GREEN AUDIT REPORT
2022-23

PANDIT DEENDAYAL UPADHYAYA ADARSHA MAHAVIDYALAYA, AMJONGA

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ACKNOLEDGEMENT

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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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 tress 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 incompliance 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.

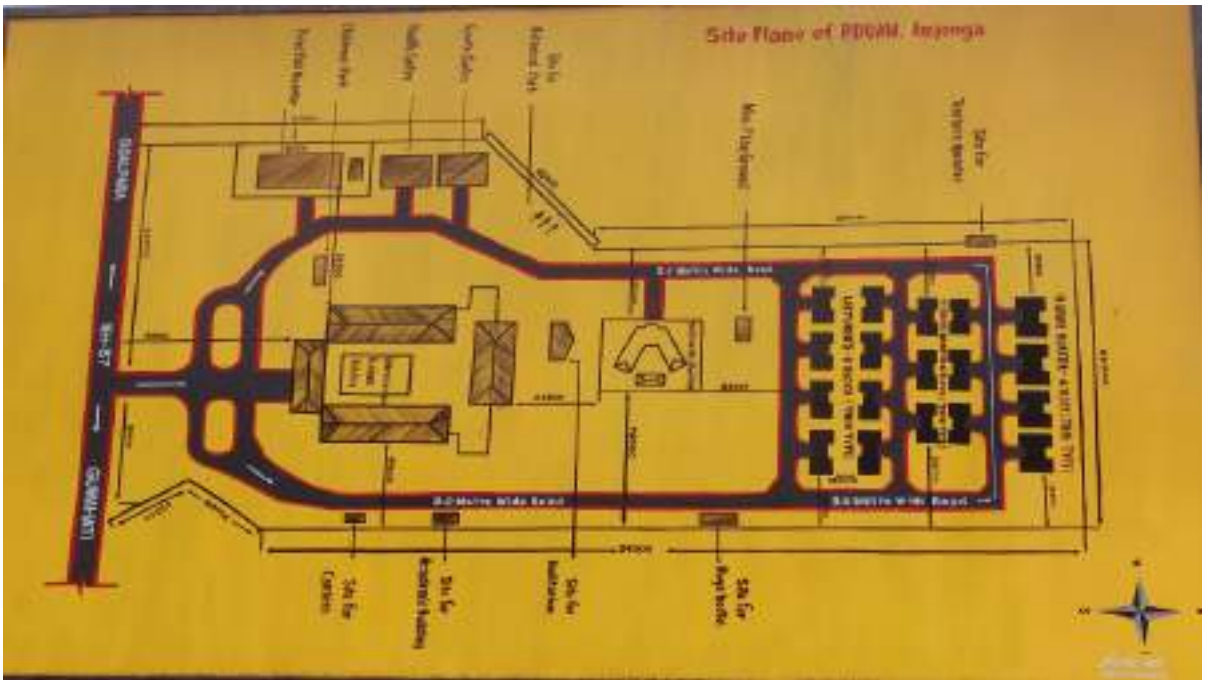
POST AUDIT STAGE

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

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 Plastic waste Organic waste E-waste Biomedical waste	28.2 kg 51.9 kg 0.00 kg 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.

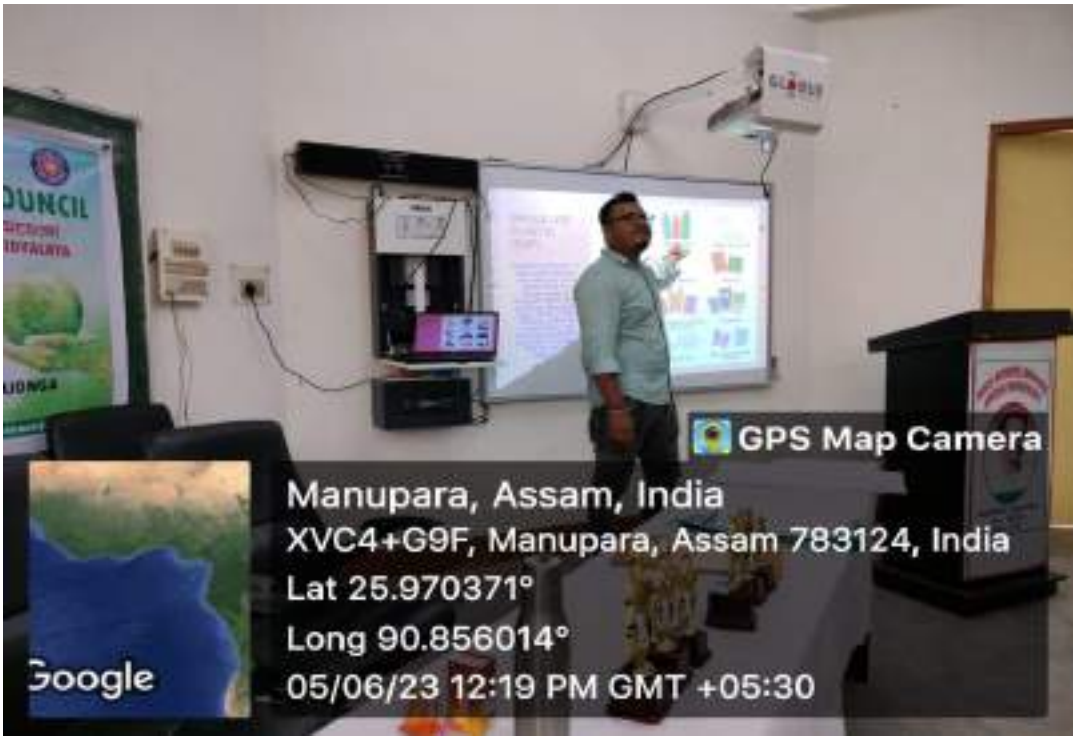
Awareness for keeping all campus clean

"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 Swaacha 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

STUDENTS MAKING ECO-BRICKS

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:

Sl No.	3
Name of the activity	**Plastic Cleanliness Drive under Clean India Campaign 2.0 and Fit India Freedom 3.0 of Swaacha 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 Swaacha 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:




Sl 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:

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

Sl 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:

Sl 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:

Sl 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:

Sl 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 imp0ortance of giving proper education to the students.

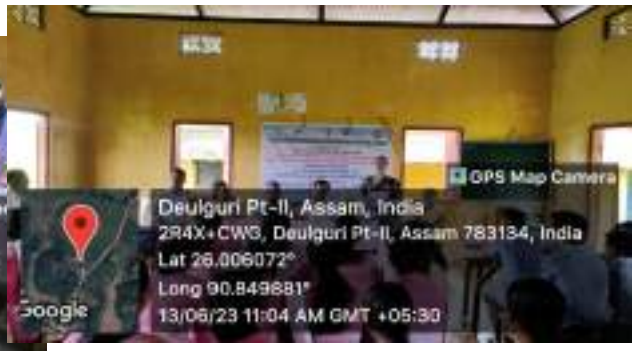
Photos:

Sl 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:

Sl 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 oragnised by NSS and IIC, PDUAM, Amjonga at Kushdhowa High School. The talk was delivered by Er. Benzamin Kaman, Chief Asst. Technical officer, KVK

Photos:



l 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 22nd 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 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.

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			
SlNo	**Scientific Name**	**Common Name**	**Local Name**
1	*Acrodother estristis*	Indian myna	Xalika
2	*Passer domesticus*	House sparrow	Ghonsirika
3	*Spilopelia chinensis*	Spotted dove	Kopou
4	*Merops apiaster*	Bee-eater	Mou-khowa
5	*Amaurornis phoenicurus*	White breasted waterhen	Dawki
6	*Nactarina asiaticu*	Sun-bird	Mou-piya
7	*Corvusbrachy rhynchos*	Crow	Kawri
8	*Eudynamys scolopaceus*	Asian koel	Kuli
9	*Otus lettia*	Owl	Fesa
Mammals			
1	*Sciurus* sp	Squirrel	Kerkatuwa
2	*Macaca assamensis*	Assam Mcaque	Muluwa bandor
Reptiles			
1	*Coelognathus radiates*	Copper head rat snake	Gum xap
2	*Gekko* sp	Gekko	Keko
3	*Amphiesma stolatum*	Buff striped keelback	Bamunixap
4	*Fowlea piscator*	Checkered keelback	Dhoraxap
Amphibia			
1	*Duttaphrynus melanostictus*	Asian common toad	Chukbhekuli
2	*Polypedates leucomystax*	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

Sl No.	*Species*	Family	Common name
	Aegle marmelos	*Rutaceae*	Wood apple
	Albizia sp.	*Fabaceae*	Siris
	Alstonia scholaris	*Apocynaceae*	Devil tree
	Aquilaria malaccensis	*Thymelaceae*	Agar wood
	Araucaria heterophylla	*Araucariaceae*	Chilian pine
	Artocapu shetrophyllus	*Moraceae*	Jackfruit
	Azadirachta indica	*Meliaceae*	Neem
	Bougainvillea sp.	*Nyctaginaceae*	Papeflower
	Caesalpinia pulcherrima	*Fabaceae*	Peacock flower
	Callicarpa arborea	*Lamiaceae*	Beautyberry tree
	Careya arborea	*Lecythidaceae*	Ceylon oak
	Carica papaya	*Caricaceae*	Papaya
	Chukrasia tubularis	*Meliaceae*	Indian mahogany
	Cinnamomum tamala	*Lauraceae*	Tezpat
	Citrus limon	*Rutaceae*	Lemon
	Gmelina arborea	*Lamiaceae*	White teak
	Lagerstroemia speciosa	*Lythraceae*	Crepe Myrtle
	Lannea coromandelica	*Anacardiaceae*	Indian ash tree
	Magnolia sp.	*Magnoliaceae*	Magnolia
	Mallotus sp.	*Euphorbiaceae*	Kumkum tree
	Mangifera indica	*Anacardiaceae*	Mango
	Melia azadirachta	*Meliaceae*	Chinaberry tree
	Mesua ferrea	*Calophyllaceae*	Ceylon ironwood
	Mimusops elengi	*Sapotaceae*	Spanish cherry
	Musa sp.	*Musaceae*	Banana
	Neolamarckia cadamba	*Moraceae*	Kaddam
	Nyctanthes arbor-tristis	*Oleaceae*	Blomoming Jasmine
	Phyllanthus emblica	*Phyllanthaceae*	Indian gooseberry
	Polyalthia longifolia	*Annonaceae*	False Ashoka tree
	Pongamia pinnata	*Fabaceae*	Indian beech
	Psidium guajava	*Myrataceae*	Guava
	Samanea saman	*Fabaceae*	Rain tree
	Shorea robusta	*Dipterocarpaceae*	Sal
	Syzgium cumini	*Myrataceae*	Java plum
	Tectona grandis	*Lamiaceae*	Teak
	Terminalia arjuna	*Combretaceae*	Arjuna
	Terminalia bellerica	*Combretaceae*	Bahera

	Thuja orientalis	*Cupressaceae*	Oriental Arbor Vitae
	Ziziphus jujuba	*Rhmnaceae*	Common jujube

Shrub diversity of PDUAM, Amjonga

Sl No.	*Species*	Family	Common Name
	Melastomamalabathricum	*Melastomaceae*	Indian Rhododendron
	Urenalobata	*Malvaceae*	Caesaeweed
	Trifoniumtrilobatum	*Araceae*	Bengal arum
	Cassia sophera	*Fabaceae*	Sennasophera
	Mucunapruriens	*Fabaceae*	Monkey tamarind
	Amorphophalluspaeniifolius	*Araceae*	Elephant foot yam
	Lantana camara	*Asteraceae*	Yellow sage
	Sidacordifolia	*Malvaceae*	Flannel weed
	Hyptissuaveolens	*Lamiaceae*	Bush tea
	Bryophyllumpinnatum	*Crassulaceae*	Miracle leaf
	Ricinuscommunis	*Euphorbiaceae*	Castor oil
	Paederiafoetida	*Rubiaceae*	Chinese fever vine
	Murrayakoenigii	*Rutaceae*	Curry leaf tree
	Mikaniamicarantha	*Asteraceae*	Bitter vine
	Solanumnigrum	*Solanaceae*	Black nightshade
	Solanumtorvum	*Solanaceae*	Turkey berry
	Ageratum conyzoides	*Asteraceae*	Goat weed
	Clerodendrumpaniculatum	*Lamiaceae*	Pagoda flower
	Clerodendruminfortunatum	*Lamiaceae*	Hill glory bower
	Colacasiaesculanta	*Araceae*	Yam
	Heliotropiumindicum	*Boraginaceae*	Indian Heliotrope
	Phyllanthusniruri	*Phyllanthaceae*	Stone breaker
	*Lygodium*sp.	*Lygodiaceae*	Maiden hair creeper
	*Holarrhena*sp.	*Apocynaceae*	Dudhkori

Herbs diversity of PDUAM, Amjonga

Sl No.	*Species*	Family	Common Name
	Acmellapaniculata	Asteraceae	Toothche plant
	Ageretum sp.	Asteraceae	White weed
	Ecliptaprostrata	Asteraceae	Bhringraj
	*Curculigo*orchioides	Hypoxidaceae	Kali musli
	Cynodondactylon	Poaceae	Dhoob
	Emilia sonchifolia	Asteraceae	Cupid’s shaving brush
	Desmodiumtriflorum	Fabaceae	Creeping Tick Trefoil
	Centellaasiatica	Asteraceae	Indian pennywort
	Oxalis corniculata	Oxalidaceae	Yellow wood sorrel
	Scopariadulcis	Scrophulariaceae	Licorice
	Paspallumscrobiculatum	Poaceae	Crown grass
	Tragia involucrate	Euphorbiaceae	Indian stinging nettle
	Cyprus sp.	Cyperaceae	Flat sedges

	Blumeabalsimifera	Asteraceae	Sambong
	Mimosa pudica	Fabaceae	Tuch-me-not
	Oplismanaus sp.	Poaceae	Basketgrass
	*Rungia*sp.	Acanthaceae	Creeping rungia
	Axonopuscompressus	Poaceae	Tropical carpet
	Cyperusrotundus	Cyperaceae	Nutgrass
	*Digitaria*sp.	Poaceae	Foxglove
	Centellaasiatica	Apiaceae	Indian pennywort
	Paspallumconjugatum	Poaceae	Hilo grass
	Drymeriacordata	Caryophyllaceae	Tropical chickweed
	Urenalobata	Malvaceae	Caesar weed
	Selaginella sp.	Selaginellaceae	Spike moss
	Phyllanthusniruri	Phyllanthaceae	Stone breaker
	Commelinabenghalensis	Commelinaceae	Spiderworts
	Euphorbia hirta	Euphorbiaceae	Snake weed
	Ecliptaprostrata	Asteraceae	Bhringraj
	Solanumnigrum	Solanaceae	Black nightshade
	Chenopodium album	Amaranthaceae	Fat hen
	Eichinochloacolona	Paniaceae	Cockspur grass
	Asystasiagangatica	Acanthaceae	Chinese violet
	Oxalis corniculata	Oxalidaceae	Yellow wood sorrel
	Seenaobtusifolia	Fabaceae	Sicklepod
	*Mollugoverticillata(*Carpet weed)	Molluginaceae	Carpet weed
	Cyperusesculentus	Cyperaceae	Yellow Nut-grass
	Chrysopogonaciculatus	Poaceae	Love grass
	Phyllanthusfraternus	Phyllanthaceae	Gulf leaf flower
	Cyperuslongus	Cyperaceae	Sweet cyperus
	Cymbopogancitratus	Poaceae	Lemon grass
	Panicumrepens	Poaceae	Torpedo grass
	Seteriasphacelata	Poaceae	Bristle grass
	Cleome rutidesperma	Capparaceae	Fringed spiderflower
	Blumealacera	Asteraceae	Damong
	Fimbristylismiliaceae	Cyperaceae	Hoorah grass
	Kyllingaerecta	Cyperaceae	Navua sedge
	Blumeaelanceolaria	Asteraceae	LanceleafBlumea

Photographs

Pongamia pinnata

Callicarpa arborea

Albizia sp.

Melastoma malabathricum

Ageretum conyzoides

Hyptis suaveolens

Borreria sp.

Borreria hispida

Alstonia scholaris

Eclipta prostrata

Urena lobata

***Holarhhena* sp.**

Heliotropium indicum

Mimosa pudica

Spilanthes acemella

***Musa* sp. plantation**

Azadirachta indica

Polyalthia longifolia

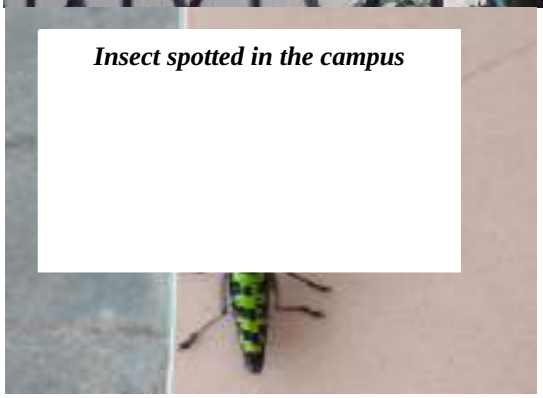
***Cymopogon* sp.**

***Clitoria* sp.**

***Citrus* sp.**

***Annanas* 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 florae, 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

Botanical Garden

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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