



# AMITY UNIVERSITY

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## HARYANA

(Accredited with Grade 'A' by NAAC)

## Report on Sustainable Development Goal

**13** CLIMATE  
ACTION



## SDG 13: Climate Action

### Year 2021



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To address challenges of environment and development, UN adopted 'Agenda 2030' to ensure Sustainable Development Goals (SDGs) in line of "quadruple helix model". It entails linkages between government, academia, society and business. An approach has been devised to develop academic institutions and new universities as living laboratories for sustainability. Amity University Haryana is finest example of such new university which is developing as living laboratory of sustainability by adopting multipronged approach including Nature Just Development, Green Building, Renewable Energy consumption, sustainability education, 3Rs approach of consumption and many more.

Amity University Haryana is strongly committed to the goal of environmental sustainability and playing an impactful role to ensure compliance in terms of SDGs. The quality and scale of Amity University Haryana's efforts to transform it into a sustainable campus have been duly recognized as India's first and Asia's second to earn LEED Platinum Certificate from US Green Building Council and among top 200 global campuses in previous Impact Ranking. The University is meaningfully contributing to SDG – 13 i.e. Climate Action, through the following important measures and frameworks:

- Nature Just Development plan of the University to make it a Green Campus
- Low Carbon energy transformation
- Incorporating Environmental and Sustainability components in imparting education
- Integrating climate change measures into university policies, strategies, and planning
- Collaborative education and research to address environmental and climate change impacts, adaptation, impact reduction, and mitigation.
- Promoting environmental consciousness and practices through various outreach programs to the local and regional communities, thus benefiting the society and nation

### **AMITY UNIVERSITY HARYANA: A GREEN CAMPUS**

Amity University Haryana is located in lap of Aravalli range; adopted a nature just development approach without converting its natural terrain, native vegetation, and natural drainage that ensure maximum groundwater recharge. Within a decade of its formation, the AUH campus is converted into the green hub in this semi-arid region. Amity University Haryana campus is developed in line with natural just development by integrating plans of green building design and regional building codes to minimize consumption and emission scenario.

Based upon innovation in design (passive and active building plan including innovative regional aspects like large sunken courts to minimize heat regime in summer and winter), location & transport (Landscape is developed as per natural gradient and drainage as well as provision of mass transport), water efficiency (Rainwater harvesting & recharge through natural drainage, complete water treatment and reuse in grey water, water recharge and irrigation) energy & atmosphere (Phase wise transition from grid based energy to in-house solar energy plants and efficient LED-based lighting system), material & resources, Amity University Haryana building is accredited with LEED Platinum (highest rating for green building); 1<sup>st</sup> university building in India and 2<sup>nd</sup> in Asia in operation and maintenance category having many passive features that minimize heat regime, reduce energy consumption and efficient utilization of water. University maintains efficient waste management system along with natural vegetation to provide buffer to carbon emission to reduce overall environmental footprint of university operations.

## **LOW CARBON ENERGY TRANSFORMATION**

Reduction in university carbon footprint is prime action point for climate action. Amity University Haryana is committed to drive low carbon scenario in all its operations including academic delivery, administration, and maintenance through rationalizing direct and indirect emissions. To ensure low carbon transformation university is mandated by a holistic ‘Environmental and Sustainability Policy’, to ensure carbon neutrality in phase wise manner. The target is set to achieve carbon neutrality which includes direct emission, indirect emission through purchased energy as well a few items from indirect sources in a phase-wise manner by 2028.

Direct energy consumption through grid electricity is a major portion of energy use, which is under substitution with solar PV and at present 17% of energy is procured through in-house solar PV plants, which is substantial addition in comparison to last year when solar energy contribution was around one-tenth to total energy need of the campus. In-house solar energy systems of 500 kWp of solar rooftop on academic blocks and a ground solar PV plant, were installed and maintained by CleanMax Solar company under ‘OpenX model’ commonly known as ‘pay as you go’ model, which operates with zero breakdowns and generates Solar energy round the year. All the buildings have multiple windows and glass façades increasing the usage of natural light. 51.1 % of lights are LED thus reducing energy consumption in buildings. Over a period of 5 years, it is planned to replace all the lights with LED. To

reduce air conditioning energy load during peak seasons, all buildings are provided with sunken areas, which reduces the heat maxima substantially during summer as well as in winter.

Indirect carbon neutrality is also in the agenda and the university works on paperless mode for all possible operations including day to communication, HR management (including leave) through in-house and external Enterprise Resource Planning (ERP) platforms like Amizone and TCSiON. University encourages the use of public transport/university buses and car pool for daily commuting of day scholars, faculty, and staff.

## **ENVIRONMENTAL AND SUSTAINABILITY EDUCATION**

SDG13 is a critical goal among other goals as it is networked with many of them. Amity University Haryana is very much impactful to integrate the climate action perspective into its academic programs, research, and extension activities. University has a nodal institute i.e. Amity School of Earth and Environmental Science that design, formulate and implement academic programs, course work, and campus-based projects in the area of Environment and sustainability along with other institutes notably the Department of Renewable Energy, Architecture & Planning, Business School. A core course of 'Environmental Studies' for all UG programs provides a basic understanding of environment and sustainability including the 'climate change and SDGs component' in their very first year, while minor degree programs like environmental management, Climate Science, Renewable Energy provide scope for more specialization, while training in the area of green building (LEED Lab; prestigious capacity building program in collaboration with USGBC and GBCI) and renewable energy (Suryamitra; Skilling programme in solar energy fabrication for rural youth funded by Government of India) further skill up students for green jobs in the sustainability sector. Several campus-based study engagements like Social Awareness Programme (SAP), Biodiversity Survey, Plantation, and cleaning drives give SDGs mandate and compliance across students.

Recently in collaboration with Presidio Graduate School university offers MBA in Sustainability Management; a unique program in the Indian education landscape with the aim to mainstream sustainability education in professional programs. As per programme and course outcome mapping, all programs and their course work has been mapped with current requirement where environment and sustainability are also the parameters.

## **POLICY SUPPORT AND CLIMATE ACTION STAKEHOLDERS' ENGAGEMENT**

Through the Environmental and Sustainability Policy and Climate Action Plan Amity University Haryana is committed to ensuring Campus Carbon Neutrality by 2028 through a series of action points including the reduction of grid energy dependence by switching to Solar PV. The policy covers major areas of climate action and adaptation and provides an opportunity for the inclusion of appropriate aspects which help to achieve carbon neutrality by 2028. The university's Carbon Neutrality goal covers scope 1 and scope 2 completely while scope 3 partially. Scope 3 covers partial as per the ranking framework which includes direct emissions, indirect emissions from purchased electricity (which happens to be a major source of carbon emissions), and a few indirect emissions including travel, waste and water management, and material procurements. University is functioning in compliance with the Environmental and Sustainability Policy having clear guidelines of the climate action working plan, which addresses local (i.e. rainwater harvesting plan to reduce water footprint), regional (i.e. passive building design to overcome heat regime in the semi-arid region) and global (i.e. shifting to low carbon-based energy sources to reduce the carbon footprint of campus) climate concerns.

University is performing better in terms of wastewater treatment (in-house wastewater and sewage treatment, WTP, and STP), solar energy installation, rainwater harvesting, waste management, material procurement (paperless office and e-governance), transport (community transport for faculty and students), which is dually reflected in university green building ranking (LEED Lab Platinum), NAAC 'A' grade accreditation.

## **CLIMATE MONITORING**

University has robust networking with government and national and international research agencies and developed robust monitoring facilities for environmental parameters including Air Quality along with Green House Gases (GHGs) through 24\*7 online Air Pollution monitoring and display (SAFAR; Government of India SAFAR program) and Optical based monitoring of Aerosols & other parameters (i.e. AeroNet; NASA, USA Network) to understand climate-related issues. The data set generated through continuous monitoring is shared with these agencies where Amity University Haryana is demarcated as field network stations spread across India for SAFAR in India and the globe for NASA Aeronet. Apart from GHGs and Air quality monitoring, the university also conducts monitoring of the ecological health of the landscape where the university is located. University's Physical

landscape is developing into an ecologically healthy system, which is more climate adaptive. Extensive plantation of notable native vegetation (*Sahtut, Kikad, Lasoda, Neem, Ficus, Amaltash, Chakresia, Tikoma, Pipal* along with fruit and nut bearing trees) ensure biodiversity intact and ensure critical ecosystem services including groundwater recharge. Scope of natural vegetation and native species plantation along with nature just development harbours 140 types of bird species and 40 butterfly species. In collaboration with BNHS and the citizen science program of bird, regular monitoring is in practice.

## STAKEHOLDERS' ENGAGEMENT AND OUTREACH

University engages students, faculty, and other stakeholders for greater environmental and climate awareness through academic networking with all possible stockholders including government agencies, civil service organizations, academic institutions, research organizations and NGOs. The mode of action varies as per need which includes inhouse or onsite operations including capacity building, skilling, training programs, awareness drive, academic seminars, and workshops. Although the COVID lockdown restricted operations substantially, virtual mode gave reach out scope.

**Capacity building and Skilling:** University conducts LEED Lab program for in-house students in area of green Building design and framework in collaboration with USGBC and GBCI for students of Architecture, Planning, Engineering, and Environmental Science.

Amity University Haryana conducts Suryamitra Skill Development Program, funded by the Ministry of New and Renewable Energy for local community students who have completed ITI or a diploma in electrical, electronic, or related fields to create skilled manpower required for the government's ambitious NDC in solar energy sector by 2030 as Paris Climate Change.

Amity University Haryana houses a dedicated 'AYUSH-Amity Herbal and Medicinal Plant Distribution Centre' in collaboration with Ministry of Ayush, Government of India. The center produces herbal plants and local medicines with a view to create public awareness and boost the scientific efforts to make India, a world leader in Ayurvedic, Unani, Naturopathy, Homeopathic and Siddha health care. This conducts capacity building and skilling programmes for the benefit of local farmers and provides vast opportunities for agricultural growth.

**Climate disaster cooperation:** Amity University Haryana strives to function as live 'laboratory of sustainability and incorporates all possible sustainability measures in its action

including awareness and capacity building for climate change-related disasters. University is developing robust academic networking with agencies working on climate disasters at regional and global levels and conducted several knowledge sessions, and training programs of regional and global climate disaster issues with the National Institute of Disaster Management (NIDM), the Government of Haryana and the United Nations University on the urban flood, school safety, disaster mitigation etc. Several faculty members conducted sessions on disaster mitigation at NIDM and other locations, notably the capacity building of schoolteachers for protection from natural calamities at school.

**Tree Plantation Drive:** University maintains natural vegetation-dominated green cover in the campus. As per land use planning 2/3<sup>rd</sup> area is the green cover which includes the open area (lawn, farming land etc) and tree cover while 1/3<sup>rd</sup> is the build-up area. Tree plantations in collaboration with NGOs are the most celebrated activity here in Amity on every occasion. The two-tier plantation has been done along the campus boundary. University also maintains all support to sustain the plantation including a nursery, a functional greenhouse, a composting unit to provide organic manure, and trained manpower to carry out horticultural work. In collaboration with ‘Green Mission,’ an NGO two-stage massive plantation drive was conducted with the aim to increase tree cover and increase the carbon sink potential

**GLIMPSES OF CLIMATE ACTION AT AMITY UNIVERSITY HARYANA**



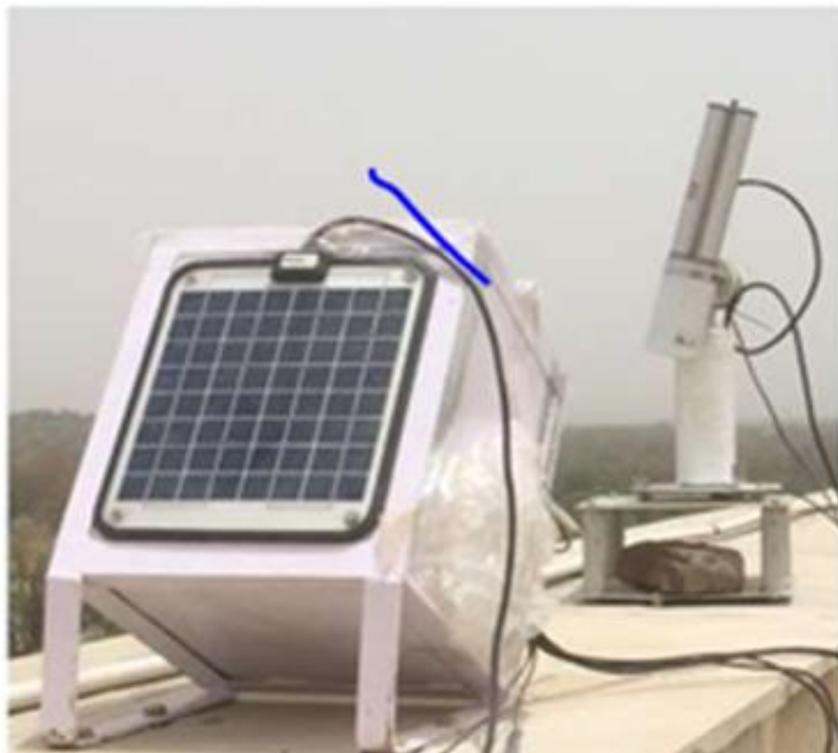
**LEED Platinum Campus**



**LEED Lab Certificate**



**LEED Lab empanelment**



**SAFAR's Air Quality Monitoring Centre and NASA-AERONET**



The IET India Awards 2021 open for nominations

RBI policy quote | JLL

## Inauguration of Bio Lamp at Amity University Haryana

Published on August 6, 2021

### BIOLAMP INAGURATION AT AMITY UNIVERSITY HARYANA

**ET Energyworld.com**  
From The Economic Times

**SUNGROW** THE WORLD'S MOST BANKABLE INVERTER BRAND No.1 bank No.1 suppli Source: Bloombe

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**Amity University installs on-site solar power plants at its campuses**

*Amity University has adopted onsite solar power in its Jaipur, Manesar and Gwalior campuses in association with CleanMax Solar.*



### SOLAR ROOFTOP AND GROUND SOLAR PLANT



## TREE PLANTATION DRIVE 'MISSION GREEN'

## STAKEHOLDER ENGAGEMENT FOR CLIMATE DISASTER

Ref. No.: 753/22/05

Date: 27/01/2022

To,  
Dr. Kushagra Rajendra  
Head of Department,  
Amity School of Earth and Environmental Sciences  
Amity University Haryana.

**Subject: Letter of Appreciation**

Dear Sir,

I thank you for your presence as keynote speaker in online training workshop for orientation of teachers on 'Safety and Security at School Level' (9-25 January, 2022) under aegis of 'Samagra Shiksha' District: Hisar, Haryana.

Your valuable knowledge and in-depth understanding of disaster management helped to magnify the knowledge sharing and value addition in the best possible way on the topic '**Protection from natural calamities at School**'.

We look forward for your kind co-operation for the same in future.

With Regards

Mrs. Anita  
CRC & Principal  
Govt. Senior Secondary School, Nangthala  
Block-Agroha, Hisar





Prime Minister's 10 Point Agenda on DRR: Agenda 8

## Webinar on "YOUTH EMPOWERMENT FOR CLIMATE CHANGE RESILIENCE"

Friday, 20<sup>th</sup> August 2021  
 02:30 pm – 04:00 pm

Register Here:  
<https://training.nidm.gov.in/>

**Patrons**

 Maj. Gen. M. K. Bindal, VSM  
 Executive Director, NIDM

 Prof. Sibmath Deb  
 Director, RGNIDY

**Distinguished Speakers**

 Dr. Kushagra Rajendra  
 Associate Professor,  
 Amity University Haryana

**Chairs**

 Prof. Surya Parkash  
 Head, GMR Division,  
 NIDM

 Prof. Inderjeet S Sodhi  
 Head, Dept. of Local  
 Governance, RGNIDY

**Coordinator**

 Mr. Anil Kathait  
 Junior Consultant, NIDM

**LIVE (on) YouTube**  
<https://youtube.com/QWH1Mcm9AM>

Organised by:  
 Centre for Hill Area Development,  
 National Institute of Disaster Management,  
 Ministry of Home Affairs, GOI  
 &  
 Rajiv Gandhi National Institute of Youth Development,  
 Ministry of Youth Affairs & Sports, GOI

Website: [www.nidm.gov.in](http://www.nidm.gov.in)

Stay Protected From Corona






PM 10 POINT AGENDA NO. 8 & 9 ON DRR

Webinar on

## URBAN FLOODING IN GURUGRAM: EXPERIENCES AND INITIATIVES

**07 SEP 2021**  
 11:00 AM – 12:30 PM

REGISTER AT  
[www.training.nidm.gov.in](http://www.training.nidm.gov.in)

**PATRONS**

 Maj Gen M K Bindal  
 Executive Director,  
 NIDM

 Prof. Padmakali Banerjee  
 Pro Vice-Chancellor,  
 Amity University Haryana

**GUEST SPEAKERS**

 Dr. Anshu Tiwari  
 Faculty, Haryana Institute  
 of Public Administration

 Shri Subhash Yadav, IFS  
 Head, Urban Empowerment Division,  
 GMDA, Gurugram

 Shri Sanjay Kumar  
 District Town Planner (Planning),  
 Gurugram, Department of  
 Town & Country Planning Haryana

**CONVENORS**

 Dr. Amir Ali Khan  
 Faculty  
 NIDM

 Dr. Kushagra Rajendra  
 Head, Amity School of Earth and  
 Environmental Sciences,  
 Amity University Haryana

 Prof. I S Thakur  
 Director, Amity School of Earth and  
 Environmental Science,  
 Amity University Haryana

**Coordinator**

 Ms Yogita Goyal  
 Young Professional  
 NIDM

**For Joining:-**  
 Platform: Cisco Webex | Event ID: 2516 467 4778  
 Password: 2021 | URL: <https://cgo.page.link/Neu83>

Jointly organized by:  
 National Institute of Disaster Management  
 Ministry of Home Affairs, Govt. of India  
 and  
 Amity School of Earth and Environmental Sciences  
 Amity University Haryana

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<https://youtu.be/UDyJHqg3yU>