abhiyan

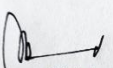
Date: 21st October 2022

Venue/ Place: PDUAM, Amjonga and Local (Amjonga) Bazar

Report: A Plastic Cleanliness Drive under Clean India Campaign 2.0 and Fit India Freedom 3.0 of Swaacha Bharat Abhiyan was organised by the NSS Unit of PDUAM, Amjonga of College Campus and Local (Amjonga) Bazar. It was carried out between 12:30pm to 2:30pm.




Coordinator
IOAC, PDUAM, Amjonga
Pincode- 783124

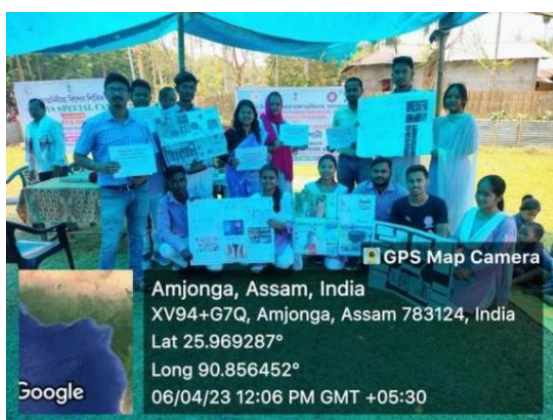

Principal
Pandit Deendayal Upadhyaya
Adarsha Mahavidyalaya, Amjonga

Title: Awareness program by Dept. Of Chemistry, PDUAM, Amjonga

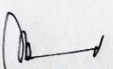
Date: 6th April 2023

Venue/ Place: Adopted village namely, Amjonga, Pahartoli, pt-2

Report: The Department of Chemistry, PDUAM Amjonga organized an awareness program on Safe Drinking Water in collaboration with the NSS unit, PDUAM Amjonga at Pahartoli village.




Coordinator
IOAC, PDUAM, Amjonga
Pahartoli- 783124


Principal
Pandit Deendayal Upadhyaya
Acharsha Mahavidyalaya, Amjonga

Title: Awareness program by Dept. of Botany, PDUAM, Amjonga

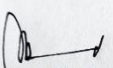
Date: 8th April 2023

Venue/ Place: Adopted village namely, Amjonga, Pahartoli, pt-2

Report: PDUAM, Amjonga, Department of Botany in association with NSS, PDUAM, Amjonga made an awareness program at PAHARTOLI VILLAGE on the topic" Importance of Plants and its Conservation".




Coordinator
IOAC, PDUAM, Amjonga
Phone no- 93124


Principal
Pandit Deendayal Upadhyaya
Atarsha Mahavidyalaya, Amjonga

Title: Awareness program by Dept. of Physics, PDUAM, Amjonga

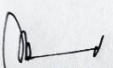
Date: 10th April 2023

Venue/ Place: Adopted village namely, Amjonga, Pahartoli, pt-2

Report: NSS and Dept of Physics, PDUAM, Amjonga organised an awareness program on Green Technology in collaboration on 10/04/2023. In this programme our students and teachers explained the importance of Green technology and application of green technology to aware the people of village towards green initiatives of government of India.




Coordinator
IOAC, PDUAM, Amjonga
Pahartoli- 783124


Principal
Pandit Deendayal Upadhyaya
Adarsha Mahavidyalaya, Amjonga

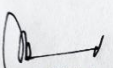
Title: Plantation Drive

Date: 5th June 2023

Venue: Pahartoli LPS Campus, Suchiapara, Amjonga




Coordinator
IOAC, PDAM, Amjonga
Goalpara-783124


Principal
Pandit Deendayal Upadhyaya
Adarsha Mahavidyalaya, Amjonga

Title: Swachha Bharat Mission at Amjonga Bazar

Date: 26th June 2023

Venue/ Place: Adopted village namely, Amjonga, Pahartoli, pt-2

Report: A Cleanliness Drive was organized by the NSS Unit, PDUAM, Amjonga on 26th June, 2023 at the Amjonga Bazar under the Swachha Bharat Mission. The NSS Volunteers took part in the event and cleaned the Bazar and its neighbouring area during the event.



Amjonga, Assam, India
XR9X+G4R, Amjonga, Assam 783124, India
Lat 25.968594°
Long 90.847675°
26/06/23 10:37 AM GMT +05:30

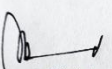


Amjonga, Assam, India
XR9X+G4R, Amjonga, Assam 783124, India
Lat 25.96858°
Long 90.847688°
26/06/23 10:38 AM GMT +05:30



Amjonga, Assam, India
XR9X+J2F, Amjonga, Assam 783124, India
Lat 25.969164°
Long 90.847659°
26/06/23 10:34 AM GMT +05:30


Coordinator
IOAC, PDUAM, Amjonga
Pahartoli- 783124


Principal
Pandit Deendayal Upadhyaya
Adarsha Mahavidyalaya, Amjonga