



**BHARATHEEYA VIDYA NIKETHAN COLLEGE OF TEACHER EDUCATION**  
**KALLEKKAD PALAKKAD**

**(Affiliated to University of Calicut, Accredited by NAAC)**

## **BVNCTE, Water Conservation Policy**

Water is the fundamental requirements of life. Water is very important to sustain life on Mother Earth. Today, water is under extreme threat due to population growth, increased demand from agriculture and industry, and worsening climate change. Sustainable development is essential for water conservation

As BVNCTE is located in rural area, there is no Municipal Water supply for the college. The college depends on ground water for all its water needs. Hence, efficient usage of available water and adaptation of water conservation measures are essential. The daily requirement of water in the campus is around 5000 litres

### **Objectives**

- To minimize wastage of water in the campus
- To provide adequate water supplies to meet demands of the campus
- To provide clean, safe, reliable drinking water at all times
- To enable water storage and propose conjunctive management of surface and groundwater
- To protect the groundwater resources from contamination

### **The following measures are taken for the conservation of water:**

A committee is formed to create and execute the water management policy in our campus

This committee primarily ensures the regular monitoring the quality of drinking water, maintenance of water distribution system and effective utilization of the waste water periodically.

Entire distribution system is well supervised by Civil works committee to ensure that there are no leakages and wastages of precious water through joints, valves etc.

# Water Management and Conservation Initiatives

## Introduction

Water is a fundamental resource for sustaining life, agriculture, industry, and daily human activities. With growing concerns over water scarcity and environmental degradation, institutions play a critical role in implementing water conservation and management strategies. Effective water management ensures the availability of water resources for present and future generations while promoting sustainability. This report provides a comprehensive analysis of water conservation initiatives implemented in institutions, focusing on rainwater harvesting, wastewater recycling, storage facilities, and economical water usage. Our water sources include one borewell, one well, and one pond. We use six motors for water distribution and management. For drinking water, we have three water purifiers.

## Water Conservation Initiatives

### 2. Rainwater Harvesting

Rainwater harvesting is a widely adopted method of collecting and storing rainwater for various uses. Institutions often implement this practice by installing rainwater collection systems on rooftops and directing the water into storage tanks. This harvested water can be used for irrigation, flushing toilets, cleaning, and groundwater recharge. We have four rainwater harvesting sumps with a total capacity of 50,000 litres.

#### Benefits of rainwater harvesting:

- Reduces dependency on municipal water supply.
- Helps mitigate urban flooding by capturing excess rainwater.
- Provides an alternative water source during dry seasons.
- Enhances groundwater levels when used for recharge.



### 3. Wastewater Recycling

Wastewater recycling is an efficient way to reduce water wastage by treating used water and repurposing it for non-potable applications. Institutions may install wastewater treatment plants to filter and purify water, making it suitable for irrigation, cooling systems, and other secondary uses. The wastewater from the kitchen is reused for gardening purposes. Our garden covers an area of 2,100 square feet, and we use approximately 1 kilolitre of wastewater daily for irrigation.

### Advantages of wastewater recycling:

- Decreases freshwater consumption by reusing treated water.
- Reduces water pollution by minimizing untreated wastewater discharge into the environment.
- Lowers water bills and conserves natural water bodies.



### 4. Storage Facilities: Reservoirs, Tanks, and Bore Wells

Institutions often build reservoirs, water tanks, and bore wells to ensure a stable water supply. Bore wells extract groundwater, while reservoirs and tanks store collected rainwater or municipal water for future use.

#### Key benefits of storage facilities:

- Provides a reliable backup water supply during shortages.
- Reduces stress on groundwater resources.
- Ensures water availability for emergency situations, such as fire hazards.



### 5. Economical Water Usage and Waste Reduction

Efficient water management goes beyond collection and storage; it also involves responsible water consumption. Institutions adopt measures such as installing water-saving fixtures, leak detection systems, and awareness campaigns to encourage sustainable water usage.

#### Methods to reduce water wastage:

- Installing low-flow taps, showers, and dual-flush toilets.
- Conducting regular maintenance to prevent leaks and pipe bursts.
- Educating staff and students about water conservation.
- Implementing smart water meters to monitor consumption patterns.



## Conclusion

Water conservation and management are essential for ensuring the sustainable use of water resources. Institutions have successfully implemented various initiatives such as rainwater harvesting, wastewater recycling, and storage facilities to reduce water wastage. However, further improvements can be made by integrating advanced technologies, promoting awareness, and adopting innovative conservation strategies. By taking proactive measures, institutions can significantly contribute to environmental sustainability and water security for future generations.

## **Institutional Energy Policy on Conservation and Use of Alternate Energy Sources**

Our institution is deeply committed to environmental sustainability and energy efficiency. As part of this commitment, we have formulated and implemented a comprehensive energy policy aimed at streamlining energy conservation practices and incorporating alternate sources of energy to meet our power requirements. This policy is in alignment with national energy efficiency standards and sustainable development goals.

### **Energy Conservation Measures**

The institution has adopted various proactive steps to minimize energy consumption without compromising the quality of education and services. One of the primary initiatives has been the transition to energy-efficient lighting systems. Over the last few years, all traditional incandescent and CFL bulbs have been replaced with LED lighting throughout the campus. This includes classrooms, administrative offices, laboratories, hostels, and outdoor lighting, resulting in significant reductions in electricity usage.

Timers and motion-sensor-based lighting systems have been introduced in classrooms, seminar halls, washrooms, and common areas to ensure that lights and fans are used only when required.

Routine maintenance and periodic energy audits are carried out to identify areas of energy wastage and inefficiency. These audits help the institution refine its strategies and adopt best practices in energy management. Students and staff are sensitized about the importance of energy conservation through regular workshops, awareness campaigns, and eco-club activities.

### **Adoption of Renewable Energy Sources**

Recognizing the importance of reducing dependence on non-renewable energy sources, our institution has invested in the deployment of renewable energy systems. A grid-connected solar photovoltaic (PV) power generation system with a total installed capacity of [Insert capacity of 100 KW] has been installed on the rooftops of academic and administrative buildings. This solar plant contributes a substantial share to the campus's overall electricity consumption, particularly during peak sunlight hours.

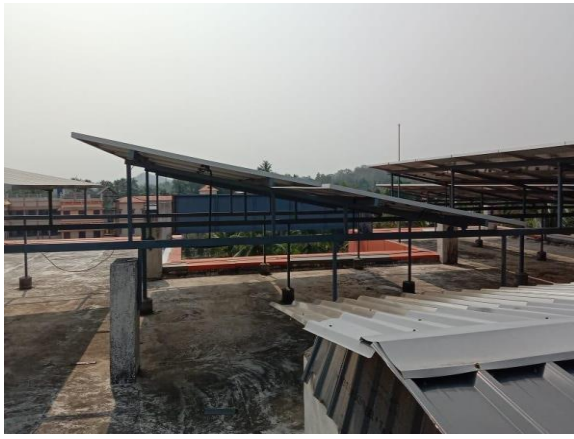
The institution has also implemented rainwater harvesting systems and biogas plants to complement its sustainable resource management policy.

### **Monitoring and Implementation**

The energy policy is implemented and monitored by a dedicated Green Campus Committee. This committee ensures compliance with energy-saving measures and regularly reviews the performance of renewable energy systems.

In conclusion, our institution's energy policy reflects a strong commitment to sustainability and responsible energy usage. By fostering a culture of conservation and embracing renewable technologies, we strive to set an example for environmental stewardship in higher education.





Solar Panel 100 Watt

# **Institution's energy policy**

## **Preamble**

Recognizing the critical importance of energy conservation and the need to reduce reliance on fossil fuels (Fossil fuel is a generic term for non-renewable energy sources such as coal, coal products, natural gas, derived gas, crude oil, petroleum products and non-renewable wastes.), Bharatheeya Vidya Nikethan College of Teacher Education (BVNCTE) commits to adopting sustainable energy practices to minimize its environmental impact and contribute to a greener future. The College acknowledges the increasing energy demands and the finite nature of fossil fuels, emphasizing the urgent need for energy efficiency and the exploration of renewable alternatives. By implementing this energy conservation policy, the College aims to set an example for the community and inspire a collective commitment to sustainable energy practices.

## **Purpose**

This policy outlines the College's commitment to energy conservation and efficiency, promoting the use of renewable energy sources, and developing a culture of energy stewardship among its students, staff, and the wider community.

## **Objectives**

- To reduce energy consumption within the College campus through efficient use and conservation measures.
- To promote the adoption of renewable energy sources to meet the College's energy needs.
- To create awareness and educate the College community about energy conservation practices.
- To set an example for the community by demonstrating energy efficiency and sustainability.

## **Scope**

This policy applies to all students, staff, faculty, and visitors of the College. It encompasses energy-related activities within the campus, including electricity, water, and other energy sources.

## **Definitions**

- Renewable energy: Energy derived from natural resources that are replenished at a faster rate than they are consumed.
- Energy conservation: The practice of reducing energy consumption through efficient use and waste reduction.
- Energy efficiency: The process of using less energy to perform the same task.

## **Policy Statement**

BVNCTE is committed to developing a culture of energy conservation and sustainability throughout the institution. By integrating energy efficiency principles into daily operations, the College aims to minimize its environmental footprint, reduce operational costs, and contribute to a more sustainable future. The College is dedicated to full compliance with all relevant energy conservation legislation and regulations at the state and national levels, and

will actively engage with regulatory authorities to ensure adherence to all applicable standards and requirements.

### **BVNCTE will:**

- Implement energy-efficient technologies and practices throughout the campus.
- Encourage responsible energy usage among students, staff, and visitors.
- Promote the use of renewable energy sources, such as solar power.
- Conduct regular energy audits and monitoring energy consumption.
- Collaborate with the local community on energy conservation projects.
- Incorporate energy conservation education into the curriculum.
- Adhere to the guidelines of the Energy Conservation Act, 2001, and its subsequent amendments, including the Energy Conservation (Amendment) Act, 2010.
- Explore opportunities to participate in the Energy Saving Certificate (ESC) scheme, aiming to reduce energy consumption below prescribed norms.
- Comply with Energy Conservation Building Code (ECBC) regulations for commercial buildings with a connected load of 100 kW or contract demand of 120 kVA or above.
- Regularly review and update the energy conservation policy to align with evolving legislation, technological advancements, and best practices.

### **Specific Guidelines for Energy Conservation**

- All electrical and electronic equipment purchased must be energy-efficient and certified.
- Electrical lights and fans should be switched off when not in use.
- Utilize natural light and ventilation whenever possible.
- Designate student teachers to monitor energy usage in classrooms.
- Computers should be turned off at the end of the day.
- Photocopiers and printers should be in standby mode when not in use.
- Use stairs instead of elevators whenever possible.
- Replace incandescent bulbs with LED bulbs and tubes.
- Explore opportunities to harness solar energy.
- Encourage the use of bicycles and electric vehicles.
- Promote research on energy conservation and sustainable practices.
- Engage faculty and students in energy conservation projects.
- Collaborate with local communities, government agencies, and industry leaders on energy initiatives.
- Conduct energy audits periodically to assess performance.

### **Compliance and Enforcement**

Compliance with this policy is mandatory for all members of the College community. The College will establish monitoring and evaluation mechanisms to track progress and ensure adherence to the policy. Non-compliance may result in disciplinary action.

### **Roles and Responsibilities**

- College Management: Responsible for policy formulation, resource allocation, and overall oversight.
- Faculty: Incorporate energy conservation into the curriculum and serve as role models.
- Students: Adopt energy-saving practices, participate in awareness campaigns, and provide feedback.
- Non-teaching Staff: Implement energy-efficient measures in daily operations.



- Local Community, Government, and Water Authorities: Collaborate on water conservation projects and provide necessary support.

## **Conclusion**

By implementing and adhering to this Energy Conservation Policy, BVNCTE demonstrates its commitment to environmental stewardship and sustainable development. Through collective efforts, we can contribute to a greener and more energy-efficient future.

# **BVNCTE WASTE MANAGEMENT POLICY**

## **Preamble**

Bharatheeya Vidya Nikethan College of Teacher Education (BVNCTE), hereinafter referred to as “the college”, is committed to establishing a sustainable and environmentally responsible campus. This Waste Management Policy outlines the principles and practices to be adopted by the College to minimize waste generation, promote recycling, and ensure the responsible disposal of waste. By integrating sustainable waste management practices into daily operations, the College aims to reduce its environmental footprint and set a positive example for the community.

## **Purpose of the Policy**

- To minimize waste generation at source through prevention and facilitate repair, reuse, and recycling over the disposal of wastes in a cost-effective manner.
- To promote environmental awareness to increase and encourage waste minimization, reuse, and recycling.
- To explore revenue opportunities from recyclable materials where possible.
- To ensure compliance with legislative requirements when considering waste disposal options.
- To ensure the safe handling and storage of wastes on campus, segregating wastes and disposing of them in accordance with legislative requirements, including hazardous waste that could be harmful to human health and the environment.
- To provide appropriate training for staff, students, and other stakeholders on waste management issues.

## **Objectives of this Policy**

- To minimize waste generation at source through prevention and facilitate repair, reuse, and recycling over the disposal of wastes in a cost-effective manner.
- To promote environmental awareness to increase and encourage waste minimization, reuse, and recycling.
- To explore revenue opportunities from recyclable materials where possible.
- To ensure compliance with legislative requirements when considering waste disposal options.
- To ensure the safe handling and storage of wastes on campus, segregating wastes and disposing of them in accordance with legislative requirements, including hazardous waste that could be harmful to human health and the environment.
- To provide appropriate training for staff, students, and other stakeholders on waste management issues.

## **Policy Statement**

BVNCTE is committed to improving its environmental performance, thereby reducing the impact of its activities on the environment. The College will promote leadership in environmental protection and enhancement through continuous improvement in its waste management processes. The College is fully committed to the principles of sustainable development and strives towards a cleaner, more sustainable future.

## Scope

This Waste Management Policy applies to all faculty, staff, students, contractors, and visitors of the College. It encompasses all types of waste generated on campus, including hazardous and non-hazardous waste. The policy outlines the procedures for waste reduction, segregation, handling, storage, transportation, and disposal to ensure compliance with legal requirements and promote sustainable practices. The policy also includes the responsibilities of various stakeholders in managing waste and the measures to be implemented for continuous improvement in waste management practices across all departments and facilities of the College.

## Policy Implementation

To achieve these objectives, the College will:

- Remain compliant with all relevant waste legislation prevailing in India.
- Aim to reduce the amount of waste generated and the associated environmental impacts by applying modern principles.
- Provide facilities to ensure the safe handling, effective segregation, and secure storage of waste on campus, maximizing reuse and recycling opportunities.
- Set specific objectives and targets to minimize waste, improve recycling rates, and reduce disposal.
- Complete regular waste audits to drive continual improvement.
- Provide appropriate training and induction for staff, students, and visitors on waste practices and site-specific requirements.

## Policy Principles

All staff, students, contractors, and visitors have a personal responsibility to ensure the waste they create is dealt with in accordance with this policy:

- **Reduce:** Only order/purchase/use the number of materials required.
- **Reuse:** Retain materials which can be reused onsite or by others.
- **Recycle:** Segregate to maximize the value of material for recycling.
- **Recover:** Energy from waste will be recovered where facilities allow.
- **Dispose:** As a last resort.

## Roles and Responsibilities

- **Principal:** Oversees the implementation of this policy, appoints a Waste Management Coordinator, and ensures compliance with regulations.
- **Waste Management Coordinator:** Develops and implements waste management plans, monitors waste generation and recycling rates, coordinates with waste disposal services, and organizes awareness campaigns and training programs.
- **Faculty and Staff:** Promote waste reduction and recycling practices in their respective areas, participate in waste audits, and report any waste management issues.
- **Students:** Actively participate in waste reduction and recycling initiatives, segregate waste properly, and report any violations of this policy.

## Waste Management Practices

- **Waste Reduction:** Implement source reduction strategies, promote reuse, and encourage the use of digital tools.
- **Waste Segregation:** Establish designated bins for different waste types and clearly label them.
- **Recycling:** Collect recyclable materials regularly and send them to appropriate recycling facilities.

- **Hazardous Waste Management:** Properly store and dispose of hazardous waste according to regulations.
- **E-Waste Disposal:** Collect electronic waste and send it to certified e-waste recycling centres.
- **Food Waste Management:** Compost food waste and encourage mindful eating practices.

## Monitoring and Evaluation

- **Regular Waste Audits:** Conduct periodic waste audits to assess waste generation and recycling rates.
- **Performance Tracking:** Monitor key performance indicators, such as waste diversion rates and recycling rates.

## Awareness and Training

- **Awareness Campaigns:** Organize awareness campaigns and workshops to educate the campus community.
- **Training Programs:** Provide training to staff and students on waste reduction, recycling, and proper waste disposal techniques.

# Institutional Waste Management Practices

Waste management is a crucial aspect of institutional sustainability, ensuring environmental protection and compliance with local and national regulations. Institutions, particularly educational and research centers, generate various types of waste, including organic, electronic, and sewage waste. Effective management of this waste is essential to maintain hygiene, minimize environmental impact, and foster a culture of responsibility among staff and students. This report explores the key waste management practices implemented by institutions, based on the categories outlined: segregation of waste, e-waste management, vermi-composting, biogas plants, and sewage treatment plants.

## 1. Segregation of Waste

The first step in efficient waste management is the segregation of waste at the source. Institutions typically provide separate bins for biodegradable (wet) and non-biodegradable (dry) waste, as well as dedicated containers for hazardous materials. This practice not only facilitates proper disposal and recycling but also reduces the volume of waste that ends up in landfills. Educational campaigns and awareness drives are often conducted to ensure active participation from students and staff in maintaining this segregation.



## 2. E-Waste Management

With the growing dependence on electronic devices, institutions accumulate a significant amount of electronic waste (e-waste) including obsolete computers, printers, batteries, and mobile phones. Effective e-waste management involves the collection, storage, and safe disposal or recycling of electronic materials through authorized vendors. Institutions collaborate with certified recyclers to ensure that toxic components such as lead, mercury, and cadmium are handled responsibly, preventing environmental contamination.





### 3. Vermi-Compost

Vermi-composting is an eco-friendly method of converting organic waste into nutrient-rich compost using earthworms. Many institutions implement vermi-composting pits to manage food and garden waste generated from canteens, hostels, and campus landscaping. The resulting compost is often used in institutional gardens, promoting a circular waste system. This not only reduces the burden on municipal waste systems but also serves as an educational tool for students in environmental science and sustainability programs.

### 4. Bio-Gas Plants

Bio-gas plants offer a sustainable solution for managing large quantities of organic waste, especially from hostels and dining facilities. Organic material such as kitchen waste is decomposed anaerobically to produce methane gas, which can be used as a source of renewable energy for cooking or heating. The slurry byproduct is an excellent organic fertilizer. Establishing a biogas unit not only reduces greenhouse gas emissions but also contributes to institutional energy savings.



### Conclusion

Incorporating comprehensive waste management practices is not only a regulatory necessity but also a moral and educational obligation for institutions. Through strategies like waste segregation, e-waste handling, vermi-composting, biogas generation, and sewage treatment, institutions can significantly reduce their environmental footprint while promoting sustainable values within their communities. These efforts contribute to the creation of cleaner, greener, and more responsible campuses.

# Institution Green Practices Report

## Introduction

In an effort to promote environmental sustainability and create a healthier, eco-friendly campus, our institution has implemented several green practices. These initiatives are aimed at reducing carbon footprints, minimizing waste, and encouraging sustainable living among students, faculty, and staff. This report highlights the key green practices undertaken by the institution.

### 1. Encouraging the Use of Bicycles and E-Vehicles

To reduce air pollution and promote a greener mode of transportation, our institution encourages the use of bicycles and electric vehicles (E-vehicles). Dedicated parking spaces for bicycles and charging stations for E-vehicles have been established to facilitate their usage. Awareness campaigns and incentive programs further encourage students and staff to adopt eco-friendly transport options.



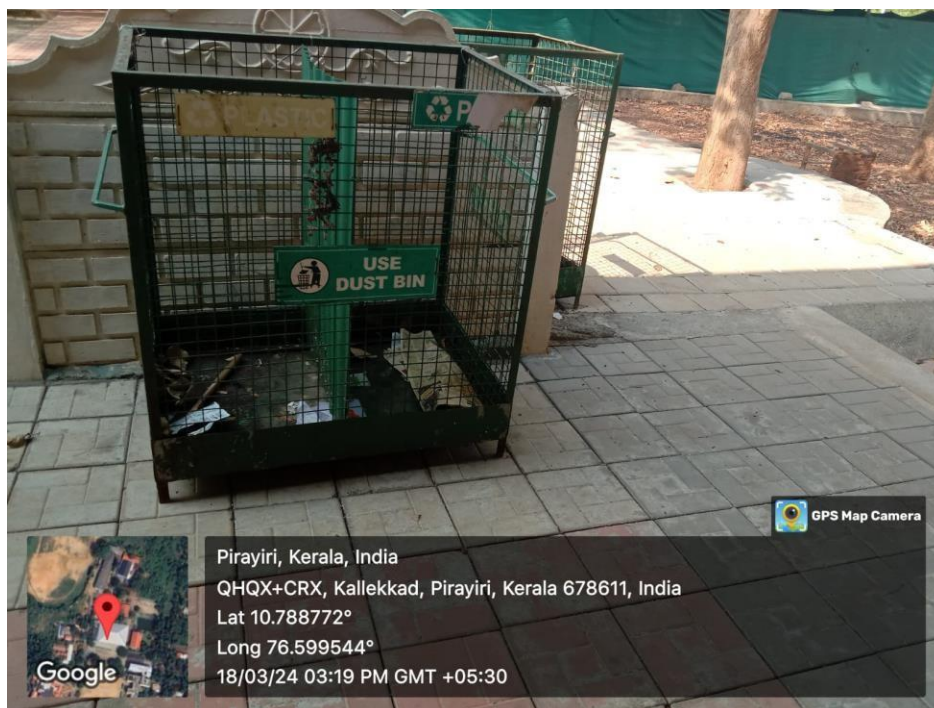
### 2. Creating Pedestrian-Friendly Roads on Campus

To prioritize pedestrian movement and reduce vehicular traffic, pedestrian-friendly roads and pathways have been developed. This initiative ensures safer walking routes, reduces traffic congestion, and promotes a more active and healthier lifestyle. Measures such as clearly marked crosswalks, wide sidewalks, and restricted vehicular access in certain zones contribute to this effort.



### 3. Developing a Plastic-Free Campus

Recognizing the detrimental impact of plastic waste on the environment, the institution has taken significant steps toward becoming a plastic-free campus. Single-use plastics are discouraged, and eco-friendly alternatives such as reusable containers, biodegradable packaging, and cloth bags are promoted. Waste segregation bins are installed throughout the campus to ensure proper disposal and recycling of plastic waste.



### 4. Moving Towards a Paperless Office

To minimize paper consumption, our institution has embraced digital solutions in administration, academics, and communication. Online document management systems, e-books, digital assignments, and electronic correspondence are actively used to reduce reliance on paper. This transition not only conserves natural resources but also enhances efficiency and data security.



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By implementing these green practices, our institution is committed to fostering a sustainable and eco-friendly campus. These initiatives not only benefit the environment but also instill a sense of environmental responsibility among students and staff. Continued efforts and community participation will further strengthen our commitment to sustainability, ensuring a greener future for all.

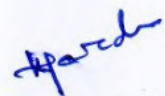
# AHALIA INTERNATIONAL FOUNDATION

[REG. NO. TRUST ACT/699/2003/IV]

## AUDIT SUMMARY

- Assessment of mature trees, shrubs, climbers and herbs (nearly 136 no's)
- Maintaining excellent Bio – diversity and good canopy cover
- Nest for residential birds, reptiles, amphibians and other mammals
- Pollution certificate for all vehicles; Use of Bicycles in the campus
- Study on effective Solid Waste Management (SWM) Systems- Vermicompost systems
- Water recycling procedures
- Bio – Gas plant
- Active e- waste accountability and disposal
- Clean and Hygiene drinking water
- Rainwater harvesting Technology with 4 four sumps with a total capacity of 50,000 litres along with tanks and reservoirs
- Conservation and Use of Alternate Energy Sources and minimal use of energy sources
- Plastic Free Campus and awareness campaign to communities and students



  
Dr. K. Haridasan

Consultant – Bioresources, Green Ahalia





## AHALIA INTERNATIONAL FOUNDATION

(REG. NO. TRUST ACT/699/2003/IV)

### GREEN AUDIT CERTIFICATE

On request from BVN college of Teacher Education Green Ahalia team had made 3 visits to their campus and made observations on the green environment friendly initiatives carried out in the campus as part of green auditing for the college campus. Based on our observations Green Ahalia, Ahalia International Foundation certifies that the Green Auditing has been conducted to evaluate the Greenery of the campus (flora) along with environmental friendly initiatives of the institution.

It is herewith certified that **Bharatheeya Vidya Nikethan College of Teacher Education, Kallekkad, Palakkad Kerala** is a green campus with exemplary green canopy with rich collection of flora as well as fauna, effective rainwater harvesting technologies, maintain effective solid and liquid waste management, efficient alternative energy sources (Solar energy) and located in a pollution free environment.

Certificate No. GA/01/04/2025

Assessment period: May 2024 to April 2025

Validity: From May 2025 to April 2026

Date: 23.04.2025

Dr. K. Haridasan

Consultant – Bioresources, Green Ahalia

Audited and Verified by Team Green Ahalia





# BHARATHEEYA VIDYA NIKETHAN

## College of Teacher Education

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### ADDITIONAL INFORMATION

This is a certificate received from the Haritha Keralam Mission of the State Government. The certificate was awarded to our BVMCTC for its efficient and exemplary activities in the areas of sanitation and biodiversity conservation.

By following the green code of conduct, we aim to impart the culture of environmental protection to the society.



Certificate of Appreciation got from Haritha Keralam, Kerala Government

*Dr. Renuka P. C. V.*  
PRINCIPAL  
Principal  
Bharatheeya Vidya Nikethan  
College of Teacher Education  
Kallekkad, Palakkad

