

Sustainable Campus Policy

Approved by :

[Dr. Maneesha Vinodini Ramesh](#)

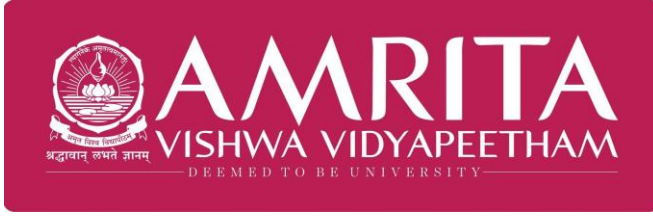
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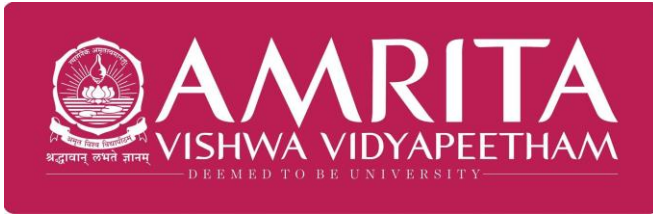
Amrita Vishwa Vidyapeetham





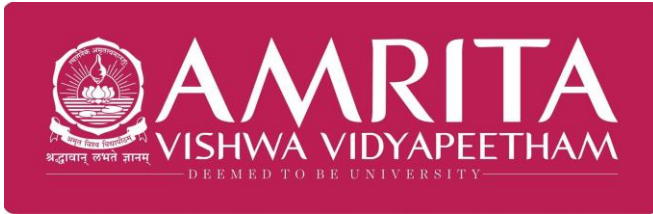
Policy Revision Status

Rev No.	Date Issued	Details
00	11/05/2020	Issuance of IDC Check
01	15/11/2020	Approval and issuance of policy for University wide implementations
03	05/11/2022	The 2022 update expanded the policy to include enhanced water reuse systems, energy conservation technologies, sustainable transportation infrastructure, and biodiversity management programs. This revision further emphasized aligning campus operations with SDGs, integrating sustainability into education, and fostering active participation among stakeholders
04	12/11/2024	Updation of policy to include the additional campuses added to Amrita Vishwa Vidyapeetham



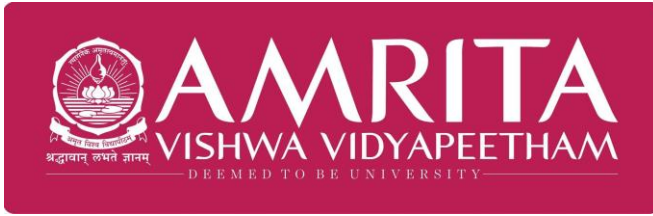
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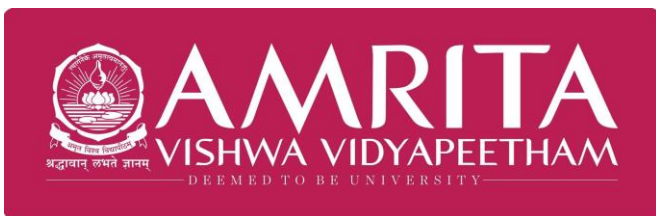


CAMPUSES AT AMRITA

Campus Details	Campus Photo
Amrita Vishwa Vidyapeetham Amritapuri Campus Amritapuri, Clappana P. O. Kollam - 690525 Kerala, India	
Amrita Vishwa Vidyapeetham Amaravati Campus Kuragallu Village, Mangalagiri (M), Guntur, Andhra Pradesh – 522503 India	
Amrita Vishwa Vidyapeetham Bengaluru Campus Kasavanahalli, Carmelaram P.O. Bengaluru - 560 035 Karnataka, India	
Amrita Vishwa Vidyapeetham Chennai Campus 337/1A, Vengal Village, Thiruvallur Taluk & District – 601 103 Tamil Nadu, India	



Amrita Vishwa Vidyapeetham Coimbatore Campus Amritanagar Coimbatore - 641 112 Tamilnadu, India	
Campus Details	Campus Photo
Amrita Hospital Mata Amritanandamayi Marg Sector 88, Faridabad Campus, Haryana, 121002, India	
Amrita Vishwa Vidyapeetham Kochi Campus Amrita Institute of Medical Sciences Elamakkara P.O. Kochi - 682 041 Kerala, India	
Amrita Vishwa Vidyapeetham Mysuru Campus #114, 7th Main Bogadi II Stage, Mysuru – 570 026 Karnataka, India	
Amritagiri, Erachakulam (P.O.), Nagercoil Campus - 629901, Kanyakumari Dist., Tamil Nadu, India	



PREFACE TO SUSTAINABILITY POLICY

1. Introduction

Amrita Vishwa Vidyapeetham recognizes the importance of environmental sustainability and is committed to creating and maintaining a sustainable campus. A Sustainable Campus is an environmentally oriented campus that integrates environmental science into its policies, management, and scholarly activities. Establishing a policy for a sustainable campus is crucial for upholding our commitment to environmental responsibility and promoting sustainability.

This policy outlines our commitment to reducing our environmental footprint, promoting sustainability, and ensuring a healthier, more resilient campus community for current and future generations.

2. Vision

To empower young minds to drive sustainable societal transformation through excellence in value-based education, research, and innovation, and become a role model among higher education institutions globally.

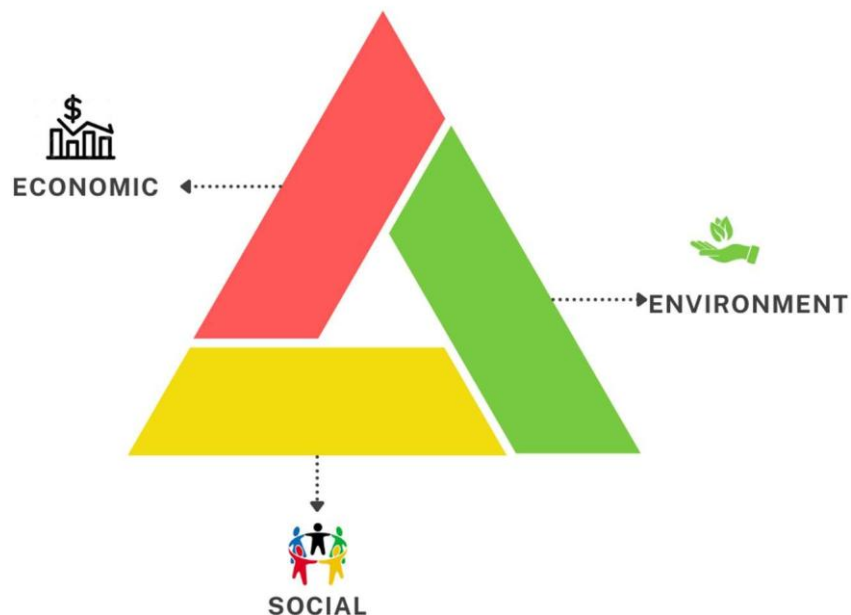
3. Mission

Sustainability is at the heart of everything we do. When Chancellor Amma spoke at the United Nations in July 2015, she stated, "I often reflect deeply on the future of the Earth, the preservation of nature, and the disappearing harmony between humanity and nature. This contemplation has led me to the conviction that science, technology, and spirituality must unite to ensure a sustainable and balanced existence of our world. The present age and the world around us demand this transformation."

We cultivate a dynamic learning environment that equips young minds with the knowledge, skills, and values to become responsible leaders and innovators. We foster excellence in research and development, driving sustainable solutions for a better future. Through our unwavering commitment to value-based education, we strive to be a leading example for universities worldwide.

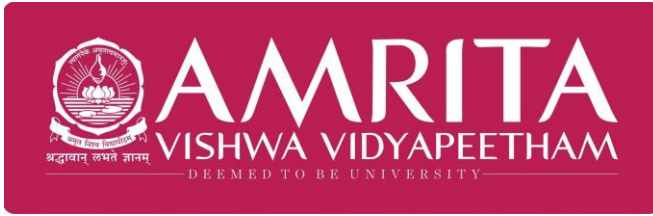
4. Aims and Objectives of Sustainable Campus Policy

SUSTAINABLE CAMPUS



The objectives of this policy are:

- To minimize the social, economic and environmental impact of campus operations and development
- To promote sustainability awareness and education among students, faculty, and staff
- To establish regular monitoring and improvement of sustainability efforts across the campuses
- To build a resilient and sustainable campus by incorporating sustainable practices in operations, education, and research while prioritizing environmental responsibility and the well-being of living organisms, and the environment.



5. Overview of Sustainable Campus Policy

A sustainable campus policy serves as a guiding framework to integrate environmental stewardship, social responsibility, and economic viability into their operations. Aligned with the United Nations Sustainable Development Goals (SDGs), the policy aims to address pressing global challenges while fostering a culture of sustainability within the campus community.

This policy aims to assess and analyze the progress made towards achieving sustainable development goals and targets across all campuses of Amrita Vishwa Vidyapeetham. It will evaluate a range of indicators across environmental, social, and economic dimensions to determine advancements and challenges related to sustainability activities. This will provide valuable tools for policymakers, institutions, and the public, presenting comprehensive assessments of progress and highlighting areas that require improvement.

Each chapter of the sustainable campus policy focuses on key areas such as water conservation, waste management, energy efficiency, sustainable transportation, construction and demolition activities, biodiversity management, sustainable campus and departmental operations.

The policy on sustainable water conservation practices includes installing water-efficient fixtures, promoting conservation practices, and implementing rainwater harvesting systems. These initiatives align with SDG 6, ensuring availability and sustainable management of water and sanitation for all while yielding benefits such as reduced water consumption, preservation of local water resources, and awareness of responsible water usage across all campuses of Amrita Vishwa Vidyapeetham.

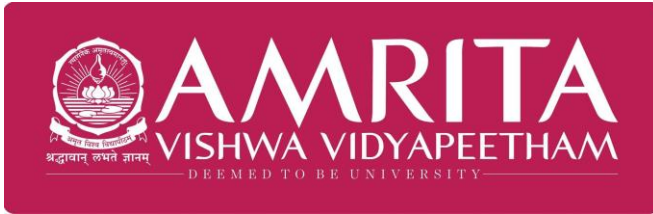


The waste management policy chapter emphasizes waste segregation, recycling programs, and the reduction of single-use plastics. Aligned with SDG 12, promoting sustainable consumption and production patterns, these policies contribute to reducing landfill waste, mitigating greenhouse gas emissions, and fostering a circular economy within the campuses ecosystem.

E-waste management, the sustainable campus policy outlines strategies to responsibly handle electronic waste, thus aligned with SDG 12, these efforts aim to reduce the environmental impact of electronic waste while fostering a culture of recycling and resource conservation. Benefits include the prevention of hazardous materials from leaching into the environment, the recovery of valuable resources from discarded electronics, and the promotion of a circular economy.

Construction and demolition waste policy emphasizes reuse, recycling, and waste diversion, aligning with SDG 9. Sustainable practices minimize environmental impact and enhance resource efficiency during the development of campuses.

Biodiversity management policies prioritize habitat restoration and native landscaping, aligning with SDG 15. These efforts help preserve campus ecosystems, supporting biodiversity.



Energy efficiency policies may include energy audits, renewable energy adoption, and promotion of energy-saving practices. Aligned with SDG 7, ensuring access to affordable, reliable, sustainable, and modern energy for all, these initiatives lead to lower energy costs, decreased carbon footprint, and opportunities for innovation in renewable energy technologies.

Sustainable transportation policy focuses on expanding and encouraging public transportation. Aligned with SDG 11, making cities and human settlements inclusive, safe, resilient, and sustainable, these policies alleviate traffic congestion, reduce air pollution, and promote healthier lifestyles among campus inhabitants.

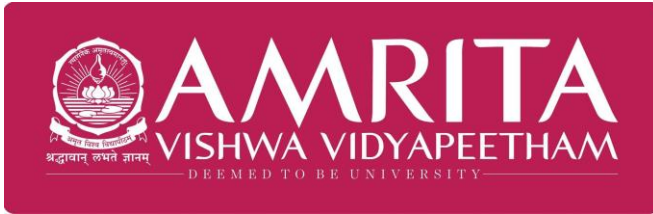
Policies promoting sustainability across all areas have been implemented in sustainable department and campus operations, aligning with SDGs 8, 12, and 13. This holistic approach integrates sustainability into organizational culture and decision-making processes.

Overall, a comprehensive sustainable campus policy not only contributes to the achievement of global sustainability goals but also generates substantial benefits such as cost savings, environmental preservation, and community engagement. Through coordinated efforts and collaboration, campuses of Amrita Vishwa Vidyapeetham can serve as catalysts for positive change, inspiring future generations to embrace sustainability as a core value in their endeavors.

6. Sustainable Campus Policy Benefits

Incorporating the sustainable policies within the campuses of Amrita Vishwa Vidyapeetham will benefit the campus community by encompassing social, environmental, and economic aspects thereby attaining the following benefits:

1. Biodiversity conservation by protecting and enhancing the green cover within the campuses
2. Adopting sustainable practices in construction, energy use, transportation, and waste management will minimize resource use and associated environmental impact.
3. Replacing non-renewable energy sources with renewable energy will lower carbon emissions and offer long-term cost savings
4. Integrating sustainability into the curriculum and campus activities will enhance the understanding among campus communities of various environmental and social issues that need to be tackled
5. Sustainable policies will abate consequences linked with environmental degradation, climate change, and social inequality within the campuses
6. Incorporation of sustainable practices within the campuses will enhance the institution's reputation and build environmentally sensible students, faculty, and staffs



SUSTAINABLE WATER POLICY

Aim of the Policy

To implement effective measures that reduce water consumption, promote responsible usage, and enhance water reuse practices across all campuses of Amrita Vishwa Vidyapeetham, contributing to long-term sustainability.

Section 1: Water Use

1. Conservation Measures:

- Install water-saving fixtures such as low-flow/dual-flush toilets, aerated faucets, and waterless urinals.
- Conduct regular inspections to promptly detect and repair leaks in plumbing systems.
- Use proximity sensor tap systems to minimize water wastage.
- Implement sustainable landscaping strategies, such as selecting native and drought-resistant plants, to reduce irrigation requirements.

2. Monitoring and Efficiency:

- Install water meters and sub-meters across campuses to monitor consumption at granular levels.
- Utilize automated systems for real-time data analysis of water usage trends.
- Set annual water consumption reduction targets and evaluate progress toward these goals.

3. Educational and Awareness Initiatives:

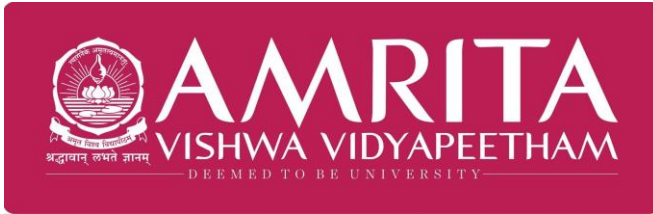
- Engage stakeholders—students, faculty, and staff—through awareness programs, training sessions, and workshops on water conservation.
- Foster a culture of water responsibility by integrating conservation topics into the curriculum and campus events.

4. Irrigation Efficiency:

- Employ advanced irrigation systems with smart controllers and moisture sensors to optimize water usage in landscaping and gardening.

5. Quality Standards:

- Regularly monitor the quality of drinking water to ensure compliance with national standards (e.g., BIS 2012).



Section 2: Water Reuse

1. Greywater Systems:

- Establish greywater collection and treatment systems to process non-potable wastewater from sinks, showers, and laundry facilities.
- Reuse treated greywater for applications such as irrigation, toilet flushing and cooling systems.

2. Rainwater Harvesting:

- Implement rainwater harvesting systems to capture water from rooftops and other surfaces.
- Use harvested water for non-potable purposes, including landscape irrigation, cooling towers, and fire suppression systems.
- Incorporate groundwater recharge systems to replenish aquifers and maintain ecological balance.

3. Wastewater Recycling:

- Operate advanced wastewater treatment plants to process and recycle wastewater for irrigation, cooling systems, and other approved uses.
- Ensure that treated effluent meets or exceeds national effluent quality standards before reuse or discharge.

4. Technological Integration:

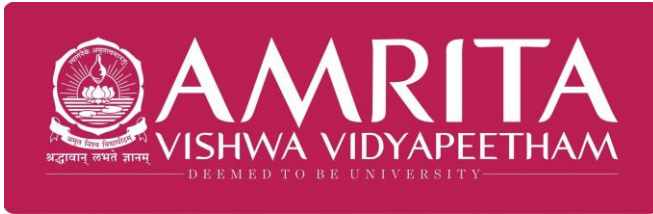
- Use state-of-the-art filtration / treatment technologies to enhance water reuse efficiency.
- Install systems to track and report water reuse volumes and their impact on overall water demand reduction.

5. Stakeholder Engagement in Reuse:

- Educate stakeholders on the benefits and safety of using recycled water for non-potable purposes.
- Include water reuse concepts in training sessions and sustainability awareness campaigns.

6. Reuse Goals:

- Meet 40–50% of the total water demand across campuses through recycled water and harvested rainwater by 2025.
- Scale up reuse systems based on periodic assessments and advancements in technology.



Section 3: Water Pollution

Ensure proactive measures are taken to prevent water pollution

1. Risk Assessment and Management:

- Regular Risk Assessments: The university will conduct periodic assessments to identify potential sources of water pollution on campus, including laboratories, maintenance activities, and landscaping practices.
- Water System Management Plan: A comprehensive water system management plan will be established, encompassing preventative measures, pollution control strategies, and a robust emergency response protocol.

2. Infrastructure and Design:

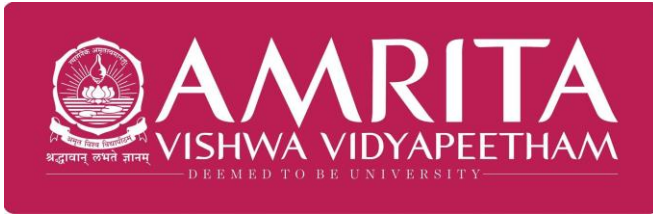
- Sustainable Design Features: New and existing water systems will be designed or retrofitted to incorporate features that contain and control accidental spills or prevent polluted water ingress.
- Preventative Maintenance: Regular inspections and maintenance of water infrastructure will be prioritized to minimize the risk of failures that could lead to water contamination

3. Natural Disaster Preparedness:

- Emergency Plan: An emergency plan tailored to natural disasters will be developed. This plan will include specific measures to safeguard water systems from floodwaters, landslide runoff, or other potential threats.
- Early Warning Systems and Drills: Early warning systems will be implemented to alert personnel in charge of water safety. Regular drills will be conducted to ensure preparedness and efficient response during emergencies.

4. Chemical and Waste Management:

- Hazardous Material Handling: The university will adhere to the highest guidelines for the storage, handling, and disposal of hazardous materials to prevent contamination of water resources.
- Waste Disposal Systems: Effective and well-maintained waste disposal systems will be implemented to ensure proper handling of all waste streams and minimize the risk of water pollution.



5. Training and Awareness:

- **Staff Training:** All relevant staff, including maintenance personnel, laboratory technicians, and groundskeepers, will receive comprehensive training on water pollution prevention techniques, emergency procedures, and best practices for responsible water management.
- **Campus Awareness Campaigns:** Ongoing awareness campaigns will be conducted to educate the entire university community about the importance of water conservation and their role in preventing water pollution.

6. Monitoring and Reporting:

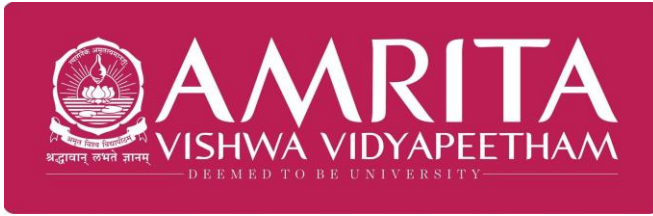
- **Regular Monitoring:** A comprehensive water quality monitoring program will be established to detect any early signs of water pollution in the campus water systems.
- **Regularly monitor the quality of the water and compare it with national drinking water standards (Bureau of Indian Standards for Drinking Water -(BIS 2012))**
- **Incident Reporting:** Immediate reporting of any incidents of water pollution or infrastructure issues that pose a risk of contamination will be mandatory.

7. Collaboration with Local Authorities:

- **Collaborative Efforts:** The university will collaborate with local water management and environmental protection agencies to ensure compliance with regulations and align efforts for sustainable water management practices.

8. Emergency Response Plan:

- **Comprehensive Plan:** A detailed emergency response plan will be developed and regularly updated. This plan will outline protocols for immediate action and containment measures in the event of polluted water entering the water systems.



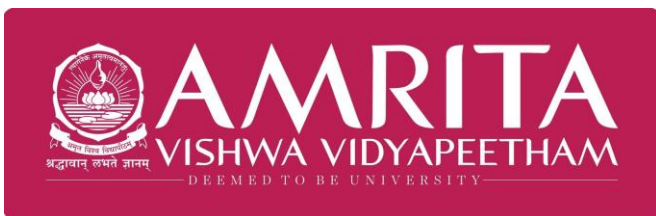
SUSTAINABLE ENERGY MANAGEMENT POLICY

Aim of the Policy

The primary aim of this policy is to promote and initiate responsible and sustainable energy management within Amrita Vishwa Vidyapeetham thereby reducing the environmental impacts within the campuses of Amrita Vishwa Vidyapeetham.

Enactment Plan

1. Use energy-efficient lighting technologies like LED
2. Implement motion sensors and timers to control lighting in unoccupied areas.
3. Install room-wise and floor-wise energy monitoring system
4. Install a smart automation system for lighting and comfort
5. Regularly maintain and optimize heating, ventilation, and air conditioning systems.
6. Set temperature controls to recommended and comfortable levels.
7. Purchase and use energy-efficient appliances and equipment.
8. Implement a power management policy for computers and other electronic devices.
9. Conduct awareness campaigns to educate the campus community about energy conservation.
10. Provide training on energy-efficient practices for staff and students.
11. Implementation of renewable energy sources such as rooftop solar, wind, or clean energy sources where feasible.
12. Regularly review and update the energy management policy based on technological advancements and changing campus needs.
13. Seek feedback from the campus community to identify areas for improvement.



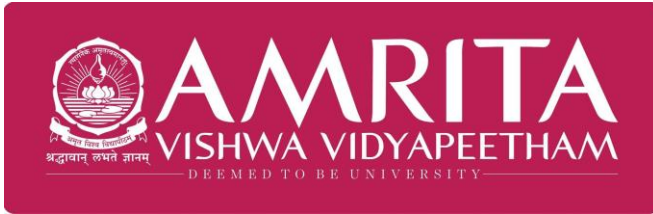
SUSTAINABLE WASTE MANAGEMENT POLICY

Aim of the Policy

Amrita Vishwa Vidyapeetham is committed to the proper management of all the campuses' waste and shall comply with the rules and regulations. This policy aims to establish policies for sustainable waste management practices within Amrita Vishwa Vidyapeetham campuses, aiming to promote resource efficiency, reduce environmental impact, and contribute to a cleaner and healthier environment.

Enactment Plan

1. Practice Waste Management Hierarchy principles (Reduce, Reuse, Recycle and Replace) to reduce waste generation within the campuses.
 2. Implement a comprehensive source separation procedure for recyclables, non-recyclables, and organic waste.
 3. Provide appropriate facilities on campuses to assist and promote source separation and waste recycling activities and record all the activities to track the advancement.
 4. Promote the use of eco-friendly and reusable products to minimize single-use items.
 5. Encourage the "bring your own" including glass, plates, bags etc., concept among the campus community to reduce the use of disposable plates and cups.
 6. Avoid the use and sale of plastic bottles in workshops, seminars, meetings, college fests and all events within the campuses.
 7. Provide convenient and clearly labelled waste bins inside and outside all building premises.
 8. Establish on-site composting facilities or biogas units for organic waste generated from different eateries within the organization.
 9. Ensure proper labeling, storage, and disposal of hazardous materials with accordance to the rules and regulations.
 10. Conduct campaigns, regular training sessions, and other awareness initiatives every six months to educate employees/students on proper waste management practices.
- Initiate incentives and recognition programs in waste reduction, recycling, and management within the campuses



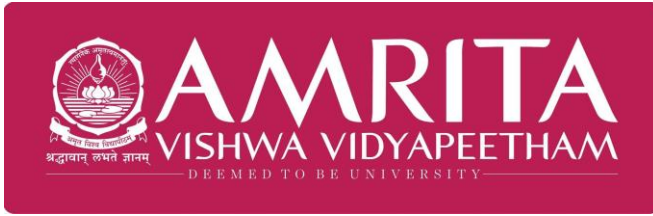
SUSTAINABLE E-WASTE MANAGEMENT POLICY

Aim of the Policy

The primary aim of this policy is to promote and initiate responsible and sustainable electronic waste (e-waste) management within Amrita Vishwa Vidyapeetham thereby reducing the environmental impacts associated with e-waste through proper disposal, recycling, and awareness initiatives within the campuses of Amrita Vishwa Vidyapeetham.

Enactment Plan

1. Establish labelled collection points for the disposal of e-waste across the campuses
2. Implement and provide training to staff handling e-waste, for the proper e-waste segregation into different categories (computers, peripherals, batteries, and other electronic components)
3. Implement purchasing policies that prioritize durable, upgradeable, and recyclable electronic devices.
4. Organise awareness campaigns to educate the campus community regarding the importance and need to follow responsible disposal of e-waste within the campuses.
5. Implement a tracking system to monitor the quantities and types of e-waste generated on campuses
6. Properly transfer the non-reusable e-waste to authorized external agency as per government rule



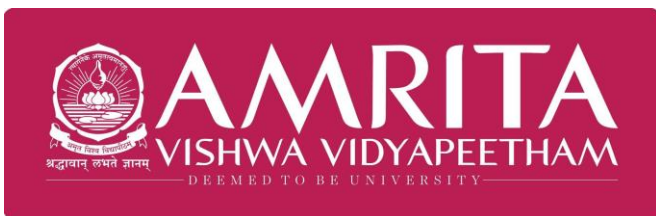
DIVESTMENT FROM CARBON-INTENSIVE ENERGY INDUSTRIES POLICY

Aim of the policy

This policy will highlight the measures to be taken to reduce the reliance on carbon-intensive energy options, move towards low-carbon alternatives, and reduce the overall carbon footprint.

Enactment Plan

1. Encourage using renewable energy sources and incentivise faculty and students to adopt low-carbon alternatives.
2. Provide incentives for public transit use and encourage carpooling and shared-ride options.
3. Develop an EV charging infrastructure powered by green energy sources within the campus.
4. Convert the existing campus fleet vehicles to electric or hybrid ones.
5. Expand the existing cycle lanes to more destinations within the campus. Provide more walking paths.
6. Introduce a bicycle-sharing scheme on campus.
7. Prioritise vendors with low-carbon products and technologies while procuring products for the campus.
8. Efforts to reduce carbon footprint to source materials locally.
9. Expand the green cover of the campus to sequester more carbon than is currently done.
10. Encourage the development of technologies around energy efficiency carbon sequestration and facilitate the adoption of these technologies on campus.
11. Initiatives and net-zero/ sustainability competitions to encourage the faculty, staff, students, and the campus community in general to reduce their carbon footprints.
12. Initiative for campus carbon accounting to encourage and monitor the commitment to net zero initiative.
13. Publish regular updates to inform the stakeholders of the progress and to suggest course corrections.
14. Develop educational campaigns to inform the campus community about the carbon footprint and the possible ways of reducing that.
15. Make available low-carbon alternative products for consumption on campus.



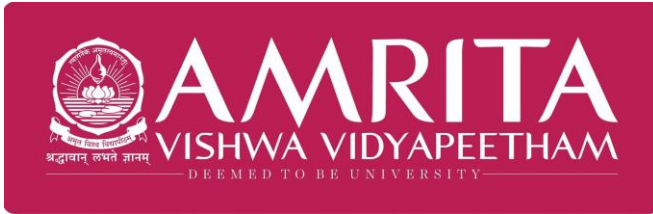
BIODIVERSITY MANAGEMENT- GREEN BELT, BIODIVERSITY ASSESSMENT

Aim of the Policy

This policy will highlight the measures to be taken to protect, conserve, and maintain the biodiversity of the campuses of Amrita Vishwa Vidyapeetham.

Enactment policy

1. Implement programs for the protection of the habitats to enhance biodiversity within the campuses
2. Maintain biodiversity within the campuses by including more native plant species and exotic flora and fauna
3. Implement protection measures to safeguard critical/sensitive biodiversity-rich areas within the campuses
4. Select for native and drought-resistant plants in landscaping
5. Implement sustainable C&D practices that prioritise biodiversity conservation
6. Organise awareness initiatives for biodiversity management
7. Develop biodiversity indicators to regularly assess and monitor the impact of various activities on biodiversity within the campuses
8. Conduct periodic assessments of the management policy and incorporate best practices and technologies for efficient management



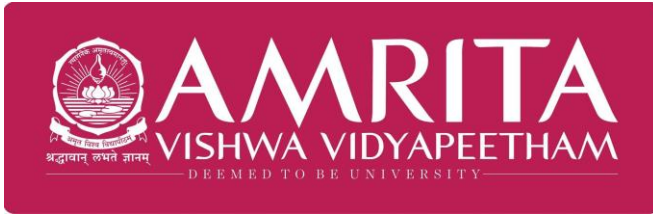
SUSTAINABLE TRANSPORTATION POLICY

Aim of the Policy

Amrita Vishwa Vidyapeetham is committed to promoting sustainable transportation options across its campuses. This aim statement establishes the university's dedication to fostering eco-friendly transportation practices.

Enactment Plan

1. Develop and deliver educational campaigns: Launch campaigns through various channels (websites, social media, presentations) to educate students, faculty, and staff about the benefits of sustainable transportation and the impact of personal choices.
2. Organize workshops and seminars: Host interactive workshops and seminars to provide practical guidance on utilizing sustainable transportation options like cycling, public transport, and carpooling.
3. Enhance walking and cycling infrastructure: Improve existing sidewalks and walking paths, create dedicated cycling lanes, and install secure bike storage facilities across all campuses.
4. Invest in public transportation access: Collaborate with local transport authorities to improve public transport routes and accessibility near campuses.
5. Encourage the use of electric vehicles within the campus and establish convenient charging points for electric vehicles
6. Promote carpooling and ridesharing: Develop a carpooling program with matching platforms, designated carpool parking areas, and incentives like discounted parking permits.
7. Offer subsidized public transport passes: Provide financial incentives to encourage students, faculty, and staff to use public transport.
8. Develop a "bike-to-work" program: Organize events and reward systems to encourage cycling to work or classes.
9. Promote car-free commutes:: Encouraging bicycle and e-bikes inside the campus



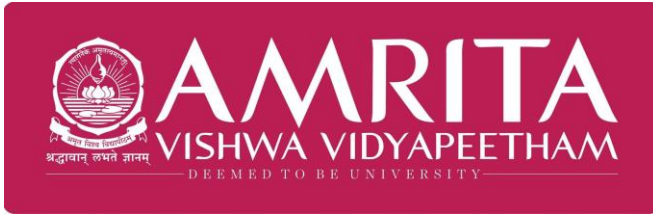
SUSTAINABLE LAND USE MANAGEMENT

Aim of the Policy

To ensure the responsible, efficient, and environmentally-conscious use of land on Amrita Vishwa Vidyapeetham campus, promoting sustainability, biodiversity conservation, and the well-being of all campus stakeholders.

Enactment Plan

1. Prioritize the preservation and restoration of natural habitats and ecosystems on campus, minimizing habitat destruction and enhancing biodiversity.
2. Incorporate green infrastructure in all campus development projects, including green roofs, permeable pavements, and urban gardens for improved environmental quality.
3. Implement sustainable farming practices in community gardens and landscaping, focusing on organic methods, water conservation, and soil health.
4. Promote biodiversity on campus by maintaining green spaces, planting native species, and creating wildlife corridors.
5. Designate campus zones for specific purposes to ensure efficient land use, balancing development with environmental sustainability goals.
6. Establish designated areas for waste sorting, composting, and recycling to minimize landfill waste and promote resource recovery.
7. Implement water-efficient practices such as rainwater harvesting, wastewater recycling, and the use of drought-tolerant plants in landscaping.
8. Engage students, faculty, and staff in sustainable land use initiatives through awareness programs and hands-on projects to foster responsibility and stewardship.
9. Track land use and environmental impact with regular reports and continuously refine strategies to improve land management practices.



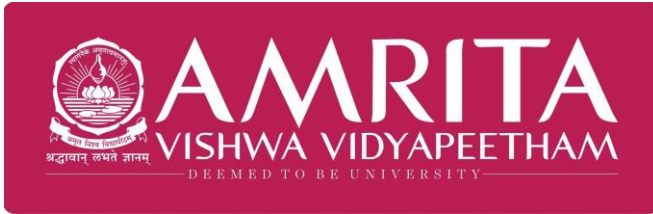
SUSTAINABLE CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT POLICY

Aim of the Policy

The policy highlights the practices that could be adopted for the responsible handling and management of all types of waste generated during the construction and demolition (C&D) of buildings within the campuses of Amrita Vishwa Vidyapeetham.

Enactment Policy

1. Organise programs to identify and reuse materials from C&D projects within the campuses
2. Implement onsite waste segregation facilities to separate materials like wood, concrete, metals, and plastics
3. Promote the material recovery facilities to sort and recycle C&D waste with the campuses
4. Create awareness training programs for staff and persons in charge of sustainable C&D waste management practices
5. Incorporate sustainable management of C&D waste as an obligation in contracts with builders
6. Conduct periodic assessments of the waste management policy to review the progress and to incorporate best practices and technologies for the efficient management of waste.

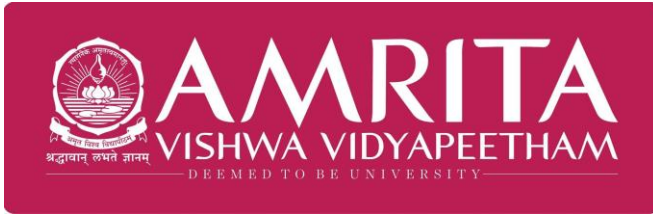


CONSTRUCTION OF BUILDINGS

Sustainable construction practices play a vital role in ensuring that buildings are environmentally responsible, energy-efficient, and resource-conserving. Implementing these practices helps reduce negative impacts on the environment and ensures long-term benefits for both the community and the ecosystem. The guidelines presented focus on essential aspects of construction, including stormwater management, energy conservation, waste management, and worker safety. Key measures include maintaining proper ground levels to avoid water logging, reusing treated wastewater, and adopting green building designs that incorporate climate-responsive features and energy-efficient materials. These strategies aim to create a balanced, sustainable, and healthy built environment.

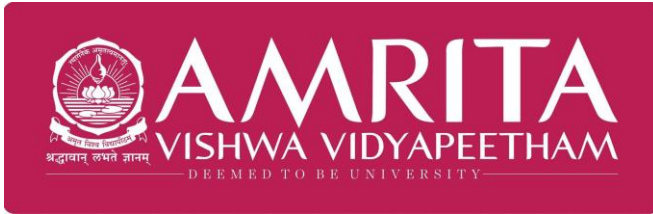
> Precise Requirements

1. Ground level of the proposed land should be maintained above the drainage line to avoid water logging in the site.
2. Implement a stormwater management plan.
3. Treated water from STP should be reused to the maximum extent and balance if any should be discharged through a series of soak pits for recharging the local ground water, and for avoiding discharge of treated water into the nearby public drain.
4. Local topography of the land profile should be maintained as such by avoiding deep cutting or filling.
5. The Project Proponent should make adequate provision for the housing of construction labour with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. as per the Building & Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996. The housing may be in the form of temporary structures to be removed after the completion of the project (Circular No.J-11013/41/2006-IA.II (I) of GoI, MoEF&CC dt.22.09.2008).
6. Climate-responsive design as per Green Building Guidelines in practice should be adopted.
7. Appropriate greening measures should be adopted on the ground as well as over built structure such as roofs, basements, podiums etc.
8. Exposed roof area and covered parking should be covered with material having high solar reflective index.
9. Building design should cater to the differently abled citizens.



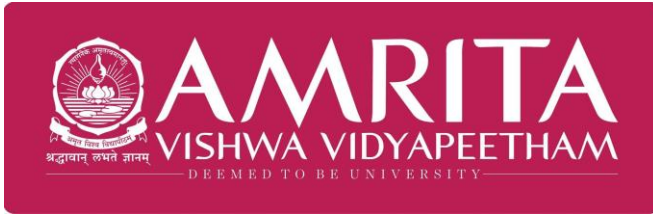
10. Appropriate action should be taken to ensure that the excess rainwater runoff reaches the nearest main natural drain of the area and if necessary, carrying capacity of the natural drain should be enhanced to contain the peak flow.
11. Water efficient plumbing features should be adopted.
12. Design of the building should comply to Energy Building Code as applicable.
13. Energy conservation measures as proposed in the application should be adopted in total.
14. All vehicles, including the ones carrying construction material of any kind, should be cleaned and wheels washed.
15. All vehicles carrying construction materials should be fully covered and protected.
16. All construction material of any kind should not be dumped on public roads or pavements or near the existing facilities outside the project site.
17. Grinding & cutting of building materials should not be done in open areas. Water jets should be used in grinding and stone cutting.
18. Occupational health safety measures for the workers should be taken during the construction.
19. All vehicles during the construction phase should carry PUC certificate.
20. D.G. set should be provided with adequate stack height and regular maintenance should be carried out before and after the construction phase and would be provided with an acoustic enclosure.
21. Green belt should be developed along the periphery of the site with indigenous species.
22. The green building criteria notified in the GO (MS) No. 39/2022/LSGD dated 25.2.2022 should be adopted.
23. Adequate built-in composting facility should be set up for the treatment of biodegradable waste as the capacity or the number of BIOBIN proposed is inadequate.
24. Appropriate greening measures shall be adopted on the ground as well as over built structures such as roofs, basements, podiums etc. to mitigate urban heat island effect.
25. Usage of energy saving 5-star rating equipment such as Solar Geyser and LED lamps should be promoted as part of energy conservation.
26. Open space shall be provided as per the building norms without being utilized for any other constructions.

➤ Sustainability Requirements.



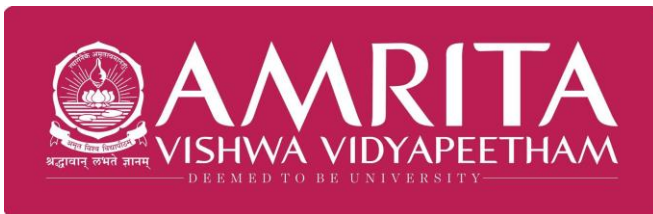
1. Adequate rainwater harvesting facilities shall be arranged
2. Technology and capacity of the STP to be indicated with discharge point (if any) of the treated effluent.
3. Effluent water not conforming to specifications shall not be let out to water bodies.
4. Maximum reuse of grey water for toilet flushing and gardening and construction work shall be ensured.
5. Dual plumbing for flushing shall be done.
6. Provisions for disposal of e-wastes, solid wastes, non-biodegradables and separate parking facility for the buildings shall be provided.
7. Generation of solar energy to be mandatory for own use and/or to be provided to the grid.
8. There shall be no compromise on safety conditions and facilities to be provided by the project proponent, which shall be ensured for occupation, regularisation or consent to operate.
9. Safety measures should be implemented as per the Fire and Safety Regulations/SDMA guidelines.
10. Environment Monitoring Committee should be formed and made functional. Environmental Monitoring Committee with defined functions and responsibility should foresee post operational environmental problems (Eg. development of slums near the site, increase in traffic congestion, power failure, increase in noise level, natural calamities, and increase in suspended particulate matter etc.) and action taken to solve
11. these immediately with mitigation measures
12. Suitable avenue trees should be planted on either side of approach road and internal roads and open parking areas, if any. The proponent should plant trees at least 5 times of the loss of trees that have occurred while clearing the land for the project. The native flowering and fruiting species only shall be used for planting and planning should be done considering the nature of public use.
13. The project shall incorporate devices for solar energy generation and utilization to the maximum possible extent with the possibility of contributing the same to the power grid and consumption in future.
14. Implementation of all provisions of labour laws, as applicable from time to time. Provisions should be made for providing cooking facilities and supplying kerosene or cooking gas to the labourers

➤ Standard Conditions for the Construction Phase



1. All statutory permissions including "Consent for Establishment" to STP/ETP, Solid waste management plant, Power Generator etc shall be obtained from Kerala State Pollution Control Board under Air Act and Water Act and Environment (Protection) Act.
2. The approval of the competent authority shall be obtained for structural safety of the buildings due to earthquake, adequacy of firefighting equipment, etc. as per National Building Code including protection measures from lightning etc. Building constructed in the runout area of landslide / rock fall area, shall be provided with suitable structures/ measures to prevent earth materials to hit the structure.
3. All required sanitary and hygienic measures should be in place before starting construction activities which are to be maintained throughout the construction phase.
4. A First Aid Room shall be provided at the project site both during construction and operation phases of the project.
5. Provide safe and healthy basic facilities for construction workers as per the Building & Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996
6. Adequate drinking water and sanitary facilities should be provided for construction workers at the site, Provision should be made for mobile toilets. Safe disposal of wastewater and solid wastes generated including piling debris during the construction phase should be ensured.
7. Unless provided otherwise, all the topsoil excavated during construction phase should be stored and re-used for backfilling/ horticulture/landscaping purposes within the project site.
8. Topsoil excavated should not be used for reclaiming wetlands.
9. The muck shall be disposed of only at approved sites with the approval of competent authority. The disposal should not create any adverse effect on the neighbouring communities and should be disposed taking necessary precautions for general safety and health of the public.
10. Construction spoils, including bituminous material and other hazardous materials, must
11. not be allowed to contaminate watercourses and the dump sites for such materials must
12. be secured so that they will not leach into the ground water.
13. Any hazardous waste generated during construction phase, should be disposed off to authorised/approved Waste Collectors as per applicable rules and norms with necessary approval of the Kerala State Pollution Control Board.
14. Soil and ground water samples shall be tested to ascertain that there is no threat to ground water quality by leaching of heavy metals and other toxic contaminants.
15. Storm water control and its re-use measures as per CGWB and BIS standards shall be
16. followed for various applications.
17. Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to the applicable air and noise emission

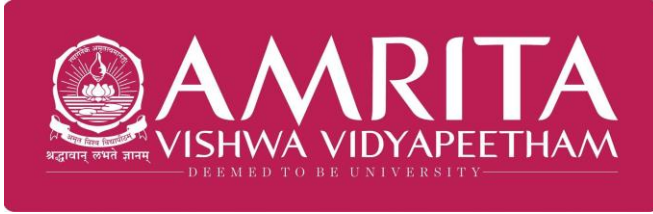
- standards and should be operated only during non-peak hours. During the transportation of building materials/products, the vehicles shall be covered with suitable materials to prevent dust pollution.
18. Ambient noise levels should conform to residential standards both during day and night. Incremental pollution loads on the ambient air and noise quality should be closely monitored during construction phase. Adequate measures should be taken to reduce ambient air and noise level during construction phase, to conform to the stipulated standards by CPCB/KSPCB.
 19. The diesel generator sets used during construction phase should be of low sulphur diesel type and should conform to Environment (Protection) Rules prescribed for air and noise emission standards. The diesel required for operating DG sets shall be stored in underground tanks and\ if required, clearance from Chief Controller of Explosives shall be taken. DG sets shall be installed and made functional as per guidelines of KSPCB.
 20. Ready mixed concrete must be used in building construction. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
 21. Permission to draw ground water shall be obtained from the competent Authority
 22. prior to construction/operation of the project.
 23. Separate dual plumbing line should be provided; one line for Toilet Flushing / Gardening / Vehicle wash and another separate line for other domestic uses, for ensuring reuse / recycle of treated wastewater to the maximum extent possible.
 24. Separation of grey and black water should be done using dual plumbing line for
 25. separation of grey and black water.
 26. Fixtures for showers, toilet flushing and drinking should be of low flow either by use of aerators or pressure reducing devices or sensor-based control.
 27. Water efficient plumbing features should be adopted
 28. Use of glass may be reduced by 40% to reduce the electricity consumption and load on air conditioning. If necessary, use high quality double glass with special reflective coating on windows.
 29. Roof should meet perspective requirement as per Energy Conservation Building Code by using appropriate thermal insulation material to fulfil the requirement.
 30. Opaque wall should meet perspective requirement as per energy Conservation Building Code which is proposed to be mandatory for all air-conditioned spaces while it is optional for non-air-conditioned spaces by use of appropriate thermal insulation material to fulfil requirement
 31. Climate responsive design as per Green Building Guidelines in practice should be
 32. adopted
 33. Vegetation should be adopted appropriately on the ground as well as over built structure such as roofs, basements, podiums etc.



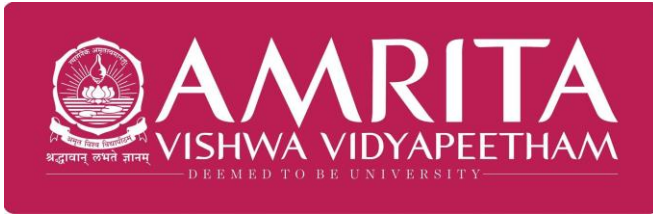
34. Regular supervision of the above and other measures should be in place all throughout the construction phase, to avoid disturbance to the surroundings.
35. Fly ash should be used as building material in construction as per the provisions of Fly Ash Notification of September 1999.

❖ General Conditions Specific to Operation Phase

1. The buildings should have adequate distance between them to allow movement of fresh air and passage of natural light and ventilation.
2. Sewage Treatment Plant (STP) should be installed and made functional as per KSPCB guidelines. On/site Treatment of Sewage and Sullage should be done with scientific method, ensuring efficiency of treatment, ease in operation, sustainability and it should contain the units of primary, secondary, tertiary and quaternary type of treatment scheme. The installation of the STP should be certified by an independent expert. Treated effluent emanating from STP shall be recycled / reused to the maximum extent possible. Treatment of 100% grey water shall be done through a decentralized treatment. Reuse of water shall be practiced for flushing process and garden purposes. Discharge of unused treated effluent shall conform to the norms and standards of the Kerala State Pollution Control Board. Necessary measures should be taken to mitigate
3. the odour problem from STP.
4. Solid waste management plant shall be installed and made functional as per the guidelines of KSPCB. The solid waste generated should be properly collected and segregated. Wet garbage should be composted, and dry/inert solid waste should be disposed off to the approved sites for land filling after recovering recyclable material. Adequate measures should be taken to prevent odour problem from solid waste processing plant and STP.
5. Provide adequate Material Collection Facility (MCF) for storage of non- biodegradable waste including plastic waste and E waste, for handing over the same to Recyclers/ Local Body, as stipulated by Kerala State Pollution Control Board.
6. Diesel power generating sets proposed as source of back-up power for elevators and common area illumination during operation phase should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets.
7. DG sets should not be housed in sub-basement levels.
8. Noise should be controlled to ensure that it does not exceed the prescribed standards. During night time, the noise levels measured at the boundary of the building shall be restricted to them permissible levels to comply with the prevalent regulations.



9. The green belt of adequate width and density shall be raised preferably with local species along the periphery of the project site to provide protection against particulate matter and noise.
10. Weep holes shall be provided in the compound walls to ensure natural drainage of
11. rainwater during the monsoon period.
12. Rain water Harvesting structures should be installed as per the prevailing provisions of KMBR/KPBR, unless otherwise specified elsewhere. Rainwater harvesting measures for roof run-off and surface run-off, as per approved building plan should be implemented. Before recharging the surface run off, pre-treatment must be done to remove suspended matter, oil and grease. The borewell for rainwater recharging should be kept at least 5 m above the highest ground water table.
13. Traffic congestion near the entry and exit points from the roads adjoining the project site must be avoided. Parking should be fully internalized, and no public space should be utilized.
14. Energy conservation measures like installation of LED /CFLs/TFLs for the lighting the areas outside the building should be an integral part of the project design and should be in place before project commissioning. Used LED/CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination. Solar panels may be used to the extent possible.



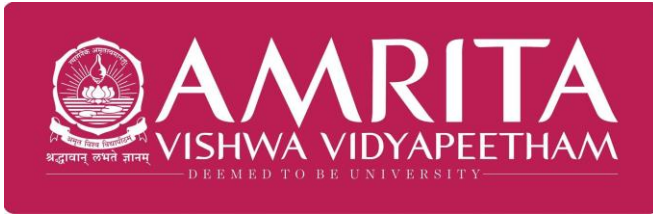
GREEN BUILDINGS

Aim of the Policy

The aim of the Green Building Policy at Amrita University is to develop environmentally sustainable, energy-efficient, and healthy campus buildings that promote resource conservation, minimize environmental impact, and enhance the well-being of students, faculty, and staff.

Enactment Plan

1. All new buildings and major renovations should adhere to sustainable design principles, incorporating energy-efficient systems, sustainable materials, and passive design strategies.
2. Buildings must be designed to maximize energy efficiency, utilizing renewable energy sources, efficient insulation, and energy-saving technologies such as LED lighting, smart Heating Ventilation and Air Conditioning (HVAC) systems, and energy management systems.
3. Implement water-saving technologies in all campus buildings, such as low-flow fixtures, rainwater harvesting systems, and wastewater recycling to minimize water consumption.
4. Construction materials sourced responsibly, prioritizing recycled, locally sourced, and environmentally friendly materials that reduce environmental impact.
5. Promote a healthy indoor environment through proper ventilation, natural lighting, non-toxic materials, and the reduction of indoor pollutants to enhance the well-being of occupants.
6. Incorporate waste reduction strategies in building design, including facilities for recycling, composting, and minimizing construction waste through sustainable building practices.
7. All new buildings should aim to achieve recognized green building certifications, such as LEED (Leadership in Energy and Environmental Design) or equivalent standards, to ensure adherence to high sustainability benchmarks.
8. Landscape design should incorporate drought-tolerant, native plants and minimize the use of chemical fertilizers and pesticides to create eco-friendly, low-maintenance outdoor spaces.
9. Implement smart technologies such as energy monitoring systems, occupancy sensors, and automation tools to optimize resource use and reduce waste across campus buildings.
10. Establish a system for monitoring building performance in terms of energy, water usage, and waste management, with regular audits to ensure continuous improvement in sustainability practices.



SUSTAINABLE DEPARTMENT OPERATION

Amrita Vishwa Vidyapeetham is committed to conducting research that is not only sustainable but also driven by compassion, addressing societal challenges with empathy, and understanding. The Compassion-Driven Sustainable Department Operation Policy outlines the integration of compassionate values into sustainable practices across departments, fostering a comprehensive approach to education and research.

Sustainable Education and Engagement

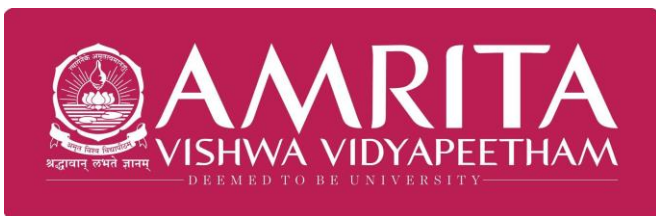
❖ Sustainability Curriculum

- The university will incorporate compassionate values into the sustainability curriculum, emphasizing the role of compassion in addressing global challenges.
- Faculty members are encouraged to integrate compassion-driven case studies and examples into their teaching, fostering empathy and social responsibility among students.

Green Programs

❖ Awareness Campaigns

- The university recognizes the importance of fostering awareness not only in environmental sustainability but also in the compassionate aspects of research and community engagement.
- To achieve this, the university will organize awareness campaigns comprising workshops, seminars, and initiatives that showcase research projects driven by compassion. These campaigns aim to create awareness about the positive impact such research can have on society.
- The university is committed to integrating compassionate values into its awareness campaigns, emphasizing the intersectionality of sustainability and social responsibility.
- Awareness campaigns will be strategically planned and executed by dedicated teams appointed by the university.
- These campaigns will be designed to engage students, faculties, and staff in meaningful discussions and activities related to sustainability and compassion-driven research.
- The success of awareness campaigns will be assessed using predefined metrics, including participation rates, feedback, and the overall impact on the university community.
- Regular evaluations will be conducted to refine and improve future campaigns based on the lessons learned from previous initiatives.



Green Students

The Green Students Policy outlines initiatives for encouraging student involvement, emphasizing compassion-driven research, and fostering a sense of social responsibility.

❖ Student Involvement

- Students are strongly encouraged to actively participate in green initiatives, placing a special emphasis on compassion-driven research that addresses societal challenges.
- The university recognizes and values the contributions of students engaging in research projects that demonstrate compassion and empathy. Such initiatives align with the university's commitment to creating a positive impact on society.

❖ Student Engagement Programs

- The university will establish programs and platforms that facilitate and promote student involvement in green initiatives, providing opportunities for collaboration and idea-sharing.
- These programs may include workshops, seminars, and community projects, fostering a sense of environmental stewardship and social responsibility among students.

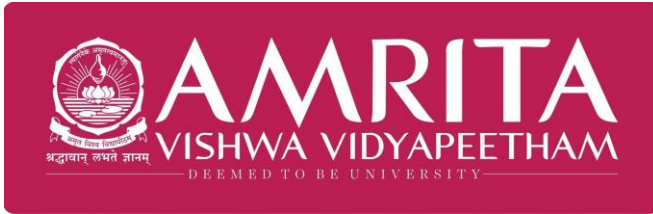
❖ Acknowledgment of Contributions

- 3.3.1 The university will actively recognize and celebrate students who make significant contributions to research projects that exemplify compassion and empathy.
- 3.3.2 Recognition may take the form of awards, honors, or other forms of acknowledgement to highlight the positive impact of students' efforts in promoting sustainability and social responsibility.

❖ Promotion of Student Initiatives

- The university will utilize various communication channels to showcase and promote the initiatives and achievements of students engaged in green projects.
- This may include university publications, social media platforms, and campus events, creating awareness and inspiring other students to actively participate in similar endeavours.

Green Teachers



The Green Teachers Policy outlines initiatives to engage faculty members and staff in integrating sustainable values into their research and teaching, inspiring students to pursue projects that positively impact society.

❖ Staff and Faculty Engagement

- Faculty members and staff are actively encouraged to integrate sustainable values into their research and teaching practices. This involves incorporating principles of environmental responsibility and compassion into academic content.
- The university recognizes the pivotal role of teachers in inspiring students. Therefore, faculty members are encouraged to mentor and guide students in pursuing research projects that align with sustainability and compassionate values.
- The university will provide ongoing professional development opportunities for faculty members and staff to enhance their understanding of sustainability and compassion-driven practices.
- Workshops, seminars, and training sessions will be organized to equip teachers with the knowledge and skills necessary to integrate sustainable values into their teaching and research.

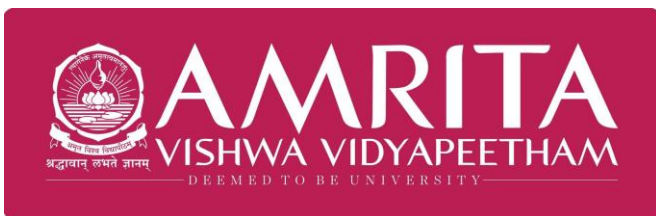
❖ Research Funding and Resources

- The university is committed to provide resources and financial support for faculty and staff engaged in research that aligns with compassionate values.
- Specialized funds, research grants, and access to relevant facilities will be made available to support projects that contribute to a positive impact on society.

❖ Showcasing Green Initiatives

- The university will actively communicate and showcase the green initiatives undertaken by faculty members and staff, creating awareness and inspiring others to adopt similar practices.
- Recognition programs will be instituted to acknowledge and appreciate the contributions of teachers who actively engage in sustainability and compassion-driven research and teaching.

Green Laboratories



The Green Laboratories Policy outlines guidelines for adopting zero-waste principles and energy-efficient technologies, with a focus on conducting research activities with compassion for the environment.

❖ Zero Waste, Energy-Efficient Laboratories

- Laboratories within the university are committed to adopting zero-waste principles and incorporating energy-efficient technologies in their operations.
- The university recognizes the importance of conducting research activities with compassion for the environment, minimizing waste generation, and reducing energy consumption.

❖ Technology Integration

- Laboratories will actively explore and adopt state-of-the-art energy-efficient technologies to minimize their carbon footprint.
- The university will provide support and resources for the procurement and implementation of energy-efficient equipment and practices within laboratories.

❖ Zero-Waste Principles

- Laboratories will implement measures to reduce, reuse, and recycle materials, to minimize waste generation.
- Recycling programs will be established within laboratories to ensure responsible waste management practices.

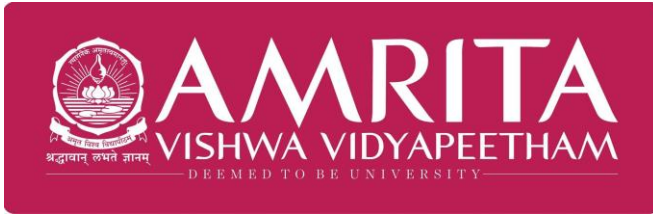
❖ Compassionate Research Projects

- The university will actively promote and support research projects within laboratories that address societal issues with a compassionate perspective.
- These projects will align with the university's commitment to contributing to positive societal impact, emphasizing empathy, and understanding in research endeavors.

❖ Showcasing Green Initiatives

- The university will actively communicate and showcase the green initiatives undertaken by laboratories, creating awareness and inspiring other research units to adopt similar practices.
- Recognition programs will be instituted to acknowledge and appreciate laboratories that actively engage in sustainable practices and compassionate research.

Green Evaluation



❖ Performance Assessment

- The university will assess the performance of sustainability initiatives and research projects, with a specific focus on compassion-driven outcomes.
- Key performance indicators related to compassion-driven research will be developed and monitored to gauge the effectiveness of the initiatives.

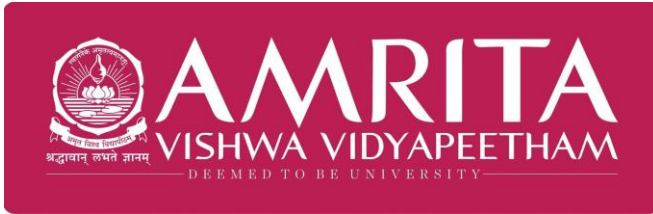
Compliance and Review

❖ Compliance

- All departments are required to comply with the Compassion-Driven Sustainable Department Operation Policy.
- Non-compliance may result in corrective actions, including further training or disciplinary measures.

❖ Review

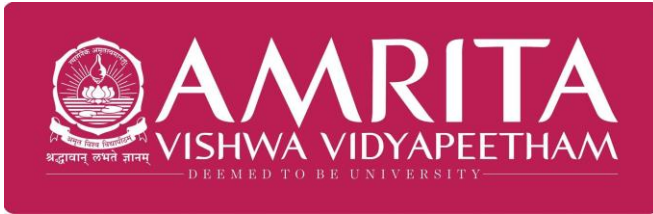
- This policy will be reviewed periodically to ensure its relevance and effectiveness in fostering compassion-driven research.
- Recommendations for improvement can be submitted by members of the university community.



GREEN BUILDING CERTIFICATION

Green building certifications act as a trusted seal of approval for eco-friendly construction. These programs rigorously evaluate buildings across a range of sustainability factors, awarding ratings that validate a project's green credentials. For those seeking sustainable spaces, these certifications offer a clear and reliable way to assess a building's environmental impact. Beyond environmental benefits, green buildings often translate to significant cost savings. When it comes to green buildings, certifications from following prominent programs can be followed

1. LEED (Leadership in Energy and Environmental Design)
2. IGBC (Indian Green Building Council)
3. GRIHA (Green Rating for Integrated Habitat Assessment)



SUSTAINABILITY REPORTING AND ACCOUNTABILITY

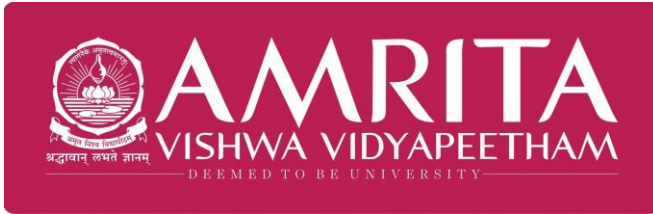
Sustainability reporting plays an integral part in focusing on an organization's impact on social, environmental, and economic aspects.

Sustainability reporting involves disclosing an organization's environmental, social, and governance (ESG) performance thereby providing stakeholders with a comprehensive understanding of the sustainable development initiatives the organization is involved in and addressing the negative impacts by taking appropriate monitoring measures.

Sustainability Reporting:

The sustainability report from each campus should address the following aspects to ensure Amrita Vishwa Vidyapeetham's commitment to environmental and social responsibility, providing a comprehensive overview of its alignment towards sustainable development.

1. Include data on energy consumption, water usage, and waste generation.
2. Incorporate data on renewable energy sources, energy-efficient technologies, and waste reduction initiatives.
3. Provide data on eco-friendly campus infrastructure and buildings, highlighting any certifications or adherence to green building standards if any.
4. Report on strategies to promote sustainable transportation within the campuses (e.g., bike lanes, public transit partnerships), statistics on student and staff commuting patterns, and various initiatives to reduce carbon emissions.
5. Outline how sustainability is integrated into the academic curriculum, on framing courses, programs, or research initiatives.
6. Detail campus efforts to preserve and enhance biodiversity. Highlight green spaces, community gardens, or initiatives to promote native plant species.
7. Provide data on waste generation, collection and diversion rates, recycling programs, and initiatives to reduce single-use plastics.
8. Include initiatives of each campus on responsible consumption and waste reduction among students and staff.
9. Provide information about partnerships with local communities and organizations and collaborative initiatives taken up within or outside the campuses.



10. Report on outreach programs, events, and initiatives that contribute positively to the broader community.
11. Highlight the involvement of students, faculty, and staff in decision-making linked to sustainability initiatives.
12. Establish and report on specific sustainability Key Performance Indicators (KPIs) related to the college's vision and objectives.
13. Include feedback through surveys, forums, and other channels to ensure inclusivity.
14. Ensure compliance with the environmental rules and regulations relevant to the campus policies and procedures.
15. Highlight the innovative solutions and projects in each campus that contribute to environmental and social obligation.
16. Utilize various communication platforms to share details, progress, challenges, and success stories.
17. Detailed education and awareness campaigns and other awareness initiatives related to sustainability among students, faculties, and staff.
18. Report on the financial aspects of sustainability initiatives, indicating cost-effectiveness and long-term financial feasibility.