

STATUS OF SATAT UGC Quality Mandate Action Plan

UGC Quality Mandate - SATAT-

SATAT Core Team

Sr. No	Name & Designation	SATAT Team	SATAT Parameter Responsibility
1	Rear Admiral Kochhar	Chairperson	Event Organization
2	Maj Gen JP Singh	Member	Water Management Waste Management
3	Dr S P Singh	Member	Green Catering Transportation Landscapes and Biodiversity
4	Cdr Deepak Sharma	Member	Resource optimization
5	Dr. Madhuri Kumari Dr. Charu Dhawan	Member	Campus planning Design and Development Campus Building Design
6	Mr RK Singh	Member	Energy sustainability
7	Air Comdr D K Singh	Member	Procurement
8	Dr. Tanu Arora	Member Co-ordinator	Co-ordination and Compilation

Meetings with Committee members

- Structured Meetings with the Committee members: 3
- Number of meetings with Chairman and Co-opted members of Academic office have been held over last six months.

1. UGC Quality Mandate Parameters for Campus planning Design and Development and Campus Building Design

S.No	Expectation from UGC Quality Mandate	Implemented in AUUP	Action Planned for 2021-22	Action Taken during 2021-22
1.1	Develop and refine the Campus Master Plan(s) to enhance the environmental quality of the campus and to adopt sustainable green and sustainable methods in its future development so that the campus is developed in an environmentally-responsible manner with a barrier-free access. Prepare the master plan based on the properly surveyed map showing open, built-up and green areas indicating existing and proposed plantation plans for future development.	Satellite imagery based survey of Amity Campus (Google Earth Imagery may be used)	Preparation of proposed master plan (Open, Built-up and Green areas) by ensuring the following: a. Establishment of sustainability mission and vision b. Incorporation of action area based recommendations in campus planning	1. Digitization of existing master plan is in progress. The focus is to demarcate the landuse of campus highlighting the open area, built-up area and green area.
1.2	Plan campus growth on the most suitable sites possible and avoid or minimize unnecessary environmental impacts of the developmental activity on the surrounding natural landscape. Maintain a healthy open, vegetated, water bodies and build area ratios depending upon the availability of space and prevailing climatic conditions.	Preparation of Existing master plan and incorporating the details from survey conducted (Open, Built-up and Green areas)	Development of campus growth plan while giving special attention to maintaining open, green and built area ratios.	Identification of gaps with regard to optimal campus planning is in progress (reference is Draft Institutional Development Plan for HEIs released by UGC on 28th Jan, 2022)
1.3	During campus development, preserve vegetated buffers, to the extent possible and protect habitats of species of special concern such as threatened and endangered species. Develop a walkable campus by the majority of academic buildings accessible within easy walking distance. Comply with all relevant legislation and regulations while exploring ways to extend beyond stipulated standards. Estimate and declare the carrying capacity of the campus	Analysis of Existing master plan (Open, Built-up and Green areas) with respect to the accepted best practices on campus planning	Walkability assessment and analysis of pedestrian infrastructure. a. Proximity analysis within building blocks b. Enclosure study of pedestrian streets and squares of campus	Preparation of Circulation plan of the campus is under process.

Evidences of Action Taken during 2021-22


UGC Quality Mandate Parameters for Campus planning Design and Development and Campus Building Design

S.N o	Expectation from UGC Quality Mandate	Implemented in AUUP	Action Planned for 2021-22	Action Taken during 2021-22
1.4	Integrate sustainable features into new building design by adopting appropriate green building rating system as the minimum starting point and aim to achieve the highest rating possible so that resources are optimised, and they provide healthy productive environments. Incorporate at least one locally appropriate innovative sustainability feature, based on the accepted traditional knowledge beyond the requirements of the selected green building rating system.	Initiating assessment of all sustainable feature for retaining the LEED Platinum Rating and apply for extension for the rating	Encouraging the further use of new innovative materials and techniques to ensure and retain the sustainability measures and easy ways to adopt them for sustainable future	Considering the sustainable development concept, list of new innovative materials and technique is prepared
1.5	Provide an indoor environment that maintains indoor air quality, enhances user comfort, well-being and productivity. Use ample natural light and natural air circulation into interior spaces. Offer views of the outside features from the interior spaces wherever possible to link occupants with the campus ecosystem. Enable building spaces easily modifiable by maximizing standardization or repetition of building elements to serve a variety of purposes for a diverse group of users over the lifetime of the building.	Ensuring quality checks for all parameters including air, comfort and well-being and checking for required modification and upgradation of internal and/or external areas to ensure quality of life in the building blocks	Continuing the periodic quality checks for all parameters including air, comfort and well-being. Also, completing the required modification and upgradation of internal and/or external areas to ensure quality of life in the building blocks	Due to lockdown, limited use of infrastructure so no modification or upgradation was done
1.6	Retrofit the green building system in the existing buildings, wherever it is possible. Carry out Environmental Impact Assessment when the new features/buildings are planned and conduct a post-occupancy evaluation of all buildings to ensure liveable and learnable environments for staff and students. Develop and implement training and awareness programs for the stakeholders about the benefits of green buildings, and how to develop and manage them.	Conducting a post-occupancy evaluation of all buildings to ensure liveable and learnable environments for all teaching and non-teaching staff and students	Organising the training and awareness programs for the stakeholders (Faculty, Staff and Students) about the benefits of green buildings	At University level, various training and awareness workshops have been conducted: 1. Professional Development Programme on Expanding Role of Architects with the Technological Transformations - Dec, 2021 by ASAP 2. Guest Lecture on Green Building Material - June, 2021 by ASET 3. Lecture on latest green building materials during Workshop on Urban resilience, Jan 2022

2. UGC Quality Mandate Parameters for Resource optimization

S.N	Expectation from UGC Quality Mandate	Implemented in AUUP	Action Planned for 2021-22	Action Taken during 2021-22
2.1	Adaptation of Resource Optimization Practices	Fostering a culture of sustainability and promoting sustainability through resource optimization by inclusion in curricular, co-curricular and extra curricular activities.	Policy document for resource optimization across the University shall be developed and deliberated upon.	Because of COVID environment no activities (Carricular, Co-Curricular, Extra Curricular) took place.
2.2	Utilization of Materials, Services and Technologies with less negative Environmental Impact	Usage of toxic chemicals and other hazardous materials would be cut down drastically and their disposal shall also be monitored as per guidelines and regulations.	Where-ever possible, obsolete equipment, instruments, technologies shall be phased out and new sustainable, environmental friendly and green technologies shall be introduced for long term benefits.	LPG converted to PNG, conventional Tube Lights being replaced with LED Tube Lights, energy efficient Fans being installed
2.3	Create Sustainable Thinking and Culture	E- transportation, bicycles etc. shall be provided for travel within the campus and thus avavoiding plying of emission causing vehicles in the campus.	Faculty of Studies, Departments, Administrative Offices etc. shall be so organized that walking time to concerned offices, labs, class rooms etc. are less and there is no need of any transportation at all. It would require planning and proper deliberations but the outcome shall go a long way.	

Evidences of Action Taken during 2021-22


2. UGC Quality Mandate Parameters for Resource optimization

S.N o	Expectation from UGC Quality Mandate	Implemented in AUUP	Action Planned for 2021-22	Action Taken during 2021-22
2.4	To Adopt Green Lifestyle, Sustainability Principles and Practices	Guidelines shall be developed and practiced for minimizing usage of hard copies, printed pages specially those of e-mails etc. Also, available knowledge resources about resource management and sustainability principle shall be updated by conducting related research studies.	With availability of Virtual Labs, Virtual Class Rooms etc.; consumption of materials, chemicals, glass wares, plastic wares and other consumables shall be reduced to basic minimum.	Complete ban of Plastic being enforced in the Campus.
2.5	Inculcate culture of Resource Management for Sustainable Development	A review of existing building infrastructure would be undertaken and efforts would be made to reallocate the existing class room spaces, lab spaces etc. In such a way that no new need would arise for any additional infrastructure.	New policy guidelines shall be developed, based on experiences gained during past of couple of years, for space sharing and avoiding addition of new building space etc. Also, sustainability related research studies shall be undertaken.	

3. UGC Quality Mandate Parameters for Landscapes and Biodiversity

S.No	Expectation from UGC Quality Mandate	Implemented in AUUP	Action Planned for 2021-22	Action Taken during 2021-22
3.1	Develop strategies to alleviate the adverse impacts of severe weather conditions in the summer and winter by planning the strategic design and "layout of campus infrastructure including buildings, vegetation and other landscape elements.	Continuous Process	Continuous Process for new building plans	It is ongoing process to be taken by the concerned dept responsible for creation of vegetation as per landscape design and building construction. The ASNRSD was not involved Remarks- The concerned dept would call a meeting and apprise landscape planning where ASNRSD can suggest suitable species of plantation on various site to reduce the adverse impact of severe weather.
3.2	Ensure that all campus developments compatible with the surrounding natural environment. It should protect and enhance the natural biodiversity of local areas and aim to conserve locally endangered flora and fauna.	The diversity of Plantation is was carried out in the Campus. However, due to closure of the University due to Covid pandemic limited plantation could be carried out in Aug 2020.	Enrichment of campus vegetation by planting indigenous species of trees.	On going process. The building design and land scape planning has taken care for compatible surrounding as far as practical Remarks- Ms Richa Sharma Ph.d Students of ASNRSD is studying the flora of Amity university and its role in C- Sequestration. Her finding will helps us to identify the gap for enhancement of Natural Biodiversity in the campus.



3. UGC Quality Mandate Parameters for Landscapes and Biodiversity

S.N	Expectation from UGC Quality Mandate	Implemented in AUUP	Action Planned for 2021-22	Action Taken during 2021-22
3.3	Enhance habitat quality of flora and fauna by increasing structural complexity and promoting use of native species for landscaping in the campus. Value old trees and their habitat role for birds and other forms of organisms. Maintain a botanical garden and if possible, a piece of native wilderness.	Limited Plantation was carried out by planting native species in the month of August 2020	The existing flora and fauna to be maintained and replenished time to time with appropriate habitat management.	The existing vegetation and old growth of native species is not disturbed during the year. However, there is no scope for developing botanical garden in the campus separately, but care would be taken to create cluster of specialized vegetation corners like medicinal plants, aromatic plants, cactus, palm etc at different location. Remarks- The detail land scape planning would be required in the financial year 2021- 22 by the group of experts from different institution.
3.4	Wherever possible create a wetland such as pond and swamp.	The feasibility was explored but no suitable place exists	Survey to identify the natural swamp and wetland areas for rehabilitation and maintain wetland ecosystem	
3.5	Conduct an ecological survey of the campus every 5 years by using relevant ecological indicators such as biodiversity and ecosystem services that it provides	Not Yet Commenced due to COVID Pandemic	University will plan to Conduct Ecological Survey	

4. UGC Quality Mandate Parameters for Energy Sustainability

S.N	Expectation from UGC Quality Mandate	Implemented in AUUP	Action Planned for 2021-22	Action Taken during 2021-22
4.1	Develop strategies to alleviate the adverse impacts of severe weather conditions in the summer and winter by planning the strategic design and "layout of campus infrastructure including buildings, vegetation and other landscape elements	Harmonic mitigation to improve quality and sustainability of Energy at Sub Station 2	Harmonic mitigation to improve quality and sustainability of Energy at Sub Station 3	
4.2	Ensure that all campus developments compatible with the surrounding natural environment. It should protect and enhance the natural biodiversity of local areas and aim to conserve locally endangered flora and fauna	To install occupancy sensors in the classrooms on pilot project basis	Harmonic mitigation to improve quality and sustainability of Energy at Sub Station 1	
4.3	Enhance habitat quality of flora and fauna by increasing structural" complexity and promoting use of native species for landscaping in the campus. Value old trees and their habitat role for birds and other forms of organisms. Maintain a botanical garden and if possible, a piece of native" wilderness.	No action can be taken due to COVID Pandemic	To install occupancy sensors in the 20% classrooms.	
4.4	Wherever possible create a wetland such as pond and swamp.	Procuring Energy efficient power products	Energy efficient power products will be procured	



4. UGC Quality Mandate Parameters for Energy Sustainability

S.N	Expectation from UGC Quality Mandate	Implemented in AUUP	Action Planned for 2021-22	Action Taken during 2021-22
4.5	Conduct an ecological survey of the campus every 5 years by using relevant ecological indicators such as biodiversity and ecosystem services that it provides	Hazardous waste is being collected & same shall be disposed off by an authorized vendor	Hazardous waste shall be collected & same will be disposed off by an authorized vendor	
4.6	Replacement of conventional light with LED	Replacement of conventional light with LED	Replacement of conventional light with LED	
4.7	Replacement of conventional fans with energy efficient Star rated fans	Replacement of conventional fans with energy efficient Star rated fans	Replacement of conventional fans with energy efficient Star rated fans	
4.8	Reduce Greenhouse gas emissions by, Minimizing energy use and switching to energy efficient devices Clean and renewable energy sources such as solar, wind, biogas and renewable biomass energy	Inputs Not Received	Inputs Not Received	Inputs Not Received

Evidences of Action Taken during 2021-22


4. UGC Quality Mandate Parameters for Energy Sustainability

S.N	Expectation from UGC Quality Mandate	Implemented in AUUP	Action Planned for 2021-22	Action Taken during 2021-22
4.9	Set energy – saving targets with a timeline and implement energy efficiency actions in buildings and infrastructure systems to reduce the energy use intensity	Inputs Not Received	Inputs Not Received	Inputs Not Received
4.10	Utilize smart energy modelling for new buildings to optimize energy performance by building orientation to take advantage of natural light, natural ventilation, use of shading devices, occupancy sensors , etc.	Inputs Not Received	Inputs Not Received	Inputs Not Received
4.11	Specify standards for heating, ventilation and air-conditioning systems (HVAC) for each building type . Replace old air conditioning and heating with more energy efficient units	Inputs Not Received	Inputs Not Received	Inputs Not Received
4.12	Install smart building management and digital control systems and smart metering for major campus outdoor and building energy uses to control and achieve targeted consumption standard	Inputs Not Received	Inputs Not Received	Inputs Not Received



5. UGC Quality Mandate Parameters for Water Management

S.N	Expectation from UGC Quality Mandate	Implemented in AUUP	Action Planned for 2021-22	Action Taken during 2021-22
5.1	Perform detailed water audit and calculate campus water balance to identify priority areas.	Not Carried out	-	Inputs Awaited
5.2	Manage storm water to prevent it from leaving the campus, wherever sustainable.	Out of total 301 Harvesting Bores, 248 Rain Harvesting Bores cleaned.	Planned to be done before onset of Monsoon.	Completed
5.3	Provide for infiltration of rain/storm water runoff by promoting permeable paving, incorporating bio-retention areas, rain gardens, vegetated basins, natural/constructed wetlands such as ponds, check-dams where possible.	No Change	Continuous process	Completed
5.4	Capture and reuse of rainwater for non-potable uses (irrigation, laboratories, toilet flushing, cooling towers, construction works, swimming pools. etc.) Install rainwater harvesting structures for the recharge of aquifers and/or wetlands.	No Change	Continuous process	Completed



5. UGC Quality Mandate Parameters for Water Management

S.N	Expectation from UGC Quality Mandate	Implemented in AUUP	Action Planned for 2021-22	Action Taken during 2021-22
5.5	Reduce water consumption by using low flow faucets and toilets, waterless urinals, Sensors and electronic controls on sinks and lavatories, wherever practical.	No Change	No Change	
5.6	Setup an active maintenance and retrofitting programme to ensure installations are up to standard and reduce leakages.	Continuous maintenance by dedicated Plumbers will be carried out throughout the year.	Continuous maintenance by dedicated Plumbers will be carried out throughout the year	
5.7	Install smart water meters to monitor and optimize water use by various campus facilities.	-	Check feasibility for installation of smart water meters	
5.8	Initiate steps to raise environmental awareness of the need for water conservation among members of the HEI community and implement behavioral change programs.	Signages are installed for conservation of Water through-out the Campus & Students are being educated in Classes also.	Signages are installed for conservation of Water through-out the Campus & Students will be educated in Classes also.	

Evidences of Action Taken during 2021-22


5. UGC Quality Mandate Parameters for Water Management

S.N	Expectation from UGC Quality Mandate	Implemented in AUUP	Action Planned for 2021-22	Action Taken during 2021-22
5.9	Install a grey water recycling system for treatment of kitchen. Laundry, sink and shower water.	Grease Traps for Kitchens, ETPs for Kitchens & Laundries are being cleaned regularly through the Contractor, maintaining the STPs & ETPs. Details are at Appx- C- page-2.	Grease Traps for Kitchens, ETPs for Kitchens & Laundries will be cleaned regularly through the Contractor, maintaining the STPs & ETPs.	Completed
5.10	Install a black water recycling system to treat sewage for non-potable uses. Re-use non-potable water resources to the extent possible for irrigation and other non-potable water requirements (e.g. toilets, vehicle washing).	4 STPs are in operation and STP/ETP water is being treated for re-use for Flushing in Toilets, Horticulture & Cooling Towers.	4 STPs are in operation and STP/ETP water will be treated for re-use for Flushing in Toilets, Horticulture & Cooling Towers.	Completed
5.11	Minimize the need for landscape irrigation by utilizing native and hardy plants. When required, draw on non-potable sources for irrigation systems, such as adjacent ponds or collected rainwater and use high-efficiency irrigation systems such as drip and sprinkler.	Sprinklers are in use for horticulture & Gardening purposes.	Sprinklers will be in use for horticulture & Gardening purposes.	Sprinklers in place
5.12	Promote water-self-sufficient campus, wherever possible	Major Areas such as Cooling Tower, Horticulture area/Plantation & Flushing.	Water Self sufficient Campus	

Evidences of Action Taken during 2021-22


6. UGC Quality Mandate Parameters for Transportation

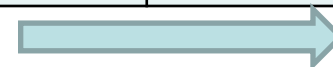
S.No	Expectation from UGC Quality Mandate	Implemented in AUUP	Action Planned for 2021-22	Action Taken during 2021-22
6.1	Initiate sustainable transportation options on campus to reduce dependency on fossil fuel-based vehicles and promoting on-campus use of fuel-efficient, zero-emission vehicles or hybrid vehicles using CNG, bio-diesel mix or electricity. Replace older vehicles with newer, fuel-efficient ones.	All University Buses and 03 Maruti EECO are run on CNG additional vehicles presently run on fossil fuel and declared unserviceable will be replaced with environment friendly vehicles	Future procurement of Vehicles will be more environment friendly fuel-efficient vehicles	No new Vehicles were purchase during the year 2020-2021. However future procurements of vehicles will be PNG/ electrically operated.
6.2	Promote green commuting behaviors within campus such as co-sharing of the vehicles, use of public transport, etc.	The Campus layout lends in promoting walking within the Campus. 03 Battery Operated, Zero emission are Operational for use by Senior Faculty and Staff members	Review of additional requirement of Golf Carts will be done	Presently there in no additional requirement of Golf Carts visualized. However, more use of Battery Operated vehicles will be promoted.
6.3	Maintain a bicycle and pedestrian-friendly campus by establishing direct and safe bicycle paths and by clustering academic, research, administrative, residential and recreational uses within easy walking distance.	Pedestrian friendly Campus Exists. Bicycle Path Not Recommended, due to compact campus layout	Future extensions of Campus if any will cater to the requirement of pedestrian friendly foot path in planning. Bicycle Path Not Recommended due to compact Campus layout	



6. UGC Quality Mandate Parameters for Transportation				
S.No	Expectation from UGC Quality Mandate	Implemented in AUUP	Action Planned for 2021-22	Action Taken during 2021-22
6.4	Reduce traffic and parking demand by establishing campus bus service where the HEI has large and/or multiple campuses	University is operating shuttle Bus service from nearest Metro Station. A Contracted Shuttle Bus Services from various locations in Noida and Delhi are also run under the arrangements of University to reduce traffic and parking demand in the Campus.	University will review operating additional shuttle Bus service from nearest Metro Station. Additional routes of Contracted Shuttle Bus Services from various locations in Noida and Delhi may be added depending on the requirement.	No change. The requirement of Campus Bus service does not exist due to compact campus layout.
6.5	Pay attention to parking requirements and provide eco-friendly open parking spaces. Promote smart parking system and fuel consumption calculation apps to incentivize non- fossil fuel.	Adequate parking space as allocated exists within the Campus The fuel consumption calculation App is in use for calculation of fuel averages of University Vehicles.	Review requirement of Smart Parking A more efficient APP/method for fuel consumption and calculation of fuel averages of University Vehicles will be reviewed .	No change due to Covid-19 environment in year 2020-2021.
6.6	E parking management as a tool to encourage walking and bicycling.	The parking has been arranged near all entry gates and Academic Blocks to promote walking within the Campus. Cycling in the Campus is not recommended since the Academic Blocks, Sports Complex, Cafeteria and Hostels are located within easy walking distance.	The parking has been arranged near all entry gates and Academic Blocks to promote walking within the Campus. Cycling in the Campus is not recommended since the Academic Blocks, Sports Complex, Cafeteria and Hostels are located within easy walking distance.	
6.7	Always seeking to reduce the need for travel and consider using video or teleconferencing wherever possible.	In Covid time, online classes, webinar talks, online lectures & debate are being extensively arranged.	Review of requirement of online classes, webinar talks, online lectures & debate will be undertaken, and such arrangements expanded if required.	

7. UGC Quality Mandate Parameters for Procurement				
S.No	Expectation from UGC Quality Mandate	Implemented in AUUP	Action Planned for 2021-22	Action Taken during 2021-22
7.1	Procurement for Academic & Research division	Procurement of Academic & research Items including maintenance in form of AMC, regular calibration of various Lab Equipments. Presently only Indent of Research Purchases received online thru "Amizone" a inhouse developed software.	Procurement of Academic & research items including maintenance in form of AMC, regular calibration of various Lab equipment. Target to streamline of Purchases Indent thru ERP for all category	Continuous Process
7.2	Evaluate procurement policy of goods and services	All requirements received after due diligence by Purchase Assessment Committee	All requirements received after due diligence by Purchase Assessment Committee	Continuous Process
7.3	Objectives and targets in the service contract document	All service provider to enter the contract fully meet their respective obligations as efficiently and effectively	All service provider to enter the contract fully meet their respective obligations as efficiently and effectively	Continuous Process
7.4	Reduce unnecessary purchasing first and avoid single-use disposable items	Campus avoid buying and using disposable items and always practicing in reducing waste at Campus level, by practicing the "3 R's" of waste reduction i.e. Reduce, Reuse, and Recycle. Started reduce unnecessary purchasing first and avoid single-use disposable items.	Campus avoid buying and using disposable items and always practicing in reducing waste at Campus level, by practicing the "3 R's" of waste reduction. Started Reduce unnecessary purchasing first and avoid single-use disposable items. SOP to create reduce unnecessary purchasing and avoid single-use disposable items.	Continuous Process

Evidences of Action Taken during 2021-22



7. UGC Quality Mandate Parameters for Procurement				
S.No	Expectation from UGC Quality Mandate	Implemented in AUUP	Action Planned for 2021-22	Action Taken during 2021-22
7.5	Prioritize purchase of surplus or multiple-use products	Is an on going process and regularly followed.	Is an on going process and regularly followed. Standard practice to create prioritize purchase of surplus or multiple-use products	Continuous Process
7.6	Contract with suppliers of products that have established end-of-life re-use recycling	An ongoing process and it is ensured that vendor supply recycle product, Similarly scrap are dispose thru E-waste handling company. All steps are taken for environmental friendly solutions	An ongoing process and it is ensured that vendor supply recycle product, Similarly scrap are dispose thru E-waste handling company. All steps are taken for environmental friendly solutions	Continuous Process
7.7	Purchase environmentally friendly products to fulfill day-to-day office supply needs .	Procuring all Major equipment & consumables which are Energy Efficient & Environmental Friendly, like BEE Star rating, ISI mark and other norms set by Govt. All efforts to be taken by purchase Dept to reduce carbon foot prints. Target achieved 40-60% in procurement of Energy Efficient Equipment	Procuring all Major Equipment & consumables which are Energy Efficient & Environmental Friendly, like BEE, Star rating, ISI mark and other norms set by Govt. All efforts to be taken by purchase Dept to reduce carbon foot print. Target to achieve Upto 90% procurement of Energy Efficient Equipment	Continuous Process
7.8	Promote "service purchase concept" over "product purchase concept"	Its a continuous process and being followed continuously.	Its a continuous process and being followed continuously.	Continuous Process

Evidences of Action Taken during 2021-22


7. UGC Quality Mandate Parameters for Procurement

S.No	Expectation from UGC Quality Mandate	Implemented in AUUP	Action Planned for 2021-22	Action Taken during 2021-22
7.9	Use suppliers that eliminate packaging or use minimum amount necessary for product protection if packaging necessary	Vendors are encouraged to club multiple orders and transport them on truck so that carbon footprint is reduced and less packaging is required.	Target to achieve suppliers who eliminate packaging, freight or use minimum amount necessary for product protection if packaging necessary and use recycle material	Continuous Process
7.10	Support locally manufactured products and consolidate orders wherever possible	Most of the items are sourced locally. It is only when some items is not locally made we resort to imports.	Most of the items are sourced locally. It is only when some items is not locally made we resort to imports.	Continuous Process

8. UGC Quality Mandate Parameters for Waste Management

S.No	Expectation from UGC Quality Mandate	Implemented in AUUP	Action Planned for 2021-22	Action Taken during 2021-22
8.1	Perform a waste characterization study to identify waste stream components and prioritize response accordingly	Waste segregation, recycling and disposal is as the current Solid Waste Management (SWM) rules of 2016 on the subject	Waste disposal will be reviewed for more efficient handling of waste.	No change. Waste is disposed as per the SWM Rules 2016.
8.2	Minimize waste generated on campus and facilitate the better management of waste through reuse and recycling.	Posters placed in Academic Blocks to create awareness. Waste Paper, Cardboard, Other useful scrap material disposed of for value.	Review more efficient methods to reduce generation of Waste and recycling will be undertaken	Input may be obtained from DSW/HOIs/HODs.
8.3	Provide provision of adequate storage spaces for waste and recyclables. Secure storage spaces for hazardous wastes to minimize the risk of spillage/leakage.	Bio Medical Waste Room exists. Lab Waste treated in ETP.	Review of Storage space depending on the kind of waste generated will be undertaken.	No change. However, adequate bins are available in the Campus for storage of Waste.
8.4	.Create a facility for onsite composting of food and garden waste for reuse on campus grounds. Initiate campus-based programs to process collected recyclables.	Onsite composting of Food Waste received from the Cafeterias and other food outlets exists. Green waste is buried to convert into manure,	Review of Composting Plant Capacity will be undertaken	No change. Composting machine already exist in the Campus.



8. UGC Quality Mandate Parameters for Waste Management

S.No	Expectation from UGC Quality Mandate	Implemented in AUUP	Action Planned for 2021-22	Action Taken during 2021-22
8.5	Provide centralized bins to promote recycling behavior and the phasing out of under desk bins from offices.	Centralized Bins have been provided	More Efficient sturdy bins review will be undertaken	No change centralized bins have been provided in the Campus at various locations. However, phasing out of under the desk bins from offices will be reviewed.
8.6	Ensure that all waste handling practices comply with relevant legislation and codes of practice and shall have no harmful effect on the environment and human health.	Solid Waste Management (SWM) Rules 2016 will be complied with	Compliance of Solid Waste Management (SWM) Rules 2016 will be reviewed and audited	No change. Being complied with.
8.7	Ensure that all waste handling practices comply with relevant legislation and codes of practice and shall have no harmful effect on the environment and human health.	Solid Waste Management (SWM) Rules 2016 will be complied with	Compliance of Solid Waste Management (SWM) Rules 2016 will be reviewed	No change. Being complied with.
8.8	Provide adequate and appropriate facilities on campus to facilitate separation at source and local waste recycling by establishing collection centers throughout the campus both inside and outside of buildings, including events gathering places, parking areas and community places.	-	-	No change. Solid Waste Management Rules 2016 are being complied with and waste collection is being done by Noida Authority approved Agency i.e. M/s AG ENVIRO INFRA PROJECTS PVT LTD.

8. UGC Quality Mandate Parameters for Waste Management

S.No	Expectation from UGC Quality Mandate	Implemented in AUUP	Action Planned for 2021-22	Action Taken during 2021-22
8.9	Create a campus-wide e- waste recycling system for computers and other electronic equipment. Repair or recycle all electronic hardware, devices and consumables in a securely and sustainably by partnering with electronics recycling establishments.	-	Dispose of the IT scrap through authorised vendor	-
8.10	Reduce waste generation and disposal to landfill through green procurement practices, administrative approaches and awareness enhancement.	Reduction of Waste Generation will be undertaken	Review of Waste generation and its reduction	Waste generation was minimum in the year 2020-2021 due to closure of Campus imposed due to Covid-19 lockdown.
8.11	Initiate steps to reduce the use of paper on campus. Promote paper reduction through use of the electronic communication and e-document handling. Digitize records and employ an e-filing system to gradually replace printed record.	University communications are based on e mails and other electronic communications. Reliance on Papers and Hard Copy records is being minimized.	University communications are based on e mails and other electronic communications. Reliance on Papers and Hard Copy records will be minimized.	Being complied with.
8.12	Use computer printing effectively by adopting a 'think before you print' attitude with a goal to finally achieving a paperless office.	University communications are based on e mail and other electronic communications with an aim to achieve paperless office.	Review of action taken and results achieved to attain paperless office will be undertaken	Being complied with.
8.13	Minimize printing of publications and documents and disseminate information and news electronically and online. If printing is unavoidable, reduce the number of pages by printing both sides and number of quantities to bare minimum, and use recycled paper.	University communications are based on e mails and other electronic communications. Use of both side printing of paper where required is being resorted to.	Review will be undertaken on more measures to be adopted to disseminate information by electronic means.	Being complied with.

9. UGC Quality Mandate Parameters for Green Catering

S.N o	Expectation from UGC Quality Mandate	Implemented in AUUP	Action Planned for 2021-22	Action Taken during 2021-22
9.1	Provide sustainable, locally produced and seasonal foods whenever possible and reduce consumption of high carbon footprint food materials.	The food is prepared in cafeterias by using sustainable, locally produced and seasonal vegetables. The consumption of high carbon footprint food materials like mutton, chicken are strictly not allowed in University Cafeterias and food outlets Non-Vegetarian Food is not allowed in the Campus.	Review will be undertaken on the menu to provide wholesome , healthy, hygienically prepared food in Cafeterias.	
9.2	Provide/use reusable food ware to serve. If the use of reusable items is not possible, ask for one-of plates/containers that are made from agricultural or other wastes. Avoid plastic and polystyrene foam boxes.	Additional measures will be explored once the University opens in conformity with instructions on Covid pandemic.	Review will be done on use of reusable and more environment friendly food wares	
9.3	Set up smart card systems for take away food wrapped in recyclable plastics to ensure that plastic is also returned	Additional modes of payment will be introduced if required	Review of additional modes of payment will be done if required	



9. UGC Quality Mandate Parameters for Green Catering

S.N o	Expectation from UGC Quality Mandate	Implemented in AUUP	Action Planned for 2021-22	Action Taken during 2021-22
9.4	Avoid single-serving packaged food items to minimize waste	The single serving packaged food item are discouraged at cafeterias and food is prepared in the \cafeteria kitchen and served as per requirement of students.	Review of single serving packaged food items will be regularly review in Cafeteria Management Committee Meeting (CMC).	
9.5	Avoid serving bottled water or packed drinks but drinking water in a glass or provide drinking water dispenser.	<p>The plastic water bottles and packaged drinking water in any form is not allowed in cafeterias. The drinking water in dispensers/ water coolers with RO water has been provided at various locations in the Campus.</p> <p>The single use plastic bottled water is banned in the Campus. RO Water in Borosil flasks is used in meetings and seminars</p>	Review for for environment friendly method will be undertaken	No change. Single use plastic is banned in the Campus.
9.6	Reduce food waste through composting and recycling	The food waste of cafeterias is converted to compost by Composting machine available within campus.	Review of increasing the current capacity of composting machine as per the demand.	

10. UGC Quality Mandate Parameters for Event organization

S.N	Expectation from UGC Quality Mandate	Implemented in AUUP	Action Planned for 2021-22	Action Taken during 2021-22
10.1	Avoid printing of banners unless there is a genuine need. If the banner is needed, choose environmentally friendly banner material and try not to show the year in the design such that they can be reused in the future.	From July, 2020 to till date 191 online Webinars/Conferences have been organized. Further, Events will be planned Online till such time the the situation due to COVID-19 is brought under control	Events will be planned later and as per the situation of COVID-19	Most of the Events are being organized in Online Mode. In case of certain Events organized in offline Mode, the laid down guidelines as per UGC Quality Mandate are being followed.
10.2	Avoid printing of banners unless there is a genuine need. If the banner is needed, choose environmentally friendly banner material and try not to show the year in the design such that they can be reused in the future.			
10.3	Minimize printed promotional material such as posters, leaflets and brochures, etc. use electronic means for guest's invitation and registration instead of printed copies. Use digital display systems for activity information.			
10.4	Encourage 'Bring Your Own culture by reminding participants in advance, e.g. bag, devices, pen, paper, etc. Avoid distribution of plastic and non woven bags. Reuse name badges and collect them at the end for future events.			



10. UGC Quality Mandate Parameters for Event organization

S.N o	Expectation from UGC Quality Mandate	Implemented in AUUP	Action Planned for 2021-22	Action Taken during 2021-22
10.5	Choose environmentally friendly decorations and reduce the use of disposable items.			
10.6	Facilitate recycling at all events. Provide well—labelled boxes at your event venue to facilitate recycling and reuse.	Events will be planned Online till such time the the situation due to COVID-19 is brought under control	Review of Electronic Backdrops and use of recyclable materials was preferred during conduct of the Events.	
10.7	Avoid Gifts and Souvenirs. If required, explore green products (e.g. recycled. products, local handi craft items, live plants) and choose products with minimal packaging.	Tulsi Sapling is use in place of Gifts/ Souvenirs	Tulsi Sapling is use in place of Gifts/ Souvenirs	
10.8	Set practice of evaluating the events once completed in terms of re-resource efficiency and incentivize . The event organization based on efficiencies achieved.	Use re-usable name plates on dais	Use re-usable name plates on dais	

1. UGC Quality Mandate Parameters for Campus planning Design and Development and Campus Building Design

S.No	Expectation from UGC Quality Mandate	Implemented in AUUP	Action Plan for 2022-23
1.1	Develop and refine the Campus Master Plan(s) to enhance the environmental quality of the campus and to adopt sustainable green and sustainable methods in its future development so that the campus is developed in an environmentally-responsible manner with a barrier-free access. Prepare the master plan based on the properly surveyed map showing open, built-up and green areas indicating existing and proposed plantation plans for future development.	1. Digitization of existing master plan is in progress. The focus is to demarcate the landuse of campus highlighting the open area, built-up area and green area.	1. Finalisation of sustainability mission and vision 2. Incorporation of recommendations in campus planning for improving pedestrian accessibility and walkability.
1.2	Plan campus growth on the most suitable sites possible and avoid or minimize unnecessary environmental impacts of the developmental activity on the surrounding natural landscape. Maintain a healthy open, vegetated, water bodies and build area ratios depending upon the availability of space and prevailing climatic conditions.	Identification of gaps with regard to optimal campus planning is in progress (reference is Draft Institutional Development Plan for HEIs released by UGC on 28th Jan, 2022)	Development of campus growth plan with a focus on optimal orientation of open area and improving green coverage of the campus
1.3	<p>During campus development, preserve vegetated buffers, to the extent possible and protect habitats of species of special concern such as threatened and endangered species.</p> <p>Develop a walkable campus by the majority of academic buildings accessible within easy walking distance.</p> <p>Comply with all relevant legislation and regulations while exploring ways to extend beyond stipulated standards.</p> <p>Estimate and declare the carrying capacity of the campus</p>	<p>Preparation of Circulation plan of the campus is under process.</p> <p>Preparation of Circulation plan of the campus is under process. After the plan is ready, the walkability assessment will be carried out and recommendations for improving the pedestrian infrastructure will be developed.</p>	<p>Assess the compliance with all relevant legislation and regulations based on Institutional Development Plan notified by UGC (reference is Institutional Development Plan notified by UGC on 28th Jan, 2022)</p> <p>Make recommendations based on major gaps identified as per the compliance report (reference is Institutional Development Plan notified by UGC on 28th Jan, 2022)</p>

UGC Quality Mandate Parameters for Campus planning Design and Development and Campus Building Design

S.No	Expectation from UGC Quality Mandate	Implemented in AUUP	Action Plan for 2022-23
1.4	Integrate sustainable features into new building design by adopting appropriate green building rating system as the minimum starting point and aim to achieve the highest rating possible so that resources are optimised, and they provide healthy productive environments. Incorporate at least one locally appropriate innovative sustainability feature, based on the accepted traditional knowledge beyond the requirements of the selected green building rating system.	Considering the sustainable development concept, list of new innovative materials and technique is prepared	Identify at least one locally appropriate innovative sustainability feature, based on the accepted traditional knowledge beyond the requirements of the selected green building rating system. Recommend ways to incorporate the identified innovative sustainability feature
1.5	Provide an indoor environment that maintains indoor air quality, enhances user comfort, well-being and productivity. Use ample natural light and natural air circulation into interior spaces. Offer views of the outside features from the interior spaces wherever possible to link occupants with the campus ecosystem. Enable building spaces easily modifiable by maximizing standardization or repetition of building elements to serve a variety of purposes for a diverse group of users over the lifetime of the building.	Due to lockdown, limited use of infrastructure so no modification or upgradation was done	Continuing the periodic quality checks for all parameters including air, comfort and well-being. Also, completing the required modification and upgradation of internal and/or external areas to ensure quality of life in the building blocks
1.6	Retrofit the green building system in the existing buildings, wherever it is possible. Carry out Environmental Impact Assessment when the new features/buildings are planned and conduct a post-occupancy evaluation of all buildings to ensure liveable and learnable environments for staff and students. Develop and implement training and awareness programs for the stakeholders about the benefits of green buildings, and how to develop and manage them.	At University level, various training and awareness workshops have been conducted: 1. Professional Development Programme on Expanding Role of Architects with the Technological Transformations - Dec, 2021 by ASAP 2. Guest Lecture on Green Building Material - June, 2021 by ASET 3. Lecture on latest green building materials during Workshop on Urban resilience, Jan 2022	1. Organise workshop focusing on India's Sustainable Development Goals and steps to achieve the same. 2. Host a session by Nodal Centre for SATAT at the Institute of Environment and Sustainable Development, Banaras Hindu University (an Institute of Eminence) for understanding the action points to be taken by HEIs to improve their campus sustainability.

2. UGC Quality Mandate Parameters for Resource optimization

S.No	Expectation from UGC Quality Mandate	Implemented in AUUP	Action Plan for 2022-23
2.1	Adaptation of Resource Optimization Practices	Because of COVID environment no activities (Carricular, Co-Curricular, Extra Curricular) took place.	Fostering a culture of sustainability and promoting sustainability through resource optimization by inclusion in curricular, co-curricular and extra curricular activities. DSW to issue Calendar for these activities.
2.2	Utilization of Materials, Services and Technologies with less negative Environmental Impact	LPG converted to PNG, conventional Tube Lights being replaced with LED Tube Lights, energy efficient Fans being installed	Continuouse Process
2.3	Create Sustainable Thinking and Culture		Policy documents tobe issued at the level of University Head Quarter preferably ASNRSD

2. UGC Quality Mandate Parameters for Resource optimization

S.No	Expectation from UGC Quality Mandate	Implemented in AUUP	Action Plan for 2022-23
2.4	To Adopt Green Lifestyle, Sustainability Principles and Practices	Complete ban of Plastic being enforced in the Campus.	Continuous Process
2.5	Inculcate culture of Resource Management for Sustainable Development		Guidelines may be developed by University Head Quarter, preferably ASNRSD

3. UGC Quality Mandate Parameters for Landscapes and Biodiversity

S.No	Expectation from UGC Quality Mandate	Implemented in AUUP	Action Plan for 2022-23
3.1	Develop strategies to alleviate the adverse impacts of severe weather conditions in the summer and winter by planning the strategic design and "layout of campus infrastructure including buildings, vegetation and other landscape elements.	It is ongoing process to be taken by the concerned dept responsible for creation of vegetation as per landscape design and building construction. The ASNRSD was not involved	Continuous Process for new building plans
3.2	Ensure that all campus developments compatible with the surrounding natural environment. It should protect and enhance the natural biodiversity of local areas and aim to conserve locally endangered flora and fauna.	Remarks- The concerned dept would call a meeting and apprise landscape planning where ASNRSD can suggest suitable species of plantation on various site to reduce the adverse impact of severe weather.	

3. UGC Quality Mandate Parameters for Landscapes and Biodiversity

S.No	Expectation from UGC Quality Mandate	Implemented in AUUP	Action Plan for 2022-23
3.3	Enhance habitat quality of flora and fauna by increasing structural” complexity and promoting use of native species for landscaping in the campus. Value old trees and their habitat role for birds and other forms of organisms. Maintain a botanical garden and if possible, a piece of native” wilderness.	<p>The existing vegetation and old growth of native species is not disturbed during the year. However, there is no scope for developing botanical garden in the campus separately, but care would be taken to create cluster of specialized vegetation corners like medicinal plants, aromatic plants, cactus, palm etc at different location.</p> <p>Remarks- The detail land scape planning would be required in the financial year 2021- 22 by the group of experts from different institution.</p>	The existing flora and fauna to be maintained and replenished time to time with appropriate habitat management. .
3.4	Wherever possible create a wetland such as pond and swamp.		Survey to identify the natural swamp and wetland areas for rehabilitation and maintain wetland ecosystem
3.5	Conduct an ecological survey of the campus every 5 years by using relevant ecological indicators such as biodiversity and ecosystem services that it provides		University will plan to Conduct Ecological Survey

4. UGC Quality Mandate Parameters for Energy Sustainability

S.No	Expectation from UGC Quality Mandate	Implemented in AUUP	Action Plan for 2022-23
4.1	Develop strategies to alleviate the adverse impacts of severe weather conditions in the summer and winter by planning the strategic design and "layout of campus infrastructure including buildings, vegetation and other landscape elements	-	Harmonic mitigation to improve quality and sustainability of Energy at Sub Station 3
4.2	Ensure that all campus developments compatible with the surrounding natural environment. It should protect and enhance the natural biodiversity of local areas and aim to conserve locally endangered flora and fauna	-	Harmonic mitigation to improve quality and sustainability of Energy at Sub Station 1
4.3	Enhance habitat quality of flora and fauna by increasing structural" complexity and promoting use of native species for landscaping in the campus. Value old trees and their habitat role for birds and other forms of organisms. Maintain a botanical garden and if possible, a piece of native" wilderness.	-	To install occupancy sensors in the 20% classrooms.
4.4	Wherever possible create a wetland such as pond and swamp.	-	Energy efficient power products will be procured

4. UGC Quality Mandate Parameters for Energy Sustainability

S.No	Expectation from UGC Quality Mandate	Implemented in AUUP	Action Plan for 2022-23
4.5	Conduct an ecological survey of the campus every 5 years by using relevant ecological indicators such as biodiversity and ecosystem services that it provides		Hazardous waste shall be collected & same will be disposed off by an authorized vendor
4.6	Replacement of conventional light with LED		Replacement of conventional light with LED
4.7	Replacement of conventional fans with energy efficient Star rated fans		Replacement of conventional fans with energy efficient Star rated fans
4.8	Reduce Greenhouse gas emissions by, Minimizing energy use and switching to energy efficient devices Clean and renewable energy sources such as solar, wind, biogas and renewable biomass energy		

4. UGC Quality Mandate Parameters for Energy Sustainability

S.No	Expectation from UGC Quality Mandate	Implemented in AUUP	Action Plan for 2022-23
4.9	Set energy – saving targets with a timeline and implement energy efficiency actions in buildings and infrastructure systems to reduce the energy use intensity	Inputs Not Received	Inputs Not Received
4.10	Utilize smart energy modelling for new buildings to optimize energy performance by building orientation to take advantage of natural light, natural ventilation, use of shading devices, occupancy sensors , etc.	Inputs Not Received	Inputs Not Received
4.11	Specify standards for heating, ventilation and air-conditioning systems (HVAC) for each building type . Replace old air conditioning and heating with more energy efficient units	Inputs Not Received	Inputs Not Received
4.12	Install smart building management and digital control systems and smart metering for major campus outdoor and building energy uses to control and achieve targeted consumption standard	Inputs Not Received	Inputs Not Received

5. UGC Quality Mandate Parameters for Water Management

S.No	Expectation from UGC Quality Mandate	Implemented in AUUP	Action Plan for 2022-23
5.1	Perform detailed water audit and calculate campus water balance to identify priority areas.	-	
5.2	Manage storm water to prevent it from leaving the campus, wherever sustainable.	Planned to be done before onset of Monsoon.	Completed
5.3	Provide for infiltration of rain/storm water runoff by promoting permeable paving, incorporating bio-retention areas, rain gardens, vegetated basins, natural/constructed wetlands such as ponds, check-dams where possible.	Continuous process	Completed
5.4	Capture and reuse of rainwater for non-potable uses (irrigation, laboratories, toilet flushing, cooling towers, construction works, swimming pools. etc.) Install rainwater harvesting structures for the recharge of aquifers and/or wetlands.	Continuous process	Completed

5. UGC Quality Mandate Parameters for Water Management

S.No	Expectation from UGC Quality Mandate	Implemented in AUUP	Action Plan for 2022-23
5.5	Reduce water consumption by using low flow faucets and toilets, waterless urinals, Sensors and electronic controls on sinks and lavatories, wherever practical.	No Change	Inputs Awaited
5.6	Setup an active maintenance and retrofitting programme to ensure installations are up to standard and reduce leakages.	Continuous maintenance by dedicated Plumbers will be carried out throughout the year	Continuous maintenance by dedicated Plumbers will be carried out throughout the year
5.7	Install smart water meters to monitor and optimize water use by various campus facilities.	Check feasibility for installation of smart water meters	To be implemented after feasibility check
5.8	Initiate steps to raise environmental awareness of the need for water conservation among members of the HEI community and implement behavioral change programs.	Signages are installed for conservation of Water throughout the Campus & Students will be educated in Classes also.	Signages are installed for conservation of Water through-out the Campus & Students will be educated in Classes also.

5. UGC Quality Mandate Parameters for Water Management

S.No	Expectation from UGC Quality Mandate	Implemented in AUUP	Action Plan for 2022-23
5.9	Install a grey water recycling system for treatment of kitchen. Laundry, sink and shower water.	Grease Traps for Kitchens, ETPs for Kitchens & Laundries will be cleaned regularly through the Contractor, maintaining the STPs & ETPs.	Grease Traps for Kitchens, ETPs for Kitchens & Laundries will be cleaned regularly through the Contractor, maintaining the STPs & ETPs.
5.10	Install a black water recycling system to treat sewage for non-potable uses. Re-use non-potable water resources to the extent possible for irrigation and other non-potable water requirements (e.g. toilets, vehicle washing).	4 STPs are in operation and STP/ETP water will be treated for re-use for Flushing in Toilets, Horticulture & Cooling Towers.	STPs are in operation and STP/ETP water will be treated for re-use for Flushing in Toilets, Horticulture & Cooling Towers
5.11	Minimize the need for landscape irrigation by utilizing native and hardy plants. When required, draw on non-potable sources for irrigation systems, such as adjacent ponds or collected rainwater and use high-efficiency irrigation systems such as drip and sprinkler.	Sprinklers will be in use for horticulture & Gardening purposes.	Sprinklers in place
5.12	Promote water-self-sufficient campus, wherever possible	Water Self sufficient Campus	Water Self sufficient Campus

6. UGC Quality Mandate Parameters for Transportation

S.No	Expectation from UGC Quality Mandate	Implemented in AUUP	Action Plan for 2022-23
6.1	Initiate sustainable transportation options on campus to reduce dependency on fossil fuel- based vehicles and promoting on-campus use of fuel-efficient, zero- emission vehicles or hybrid vehicles using CNG, bio-diesel mix or electricity. Replace older vehicles with newer, fuel- efficient ones.	No new Vehicles were purchase during the year 2020-2021. However future procurements of vehicles will be PNG/ electrically operated.	All Future procurement of Vehicles will be more environment friendly fuel- efficient/hybrid/e vehicles. Continious process
6.2	Promote green commuting behaviors within campus such as co-sharing of the vehicles, use of public transport, etc.	Presently there in no additional requirement of Golf Carts visualized. However, more use of Battery Operated vehicles will be promoted.	Presently there in no additional requirement of Golf Carts visualized. However, more use of Battery Operated vehicles will be promoted.
6.3	Maintain a bicycle and pedestrian-friendly campus by establishing direct and safe bicycle paths and by clustering academic, research, administrative, residential and recreational uses within easy walking distance.		Future extensions of Campus if any will cater to the requirement of pedestrian friendly foot path in planning. Bicycle Path Not Recommended due to compact Campus layout

6. UGC Quality Mandate Parameters for Transportation			
S.No	Expectation from UGC Quality Mandate	Implemented in AUUP	Action Plan for 2022-23
6.4	Reduce traffic and parking demand by establishing campus bus service where the HEI has large and/or multiple campuses	No change. The requirement of Campus Bus service does not exist due to compact campus layout.	University will review operating additional shuttle Bus service from nearest Metro Station. Additional routes of Contracted Shuttle Bus Services from various locations in Noida and Delhi may be added depending on the requirement.
6.5	Pay attention to parking requirements and provide eco-friendly open parking spaces. Promote smart parking system and fuel consumption calculation apps to incentivize non-fossil fuel.	No change due to Covid-19 environment in year 2020-2021.	Review requirement of Smart Parking A more efficient method for fuel consumption and calculation of fuel averages of University Vehicles will be reviewed . Fuel Consumption and fuel averages of all operational vehicles will be monitored.
6.6	E parking management as a tool to encourage walking and bicycling.	-	The parking has been arranged near all entry gates and Academic Blocks to promote walking within the Campus. Additional Parking in two levels is being created in K Block to cater for additional 1500 Cars. Cycling in the Campus is not recommended since the Academic Blocks, Sports Complex, Cafeteria and Hostels are located within easy walking distance.
6.7	Always seeking to reduce the need for travel and consider using video or teleconferencing wherever possible.	-	Review of requirement of online classes, webinar talks, online lectures & debate will be undertaken, and such arrangements expanded if required.

7. UGC Quality Mandate Parameters for Procurement			
S.No	Expectation from UGC Quality Mandate	Implemented in AUUP	Action Plan for 2022-23
7.1	Procurement for Academic & Research division	Continuous Process	Procurement of Academic & research Equipment & consumables, IT related computers & Peripherals, building maintenance items, Electrical Items - Major Items & consumables, Furniture, Civil work etc. CMC & AMC, regular calibration of various Lab equipment. Purchases only through Indents approved by competent authority.
7.2	Evaluate procurement policy of goods and services	Continuous Process	Requirements (Indents) for Research Project thru Project Management System. Academic & other requirements received after due diligence by Purchase Assessment Committee.
7.3	Objectives and targets in the service contract document	Continuous Process	All service providers to enter the contract fully meet their respective obligations as efficiently and effectively. In current secenario we will use services as per requirement. Will downgrade services in case of Lockdown situation or closure of campus.
7.4	Reduce unnecessary purchasing first and avoid single-use disposable items	Continuous Process	Campus avoid buying and using disposable items and always practicing in reducing waste at Campus level, by practicing the "3 R's" of waste reduction. Started Reduce unnecessary purchasing first and avoid single-use disposable items. SOP to create reduce unnecessary purchasing and avoid single-use disposable items.

7. UGC Quality Mandate Parameters for Procurement			
S.No	Expectation from UGC Quality Mandate	Implemented in AUUP	Action Plan for 2022-23
7.5	Prioritize purchase of surplus or multiple-use products	Continuous Process	Is an on going process and regularly followed. Standard practice to create prioritize purchase of surplus or multiple-use products
7.6	Contract with suppliers of products that have established end-of-life re-use recycling	Continuous Process	An ongoing process and it is ensured that vendor supply recycle product, Similarly scrap are dispose thru E-waste handling company. Taking E-waste certification after disposal of E-waste. All steps are taken for environmental friendly solutions.
7.7	Purchase environmentally friendly products to fulfill day-to-day office supply needs .	Continuous Process	Procuring all Major Equipment & consumables which are Energy Efficient & Environmental Friendly, like BEE, Star rating, ISI mark and other norms set by Govt. All efforts to be taken by purchase Dept to reduce carbon foot print. Target to achieve Upto 90% procurement of Energy Efficient Equipment
7.8	Promote “service purchase concept” over “product purchase concept”	Continuous Process	Its a continuous process and being followed continuously.

7. UGC Quality Mandate Parameters for Procurement

S.No	Expectation from UGC Quality Mandate	Implemented in AUUP	Action Plan for 2022-23
7.9	Use suppliers that eliminate packaging or use minimum amount necessary for product protection if packaging necessary	Continuous Process	Target to achieve suppliers who eliminate packaging, freight or use minimum amount necessary for product protection if packaging necessary and use recycle material
7.10	Support locally manufactured products and consolidate orders wherever possible	Continuous Process	Most of the items are sourced locally. It is only thru local authorised dealer & distributors. Import of Items as per requirement, only for specific brand, make & model which is not available locally.

8. UGC Quality Mandate Parameters for Waste Management

S.No	Expectation from UGC Quality Mandate	Implemented in AUUP	Action Plan for 2022-23
8.1	Perform a waste characterization study to identify waste stream components and prioritize response accordingly	No change. Waste is disposed as per the SWM Rules 2016.	Waste disposal will be reviewed for more efficient handling of waste.
8.2	Minimize waste generated on campus and facilitate the better management of waste through reuse and recycling.	Input may be obtained from DSW/HOIs/HODs.	Review more efficient methods to reduce generation of Waste and recycling will be undertaken
8.3	Provide provision of adequate storage spaces for waste and recyclables. Secure storage spaces for hazardous wastes to minimize the risk of spillage/leakage.	No change. However, adequate bins are available in the Campus for storage of Waste.	Review of Storage space depending on the kind of waste generated will be undertaken.
8.4	.Create a facility for onsite composting of food and garden waste for reuse on campus grounds. Initiate campus-based programs to process collected recyclables.	No change. Composting machine already exist in the Campus.	Review of Composting Plant Capacity will be undertaken

8. UGC Quality Mandate Parameters for Waste Management

S.No	Expectation from UGC Quality Mandate	Implemented in AUUP	Action Plan for 2022-23
8.5	Provide centralized bins to promote recycling behavior and the phasing out of under desk bins from offices.	No change centralized bins have been provided in the Campus at various locations. However, phasing out of under the desk bins from offices will be reviewed.	Future procurement of large bins 260 Ltrs will be sturdy with provision of lifting for emptying in the AG Enviro truck.
8.6	Ensure that all waste handling practices comply with relevant legislation and codes of practice and shall have no harmful effect on the environment and human health.	No change. Being complied with.	Compliance of Solid Waste Management (SWM) Rules 2016 will be reviewed and audited
8.7	Ensure that all waste handling practices comply with relevant legislation and codes of practice and shall have no harmful effect on the environment and human health.	No change. Being complied with.	Compliance of Solid Waste Management (SWM) Rules 2016 will be reviewed
8.8	Provide adequate and appropriate facilities on campus to facilitate separation at source and local waste recycling by establishing collection centers throughout the campus both inside and outside of buildings, including events gathering places, parking areas and community places.	No change. Solid Waste Management Rules 2016 are being complied with and waste collection is being done by Noida Authority approved Agency i.e. M/s AG ENVIRO INFRA PROJECTS PVT LTD.	Broken Bins will be replaced and additional Bins provided in the Campus and for Centralized Events

8. UGC Quality Mandate Parameters for Waste Management

S.No	Expectation from UGC Quality Mandate	Implemented in AUUP	Action Plan for 2022-23
8.9	Create a campus-wide e- waste recycling system for computers and other electronic equipment. Repair or recycle all electronic hardware, devices and consumables in a securely and sustainably by partnering with electronics recycling establishments.	-	IT Dept.
8.10	Reduce waste generation and disposal to landfill through green procurement practices, administrative approaches and awareness enhancement.	Waste generation was minimum in the year 2020-2021 due to closure of Campus imposed due to Covid-19 lockdown.	Review of Waste generation and its reduction through awareness will be under taken
8.11	Initiate steps to reduce the use of paper on campus. Promote paper reduction through use of the electronic communication and e-document handling. Digitize records and employ an e-filing system to gradually replace printed record.	Being complied with.	University communications are based on e mails and other electronic communications. Reliance on Papers and Hard Copy records will be minimized.
8.12	Use computer printing effectively by adopting a 'think before you print' attitude with a goal to finally achieving a paperless office.	Being complied with.	Review of action taken and results achieved to attain paperless office will be undertaken
8.13	Minimize printing of publications and documents and disseminate information and news electronically and online. If printing is unavoidable, reduce the number of pages by printing both sides and number of quantities to bare minimum, and use recycled paper.	Being complied with.	Review will be undertaken on more measures to be adopted to disseminate information by electronic means.

9. UGC Quality Mandate Parameters for Green Catering

S.No	Expectation from UGC Quality Mandate	Implemented in AUUP	Action Plan for 2022-23
9.1	Provide sustainable, locally produced and seasonal foods whenever possible and reduce consumption of high carbon footprint food materials.	Review will be undertaken on the menu to provide wholesome , healthy, hygienically prepared food in Cafeterias.	Cafeteria Management Committee will carry out review to promote low carbon footprint materials and review the menu to provide wholesome , healthy, hygienically prepared food in Cafeterias.
9.2	Provide/use reusable food ware to serve. If the use of reusable items is not possible, ask for one-of plates/containers that are made from agricultural or other wastes. Avoid plastic and polystyrene foam boxes.	Review will be done on use of reusable and more environment friendly food wares	Review will be done on use of reusable and more environment friendly food wares.
9.3	Set up smart card systems for take away food wrapped in recyclable plastics to ensure that plastic is also returned	Review of additional modes of payment will be done if required	Food Packaging will be undertaken in environment friendly articles to be promulgated by Cafeteria Management Committee.

9. UGC Quality Mandate Parameters for Green Catering

S.No	Expectation from UGC Quality Mandate	Implemented in AUUP	Action Plan for 2022-23
9.4	Avoid single-serving packaged food items to minimize waste	Review of single serving packaged food items will be regularly review in Cafeteria Management Committee Meeting (CMC).	Review of single serving packaged food items will be regularly review in Cafeteria Management Committee Meeting (CMC).
9.5	Avoid serving bottled water or packed drinks but drinking water in a glass or provide drinking water dispenser.	No change. Single use plastic is banned in the Campus.	Ban on Single use plastic will be strictly enforced.
9.6	Reduce food waste through composting and recycling	Review of increasing the current capacity of composting machine as per the demand.	Review of increasing the current capacity of composting machine as per the demand.

10. UGC Quality Mandate Parameters for Event organization

S.No	Expectation from UGC Quality Mandate	Implemented in AUUP	Action Plan for 2022-23
10.1	Avoid printing of banners unless there is a genuine need. If the banner is needed, choose environmentally friendly banner material and try not to show the year in the design such that they can be reused in the future.	Most of the Events are being organized in Online Mode. In case of certain Events organized in offline Mode, the laid down guidelines as per UGC Quality Mandate are being followed.	The Events will be organized adhering to the Expectation from UGC Quality Mandate in this regard. All stakeholders will continue to be sensitised regularly to follow the guidelines while planning and organizing the events.
10.2	Avoid printing of banners unless there is a genuine need. If the banner is needed, choose environmentally friendly banner material and try not to show the year in the design such that they can be reused in the future.		
10.3	Minimize printed promotional material such as posters, leaflets and brochures, etc. use electronic means for guest's invitation and registration instead of printed copies. Use digital display systems for activity information.		
10.4	Encourage 'Bring Your Own culture by reminding participants in advance, e.g. bag, devices, pen, paper, etc. Avoid distribution of plastic and non woven bags. Reuse name badges and collect them at the end for future events.		

10. UGC Quality Mandate Parameters for Event organization

S.No	Expectation from UGC Quality Mandate	Implemented in AUUP	Action Plan for 2022-23
10.5	Choose environmentally friendly decorations and reduce the use of disposable items.	-	<p>The Events will be organized adhering to the Expectation from UGC Quality Mandate in this regard.</p> <p>All stakeholders will continue to be sensitised regularly to follow the guidelines while planning and organizing the events.</p>
10.6	Facilitate recycling at all events. Provide well—labelled boxes at your event venue to facilitate recycling and reuse.	Review of Electronic Backdrops and use of recyclable materials was preferred during conduct of the Events.	
10.7	Avoid Gifts and Souvenirs. If required, explore green products (e.g. recycled. products, local handicraft items, live plants) and choose products with minimal packaging.	Tulsi Sapling is use in place of Gifts/ Souvenirs	
10.8	Set practice of evaluating the events once completed in terms of resource efficiency and incentivize . The event organization based on efficiencies achieved.	Use re-usable name plates on dais	

Q & A

Thanks



AMITY UNIVERSITY

-----UTTAR PRADESH-----



20th University IQAC Meeting

22 and 23 November 2022

Minutes of the Meeting

The 20th University IQAC meeting was conducted on 22 and 23 November 2022 under the Chairpersonship of Prof (Dr) Balvinder Shukla, Chairperson University IQAC and Hon'ble Vice Chancellor, AUUP.


List of attendees is enclosed as Annexure 'A'.

1. After ascertaining the quorum for the meeting, Dr R S Rai, Director IQAC, started the meeting with the permission of Chair and welcomed all the members of the University IQAC.

1.1 Opening Address by the Chairperson University IQAC – At the outset the Chairperson University IQAC & Vice Chancellor, AUUP welcomed University IQAC members, external members, alumni members and all those present in the meeting. She specially mentioned the new external members who have been nominated as the members of the University IQAC- Prof Nawal Kishore, School of Management Studies, IGNOU; students/scholars - Ms Vandana Kumari and Mr Rajneesh Kumar Srivastava and professors from various AUUP institutions who will be providing their valuable inputs to the University IQAC to improve the processes, students learning experiences, enhancing the research and innovation, facilities, resources infrastructure, etc.

The major points covered by the Chairperson University IQAC are given below:

- The Chairperson University IQAC expressed that the members of University IQAC play a very important role in enhancing the quality of the University in all aspects.
- She further apprised the forum about the achievements of AUUP for the quarter. The main highlights were:
 - The ranking of the University in NIRF rankings, QS Asia Rankings 2023, THE Rankings, QS Indian University Rankings.
 - Strategic tie-up with TATA technologies to produce industry ready professionals.
 - The 18th convocation held from 10-12 November conferred degrees to 17547 students and honorary degrees to the following dignitaries:
 - Dr M Srinivas, Director AIIMS
 - Sh Vikas Singh, President Supreme Court Bar Association
 - Sh C P Gurnani, CEO Tech Mahindra
 - Sh Maroof Raza, Strategic Defence Expert
 - Dr Prathap C Reddy, Founder Chairman Apollo Hospitals
- Major Research Projects undertaken by the University faculties.
- Patents granted
- Scopus indexed publication and citations of university faculties.
- Achievement of students and faculty since 19th University IQAC.


Dr. R. S. Rai
15/12/2022



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-----UTTAR PRADESH-----

- Status of new MOUs signed and major conference / events organised by various Institution and university during the quarter July-October 2022.

2. Agenda Items

UIQAC-20/2022-23/AG1: Confirmation of minutes of previous University IQAC

UIQAC-20/2022-23/AG2: Action taken report (ATR) on minutes of 19th University IQAC meeting

UIQAC-20/2022-23/AG3: Status of preparation of End Term Examination & Convocation Report

UIQAC-20/2022-23/AG4:

- (a) Submission of AQAR on NAAC portal
- (b) Calendar of Activities for AQAR 2021-22
- (c) Advance preparation for NAAC 3rd Cycle Re-accrreditation.

UIQAC-20/2022-23/AG5: QAA Re-accrreditation Process & Timeline

UIQAC-20/2022-23/AG6: Status of Re-accrreditation of UNWTO

UIQAC-20/2022-23/AG7: Report on WSCUC peer team visit thematic pathway for reaffirmation TPR

UIQAC-20/2022-23/AG8: Status of WSCUC accrreditation of Tashkent campus.

UIQAC-20/2022-23/AG9: Admission withdrawal analysis

UIQAC-20/2022-23/AG10: Status of ARIIA Ranking submission data

UIQAC-20/2022-23/AG11: Status of compliance of SATAT with Action Plan of 2021-22 and the action plan of 2022-23.

UIQAC-20/2022-23/AG12: Human Resource Report:

- (a) Annual report & achievements of 2021-22 and future plan for 2022-23
- (b) Number of faculty appointed against sanctioned post
- (c) Total Number of full time faculty with Ph.D./D.M/M.Ch./D.N.B Superspeciality/D.Sc./D'Lit. during the year.

UIQAC-20/2022-23/AG13: Progress of students' progression (Class of 2022 & 2023)

UIQAC-20/2022-23/AG14: Admission Status of 2022-2023

UIQAC-20/2022-23/AG15: Status of classes planned and conducted for first year students. Identify the gaps (if any) and action plan.

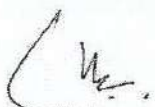
UIQAC-20/2022-23/AG16: Status of faculty allotment to all courses for odd semester 2022-23.

UIQAC-20/2022-23/AG17 : Status of augmentation staff and academic leadership 2022-23 and future plan for even semester.

2.1 The discussions on above agenda items are given in succeeding paragraphs: -

UIQAC-20/2022-23/AG1: Confirmation of minutes of 19th University IQAC:

The University IQAC confirmed the minutes of the 19th University IQAC as circulated.


SRS Rai
15/12/2022



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UIQAC-20/2022-23/AG2: Action taken report (ATR) on minutes of 19th University IQAC meeting

The University IQAC took note of the action taken report on minutes of 19th University IQAC meeting. No action is pending.

UIQAC-20/2022-23/AG3: Status of preparation of End Term Examination & Convocation Report

The Chairperson Examination Committee and Controller of Examination presented the above agenda points.

The following recommendations were made:

Action item	Decision/Recommendation	Responsibility	Timelines
UIQAC-20/2022-23/AG3/D1	Research scholars who are not occupied in field work can be deputed as relievers (to be available with BEMC) for the faculty invigilators	Chairperson Exam Committee/ Chairperson BEMC	Immediate effect
UIQAC-20/2022-23/AG3/D2	Training/Workshop for faculty on preparing model answers and standard of marking scheme.	Chairperson Exam Committee/Dean Academics/ Deans of faculty/AASC	Before the conduct of examination

UIQAC-20/2022-23/AG4: NAAC/AQAR

- (a) Submission of AQAR on NAAC portal
- (b) Calendar of Activities for AQAR 2021-22
- (c) Advance preparation for NAAC 3rd Cycle Re-accreditation.

Ms Prem Kanthi, Dy Director presented the above agenda items, following recommendations was made:

Action item	Decision/Recommendation	Responsibility	Timelines
UIQAC-20/2022-23/AG4/D1	The timelines of AQAR 2021-22 and preparation of 3rd cycle NAAC accreditation to be circulated to all concerned.	QAE / VCO	15 December 2022

UIQAC-20/2022-23/AG5: QAA Re-accreditation Process & Timeline

Dr Archana Chandra, Sr APO, VCO presented the requirement of QAA and the time lines to process the self-study report and preparation for QAA visit in 2023. The following recommendations was made:

Action item	Decision/Recommendation	Responsibility	Timelines
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(Signature)
Dr R. S. Rai
15/12/2022



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-----UTTAR PRADESH-----

UIQAC-20/2022-23/AG5/D1	Teams to be constituted for preparing the QAA Self Evaluation Document (SED)	QAE / VCO	26 December 2022
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UIQAC-20/2022-23/AG6: Status of Re-accreditation of UNWTO

Dr Manohar Sajnani, Dean Faculty of Hospital & Tourism presented the status of Re-accreditation by UNWTO- TedQual and said that the final evaluation will be done in the first week of January 2023.

The University IQAC and faculty of Tourism will be coordinating to complete the process of re-accreditation.

UIQAC-20/2022-23/AG7: Report on WSCUC peer team visit thematic pathway for reaffirmation TPR

Dr B L Arya, ALO WSCUC/ Registrar presented the entire report of the WASC re-accreditation and said that the draft report of WASC peer team visit has been received for factual corrections if any at the university end. The final recommendations will be considered and the University will be represented at the WASC Commissioner office in USA for final re-accreditation.

UIQAC-20/2022-23/AG8: Status of WSCUC accreditation of Tashkent campus

Dr Naina Chaudhary, Dy Director Academics, Tashkent presented the status of Western Association of Schools and Colleges (WASC) of Tashkent campus. The proposal of Tashkent campus was reviewed and approved by WASC Commission in July 2022 and the campus has been indicated as active in the website for five programmes of Tashkent campus.

UIQAC-20/2022-23/AG9: Graduation and retention rate analysis

Dr RS Rai, Director RPSS presented the Graduation and retention rate analysis of the last twelve years (Annexure attached). After discussions, the following recommendations was made:

Action item	Decision/Recommendation	Responsibility	Timelines
UIQAC-20/2022-23/AG9/D1	Trends of students' withdrawal to be analyzed for last 5 years	Director Admission/ RPSS	26 December 2022

UIQAC-20/2022-23/AG10: Status of ARIIA Ranking submission data

Mr Ashish Dixit, Dy Registrar RPSS presented the Comparison of ARIIA data with the previous year data. AUUP was ranked 9th under the category of University and Deemed University (Self-Finance/ Private) in 2021.

UIQAC-20/2022-23/AG11: Status of compliance of SATAT with Action Plan of 2021-22 and the action plan of 2022-23.

Handwritten signature and date:
 Dr RS Rai
 15/12/2022



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-----UTTAR PRADESH-----

Major General J P Singh, Sr Director Administration presented the above agenda points as the Chairperson of SATAT committee was on leave. After discussions, the following recommendations was made:

Action item	Decision/Recommendation	Responsibility	Timelines
UIQAC-20/2022-23/AG11/D1	The SATAT committee should discuss, deliberate and recommend requirements of UGC quality mandate along with members of NAAC subcommittee Criterion VII & IV and prepare the action plan for 2022-23 for the approval of competent authority.	SATAT Committee	26 December 2022
UIQAC-20/2022-23/AG11/D2	The action plan for replacing old buses/vehicles who had lived their life with eco-friendly green technology.	Sr Director Administration	26 December 2022
UIQAC-20/2022-23/AG11/D3	To organize an awareness campaign for Deans/ Hols/Faculty & Staff regarding eco-friendly green practices with respect to vehicles.	Sr Director Administration	26 December 2022


UIQAC-20/2022-23/AG12: Human Resource Report:

- (a) Annual report & achievements of 2021-22 and future plan for 2022-23
- (b) Number of faculty appointed against sanctioned post
- (c) Total Number of full time faculty with Ph.D./D.M/M.Ch./D.N.B Superspeciality/D.Sc./D'Lit. during the year.

Ms Mala Dev, Assistant Director HR presented the HR report. The following recommendations were made:

Action item	Decision/Recommendation	Responsibility	Timelines
UIQAC-20/2022-23/AG12/D1	Number of sanctioned posts of Teaching Staff to be assigned first as per the norms and the requirement of specialization should also be included.	Manpower Planning Committee/ Dean SS & AA	26 December 2022
UIQAC-20/2022-23/AG12/D2	Manpower Planning Committee will give the requirement of faculty, where the faculty - student ratio is very high, so that the HR can expedite the recruitment of faculties.	HR (Post recruitment) and Mr Senthil (AKC Data Systems)	26 December 2022

UIQAC-20/2022-23/AG13: Progress of students' progression (Class of 2022 & 2023)


 Dr. R. S. Rai
 15/12/2022



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- (c) CRC ASET- Dr Madhuri Kumari
- (d) CRC Management Domain-Ms Kritika Das Gupta
- (e) ACED-Dr Neelam Saxena & Mr Anjani Kumar Singh

The following recommendations were made:

Action item	Decision/Recommendation	Responsibility	Timelines
UIQAC-20/2022-23/AG13/D1	All supporting documents as per the requirement of NAAC for student progression needs to be updated.	ATPC/ Domain Level Placement Cells	26 December 2022
UIQAC-20/2022-23/AG13/D2	The data of activities conducted for student progression, i.e., Start-ups, Family Business, Own venture etc. needs to be separate and defined and trends to be presented as per the aspirational survey of students.	ACED	26 December 2022

UIQAC-20/2022-23/AG14: Admission Status of 2022-2023

The presentation was given by Maj Gen. Bhaskar Chakravarty, Director Admissions. It was recommended that a separate meeting with Deans would be held to discuss the strategies for improving admissions.

UIQAC-20/2022-23/AG15: Status of classes planned and conducted for first year students. Identify the gaps (if any) and action plan.

UIQAC-20/2022-23/AG16: Status of faculty allotment to all courses for odd semester 2022-23.

Dr Alpana Kakkar, Dean Student Support and Academic Affairs gave the presentation on the above two agenda points.

UIQAC-20/2022-23/AG17: Dr Amit Hajela, Dean Faculty of Architecture and Design Domain presented the status of extension of approval of Architecture programmes by COA and informed that the recommendations have been included as required.

UIQAC-20/2022-23/AG18 :Status of augmentation staff and academic leadership 2022-23 and future plan for even semester.

Gp Capt AK Saxena presented the status of staff recruitment during the year 2022-23, the following recommendations was made:

(Signature)
 Dr. Sakshi
 15/12/2022



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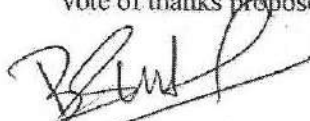
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Action item	Decision/Recommendation	Responsibility	Timelines
UIQAC-20/2022-23/AG17/D1	Manpower Planning Committee will give the requirement of faculty, where the faculty - student ratio is very high, so that the HR can expedite the recruitment of faculties.	Manpower Planning Committee/ Dean SS & AA/ HR(Recruitment)	26 December 2022

3. Closing remarks by The Chairperson:

The Chairperson asked QAE to conduct the detailed audit at the Domain level for the points to be presented in University IQAC and ensure that the presentations are data driven.

4. Vote of Thanks— There being no further points, the meeting was declared as closed with vote of thanks proposed by Ms Versha Verma (APO)


Chairperson UIQAC


Director UIQAC
15/12/2022



AMITY UNIVERSITY

UTTAR PRADESH

Campus environmental promotional activities within and outside the campus (2022-23)

Institution	Title of the Activity/ Programme	Description of activity	Date of conduct	Number of Participants
AIAE	Plantation	Plantation and Seed distribution.	25-Jul-22	20
AIE	Environmental Sustainability	A community outreach program was organised by the institute in Composite schools of Noida to spread environmental awareness amongst the school students	06-Sep-22	400
ACCF	Cleanliness Drive ‘ EK KADAM SWACHHTA KI AUR	To encourage waste reduction, recycling, and reuse, as well as to raise public awareness about waste management and environmental concerns.	03-Oct-22	7
ALSN	Legal Aid Camp at Keerti Nagar Slum in collaboration Ummed a Drop of Hope (NGO)	To make the people aware about the protection and preservation of environment and Sanitation drive.	06-Nov-22	22
ASET	Awareness campaign on garbage disposal	Clean Noida Campaign	01-Feb-23	30

Institution	Title of the Activity/ Programme	Description of activity	Date of conduct	Number of Participants
AIFW	Sensitization campaign programme towards Conservations of Chinese Pangolin in Senapati, Manipur	AIFW organized sensitization campaign programme towards Conservations of Chinese Pangolin in Senapati, Manipur on 18 th to 19 th February 2023. The campaign was organized at St. Anthony School, Hengbung High School in Henbung Village of Senapati District for the students and local communities.	19-Feb-23	100
RICS	International Conference on Sustainable Built Environment (ICSBE)	Research papers were presented in the International Confrence on sustainability in Built Environment various sectors.	23-Feb-23	56
AIESR	Extension Activity	Plantation Drive	25 Feb 2023	12
AIPH&H A	HSECON 2023	Society of environment and occupational health	25-Feb-23	15
ASET	Plantation Drive” Plant A Tree, Plant A Life”	Plantation with Local NGO	01-Mar-23	15
AIHSR	Visit to Sundar Nursery for Environmental awareness	1. Value addition of Horticulture Waste 2. Composting 3. Inculcating the human values viz inclusiveness and sustainability	10-Mar-23	12
AIES	Ghat cleaning drive under Water Day	Ghat Cleaning Drive: A concerted effort to restore the sanctity of riverfront ghats by removing litter, waste, and debris. Volunteers join hands to beautify these vital cultural spaces, promoting environmental cleanliness and preserving their significance for religious, cultural, and recreational activities. A community-led initiative to cherish our water bodies.	17-Mar-23	12

Institution	Title of the Activity/ Programme	Description of activity	Date of conduct	Number of Participants
AIFW	Awareness program on World Sparrow Day	The district forest department organized an awareness programme on 20 th March 2023 at the Okhla Bird Sanctuary about preserving sparrows on world Sparrow Day. Students from AIFW attended the event and learnt the nest making process of sparrows.	20-Mar-23	60
ASH	Eco-Walk	Eco Walk was organized under the umbrella of Amity Human Value Quarter at Amity School of Hospitality in preview of celebrating cleanliness drive. It is an Activity with Group Size : 75. The activity was primarily for the students of Hotel Management and Travel and Tourism Management. The duration of the activity was 1 hour (1515- 1610) held on 22 March,2023 started from at I block entrance. The motive was to promote and bring awareness regarding sustainable practices for clean and green environment. The students of BHM and BA Tourism took a campus round with their faculty holding the slogans and Posters on Importance of Clean and Green Environment.	22-Mar-23	75
AIESR	Extension Activity	Cleanliness Drive	3 April 2023	13



Policy for Environment and Energy Usage

Amity University Uttar Pradesh, Sector-125, Noida Campus and its constituents are committed to deliver through implementation of Environment measures and optimal utilization of power in the campus, continual improvement of their energy performance and environmental conservation.

We endorse the policy of environment conservation and stand deeply rooted in our commitment to set new standards of environmental preservation. We possess a deep and instilled allegiance to the conservation of energy resources. The University campus stays committed to the maintenance of the ecological balance in the region of Noida, Uttar Pradesh. In order to achieve this, we persevere for maximizing the utilization of clean energy. The University shall steer for the regulation, involvement and inculcation of a policy of sustenance of environment and stem the usage of non-renewable energy resources.

In order to create a more holistically sustainable campus, it is imperative that the University adopt a policy for existing as well as new building spaces that is consistent with its other sustainability commitments and initiatives.

The implementation of these standards should maintain or increase the quality of life for those who utilize, occupy, and/or maintain the University campus.

With all the defined activities, will set objectives and targets at various levels based on the following policy:-

- Ensuring protection of environment and its sustainability.
- Conservation of resources through optimum utilization.
- Waste management will be ensured for the campus.
- Spread the awareness amongst society about the waste management for ecosystem and methods for its disposal.
- Water treatment measures will be incorporated and maintained in the campus.
- To continuously improve the efficient use of all resources, including energy and water, and to reduce consumption and the amount of waste produced, recovering and recycling waste where possible
- To make the campus plastic free.
- Rain water harvesting carried out for water conservation
- Enhancing awareness and knowledge of all concerned with respect to above activities.
- To inculcate Energy Conservation Culture amongst the Stakeholders.
- To develop a culture of being responsible consumer of energy by providing direction, awareness, involvement, training and motivation to our stakeholders.
- Promote the efforts for the conversion of waste into renewable energy
- To ensure usage of Energy Efficient products & services and involve service providers to comply with the University Energy policy.
- To consider energy performance as one of the key factors in all system improvement schemes, modifications and new designs.
- To include the Renewable Sources of Energy in total Energy Profile of Amity University Uttar Pradesh.
- Promote and advocate the implementation of solar passive technology for sustainability

- To establish vertical gardening
- To establish retrofitting dated lighting fixtures with LED
- Establish green campus initiatives such as having indoor plantation with reused bottles to promote greenery.
- To set Objectives as per above Environment and Energy Policy.
- To establish an effective Measurement, Analysis, Control and Monitoring System for Environment systems.

ENERGY SUSTAINABILITY AUDIT REPORT

2022-23



**AMITY
UNIVERSITY**

APRIL 2023,

**Amity University, Uttar Pradesh,
Sector 125, NOIDA, Uttar Pradesh**



Energy Sustainability Audit Report-2022-23

Amity University, Uttar Pradesh, Sector 125, NOIDA, Uttar Pradesh

In exercise of its powers conferred under the provisions of Section 7(x) of AUUP Act 2005 and Article 6.3 b(viii) of First Statutes Amity University Uttar Pradesh, endeavors to ensure the environment sustainability

“The future depends on what we do in the present.”

-MAHATMA GANDHI

June,2021

*Prepared and Certified by: **DR. Richa Nagar**
(CII-Certified Sustainability Professional)*

Energy Sustainability profile

- 1) As per GRI standard the University energy efficiency for clause GRI 302-1 is as per standard.
- 2) Apart from the efficient use of energy leading to substantial reduction in carbon footprint of the institution the other aspects were also examined and audited.
- 3) Attempts are made to minimize the use of polluting fuels such as coal, oil, firewood and petroleum gas.
- 4) The procedure for Green auditing adopted is to collect basic data on the components of audit, compare them with similar data related to the previous year (where available) as well as with appropriate benchmarks, and showcase improvements as well as the way it has been achieved.
- 5) As 2020 was mostly a work from home, though essential services were being carried out from campus, the energy consumption was very low.
- 6) With available benchmarks for these criteria for the State/Country, feasible goals will be set for the year ahead, to go up in steps to the best possible level.
- 7) In the wake of threatening climate change impacts, the benefits of building resiliency through greener ways of lifestyle – within the educational institutions, at home and in community activities and projects – are to be propagated widely within the broad community; first spreading it to fellow students, next spreading it in inter collegiate activities; and finally through co-curricular and extra-curricular activities.
- 8) Opportunities for students to interact with leaders in the field of arts, culture, science and technology, planning, environment etc., through involvement in public events will be provided during every educational year.
- 9) The message finally will be conveyed to the society and desirable changes in life styles of the community achieved - through peer and familial pressures.

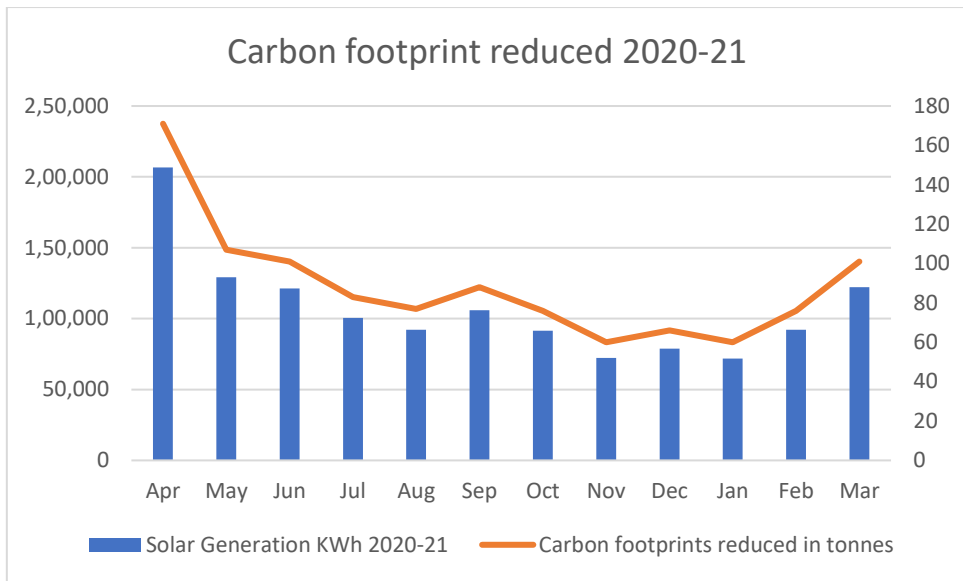


Fig: Carbon footprint reduced in 2020-21 through solar power generation

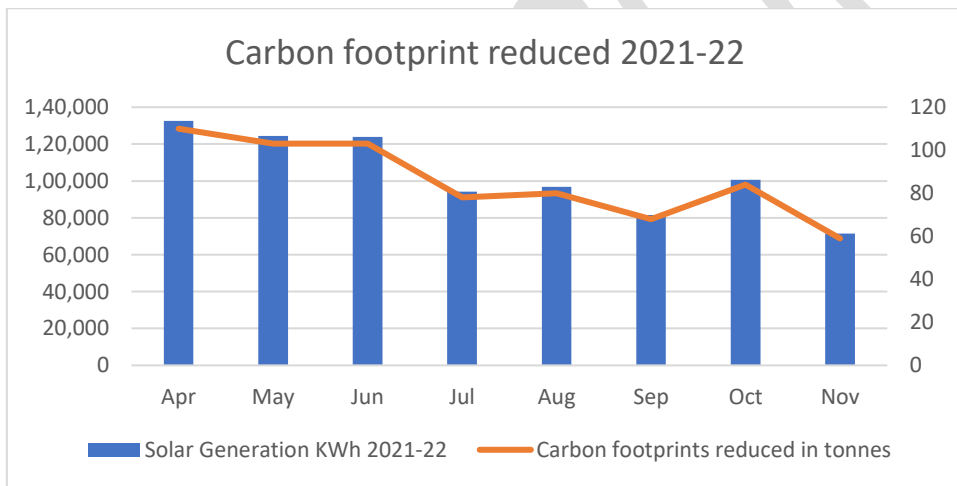


Fig: Carbon footprint reduced in 2020-21 through solar power generation

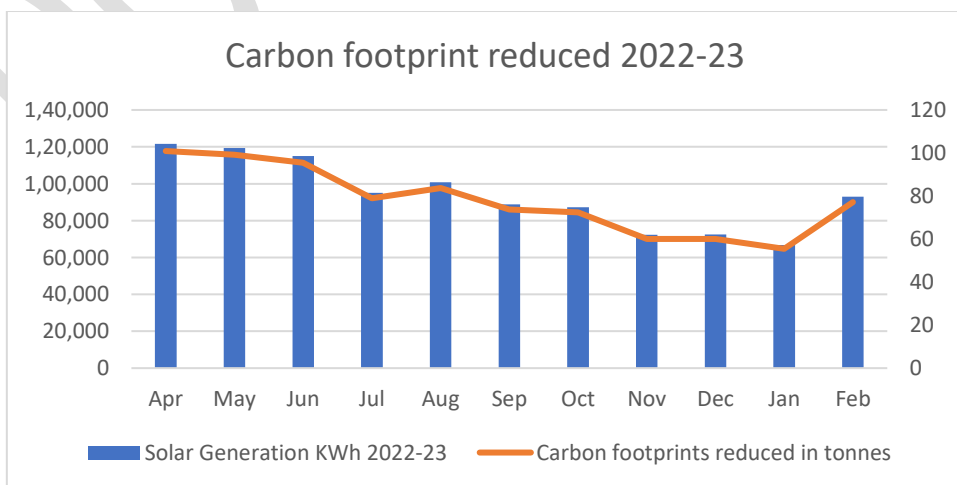


Fig: Carbon footprint reduced in 2022-23 through solar power generation

Solar panels are capable of generating power with zero emissions. The generated power can be used to feed your energy demand, perfectly replacing conventional energy needs with green energy.

Carbon Accounting for lowering the gases responsible for Green House effect : All vehicles entering University have "Pollution Under Control" certificate. All the HVAC equipments are "Freon Free Gases Emission" certified. Solar Energy System has an automated system which accounts for reduction in carbon footprint. Campus strictly follows "No Smoking Zone" principle. University adopts Green Computing and uses VMware and Electronic e-Waste disposal is through approved R2 certified vendor. Amity has been awarded "Go Green Innovation" by N-Computing. Sensor based lighting system in few classrooms is installed.

Some of the specific observations of Environmental Management system as per ISO 50001:2018 are enlisted below for review and consideration for continual improvement:

AS per ISO 50001:2018

S. No:	Aspect	Management Plan in place
1	Energy efficiency	The energy efficiency parameters for the whole campus should be identified and so that further strategies for energy conservation can be provisioned.
2	Solar generation	The regular maintenance of solar panels should be documented fortnightly.
3	Increase energy efficiency	All the Fluorescent Tubes may be replaced by LED tubes and CFLs with LED lights and sensor based lighting system may be established for all classrooms.

ENVIRONMENTAL AUDIT REPORT 2022-23



**AMITY
UNIVERSITY**

APRIL 2023,

**Amity University, Uttar Pradesh,
Sector 125, NOIDA, Uttar Pradesh**



ENVIRONMENTAL AUDIT REPORT 2022-23

Amity University, Uttar Pradesh, Sector 125, NOIDA, Uttar Pradesh

In exercise of its powers conferred under the provisions of Section 7(x) of AUUP Act 2005 and Article 6.3 b(viii) of First Statutes Amity University Uttar Pradesh, endeavors to ensure the environment sustainability

“The future depends on what we do in the present.”
-MAHATMA GANDHI

April, 2023

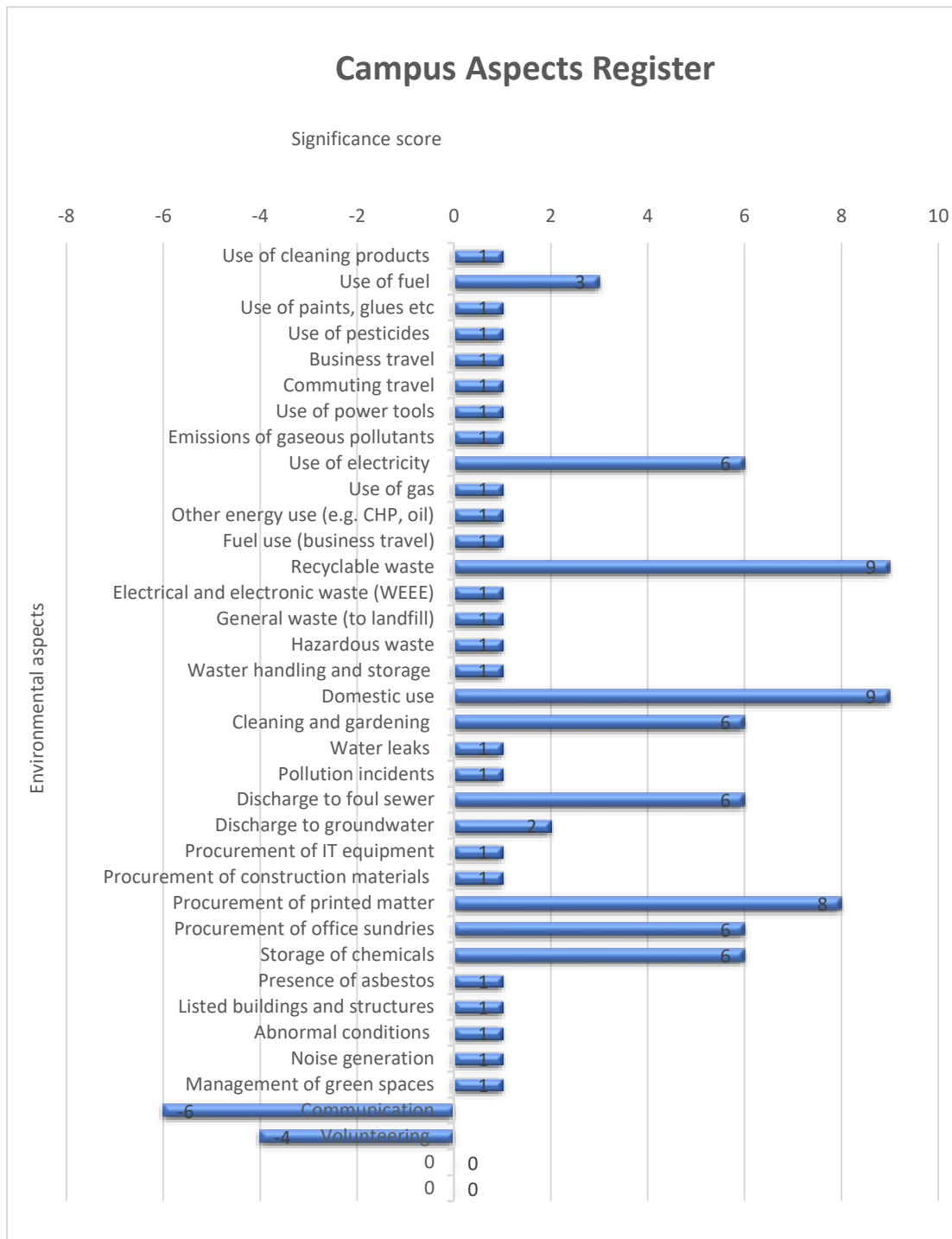
*Prepared and Certified by: **Dr. Richa Nagar***
(CII-Certified Sustainability Professional)

Environmental Audit Plan

S. No:	Aspect	Components covered	Date of audit
1	Aspect – Impact Assessment	All Environmental aspects when unmanaged	09/09/2022
2	Aspect Management Plan	The management plan of all Environmental aspects	07/12/2022
3	Aspect Management Plan	The management plan of all Environmental aspects	09/12/2022
4	Waste Management Profile	Waste segregation, hazardous waste management	15/12/2022
5	Water Quality Management	Sewage treatment, Effluent treatment	16/12/2022

Aspect Impact Analysis Report

The aspect impact analysis of the campus is as under for the scenario of unmanaged environmental aspects. All the aspects are managed by a complete aspect management plan by the campus



Waste Management Profile

The campus produces and disposes solid waste through its day-to-day operations. There can be difference between individuals, between certain day's activities, and between holidays and work days, as well as between seasons.

The Waste segregation and Management is as per GRI standard clause no. GRI 306-2

Adequate numbers of garbage bins are provided in every room and in every floor in every hostel as well as in the academic area and guest house, and the students are using them as and when required.



Fig: Hazardous waste collection



Fig: Dustbins for waste segregation at campus

- Waste segregation, recycling and disposal is as per the current Solid Waste

Management (SWM) rules of 2016 on the subject. The waste is given to second party vendor M/S AG Enviro Infra Projects Pvt. Ltd. As per contract since 2019 for 10 years. Though the waste is segregated at source, but they collect unsegregated waste.

- Posters placed in Academic Blocks to create awareness. Waste Paper, Cardboard, Other useful scrap material disposed of for value.
- The biomedical waste is collected by M/S Synergy Waste Management P Ltd. From GATE 2A. The contract is renewed annually.
- Lab Waste treated in ETP.
- Centralised more Efficient sturdy bins are required for plastic waste collection.
- E-waste collection centres and means needs to be established.
- Onsite composting of Food Waste received from the Cafeterias and other food outlets exists.

Green waste should be buried to convert into manure. Review of Composting Plant Capacity should be undertaken.

- Use of both side printing of paper where required is followed to have minimum use of printing and wastage of paper.
- Maximum communication specially in last two years has been online.

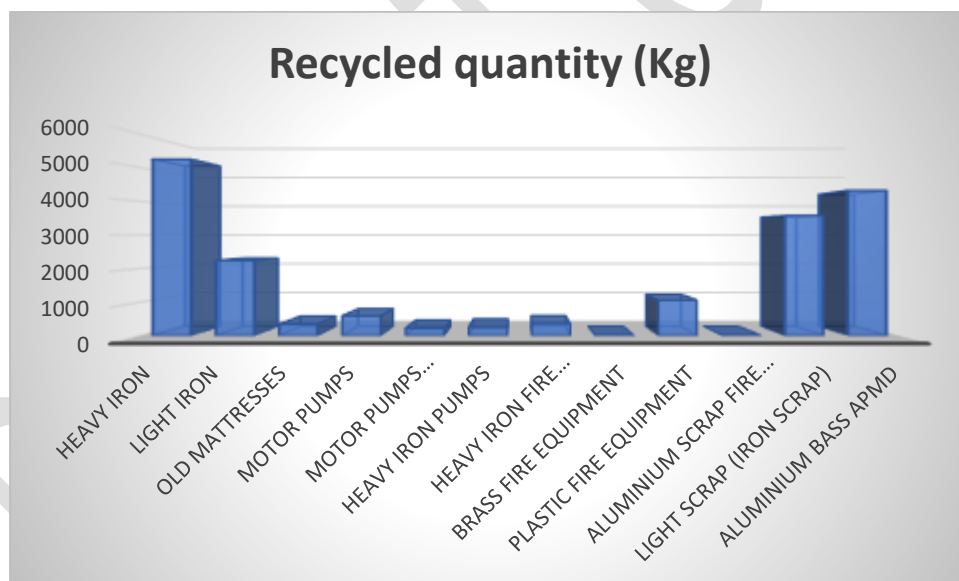


Fig: Recycled waste and scrap

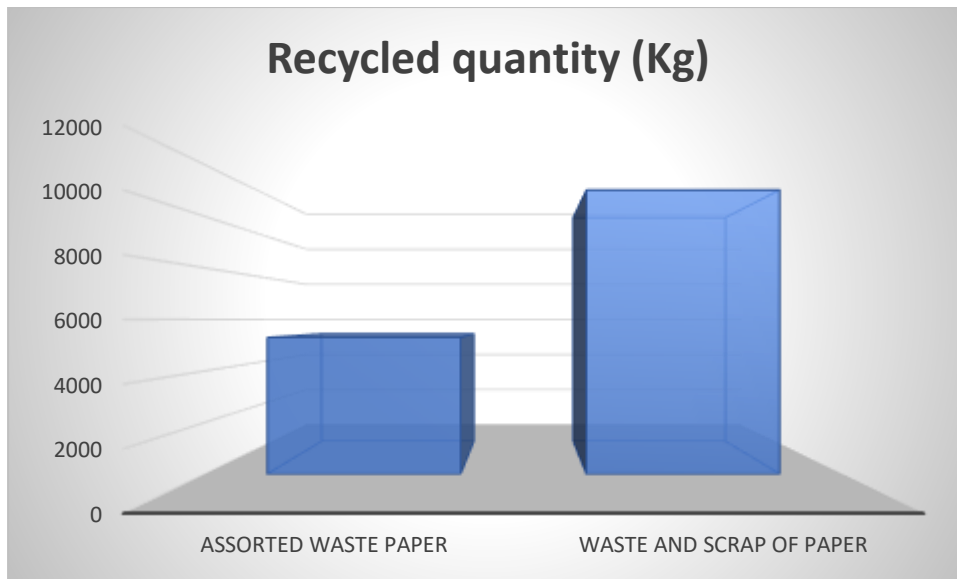


Fig: Recycled paper waste and scrap

The disposal of all the scrap material are being disposed off after receiving the mails by the concerned departments with its declaration. After receiving the disposal requirement the approved vendor are being called for its disposal work followed with the procedures given as under.

- Particular vehicle is being sent for the weighing of the empty vehicle by the nominate person of the security department.
- After weighing the required materials are loaded in the presence of the departmental representative along-with the disposal committee members.
- After the said procedures the vehicle is again sent to for weighing the loaded vehicle along-with the security person.
- After the said procedure the details of the disposal items along-with its approved rates for its preparation of e-billing to the accounts department for issuance of the E- Invoice.
- After the said procedures documents of the detail report of the scraped materials prepared and dully signed of the committee members and accordingly issue the gate pass to vendor along- with the invoice and copy of the same submitted to the accounts department after the proceeding.

Amity University's key operations has very less impact on the environment as the University is very conscious of generating less waste and recycling it by passing it through a system that enables the used material to be reused ensuring that less natural resources are consumed.

Water Treatment and Recycling

The AUUP campuses are zero water discharge campuses, which means that no water is discharged outside the campus and all the water is treated and recycled for reuse for horticultural activities and flushing the toilets etc. This saves potable groundwater and supply of plant treated water by government agency.

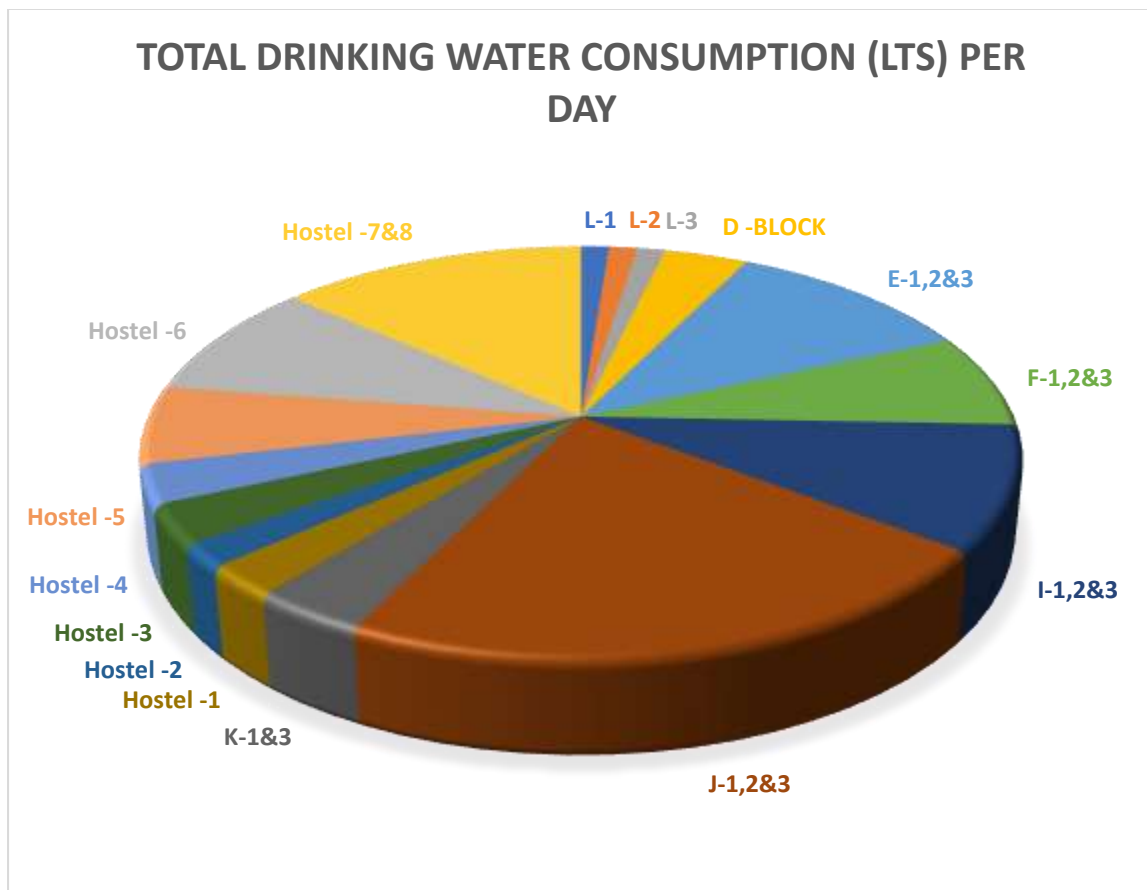


Fig: Total Drinking Water consumption (Lts) per day

Rainwater Harvesting facility consists of an elaborate network of rainwater harvesting wells spread all over the campus.

- Numbers of wells : 42
- No. of bores : 227
- Capacity of each well : 40,000 litres

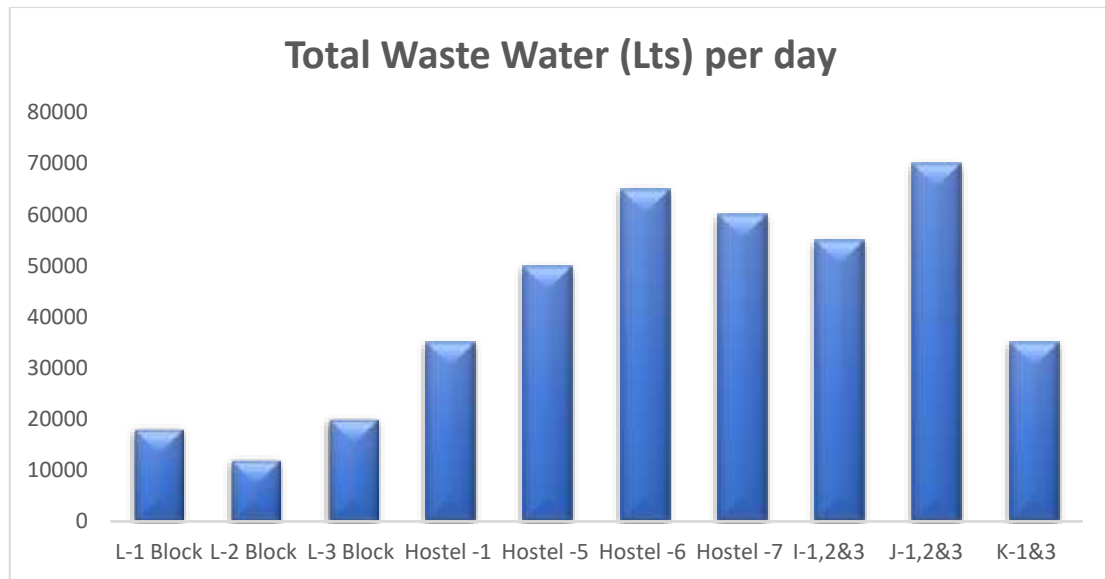


Fig: Total Waste Water (Lts) per day

The University campus has 5 STPs and 7 ETPs to treat the waste water efficiently.

STP WATER DETAILS AUUP-125				
S no.	Location	Cap	Avg. Flow	Use of Treated water
1	STP -1	200000 LTR/D	386000 L/D	Horticulture
2	STP -2	120000 L/D	243000 L/D	Cooling Tower G-BLOCK Flushing, Acad A,B,C
3	STP-3	500000 L/D	413000 L/D	Horticulture , K- Block area, H-BLOCK area , E- BLOCK area
4	STP-4	600000 L/D	436000 L/D	Transferred to STP-4
				Flushing, K-1, K-2, H-5, H-6, H-7, I & J-BLOCK
				J-BLOCK Cooling Tower
5	Laundry ETP	40000 L/D	34300 L/D	After Treatment Transfer to STP
6	H-BLOCK ETP cafeteria	25000 L/D	—	After treatment water released to STP
7	E-1 BLOCK Lab ETP	2000 L/D	500 L/D	Ater newtrilization water released to STP
8	E-2 BLOCK Lab ETP	500 L/D	200 L/D	Ater newtrilization water released to STP
9	A-BLOCK	500 L/D	200 L/D	Ater newtrilization water released to STP
10	A-BLOCK Lab ETP H-7 side	500 L/D	200 L/D	After neutralization water released to STP
11	Dell Building STP	30000 L/D	20000 L/D	Flushing, L-1

12	L - 1 Block Lab ETP	200 L/D	120 L/D	After neutralization water released to STP
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The STPs, RO Water Plants and Effluent Treatment Plants are audited every year during the internal audit conducted by the University. University strives towards developing water conservation and water efficiency through following strategies:

1. Promote water efficiency practices to all the University's stakeholders.
2. Monitor and minimise the University's water consumption.
3. Plants indigenous flora to reduce water usage.
4. Promotes planting indigenous trees in and around the University to reduce water usage.
5. Regularly reviews opportunities to install alternative water systems on campus wherever feasible.
6. Sustain implementation of innovative water-efficient technologies such as rainwater harvesting, reuse of water etc.

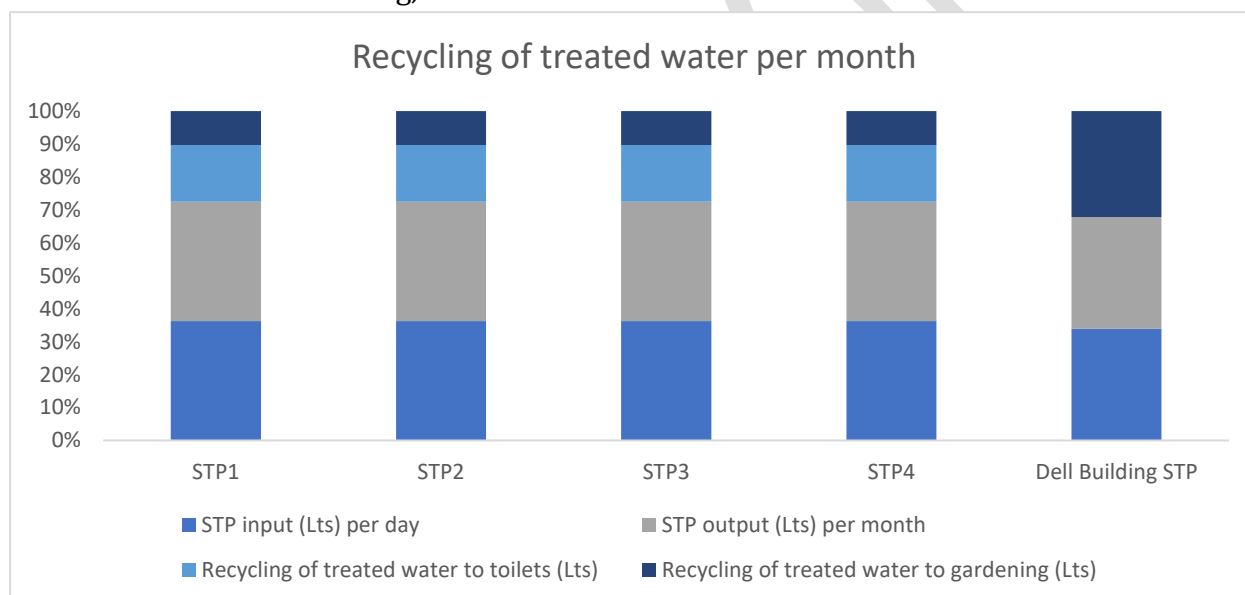


Fig: Recycling of treated water per month

Recycling & Reuse of Water

The gray water from bathrooms and utensils wash etc in the campus is treated in 7 ETPs with handling Capacity : 68,200 (Effluent treatment plant) and 5 STPs with handling Capacity: 10,13,000 liters/day and reused for gardening and for toilet flushing etc. This amounts to nearly 50% of daily water consumption in the campus. The drinking and water used for cooking, bathing etc are passing through a water purification plant, drawn from the rain water harvesting collection. This is a positive for carbon footprint reduction.

The water recycling and reuse is as per GRI standard clause no GRI 303-3

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Findings and Recommendations

As per UNEP Universities Greening Toolkit V2, UGC-SATAT guidelines and GRI standards the university campus has good green cover and various environmental aspects are managed with an extensive Environment Management Plan (EMP) - ISO 14001:2015. The university houses adequate number of STPs, ETPs and RO plant which are in conformance with standards (ISO 14001:2015) to ensure water quality management. The waste management strategies are as per Solid Waste Management (SWM 2016) rules. The social and transport management ensures environmental commitment as per GRI standards.

Some of the specific observations of Environmental Management system as per ISO 14001:2015 are enlisted below for review and consideration for continual improvement:

Environmental Management Plan-Findings

As per ISO 14001:2015 the status of raised points in 2021-22 audit:

S. No:	Aspect	Management Plan in place	Status
1	EMP	As per ISO 140001:2015 clause 6 EMP may also include Environmental Statement Report on green practices followed by different departments, support services and administration	The compiled report may be maintained centrally
2	Water pollution	5 STPs and 7 ETPs are in operation and STP/ETP water is treated for re-use for Flushing in Toilets, Horticulture & Cooling Towers. The accounting of water consumption can be monitored fortnightly.	The monitoring records need to be maintained.
3	Segregation of waste	The waste is segregated at source with Blue and Green dustbins 20Lts at roadside, 10Lts in classrooms and washrooms. But the segregation at source may be enhanced by pictures of	The dustbins need to be properly labelled

		different waste pasted on the dustbins for correct identification by students.	
4	Dry Waste	Is collected and sent to contractor. A separate dustbin for plastic waste can be made for separate disposal and accounting of recycling of plastic waste recycling.	Plastic waste is recycled and evidenced
5	Wet Waste	Composting pit is available but requires regular maintenance. A larger area can be devoted and monitored fortnightly for food waste composting scientifically.	Regular maintenance of compost pit is required.
6	Hazardous / Biomedical waste	At gate 2A the biomedical waste collection site is present where the waste is collected and sent to contractor. The monitoring and accounting should be fortnightly.	The proper disposal records to be maintained
7	Water consumption	Total water consumption data for each block should be monitored every month for usage analysis.	Monitoring is evidenced
8	Waste generated	Total waste generated data needs to be accounted	Data needs to be maintained on daily basis
9	Rainwater harvesting	The campus houses recharging wells but the water input data should be accounted and monitored every month.	Quantification of volume needs to be computed.

For the water conservation measures AUUP campus is a zero water discharge campus, which means that no water is discharged outside the campus and all the water is treated and recycled for reuse for horticultural activities and flushing the toilets etc. The STPs, RO Water Plants and Effluent Treatment Plants are audited every year during the internal audit conducted by the University. The monitoring may be done for the consumption and recycled / treated total volumes data fortnightly.

Amity University campus is the most hygienic, well maintained with state of the art infrastructure, the campus has high number of awareness and voluntary

activities in the field of environment.

As a long term zero carbon mission the following recommendations are given:

- 1- Inventory needs to be maintained on waste generated and recycled on daily basis.
- 2- Water consumption of each block can be monitored with sensors.
- 3- The waste from laboratories needs to be segregated further and sent to different vendors.
- 4- Outreach activities for nearby areas should be further developed for waste segregation.
- 5- Compost pits can be increased for in-house composting of kitchen waste.

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GREEN AUDIT REPORT

2022-23



**AMITY
UNIVERSITY**

APRIL, 2023

**Amity University, Uttar Pradesh,
Sector 125, NOIDA, Uttar Pradesh**



Green Audit Report-2022-23

Amity University, Uttar Pradesh, Sector 125, NOIDA, Uttar Pradesh

In exercise of its powers conferred under the provisions of Section 7(x) of AUUP Act 2005 and Article 6.3 b(viii) of First Statutes Amity University Uttar Pradesh, endeavors to ensure the environment sustainability

“The future depends on what we do in the present.”

-MAHATMA GANDHI

April, 2023

*Prepared and Certified by: **DR. Richa Nagar**
(CII-Certified Sustainability Professional)*

Green Audit

The Amity Noida Campus is spread over 4.5 million sq. ft. of built up area, and the entire campus is ever green with a variety of trees, bushes and grass. The fauna and flora are very rich and the buildings in the campus are constructed in continuum to the greenery.

In subsequent greening efforts, the initiative of labelling the trees with their botanical names and names in local language was continued and more number of trees added to enrich the biodiversity of the campus. The labelling process is now completed; but, with several trees grown up with added standing biomass, the bigger trees will have to be measured at breast height and tree data entered in a register.

Some of the trees seen commonly in the campus and in the neighbourhood are hosts to multiple varieties birds and insects.



Layout map of Academic blocks of Amity campus, Amity University, Uttar Pradesh Sector 125, GautamBuddha Nagar, Uttar Pradesh

With a total area of 3,87,077.86m² the Amity campus is a green campus with total green cover of 1,45,865.23 m² with tree cover of 72,982.77 m² and 72,882.46 m² grass cover. The landscaping of the campus makes it one of the most beautiful and modern campuses.

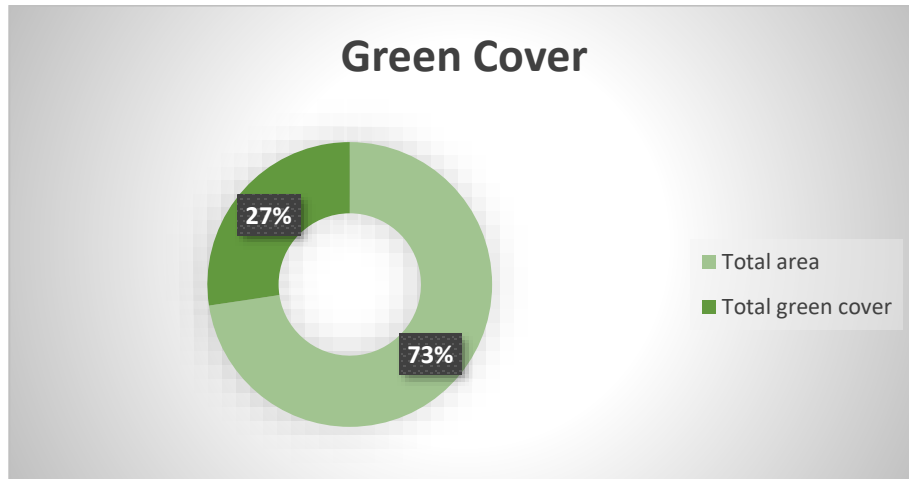


Fig: Total Green cover of Amity University, Uttar Pradesh Sector 125, GautamBuddha Nagar, Uttar Pradesh



Fig: The green cover was measured using google earth imagery at 5m resolution to measure canopy coverage of middle to high trees.

Present Floral diversity of the Amity campus:

S. N.	Species name	
	Scientific name	Common name
1	<i>Ficus benjamina</i>	Weeping fig
2	<i>Alstonia scholaris</i>	Scholar's Tree

3	<i>Plumeria obtusa</i>	White Frangipani
4	<i>Delonix regia</i>	Flame Tree
5	<i>Neolamarckia cadamba</i>	Kadam
6	<i>Ficus microcarpa</i>	Laurel fig
7	<i>Chukrasia tabularis</i>	Indian Mahogany
8	<i>Phoenix dactylifera</i>	Date Palm
9	<i>Gravillea robusta</i>	Silver Oak
10	<i>Roystonea regia</i>	Royal Palm
11	<i>Callistemon viminalis</i>	Bottlebrush tree
14	<i>Mimusops elengi</i>	Spanish Cherry
15	<i>Azadirachta indica</i>	Neem
16	<i>Cassia fistula</i>	Indian Laburnum
17	<i>Phyllanthus emblica</i>	Indian Gooseberry
18	<i>Dalbergia sissoo</i>	Indian Rosewood
19	<i>Ficus virens</i>	White Fig
20	<i>Ficus religiosa</i>	Sacred Fig
21	<i>Morus alba</i>	White Mulberry
22	<i>Largestroemia speciosa</i>	Pride of India
23	<i>Peltophorum pterocarpum</i>	Copper pod
24	<i>Moringa oleifera</i>	Drumstick tree
25	<i>Bauhinia acuminata</i>	Dwarf white orchid tree
27	<i>Syzygium cumini</i>	Jamun
29	<i>Morus rubra</i>	Red Mulberry
30	<i>Acacia auriculiformis</i>	Earleaf Acacia
31	<i>Polyalthia longifolia</i>	False Asoka
34	<i>Bombax ceiba</i>	Silk cotton tree
35	<i>Senna siamea</i>	Siamese Senna
37	<i>Terminalia arjuna</i>	Arjun
39	<i>Psidium guajava</i>	Guava
41	<i>Pongamia pinnata</i>	Indian Beech Tree
42	<i>Ficus elastica</i>	Rubber Tree
43	<i>Ficus lyrata</i>	Fiddle-leaf Fig
44	<i>Bougainvillea buttiana</i>	Bougainvillea
45	<i>Polyalthia longifolia</i>	The Mast Tree

Table : Shortlisted Plants present at the campus Amity University, Uttar Pradesh, Sector 125, GautamBuddha Nagar, Uttar Pradesh. All the respective plants are labelled at the premises.



Fig: The campus follows a three tier vegetation pattern with herbs, shrubs and trees increasing carbon sequestration.

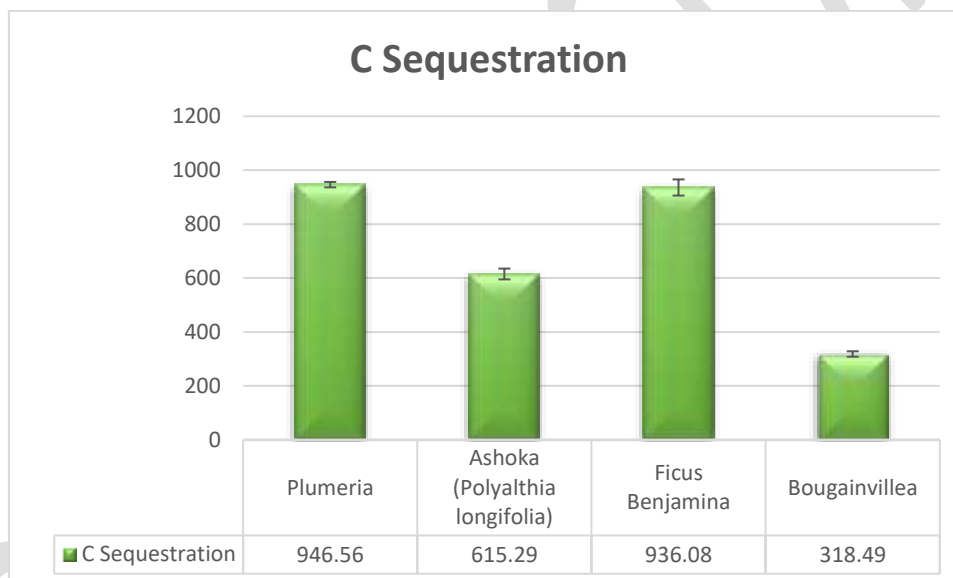


Fig: Carbon sequestration measurement was done for identifying the plants from certain abundant tree species of the campus.

Site selection was Amity University Noida. Trees of the same species are measured with 5-10 samples so that the number of replicates are enough to have the correct readings and be finalized. Measurement of tree height and diameter at breast height (DBH): - DBH is determined by measuring girth at breast height i.e. 1.3 m above the ground.

Tree height is measured by Theodilite instrument

Measurement of Above ground biomass: -

This includes shoot, branches, leaves, flowers and fruits.

AGB= volume of tree(m³) X wood density kg/m³

Where Volume of tree= 3.14 x r² x H

$r = \text{radius of the tree}$
 $H = \text{Height of the tree}$

Measurement of Below ground biomass: - BGB (below ground biomass) = AGB (above ground biomass) x 0.26

Measurement of Total Biomass (Total Biomass = Above ground Biomass + Below ground Biomass)

Estimation of carbon-Biomass/2

Estimation of weight of CO₂- Carbon x 3.6663

As per UNEP Universities Greening Toolkit V2, UGC-SATAT guidelines and GRI standards the university campus has good green cover

A few observations and recommendations are mentioned below for further continual improvement:

As a part of the greening through vegetation plan, the 'Evergreen Ground Cover plants' like *Verbena, Malpighia, Pilea Artillery, Portulaca, Schefflera Variegated, Alocasia, Russelia and Wandering Jew* may be added to increase the greenery in the campus. They bring a wide variety of colours, leaf shapes and texture to the fore for students and other stakeholders to feel relaxed and refreshed.

In the long term planning the, vertical gardens may be installed at the entry of each block, where the plant culture solutions from various departments can be recycled and reused.

In addition, at the Gate 1 area, an attempt can be made to try out the Japanese technique called 'Miyawaki method of Afforestation' for developing natural forests with high biodiversity within a very short period.