



GREEN AUDIT REPORT 2021

Report of assessment and appraisal of
practices adopted for maintaining natural
greenery in and around campus of
INDIRA GANDHI DELHI TECHNICAL
UNIVERSITY FOR WOMEN, DELHI, (INDIA)

**COMPLIANCE & AUDITING TEAM
INNOVATION SOCIETY - INDIA**



CERTIFICATE OF APPRECIATION

Awarded to

**INDIRA GANDHI DELHI TECHNICAL
UNIVERSITY FOR WOMEN**

for its Green Campus Practices
adopted

in its Campus situated at

**Madrasa Road,
Kashmere Gate,
Delhi-110006, INDIA**

Dated: November 20, 2021





GREEN AUDIT REPORT 2021

1 PREAMBLE

1.1 Introduction

Greenery in our living environment benefits more than just our health and well-being. It also promotes biodiversity in built-up areas and can help reduce the effects of pollution around us. Natural Greenery makes a campus more habitable and healthy and this can contribute to reducing the amount of pollution experienced by people in it.

1.1.1 The Green Audit

The Green Audit, being a systemic approach of appraising the practices of preservation, maintenance, and enhancement of Green Surroundings, aims to appraise and promote the 'Green Campus' practices for organizations maintaining a physical workspace on the planet earth.

The Green Audit aims to appraise the efforts of the organizations to maintain a Naturally Green Workspace and promote a healthy relation with Nature and Naturally Cohabiting Organisms including human and other living beings.

1.1.2 About the Appraiser

Innovation Society is registered as an All India Level Operational Society under Society Registration Act XXI of 1860 (Registration No. District Shahdara/ Society/ 631/2015-16). Innovation Society is strongly believed and liked to work in coordination with Govt. agencies and corporate. We would like to shape talent and research agencies of state, universities, corporate and individuals for concerning and execution of original research work and nurturing innovation in country, specially the youth.

Vision & Mission: Innovation Society works with the mission "To support and promote constructive innovations for sustainable developments to conquer social and economic disabilities".

Innovation Society has a strong belief that research and development are parts and parcels for any innovative country so here we would like to share hands-on experience, 'Make in India' drive in the divergent background for global importance.



1.1.3 About the Appraisee

Indira Gandhi Delhi Technical University for Women (IGDTUW), is a women's university located in New Delhi, India on the heritage campus at Kashmere Gate, Delhi (India).

It was founded as the Indira Gandhi Institute of Technology in 1998. In May 2013 it gained autonomy and became the first women's technical university in India established by Govt. of Delhi

IGDTUW is a non-affiliating University to facilitate and promote studies, research, technology, innovation, incubation and extension work in emerging areas of professional education among women, with focus on engineering, technology, applied sciences, architecture and its allied areas with the objective to achieve excellence in these and related fields.

1.2 Audit Plan

1.2.1 Objective(s)

The current audit is focused towards analysis and appraisal of institutional practices adopted by the Appraisee to maintain a Naturally Green Eco-Friendly atmosphere in and around its campus in scope.

Major Objectives of the exercise include:

1. Identification of practices to encourage Natural Greenery inside and around the Campus.
2. Identification of practices to spread awareness about Importance of Natural Greenery.
3. Identification of shortcomings in maintenance of Natural Greenery in and around the Campus.
4. Identification of challenges in maintenance of Natural Greenery in and around the Campus.
5. Analysis and Planning about improvement actions to address the identified challenges and shortcomings and ensuring continuous improvement.



1.2.2 Scope

The scope of the Audit includes the below mentioned campus(es) of the Appraisee:

- INDIRA GANDHI DELHI TECHNICAL UNIVERSITY FOR WOMEN main campus situated at Madrasa Road, Opposite St. James Church, Kashmere Gate, Delhi-110006, INDIA

1.2.3 Schedule & Efforts

The Audit has been planned and executed for the duration from 16-November-2021 to 20-November-2021 on the campus, followed by offsite report creation.

Approximate total efforts of the exercise have been estimated to be around 200~240 Man Hours.

1.2.4 The team

The below mentioned team participated in the Audit in the respective capacity/roles:

S. No.	Name	Representation	Role/Capacity
1.	Prof. (Dr.) D. Jain	Innovation Society	Lead Auditor
2.	Ms. Deepa Jain	Innovation Society	Auditor
3.	Ms. S. Gahlawat	Innovation Society	Auditor
4.	Dr. Sneha	IGDTUW, New Delhi	IQAC Member
5.	Dr. Arun Sharma	IGDTUW, New Delhi	Director-IQAC
6.	Ms. Sarika Reddy	IGDTUW, New Delhi	Horticulture Incharge
7.	Mr. Rajesh Kumar	IGDTUW, New Delhi	Consultant (Civil & Electrical)
8.	Ar. Preeti Chauhan	IGDTUW, New Delhi	Additional Registrar GA & Maintenance



2 THE ASSESSMENT

2.1 Team-NIC Continuum Assessment

S. No.	Parameter	Improved	Score (0/1)
1.	Natural Greenery inside Campus (Open Area)	YES	1
2.	Natural Greenery inside buildings (Covered Area)	YES	1
3.	Natural Greenery Around Campus (outside area)	NO	0
4.	Self-Sustained Greenery Maintenance Practices	NO	0
5.	Biodiversity Balance	YES	1
Total Score			3/5

2.2 Participation

Following individuals participated in the current Audit Procedure:

S. No.	Name	Attended	Remarks (if any)
1.	Prof. (Dr.) D. Jain	YES	
2.	Ms. Deepa Jain	YES	
3.	Ms. S. Gahlawat	YES	
4.	Dr. Sneha	YES	
5.	Dr. Arun Sharma	YES	
6.	Ms. Sarika Reddy	YES	
7.	Mr. Rajesh Kumar	YES	
8.	Ar. Preeti Chauhan	YES	

2.3 Summary of Findings

2.3.1 The Campus in Scope

The campus covered under this exercise covered the main campus of Indira Gandhi Delhi Technical University for Women situated at Madrasa Road, Opposite St. James Church, Kashmere Gate, Delhi-110006, INDIA.

This is an URBAN campus having an auditorium, a Library, sporting facilities, academic laboratories, a dispensary, Computer Centre, a bank and a guest house inside it. The campus offers a common room for students which is equipped with fitness equipments, yoga facility and indoor games. The University campus has two hostel wings - Krishna Hostel and Kaveri Hostel, to accommodate approximately 340 students.



2.3.2 Inclusion & Exclusions

Inclusion: Campus Area as defined in scope section.

Exclusion: Designated part of the campus under control of external bodies.

2.3.3 The Management Commitment

Under the efficient leadership and guidance of the Management of the University, an aim of making the university a 'ZERO WASTE UNIVERSITY' by 2025. A plan through Reduce, Reuse, and Recreate has been established for the same.

2.3.4 Policy and Procedures

While the university has established a Quality Management System under the guidelines of ISO9000 standard and is committed towards maintaining defined quality measures in its working, a documented Green Campus Policy (or equivalent) and respective procedural definitions/documentations is not found at the time of assessment.

A guided movement names as 'ANTARGAT' has been incorporated as a dedicated in-house society to encourage Green Campus Culture in the university. The society maintain its newsletter that covers glimpse of some draft states of policies/procedures for encouraging Green Campus Practices.

2.3.5 Planning a Green Campus

Risk Management:

- No formal risk management pertaining to Green Campus has been implemented at University/Campus level.
- City level Sustainability Studies have been carried out and respective risks have been highlighted.
- Risks from UNO SDG-13 report have been considered.



Controls:

- Open and green Area has been identified in the Campus and appropriate landscaping has been ensured in applicable regions.
- Being a heritage campus, most of the controls have been in place by rules and regulations of respective regulatory bodies.
- Automobile Entry has been restricted away from academic and administrative buildings. This has also helped ensuring Pedestrian Friendly Pathways across the campus.
- Use of pollution free means of commutation has been promoted inside and outside the campus by providing Bicycles for Staff and Students.
- Campus has been declared as SUP Free Zone. Use of Single-Use-Plastic has been banned for any academic/administrative purpose in the campus.

2.3.6 Support

Resources:

- Dedicated Horticulture In-charge and Support staff has been identified.
- Appropriate budget has been allocated for plantation and Horticulture activities.

Competence:

- Professional gardeners and contractors have been hired for maintenance of natural greenery in and around the campus.
- Expert Supervisors have been identified and respective roles and responsibilities have been assigned.

Awareness

- Assigned staff has been provided with professional training and certifications.
- Periodic awareness and training sessions have been conducted by group (Club/Society) identified by the management of the university.

Communications

- Periodic newsletter of the club/society is evident to cover the activities, achievements, and recognitions about Green Campus.
- Periodic e-campaigns and communications are evident.



2.3.7 Documented Information

Objectives, Plans, Activities, Achievements, and other information has been documented in the form of newsletter only. No formal policies/procedures/guidelines pertaining to green Campus practices could be found at the time of audit.

2.3.8 Operations

Multiple activities for promotion of Natural greenery in and around the campus are evident in the newsletter. Participation of renowned people from industry, Government, Ministries, and societies have been ensured and captured.

Outcomes of green campus practices are evident as rich natural greenery in and around the campus.

2.3.9 Performance Evaluation

Flora				
S. No.	Type	Count	Major Breeds Planted	Remarks
1.	Herbs and Medicinal Plants	More than 100	Holy Basil (Tulasi), Cardamom (Elaichi), Coriander (Dhaniya), Indian Gum (Babool), Lemon Grass, Ajwain, Aloe vera, Margosa Tree (Neem), Indian Gooseberry (Amla), etc.	Noted by Auditor
2.	Vegan Shrubs and Plants	Less than 50	Banana, Papaya, Guava, Mango, etc.	Noted by Auditor
3.	Floral Plans	More than 1000	Rose, Bougainvillea, Hibiscus Rosa Sinensis, Ixora, Lantana, Adenium, Mili, Kalanchoe, Crossandra, Tiobouchina, Mussaenda acuminta, Ixora Coccinea, Crape Jasmine, Allamanda cathartica, Snapdragons, Orange Trumpet Creeper, Night Jasmine, Phlox etc.	Noted by Auditor
4.	Ornamental Shrubs and Plants	More than 1000		Noted by Auditor
5.	Climbers & Creepers	More than 1000	Bougainvillea, Epipremnum Aureum, Confederate Jessamine, Bengal Clock Vine, Dodder, Rangoon Creeper / Madhumalti, Night Jasmine / Parijaat etc.	Noted by Auditor
6.	Green Trees	More than 1000	Ashok, Gulmohar, Kadam, Maulsary, Neem, Peepal, Eruka Palm, Snepra, etc.	Noted by Auditor
7.	Others			Noted by Auditor



Fauna				
S. No.	Type	Name	Noticed in last 06 months	Remarks
1.	Birds	Pigeon	YES	Noted by Auditor
2.		Crow	YES	Noted by Auditor
3.		Sparrow	YES	Noted by Auditor
4.		Parrot	YES	Noted by Auditor
5.		Cuckoo	YES	Affirmed by Auditee
6.		Eagle	YES	Noted by Auditor
7.		Seagal	YES	Noted by Auditor
8.		Other	Peacock, Owl, Humming Birds	
9.	Insects	Butterfly	YES	Noted by Auditor
10.		Grass Hopper	YES	Noted by Auditor
11.		Honey Bee	YES	Noted by Auditor
12.		Dragon Fly	YES	Noted by Auditor
13.		Ants	YES	Noted by Auditor
14.		Lady Bug	YES	Noted by Auditor
15.		Termite	NO	Affirmed by Auditee
16.		Leaf Insects	YES	Noted by Auditor
17.	Other	Wasp		Noted by Auditor
18.	Invertebrates	Earth worm	YES	Noted by Auditor
19.		Spider	YES	Noted by Auditor
20.		Millipede	YES	Noted by Auditor
21.		Centipede	YES	Affirmed by Auditee
22.		Snail	YES	Noted by Auditor
23.		Other		
24.	Reptiles, Amphibians, Mammalian	Lizard	YES	Noted by Auditor
25.		Snakes	NO	Affirmed by Auditee
26.		Monitor lizard	NO	Affirmed by Auditee
27.		Skink	YES	Noted by Auditor
28.		Frog	YES	Affirmed by Auditee
29.		Rats	YES	Affirmed by Auditee
30.		Deer	NO	Affirmed by Auditee
31.		Cattle	NO	Affirmed by Auditee
32.		Others	Monkeys, Rabbits	



2.3.10 Improvements

- In past few years, special drives have been conducted for increasing in-house plantations.
- Vertical Gardening, Indoor Plantation, and many other modes of greenery has been adopted to utilize the optimum area to accommodate maximum greenery.
- Big trees in the campus have been preserved with elevated supporting soil bases.
- Campus has been safeguarded with iron-nets against monkeys, other mammals, and animals without harming them and sustaining a balanced biodiversity.
- Rich and further improved greenery in the heritage campus attracts beautiful birds and insects and makes the campus feel like true lap of nature.

2.4 Findings and Observations

- The heritage campus of IGDTUW is located at Kashmere Gate in the heart of Delhi. The rich lineage of this campus along with the development of modern facilities provide resources and infrastructure for academic excellence to students. The campus has more than 15,000 Sqm built in area with more than 33 classrooms and 36 labs. The learning infrastructure includes classrooms, laboratories, workshops, computer centre and library. The classrooms are equipped Green board and Dustless usable chalkboard.
- The campus has green landscaping of plants and trees which covers 60% of the area, having varieties of plants and trees which includes Ashok, Gulmohar, Kadam, Maulsary, Neem, Eruka Palm, Snepra, etc. The entire open area has been kept green through heavy foliage of grass, seasonal flowers, trees and are maintained by horticulture department of the university. University has pedestrian friendly roads in all the campuses which benefits from the lush shaded tress.
- The Green Sphere society at IGDTUW came into existence with a vision to protect and conserve the environment by taking the Green route. It aims at spreading environmental awareness and is an initiation by those who comprehend the engineering of ecological balance and the effect of our routine activities on our immediate environment. The activities and events are organized that focus on creating awareness among students and encourage greener practices.



2.4.1 Major Gaps

- No defined/documentated policies and procedures for Green Campus Practices.
- No measurable objectives set for Green Campus Practices.

2.4.2 Minor Gaps

- Periodic audits about sustenance of greenery in and around the campus has not been practiced.
- Measured reports about greenery in and around the campus has not been captured.

2.4.3 Opportunities of Improvement

- Proportionate to the rich greenery in the campus, number of compost pits may be increased to serve the greenery with organic fertilizers.
- Self-Sustained modes of plantation may be encouraged by better planning of green waste management.

2.4.4 Positive Observations

- Vertical gardening across the outer walls of most of the buildings is not only beautiful but also making the campus rich in natural greenery.
- Drip-Irrigation setup in vertical gardening is keeping the plants green even with less soil.
- Dedicated Society “ANTARGAT”, Multiple awareness sessions, Plantation Drives, and other initiatives are good in number and effectiveness.
- ANTARGAT Newsletter is impressive collection of initiatives and activities towards Green Campus Initiative of the University.

2.5 Recommendations

- Define measurable objectives, respective policies, procedures, and guidelines for Green Campus Sustenance.
- Increase number of Compost Pits and encourage Self-Sustained Horticulture in the campus.

2.6 Conclusion

Under the limitations of heritage building where constructions and modifications are not freely permissible, the University is maintaining a campus with rich natural greenery and supporting balanced biodiversity between human and non-human living beings in the campus.

-- END OF REPORT --



Annexure

Glimpse of Observations during Audit

Restricted Entry of Automobiles



Medicinal Plants





Ornamental Plants, Creepers & Climbers



Vegan Plants and Big Trees





Landscaping, Vertical Gardening, and Indoor Greenery



Cohabitation

