



Environment and Green Audit Report

BML Munjal University Sidharawali, Gurugram

Audit Conducted By: EM Project Services

Principal Auditor: Satvinder Singh

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Introduction

We at EM Project Services are grateful to the management of BML Munjal university for awarding the work of Environment and Green audit of BML Munjal University. We are especially thankful to Mr. Raja A S Jamwal and other members of team for their proactive approach and providing us well maintained relevant data required for audit.. We are also thankful to the other concerned incharge of various department for their cooperation during audit study at site and also the members of staff for their active involvement in audit on site study.

The following members of EM Project Services was part of audit study at BML Munjal university.

1. Mr. Satvinder Singh-Principal Auditor
2. Mr. Ranjit Singh -Data surveyor cum senior instrument technician
3. Mr. Ashwani-Instrument technician

Credential of Mr. Satvinder Singh are as under

Qualifications :

1. Graduate Electrical Engineer.
2. Post Graduate in Business Administration.
3. Attended five days preparatory professional development hours for PMP (USA) certification.


Certifications :

1. BEE Accredited Energy Auditor-AEA-0294
2. Energy Conservation Building Code Master trainer (Under UNDP-GEF-BEE Project)
3. Indian Green Building Council-Accredited Professional
4. Lead Auditor-ISO-14001-Environment Management system.
5. Certified Monitoring and Verification practitioner-(AEE-USA)
6. Galleleo Master Certificate-Renewable Energy (U.K)
7. Lead Auditor-ISO-50001- BSI-16001 (Energy management system)
8. Lead Auditor OHSAS-18001
9. Attended World Energy conference in USA on three occasions in Washington D.C-Atlanta and Charlotte (North Carolina)

Copies of Certificates of Sh. Satvinder Singh-Principal Auditor

FORM III
(Refer regulation 7(1))
Bureau of Energy Efficiency
REGISTER CONTAINING LIST OF ACCREDITED ENERGY AUDITORS

Serial Number: (AEA- 294)		As on: (23/10/2018)
A.	Accreditation information in respect of accredited energy auditor	
1	Name of accredited energy auditor	Sh. Satvinder Singh
2	Father's name	Sh. Kartar Singh
3	Date of certification as Energy Manager	Certificate No:5489
4	Date of passing the examination in "Energy Performance Assessment for Equipment and Utility Systems"	04 Sep- 2008
5	Examination Registration Number of (i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems"	EA-9011 EA-9011
6	Certificate Registration Number of (i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems"	Certificate No:5489 Certificate No: 3824 : :
7	Date of issue of accreditation certificate	(to be filled by BEE)
8	Professional postal address with Pin Codes of the accredited energy auditor	A-615, Shastri Nagar, Delhi-110052
9	E-mail address	satvindersinghmaan@gmail.com
10	Telephone numbers with STD Code (R) (O) Mobile No.	011-23642702 (R) Mobile : 9810021003 8860565499
11	Remarks	



Photograph of the energy auditor



Confederation of Indian Industry



CII-ITC Centre of Excellence
for Sustainable Development



***Environmental, Occupational Health & Safety
Management Systems
Auditor/Lead Auditor Training Course
(As Per ISO 14001:2004 & OHSAS 18001:2007)***

This is to certify that

Satvinder Singh

has successfully completed the

***Environmental, Occupational Health & Safety Management Systems
Auditor/Lead Auditor Training Course***

*organised by
Confederation of Indian Industry
Centre of Excellence for Sustainable Development*

held at **Hyderabad**

from **19th August 2013** *to* **23rd August 2013**

"Course Accredited With NABET"

(National Accreditation Board for Education and Training)

Accreditation No. : LEHS 1315 101

***"For Auditor Registration purposes this certificate is valid for
Three years from the initial certification date"***

Seema Arora

Executive Director



BUREAU VERITAS
Certification



Certificate of Successful Completion

This is to certify that

Satvinder Singh

has successfully completed the course assessment and examination for the

*Energy Management Systems Auditor /
Lead Auditor Training Course*
(Based on ISO 50001:2011 Standard)

Course No. A17621 certified by the International Register of Certificated Auditors (IRCA).
This course satisfies the training requirements for the IRCA EnMS Auditor
Certification Scheme.

Held on: *August 04 – 08, 2015*

at: *Hyderabad, India*

Signed: _____
General Manager - Training Services, SAR,
Global Accreditation, Training

Date: *December 08, 2015*

Certificate Serial No: *ENMS/15/IN/500*

Course No: *A17621*



The Certificate is valid for 3 years for the purpose of Auditor Certification by IRCA

Certificate



This is to certify that

Satvinder Singh

has successfully completed

**BS/ EN 16001 Energy Management
Lead Auditor Course**

following five days training

on 28th June – 02nd July 2010

at Delhi

delivered by

BSI Training

and has passed the examination

Certified by:

Sharma

Date:

12th July 2010

Certificate No:

ENM040-1006-0045

BSI

Executive Summary

An environmental audit is a snapshot in time, in which one assesses campus performance in complying with applicable environmental laws and regulations. Though a helpful benchmark, the audit almost immediately becomes outdated unless there is some mechanism in place to continue the effort of monitoring environmental compliance. This audit report contains observations and recommendations for improvement of environmental consciousness.

A nation's growth starts from its educational institutions, where the ecology is thought as a prime factor of development associated with environment. A clean and healthy environment aids effective learning and provides a conducive learning environment. Educational institutions now a day are becoming more sensitive to environmental factors and more concepts are being introduced to make them eco-friendly.

With pro-active approach of management and staff for improvement of environment and reduction of impact of university activities on climate and also improvement of indoor air quality and optimization of energy use, there is always an inclination of all related stake holders that is teaching, non-teaching staff and other support staff the university is continually functioning for improvement of environment in and around university premises and mitigation of impact of its activities on climate.

To preserve the environment within the campus, various viewpoints are applied by all the concerned stake holders. BML Munjal university-Sidharawali, Gurugram to solve their environmental problems through formulation of Environment and green policy, Plantation policy, commitment for empowerment of women and their active participation in improvement of interior and surrounding environment of university premises.

The university administration is working towards promotion of the energy savings demonstrated through energy audit and there is already renewable energy (Solar PV plant-246 kWp is already installed on various towers and Workshop building., recycle of waste, water use reduction, Rain water harvesting, regular plantation activities with native species, judicious management of all kind of waste as per statutory procedures, reduction of paper use , use of E-vehicles inside the campus , Provision of grocery and Stationery shop and Laundry in the premises and other sustainable practices.

The university is also instrumental for the well-being of all stake holders and a regular Medical officer is available in medical centre with three beds, reduction of paper use and also mitigating impact of transportation activities of students, teaching and non-teaching staff by shared transport, fuel consumption monitoring, regular servicing of owned vehicles and encouragement of car-pooling and many other sustainable practices.

There are instruments that contains mercury seen installed.

There is an issue of ventilation observed in the following areas.

- a. Laundry,
- b. Chemistry Lab,
- c. Workshop building
 1. Main Hall
 2. Dynamics of Machine Lab,
 3. Electrical/Energy Studies Lab,
 4. Process Instrumentation Lab,
 5. Automation Lab,
 6. Mechatronics Lab,
 7. CNC Controller Lab,
 8. Pneumatic & Hydraulic Lab,

The issue of ventilation is required to be addresses with designed mechanical ventilation for laundry and mixed ventilation, Natural and mechanical for workshop area. For Chemistry Existing exhaust is required to be provided with hood and additional exhaust as per design calculation is required to be provided.

Points of Appreciation

1. The staff of BML Munjal university are quite aware and proactive in approach towards environmental aspects.
2. There is strong data base maintained and kept updated at all times which is beneficial for management of Environmental and Green aspects related to activities of University.
3. Total Water use for human consumption and landscape use is recorded and the records are available depicting the concern of relevant persons towards water use management.
4. Data for electrical use is also recorded and maintained and it reflects the sustainable approach of the BML Munjal university.
5. There is an STP plant installed at the campus and the data of treated water in terms of quantity treated and quality post treatment is maintained.
6. Most of the trees are labelled with general and botanical name.
7. Reuse of water: The treated water from STP is used for Gardening and Flushing purpose depending on the quantity treated.
8. There is a commitment towards Women empowerment related to climate and active participation of women.
9. There is an environment policy in place that covers aspects of air quality, environment and sustainability in extensive manner.
10. There is plantation policy and plan for managing and mitigation of impact on climate.
11. E-Library : Records of E-Library are maintained. There are plans for future and PO's are already in place for coming time. Usage data of e- books is maintained and monitored.
12. The staff and students of university are taking active interest for improvement of environment.
13. Record of Food wastage is prepared. **Food Wastage - Standee for Preventing Food Wastage is placed in D Cafe Mess.** Food wastage graph as well as the Daily Quantity Chart is also displayed in D Cafe Mess. (Pics attached -in Food wastage section)
14. There are efforts to reduce food waste generation.
15. Wasted food is composted and a part of it is sent to local piggeries for consumption.
16. Composting plant has been installed on site and botanical waste and post use food waste is regularly composted and converted to manure used for landscape and plantation use.
17. The university is regularly conducting department activities for creating awareness and sensitization of students, faculty members and other staff members. The details are shown separately.

18. Grocery shop and stationery shop is inside the campus thus making it convenient for the residential and day time staff and students to purchase items for their consumption as per requirement without wasting time an important non- recoverable resource and also savings in fuel and making it a sustainable activity.

19. EVS activities

1. Awareness program for sensitization and awareness of students are regularly conducted through quizzes and painting competition organized in university.
2. Awareness drive towards environment also conducted in neighbouring villages for conducting awareness amongst villagers.
3. 255 nos. plants have been planted in university campus during last three years.
4. Plantation week is celebrated regularly to encourage students to understand the importance of trees, plants for the life, climate and planet.
5. Webinar on Fuel conservation was conducted on 7th May-2022, under Saksham program of PCRA.
6. Webinar were regularly conducted after formation of NSS unit in University in 2018.

20. NSS activities

- a. NSS unit was formed in University in year 2018.
- b. NSS has adopted 5 villages in surrounding areas of University campus and the following activities are regularly conducted
 - i. Shram Daan
 - ii. Plantation
 - iii. Activities under Swachh Bharat program.
 - iv. Daan Utsav where in the items discarded by villagers are collected to be distributed to less privileged class people through an NGO -GOONJ.
- c. Survey of five villages is undertaken and is in progress in five villages under UNNAT BHARAT ABHIYAN.
- d. An awareness drive on water conservation was conducted in Bast Pur villae-Pataudi-Gurgaon.

21. IMPORTANT ENVIRONMENTAL ACTIVITIES

- a. Regular on hour fortnightly meeting with volunteers.
- b. Regular Awareness activities (Related to health /smoking and drinking/cybercrime /water conservation /environmental protection etc.) in villages
- c. Visit to Orphanage/Old homes for interacting and caring for them.

- d. Daan Utsav activities are regularly organized from 2nd October to 9th October.
 - e. Swachh Bharat abhiyan campaign in villages.
 - f. Village survey (Unnat Bharat abhiyan)
 - g. Shram Daan in villages
 - h. NSS Day celebration on 24th September
 - i. 26th January-Republic day celebrations
 - j. Collaboration with other clubs to perform the following activities
 - a. Tree plantation activities in villages
 - b. Education (Tutors) to schools of remote villages.
 - c. Health camps in villages -Youth Red cross.
22. NCC activities: Planted 166 plants from 23.08.2021 to 6.10.2021 (No. of students: 34 and Teachers: 3)
 From 23-08-2021 to 20-09-2021 ,100 saplings were planted
23. Tobacco free campus:
24. Stack Height of DG set exhaust is as per CPCB requirement.
25. Plantation drive was conducted on days of convocation on 29-09-2018 and 31-08-2019.
26. There is good practice of eliminating use of oil-based paint in university works. All the paint work is done by using water-based paints.
27. Blue and Green Waste bins are installed for segregation of waste at source.

**PLEDGE FOR WOMEN EMPOWERMENT
BML Munjal university-Sidharawali,Gurugram**



A HERO GROUP INITIATIVE



Women Empowerment

Pledge

BML Munjal University, Gurugram



Women Empowerment

Pledge

We the teaching, non-teaching staff and all the students of BML Munjal University, Gurugram pledge together for women empowerment and we celebrate advancement of women in all her facets ensuring her safety, security, and overall well-being.

We pledge to promote equality and freedom for all, through community initiatives without any gender biases and prejudices. We also pledge to keep our college environment and its surroundings, hygienic, healthy, and clean through active participation of women for the overall sustainable development.



Registrar
BML Munjal University, Gurugram

General observations and Recommendations

- ❖ Display of Environment and Green policy at following prominent locations inside the premises.
 - a. Near main gate
 - b. At main entrance of Administrative Building
 - c. Cafeteria
 - d. Academic Blocks
 - e. Auditorium
 - f. Library
- ❖ There are Signage for Tobacco free campus are displayed in Cafeteria and these required to be displayed at main entrance and other prominent areas inside the campus.
- ❖ No Chlorine dosing - since last 2 weeks in STP clear water
- ❖ In library cubicles, one light which is on emergency supply is kept switched off at all times affecting illumination level and causing visual discomfort. The connections of emergency light should be done in a way that it is kept on at all times and should remain on at the time of temporary stop gap time required for feeding electrical supply from Diesel Generator set.
- ❖ Water pipe used near STP area is leaking at a number of joints. There is wastage of water due to that.
- ❖ Single stack plumbing system is in place thereby increasing the avoidable load on STP and also increasing the electricity consumption for treatment of mixed water.
- ❖ Two stack plumbing system is recommended for future augmentation for separation of Black and grey water for energy savings and not stressing the capacity of installed STP.
- ❖ Signage for avoiding Food wastage be displayed at important locations of like cafeteria in campus.
- ❖ Signage for Water conservation be displayed at important locations in campus.
- ❖ Signage for plastic free campus
- ❖ Signage for Segregation of waste.
- ❖ Provision of different dust bins as a set at a common location.

- ❖ Height of fume exhaust in chemistry lab is not proper. It should be discharged above building height. Presently fumes are dispersing around building affecting local environment.
- ❖ Lights were found switched on in unoccupied area. Awareness is required to be created amongst all faculty and non-teaching staff of university.
- ❖ Inefficient Tube Lights of 40Watts/28 Watts have been used. More impact on environment. Additional CO₂ footprint. It is detrimental for environment. These be replaced.
- ❖ Air Conditioners with harmful refrigerant have been installed. Immediate action be initiated for replacement of AC's with zero ODP refrigerant.
- ❖ In future all the glasses of window when replaced should be provided with spectrally selective glass of low Solar heat gain coefficient and high visual light transmittance.
- ❖ Cool Roof: As per ECBC for improving the indoor thermal comfort of top floor in building and also reducing energy use of top floor by providing cool roof at terrace level.

Cool roof: roof with top layer of material that has high solar reflectance and high thermal emittance properties. Cool roof surfaces are characterized by light colors so that heat can be rejected back to the environment.

Excerpts from ECBC are attached in this report-Annexure-C

- ❖ Ventilation: There are issues with ventilation of Chemistry lab, Workshop building and Laundry.

ENVIRONMENT AND GREEN POLICY

BML MUNJAL UNIVERSITY-SIDHARAWALI,GURUGRAM



A HERO GROUP INITIATIVE



Environmental & Green Policy BML Munjal University, Gurugram



Ref No: BMU/RO/2022/038 (b); Date: February 04, 2022; Page 01 of 03

Campus: 67th Milestone, NH-8, Sidhrawali, Gurugram, Haryana - 122413
Toll Free No.: 1800-103-6888 | info@bmu.edu.in | www.bmu.edu.in

Mentored by: **Imperial College
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Environmental & Green Policy

BML Munjal University, Gurugram is committed to managing its estates in accordance with responsibilities to the environment. These responsibilities shall be demonstrated within the following areas as a minimum:

1. **Tobacco Free premises:** The college administration pledges to make the premises totally tobacco free. No smoking or other type of tobacco products shall be allowed to inside the campus.
2. **Purchasing:** In purchasing its services, materials, equipment, and consumable items, the BML Munjal University, Gurugram will, where possible, purchase items produced in ways which do least environmental harm, which are not supplied with excessive packaging, which are benign or at least harmless in their effect on the environment. Where possible, campus input to the local community as well as reduction of environmental impact due to transportation.
3. **Cleaning:** The university shall use cleaning products based on environmental considerations as well as cost and suitability. It will monitor its working practices with a view to administering dosages so as to reduce the risk of over concentration and excess residue of unused cleaning mixtures finding their way into piped waste disposal systems.
4. **Waste Disposal and Recycling:** The university will seek to minimize its generation of waste by reduction of purchased materials where this does not compromise its primary functions, or by re-use of materials within or outside the university campus. Where reduction or re-use is not feasible, materials will be recycled wherever possible.
5. **Energy:** The university is environmentally responsible for its use of energy, and will therefore consider the sources, type, origin and destination of energy input and output throughout the premises. This will require careful monitoring of consumption, the elimination of excessive or unnecessary use, and an ongoing program of energy conservation. There are already renewable energy solar PV plants installed and in future also efforts shall be made to use renewable energy to the extent possible for mitigation of impact of energy use by university on environment.
6. **New Build and Building Refurbishment:** The university will ensure that whenever new construction or refurbishment, work is planned and executed in a manner which reflects environmentally responsible approaches defined by the National Building Code-2016.
7. **Green Travel Plan:** The university actively promotes the use of public transport, walking and cycling. The university, where possible encourages students and staff to use public transport when on college assignments. This plan is regularly reviewed. The travel of students shall also be encouraged through public or shared transport.



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**BML MUNJAL
UNIVERSITY™**

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8. **Food Policy:** The university will ensure that decisions pertaining to the purchase of food, together with the use and disposal of plastic crockery/cutlery, should at all times include environmental implications as well as such factors as cost and nutritional value.
9. **Environmental Rules and Guidelines:** The university commit to ensure compliance to extant pollution control and other applicable environmental guidelines.
10. **Water Use:** The university intends to promote optimization of water use by avoidance of wastage, treatment, recycling, and re-use of black water for other possible uses.
11. The university also commits for plastic free environment in premises.



Registrar
BML Munjal University, Gurugram

Description of Campus

The BML Munjal University is located near 67th mile stone on Delhi Jaipur highway. The coordinates of Munjal university are latitude 28 degrees 14' and Longitude 76 degree 48'50" at an altitude of 280 meters above mean sea level.

As per NBC-2016 and ECBC-2017, climate of Sidharawali, Gurugram is composite which means that Sidharawali, Gurugram's climate has high number of heating degree days and also higher number of cooling degree days, thus requiring more energy in winter for heating and also for cooling in summer.

S. No.	Building	Area in Sq. meters
1	Hostel-T-1, T-2 and T-3	16965.55
2	Hostel-T-4	4854.32
3	Hostel-T-5	6945.49
4	North Block	13987.48
5	Gate Way (G+4)	14874.00
6	Hostel Tower	10953.40
7	Training Lab	4469.38
8	Faculty Housing	5699.74
9	Support staff housing	1240.33
10	Laundry Building	417.01
11	Lunch Room	32.83
12	LT Meter and Electrical substation room	177.88
13	Guard Room	18.02
14	Toilet Block	11.03
15	Existing Block-2	2526.02
16	Existing Block-1	3726.12
17	Existing Block-2	4921.65
18	Existing Block-3-Library	2951.79
	Total Built up area	94772.02

Green and Environment audit

Pre -Audit meeting

A pre-audit meeting provided an opportunity to reinforce the scope and objectives of the audit and discussions were held on the practicalities associated with the audit. This meeting is an important prerequisite for the green audit because it is the first opportunity to meet the University concerned personnel for audit and deal with any concerns.

Management's Commitment

The Management of the university has shown the commitment towards the green auditing during the pre-audit meeting. They were ready to encourage all green activities. It was decided to promote all activities that are environment friendly such as awareness programs on the environment, campus farming, planting more trees on the campus etc., after the green auditing.

Scope and Goals of Green and Environment Auditing

A clean and healthy environment aids effective learning and provides a conducive learning environment. There are various efforts around the world to address environmental education issues. Green Audit is the most efficient and ecological way to manage environmental problems. It is a kind of professional care which is the responsibility of each individual who are the part of Economical, financial, social, environmental factor. It is necessary to conduct green audit in university campus because students become aware of the green audit, its advantages to save the planet and they become responsible citizen of our country.

Water Audit

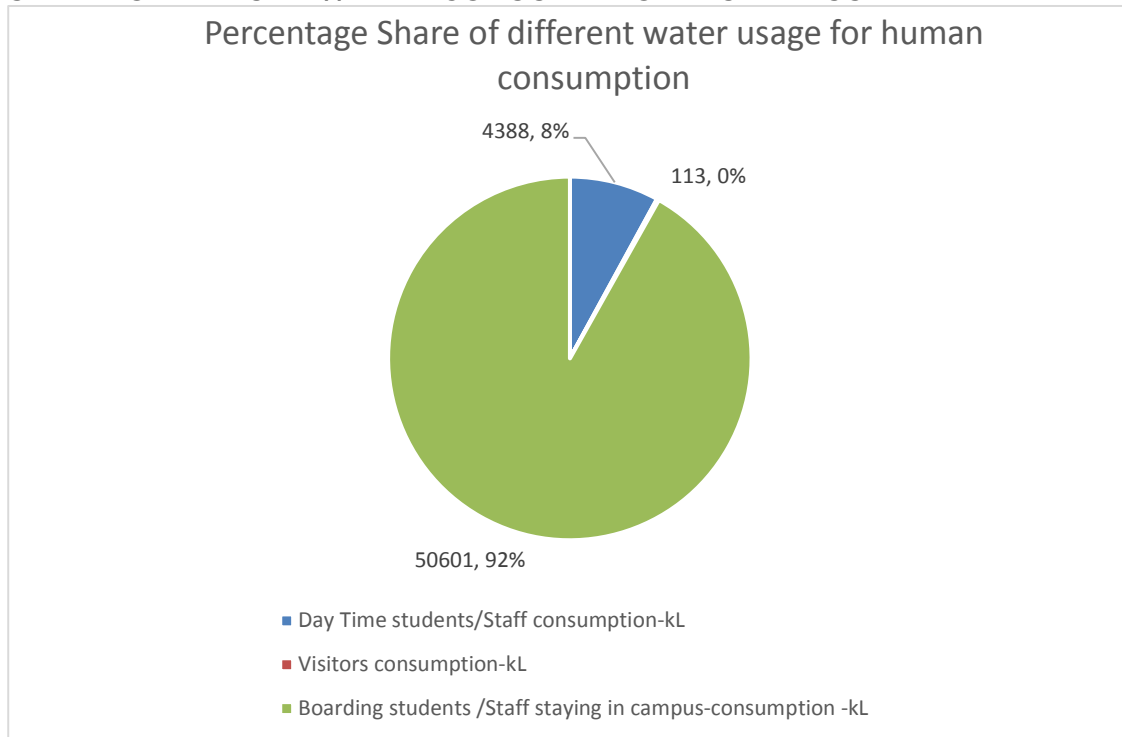
Details of Occupancy -BML Munjal University

S.No.	Description	Faculty Housing (No.)	SS Housing (No.)	Hostels (No.)	Total (a)	Resident per flat (b)	Capit a (No.) (A) = a x b
1	Housing & Students with boarding facility						
a)	1 BHK (4 -resident/flat - As per NBC)	8	16		24	4	96
b)	2 BHK (5 -resident/flat - As per NBC)	28		5	33	5	165
c)	3 BHK (6 -resident/flat - As per NBC)	8			8	6	48
d)	Students - with boarding facility						1054
	Total						1363
2	Faculty/Staff/Visitors						
a)	Faculty & Staff						75
b)	Students - without boarding facility						169
c)	Maintenance Staff						25
d)	House Keeping Staff						60
e)	Horticulture Staff						12
f)	Security Staff						49
g)	Visitor						30
	Total						420

**Benchmark annual Consumption of water - as per National Building Code-2016-
BML Munjal University -Human Consumption**

S. No.	Type of Occupants	No. of Occupants /Visitors	Water Consumption As per NBC-2016-Norms	Theoretical Consumption-Kilo Litres per day-NBC	No. of days in year-Use	Annual Consumption in kilo Litres-(NBC-2016 Benchmark)
1	Day Time students/Staff	390	45	17.55	250	4,388
2	Visitors	30	15	0.45	250	113
3	Boarding students /Staff staying in campus	1363	135	184.005	275	50,601
		Total		202.005		55101

SHARE OF ANNUAL WATER CONSUMPTION-HUMAN USE

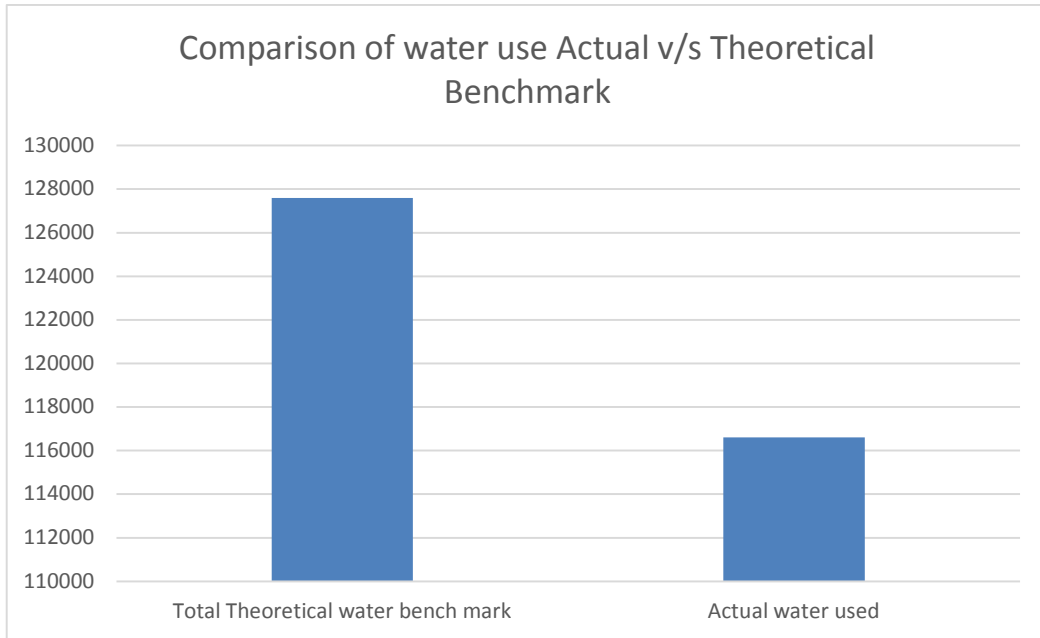


From above Pie Chart it is observed that 92 % of total annual water consumption-Theoretical allowance. Only 8 % is used by day time students, Staff and Visitors. The main focus of water conservation should be laid on residential students and staff.

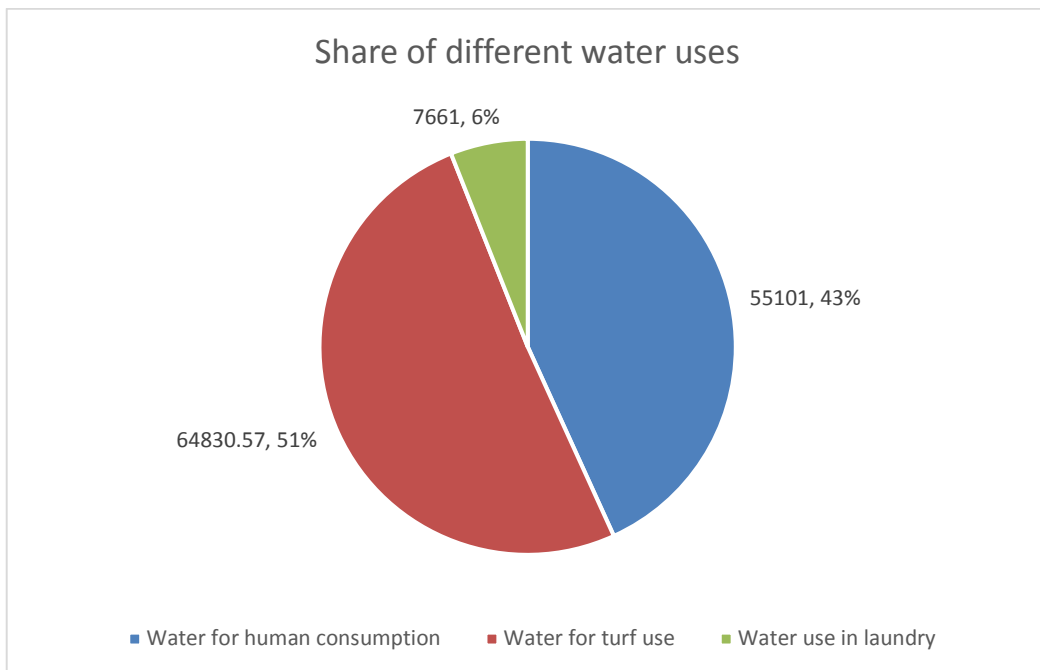
Special attention should be given in toilets used by students in hostels and there should be regular water leak audits conducted and report should be documented.

Water Consumption As per NBC-2016-Norms

Benchmark annual Consumption of water - as per National Building Code-2016- BML Munjal University						
Consumption by occupants						
S. No.	Type of Occupants	No. of Occupants/Visitors		Theoretical Consumption-Kilo Litres per day-NBC	No. of days in year -Use	Annual Consumption in kilo Litres-(NBC-2016 Benchmark)
1	Day Time students/ Staff	390	45	17.55	250	4,388
2	Visitors	30	15	0.45	250	113
3	Boarding students /Staff staying in campus	1363	135	184.005	275	50,601
	Total consumption for human use			202.005		55101
Consumption for landscape use						
S. No.	Description	Area-Sq. mts.	Daily water requirement-litres/day /sq. mts.	Daily water requirement in kilo litres/Day	No. of days in year - water Use	Annual Water requirement for Horticulture-kilo Litres
1	Turf	25374	7	177.618	365	64830.57
Requirement of laundry						
1	Laundry-Actual consumption					7661
	Total theoretical water requirement					127593



From the above graph it is evident that present actual consumption of water is lower than theoretical bench mark of water use as per NBC-2016.



From above Pie chart it is evident more than 50 % water allowance is for Landscape purpose

Annual Water extraction data

Bore-well	Apr-19 to Mar-20	Apr-21 to mar-22
Bore-well-1	46601	7099
Bore-well-2	70007	31185
Total Annual water consumption	116608	38284

Water reuirement as per NBC-2016 is attached in Annexure-C

There is ample awareness of management of university campus towards sustainability. Management of university is very instrumental in spearheading movement of sustainable practices in running of university and also facilitating dissemination of these practices to all students studying in this campus. It is through support of management and active involvement of other stake holders and staff members that this university has managed sustainable practices by being proactively initiating suitable actions for the same.

In all matters of resource use, there is effective implementation of 3R's. Reduction of resource use, Recycling of resources and also re-use. It is for attaining objectives of sustainability.

STP is installed in campus and is used for re-use of treated water.

During audit, it has been seen that a lot of work for conservation of water has already been taken. The quality of water is also periodically tested and the result of testing are given here under for reference

Water Use Study

FLOW RATE OF INSTALLED FIXTURES MEASURED

Water Flow Detail and Toilets Inventory Tap Flow at BML Munjal University						
Water flow details in Litres per minute						
Sno	Location	W.C. Point/Ablution tap-flow litres per minute				No. of Toilets
		Flow-Litres per minute	Flow-Litres per second	Flow-Litres per second	Flow-Litres per second	
1	Block - A Office	13.25	6.30			35
2	E-2 MPH Gents Toilet	16.39	16.35			
3	E-2 MPH Ladies Toilet	11.81				
4	E-2 G. Floor Gents Toilet	11.30	4.65			
5	E-2 G. Floor Ladies Toilet	17.14	16.67			
6	E-2 G. Floor Handicap Toilet	6.26				
7	E-2 Cafeteria G. Floor Gents Toilet	5.93				
8	E-2 Cafeteria G. Floor Ladies Toilet	10.20				
9	E-2 TT Hall Toilet	7.76				
10	E-2 F. Floor Gents Toilet	6.26	7.35	5.58	12.50	
11	E-2 F. Floor Ladies Toilet	7.81	8.49	8.34		
12	E-2 F. Floor Handicap Toilet	13.07				
13	E-2 S. Floor Gents Toilet	8.13	11.61			
14	E-2 S. Floor Ladies Toilet	8.56	8.96			
15	E-2 S. Floor Handicap Toilet	6.69				2
16	E-2 S. Floor Gents Toilet	15.15	10.36	9.49	12.40	
17	E-2 S. Floor Ladies Toilet	9.72	12.30	8.82		
18	Gateway - A - Gents Toilet	18.93				5
19	Gateway - A - Ladies Toilet	10.64				

20	Gateway - B - Gents Toilet	1.78				5
21	Gateway - B - Ladies Toilet	2.15				
22	Block - D Staff Toilet - Gents	5.37	32.97			
23	Block - D Staff Toilet - Ladies	15.19	9.93			
24	Block - D Hostel Apartment 4rth floor	9.30	9.46			4
25	Block - D Guest Rooms 2nd floor	6.72				7
26	T - 5 F. Floor Gents Toilet -1	9.10	12.58	11.45		10
27	T - 5 F. Floor Gents Toilet -2	21.20	8.36	16.81		
28	Chemistry Lab					32
29	Workshop - Gents Toilet	2.82	6.32	10.33		2

Water Flow Detail Litres/Minute at BML Munjal University							
S No.	Location	Wash Basin					Qty
1	Block - A Office	9.52	7.71	3.00			35
2	E-2 MPH Gents Toilet	8.05	5.75				
3	E-2 MPH Ladies Toilet	6.38	4.19	3.37			
4	E-2 G. Floor Gents Toilet	6.86	6.59				
5	E-2 G. Floor Ladies Toilet	14.08	3.93	9.09			
6	E-2 G. Floor Handicap Toilet	7.22					
7	E-2 Cafeteria G. Floor Gents Toilet	6.53					
8	E-2 Cafeteria G. Floor Ladies Toilet	7.71	16.81				
9	E-2 TT Hall Toilet	3.43					
10	E-2 F. Floor Gents Toilet	2.25	8.26	15.54			
11	E-2 F. Floor Ladies Toilet	3.13	4.26	4.65	3.84		
12	E-2 F. Floor Handicap Toilet	12.42					
13	E-2 S. Floor Gents Toilet	12.10	6.22				
14	E-2 S. Floor Ladies Toilet	7.76	8.66				
15	E-2 S. Floor Handicap Toilet	2.78					
16	E-2 S. Floor Gents Toilet	9.39	2.04	9.46			2
17	E-2 S. Floor Ladies Toilet	12.00	11.95	3.58	10.95		

18	Gateway - A - Gents Toilet	2.01	6.11	3.37			5
19	Gateway - A - Ladies Toilet	2.60	3.57	12.50	12.20	7.93	
20	Gateway - A - Handicap Toilet	2.92					
21	Gateway - A - Office Block Gents Toilet	12.15					
23	Gateway - A - Office Block Ladies Toilet	3.65					
24	Gateway - B - Gents Toilet	5.37	1.60				5
25	Gateway - B - Ladies Toilet	12.85	9.76	1.11			
26	Gateway - B - Handicap Toilet	12.24					
27	Block - D Staff Toilet - Gents	8.76	7.80				
28	Block - D Staff Toilet - Ladies	4.52	4.76	2.90			
29	Cafeteria - Hand Wash Area	17.05	4.90	4.05	5.43	2.63	
30	Block - D Hostel Apartment 4rth floor	7.75	10.73				4
31	Block - D Guest Rooms 2nd floor	10.62					7
32	Cafeteria Staff Toilet - Gents	5.95					
33	Cafeteria Staff Toilet - Ladies	4.25					
34	T - 5 G. Floor Gents Toilet	14.81	7.48				
35	T - 5 G. Floor Ladies Toilet	5.62					
36	T - 5 F. Floor Gents Toilet -1	8.47	5.46	4.92	24.69		10
37	T - 5 F. Floor Gents Toilet -2	6.46	5.31	13.39	5.26		
38	Library - Gents Toilet	5.07	7.53	4.64			
39	Library - Ladies Toilet	7.03	6.94	6.86	7.40		
40	Library - Handicap Toilet	7.78					
41	Medical Room - Toilet	5.67					
42	Workshop - Gents Toilet	9.23	8.14				2
43	Workshop - Ladies Toilet	8.60	11.58				
44	Workshop - Handicap Toilet	4.45					
45	Cafeteria near Library hand wash	1.33	2.04	4.18			
46	Facility Lounge - Gents Toilet	6.30					
47	Facility Lounge - Ladies Toilet	3.03					

Water Flow Detail -Litres per minute at BML Munjal University						
S No.	Location	Bath Room Tap				Qty
1	Block - A Office	20.27	17.24			35
2	Block - D Hostel Apartment 4rth floor	9.05	7.98			4
3	Block - D Guest Rooms 2nd floor	7.63				7
4	T - 5 G. Floor Ladies Toilet					
5	T - 5 F. Floor Gents Toilet -1	29.70	16.95	17.91	17.05	10
6	T - 5 F. Floor Gents Toilet -2	19.93				

Water Flow Detail litres/minute at BML Munjal University			
Sno	Location	Tap	Qty
1	E-2 F. Floor Ladies Toilet	25.10	
2	E-2 S. Floor Ladies Toilet	10.07	
3	T - 5 F. Floor Gents Toilet -1	24.39	10
4	T - 5 F. Floor Gents Toilet -2	22.90	

Water Flow Detail -Litres per minute at BML Munjal University						
Sno	Location	Kitchen Sink				No. of Toilets
1	Block - A Office	2.09				35
2	Block - D Hostel Apartment 4rth floor	3.43				4
3	Chemistry Lab	14.19	15.98	16.19	13.94	32

Flow of fixtures is noticed to be higher. These are required to be replaced with efficient low flow plumbing fixtures specially for Hostel room toilets. At common places this can be presently managed with installed valves.

Water Testing Report 02/05/2022				
Test	Gateway A	Gateway B	Apartment B	Indian Standard values
Dissolved Oxygen (mg/L)	8	10	11	6mg/Lmore
Chloride Ion (mg/L)	56	59	19	<250mg
Alkalinity (mg/L)	163	168	42	<200 mg/L
Hardness (mg/L)	175	177	63	<300 mg/L
Iron (mg/L)	0.93	0.97	0.052	<0.3 mg/L
Residual Chlorine	A	A	A	
Total Dissolved Solids (TDS)	472	477	78	< 500
pH	7.77	7.9	7.5	6.5 to8.5
Conductance (mS)	0.9	0.8	0.2	<5.5 Ms
(BOD) ₅ (mg/L)	1.5	3	5	<10 mg/L
Turbidity (NTU)	0.02	0.02	0	<1

Test	Apartment C	Apartment D	E2	Indian Standard values
Dissolved Oxygen (mg/L)	12	11	11	6mg/L or more
Chloride Ion (mg/L)	23	29	62	<250mg
Alkalinity (mg/L)	46	75	177	<200 mg/L
Hardness (mg/L)	66	103	189	<300 mg/L
Iron (mg/L)	0.075	0.32	1.02	<0.3 mg/L
Residual Chlorine	A	A	A	
Total Dissolved Solids (TDS)	93	134	473	< 500
pH	7.51	7.63	7.9	6.5 to 8.5
Conductance (mS)	0.2	0.3	1	<5.5 Ms
(BOD) ₅ (mg/L)	5	2	4	<10 mg/L
Turbidity (NTU)	0	0	0.01	<1

Test	Cafeteria	Workshop	T 5	T Hostel	Indian Standard values
Dissolved Oxygen (mg/L)	9	11	10	9	6mg/L or more
Chloride Ion (mg/L)	59	57	28	33	<250mg
Alkalinity (mg/L)	163	163	63	89	<200 mg/L
Hardness (mg/L)	173	182	84	109	<300 mg/L
Iron (mg/L)	1.09	0.99	0.39	0.52	<0.3 mg/L
Residual Chlorine	A	A	A	A	
Total Dissolved Solids (TDS)	476	473	85	239	< 500
pH	7.9	7.93	7.55	7.84	6.5 to 8.5
Conductance (mS)	1	1	0.2	0.4	<5.5 Ms
(BOD) ₅ (mg/L)	2	3	1	3	<10 mg/L
Turbidity (NTU)	0.02	0.02	0	0	<1

The following points needs attention and required to be addressed. The saving targets over NBC-2016 requirement should be fixed for next 12 months and practice of recording and reviewing of water use on periodic basis for pointing out any sudden variation is required to be followed.

Observations on water use

S. No.	Issue	Standard	Shortcomings	Recommendations
1	Flow of water in plumbing fixtures	GRIHA/IGBC	Flow is measured is high	All plumbing fixtures be replaced with low flow fixtures whenever these are replaced after wear and tear. Till the time the flow should be regulated from valves where ever existing for wash Basin and Sinks.
2	Cisterns installed for flushing	GRIHA/IGBC	Double flow cisterns are installed	Awareness is required to be created for use of Dual flow fixtures for water conservation.
3	Rain Water harvesting system	Central Water Ground Water Board	20 Nos. Rain Water harvesting pits are installed	These are maintained and functioning effectively.
4	Water Meters	NBC-2016	Water Meters for extraction source are installed	Water Meters be got installed for Individual blocks, Labs and also for water used for horticulture/land-scaping purpose.
5	Bills and Stickers for water conservation	Best practices	Presently installed at few locations only	The stickers be installed near water use points for conservation of water. Specially in Hostel Toilets, these are required to be put.

Turf Area (Grass Area)-BML Munjal University-Sidharawali,Gurugram

Total Turf-Grass Area—25374 Sq. meters

Water and Energy conservation for Laundry water use

- Wash clothes in cold water using cold-water detergents whenever possible.
- Wash and dry full loads. If you are washing a small load, use the appropriate water-level setting.
- Dry towels and heavier cottons in a separate load from lighter-weight clothes.
- Don't over-dry clothes. If a machine has a moisture sensor, use it.
- Clean the lint screen in the dryers after every load to improve air circulation and prevent fire hazards.
- Periodically, remove the lint that collects below the lint screen in the lint screen slot of clothes dryers.
- Use the cool-down cycle to allow the clothes to finish drying with the heat remaining in the dryer.
- Periodically inspect dryer vents to ensure they are not blocked. This will save energy and may prevent a fire. Manufacturers recommend using rigid venting material -- not plastic vents that may collapse and cause blockages.
- Encourage air-drying clothes on clotheslines or drying racks. Clothing manufacturers for some fabrics recommend air-drying.

Inventory of Toilets- BML Munjal University -Sidharawali,Gurugram

Toilet Inventory - BML Munjal University

S no	Location	URINAL	WC	WASH BASIN	Sink	Bath Area Tap	Tap	Sets
1	Block - A Office		2	2	1	2		35
2	Block - B		2	2	1	2		35
3	Block - C		2	2	1	2		35
4	E-2 MPH Gents Toilet	3	2	2				1
5	E-2 MPH Ladies Toilet		1	3				1
6	E-2 G. Floor Gents Toilet	2	2	2				
7	E-2 G. Floor Ladies Toilet		3	2				
8	E-2 G. Floor Handicap Toilet		1	1				
9	E-2 Cafeteria G. Floor Ladies Toilet	1	1	1				
10	E-2 Cafeteria G. Floor Handicap Toilet		2	1				
11	E-2 TT Hall Toilet	1	1	1				
12	E-2 F. Floor Gents Toilet	3	4	3				
13	E-2 F. Floor Ladies Toilet		4	3				

14	E-2 F. Floor Handicap Toilet		1	1				
15	E-2 S. Floor Gents Toilet	2	2	2				2
16	E-2 S. Floor Ladies Toilet		2	2			1	
17	E-2 S. Floor Handicap Toilet		1	1				
18	E-2 S. Floor Gents Toilet	3	4	3				
19	E-2 S. Floor Ladies Toilet		4	3			1	
20	Gateway - A - Gents Toilet	9	7	4				5
21	Gateway - A - Ladies Toilet		5	5				
22	Gateway - A - Handicap Toilet		1	1				
23	Gateway - A - Office Block Gents Toilet	1	1	1				
24	Gateway - A - Office Block Ladies Toilet		1	1				
25	Gateway - B - Gents Toilet	5	4	3				5
26	Gateway - B - Ladies Toilet		3	3				
27	Gateway - B - Handicap Toilet		1	1				
28	Block - D Staff Toilet - Gents	4	2	2				
29	Block - D Staff Toilet - Ladies		2	3				
30	Cafeteria - Hand Wash Area			10				
31	Block - D Hostel Apartment 4th floor		2	2	1	2		
32	Block - D Guest Rooms 2nd floor		1	1		1		
33	Cafeteria Staff Toilet - Gents	2	2	2				
34	Cafeteria Staff Toilet - Ladies		2	3				
35	T - 5 G. Floor Gents Toilet	3	2	2				
36	T - 5 G. Floor Ladies Toilet		1	1				
37	T - 5 F. Floor Gents Toilet -1	2	4	4		4	1	10
38	T - 5 F. Floor Gents Toilet -2	2	4	4		4	1	
39	Library - Gents Toilet	6	6	5				
40	Library - Ladies Toilet		6	7				
41	Library - Handicap Toilet		1	1				
42	Medical Room - Toilet	1	1	1				
43	Chemistry Lab				32			
44	Workshop - Gents Toilet	2	3	2				2
45	Workshop - Ladies Toilet		3	2				
46	Workshop - Handicap Toilet		1	1				
47	Cafeteria near Library hand wash			6				
48	Faculty Lounge - Gents Toilet	1	1	1				
49	Faculty Lounge - Ladies Toilet		1	1				

Rain Water harvesting system

Three are 20 nos. of Rain Water harvesting system pits have been installed.

The regular cleaning and de-silting process are carried out for maintenance of Rain water harvesting pits.

Auditing for Energy Management

Energy cannot be seen, but we know it is there because we can see its effects in the forms of heat, light and power. This indicator addresses energy consumption, energy sources, energy monitoring, lighting, appliances, and vehicles. Energy use is clearly an important aspect of campus sustainability and thus requires no explanation for its inclusion in the assessment. An old incandescent bulb uses approximately 60W to 100W while an energy efficient light emitting diode (LED) uses only less than 10 W. Energy auditing deals with the conservation and methods to reduce its consumption related to environmental degradation. It is therefore essential that any environmentally responsible institution examine its energy use practices. **LED use also has a peculiar advantage for environment that LED's are not using any Mercury as in the case of CFL's or Fluorescent tubes.**

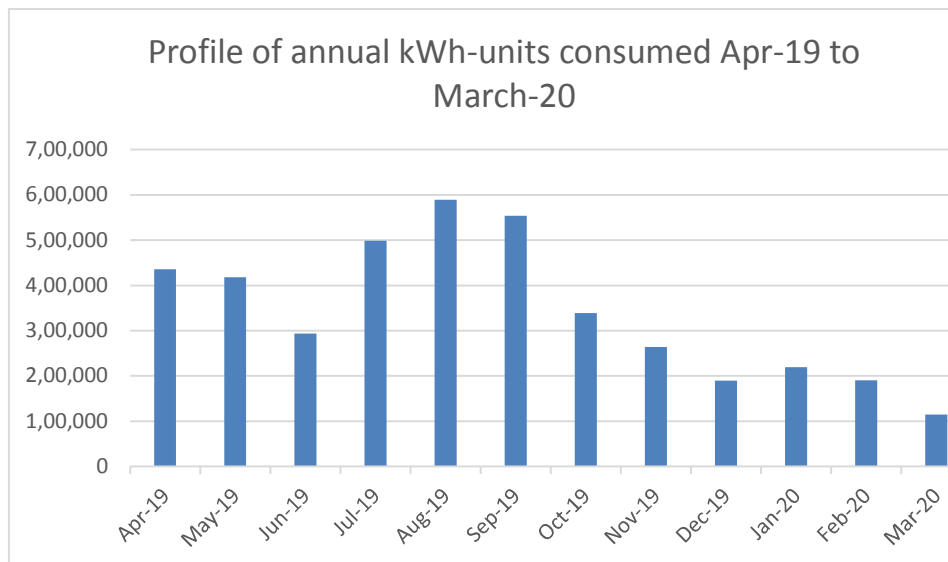
All fluorescent tube lights of and CFL be immediately got replaced with LED fittings for energy use and also elimination of mercury use for lighting system.

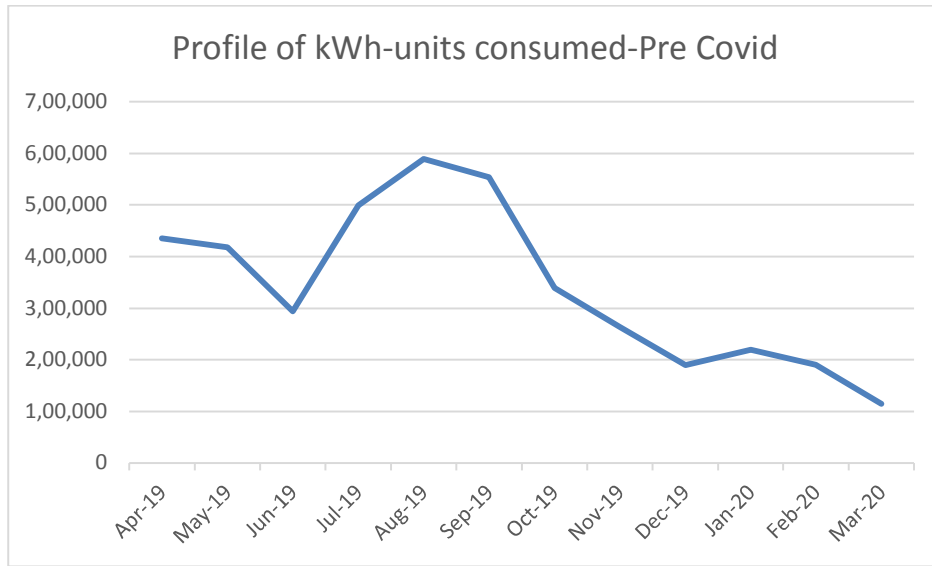
Energy use and Energy performance Index

Energy Performance Index

EPI Calculation-April-19 to March-20 -Pre Covid- Grid Electricity

Month	Consumption-kWh	Total Built up area of campus	Energy Performance Index-EPI-kWh/sq. Mt./annum
Apr-19	4,35,420		
May-19	4,18,460		
Jun-19	2,94,040		
Jul-19	4,98,960		
Aug-19	5,88,960		
Sep-19	5,53,860		
Oct-19	3,38,960		
Nov-19	2,63,880		
Dec-19	1,89,900		
Jan-20	2,19,640		
Feb-20	1,90,780		
Mar-20	1,14,920		
Total	41,07,780	94772	43.34





EPI Calculation-April-21 to March-22 -Pre Covid- Grid Electricity

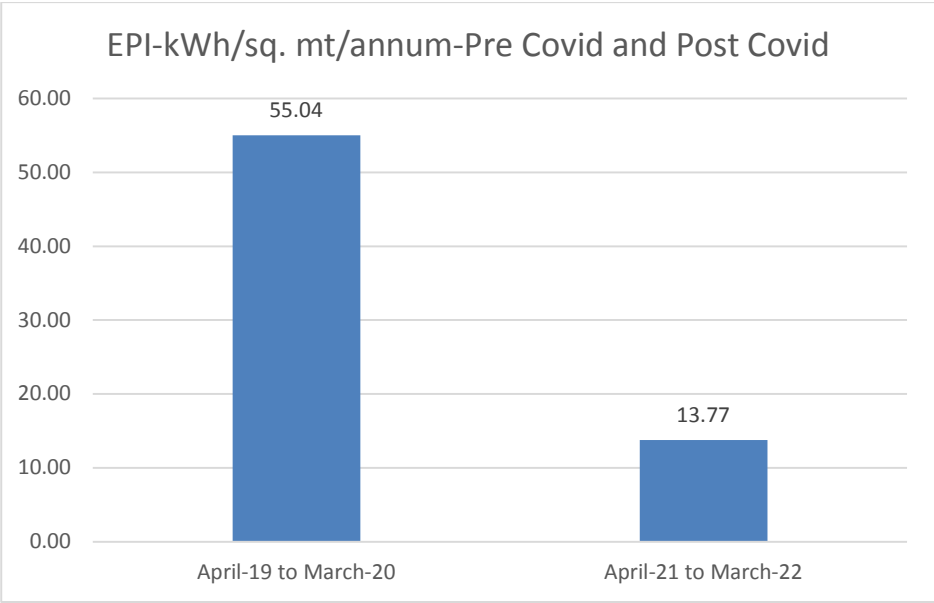
Month	Consumption-kWh	Total Built up area of campus	Energy Performance Index-EPI-kWh/sq. Mt./annum
Apr-21	76180		
May-21	50880		
Jun-21	55800		
Jul-21	70260		
Aug-21	77600		
Sep-21	108400		
Oct-21	95120		
Nov-21	69880		
Dec-21	102340		
Jan-22	86520		
Feb-22	84040		
Mar-22	230640		
Total	1107660	94772	11.69

Annual HSD Consumption-April-2019 to march-2020	
DG Set	Annual consumption-DG set- lts.
DG-1	12241
DG-2	4665
DG-3	44749
DG-4	39199
Total Annual consumption	100854

EPI-Energy Performance Index -April-2019 to march-2020-Pre-Covid			
S.No.	Description	Qty.	Unit
1	Annual Electricity consumption	41,07,780	kWh
2	Annual HSD Consumption	1,00,854	Lts.
3	Specific Gravity of HSD	0.875	
4	Wt. of HSD consumed	88247.25	Kgs.
5	Calorific value of HSD	10800	kCal /kG
6	Converted kWh of HSD consumption	1108221	kWh
7	Total kWh Electricity+ HSD (Annual)	52,16,001.28	kWh
8	Area	94772	Sq.Mts.
9	Energy Performance Index	55.04	kWh/Sq.Mts. / Annum

Annual Electricity consumption-DG Sets-Apr-21 to March-2022	
DG Set	Annual consumption-DG set- lts.
DG-1	6573
DG-2	6109
DG-3	465
DG-4	4810
Total Annual consumption	17957

EPI-Energy Performance Index -April-2021o march-2022-Post-Covid			
S.No.	Description	Qty.	Unit
1	Annual Electricity consumption	11,07,660	kWh
2	Annual HSD Consumption	17,927	Lts.
3	Specific gravity of HSD	0.875	
4	Wt. of HSD consumed	15686.125	Kgs.
5	Calorific value of HSD	10800	kCal/kg
6	Converted kWh of HSD consumption	196989	kWh
7	Total kWh Electricity+ HSD (Annual)	13,04,648.55	kWh
8	Area	94772	Sq. Mts.
9	Energy Performance Index	13.77	kWh/Sq.Mts. / Annum



The difference of EPI is due to non-use of Electricity/DG set due to Covid situation

RENEWABLE ENERGY

There are solar photovoltaic plants installed at roof top totalling to 246 kWp. The generation as per actual is required to be monitored. Actual generation is lower than target generation as depicted below.

Per kWp annual generation for coordinates of university is calculated as under:

My Location MANESAR (India) [Change Location](#) English Español **HELP** **FEEDBACK**

RESOURCE DATA SYSTEM INFO RESULTS

SOLAR RESOURCE DATA

The latitude and longitude of the solar resource data site is shown below, along with the distance between your location and the center of the site grid cell. Use this data unless you have a reason to change it.

Solar resource data site: Lat, Lng: 28.25, 76.85 1,057 mi

Resource Data Map

The blue rectangle on the map indicates the NREL National Solar Radiation Database (NSRDB) grid cell for your location. If you want to use data for a different NSRDB grid cell, double-click the map to move the rectangle. Dragging the rectangle will not move it. If your location is outside the NSRDB area, the map shows pins for the nearest alternate data sites instead of a rectangle: Click a pin to choose the site you want to use. See [Help](#) for details.

Map Satellite

Map data ©2022 2 km

My Location **MANESAR (India)** [» Change Location](#) English Español [HELP](#) [FEEDBACK](#)

RESOURCE DATA **SYSTEM INFO** RESULTS

SYSTEM INFO

Modify the inputs below to run the simulation.

DC System Size (kW): [i](#)

Module Type: [i](#)

Array Type: [i](#)

System Losses (%): [i](#) [Loss Calculator](#)

Tilt (deg): [i](#)

Azimuth (deg): [i](#)

[+ Advanced Parameters](#)

RESTORE DEFAULTS

Draw Your System

Click below to customize your system on a map. (optional)

[Go to resource data](#) [Go to PVWatts results](#)

My Location **MANESAR (India)** [» Change Location](#) English Español [HELP](#) [FEEDBACK](#)

RESOURCE DATA SYSTEM INFO **RESULTS**

RESULTS

[Print Results](#) 1,456 kWh/Year*

Month	Solar Radiation (kWh / m ² / day)	AC Energy (kWh)
January	4.44	103
February	5.60	114
March	6.51	140
April	6.86	140
May	6.44	133
June	5.79	120
July	5.22	116
August	5.48	123
September	5.82	125
October	5.77	128
November	4.87	107
December	4.54	106
Annual	5.61	1,455

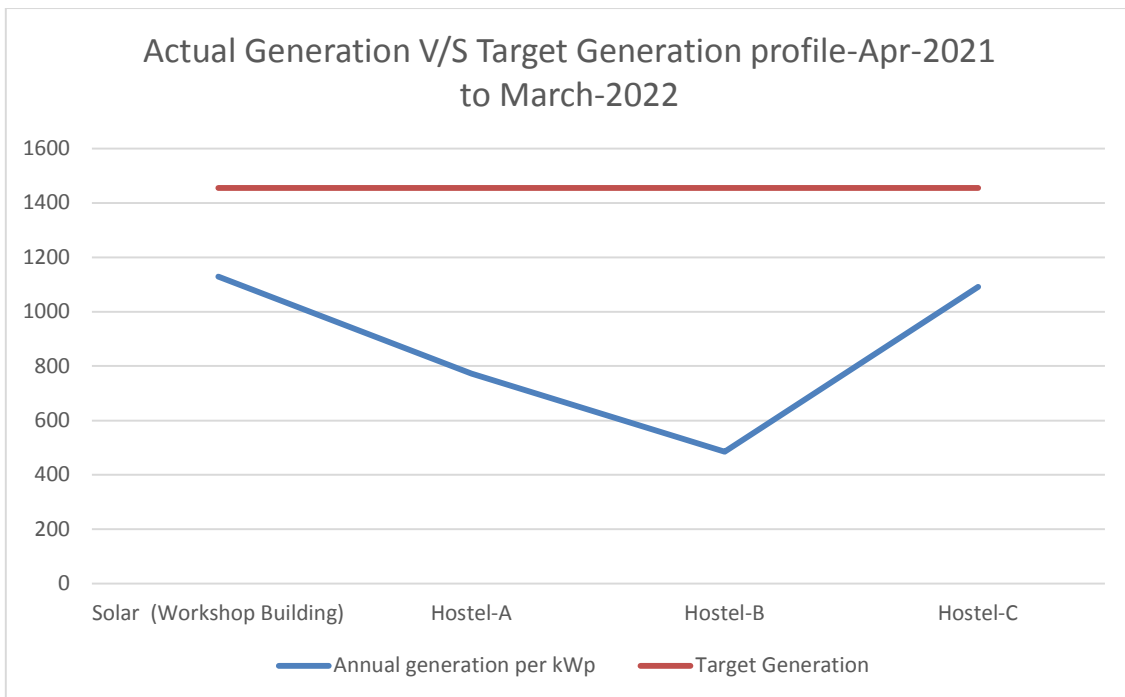
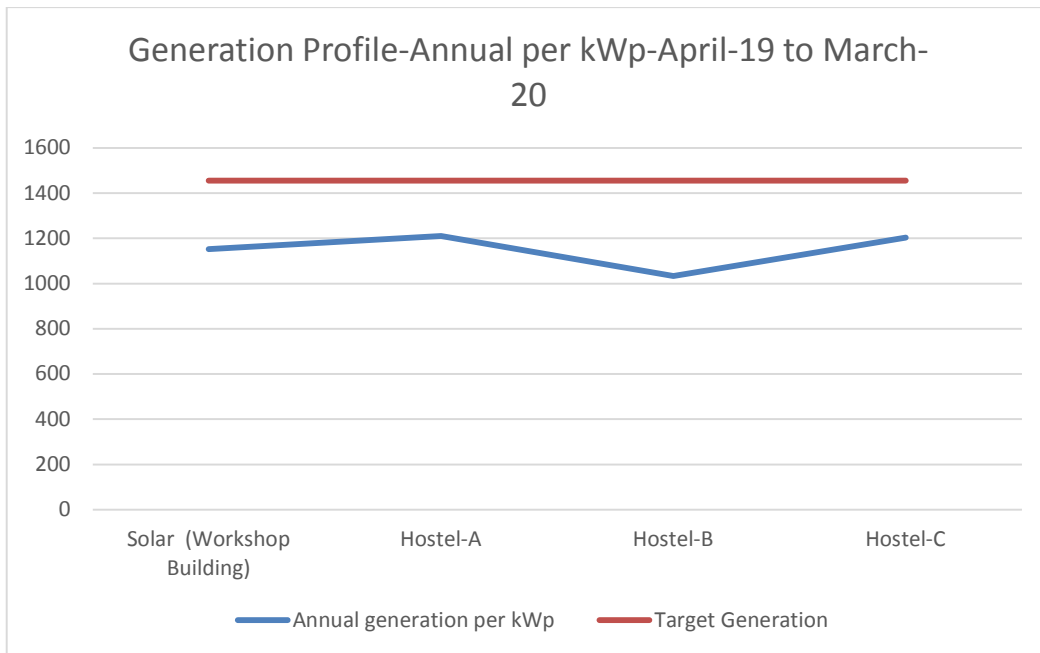
[Go to system info](#)

Generation Data-Solar PV-April-2019 to March-2020				
Solar Plant location	Annual Generations	Size of Plant	Annual generation per kWp	Target Generation
Solar (Workshop Building)	179701	156	1151.92949	1456
Hostel-A	36317	30	1210.56667	1456
Hostel-B	30992	30	1033.06667	1456
Hostel-C	36102	30	1203.4	1456
Total Generation-kWp	283112			

Generation Data-Solar PV-April-2019 to March-2020		
Solar Plant location	Annual generation per kWp	Target Generation
Solar (Workshop Building)	1152	1456
Hostel-A	1211	1456
Hostel-B	1033	1456
Hostel-C	1203	1456

Generation Data-Solar PV-April-2021to March-2022				
Solar Plant location	Annual Generation	Size of Plant	Annual generation per kWp	Target Generation
Solar (Workshop Building)	176188	156	1129.	1456
Hostel-A	23180	30	772	1456
Hostel-B	14567	30	485	1456
Hostel-C	32764	30	1092.	1456
Total Generation	246699			

Generation Data-Solar PV-April-2021to March-2022				
Solar Plant location	Annual generation per kWp	Target Generation	Annual generation per kWp	Target Generation
Solar (Workshop Building)	1129	1456	1129	1456
Hostel-A	773	1456	773	1456
Hostel-B	486	1456	486	1456
Hostel-C	1092	1456	1092	1456
Total Generation	246699			



The generation through solar PV is lower than target generation and is required to be monitored.

Waste Management

BML Munjal University-Sidharawali,Gurugram

Waste Management policy

BML MUNJAL UNIVERSITY™

A **HERO GROUP** INITIATIVE

Policy on Waste Management

BML Munjal University, Gurugram

Ref No: BMU/RO/2022/038 (e), Date: February 04, 2022; Page 01 of 04

Campus: 67th Milestone, NH-8, Sidhrawali, Gurugram, Haryana - 122413
Toll Free No: 1800-103-6888 | info@bmu.edu.in | www.bmu.edu.in

Mentored by: **Imperial College London BUSINESS SCHOOL**

Policy on Waste Management

The university recognises the need for protection of natural environment and incorporates it as an integral part of good institutional practices. To achieve this university shall develop, implement, and sustain an environment management system of which waste management system is essential constituent.

The university will adopt the principles of best environmental practices as reasonably implementable in the delivery of waste management services and ecological initiatives.

The university will implement waste hierarchal approach to reduce, recycle, reuse, and recover waste products to manage its waste responsibility, reduce the volume of waste sent to landfill and maximise use of recycle and reuse where possible.

The university recognises the importance of compliance of waste management rules and regulations as laid down by the Government.

The university requires that all the students, employees and all other making use of the premises comply with the waste management objectives set in the policy and ensure compliance with statutory guidelines.

The action plan shall include but not limited to waste avoidance and minimisation, segregation of waste at source, reuse, and recycling. The policy includes solid waste, E-waste, hazardous waste, and bio-medical waste.

1. Green Initiatives at University Premises

1.1 Green Audit: The university shall make arrangements to undertake a comprehensive green audit of the existing structures and work operations annually to identify, quantify, describe and prioritize framework of environment sustainability in compliance with the applicable regulations, policies and standards. The objective of the green audit is to improve energy and water usage efficiency, better waste management and all-round management and development of campus in eco-friendly manner for sustainable future. The green audit may consist of the following broad points :

- Water Audit – Water balance consisting of sources, consumption and recycling.
- Waste Audit – Inventorisation of municipal solid wastes, hazardous wastes, biomedical wastes and sources thereof, compostable fraction wastes, segregation of wastes, present practice of waste management inside campus.

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- Energy audit – inventorialisation of electrical fittings, fixtures, appliances, machines, etc., energy consumption, recognise energy wastage and leakage points,
- Biodiversity – green cover mapping, tree counting, biodiversity register.

1.2 Green Master Plan: Since there is need to augment the infrastructure on the campus, it becomes quality critical to ensure that the master plan in-line with environment norms of GEM (ASSOCHAN)/IGBO/GRIHA. The upcoming infrastructure and facilities as well as addition to the existing structure and facilities should be developed with a focus on energy efficiency, minimizing waste generation, optimizing power, consumption of power, water and other supplies.

1.3 Energy Conservation: The university will do maximum efforts to reduce energy consumption and use renewable sources of energy as far as possible.

- The points of energy wastage and leakage should be identified and appropriate steps to be taken to set a target of attaining significant energy saving by appropriate modification and adopting best practices.
- The fluorescent lights may be replaced with LED in the existing buildings and streetlights across the campus.
- Use of renewable sources of energy should be increased either by installing solar panels on rooftops as well as suitable open places or by other suitable means.

1.4 Water Management Plan for Optimum Usage of Water: The university shall adopt a sustainable water management plan to prevent wastage of water as well as recycle and reuse wastewater in the university campus.

- Reduction of potable water usage by efficient monitoring, using efficient fixtures and restricting usage for irrigation.
- Installation of rainwater harvesting units at suitable location in campus.
- Use of sustainable horticulture practices.

1.5 Reduction of Carbon Footprints: The university shall do possible efforts to reduce carbon footprints from university. A methodology of calculating the carbon footprints of the whole institute should be developed and improvement should be monitored.

- Tree plantation drives on and off campus should be initiated to reduce the carbon footprints.
- Provisions should be made to motivate the staff and students for using bicycle, public transport and/or carpool at least once a week for routine transportation.

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1.6 Plastic Free Campus (avoid using single use plastic): The university shall make provisions to ban the use of single use of plastic at university premises. Various awareness programmes may be initiated to motivate the staff, student and people in surrounding areas to phaseout single use plastic from their schedule.

1.7 Biodiversity, Plantation and Landscaping of Campus: Proper documentation of the flora and fauna at university premises should be done with the help of experts. Further plantation should be done in a planned manner in experts' advice to add both green cover and beauty to the campus. Landscaping of different sizes may be done at suitable open spaces with flowering plants, grass and accessories targeting towards the most beautiful green campuses in surrounding.

1.8 Environmental Stewardship Awards: The university shall announce environment Stewardship Awards from time to time to recognize laudable performances of different departments and communities of the campus for their contribution and implementation of waste management and Eco Initiatives.

1.9 Sensitization Awareness and Capacity Building Programs: The university shall organize various workshops/seminars/dialogues/talks/creative actions/research programmes in order to sensitize the students, staff and community in surrounding about global and local environmental issues for moving towards a resilient future.



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BML Munjal University, Gurugram

Auditing for Waste Management

Pollution from waste is aesthetically unpleasing and results in large amounts of litter in our communities which can cause health problems. Plastic bags and discarded ropes and strings can be very dangerous to birds and other animals.

This indicator addresses waste production and disposal, plastic waste, paper waste, food waste, and recycling Solid waste can be divided into two categories:

General waste and hazardous waste. General wastes include what is usually thrown away in schools such as garbage, paper, tins and glass bottles. Hazardous waste is waste that is likely to be a threat to health or the environment like cleaning chemicals and petrol. Unscientific landfills may contain harmful contaminants that leach into soil and water supplies, and produce greenhouse gases contributing to global climate change.

Furthermore, solid waste often includes wasted material resources that could otherwise be channelled into better service through recycling, repair, and reuse. Thus, the minimization of solid waste is essential to a sustainable campus. The auditor diagnoses the prevailing waste disposal policies and suggests the best way to combat the problems. It is therefore essential that any environmentally responsible institution examine its waste processing practices.

Solid waste: Paper is collected and disposed of through sale to recyclers. 620 Kilograms of waste paper has been sold for re cycling that was collected in a period of two years

E-Waste: The old computers are sold back to vendor which is again put to beneficial use by repairing and it is good sustainable practice. Material not reusable is re cycled as per extant guidelines.

Key Boards and mouse which become un-serviceable are also disposed of. It is required to be ensured that vendor dealing with E-waste is authorised to collect E-waste.

Hazardous Waste: Lead Acid Cell Batteries are returned to Vendors for re-cycling of lead and other constituents.

Fluorescent tubes are handed over to Junk dealer who in turn should send them to Local re-cycling units. Storage of Fluorescent tubes in university should be as per recommended practice.

WASTE- Types of waste generated in campus

- E-waste-Yes-Handled as per extant guidelines and rules. E-waste is handed over to authorised re-cycler-M/s Bharat Oil and Waste management Ltd..

E-Waste disposal

The record of use and handling of E-waste is maintained, while disposing/Auction or sale of E-waste credential of purchaser is documented and vendor is authorised for collection and ensuring re cycling of E-waste as per extant guidelines.

➤ **Hazardous waste (toxic)-yes**

For safe handling and management of hazardous waste in an environmentally sound manner, Govt. of India has notified the Hazardous Waste (Management & Handling) Rules, 1989, under the Environment (Protection) Act, 1986. However, these Rules were suppressed with re notification of the Hazardous Wastes (Management, Handling and Trans boundary Movement) Rules, 2008. Under the said Rules, hazardous waste has been defined as those wastes which by reason of any of its physical, chemical, reactive, toxic, flammable, explosive or corrosive characteristics causes danger or is likely to cause danger to health or environment, whether alone or when in contact with other wastes or substances, and shall include wastes as specified in Schedules of the Rules.

- Solid waste-yes-Extra waste removed and disposed in municipal waste collection points
- Dry leaves-Yes-Used in university for making manure/compost
- Canteen waste-yes-Used for Compost in university
- Liquid waste-yes-Preserved and used in university
- Glass-Yes-sent for recycling
- Unused equipment-yes-Returned to vendors through sale
- Plastic waste-Yes-Segregated and removed

Canteen Waste-Handling practice

Food Waste - Standee for Preventing Food Wastage is placed in D Cafe Mess, Food wastage graph as well as the daily quantity chart is also displayed in D Cafe Mess. (Pics attached)

1. Cafeteria
2. Canteen
3. Mess

Zero Food wastage week was celebrated in University in April-2022



Auditing for Green Campus Management

Unfortunately, biodiversity is facing serious threats from habitat loss, pollution, over consumption and invasive species. Species are disappearing at an alarming rate and each loss affects nature's delicate balance and our quality of life. Without this variability in the living world, ecological systems and functions would break down, with detrimental consequences for all forms of life, including human beings. Newly planted and existing trees decrease the amount of carbon dioxide in the atmosphere. Trees play an important ecological role within the urban environment, as well as support improved public health and provide aesthetic benefits to cities. In one year, a single mature tree will absorb up to 48 pounds of carbon dioxide from the atmosphere, and release it as oxygen. The amount of oxygen that a single tree produces is enough to provide one day's supply of oxygen for people. So, while you are busy studying and working on earning those good grades, all the trees on campus are also working hard to make the air cleaner for us. Trees on our campus impact our mental health as well; studies have shown that trees greatly reduce stress, which a huge deal is considering many students are under some amount of stress.

Health Audit:

1. There is a regular medical officer in medical centre in university.
2. There is no specific environment related disease noticed in students or faculty members arising out of their presence in University campus.
3. There were 1026 patients reported for routine illnesses.

2021	Expenditure	Total patients	Cough & cold	Diarrhoea	Skin problems	Other patient	Specialist visit and camps	Advisory	Hygiene check of eating place
January	6728	85	20	7	5	53	NIL	NIL	NIL
February	2739	64	17	5	6	36	Covid test camp 26.2.2021	NIL	NIL
March	12349	132	9	3	8	112	Covid test camp 6.3.2021	NIL	NIL
April	7270.5	111	16	4	10	81	Covid vaccination camp 12.4.2021	NIL	NIL
May	5728.7	31	4	0	0	27	NIL	NIL	NIL
June	2097	54	6	1	3	44	NIL	NIL	NIL
July	1331	51	0	3	3	45	Covid vaccination camp. 26.07.2021	NIL	NIL
August	2527.34	61	10	2	5	44	Covid vaccination Camp. 27.08.2021	NIL	NIL
September	4343.16	77	18	0	1	58	NIL	NIL	NIL
October	4166.21	72	21	0	1	50	Covid Test camp. 04.10.2021	Prevention Dengue and	NIL
November	1560.11	66	25	0	2	39	Covid Test camp.15.11.2021	NIL	NIL
December	6307.07	222	90	11	1	120	NIL	Prevention from Cold	NIL

Total number of patients Jan 21 to Dec 21 = 1026

Noise Pollution

1. Sounds of Normal Conversations:

Sound Intensity: 40-60 dB

Health Hazard: Sound less than 80 dB is safe for the ear.

2. Sounds emanating from Tape recorders or an Orchestra:

Sound Intensity: 70 dB

Health Hazard: It is safe for ear.

3. Sounds of Heavy Traffic:

Sound Intensity: 90 dB

Health Hazard: Constant exposure to sound greater than 80 dB causes temporary hearing loss and if they are not treated immediately, causes permanent impairment.

4. Sounds of Pneumatic drills and other machines:

Sound Intensity: 100 dB

Health Hazard: Constant exposure causes temporary hearing loss and if they are not treated immediately, causes permanent impairment.

5. Sounds of Aircraft engine:

Sound Intensity: 100-200 dB

Health Hazard: Higher noise level of 160 dB cause total deafness, rupturing eardrums, damaging inner ear. It also causes high blood pressure, ulcer in stomach, palpitation, nervous problems, irritation, anger, and affects pregnant women's embryo.

6. Sounds of Rockets during Take-off:

Sound Intensity: 200 dB

Health Hazard: It is dangerously causing total deafness by rupturing the eardrums and damaging the inner ear. It also causes high blood pressure, ulcer in stomach, palpitation, nervous problems, irritation, anger, and affects pregnant women's embryo.

DECIBEL MEASUREMENT - BML Munjal University

S No.	Location	Recorded Decibel level	Remarks
1	Mr. Jamwal Office	58	Satisfactory as per exposure time limit
2	D-Block Cafeteria	68.3	Satisfactory as per exposure time limit
3	Faculty Housing G. Floor Corridor	57.5	Satisfactory as per exposure time limit
4	Faculty Housing G. Floor Creche	65.3	Satisfactory as per exposure time limit
5	Faculty Housing G. Floor Gym	61	Satisfactory as per exposure time limit
6	Laundry Hall	70.1	Satisfactory as per exposure time limit
7	Near STP	56.3	Satisfactory as per exposure time limit
8	Faculty Housing G. Floor near STP	57.8	Satisfactory as per exposure time limit
9	E-2 Cafeteria G. Floor	50.6	Satisfactory as per exposure time limit
10	E-2 MP Hall	48.4	Satisfactory as per exposure time limit
11	E-2 Np 212	64.3	Satisfactory as per exposure time limit
12	Gateway - A	73	Satisfactory as per exposure time limit
13	Gateway - A Photocopy Room	69.2	Satisfactory as per exposure time limit
14	Gateway - A Admin Office	57.4	Satisfactory as per exposure time limit
15	Gateway - A 307	71.2	Satisfactory as per exposure time limit
16	Gateway - A 304	68.3	Satisfactory as per exposure time limit
17	IT Lab	65.3	Satisfactory as per exposure time limit
18	Library - entry	49.8	Satisfactory as per exposure time limit
19	Library - near cubicles	50.8	Satisfactory as per exposure time limit
20	Library - inside cubicles	41.4	Satisfactory as per exposure time limit
21	Workshop Main Hall	73.4	Satisfactory as per exposure time limit
23	Cafeteria near Library	70.2	Satisfactory as per exposure time limit

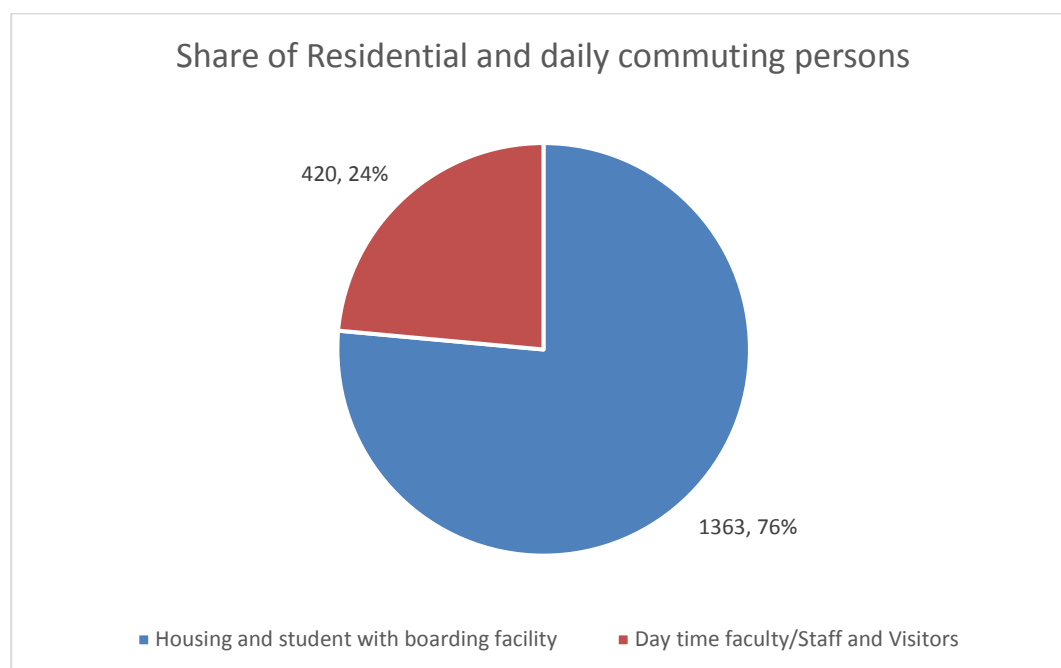
24	Faculty lounge	68.7	Satisfactory as per exposure time limit
25	D Block	60.5	Satisfactory as per exposure time limit
26	Gateway - B corridor G. Floor	58.7	Satisfactory as per exposure time limit
27	Gateway - B Induction Room	56.4	Satisfactory as per exposure time limit
28	T-113	54.3	Satisfactory as per exposure time limit
29	Boys Common Room	56.7	Satisfactory as per exposure time limit

Sound/Decibel level measured is satisfactory and there is no adverse impact of the same on occupants.

NBC-2016 standards of exposure to sound level is annexed as per Annexure-J

TRANSPORTATION PRACTICES

The university is hiring buses for commuting of students and staff of university.



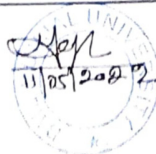
Out of total strength of 1783 of students and staff of university, 76 % are staying in University premises and only 24 % are commuting daily from their residence to University.

Observation and Recommendation

1. It is appreciable that University is using three nos. Battery vehicle for internal transportation.
2. Daily commuting Teaching and Non-Teaching faculty is also sensitized for using pooled transportation for working towards sustainability and reducing resource use and encouragement of resource conservation.
3. Fuel consumption is monitored for University owned vehicles. (Document attached for reference).
4. Regular servicing is got done for University owned vehicles. (Document attached for reference).
5. For outsourced vehicles to the extent possible empty trips of buses should be made with parking arrangement from the starting point.
6. Transport vehicles purchased in future should be purchased with consideration of life cycle cost. (Keeping in consideration fuel efficiency of vehicle purchased.).
7. Small vehicle should also be considered for purchase at the time of replacement for travel of one or two persons as per practical feasibility.
8. It is recommended that charging station in common parking be provided for encouragement of e-vehicles by students and staff members.
9. The BML Munjal university is located on National highway and public transport for interstate travel is available from nearby locations, thus saving additional fuel.

Day scholar Transport user

Sr No	Student Name
1	Aryan Siddh
2	Aman Badhan
3	Prerna N Bhatnagar
4	Himanshu Neb Kapoor
5	Veronika Sehwat
6	Zainab
7	Kakul Singh
8	Khushi
9	Lavanya Bhatia
10	Arnav Pratap Singh
11	Aaryan Vj
12	Siddharth Singh Sud
13	Kunal Kataria
14	Manan Chadha
15	Madhur Mehta
16	Vaibhav Joon
17	Monika Raghav
18	Vasudev Raghav
19	Anish Borkar
20	Vardaan
21	lavanya Anand
22	Akshita Singh
23	Ketan Thakur
24	Amaan Khan
25	Shreya Rustagi
26	Raghav Raj Sobti
27	Armaan Bali
28	Sidharth Aggarwal
29	Ashi Jain
30	Ridit Jain
31	Biswa Ranjan Jena
32	Sunishansh Udar
33	Lakshay Yadav
34	Laghima Bhagat
35	Monika Mogan



Tempo - II (Morning)		Saf		
No.	Date	Name	Amount	Remarks
1	02/05/22	Abid	40	T 1016
2	"	Arjen	40	T 901
3	"	Siddhant	40	B-066
4	"	Vidhar	40	T 812
5	"	Janvi	40	D 211
Total = 40x5 = 200				
Tempo - II (Evening)		IFCC to BNU		
1	02/05/22	Vidhar	40	T 812
2	"	Janvi	40	D 211
3	"	Yogesh	40	T 5907
4	"	SAMAKSH	40	T 706
5	"	Raghav	40	T 706
6	"	Karan	40	C 467
7	"	Hashi	40	C 434
Total = 40x7 = 280				
Tempo - II (Evening)		IFCC to BNU		
1	02/05/22	Bhavya	40	C-437
2	"	Adhyan	40	T-712
Total = 40x2 = 80				

20

Tempo I (Morning) BMU to IFFCO Sun.
08/05/22

Slk	S.N	Date	Name	Amount	Rate	Perk
	1.	08/05/22	Aviral Bajaj	40		13
	2.	"	Harshit Gupta	40		23
	3	"	Korn. Goyal.	40		12
	4	"	Pranav Jaiswal.	40		15
	5	"	Krish.	40		84
	6	"	Prakash	40		84
U	Total = 40 x 06 = 240					

SUN: Tempo NO - OII (Evening) IFFCO to BMU 8/5/22

	1	08/05/22	Ashutosh	40		T-412
	2	"	Ayush	40		T-915
	3	"	Kriti Banka	40		C-546-5A
	(4)	"	Rajson (24-4-22)	40		T-813 (All Ready Day)
	5	"	Harshit	40		B-223
	6	"	Abhisal Bajaj	40		T-813
BMU.	7	"	Krish	40		T-814
	8	"	Prakash	40		T-814
	9	"	Kash	40		T-312
	Total = 8 x 40 = 320					

Tempo No. 02 (Morning) B.M.U TO IFFCO Sun.

Sl. No.	Date	Name	Amount	DATE 08/05/22 PAGE 1 Remark
1	08/05/22	Siya	40	C-433
2	"	Pohut Gour	40	B-213
3	"	Sneha Sinha	40	C-121
4	"	Vinayak	40	T-813
5	"	Jansi	40	D-211
6	"	Ananya	40	D-212
7	"	Vibhor	40	T-812
Total = 07 x 40			= 280/Rs	

SUN. Tempo NO - I. (Evening) IFFCO to B.M.U. 8/5/22				
1	08/05/22	Rahul	40	B-213
2	"	Sneha	40	E-135 B
3	"	Yash	40	T-905
4	"	Bhavya	40	A-025
5	"	Harshit	40	B-133
6	"	Ayush	40	T-810
7	"	Mihika	40	C-045-B
8	"	Shishank	40	T-901
9	"	Siya	40	C-433
10	"	Vinayak	40	T-813
11	"	Jansi	40	D-211
12	"	Bhavya	40	T-812
13	"	Ananya	40	D-212
Total = 13 x 40 =			520	

VEHICLE FUEL CONSUMPTION DATA FOR UNIVERSITY OWNED VEHICLES

Innova HR 26 BY 3773					
Date	Fuel	Km	Difference	Average	Monthly Average
4/1/2022	40 ltr	270766			
4/6/2022	45 ltr	271257	491	10.98	
4/9/2022	15 ltr	271498	241	16.00	
4/10/2022	30 ltr	271836	338	11.20	
4/12/2022	35 ltr	272260	424	12.10	
4/15/2022	40 ltr	272764	504	12.60	
4/18/2022	35 ltr	273163	399	11.40	
4/20/2022	35 ltr	273755	592	16.91	
4/23/2022	30 ltr	274227	472	15.73	
4/27/2022	40 ltr	274606	379	9.48	
4/30/2022	30 ltr	275029	423	14.10	
					13.05

Innova HR 26 CA 4280					
Date	Fuel	Km	Difference	Average	Monthly Average
4/2/2022	40 ltr	273711			
4/4/2022	40 ltr	274196	485	12.13	
4/4/2022	10.03 ltr	274286	90	8.97	
4/5/2022	45 ltr	274861	575	12.78	
4/27/2022	40 ltr	275318	457	11.43	
4/29/2022	45 ltr	275875	557	12.38	
					11.53

Ambulance HR 26 CV 5619					
Date	Fuel	Km	Difference	Average	Monthly Average
4/1/2022	25 ltr	38832			
4/10/2022	25 ltr	39116	284	11.36	
					11.36

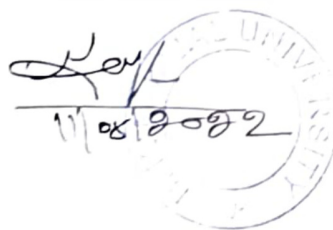
[Handwritten Signature]
11/05/2022

UNIVERSITY OWNED TRANSPORT VEHICLE RECORD

VEHICLE SERVICE RECORD			
Innova HR 26 BY 3773			
Date of Service	Km	Difference	Present Reading
9/28/2021	251397		
2/22/2022	265922	14525	
			276262

Innova HR 26 CA 4280			
Date of Service	Km	Difference	Present Reading
10/25/2021	254648		
2/28/2022	267940	13292	
			277762

Ambulance HR 26 CV 5619			
Date of Service	Km	Difference	Present Reading
10/24/2021	37776		
			39326



 11/05/2022


PROCUREMENT PRACTICES TO BE FOLLOWED

Procurement team is required to be made aware regarding procurement of goods and services that are sustainable. The sensitization is required for all purchases in a way that optimized utilisation of natural resources is possible.

- 1 Paper with Recycle content
2. AC's using refrigerant with Zero ODP Refrigerant
3. Environment friendly Housekeeping Chemicals
4. Paints, Adhesives, sealants with recommended percentage of volatile organic compound.


Management of use of paper

Paper use and printing goals of BML Munjal University



BML MUNJAL UNIVERSITY™

A **HERO GROUP** INITIATIVE




BML MUNJAL UNIVERSITY

Paper Use and Printing Goals

BML Munjal University, Gurugram

Adarsh



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Campus: 67th Milestone, NH-8, Sidhrawali, Gurugram, Haryana - 122413
Toll Free No: 1800-103-6888 | info@bmu.edu.in | www.bmu.edu.in

Mentored by: **Imperial College London BUSINESS SCHOOL**



**BML MUNJAL
UNIVERSITY™**

A HERO GROUP INITIATIVE

Paper Use and Printing Goals

1. Purchase paper with re-cycled content.
2. Distribute memos, reports, purchase orders and brochures electronically.
3. Encourage re-use of scrap paper for printing and note taking.
4. Print on letterhead paper only as needed; use electronic letterhead whenever possible.
5. Network all printing to shared copiers/printers and eliminate stand-alone printers where possible.
6. Discourage reckless printing and copying by requiring use of an account/password.
7. Promote a 'Think before you Print' culture.
8. Desktop drafting and editing of documents.
9. Reduce default margin settings.
10. Use toner-saving fonts (e.g., Eco Font) or smaller-sized fonts.
11. Single-spaced formatting on all documents - Include the "think before you print" message in the "green" PR Campaign.
12. Encourage increased use of Blackboard/white board as a paper-free resource.
13. Training and Adherence - Distribute (an) email(s) with detailed instructions, including "screen shots" on how to change settings on computers, copiers, faxes, printers.
14. Establish duplex (two-sided) copying and printing as standard.
15. Phase out meeting handouts and distribute/project them electronically (this needs to be better defined).
16. Digitize forms and administrative processes. Continue replacing paper-based processes and administration.
17. Double-sided student assignments as standard (with electronic submission, grading & return).
18. Faxes: phase out fax machines, utilize computer faxing, end use of fax cover pages.
19. Increase electronic archiving and record keeping (this needs to be better defined and targets identified; work with Purchasing, Personnel, Academic Department and/or Student Records to be determined).



Registrar
BML Munjal University, Gurugram

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For reduction of use of paper, paperless work has been adopted in all offices and laboratories. The following initiatives are already in vogue in functioning of university:

1. Paperless work has been adopted by teachers and staff members
2. Teachers share data among students and staff
3. WhatsApp groups are created for communication.
4. Applications like LMS, Shiksha Setu, google forms, Cisco Webex are used to share data and gathering of information (assessments, tests, assignments, notes, projects, ppt etc.
5. Online e-content has been prepared by university students.
6. Staff members attended training to use and develop e-content.

PAPER USE AND PRINTING GOALS

1. There are efforts already directed through use of E-Books for reducing the use of paper.
2. There are instructions to staff and student to resort to printing only if it is absolutely unavoidable.
3. Papers should be purchased that have recycled content.
4. Paper use and printing goals are already circulated by University management is followed by students and staff of University.

E-Library

E-books v/s Traditional books data and year wise history to moving from traditional to E-system.

The record of Library activities is given here under:

Present Subscriptions for E-Books

S.No.	Name	School / Department	Schools	Duration	Remarks
1	EBSCO International, Online Database (IEEE ASPP)	School of Engineering	SOET	(1st Oct 2021 to 31st March 2022)	Usage Report Attached
2	EBSCO host - Business Source Elite	School of Management	SOM	(1st Oct 2021 to 31st March 2022)	Usage Report Attached
3	CMIE	School of Management	SOM	Recently subscribed	Recently subscribed
4	Eromonitor	School of Management	SOM	Recently subscribed	Recently subscribed
5	Lexis Nexis	School of Law	SOL	(1st Oct 2021 to 31st March 2022)	Usage Report Attached
6	AIR Infotech services	School of Law	SOL	It's a Mandory Subscription	It's a Mandory Subscription
7	Manupatra e-database	School of Law	SOL	(1st Oct 2021 to 31st March 2022)	Usage Report Attached
8	SCC Online Platinum Plus with HeinOnline	School of Law	SOL		Usage Report Attached
9	Press Reader	All	All		Usage Report Attached
10	DELNET	Library	Library	21 March 2021-20 March 2022	Since it's a IP Based Usage report is not attached

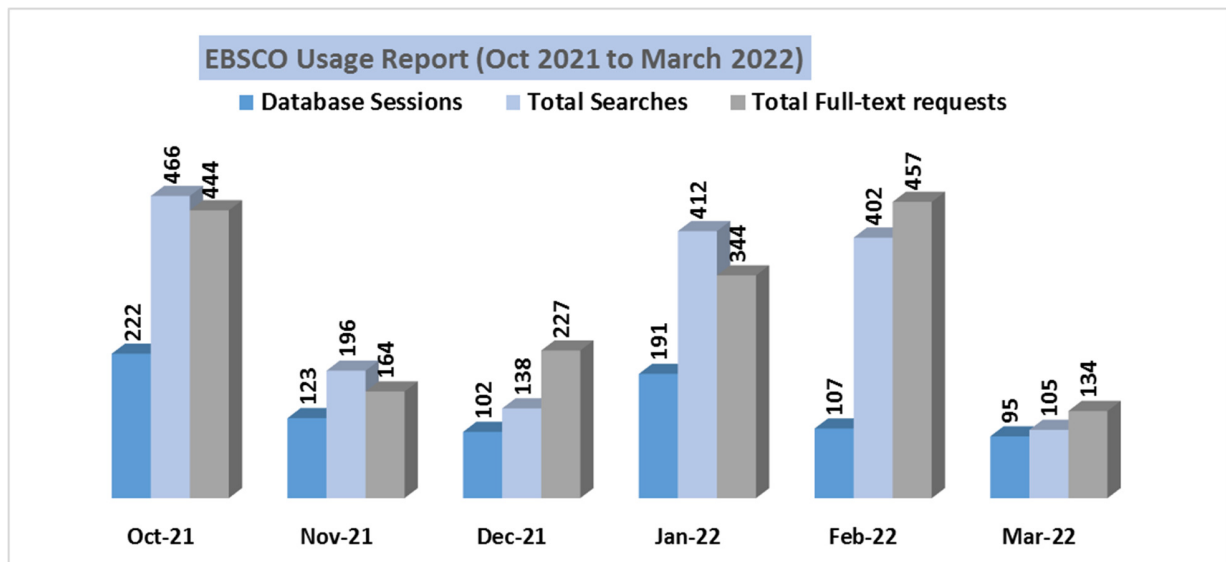
Quotations for e-books, e-newspapers & e-magazines							
S.No	Publication	Subject	School	Cost	No. of Titles	Subscription Period	Remark
1	Pearson	Applied Science & Engineering	SOET	51,29,168.00	438	Perpetual for 7 Years on Cloud	Pick and Choose available
2	Pearson	Management	SOM	13,10,339.00	170	Perpetual for 7 Years on Cloud	Pick and Choose available
3	Oxford University Press	Engineering	SOET	14,35,446.00	101	Perpetual for 7 Years on Cloud	Pick and Choose available
4	Oxford University Press	Business & Management	SOM	9,28,566.00	61	Perpetual for 7 Years on Cloud	Pick and Choose available
5	ProQuest	Ebook Central Academic Complete	ALL	3,96,795.00	2,00,000+ Ebooks from 750+ Publishers	One year	
6	EBSCO	EBSCO: eBook Academic Collection	ALL	2,55,082.52	2,21,000 e-books	One year	https://www.ebsco.com/sites/g/files/abnos191/files/acquiadam-assets/EBSCO-eBooks-Academic

List of Details of all subscribed E-Database 2022-2023								
S.No.	Name	School / Department	Budget Head	PO No.	Bill No.	Subscription Period	Amount	Renewal Date
1	EBSCO International, Online Database (IEEE ASPP)	School of Engineering	SOET	BML\21\641	1/21-22/Jan-01	Jan 2022- Dec 2022	\$ 7260	Dec-2022
2	EBSCO host - Business Source Elite	School of Management	SOM	BML\21\269	E/21-22/Sep-00	Aug 2021- July 2022	3,02,323	Aug-2022
3	CMIE	School of Management	SOM	BML\21\287	11880/07-09-20	Sep 2021-27 Jul 2022	4,96,726	Sep-2022
4	Eromonitor	School of Management	SOM	BML/22/953	INV00035785	01/04/2022-31-03-2023	\$ 6,300.00	Mar-2023
5	Lexis Nexis	School of Law	SOL	BML/20/89	IP003484/8-6-20	24 July 2020-25 July 2022	5,80,017.20	July-2022
6	AIR Infotech services	School of Law	SOL	BML/21/592	AIS/2022/013	Jan 2022-Dec 2022	88264.00	Jan-2023
7	Manupatra e-database	School of Law	SOL	BML/21/357	MANU10213004	Nov 2021-Oct 2022	118000.00	Oct-2022
8	SCC Online Platinum Plus with HeinOnline	School of Law	SOL	BML/22/923	Pro. Inv. No.:2022/7921 D Dt. 11.02.2022	1 April 2022-31 March 2023	259000.00	Mar-2023
9	Press Reader	All	All	BML/22/756	RSPL/21-22/	9 Feb 2022-8 Feb 2023	294906.00	Feb- 2023
10	DELNET	Library	Library	BML/22/840	2022/50942	21 March 2021- 20 March 2022	13,570.00	Mar-2023

There is constant endeavour to promote use of E-Books which is a very positive effort.

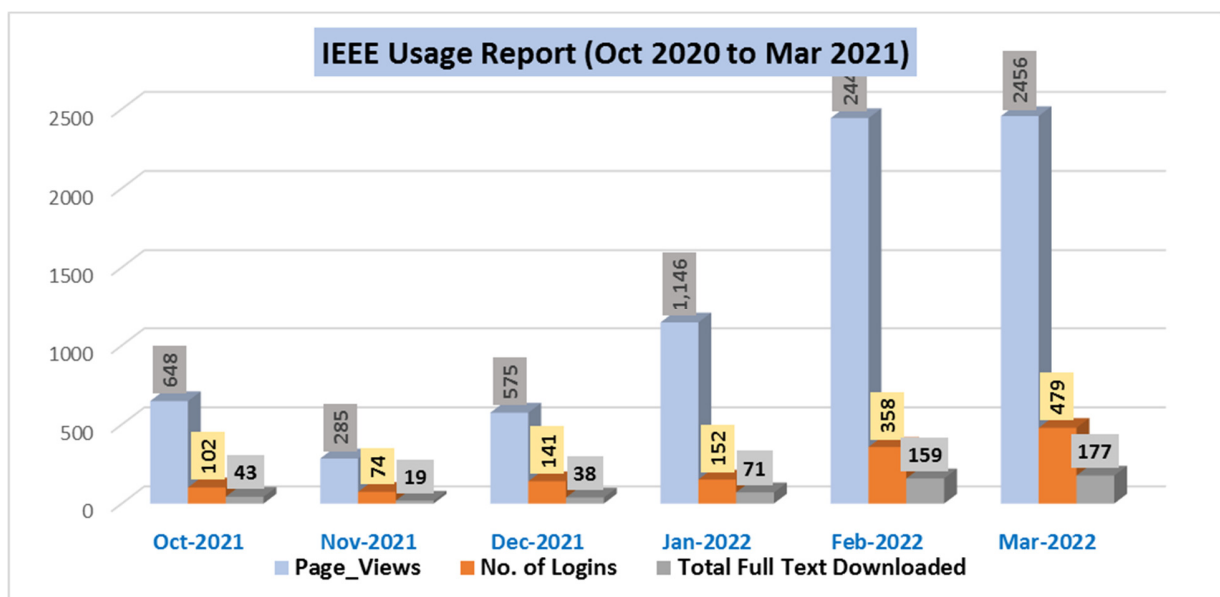
E-Books -Usage Report

EBSCO- Business Source Elite Usage Report (1st Oct 2021 to 31st March 2022)					
Year	Month	Database Sessions	Total Searches	Total Full-text requests	Total
2022	Mar-22	95	105	134	334
2022	Feb-22	107	402	457	966
2022	Jan-22	191	412	344	947
2021	Dec-21	102	138	227	467
2021	Nov-21	123	196	164	483
2021	Oct-21	222	466	444	1132
Totals		840	1719	1770	4329
Percentage		19.404019	39.7089397	40.88704089	100

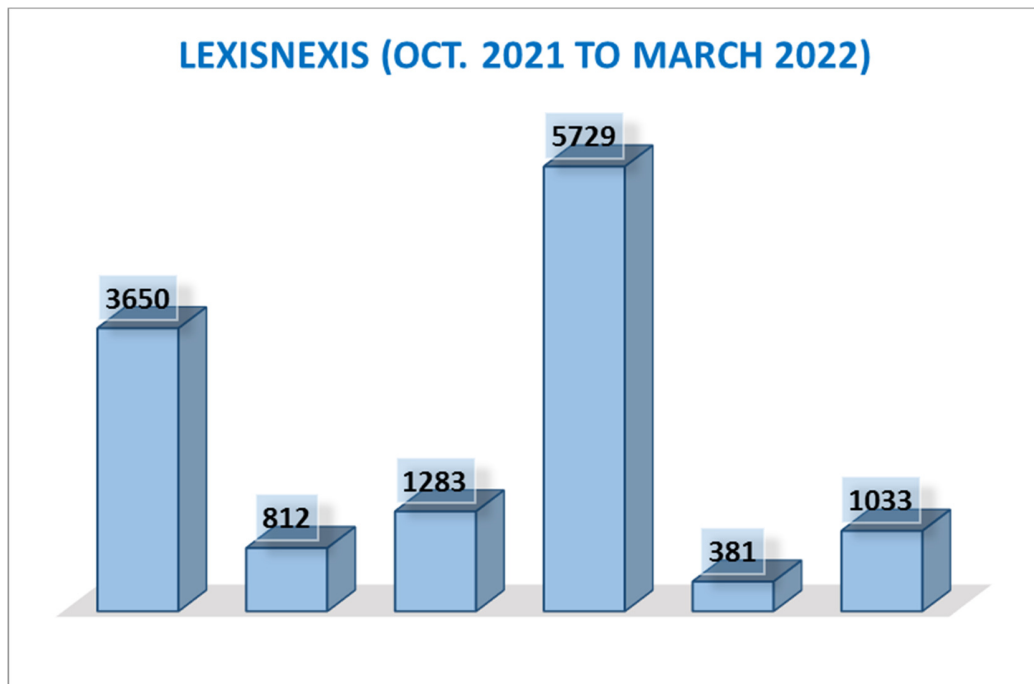


IEEE Usage Report (1st Oct 2021 to 31st March 2021)

User_Activity	Page_Views	No. of Logins	Total Full Text Downloaded	Total
Oct-2021	648	102	43	793
Nov-2021	285	74	19	378
Dec-2021	575	141	38	754
Jan-2022	1,146	152	71	1369
Feb-2022	2443	358	159	2960
Mar-2022	2456	479	177	3112
Total Reporting Period	8,227	1439	609	10275



Lexis Nexis usage report (Oct 2021- March 2022)					
Oct	Nov	Dec	Jan	Feb	Mar
3650	812	1283	5729	381	1033



USAGE REPORT-MANUPATRA (Oct. 2021 to March 2022)								
	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Total	Percentage
Total Logins	65	70	47	50	72	100	404	26.54
Total Searches	124	142	54	120	78	150	668	43.88
Total Docs	90	80	56	88	57	79	450	29.56
Total Usage	279	292	157	258	207	329	1522	

Hein Online Platinum					
Usage Report of BML - Jan 1, 2021 to Dec 31, 2021					
Month	Hits	Articles	Visits	Page Views	Searches
2021-01					
2021-02					
2021-03	675	65	23	62	43
2021-04	689	76	31	57	63
2021-05	612	65	24	25	57
2021-06	520	74	22	28	52
2021-07	367	48	18	12	33
2021-08	224	25	20	0	34
2021-09	219	31	14	10	19
2021-10	12	0	5	0	0
2021-11	20	0	6	0	0
2021-12	43	6	8	0	1
Total	3,381	390	171	194	302

Hein Online Platinum					
Usage Report of BML - JAN 1, 2022 to Dec 31, 2022					
Month	Hits	Articles	Visits	Page Views	Searches
2022-01	209	30	8	2	15
2022-02	82	14	10	3	6
2022-03	417	72	39	14	15
2022-04	382	50	26	15	29
Total	1,090	166	83	34	65

SCC Online Platinum Plus			
Usage Report of BML Munjal - JAN 1, 2021 to Dec 31, 2021			
Month/Year	Logins	Searches	Downloads
Jan-21	0	0	0
Feb-21	0	0	0
Mar-21	7	11	0
Apr-21	0	0	0
May-21	0	0	0
Jun-21	0	0	0
Jul-21	0	0	0
Aug-21	0	0	0
Sep-21	0	0	0
Oct-21	0	0	0
Nov-21	1	2	0
Dec-21	2	2	0
Total IP Access	10	15	0
Total Remote Access	3,115	12,064	42,431
Total IP + Remote	3,125	12,079	42,431

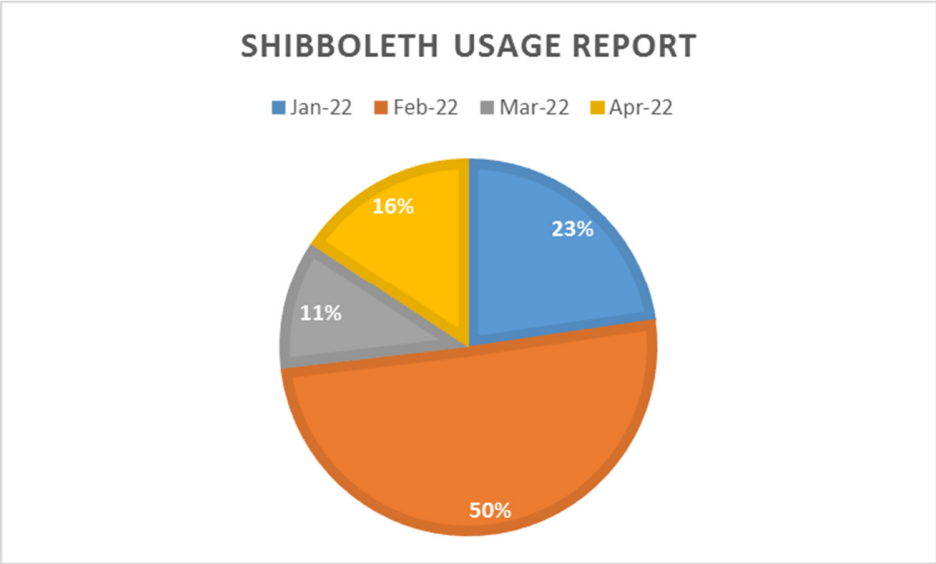
Remote Access			
Jan 2021 - July 2021	1501	6351	26311
Aug 2021- Dec 2021	1614	5713	16120
Total Remote Access	3115	12064	42431

SCC Online Platinum Plus			
Usage Report of BML Munjal - JAN 1, 2022 to May 15, 2022			
Month/Year	Logins	Searches	Downloads
Jan-22	0	0	0
Feb-22	2	6	0
Mar-22	165	281	1499
Apr-22	199	488	3037
May-22	66	176	101
Jun-22			
Jul-22			
Aug-22			
Sep-22			
Oct-22			
Nov-22			
Dec-22			
Total IP Access	432	951	4,637
Total Remote Access	616	1,626	6,424
Total IP + Remote	1,048	2,577	11,061

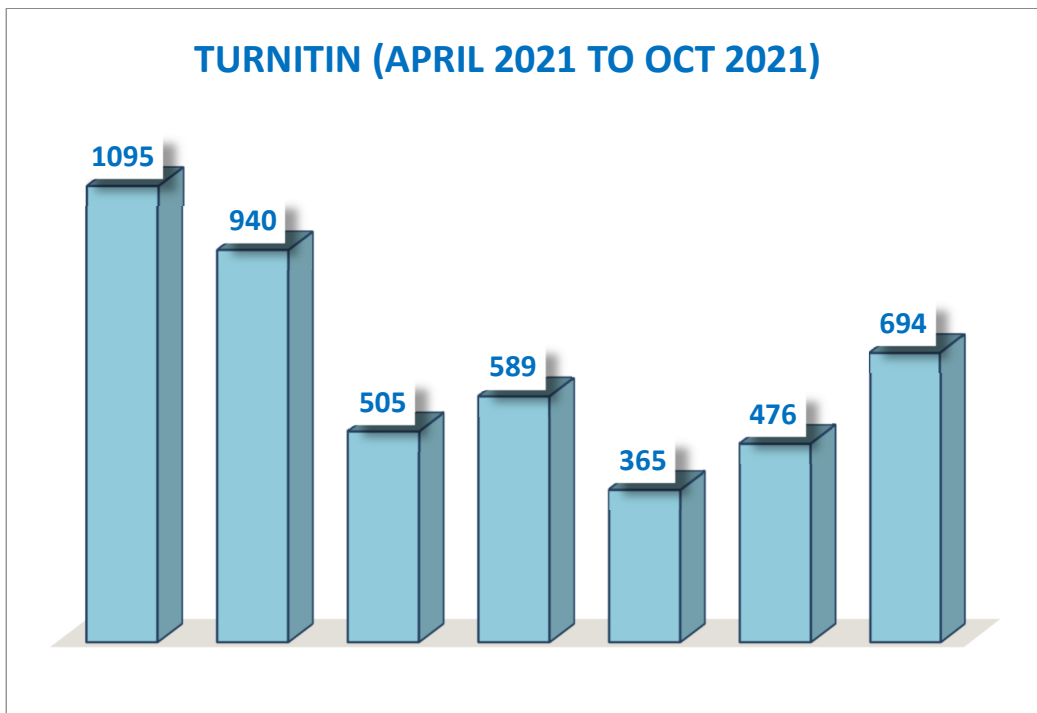
Remote Access			
Jan 22 - May 15 2022	616	1626	6424
Total Remote Access	616	1626	6424

Usage Report - Pressreader (Feb 2022 to 14th May 2022)				
Month	Article Opens	Unique Users	Sessions	Issue Opens
May-22	4254	27	109	167
Apr-22	13787	73	311	502
Mar-22	4857	41	183	262
Feb-22	8890	130	322	435
Total:-	31788	271	925	1366

USAGE REPORT-SHIBBOLETH (Jan 2022 to Apr 2022)				
Month	Jan-22	Feb-22	Mar-22	Apr-22
Total	104	231	51	72



USAGE REPORT-TURNITIN (Oct 2021 to April 2022)										
Account ID	Account Name	Month	Active Classes	Active Instructors	Similarity Reports	0% Similarity	1-24% Similarity	25-49% Similarity	50-74% Similarity	75-100% Similarity
96890	BML Munjal University	Oct-21	26	19	1095	105	772	156	52	10
96890	BML Munjal University	Nov-21	26	17	940	78	736	86	25	15
96890	BML Munjal University	Dec-21	31	19	505	22	356	72	34	21
96890	BML Munjal University	Jan-22	26	18	589	92	310	93	37	57
96890	BML Munjal University	Feb-22	25	16	365	46	239	50	17	13
96890	BML Munjal University	Mar-22	29	22	476	48	287	103	28	10
96890	BML Munjal University	Apr-22	25	14	694	30	432	176	37	19
TOTAL			188	125	4664	421	3132	736	230	145

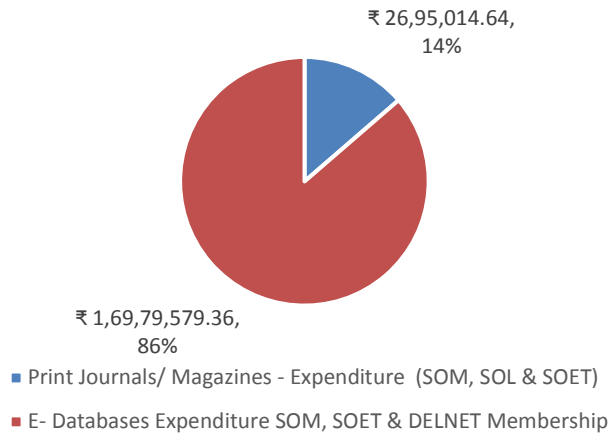


Expenditure statement from June-2013 to June-2021

Years- Wise Details	Books Expenditure SOM, SOL & SOET		Print Journals & E-Databases Expenditure SOM, SOL & SOET			
	No. of Books	Expenditure on Books	Print Journals /Magazines - Qty (SOM, SOL & SOET)	Print Journals/ Magazines - Expenditure (SOM, SOL & SOET)	E- Databases Expenditure SOM, SOET & DELNET Membership	Grand Total
June 2013 To June 2014	3500	₹ 11,50,176.00				₹ 11,50,176.00
July 2014 To June 2015	2439	₹ 15,19,734.80		₹ 4,74,098.64	₹ 15,70,325.00	₹ 35,64,158.44
July 2015 To June 2016	3844	₹ 33,03,406.00	77	₹ 1,61,407.00	₹ 23,24,461.00	₹ 57,89,274.00
July 2016 To June 2017	1014	₹ 6,78,565.00	72	₹ 1,82,131.00	₹ 31,74,365.86	₹ 40,35,061.86
July 2017 To June 2018	439	₹ 2,32,230.47	115	₹ 2,36,641.00	₹ 17,23,389.20	₹ 21,92,260.67
July 2018 To June 2019	2227	₹ 11,04,792.00	123	₹ 8,84,402.00	₹ 20,37,599.70	₹ 40,26,793.70
July 2019 To June 2020	1161	₹ 6,68,887.38	98	₹ 4,22,882.00	₹ 43,69,990.60	₹ 54,61,759.98
July 2021 To June 2021	209	₹ 1,13,545.00	59	₹ 3,33,453.00	₹ 17,79,448.00	₹ 22,26,446.00
	14833	₹ 87,71,336.65	544	₹ 26,95,014	₹ 1,69,79,579	₹ 2,84,45,9305

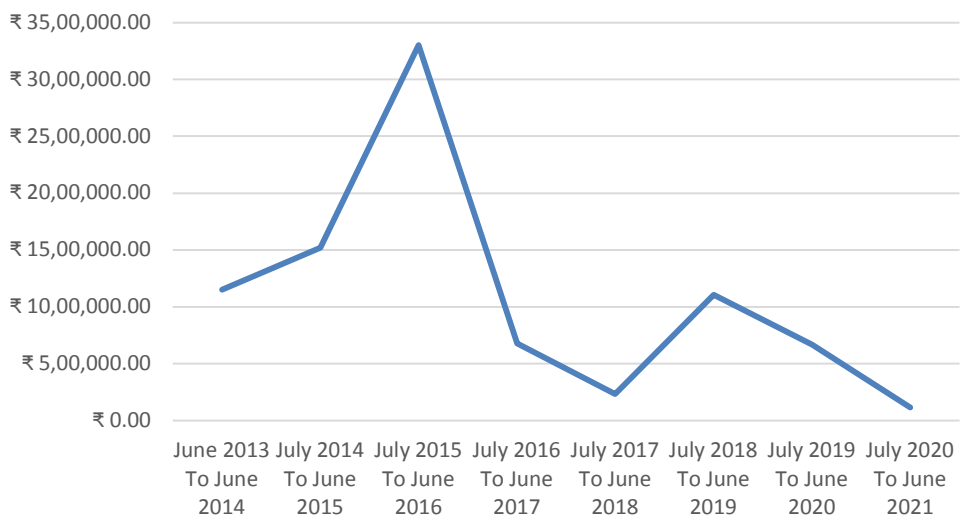
SHARE OF EXPENDITURE ON PRINT MATERIAL AND E-MATERIAL EXPENDITURE	
Print Journals/ Magazines - Expenditure (SOM, SOL & SOET)	₹ 26,95,014.64
E- Databases Expenditure SOM, SOET & DELNET Membership	₹ 1,69,79,579.36

SHARE OF EXPENDITURE ON PRINT MATERIAL AND E-MATERIAL EXPENDTURE

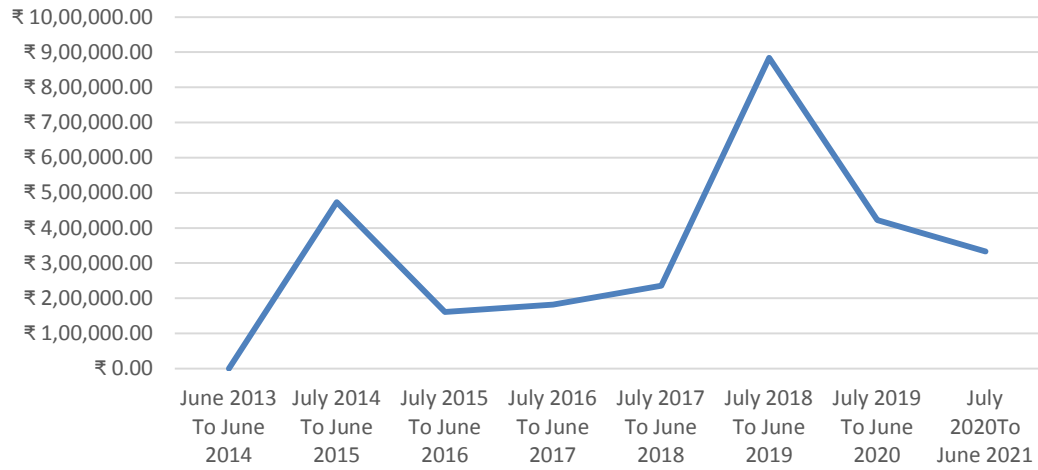


Present total data share of E-Material is 86 % and Print material is 14 % that depicts excellent trend towards sustainability.

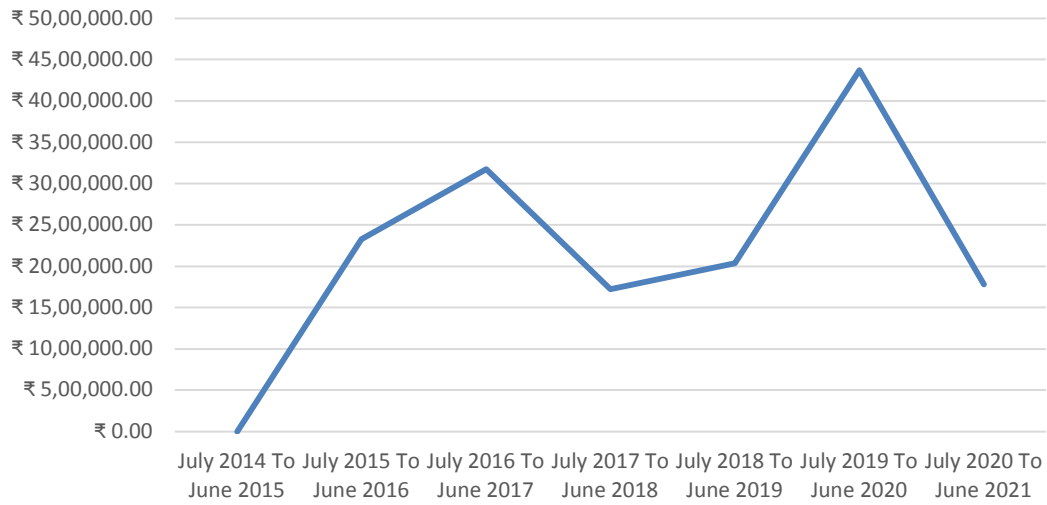
Expenditure on Books-June-2013 to June-2021



Print Journals/ Magazines - Expenditure (SOM, SOL & SOET)



E- Databases Expenditure SOM, SOET & DELNET Membership





Detailed Summary of Library

Years-Wise Details	Print Journals, Magazines & E-Databases Expenditure										Total	Grand Total	
	SOM & SOET												
	Print Journals Expenditure	Print Journals Expenditure	Print Magazines Expenditure	No. of Journals & Magazines	Total	E- Databases	E- Databases	E- Databases	Institutional Membership	Total			
	ET	SOL	(Library)			SOM	SOET	SOL					
July 2015 To Jun	128200		37	21077	77	161407	1575161	732800		16500	2324461	57,89,274.00	
July 2016 To Jun	134090		37	48041	72	182131	2406821.86	756044		11500	3174365.86	40,35,061.86	
July 2017 To Jun	113991		54	84050	115	236641	985626	724193.2		13570	1723389.2	21,92,260.67	
July 2018 To Jun	115951	16	600172	45	78030	123	884402	914627.2	710420.5	398982	13570	2037599.7	40,26,793.70
July 2019 To Jun	76381	24	130545	33	117065	98	422882	955999	2623250	770091.6	20650	4369990.6	54,61,759.98
July 2020 To Jun	70749	22	160061	1	1700	59	333453	303125	560472	902281	13570	1779448	22,26,446.00
	639362	62	890778	207	349963	544	2220916	7141360.06	6107179.7	2071355	89360	15409254	2,37,31,596.21

Despite fewer in numbers the e-books have advantage of being used by multiple students/ faculty simultaneously and thus creating better impact on sustainability in contrary to hard copy that can be read by only one person at a time.

The following recommendations are made

1. Use of E-books be promoted for students and faculty members specially in present Covid situation.
2. No. of E-books made available should be increased continuously.
3. Training on sustainability should be provided.
4. Adaption be promoted considering it to be a new normal.
5. Targets for increasing E-books should be fixed on continual basis.

Training and Awareness

The university is regularly conducting awareness program for students and faculty members.

Governance

Through enactment of Waste Management policy that includes reduction of waste including paper waste and its circulation to all stake holders, sustainability can be achieved. The results are regularly required to be verified at Periodical intervals. These can be managed through internal or external audits.

BML Munjal University-Sidharawali,Gurugram
PLANTATION POLICY



**BML MUNJAL
UNIVERSITY™**

A **HERO GROUP** INITIATIVE



Plantation Policy

BML Munjal University, Gurugram



Ref No: BMU/RO/2022/038 (a); Date: February 04, 2022; Page 01 of 02



**BML MUNJAL
UNIVERSITY™**

A HERO GROUP INITIATIVE

Plantation Policy

We at BML Munjal university are committed for continual improvement of environment. As trees planted contribute for improving environment, university has enacted the policy of plantation for the benefit of all stake holders and society.

Planting a tree has long been a suggestion to better the earth, whether it is outcry and warning of global warming, water crisis or something else. Trees offer many environmental as well as economic and social benefits.

The university with strategic vision of top management and active participation of students, Faculty members, non-teaching staff and other staff shall with solemnly promise always work and participate for betterment of environment through continual plantation programs.

There shall be regular awareness program and through face-to-face interaction all stake holders shall be apprised of the benefits of plantation

The students of BML Munjal University very well understand the importance of trees in our life and have taken a pledge to contribute their bit in making the college, cities, nation, and world a better place to live.

They all pledged to plant more and more trees with the time and take care of the plants and to provide with basic needs as and when needed.

The BML Munjal University has a policy to celebrate Tree Plantation week in college premises annually and commits to set a target to add 1 % to the existing plantation population annually.

Through these plantations of trees life shall improve and essential needs of mankind will also be easily managed. Besides absorption of carbon dioxide, trees also support life by providing habitat to different species such as squirrels, bees, and birds. Trees cleanse the climate by absorbing carbon dioxide from the environment and releasing oxygen. The trees cool the environment and also effects of global warming are mitigated.

We at BML Munjal University once again vows to plant trees as per policy, assure survival of trees by adequate maintenance and watering practices and species selected for plantation shall be preferably native such that these can be grown with very minimal water requirement. We also shall decide to optimally have turf (grass area) as per barest requirement for reduction of water footprint for horticulture use in university premises.



Registrar

BML Munjal University, Gurugram

Ref No: BMU/RO/2022/038 (a); Date: February 04, 2022; Page 02 of 02

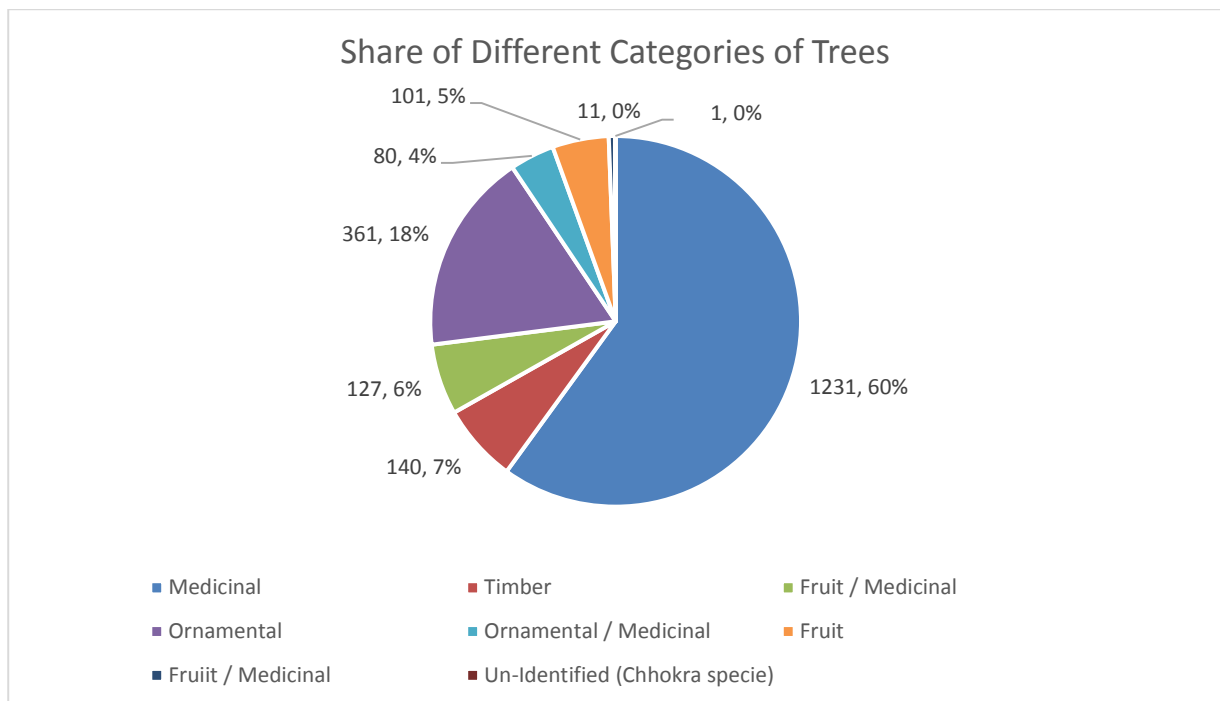
Plantation Inventory

The inventory of plants is maintained. The inventory of plantation is attached in annexure-K

There is a track on survival of species planted afresh as per plantation policy and plan and the survival rate has been found to be satisfactory as informed.

Total No. of plants with share of different categories is as under

S.No.	Category of Plants	No. of Trees	Percentage of Total trees
1	Medicinal	1231	59.99
2	Timber	140	6.82
3	Fruit / Medicinal	127	6.19
4	Ornamental	361	17.59
5	Ornamental / Medicinal	80	3.90
6	Fruit	101	4.92
7	Fruiti / Medicinal	11	0.54
8	Un-Identified (Chhokra specie)	1	0.05
	Total	2052	100.00



From the above data it is seen that 60 % of the total trees are of medicinal category which is very good, next category ornamental is 18 %

Plantation Program

The BML Munjal University, has regular plantation program.

Native species are planned to be planted and it is very good as these have minimum water requirement.

PHOTOGRAPHS OF TREE PLANTATION ON THE OCCASION OF CONVOCATION ON 31st August-2019







Details of Manure and fertilizer used annually

1. Qty of Manure used annually – **Farm Yard Manure (Gobar Khaad) – 9000 Kg, Leaf Mould / Compost – 4950 Kg**
2. Fertilizer usage details – **Neem Khali – 250 Kg, DAP – 40 Kg, Gypsum – 20 Kg, Zinc – 2 Kg, Iron – 5 Kg (For one year)**

Air Quality

CPCB GUIDELINES

Exhaust of DG Sets are required to be raised as per CPCB requirement.

There is no record of air quality testing done earlier.

As per WHO guidelines the following should be the limits for Air Quality

Particulate matter

Guidelines	
PM_{2.5}:	10 µg/m³ annual mean 25 µg/m³ 24-hour mean
PM₁₀:	20 µg/m³ annual mean 50 µg/m³ 24-hour mean

Normal outdoor level: 350 - 450 ppm. acceptable levels: < **600 ppm**. complaints of stuffiness and odors: 600 - 1000 ppm. ASHRAE and OSHA standards: 1000 ppm. general drowsiness: 1000 - 2500 ppm. Acceptable indoor level is 500ppm differential from outdoor levels

AIR DATA - BML Munjal University -Carbon Di-Oxide level monitoring

Sno	Location	CO2-ppm	Remarks	Recommendation
1	Mr. Jamwal Office	955	high	None
2	D-Block Cafeteria	844	high	None
3	faculty Housing G. Floor corridor	838	high	None
4	faculty Housing G. Floor Creche	840	high	None
5	faculty Housing G. Floor Gym	841	high	None
6	Laundry Hall	829	high	None
7	Near STP	870	high	None
8	faculty Housing G. Floor near STP	830	high	None
9	E-2 Cafeteria G. Floor	783	high	None
10	E-2 MP Hall	786	high	None
11	E-2 Np 212	816	high	None
12	Gateway - A	866	high	None
13	Gateway - A LGF	852	high	None
14	Gateway - A Photocopy Room	1239	high	None
15	Gateway - A Admin Office	1308	Very High	Air changes per Hour should be improved
16	Gateway - A 307	1338	Very High	Air changes per Hour should be improved
17	Gateway - A 304	1283	Very High	Air changes per Hour should be improved
18	IT Lab	863	high	None
19	Library - entry	756	high	None
20	Library - near cubicles	731	high	None
21	Library - inside cubicles	724	high	None
22	Workshop Main Hall	955	high	None
23	Automation Vertical Lab	1067	Very High	Air changes per Hour should be improved
24	Cafeteria near Library	1598	Very High	Air changes per Hour should be improved
25	faculty Lounge	1427	Very High	Air changes per Hour should be improved
26	D Block	924	high	None
27	Gateway - Corridor G. Floor	1026	Very High	None
28	Gateway - B Induction Room	886	high	None
29	T-113	987	high	None
30	Boys Common Room	990	high	None

AIR DATA - BML Munjal University-Formaldehyde

Sn o	Location	NCH O	Remarks
1	Mr. Jamwal Office	0.001	Healthy
2	D-Block Cafeteria	0.001	Healthy
3	faculty Housing G. Floor corridor	0.001	Healthy
4	faculty Housing G. Floor Creche	0.001	Healthy
5	faculty Housing G. Floor Gym	0.001	Healthy
6	Laundry Hall	0.002	Healthy
7	Near STP	0.001	Healthy
8	faculty Housing G. Floor near STP	0.001	Healthy
9	E-2 Cafeteria G. Floor	0.027	Healthy
10	E-2 MP Hall	0.16	Healthy
11	E-2 Np 212	0.01	Healthy
12	Gateway - A	0.008	Healthy
13	Gateway - A LGF	0.001	Healthy
14	Gateway - A Photocopy Room	0.031	Healthy
15	Gateway - A Admin Office	0.03	Healthy
16	Gateway - A 307	0.001	Healthy
17	Gateway - A 304	0.001	Healthy
18	IT Lab	0.001	Healthy
19	Library - entry	0.001	Healthy
20	Library - near cubical	0.012	Healthy
21	Library - inside cubical	0.018	Healthy
22	Workshop Main Hall	0.001	Healthy
23	Automation Vertical Lab	0.001	Healthy
24	Cafeteria near Library	0.039	Healthy
25	faculty Lounge	0.012	Healthy
26	D Block	0.001	Healthy
27	Gateway - Corridor G. Floor	0.029	Healthy
28	Gateway - B Induction Room	0.035	Healthy
29	T-113	0.001	Healthy
30	Boys Common Room	0.001	Healthy

AIR DATA - BML Munjal University-PM2.5-PM-10-Particles

Sno	Location	PM-2.5	PM-10	Particles	Remarks
1	Mr. Jamwal Office	74.3	110.3	9191	Very High
2	D-Block Cafeteria	64.9	94.3	8196	Very High
3	faculty Housing G. Floor corridor	56.2	81.4	8409	High
4	faculty Housing G. Floor Creche	60.6	90.1	8804	High
5	faculty Housing G. Floor Gym	60.5	89.6	8830	High
6	Laundry Hall	50.9	74.2	7867	High
7	Near STP	48.9	74.9	7923	High
8	faculty Housing G. Floor near STP	50.3	77.7	7895	High
9	E-2 Cafeteria G. Floor	42.7	62.4	7755	High
10	E-2 MP Hall	74.6	116	10524	High
11	E-2 Np 212	25.6	37.5	4261	High
12	Gateway - A	42.3	58.2	6031	High
13	Gateway - A LGF	23.5	34.1	3487	Satisfactory
14	Gateway - A Photocopy Room	26.2	39.3	4551	Satisfactory
15	Gateway - A Admin Office	26.6	36.6	3208	Satisfactory
16	Gateway - A 307	22.7	34.5	2985	Satisfactory
17	Gateway - A 304	23.4	34.2	3317	Satisfactory
18	IT Lab	22.3	30.6	2750	Satisfactory
19	Library - entry	17.6	26.1	2331	Satisfactory
20	Library - near cubical	16.3	23.4	2268	Satisfactory
21	Library - inside cubical	19.4	27.1	2405	Satisfactory
22	Workshop Main Hall	73.1	109.3	8460	Very High
23	Automation Vertical Lab	51.4	74	7951	High
24	Cafeteria near Library	40.2	57.1	5473	High
25	faculty Lounge	32.1	49.3	3954	High
26	D Block	63.3	94.3	9270	Very High
27	Gateway - Corridor G. Floor	36.9	54.7	4559	High
28	Gateway - B Induction Room	23.2	34.9	3087	Satisfactory
29	T-113	40.9	60.1	4922	High
30	Boys Common Room	52.6	79.7	7780	Very High

The values of PM-2.5 and PM-10 are very high and values are dangerous for human beings. Values of CO₂ and Formaldehyde are satisfactory. There is not much that can be done by university for management of particulate matter. Only any loose soil or construction material inside premises should be sprinkled with water to mitigate to some extent.

Significance of Refrigerant for Environment

Table depicting properties of Refrigerants

Refrigerant	Global Warming Poetential	Ozone Depletion Potential
R 22	1810	Medium
R 410A	2088	Nil
R 32	675	Nil
R 134A	1430	Nil
R 290	3	Nil
R 600A	3	Nil

Refrigerant	Type	ODP	GWP	Atmospheric lifetime (years)
R12	CFC	0.9	8500	102
R22	HCFC	0.06	1700	13.3
R134a	HFC	0	1300	14
R407C	HFC blend	0	1610	36
R410A	HFC blend	0	1900	36
Ammonia (R717)	Natural compound	0	0	< 1
Propane (R290)	HC	0	3	< 1
R1234yf	HFC unsat.	0	6	Very low
R1234ze	HFC unsat.	0	6	Very low

Detail of Refrigerant used in installed Air Conditioners

Data of Refrigerants not maintained.

All window type Air conditioners installed are with R-22 refrigerant. ON replacement all AC's should be purchased with zero ODP refrigerants. It is recommended that in future all procurement for AC's, Water cooler etc. be made with consideration for Environment friendly refrigerants.

Action for replacement of AC's with zero ODP refrigerant be initiates in phases.

Recommendations

1. It is recommended that in future care should be taken to purchase Air conditioners with refrigerants for which GWP is low and ODP is nil.
2. Life cycle cost should be considered for making decision about purchase of Air Conditioners.
3. All AC's that were procured more than 8 years ago should be replaced with best in class energy efficient Air Conditioners after taking into consideration Life Cycle Cost. This will eliminate existing AC's impact on environment through low impact refrigerant and also with low consumption of Electricity thus reducing

ECO FRIENDLY HOUSE KEEPING MATERIALS

At present eco-friendly housekeeping material are not used. It is recommended that Green Seal -37 compliant an International standard or Green Pro-CII certified housekeeping material should be used for reduction of impact of activities of university o environment.

Green Seal -37 compliant an International standard or Green Pro-CII certification

It is recommended that Eco Friendly material and Sustainable material as per NBC-2016 guidelines be procured and used.



**GreenPro Certification Standard for
Cleaning Chemicals**

Version 1.0

General Purpose Cleaners

Eco friendly housekeeping materials are recommended to be used for all cleaning application should be Green Pro or any similar Indian standard should be procured in future and records of such procurement be documented for future references.

The cleaning material may be required for following applications and also may be some other in addition to these.

1. Glass Cleaners
2. Bathroom Cleaners
3. Disinfectants and Sanitizers
4. Cleaner/Degreasers
5. Carpet and Upholstery Cleaners
6. Floor Cleaners
7. Liquid Hand Soap
8. Furniture Polish

Ventilation assessment

The areas constructed have been provided with adequate windows and ventilators have been provided @ more than 6% of floor area as per requirement of ventilation as per IGBC operation and maintenance green building rating system.

The ventilation in most of the areas have been found to be satisfactory as per requirement of Green building standard. Where lacking ventilation be supplemented through making fixed glasses openable.

Workshop

In workshop, main hall and other areas

There is an issue of ventilation observed in the following areas. Openable windows and Ventilators with louvered arrangement be installed for natural ventilation and exhaust fans be provided. Ceiling fans are required to be installed in Main hall for human comfort.

- a. Workshop building-Main Hall
- b. Dynamics of Machine Lab,
- c. Electrical/Energy Studies Lab,
- d. Process Instrumentation Lab,
- e. Automation Lab,
- f. Mechatronics Lab,
- g. CNC Controller Lab,
- h. Pneumatic & Hydraulic Lab,

Chemistry Lab

Ventilation of chemistry lab is discharged at ground level This is required to be thrown above building height by provision of exhaust hood and exhaust duct. Cross contamination issue at AHU level be examined.

Laundry

In laundry, mechanical ventilation is required to be provided by fresh air and exhausting of air as per air changes per hour as per NBC guidelines.

**Table 11 Recommended Rate of Air Circulation
for Different Areas
(Clause 11.3)**

Sl No. (1)	Application (2)	Air Change per Hour (3)
1)	Assembly rooms	4-8
2)	Bakeries	20-30
3)	Banks/building societies	4-8
4)	Bathrooms	6-10
5)	Bedrooms	2-4
6)	Billiard rooms	6-8
7)	Boiler rooms	<i>see 11.2.2</i>
8)	Cafes and coffee bars	10-12
9)	Canteens	8-12
10)	Cellars	3-10
11)	Changing rooms	6-10
12)	Churches	1-3
13)	Cinemas and theatres	10-15
14)	Club rooms	12, <i>M/a</i>
15)	Compressor rooms	10-12
16)	Conference rooms	8-12
17)	Corridors	5-10
18)	Dairies	8-12
19)	Dance halls	12, <i>M/a</i>
20)	Dye works	20-30
21)	Electroplating shops	10-12
22)	Engine rooms/DG rooms/CG rooms	<i>see 11.2.2</i>
23)	Entrance halls	3-5
24)	Factories and work shops	8-10
25)	Foundries	15-30
26)	Garages	6-8
27)	Glass houses	25-60
28)	Gymnasium	6, <i>M/a</i>
29)	Hair dressing saloon	10-15
30)	Hospitals-sterilising	15-25
31)	Hospital-wards	6-8
32)	Hospital domestic	15-20
33)	Laboratories	6-15
34)	Laundrettes	10-15
35)	Laundries	10-30
36)	Lavatories	6-15
37)	Lecture theatres	5-8
38)	Libraries	3-5
39)	Lift cars	20, <i>M/a</i>
40)	Living rooms	3-6
41)	Mushroom houses	6-10
42)	Offices	6-10
43)	Paint shops(not cellulose)	10-20
44)	Photo and X-ray dark room	10-15
45)	Public house bars	12, <i>M/a</i>
46)	Recording control rooms	15-25
47)	Recording studios	10-12
48)	Restaurants	8-12
49)	Schoolrooms	5-7
50)	Shops and supermarkets	8-15
51)	Shower baths	15-20
52)	Stores and warehouses	3-6
53)	STP rooms	30, <i>M/a</i>
54)	Squash courts	4, <i>M/a</i>
55)	Swimming baths	10-15
56)	Toilets	6-10
57)	Underground vehicle parking	6, <i>M/a</i>
58)	Utility rooms	15-30
59)	Welding shops	15-30

Fire Safety:

No halon-based fire extinguishers have been used, it is very good initiative. As a future guideline It is recommended that of fire suppression system is to be used for any fire extinguishing system, only clean agents with minimum environmental impact should be installed.

For sustainability there is requirement of reducing the fire risk. There is requirement of firefighting to be followed as per NBC-2016. It is recommended that audit for fire safety-General safety and Electrical safety should be got conducted and required provisions should be made for safety and averting loss of life and property.

CUSTODIAL CHEMICAL USE

Chemical for one-year requirement are stored in Labs and these are stored in a separate store. The store requires to be ventilated and hazard analysis should be got done through Material Specification Data Sheet and record should be maintained. Proper ventilation with hoods should be designed. The list of custodial chemicals is maintained and kept updated always and is attached as per Annexure-L

Sustainable Development Goals

Sustainable development should always be practiced in all activities of university. The university administration, students and staff are already aware and efforts are always put to meet requirement as per applicability.

SUSTAINABLE DEVELOPMENT GOALS



The principal, teaching and Non-teaching staff is aware of these goals and there is a practice of considering these goals while taking decisions in university.

Summarization of Green and Environment Audit findings

An Environment and Green Audit was conducted, the major relevant aspects that were covered in the Environment and Green audit and present level of performance of University are summarized here:

- 1. Awareness of Staff :** The concerned staff is very much aware and there are excellent records maintained and kept updated for environmental aspects. This attitude has made the implementation of environmental aspects for activities of university easier and effective.
- 2. Establishment of laundry and shop for grocery and stationery inside of university campus:**
 - a.** The laundry is installed in campus thereby saving commuting fuel for travel outside for laundry purpose thus making the university more responsible and resultant lower carbon foot print of University.
 - b.** The shop inside the campus for grocery and stationery also saves energy for commuting.
- 3. Policies, planning and Commitment:** The university has already in place an Environment and Green policy that covers all concerning aspects, plantation policy and commitment for women empowerment and their active participation for improvement of Environment in and around university and also working towards mitigation impact of university activities on climate. Effective Policy preparation and its implementation with appropriate planning is the major contributor for bringing in change and for continual improvement.
- 4. University land, structural foot print and maintaining inventory of ventilation, Plumbing and sanitation and recharging of Ground water:** The concerned university staff is maintaining the details of all constructed areas of university building for effective management of ventilation, sanitation and reduction of water use for betterment of Environment and making the university green. There are enough openable windows for requirement of natural ventilation in university premises and only a few places only fixed windows are being made openable for fulfilling the requirement of natural ventilation. Ventilator that have been provided with fixed glasses are now being made openable or provided with louvers for enhancing natural ventilation further. The

university already has three rain water harvesting pits in place and there is regular communication with executing agency and also with agency responsible for providing funds for balance three rain water harvesting pits. The maintenance of existing rain water harvesting pits is required to be improved with the help of agency entrusted maintenance of university.

5. **Plantation and Turf area:** The university is conducting regular plantation program and planting native species that has low consumption of water for their subsistence. The turf area has also been optimized to avert use of excess water that may be required for maintenance of grass. NCC, NSS and other departments have participated in plantation program in recent years despite prevalence of Covid-19.
6. **Health of students and staff:** The university is having a regular Medical officer in an established medical center with three beds for treatment of students and other staff members and there is no disease prevalence in students or university staff by virtue of their attendance in university premises.
7. **Transportation:** The university administration is encouraging the mitigation of impact on environment due to use of transport by students and members of staff. Substantial proportion of population is residing in campus and in campus e-vehicles are also used for cleaner environment.
8. **Procurement Procedures:**
 - a. The procurement activities of an institution are very significant for making it sustainable and also in mitigation of energy foot print by purchase of energy efficient equipment.
 - b. As Energy consumption has direct bearing on climate change and environment, the awareness of those responsible for purchase of energy consuming equipment should be aware regarding energy efficiency of equipment for considering the same while making purchase.
 - c. The purchase committee of BML MUNJALUniversity-Sidharawali,Gurugram members are imparted awareness knowledge on the adverse impact of less energy efficient equipment and thereby increase of carbon foot print due to use of in efficient equipment. They have the understanding that in case of energy efficient equipment **first cost** has not to be the only consideration while making purchase decisions, instead life cycle cost should be considered for making purchase decision of energy consuming equipment.
 - d. The purchase committee members are also aware that for any equipment the impact

of substances like refrigerants, the fixture that are containing mercury or other harmful substance is to be avoided absolutely and equipment with zero ODP and with low hazard elements are only to be purchased.

- e. The committee has also been sensitized for purchase of paints, sealants and adhesives with permissible quantity of volatile organic compounds.
- f. The committee has also been made aware for considering recycled content of paper for any future purchases.
- g. The committee members are aware of Ecofriendly housekeeping materials and for future purchases the same shall be considered.

9. Use of paper and E-library

The university has already instructions in place for all members of staff for avoiding the printing where ever possible and also apply other techniques for reduction of paper use. Use of E-library for on line study is encouraged and is also monitored regularly and ratio of E- books to hard copies is increasing year on year with normalized calculations.

10. Sustainable development goals

The university staff and students are aware of sustainability goals and practicing the same in their actions as per applicability.

11. On-site composting and use of manure:

Leaves and other botanical waste is treated in composting plant and manure thus formed is used in place of chemical fertilizer and no fertilizer is purchased for plantation.

12. Fire Fighting equipment:

None of fire fighting equipment installed is with high environment impact chemicals like halon etc.

13. Handling of waste from chemistry lab and exhaust fumes handling

Presently there is no practice of proper disposal of chemical effluents and waste generated is thrown along with municipal waste. The discharge from chemical lab is required to be stored in plastic containers and disposed of through centralized ETP vendors.

Exhaust hood is required to be provided at a height of 3.00 meters above building height for safe dispersion of chemicals.

14. Air Quality

The presence of particulate matter is higher than acceptable limits. There is nothing that can be done for improvement of same. Spraying with RO reject water for area covered with soil is practiced for managing inside air quality to the extent possible.

15. Waste management




There is an effective waste management plan and procedures in place that are followed by university for handling of solid, plastic, paper and E- waste.





16. Sound Level





Level of sound in areas of university is with in acceptable limits as per length of exposure as per NBC-2016 standards.



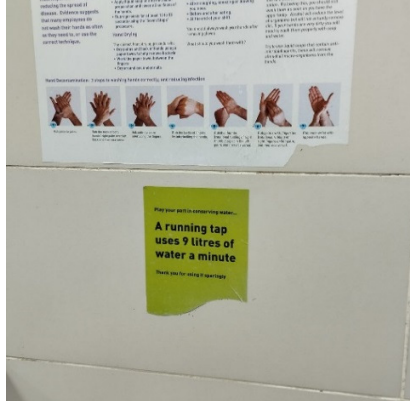

-----End of Report-----




Annexure-A- Photographs-BML Munjal University




S. No.	Photograph	Issue/Location	Standard	Recommendation
1		Good practice- Restricted area signage	CEA Guidelines	None
2		Leaking pipe at a number of points- Wastage of water	ISO- 14001	This pipe should be got replaced and at all other places also through survey any such leaking/damaged pipe should be got replaced
3		Old transformer is lying in junk yard	ISO- 14001	It should be got auctioned for sustainable practices

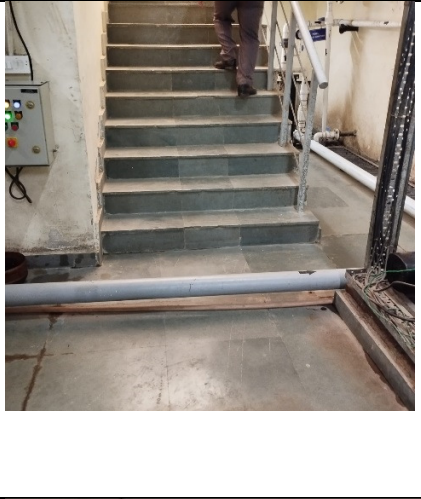

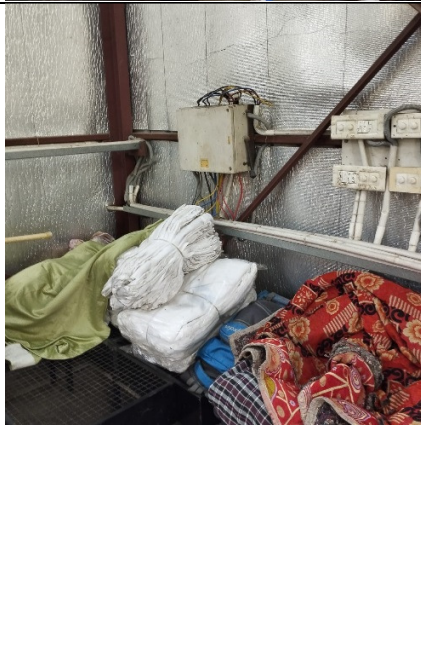
4		<p>Good practice -Tree is labelled with common and Botanical name- Not numbered</p>	<p>ISO-14001</p>	<p>All the tree should be numbered uniquely for better understanding and management of plantation</p>
5		<p>Good practice- Set of dust bins provided</p>	<p>Green rating system</p>	<p>None</p>
6		<p>Good Maintained turf area</p>	<p>Best practices</p>	<p>None</p>
7		<p>Filters of air washer system found choked- More Energy use and inferior indoor air quality</p>	<p>Green Building rating/IS)-14001- ISO-50001</p>	<p>The filters should be periodically got cleaned.</p>





8		<p>Good Practice- Stack height is as per standard requirement</p>	<p>CPCB Guidelin es</p>	<p>None</p>
9		<p>Good practice</p>	<p>Sustaina ble develop ment Goals- UN</p>	<p>None</p>
10		<p>Leaking tap in Cafeteria</p>	<p>ISO- 14001/W ater audit</p>	<p>All such leakages should be checked and got repaired.</p>
11		<p>Food Waste reduction plan in place-Good practice</p>	<p>Sustaina ble develop ment goals-UN</p>	<p>None</p>


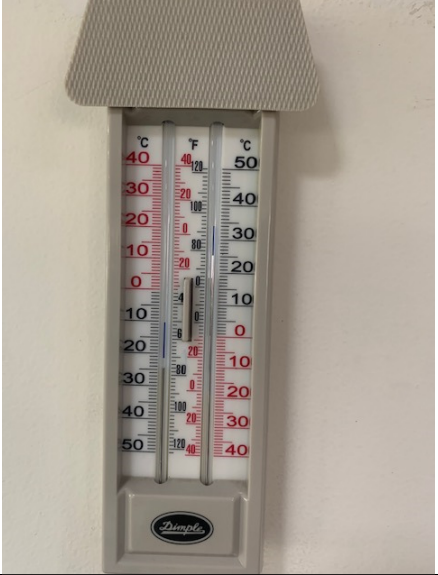
12		Food Waste reduction plan in place-Good practice-No Smoking signage	Sustainable development goals-UN	Data should be updated daily
13		Rain Water harvesting pits	Central Ground Water Board guidelines	None
14		Water waste reduction signage-Good Practice	ISO-14001	None
15		Good Practice of maximisation of drawing of LPG out of cylinder-Min. stage-Manifold not locked	Sustainable practice	Practice is good but the manifold enclosure should not be kept opened for reasons of sustainability




				ty and safety.
16		Co-ordinates of BML Munjal university- Elevation		Required for calculating solar resource availability
17		Single dust bin provided	IGBC rating system	Twin dust bins as per extant practice should be provided at all places
18		Single dust bin provided	IGBC rating system	Twin dust bins as per extant practice should be provided at all places



19		Sprinkler system for irrigation purpose	ISO-14001/Water audit	None
20		Heap of manure-Good practice	ISO-14001	None
21		Composting plant-Good practice-Reduction of landfill waste	ISO-14001	None

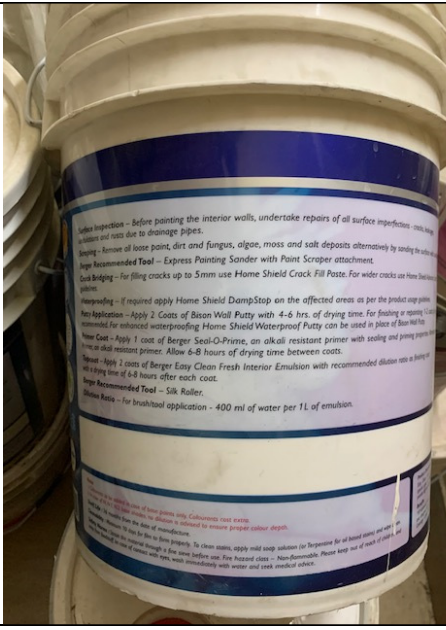
22		<p>Pipe haphazardly installed-Trip and Fall hazard-Health and safety issue</p>	<p>ISO-14001-ISO-45001</p>	<p>Either it should be routed correctly else plate form should be erected for safe movement of maintenance personnel</p>
23		<p>Chlorine dosing system not function for a fortnight</p>	<p>STP - ISO-14001</p>	<p>It should be made operational</p>
24		<p>Improper wiring near stack of clothes-Fire Hazard</p>	<p>CEA guidelines-ISO-14001</p>	<p>Wiring should be done in pipes and electrical switches should be separated with fencing for avoiding fire and making operation sustainable</p>

25		Ventilation of Laundry is not good	IGBC green building standard -NBC-2016	Ventilation should be provided as per guidelines of NBC-2016
26		LPG cylinders are strewn around in Laundry area	ISO-45001-Safety guidelines	Empty and filled cylinders should be stacked separately and identified
27		LPG Manifold in Laundry area not provided with metallic lockable enclosure	ISO-45001-Safety guidelines	MS lockable enclosure should be provided for LPG gas manifold area.
28		Main workshop hall -Ventilation is very poor. Air circulation is also bad.	IGBC green building standard -NBC-2016	Upper level fixed glass be replaced with louvered shutters and more openable windows be provided.

				Ceiling fans should be provided with long down roads.
29		Geyser is seen On during day time without any use-Water is already hot in summer	ISO-14001	All unused electrical appliances be switched off for reduction of environmental impact
30		Instruments with mercury are installed	Iso-14001	All such instruments be phased out for reduction of environmental impact of university on climate change.

<p>31</p>		<p>Shop in campus</p>		<p>Good Practice</p>
<p>32</p>		<p>Waste handling I appropriate manner</p>		<p>Good practice</p>
<p>33</p>		<p>E-Vehicle</p>		<p>Cleaner environment-Good practice</p>

<p>34</p>		<p>Damaged insulation of refrigerant pipes</p>	<p>ISO-50001-ISO-14001</p>	<p>Higher energy consumption makes operation unsustainable</p>
<p>35</p>		<p>Water based paint is used</p>	<p>IGBC guidelines</p>	<p>Lower environmental impact</p>

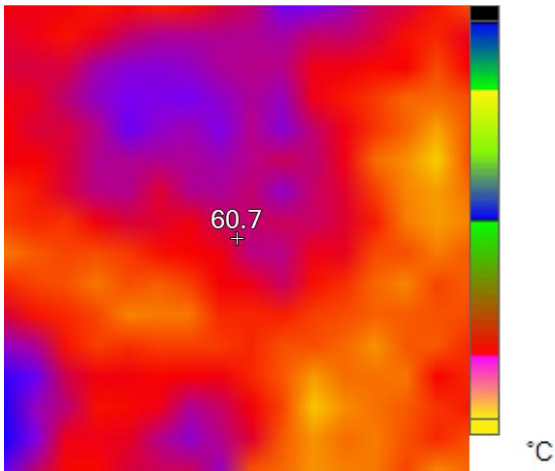
<p>36</p>		<p>Water based paint is used</p>	<p>IGBC guidelines</p>	<p>Lower environmental impact</p>
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Annexure-B-

**THERMAL IMAGING
REPORT**

Envelope thermal imaging report

**BMLU Munjal University-
Sidharawali, Gurugram**



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5/10/2022 12:42:41 PM



Visible Light Image

Location Roof Top

High Temperature on exposed roof - Increasing energy use of top floor-not a sustainable practice- Cool Roof should be provided

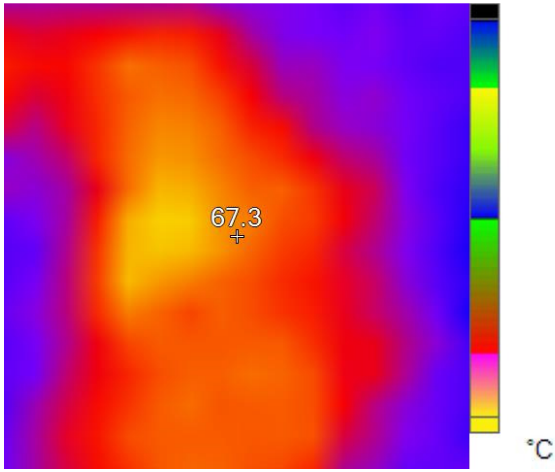
Graph

Image Info

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Emissivity	0.95
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Calibration Range	-10.0°C to 250.0°C

Main Image Markers

Name	Temperature	Emissivity	Background
Centerpoint	60.7°C	0.95	20.0°C



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Location

Roof Top



Visible Light Image

Graph

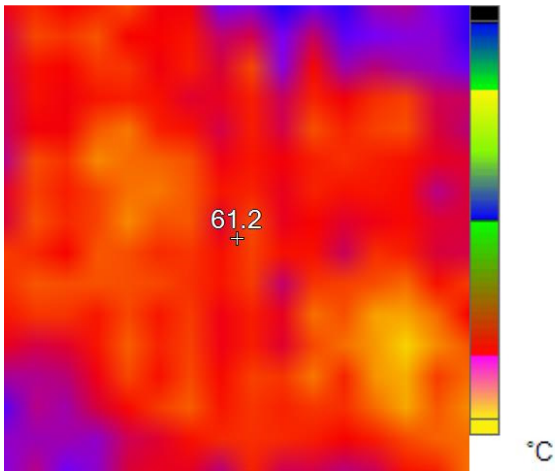
Very High Temperature on exposed roof -Increasing energy use of top floor-not a sustainable practice-Cool Roof should be provided

Image Info

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Main Image Markers

Name	Temperature	Emissivity	Background
Centerpoint	67.3°C	0.95	20.0°C



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Location

Roof Top



Visible Light Image

Graph

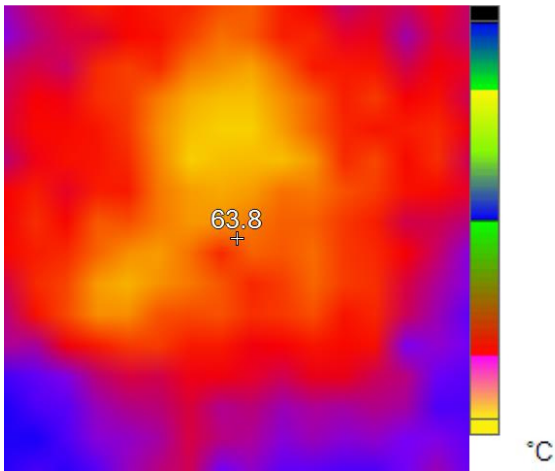
High Temperature on exposed roof -Increasing energy use of top floor-not a sustainable practice-Cool Roof should be provided

Image Info

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Main Image Markers

Name	Temperature	Emissivity	Background
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Location

Roof Top



Visible Light Image

Graph

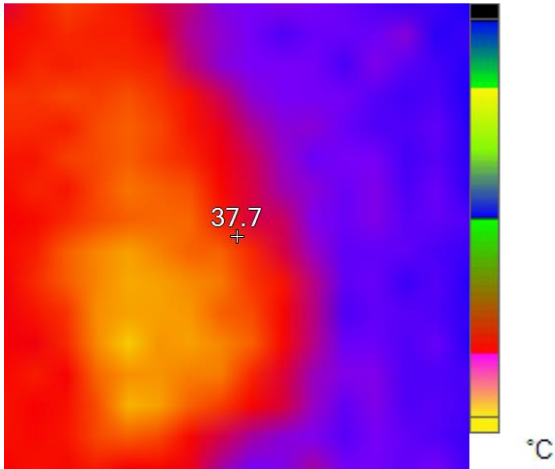
High Temperature on exposed roof -Increasing energy use of top floor-not a sustainable practice-Cool Roof should be provided

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Main Image Markers

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5/10/2022 12:45:39 PM



Visible Light Image

Location

West side window-IT Lab

Graph

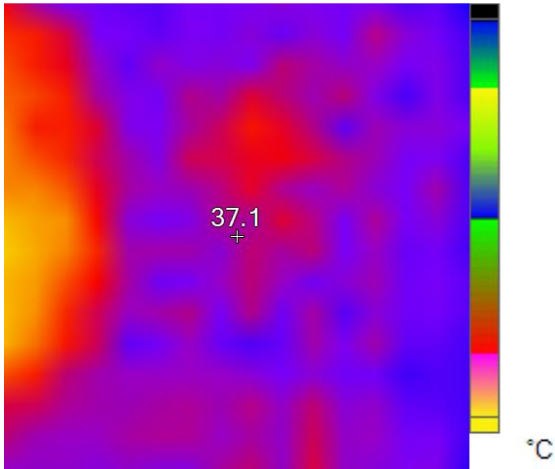
Higher inside temperature

Image Info

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Main Image Markers

Name	Temperature	Emissivity	Background
Centerpoint	37.7°C	0.95	20.0°C



vt_00099.is2
5/10/2022 12:45:52 PM



Visible Light Image

Location West side window-IT Lab

Graph

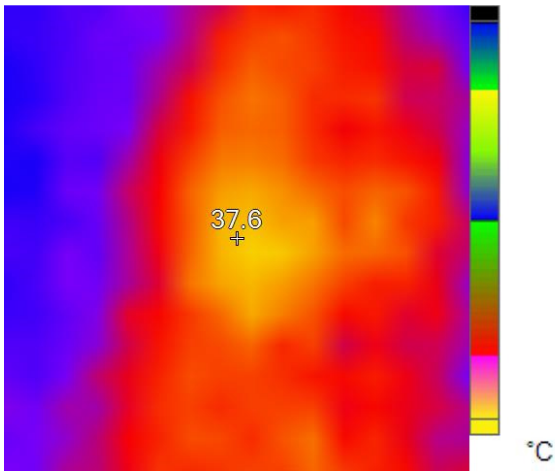
Higher inside temperature

Image Info

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Main Image Markers

Name	Temperature	Emissivity	Background
Centerpoint	37.1°C	0.95	20.0°C



vt_00100.is2
5/10/2022 12:46:03 PM



Visible Light Image

Location West side window-IT Lab

Graph

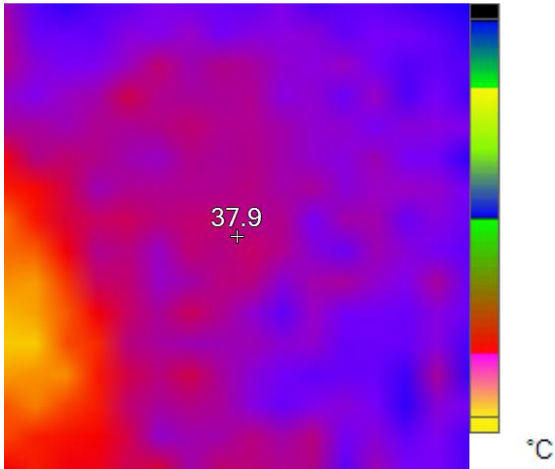
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Main Image Markers

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Centerpoint	37.6°C	0.95	20.0°C



vt_00101.is2
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Visible Light Image

Location South-East side window-GA
305

Graph

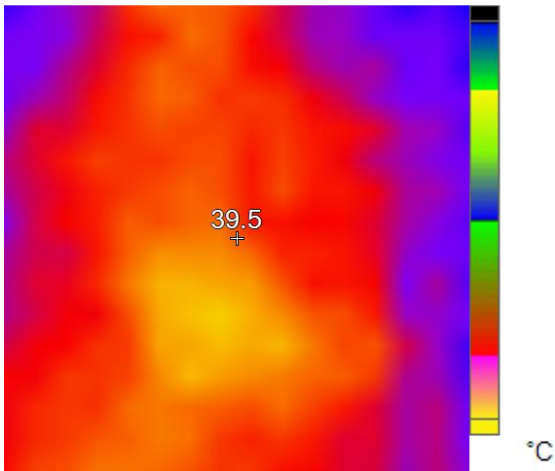
**Higher inside
temperature**

Image Info

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Calibration Range	-10.0°C to 250.0°C

Main Image Markers

Name	Temperature	Emissivity	Background
Centerpoint	37.9°C	0.95	20.0°C



vt_00102.is2
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Visible Light Image

Location South-East side window-GA
305

Graph

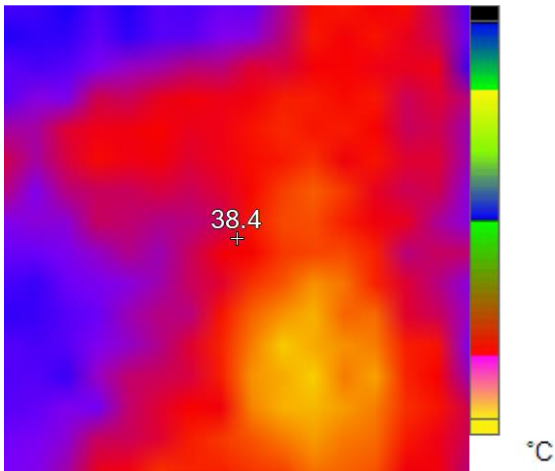
**Higher inside
temperature**

Image Info

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Main Image Markers

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Visible Light Image

Location South-East side window-GA
305

Graph

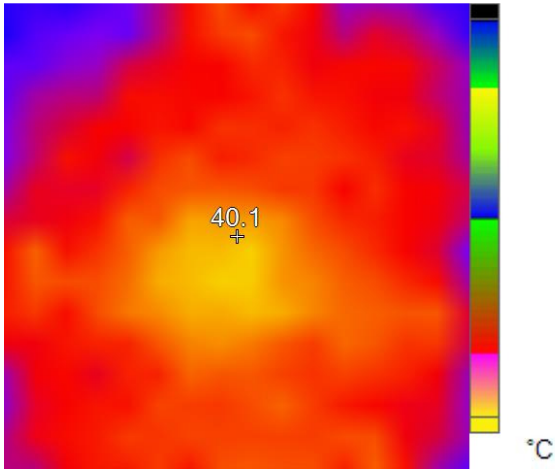
Higher inside temperature

Image Info

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Main Image Markers

Name	Temperature	Emissivity	Background
Centerpoint	38.4°C	0.95	20.0°C



vt_00104.is2

5/10/2022 12:51:08 PM



Visible Light Image

Location

South-West side window-GA
302

Graph

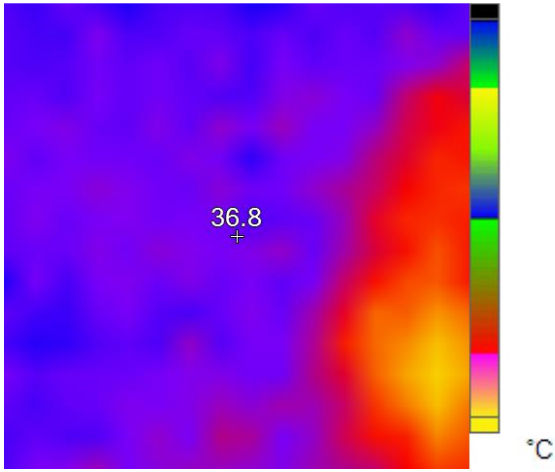
**Higher inside
temperature**

Image Info

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Main Image Markers

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5/10/2022 12:51:18 PM



Visible Light Image

Location South-West side window-GA
302

Graph

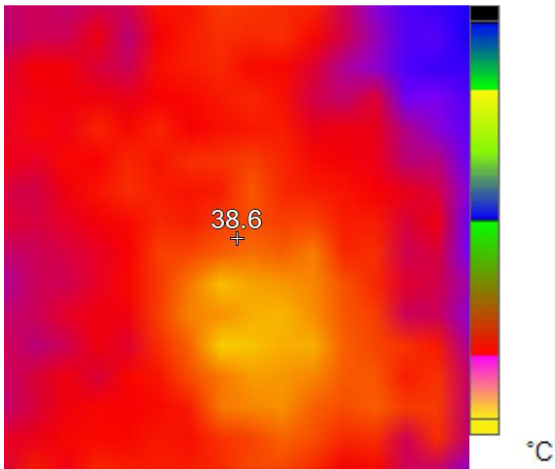
Higher inside temperature

Image Info

Background temperature	20.0°C
Emissivity	0.95
Image Time	5/10/2022 12:51:18 PM
Calibration Range	-10.0°C to 250.0°C

Main Image Markers

Name	Temperature	Emissivity	Background
Centerpoint	36.8°C	0.95	20.0°C



vt_00106.is2
5/10/2022 12:51:37 PM



Visible Light Image

Location South-West side window-GA
302

Graph

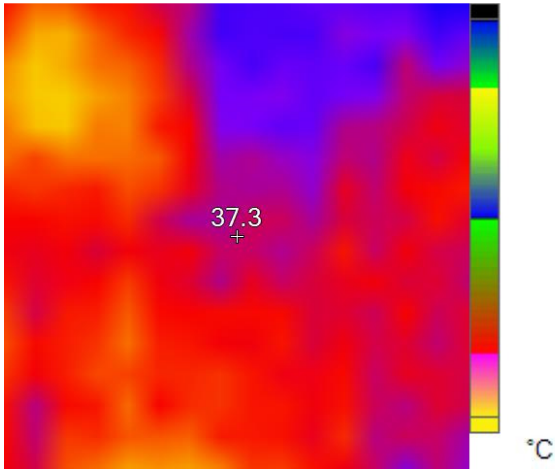
Higher inside temperature

Image Info

Background temperature	20.0°C
Emissivity	0.95
Image Time	5/10/2022 12:51:37 PM
Calibration Range	-10.0°C to 250.0°C

Main Image Markers

Name	Temperature	Emissivity	Background
Centerpoint	38.6°C	0.95	20.0°C



vt_00107.is2
5/10/2022 12:51:48 PM



Visible Light Image

Location South-East side window-GA
302

Graph

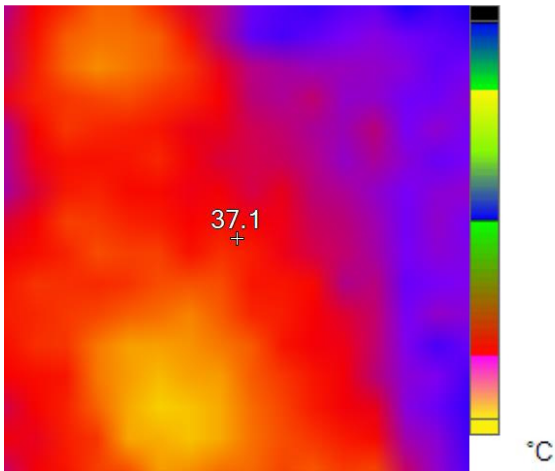
Higher inside temperature

Image Info

Background temperature	20.0°C
Emissivity	0.95
Image Time	5/10/2022 12:51:48 PM
Calibration Range	-10.0°C to 250.0°C

Main Image Markers

Name	Temperature	Emissivity	Background
Centerpoint	37.3°C	0.95	20.0°C



vt_00108.is2
5/10/2022 12:51:58 PM



Visible Light Image

Location South-East side window-GA
302

Graph

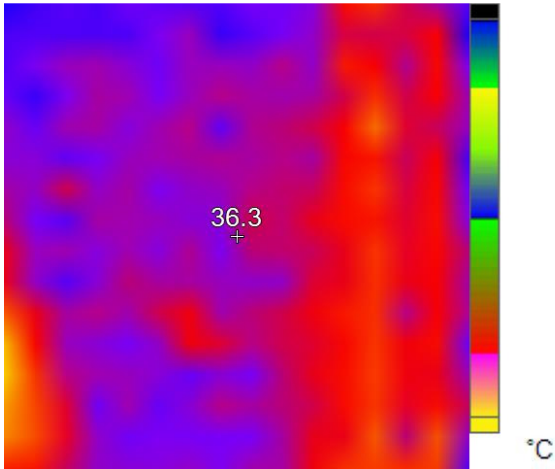
Higher inside temperature

Image Info

Background temperature	20.0°C
Emissivity	0.95
Image Time	5/10/2022 12:51:58 PM
Calibration Range	-10.0°C to 250.0°C

Main Image Markers

Name	Temperature	Emissivity	Background
Centerpoint	37.1°C	0.95	20.0°C



vt_00109.is2

5/10/2022 12:52:13 PM



Visible Light Image

Location

South-East side window-GA
302

Graph

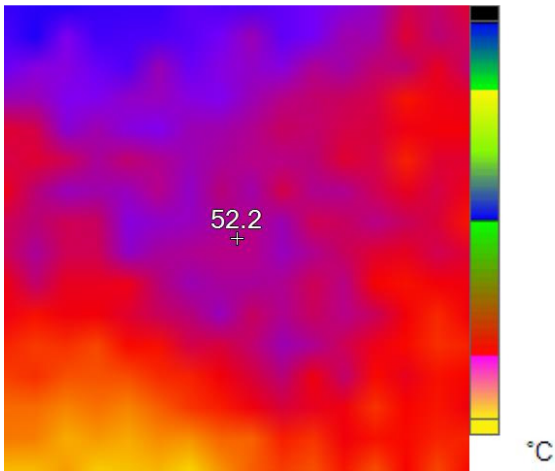
**Higher inside
temperature**

Image Info

Background temperature	20.0°C
Emissivity	0.95
Image Time	5/10/2022 12:52:13 PM
Calibration Range	-10.0°C to 250.0°C

Main Image Markers

Name	Temperature	Emissivity	Background
Centerpoint	36.3°C	0.95	20.0°C



vt_00111.is2
5/10/2022 12:56:46 PM



Visible Light Image

Location Ground

Graph

Higher ground temperature-affects Micro climate

Image Info

Background temperature	20.0°C
Emissivity	0.95
Image Time	5/10/2022 12:56:46 PM
Calibration Range	-10.0°C to 250.0°C

Main Image Markers

Name	Temperature	Emissivity	Background
Centerpoint	52.2°C	0.95	20.0°C

Summary of Thermal Imaging scan of Envelope-BML Munjal University-Sidharawali,Gurugram

The roof temperature recorded is about 15 to 20 degree centigrade higher than the maximum temperature of Sidharawali,Gurugram the day of recording. This higher roof temperature makes the top floor very un-comfortable and energy guzzling in case of Air conditioned space.

Cool Roof as per detailed recommendation is recommended for covering it from top for comfortable conditions for occupants of top floor.

Window glasses should be replaced with Double Glass Unit (Spectrally selective glass) with properties of low Solar heat gain co-efficient and high Visual light transmittance.

Annexure-C-Excerpts from Energy Conservation Building Code-2017

Table 4-6 Roof Assembly U-factor ($W/m^2.K$) Requirements for SuperECBC Building

	Composite	Hot and dry	Warm and humid	Temperate	Cold
All buildings types	0.20	0.20	0.20	0.20	0.20

4.3.1.1 Vegetated and Cool Roof

All roofs that are not covered by solar photovoltaics, or solar hot water, or any other renewable energy system, or utilities and services that render it unsuitable for the purpose, shall be either cool roofs or vegetated roofs.

- (a) For qualifying as a cool roof, roofs with slopes less than 20° shall have an initial solar reflectance of no less than 0.70 and an initial emittance no less than 0.75. Solar reflectance shall be determined in accordance with ASTM E903-96 and emittance shall be determined in accordance with ASTM E408-71 (RA 1996).
- (b) For qualifying as a vegetated roof, roof areas shall be covered by living vegetation of >50 mm high.

Annexure-D

Anexure-D-Detail of Lux Level at BML Munjal University

Sno	Location	Minimum Lux	Maximum Lux	Average Lux	Remarks
1	Mr. Jamwal Office	161	106	133.5	Not Satisfactory-Low
2	D-Block Cafeteria	717	155	436	Very High-More energy used
3	Faculty Housing G. Floor Corridor	196	183	189.5	Satisfactory
4	Faculty Housing G. Floor creche	398	124	261	Satisfactory
5	Faculty Housing G. Floor Gym	527	172	349.5	Satisfactory
6	Laundry Hall	123	99	111	Not Satisfactory-Low
9	E-2 Cafeteria G. Floor	310	90	200	Satisfactory
10	E-2 MP Hall	663	436	549.5	Very High-More energy used
11	E-2 Np 212	418	357	387.5	Satisfactory
12	Gateway - A	460	72	266	Satisfactory
13	Gateway - A Photocopy Room	730	523	626.5	Very High-More energy used
14	Gateway - A Admin Office	673	550	611.5	Very High-More energy used
15	Gateway - A 307	242	194	218	Not Satisfactory-Low
16	Gateway - A 304	280	245	262.5	Satisfactory
17	IT Lab	195	80	137.5	Not Satisfactory-Low
18	Library - entry	327	194	260.5	Satisfactory
19	Library - near cubicle`	225	180	202.5	Not Satisfactory-Low
20	Library - inside cubicle	292	140	216	Not Satisfactory-Low
21	Workshop Main Hall	170	160	165	Satisfactory-Without lights on
23	Cafeteria near Library	520	288	404	Very High-More energy used
24	Faculty Lounge	355	288	321.5	Satisfactory
25	D Block	180	148	164	Not Satisfactory-Low
26	Gateway - B corridor G. Floor	140	124	132	Satisfactory
27	Gateway - B Induction Room	518	484	501	Very High-More energy used
28	T-113	202	176	189	Not Satisfactory-Low
29	Boys Common Room	275	273	274	Satisfactory

ANNEXURE-E-STANDARD FOR WATER REQUIREMENT

Table 1 Water Requirements for Buildings Other than Residences
(Clause 4.1.2)

Sl No.	Type of Building	Domestic Per Day litre	Flushing Per Day litre	Total Consumption Per Day litre
(1)	(2)	(3)	(4)	(5)
i)	Factories including canteen where bath rooms are required to be provided	30 per head	15 per head	45 per head
ii)	Factories including canteen where no bath rooms are required to be provided	20 per head	10 per head	30 per head
iii)	Hospital (excluding laundry and kitchen) (see Note 2):			
	a) Number of beds not exceeding 100	230 per head	110 per head	340 per head
	b) Number of beds exceeding 100	300 per head	150 per head	450 per head
	c) Out patient department (OPD)	10 per head	5 per head	15 per head
iv)	Nurses' homes and medical quarters	90 per head	45 per head	135 per head
v)	Hostels	90 per head	45 per head	135 per head
vi)	Hotel (up to 3 star) excluding laundry, kitchen, staff and water bodies	120 per head	60 per head	180 per head
vii)	Hotel (4 star and above) excluding laundry, kitchen, staff and water bodies	260 per head	60 per head	320 per head
viii)	Offices (including canteen)	25 per head	20 per head	45 per head
ix)	Restaurants and food court including water requirement for kitchen:			
	a) Restaurants	55 per seat	15 per seat	70 per seat
	b) Food court	25 per seat	10 per seat	35 per seat
x)	Clubhouse	25 per head	20 per head	45 per head
xi)	Stadiums	4 per head	6 per head	10 per head
xii)	Cinemas, concert halls and theatres and multiplex	5 per seat	10 per seat	15 per seat
xiii)	Schools/Educational institutions:			
	a) Without boarding facilities	25 per head	20 per head	45 per head
	b) With boarding facilities	90 per head	45 per head	135 per head
xiv)	Shopping and retail (mall)			
	a) Staff	25 per head	20 per head	45 per head
	b) Visitors	5 per head	10 per head	15 per head
xv)	Traffic terminal stations (see Notes 3 and 4)			
	a) Airports	40 per head	30 per head	70 per head
	b) Railway stations (Junctions) with bathing facility	40 per head	30 per head	70 per head
	c) Railway stations (Junctions) without bathing facility	30 per head	15 per head	45 per head
	d) Railway Stations (Intermediate) with bathing facility	25 per head	20 per head	45 per head
	e) Railway Stations (Intermediate) without bathing facility	15 per head	10 per head	25 per head
	f) Interstate bus terminals	25 per head	20 per head	45 per head
	g) Intrastate Bus Terminals/Metro Stations	10 per head	5 per head	15 per head

NOTES

1 For calculating water demand for visitors, consumption of 15 litre per head per day may be taken.

2 The water demand includes requirement of patients, attendants, visitors and staff. Additional water demand for kitchen, laundry and clinical water shall be computed as per actual requirements.

3 The number of persons shall be determined by average number of passengers handled by stations, with due considerations given to the staff and vendors who are using these facilities.

4 Consideration should be given for seasonal average peak requirements.

5 The hospitals may be categorized as Category A (25 to 50 beds), Category B (51 to 100 beds), Category C (101 to 300 beds), Category D (301 to 500) and Category E (501 to 750 beds).

Annexure-F-Inventory of toilets-Plumbing and Sanitary fixtures

TOILET INVENTORY - BML Munjal University								
Sno	Location	URINAL	WC	WASH BASIN	Sink	Bath Area Tap	Tap	Sets
1	Block - A Office		2	2	1	2		35
2	Block - B		2	2	1	2		35
3	Block - C		2	2	1	2		35
4	E-2 MPH Gents Toilet	3	2	2				1
5	E-2 MPH Ladies Toilet		1	3				1
6	E-2 G. Floor Gents Toilet	2	2	2				
7	E-2 G. Floor Ladies Toilet		3	2				
8	E-2 G. Floor Handicap Toilet		1	1				
9	E-2 Cafeteria G. Floor Ladies Toilet	1	1	1				
10	E-2 Cafeteria G. Floor Handicap Toilet		2	1				
11	E-2 TT Hall Toilet	1	1	1				
12	E-2 F. Floor Gents Toilet	3	4	3				
13	E-2 F. Floor Ladies Toilet		4	3				
14	E-2 F. Floor Handicap Toilet		1	1				
15	E-2 S. Floor Gents Toilet	2	2	2				2
16	E-2 S. Floor Ladies Toilet		2	2			1	
17	E-2 S. Floor Handicap Toilet		1	1				
18	E-2 S. Floor Gents Toilet	3	4	3				
19	E-2 S. Floor Ladies Toilet		4	3			1	
20	Gateway - A - Gents Toilet	9	7	4				5
21	Gateway - A - Ladies Toilet		5	5				
22	Gateway - A - Handicap Toilet		1	1				
23	Gateway - A - Office Block Gents Toilet	1	1	1				
24	Gateway - A - Office Block Ladies Toilet		1	1				
25	Gateway - B - Gents Toilet	5	4	3				5
26	Gateway - B - Ladies Toilet		3	3				
27	Gateway - B - Handicap Toilet		1	1				

28	Block - D Staff Toilet - Gents	4	2	2				
29	Block - D Staff Toilet - Ladies		2	3				
30	Cafeteria - Hand Wash Area			10				
31	Block - D Hostel Apartment 4rth floor		2	2	1	2		
32	Block - D Guest Rooms 2nd floor		1	1		1		
33	Cafeteria Staff Toilet - Gents	2	2	2				
34	Cafeteria Staff Toilet - Ladies		2	3				
35	T - 5 G. Floor Gents Toilet	3	2	2				
36	T - 5 G. Floor Ladies Toilet		1	1				
37	T - 5 F. Floor Gents Toilet -1	2	4	4		4	1	10
38	T - 5 F. Floor Gents Toilet - 2	2	4	4		4	1	
39	Library - Gents Toilet	6	6	5				
40	Library - Ladies Toilet		6	7				
41	Library - Handicap Toilet		1	1				
42	Medical Room - Toilet	1	1	1				
43	Chemistry Lab				32			
44	Workshop - Gents Toilet	2	3	2				2
45	Workshop - Ladies Toilet		3	2				
46	Workshop - Handicap Toilet		1	1				
47	Cafeteria near Library hand wash			6				
48	Faculty Lounge - Gents Toilet	1	1	1				
49	Faculty Lounge - Ladies Toilet		1	1				

Annexure-G-Handling and disposal of CFL's and Fluorescent tubes

Disposal of Fluorescent tubes -Guidelines

Consumer Level:

As per the present observed practice at consumer level in the society at large, often, the used lamps are collected by the kabari from the households and collectively handed over to the glass recyclers for the recovery of glass material.

This is all operative in a highly unorganized sector. It has, also, been observed that, the used lamps are thrown in the garbage bins and finally into the municipal garbage dumpsites, contaminating air, water and soil. Most of the used lamps are broken either at transit solid waste bins (provided by local civic authority) or broken during the transport to the final disposal site.

A portion of the mercury, in vapor form, is released into the air; whereas rest of the mercury is released onto the soil with further possibility of getting into the surface and/or ground water bodies through the leachate from soil.

Establishment Level - Handling of Used/Broken Fluorescent Lamps (FLs): The consumers may handle and dispose the used lamps as described below: Domestic Consumers:

- (i) The consumer must ensure that (s)he does not throw used lamps in the general trash bin but hands them over (in a properly packed form) to a kabari (an individual) or a collection agency identified by an authorized Lamp Recycling Unit for proper recycle / disposal of used FLs.
- (ii) The used intact FLs may be stored either in the same boxes in which new lamps are brought or other boxes of similar size. They should be stored upright. The due precaution may be taken while packing more than one used lamp, so as not cause the possibility of breakage during the storage and transportation.
- (iii) Even, the broken FLs, after due clean up may be handed over for safe recycling and disposal.

Here are some guidelines for cleaning up a broken CFL:

- (i) Open a window and leave the room (restrict access) for at least 15 minutes. If you have fans, place the fans in the windows and blow the air out of the room. Note: If the room has no windows, open all doors to the room and windows outside the room and use fans to move the air out of the room and to the open windows.
- (ii) Remove all materials you can without using a vacuum cleaner
- (iii) Wear disposable rubber gloves, if available (do not use your bare hands) • Carefully scoop up the fragments and powder with stiff paper or cardboard
- (iv) Wipe the area clean with a damp paper towel or disposable wet wipe
- (v) Sticky tape (such as duct tape) can be used to pick up small pieces and powder
- (vi) Place all cleanup materials in a plastic bag and seal it, and then place in a second sealed plastic bag, dispose it properly and wash your hands after disposing of the bags.

- (vii) The first time you vacuum the area where the bulb was broken, remove the vacuum bag once done cleaning the area (or empty and wipe the canister) and put the bag and/or vacuum debris, as well as the cleaning materials, in two sealed plastic bags in the outdoor trash or protected outdoor location for normal disposal.

User Awareness: All the consumers, individual domestic consumers and bulk consumers (offices, institutions, large residential complexes, etc.) should get fully aware about the potential health impact of mercury-bearing lamps, through audio-visual media and the product leaflets. The precautions, to be taken while cleaning up the broken FLs should, also, be known to the consumers. As a part of such awareness programs, the consumers, even at individual level, are expected to participate actively with constructive suggestions and provide the feedback, for the overall success of mercury management in fluorescent lamp

Collection: The collection of used lamps may be done mainly by two ways: (i) Collection of used lamp (FLs) from bulk consumers may either be arranged by the management of above set-up (institutions, etc.) for direct disposal to LRU or by the LRU which may arrange to pick up used lamps from such collection sites through an identified collection agency. (ii) Collection of used lamps (FLs) from individual domestic consumer may be arranged by the LRU, either through kabaris (individuals appointed for the purpose by LRU) or an identified collection agency for door to door pickup. Transportation: (i) The Handler (Kabari or representative of LRU) of used FLs in transit should take care of selection of proper vehicle and carriage so as to minimize breakage of used FLs.

(ii) There should not be any intermediate transfer of materials in the transit stage. The collected used FLs should be straight transported to the LRF for further processing (iii) The Handler should be trained to take care of mercury spills, if any, that takes place during the journey to LRU.

Annexure-H-Schedule of installed Dust Bins

Gateway A Dustbin Inventory			
S.No.	Location	Area	Quantity
1	GA 3rd Floor	Classrooms	7
2	GA 3rd Floor	Washrooms	6
3	GA 3rd Floor	Lobby	2
4	GA 3rd Floor	Office Area Lobby	1
5	GA 3rd Floor	Cabins	4
6	GA 2nd Floor	Classrooms	9
7	GA 2nd Floor	Washrooms	6
8	GA 2nd Floor	Lobby	2
9	GA 2nd Floor	Office Area Cabins	5
10	GA 2nd Floor	Pantry	1
11	GA 2nd Floor	Workstations	5
12	GA 1st Floor	Washrooms	6
13	GA 1st Floor	Lobby	2
14	GA 1st Floor	Classrooms	5
15	GA 1st Floor	Leadership Office Entrance	1
16	GA 1st Floor	Pantry	1
17	GA 1st Floor	Dinning Room	1
18	GA 1st Floor	Board Room	2
19	GA 1st Floor	President's Office	1
20	GA 1st Floor	VC's Office	1
21	GA 1st Floor	Workstations	4
22	GA 1st Floor	Washrooms	3
23	GA 1st Floor	Cabins	8
24	GA 1st Floor	Workstations	5
25	GA UG Floor	Classrooms	4
26	GA UG Floor	Lobby	3
27	GA UG Floor	Washrooms	6
28	GA LG Floor	Washrooms	6
29	GA LG Floor	Lobby	2
30	GA LG Floor	Classrooms	2
31	GA LG Floor	Offices	11
Total			122

Gateway B Dustbin Inventory			
S.No.	Location	Area	Quantity
1	GB LG	Lobby	1
2	GB LG	Washrooms	6
3	GB LG	Claasrooms	2
4	GB LG	IQAC Office	3
5	GB LG	Wellness Centre	3
8	GB LG	Programme Office	8
9	GB UG	Lobby	3
10	GB UG	ATM	1
11	GB UG	Placement Office	5
12	GB UG	Reception Counter	1
13	GB UG	Washrooms	4
14	GB 1st Floor	Lobby	1
15	GB 1st Floor	Dance Room	1
16	GB 1st Floor	Washrooms	3
17	GB 2nd floor	Pantry	1
18	GB 2nd floor	Lobby	1
19	GB 2nd floor	Washrooms	3
20	GB 3rd floor	HUB A	1
21	GB 3rd floor	HUB B	1
22	GB 3rd floor	HUB C	1
23	GB 3rd floor	Pantry	1
24	GB 3rd floor	Washrooms	3
Total			54

Library Building Dustbin Inventory			
S.No.	Location	Area	Quantity
1	Library Building	Lobby	3
2	Library Building	Faculty Lounge	1
3	Library Building	Faculty Lounge Washrooms	2
4	Library Building	Area 51	1
5	Library Building	Chemistry Lab	1
6	Library Building	Physics Lab	3
7	Library Building	Lobby (Near Water Dispenser)	1
8	Library Building	Washrooms	8
9	Inside Library	Counter Area	11
10	Library Building	Medical Room	6
Total			37

E2 Block Dustbin Inventory			
S.No.	Location	Area	Quantity
1	E2 4rth Floor	Washrooms West Side	5
2	E2 4rth Floor	Washrooms East Side	5
3	E2 4rth Floor	Pantry East Side	3
4	E2 4rth Floor	Pantry West Side	3
5	E2 4rth Floor	Cabins	92
6	E2 4rth Floor	Meeting Rooms	4
7	E2 3rd Floor	Floor Not In Use	
8	E2 2nd Floor	Washrooms East Side	5
9	E2 2nd Floor	Washrooms West Side	5
10	E2 2nd Floor	Classrooms	9
11	E2 1st Floor	Washrooms East Side	5
12	E2 1st Floor	Gym Room	1
13	E2 1st Floor	Classrooms	4
14	E2 Ground Floor	Washrooms Towards Clean Room	2
15	E2 Ground Floor	Washrooms Towards MPH	2
16	E2 Ground Floor	Clean room	11
17	E2 Ground Floor	E2 café Kitchen	1
18	E2 Ground Floor	MPH	1
19	E2 Ground Floor	E2 Café Washrooms	2
20	E2 Ground Floor	E2 Café Dining Area	1
Total			161

Workshop Dustbin Inventory			
S.No.	Floor	Area	Quantity
1	Ground Floor	Lobby	1
2	Ground Floor	Washrooms	2
3	Ground Floor	Robotics Lab	1
4	Ground Floor	Workshop Office	3
5	Ground Floor	Open Area Workhsop	2
6	1st Floor	Lobby	1
Total			10

SS House Dustbin Inventory				
S.No.	Location	Floor	Common Area	Quantity
1	SS House	1st	Common Area	1
2	SS House	2nd	Common Area	1
3	SS House	3rd	Common Area	1
4	SS House	4th	Common Area	1
Total				4

Faculty House Dustbin Inventory			
S.No.	Floor	Quantity	Remark
1	GF Gym Area Washroom	1	
2	1st	3	
3	2nd	3	
4	3rd	2	
5	4rth	2	
6	5th	4	
7	6th	2	
8	7th	2	
9	8th	3	
10	9th	3	
11	10th	3	
12	11th	3	
Total		31	

Outer Area Dustbin Inventory		
S.No.	Location	Quantity
1	E2 Front Area	4
2	Workshop Front	2
3	Delicious Front	2
4	Library Front	2
5	Baker Street Front	2
6	Reception Back Side	2
7	Memorial Area	4
8	Water Body Front	2
9	Gate No.2 Ground	4
10	Gate No.2	2
11	Gate No.1	1
12	HT Workshop Side	2
13	Dhaba Side	2
14	Area 51 Back Side	2
15	Apt.A Front	2
16	Apt.B Front	2
17	Tower C Front	2
18	Tower C Baundry wall Side	2
19	Lazeez Dhaba Front	2
20	T5 Front	2
21	E2 To Tower C Pathway	2
22	T4 Front	2
23	Faculty House Front	2
24	Pump House Area	2
	Total	53

Old Tower Hostel Dustbin Inventory				
S.No.	Floor	Area	Quantity	Remark
1	1st	Lobby	3	
2	1st	Washrooms	2	
3	2nd	Lobby	3	Floor Not in Use
4	2nd	Washrooms	1	Floor Not in Use
5	3rd	Lobby	2	Floor Not in Use
6	3rd	Washrooms	4	Floor Not in Use
7	4th	Lobby	1	Floor Not in Use
8	4th	Washrooms	3	Floor Not in Use
9	5th	Lobby	1	Floor Not in Use
10	5th	Washrooms	4	Floor Not in Use
11	6th	Washrooms	4	Floor Not in Use
12	6th	Lobby	3	Floor Not in Use
13	7th	Washrooms	1	Floor Not in Use
14	7th	Lobby	3	Floor Not in Use
15	8th	Lobby	2	Floor Not in Use
16	8th	Washrooms	4	Floor Not in Use
17	9th	Lobby	N/A	Floor Not in Use
18	9th	Washrooms	N/A	Floor Not in Use
19	10th	Lobby	N/A	Floor Not in Use
20	10th	Washrooms	2	Floor Not in Use
21	11th	Lobby	N/A	Floor Not in Use
22	11th	Washrooms	2	Floor Not in Use
23	12th	Lobby	1	Floor Not in Use
24	12th	Washrooms	1	Floor Not in Use
25	13th	Lobby	1	Floor Not in Use
26	13th	Washrooms	2	Floor Not in Use
27	14th	Lobby	1	Floor Not in Use
28	14th	Washrooms	2	Floor Not in Use
		Total	53	

Dustbin Inventory Apt A Hostel						
S.No..	Floor	Apt.No.	Common Area	Washroom	Quantity	Remark
1	Ground Floor	Apt.No.2	1	1	2	
2	Ground Floor	Apt.No.3 Maintenance Office	1+ (3 Office)	1	5	
3	Ground Floor	Apt.No.4	1	1	2	
4	Ground Floor	Apt.No.5	1	1	2	
5	Ground Floor	Apt.No.6	1	1	2	
6	Ground Floor	Warden Room + Office			2	
7	Ground Floor	Lobby			2	
8	1st Floor	Lobby			2	Floor Not in Use
9	1st Floor	Apt.No.11	1	1	2	Floor Not in Use
10	1st Floor	Apt.No.12	1	1	2	Floor Not in Use
11	1st Floor	Apt.No.13	1	1	2	Floor Not in Use
12	1st Floor	Apt.No.14	1	1	2	Floor Not in Use
13	1st Floor	Apt.No.15	1	1	2	Floor Not in Use
14	1st Floor	Apt.No.16	1	1	2	Floor Not in Use
15	2nd Floor	Lobby			2	Floor Not in Use
16	2nd Floor	Apt.No.21	1	1	2	Floor Not in Use
17	2nd Floor	Apt.No.22	1	1	2	Floor Not in Use
18	2nd Floor	Apt.No.23	1	1	2	Floor Not in Use
19	2nd Floor	Apt.No.24	1	1	2	Floor Not in Use
20	2nd Floor	Apt.No.25	N/A	N/A	N/A	Floor Not in Use
21	2nd Floor	Apt.No.26	1	1	2	Floor Not in Use
22	3rd Floor	Lobby			2	Floor Not in Use
23	3rd Floor	Apt.No.31	1	1	2	Floor Not in Use

24	3rd Floor	Apt.No.32	1	1	2	Floor Not in Use
25	3rd Floor	Apt.No.33	N/A	N/A	N/A	Floor Not in Use
26	3rd Floor	Apt.No.34	N/A	N/A	N/A	Floor Not in Use
27	3rd Floor	Apt.No.35	1	N/A	1	Floor Not in Use
28	3rd Floor	Apt.No.36	1	1	2	Floor Not in Use
29	4rth Floor	Lobby			2	Floor Not in Use
30	4rth Floor	Apt.No.41	1	N/A	1	Floor Not in Use
31	4rth Floor	Apt.No.42	1	N/A	1	Floor Not in Use
32	4rth Floor	Apt.No.43	N/A	N/A	N/A	Floor Not in Use
33	4rth Floor	Apt.No.44	N/A	N/A	N/A	Floor Not in Use
34	4rth Floor	Apt.No.45	N/A	N/A	N/A	Floor Not in Use
35	4rth Floor	Apt.No.46	N/A	N/A	N/A	Floor Not in Use
36	5th Floor	Lobby			N/A	Floor Not in Use
37	5th Floor	Apt.No.51	N/A	N/A	N/A	Floor Not in Use
38	5th Floor	Apt.No.52	1	N/A	1	Floor Not in Use
39	5th Floor	Apt.No.53	N/A	N/A	N/A	Floor Not in Use
40	5th Floor	Apt.No.54	N/A	N/A	N/A	Floor Not in Use
41	5th Floor	Apt.No.55	N/A	N/A	N/A	Floor Not in Use
42	5th Floor	Apt.No.56	N/A	N/A	N/A	Floor Not in Use
Total					57	

Dustbin Inventory Apt B Hostel					
S.No.	Floor	Apt.No.	Common Area	Washroom	Quantity
1	Ground Floor	Apt.No.2	1	1	2
2	Ground Floor	Apt.No.3	1	1	2
3	Ground Floor	Apt.No.4	1	1	2
4	Ground Floor	Apt.No.5	1	1	2
5	Ground Floor	Apt.No.6	1	1	2
6	Ground Floor	Warden Room	2	1	3
7	Ground Floor	Lobby			2
8	1st Floor	Lobby			2
9	1st Floor	Apt.No.11	1	1	2
10	1st Floor	Apt.No.12	1	1	2
11	1st Floor	Apt.No.13	1	1	2
12	1st Floor	Apt.No.14	1	1	2
13	1st Floor	Apt.No.15	1	1	2
14	1st Floor	Apt.No.16	1	1	2
15	2nd Floor	Lobby			2
16	2nd Floor	Apt.No.21	1	1	2
17	2nd Floor	Apt.No.22	1	1	2
18	2nd Floor	Apt.No.23	1	1	2
19	2nd Floor	Apt.No.24	1	1	2
20	2nd Floor	Apt.No.25	1	1	2
21	2nd Floor	Apt.No.26	1	1	2
22	3rd Floor	Lobby			2
23	3rd Floor	Apt.No.31	1	1	2
24	3rd Floor	Apt.No.32	1	1	2
25	3rd Floor	Apt.No.33	1	1	2
26	3rd Floor	Apt.No.34	1	1	2
27	3rd Floor	Apt.No.35	1	1	2
28	3rd Floor	Apt.No.36	1	1	2
29	4rth Floor	Lobby			2
30	4rth Floor	Apt.No.41	1	1	2
31	4rth Floor	Apt.No.42	1	1	2
32	4rth Floor	Apt.No.43	1	1	2
33	4rth Floor	Apt.No.44	1	1	2
34	4rth Floor	Apt.No.45	1	1	2
35	4rth Floor	Apt.No.46	1	1	2
36	5th Floor	Lobby			2
37	5th Floor	Apt.No.51	1	1	2
38	5th Floor	Apt.No.52	1	1	2

39	5th Floor	Apt.No.53	1	1	2
40	5th Floor	Apt.No.54	1	1	2
41	5th Floor	Apt.No.55	1	1	2
42	5th Floor	Apt.No.56	1	1	2
Total					85

Dustbin Inventory Apt C Hostel					
S.No.	Floor	Apt.No.	Common Area	Washroom	Quantity
1	Ground Floor	Apt.No.2	1	2	3
2	Ground Floor	Apt.No.3	1	1	2
3	Ground Floor	Apt.No.4	1	1	2
4	Ground Floor	Apt.No.5	1	1	2
5	Ground Floor	Apt.No.6	1	2	3
6	Ground Floor	Warden Room	2	1	3
7	Ground Floor	Lobby			2
8	1st Floor	Lobby			3
9	1st Floor	Apt.No.11	1	1	2
10	1st Floor	Apt.No.12	1	2	3
11	1st Floor	Apt.No.13	1	2	3
12	1st Floor	Apt.No.14	1	2	3
13	1st Floor	Apt.No.15	1	2	3
14	1st Floor	Apt.No.16	1	2	3
15	2nd Floor	Lobby			3
16	2nd Floor	Apt.No.21	1	1	2
17	2nd Floor	Apt.No.22	1	2	3
18	2nd Floor	Apt.No.23	1	2	3
19	2nd Floor	Apt.No.24	1	2	3
20	2nd Floor	Apt.No.25	1	1	2
21	2nd Floor	Apt.No.26	1	1	2
22	3rd Floor	Lobby			3
23	3rd Floor	Apt.No.31	1	2	3
24	3rd Floor	Apt.No.32	1	2	3
25	3rd Floor	Apt.No.33	1	2	3
26	3rd Floor	Apt.No.34	1	2	3
27	3rd Floor	Apt.No.35	1	2	3
28	3rd Floor	Apt.No.36	1	2	3
29	4rth Floor	Lobby			2
30	4rth Floor	Apt.No.41	1	2	3

31	4rth Floor	Apt.No.42	1	2	3
32	4rth Floor	Apt.No.43	1	2	3
33	4rth Floor	Apt.No.44	1	2	3
34	4rth Floor	Apt.No.45	1	2	3
35	4rth Floor	Apt.No.46	1	2	3
36	5th Floor	Lobby			4
37	5th Floor	Apt.No.51	1	2	3
38	5th Floor	Apt.No.52	1	2	3
39	5th Floor	Apt.No.53	1	1	2
40	5th Floor	Apt.No.54	1	1	2
41	5th Floor	Apt.No.55	1	2	3
42	5th Floor	Apt.No.56	1	2	3
Total					116

Dustbin Inventory Apt D Hostel						
S.No.	Floor	Apt.No.	Common Area	Washroom	Quantity	Remark
1	Ground Floor	Lobby			1	
2	1st Floor	Lobby			2	
3	1st Floor	Apt.NO.11	1	1	2	
4	1st Floor	Apt.NO.12	1	1	2	
5	1st Floor	Guest House Front			1	
6	1st Floor	Guest Rooms			7	
7	1st Floor	Warden Room			2	
8	2nd Floor	Apt.No.21	1	1	2	
9	2nd Floor	Apt.No.22	1	1	2	
10	2nd Floor	Apt.No.23	1	1	2	
11	2nd Floor	Apt.No.24	1	1	2	
12	2nd Floor	Lobby			2	
13	3rd Floor	Lobby			2	
14	3rd Floor	Apt.No.31	1	1	2	
15	3rd Floor	Apt.No.32	1	1	2	
16	3rd Floor	Apt.No.33	1	1	2	
17	3rd Floor	Apt.No.34	1	1	2	
18	4th Floor	Lobby			2	Floor Not in Use
19	4rth Floor	Apt.No.41	1	1	2	Floor Not in Use
20	4rth Floor	Apt.No.42	1	1	2	Floor Not in Use
21	4rth Floor	Apt.No.43	1	1	2	Floor Not in Use
22	4rth Floor	Apt.No.44	1	1	2	Floor Not in Use
23	5th Floor	Lobby			1	Floor Not in Use

24	5th Floor	Apt.No.51	1	1	2	Floor Not in Use
25	5th Floor	Apt.No.52	1	N/A	1	Floor Not in Use
26	5th Floor	Apt.No.53	1	N/A	1	Floor Not in Use
27	5th Floor	Apt.No.54	1	N/A	1	Floor Not in Use
28	6th Floor	Lobby			1	
29	6th Floor	Apt.No.61	1	N/A	1	Floor Not in Use
30	6th Floor	Apt.No.62	1	1	2	Floor Not in Use
31	6th Floor	Apt.No.63	1	N/A	1	Floor Not in Use
32	6th Floor	Apt.No.64	1	N/A	1	Floor Not in Use
Total					59	

Dustbin Inventory T5 Hostel			
S.No.	Floor	Location	Quantity
1	Ground Floor	Lobby	4
2	Ground Floor	Washrooms	2
3	1st	Lobby	4
4	1st	Washrooms	2
5	2nd	Lobby	3
6	2nd	Washrooms	2
7	3rd	Lobby	4
8	3rd	Washrooms	2
9	4th	Lobby	4
10	4th	Washrooms	2
11	5th	Lobby	4
12	5th	Washrooms	2
13	6th	Washrooms	2
14	6th	Lobby	4
15	7th	Washrooms	2
16	7th	Lobby	4
17	8th	Lobby	4
18	8th	Washrooms	2
19	9th	Lobby	4
20	9th	Washrooms	2
21	10th	Lobby	4
22	10th	Washrooms	2
Total			65

Annexure-I-Limits of Sound level as per NBC-2016

Sl No.	Sound Level (Slow Response) dBA	Time Permitted, <i>T</i> h : min
(1)	(2)	(3)
i)	85	16:00
ii)	86	13:56
iii)	87	12:08
iv)	88	10:34
v)	89	9:11
vi)	90	8:00
vii)	91	6:58
viii)	92	6:04
ix)	93	5:17
x)	94	4:36
xi)	95	4:00
xii)	96	3:29
xiii)	97	3:02
xiv)	98	2:50
xv)	99	2:15
xvi)	100	2:00
xvii)	101	1:44
xviii)	102	1:31
xix)	103	1:19
xx)	104	1:09
xxi)	105	1:00
xxii)	106	0:52
xxiii)	107	0:46
xxiv)	108	0:40
xxv)	109	0:34
xxvi)	110	0:30
xxvii)	111	0:26
xxviii)	112	0:23
xxix)	113	0:20
xxx)	114	0:17
xxxi)	115	0:15

Annexure-J-Guidelines for Environment Friendly and Green Initiatives

VOC limits of materials

Type of Material	VOC Limit (g/L less water)
Paints	
Non- Flat (Glossy) paint	150
Flat (Mat) paint	50
Anti- corrosive/ anti-rust paints	250
Varnish	350
Adhesives	
Glazing adhesives	100
Tiles adhesives	65
Wood adhesive	30
Wood flooring adhesive	100

Minimum Ventilation Rates in Various Functional Zones*

Occupancy Category	People Outdoor Air Rate	Area Outdoor Air Rate
	Cfm/person	Cfm/ sq.ft
Correctional Facilities		
Dayroom, Guard station	5	0.06
Booking/ waiting	7.5	0.06
Education Facilities		
Daycare (through age 4), daycare sickroom, Art Classroom, science laboratories, college laboratories, wood, metal shop	10	0.18
Classrooms (ages 5-8), (age 9+), computer lab, media centre	10	0.12
Lecture Room/ hall (fixed seating)	7.5	0.06
Music/ theater/ dance,	10	0.06
Multi use assembly	7.5	0.06
Food & Beverages Services		
Restaurant dining rooms/ cafeteria/ fast food dining/ Bars/ Cocktail Lounges	7.5	0.18
General		
Break Rooms, Coffee stations, conference/ meeting	5	0.06
Corridors	-	0.06
Storage Rooms	-	0.12
Hotels, Motels, Resorts, Dormitories		
Bedroom/ living room, barracks sleeping areas	5	0.06
laundry rooms	5	0.12
Lobbies/ prefunction	7.5	0.06
Multipurpose assembly	5	0.06

Occupancy Category	People Outdoor Air Rate	Area Outdoor Air Rate
	Cfm/person	Cfm/ sq.ft
Office Building		
Office Spaces, Reception Areas, Telephone, data entry, Main entry Lobbies	5	0.06
Electrical Equipment rooms	-	0.06
Elevator machine rooms	-	0.12
Pharmacy (prep area)	5	0.18
Photo Studios	5	0.12
Shipping/ receiving	-	0.12
Telephone closets	-	0.00
Transportation waiting	7.5	0.06
Warehouses	-	0.06
Public Assembly Spaces		
Auditorium seating area, Place of religious worship, Courtrooms, Legislative Chambers, Lobbies	5	0.06
Libraries	5	0.12
Museums (children's)	7.5	0.06
Museum/ galleries	7.5	0.06
Retail		
Sales	7.5	0.12
Mall common Areas	7.5	0.06
Barber Shop	7.5	0.06
Beauty & nail salons	20	0.12
Pet Shops (animal areas)	7.5	0.18
Super Market, Coin operated Laundries	7.5	0.06

Occupancy Category	People Outdoor Air Rate	Area Outdoor Air Rate
	Cfm/person	Cfm/ sq.ft
Sports & Entertainment		
Sports arena (Play Area), Gym, stadium (play area)	-	0.30
Spectator area	7.5	0.06
Swimming (pool & deck)	-	0.48
Disco/dance floor/ health club/ aerobics room/ weight rooms	20	0.06
Bowling alley (seating)	10	0.12
Gambling casinos/ game arcades	7.5	0.18
Stages, studios	10	0.06

* Total outdoor air flow in functional zone =

$$\left\{ \begin{array}{l} \text{Outdoor air flow rate required per} \\ \text{person as per the above table} \\ \times \\ \text{Zone population} \end{array} \right\} + \left\{ \begin{array}{l} \text{Outdoor air flow rate required per unit} \\ \text{area as per the above table} \\ \times \\ \text{Net occupiable zone area} \end{array} \right\}$$

ANNEX-K-LIST OF PLANTATIONS

S.NO	TREE NO	SPECIES	Category	GIRTH-Metres
1	1	Neem	Medicinal	1.80
2	2	Neem	Medicinal	0.95
3	3	Cassia	Medicinal	1.73
4	4	Cassia	Medicinal	1.85
5	5	Jati	Timber	1.50
6	6	Neem	Medicinal	1.20
7	7	jamun	Fruit / Medicinal	0.53
8	8	jamun	Fruit / Medicinal	1.10
9	9	Ficus	Ornamental	0.58
10	10	Neem	Medicinal	0.90
11	11	Amla	Medicinal	1.40
12	12	Neem	Medicinal	0.87
13	13	Neem	Medicinal	0.90
14	14	Neem	Medicinal	0.65
15	15	Sagon	Timber	1.06
16	16	Jamun	Fruit / Medicinal	1.43
17	17	Jati	Timber	1.25
18	18	Neem	Medicinal	0.98
19	19	Jamun	Fruit / Medicinal	1.40
20	20	Lemon	Fruit / Medicinal	0.37
21	21	Pipal	Medicinal	0.78
22	22	Bakan	Timber	0.98
23	23	Pilkhan	Medicinal	1.30
24	24	Neel Kata	Ornamental	1.20
25	25	Badam	Fruit / Medicinal	0.31
26	26	Lasoda	Medicinal	0.40
27	27	Cassia	Ornamental / Medicinal	1.36
28	28	Guava	Fruit / Medicinal	0.35
29	29	Guava	Fruit / Medicinal	0.20
30	30	Jamun	Fruit / Medicinal	0.30
31	31	Jamun	Fruit / Medicinal	0.35
32	32	Cassia	Ornamental	0.42
33	33	Mango	Fruit / Medicinal	1.24
34	34	Jati	Timber	1.36
35	35	Amla	Medicinal	1.47

36	36	Amla	Medicinal	0.31
37	37	Amla	Medicinal	0.40
38	38	Amla	Medicinal	1.02
39	39	Amla	Medicinal	0.87
40	40	jamun	Fruit / Medicinal	0.88
41	41	Sagwan	Timber	2.40
42	42	jamun	Fruit / Medicinal	0.86
43	43	Amaltas	Medicinal	1.00
44	44	Siris	Medicinal	0.78
45	45	Sagwan	Timber	0.76
46	46	Sagwan	Timber	1.04
47	47	Sagwan	Timber	1.20
48	48	Sagwan	Timber	0.82
49	49	siris	Medicinal	0.90
50	50	Siris	Medicinal	0.49
51	51	Sagwan	Timber	0.48
52	52	Jamun	Fruit / Medicinal	0.61
53	53	Tectona	Ornamental	0.43
54	54	Tectona	Ornamental	0.88
55	55	Siris	Medicinal	0.56
56	56	siris	Medicinal	1.30
57	57	Arjuna	Medicinal	1.00
58	58	Arjuna	Medicinal	0.42
59	59	Arjuna	Medicinal	0.62
60	60	Arjuna	Medicinal	0.53
61	61	Neem	Medicinal	0.77
62	62	Sagwan	Timber	0.97
63	63	Sagwan	Timber	0.46
64	64	Sagwan	Timber	0.75
65	65	jamun	Fruit / Medicinal	0.89
66	66	Moulsari	Timber	0.63
67	67	Sagwan	Timber	0.92
68	68	Sagwan	Timber	0.49
69	69	Cassia	Ornamental / Medicinal	0.46
70	70	Cassia	Ornamental / Medicinal	0.40
71	71	Sagwan	Timber	0.37
72	72	Sagwan	Timber	0.58
73	73	Sagwan	Timber	0.82
74	74	Sagwan	Timber	0.52
75	75	Sagwan	Timber	0.69

76	76	Sagwan	Timber	0.25
77	77	Sagwan	Timber	0.31
78	78	Cassia	Ornamental	0.87
79	79	Cassia	Ornamental	0.77
80	80	Neem	Medicinal	0.83
81	81	siris	Medicinal	0.64
82	82	siris	Medicinal	1.07
83	83	Bakan	Timber	0.68
84	84	Jamun	Fruit / Medicinal	0.84
85	85	Jamun	Fruit / Medicinal	1.30
86	86	Moulsari	Timber	1.22
87	87	Jamun	Fruit / Medicinal	1.26
88	88	Sagwan	Timber	0.76
89	89	Neem	Medicinal	1.24
90	90	Sagwan	Timber	0.25
91	91	Sheesham	Timber	0.97
92	92	Alstonia	Medicinal	0.94
93	93	Neem	Medicinal	1.00
94	94	Ashoka	Medicinal	0.74
95	95	Neem	Medicinal	0.82
96	96	Tectona	Ornamental	0.78
97	97	Marod fali	Medicinal	0.81
98	98	Sheesham	Timber	0.89
99	99	Jamun	Fruit / Medicinal	0.77
100	100	Neem	Medicinal	0.96
101	101	Kapoor Tree	Medicinal	0.35
102	102	Kapoor Tree	Medicinal	0.31
103	103	Sagwan	Timber	0.74
104	104	Sagwan	Timber	0.66
105	105	Bargad	Medicinal	2.40
106	106	Neem	Medicinal	0.78
107	107	Sagwan	Timber	0.69
108	108	Neem	Medicinal	0.53
109	109	Marod fali	Medicinal	0.54
110	110	Marod fali	Medicinal	0.33
111	111	Neem	Medicinal	0.43
112	112	Bargad	Medicinal	0.30
113	113	Jamun	Fruit / Medicinal	0.34
114	114	Ficus	Medicinal	0.69
115	115	Siris	Medicinal	0.31
116	116	Siris	Medicinal	0.44

117	117	Sagwan	Timber	0.56
118	118	Sagwan	Timber	0.51
119	119	Sagwan	Timber	0.69
120	120	Siris	Medicinal	0.52
121	121	Siris	Medicinal	0.83
122	122	Alstonia	Medicinal	1.08
123	123	Alstonia	Medicinal	1.50
124	124	Siris	Medicinal	0.79
125	125	Sagwan	Timber	0.52
126	126	Neem	Medicinal	1.21
127	127	Bakan	Timber	0.43
128	128	Sheesham	Timber	1.33
129	129	Sheesham	Timber	1.26
130	130	Siris	Medicinal	1.07
131	131	Neem	Medicinal	0.63
132	132	Neem	Medicinal	0.73
133	133	Sagwan	Timber	1.03
134	134	Sagwan	Timber	1.10
135	135	Sagwan	Timber	0.96
136	136	Sagwan	Timber	0.40
137	137	Sagwan	Timber	0.56
138	138	Sagwan	Timber	0.51
139	139	Sagwan	Timber	0.62
140	140	Sagwan	Timber	0.72
141	141	Sagwan	Timber	0.67
142	142	Sagwan	Timber	0.49
143	143	Sagwan	Timber	0.46
144	144	Bair	Fruit	0.52
145	145	Sheesham	Timber	0.53
146	146	Sagwan	Timber	0.47
147	147	Neem	Medicinal	0.61
148	148	Sheesham	Timber	0.52
149	149	Sagwan	Timber	0.47
150	150	Jamun	Fruit / Medicinal	0.43
151	151	Jamun	Fruit / Medicinal	0.56
152	152	Bargad	Medicinal	0.44
153	153	Jack Fruit	Fruit	0.37
154	154	Jack Fruit	Fruit	1.30
155	155	Sagwan	Timber	0.81
156	156	Pilkhan	Medicinal	0.48
157	157	Pilkhan	Medicinal	0.97

158	158	Sagwan	Timber	0.73
159	159	Jati	Timber	0.67
160	160	Moulsari	Timber	0.82
161	161	Kikar	Medicinal	0.96
162	162	Sagwan	Timber	1.21
163	163	Neem	Medicinal	0.30
164	164	Amaltas	Medicinal	0.80
165	165	Amaltas	Medicinal	0.46
166	166	Siris	Medicinal	0.33
167	167	Sagwan	Timber	0.63
168	168	Jamun	Fruit / Medicinal	0.73
169	169	Sagwan	Timber	0.88
170	170	Sagwan	Timber	0.68
171	171	Kurejia	Ornamental	1.22
172	172	Kurejia	Ornamental	0.97
173	173	Kurejia	Ornamental	0.67
174	174	Symbol	Medicinal	0.32
175	175	Symbol	Medicinal	0.31
176	176	Symbol	Medicinal	0.28
177	177	Symbol	Medicinal	0.33
178	178	Symbol	Medicinal	0.42
179	179	Symbol	Medicinal	0.32
180	180	Symbol	Medicinal	0.28
181	181	Neem	Medicinal	0.67
182	182	Neem	Medicinal	1.32
183	183	Siris	Medicinal	0.33
184	184	Siris	Medicinal	0.43
185	185	Arjuna	Medicinal	0.67
186	186	Arjuna	Medicinal	0.58
187	187	Alstonia	Medicinal	0.73
188	188	Alstonia	Medicinal	0.77
189	189	Alstonia	Medicinal	0.39
190	190	Alstonia	Medicinal	0.99
191	191	Alstonia	Medicinal	0.83
192	192	Alstonia	Medicinal	0.42
193	193	ALSTONIA	Medicinal	0.47
194	194	Alstonia	Medicinal	0.58
195	195	ALSTONIA	Medicinal	0.52
196	196	Arjuna	Medicinal	0.57
197	197	Arjuna	Medicinal	0.52
198	198	Arjuna	Medicinal	0.38

199	199	Arjuna	Medicinal	0.42
200	200	Arjuna	Medicinal	0.68
201	201	Arjuna	Medicinal	0.77
202	202	Arjuna	Medicinal	0.51
203	203	Arjuna	Medicinal	0.67
204	204	Siris	Medicinal	0.57
205	205	Siris	Medicinal	0.47
206	206	Alstonia	Medicinal	0.58
207	207	Erythrina	Ornamental	0.52
208	208	Erythrina	Ornamental	0.85
209	209	Bair	Fruit	0.67
210	210	Ficus	Medicinal	0.81
211	211	Ficus	Medicinal	0.52
212	212	Ficus	Medicinal	0.63
213	213	Sagwan	Timber	0.26
214	214	Sagwan	Timber	0.80
215	215	Tectona	Ornamental	0.82
216	216	Tectona	Ornamental	0.67
217	217	Fig	Medicinal	0.72
218	218	Fig	Medicinal	0.69
219	219	Gulmohar	Ornamental	0.95
220	220	Gulmohar	Ornamental	0.99
221	221	PEEPAL	Medicinal	1.30
222	222	Arjuna	Medicinal	0.68
223	223	Arjuna	Medicinal	0.32
224	224	Arjuna	Medicinal	0.52
225	225	Arjuna	Medicinal	1.70
226	226	Arjuna	Medicinal	0.61
227	227	Arjuna	Medicinal	0.84
228	228	Sapodilla	Fruit / Medicinal	0.89
229	229	Sapodilla	Fruit / Medicinal	0.57
230	230	Sapodilla	Fruit / Medicinal	1.30
231	231	Sapodilla	Fruit / Medicinal	0.40
232	232	Sapodilla	Fruit / Medicinal	0.68
233	233	Rudraksha	Medicinal	0.64
234	234	Rudraksha	Medicinal	0.49
235	235	Rudraksha	Medicinal	0.53
236	236	Alstonia	Medicinal	0.67
237	237	Alstonia	Medicinal	0.58
238	238	Alstonia	Medicinal	0.56
239	239	Alstonia	Medicinal	0.50

240	240	Duranta	Ornamental	0.31
241	241	Duranta	Ornamental	0.57
242	242	Duranta	Ornamental	1.81
243	243	Erythrina	Ornamental	0.42
244	244	Erythrina	Ornamental	1.07
245	245	Ficus	Medicinal	0.51
246	246	Ficus	Medicinal	0.48
247	247	Ficus	Medicinal	0.70
248	248	Pilkhan	Medicinal	0.43
249	249	Pilkhan	Medicinal	1.62
250	250	Alstonia	Medicinal	0.67
251	251	Alstonia	Medicinal	1.13
252	252	Alstonia	Medicinal	1.07
253	253	Tectona	Ornamental	1.41
254	254	Pilkhan	Medicinal	1.61
255	255	Pilkhan	Medicinal	1.72
256	256	Ficus	Medicinal	0.30
257	257	Ficus	Medicinal	0.27
258	258	Lemon	Fruit / Medicinal	0.43
259	259	Lemon	Fruit / Medicinal	0.40
260	260	Lemon	Fruit / Medicinal	0.42
261	261	Lemon	Fruit / Medicinal	0.44
262	262	Kinu	Fruit	0.46
263	263	Kinu	Fruit	0.47
264	264	Kinu	Fruit	0.51
265	265	Kinu	Fruit	0.74
266	266	Kinu	Fruit	0.42
267	267	Kinu	Fruit	0.43
268	268	Ficus	Medicinal	0.54
269	269	Ficus	Medicinal	0.56
270	270	Ficus	Medicinal	0.32
271	271	Ficus	Medicinal	0.92
272	272	Ficus	Medicinal	0.86
273	273	Ficus	Medicinal	0.87
274	274	Ficus	Medicinal	0.71
275	275	MANGO	Fruit	0.67
276	276	MANGO	Fruit	0.51
277	277	MANGO	Fruit	0.37
278	278	Kinu	Fruit	0.35
279	279	Duranta	Ornamental	0.30
281	281	Pilkhan	Medicinal	0.88

282	282	Pilkhan	Medicinal	1.25
283	283	Pilkhan	Medicinal	0.72
284	284	Alstonia	Medicinal	0.89
285	285	Alstonia	Medicinal	0.97
286	286	Alstonia	Medicinal	1.12
287	287	Alstonia	Medicinal	0.84
288	288	Alstonia	Medicinal	0.67
289	289	Alstonia	Medicinal	0.72
290	290	Alstonia	Medicinal	0.80
291	291	Alstonia	Medicinal	0.86
292	292	Alstonia	Medicinal	0.97
293	293	Alstonia	Medicinal	1.32
294	294	Siris	Medicinal	1.07
295	295	Siris	Medicinal	1.28
296	296	Alstonia	Medicinal	1.02
297	297	Alstonia	Medicinal	1.26
298	298	Alstonia	Medicinal	0.87
299	299	Alstonia	Medicinal	0.77
300	300	Shahtoot	Fruit	1.03
301	301	Shahtoot	Fruit	0.79
302	302	Alstonia	Medicinal	1.31
303	303	Alstonia	Medicinal	0.52
304	304	Alstonia	Medicinal	0.47
305	305	NEEM	Medicinal	1.42
306	306	Bakan	Timber	0.78
307	307	Jati	Timber	0.81
308	308	Siris	Medicinal	0.67
309	309	Siris	Medicinal	0.42
310	310	Kachnar	Ornamental / Medicinal	0.66
311	311	Alstonia	Medicinal	0.59
312	312	Siris	Medicinal	0.62
313	313	Siris	Medicinal	1.22
314	314	Kachnar	Ornamental / Medicinal	0.71
315	315	Chhokra		0.69
316	316	Alstonia	Medicinal	0.70
317	317	Alstonia	Medicinal	0.52
318	318	Alstonia	Medicinal	0.72
319	319	Siris	Medicinal	0.46
320	320	Siris	Medicinal	0.57
321	321	Siris	Medicinal	0.43

322	322	Siris	Medicinal	1.00
323	323	Siris	Medicinal	0.71
324	324	NEEM	Medicinal	0.67
325	325	NEEM	Medicinal	0.58
326	326	Tectona	Ornamental	0.58
327	327	Bair	Fruit	1.30
280	280	Duranta	Ornamental	0.57
328	328	Peepal	Medicinal	1.47
329	329	Ficus	Medicinal	0.94
330	330	Ficus	Medicinal	0.47
331	331	Ficus	Medicinal	0.35
332	332	Ficus	Medicinal	0.85
333	333	Ficus	Medicinal	0.85
334	334	Ficus	Medicinal	0.40
335	335	Ficus	Medicinal	0.61
336	336	Arjuna	Medicinal	0.55
337	337	Arjuna	Medicinal	0.71
338	338	Arjuna	Medicinal	0.48
339	339	Arjuna	Medicinal	0.47
340	340	Tectona	Ornamental	0.46
341	341	MANGO	Fruit	0.57
342	342	Arjuna	Medicinal	0.43
343	343	Arjuna	Medicinal	0.46
344	344	Arjuna	Medicinal	0.41
345	345	Arjuna	Medicinal	0.42
346	346	Arjuna	Medicinal	0.56
347	347	Arjuna	Medicinal	0.62
348	348	Arjuna	Medicinal	0.59
349	349	Arjuna	Medicinal	0.58
350	350	Arjuna	Medicinal	0.38
351	351	Arjuna	Medicinal	0.39
352	352	Champa	Ornamental	0.42
353	353	Champa	Ornamental	0.82
354	354	Champa	Ornamental	1.21
355	355	Arjuna	Medicinal	0.37
356	356	Arjuna	Medicinal	0.62
357	357	Arjuna	Medicinal	0.53
358	358	Arjuna	Medicinal	0.67
359	359	Arjuna	Medicinal	0.48
360	360	Arjuna	Medicinal	0.47
361	361	Arjuna	Medicinal	0.42

362	362	Arjuna	Medicinal	0.58
363	363	Arjuna	Medicinal	0.68
364	364	Arjuna	Medicinal	0.52
365	365	Arjuna	Medicinal	0.80
366	366	NEEM	Medicinal	0.51
367	367	NEEM	Medicinal	0.62
368	368	NEEM	Medicinal	0.76
369	369	NEEM	Medicinal	0.87
370	370	Arjuna	Medicinal	0.62
371	371	Arjuna	Medicinal	0.51
372	372	Arjuna	Medicinal	0.48
373	373	Siris	Medicinal	0.53
374	374	Siris	Medicinal	0.63
375	375	NEEM	Medicinal	0.82
376	376	NEEM	Medicinal	1.38
377	377	NEEM	Medicinal	0.76
378	378	Amaltas	Medicinal	1.20
379	379	Amaltas	Medicinal	0.81
380	380	Arjuna	Medicinal	0.76
381	381	Arjuna	Medicinal	0.41
382	382	Arjuna	Medicinal	0.38
383	383	Arjuna	Medicinal	0.43
384	384	Arjuna	Medicinal	0.67
385	385	Arjuna	Medicinal	0.42
386	386	Arjuna	Medicinal	0.51
387	387	Amaltas	Medicinal	0.67
388	388	Amaltas	Medicinal	0.70
389	389	Amaltas	Medicinal	0.42
390	390	Amaltas	Medicinal	0.67
391	391	Amaltas	Medicinal	0.41
392	392	Arjuna	Medicinal	0.44
393	393	Arjuna	Medicinal	0.42
394	394	Arjuna	Medicinal	0.43
395	395	NEEM	Medicinal	1.30
396	396	Siris	Medicinal	0.62
397	397	Siris	Medicinal	0.73
398	398	Siris	Medicinal	0.54
399	399	Jamun	Fruit / Medicinal	0.53
400	400	Jacaranda	Ornamental	0.58
401	401	Arjuna	Medicinal	0.73
402	402	Arjuna	Medicinal	1.31

403	403	Arjuna	Medicinal	0.77
404	404	Jamun	Fruit / Medicinal	0.81
405	405	Silver Oak	Timber	0.67
406	406	Siris	Medicinal	0.54
407	407	Siris	Medicinal	0.53
408	408	Amaltas	Medicinal	1.31
409	409	NEEM	Medicinal	0.97
410	410	NEEM	Medicinal	0.85
411	411	Jacaranda	Ornamental	0.53
412	412	Jacaranda	Ornamental	0.48
413	413	Jacaranda	Ornamental	0.51
414	414	Jacaranda	Ornamental	0.56
415	415	Jacaranda	Ornamental	0.43
416	416	Jacaranda	Ornamental	0.42
417	417	Jacaranda	Ornamental	0.46
418	418	Jacaranda	Ornamental	0.56
419	419	Jacaranda	Ornamental	0.49
420	420	Jacaranda	Ornamental	0.52
421	421	Jacaranda	Ornamental	0.47
422	422	Siris	Medicinal	0.67
423	423	Siris	Medicinal	0.58
424	424	Arjuna	Medicinal	0.48
425	425	Arjuna	Medicinal	0.73
426	426	Arjuna	Medicinal	0.63
427	427	NEEM	Medicinal	0.57
428	428	Arjuna	Medicinal	0.51
429	429	Arjuna	Medicinal	0.67
430	430	Arjuna	Medicinal	0.63
431	431	Arjuna	Medicinal	0.71
432	432	Arjuna	Medicinal	0.58
433	433	Siris	Medicinal	0.57
434	434	Siris	Medicinal	0.56
435	435	Amaltas	Medicinal	0.66
436	436	Amaltas	Medicinal	0.32
437	437	Silver Oak	Timber	0.47
438	438	Silver Oak	Timber	0.53
439	439	Arjuna	Medicinal	0.58
440	440	Arjuna	Medicinal	0.67
441	441	Arjuna	Medicinal	0.53
442	442	Alstonia	Medicinal	0.47
443	443	Alstonia	Medicinal	0.89

444	444	Alstonia	Medicinal	0.38
445	445	Alstonia	Medicinal	0.41
446	446	Alstonia	Medicinal	0.52
447	447	Alstonia	Medicinal	0.67
448	448	Alstonia	Medicinal	0.48
449	449	Alstonia	Medicinal	0.57
450	450	Alstonia	Medicinal	0.72
451	451	Siris	Medicinal	0.57
452	452	Siris	Medicinal	0.62
453	453	Siris	Medicinal	0.62
454	454	Silver Oak	Timber	0.67
455	455	Silver Oak	Timber	0.79
456	456	Silver Oak	Timber	0.48
457	457	Amaltas	Medicinal	0.53
458	458	Amaltas	Medicinal	0.64
459	459	Amaltas	Medicinal	0.62
460	460	Amaltas	Medicinal	0.59
461	461	Amaltas	Medicinal	0.63
462	462	Amaltas	Medicinal	0.55
463	463	Silver Oak	Timber	0.56
464	464	Arjuna	Medicinal	0.76
465	465	Arjuna	Medicinal	0.71
466	466	Arjuna	Medicinal	0.70
467	467	Arjuna	Medicinal	0.77
468	468	Arjuna	Medicinal	0.56
469	469	Washingtonia Palm	Ornamental	1.97
470	470	Washingtonia Palm	Ornamental	0.37
471	471	Washingtonia Palm	Ornamental	1.27
472	472	Washingtonia Palm	Ornamental	0.96
473	473	Washingtonia Palm	Ornamental	0.42
474	474	Washingtonia Palm	Ornamental	0.46
475	475	Lasoda	Medicinal	0.47
476	476	Gulmohar	Ornamental	0.48
477	477	Gulmohar	Ornamental	0.51
478	478	Gulmohar	Ornamental	0.61
479	479	NEEM	Medicinal	1.07
480	480	Bamboo	Medicinal	0.87

481	481	Bamboo	Medicinal	0.72
482	482	Bamboo	Medicinal	0.42
483	483	Bamboo	Medicinal	0.73
484	484	Eucalytus	Medicinal	0.84
485	485	Eucalytus	Medicinal	0.37
486	486	Eucalytus	Medicinal	0.46
487	487	Eucalytus	Medicinal	0.52
488	488	Balam Kheera	Medicinal	0.77
489	489	Siris	Medicinal	0.61
490	490	Siris	Medicinal	0.32
491	491	Bamboo	Medicinal	0.33
492	492	Bamboo	Medicinal	0.31
493	493	Gulmohar	Ornamental	0.58
494	494	Gulmohar	Ornamental	0.61
495	495	Gulmohar	Ornamental	1.21
496	496	Jacaranda	Ornamental	0.71
497	497	Jacaranda	Ornamental	0.34
498	498	Gulmohar	Ornamental	0.46
499	499	Siris	Medicinal	0.87
500	500	Bamboo	Medicinal	0.51
501	501	Bamboo	Medicinal	0.57
502	502	Bamboo	Medicinal	0.62
503	503	Bamboo	Medicinal	0.53
504	504	Bamboo	Medicinal	0.62
505	505	Amaltas	Medicinal	0.62
506	506	Arjuna	Medicinal	0.67
507	507	Arjuna	Medicinal	0.63
508	508	Arjuna	Medicinal	0.31
509	509	Bamboo	Medicinal	0.44
510	510	Harsingar	Medicinal	0.51
511	511	Harsingar	Medicinal	0.49
512	512	Harsingar	Medicinal	0.37
513	513	Harsingar	Medicinal	0.36
514	514	Bamboo	Medicinal	0.71
515	515	Arjuna	Medicinal	0.67
516	516	Siris	Medicinal	0.55
517	517	Siris	Medicinal	0.72
518	518	Cassia	Ornamental	0.53
519	519	Bamboo	Medicinal	1.07
520	520	Bamboo	Medicinal	0.58
521	521	Bamboo	Medicinal	0.63

522	522	Bamboo	Medicinal	0.51
523	523	Bamboo	Medicinal	0.64
524	524	Bamboo	Medicinal	0.83
525	525	Bamboo	Medicinal	0.61
526	526	Pilkhan	Medicinal	2.07
527	527	Siris	Medicinal	0.76
528	528	CHAMPA	Ornamental	0.40
529	529	CHAMPA	Ornamental	0.32
530	530	CHAMPA	Ornamental	0.30
531	531	CHAMPA	Ornamental	0.30
532	532	CHAMPA	Ornamental	0.30
533	533	CHAMPA	Ornamental	0.30
534	534	CHAMPA	Ornamental	0.30
535	535	CHAMPA	Ornamental	0.30
536	536	CHAMPA	Ornamental	0.35
537	537	CHAMPA	Ornamental	0.30
538	538	CHAMPA	Ornamental	0.30
539	539	CHAMPA	Ornamental	0.31
540	540	CHAMPA	Ornamental	0.30
541	541	CHAMPA	Ornamental	0.30
542	542	CHAMPA	Ornamental	0.30
543	543	CHAMPA	Ornamental	0.30
544	544	CHAMPA	Ornamental	0.30
545	545	CHAMPA	Ornamental	0.35
546	546	CHAMPA	Ornamental	0.30
547	547	CHAMPA	Ornamental	0.36
548	548	CHAMPA	Ornamental	0.31
549	549	CHAMPA	Ornamental	0.27
550	550	CHAMPA	Ornamental	0.28
551	551	CHAMPA	Ornamental	0.32
552	552	CHAMPA	Ornamental	0.30
553	553	CHAMPA	Ornamental	0.41
554	554	CHAMPA	Ornamental	0.38
555	555	CHAMPA	Ornamental	0.32
556	556	CHAMPA	Ornamental	0.46
557	557	CHAMPA	Ornamental	0.40
558	558	CHAMPA	Ornamental	0.42
559	559	CHAMPA	Ornamental	0.38
560	560	CHAMPA	Ornamental	0.41
561	561	CHAMPA	Ornamental	0.42
562	562	CHAMPA	Ornamental	0.42

563	563	CHAMPA	Ornamental	0.41
564	564	CHAMPA	Ornamental	0.44
565	565	CHAMPA	Ornamental	0.45
566	566	CHAMPA	Ornamental	0.46
567	567	CHAMPA	Ornamental	0.41
568	568	SYMBOL	Medicinal	0.42
569	569	SYMBOL	Medicinal	0.44
570	570	SYMBOL	Medicinal	0.51
571	571	SYMBOL	Medicinal	0.48
572	572	SYMBOL	Medicinal	0.56
573	573	SYMBOL	Medicinal	0.55
574	574	SYMBOL	Medicinal	0.54
575	575	ALSTONIA	Medicinal	0.63
576	576	SYMBOL	Medicinal	0.32
577	577	ALSTONIA	Medicinal	0.63
578	578	ALSTONIA	Medicinal	0.61
579	579	ALSTONIA	Medicinal	1.23
580	580	ALSTONIA	Medicinal	0.27
581	581	ALSTONIA	Medicinal	0.30
582	582	ALSTONIA	Medicinal	0.21
583	583	ALSTONIA	Medicinal	0.32
584	584	Jamun	Fruit / Medicinal	0.27
585	585	Arjuna	Medicinal	0.16
586	586	Kachnar	Ornamental / Medicinal	0.16
587	587	Kachnar	Ornamental / Medicinal	0.32
588	588	Kachnar	Ornamental / Medicinal	0.52
589	589	Kachnar	Ornamental / Medicinal	0.36
590	590	Kachnar	Ornamental / Medicinal	0.13
591	591	Kachnar	Ornamental / Medicinal	0.12
592	592	Kachnar	Ornamental / Medicinal	0.16
593	593	Kachnar	Ornamental / Medicinal	0.27
594	594	Kachnar	Ornamental / Medicinal	0.15
595	595	Kachnar	Ornamental / Medicinal	0.72
596	596	Kachnar	Ornamental / Medicinal	0.09

597	597	Arjuna	Medicinal	0.32
598	598	NEEM	Medicinal	0.26
599	599	Bair	Fruit	0.46
600	600	Siris	Medicinal	1.09
601	601	Siris	Medicinal	0.43
602	602	Siris	Medicinal	0.38
603	603	Siris	Medicinal	1.42
604	604	Siris	Medicinal	0.51
605	605	Jati	Medicinal	0.27
606	606	NEEM	Medicinal	0.61
607	607	Siris	Medicinal	0.27
608	608	Siris	Medicinal	0.28
609	609	NEEM	Medicinal	0.96
610	610	BER	Fruit	0.79
611	611	Sarifa	Fruit	0.43
612	612	Sarifa	Fruit	0.72
613	613	Sarifa	Fruit	0.37
614	614	Sarifa	Fruit	0.12
615	615	NEEM	Medicinal	0.95
616	616	Kachnar	Ornamental / Medicinal	0.62
617	617	NEEM	Medicinal	0.12
618	618	SAGON	Timber	0.58
619	619	Sheesham	Timber	0.46
620	620	Jack Fruit	Fruit	0.76
621	621	Jack Fruit	Fruit	0.47
622	622	Siris	Medicinal	0.53
623	623	NEEM	Medicinal	0.11
624	624	NEEM	Medicinal	0.90
625	625	Siris	Medicinal	0.37
626	626	Arjuna	Medicinal	0.48
627	627	Arjuna	Medicinal	0.29
628	628	Arjuna	Medicinal	0.68
629	629	Arjuna	Medicinal	0.65
630	630	Arjuna	Medicinal	0.63
631	631	Sagwan	Medicinal	0.17
632	632	Arjuna	Medicinal	0.13
633	633	Arjuna	Medicinal	0.14
634	634	Arjuna	Medicinal	0.11
635	635	SAGON	Timber	0.56
636	636	SAGON	Timber	0.73

637	637	Papdi	Medicinal	0.10
638	638	jamun	Fruit / Medicinal	0.12
639	639	Sheesham	Timber	0.80
640	640	jamun	Fruit / Medicinal	0.20
641	641	jamun	Fruit / Medicinal	0.80
642	642	Tectona	Ornamental	0.10
643	643	Ashoka	Medicinal	0.16
644	644	Ashoka	Medicinal	0.15
645	645	NEEM	Medicinal	0.25
646	646	NEEM	Medicinal	0.18
647	647	Siris	Medicinal	0.12
648	648	Kachnar	Ornamental / Medicinal	0.20
649	649	Kachnar	Ornamental / Medicinal	0.18
650	650	Kachnar	Ornamental / Medicinal	0.12
651	651	Kachnar	Ornamental / Medicinal	0.13
652	652	Kachnar	Ornamental / Medicinal	0.12
653	653	Kachnar	Ornamental / Medicinal	0.20
654	654	Kachnar	Ornamental / Medicinal	0.19
655	655	Kachnar	Ornamental / Medicinal	0.11
656	656	Kachnar	Ornamental / Medicinal	0.13
657	657	PEEPAL	Medicinal	0.11
658	658	jati	Timber	0.12
659	659	Ficus	Medicinal	0.27
660	660	Ficus	Medicinal	0.19
661	661	Siris	Medicinal	0.11
662	662	Siris	Medicinal	0.58
663	663	Siris	Medicinal	0.11
664	664	Arjuna	Medicinal	0.17
665	665	Arjuna	Medicinal	0.21
666	666	NEEM	Medicinal	0.73
667	667	Siris	Medicinal	0.56
668	668	Siris	Medicinal	1.15
669	669	NEEM	Medicinal	0.96
670	670	NEEM	Medicinal	1.21
671	671	MANGO	Fruit	0.12

672	672	POMEGRANATE	Fruit	0.37
673	673	POMEGRANATE	Fruit	0.41
674	674	MANGO	Fruit	0.27
675	675	POMEGRANATE	Fruit	0.67
676	676	POMEGRANATE	Fruit	0.73
677	677	POMEGRANATE	Fruit	0.71
678	678	POMEGRANATE	Fruit	0.58
679	679	POMEGRANATE	Fruit	0.61
680	680	POMEGRANATE	Fruit	0.57
681	681	Amla	Fruit / Medicinal	0.12
682	682	PEEPAL	Medicinal	0.11
683	683	Gulmohar	Ornamental	0.21
684	684	NEEM	Medicinal	1.25
685	685	NEEM	Medicinal	1.37
686	686	Sita Ashok	Medicinal	0.12
687	687	Sita Ashok	Medicinal	0.20
688	688	Sita Ashok	Medicinal	0.30
689	689	Sita Ashok	Medicinal	0.17
690	690	Sita Ashok	Medicinal	0.11
691	691	Siris	Medicinal	0.12
692	692	Siris	Medicinal	0.18
693	693	NEEM	Medicinal	0.10
694	694	Silver Oak	Timber	0.09
695	695	Silver Oak	Timber	0.11
696	696	Silver Oak	Timber	0.08
697	697	Silver Oak	Timber	0.11
698	698	ALSTONIA	Medicinal	0.11
699	699	ALSTONIA	Medicinal	0.07
700	700	ALSTONIA	Medicinal	0.08
701	701	Siris	Medicinal	0.09
702	702	Siris	Medicinal	0.06
703	703	Siris	Medicinal	0.19
704	704	Amaltas	Medicinal	0.11
705	705	Amaltas	Medicinal	0.10
706	706	Amaltas	Medicinal	0.03
707	707	Amaltas	Medicinal	0.13
708	708	Amaltas	Medicinal	0.10
709	709	Siris	Medicinal	0.12
710	710	Siris	Medicinal	0.11
711	711	Siris	Medicinal	0.13
712	712	Siris	Medicinal	0.18

713	713	Siris	Medicinal	0.11
714	714	Siris	Medicinal	0.12
715	715	Siris	Medicinal	0.10
716	716	Sagwon	Timber	0.13
717	717	Sagwon	Timber	0.12
718	718	Arjuna	Medicinal	0.07
719	719	Arjuna	Medicinal	0.14
720	720	Arjuna	Medicinal	0.16
721	721	Arjuna	Medicinal	0.20
722	722	Arjuna	Medicinal	0.11
723	723	Arjuna	Medicinal	0.07
724	724	Gulmohar	Ornamental	0.14
725	725	Silver Oak	Timber	0.04
726	726	Silver Oak	Timber	0.09
727	727	Gulmohar	Ornamental	0.06
728	728	Amaltas	Medicinal	0.05
729	729	NEEM	Medicinal	0.14
730	730	Amaltas	Medicinal	0.10
731	731	Siris	Medicinal	0.12
732	732	Siris	Medicinal	0.04
733	733	Amaltas	Medicinal	0.13
734	734	Siris	Medicinal	0.15
735	735	Siris	Medicinal	0.13
736	736	Siris	Medicinal	0.09
737	737	Silver Oak	Timber	0.11
738	738	Siris	Medicinal	0.16
739	739	Amaltas	Medicinal	0.08
740	740	Alstonia	Medicinal	0.11
741	741	Alstonia	Medicinal	0.07
742	742	jamun	Fruit / Medicinal	0.11
743	743	jamun	Fruit / Medicinal	0.06
744	744	Amaltas	Medicinal	0.10
745	745	Arjuna	Medicinal	0.08
746	746	Arjuna	Medicinal	0.12
747	747	Arjuna	Medicinal	0.16
748	748	Arjuna	Medicinal	0.14
749	749	Arjuna	Medicinal	0.12
750	750	Arjuna	Medicinal	0.09
751	751	ALSTONIA	Medicinal	0.07
752	752	ALSTONIA	Medicinal	0.11
753	753	ALSTONIA	Medicinal	0.07

754	754	ALSTONIA	Medicinal	0.09
755	755	ALSTONIA	Medicinal	0.07
756	756	ALSTONIA	Medicinal	0.08
757	757	ALSTONIA	Medicinal	0.05
758	758	ALSTONIA	Medicinal	0.06
759	759	ALSTONIA	Medicinal	0.06
760	760	ALSTONIA	Medicinal	0.05
761	761	Jamun	Fruit / Medicinal	0.12
762	762	Jamun	Fruit / Medicinal	0.11
763	763	Jamun	Fruit / Medicinal	0.09
764	764	Jamun	Fruit / Medicinal	0.06
765	765	Jamun	Fruit / Medicinal	0.08
766	766	Jamun	Fruit / Medicinal	0.11
767	767	Jamun	Fruit / Medicinal	0.06
768	768	Jamun	Fruit / Medicinal	0.11
769	769	Sagwan	Timber	0.16
770	770	Sagwan	Timber	0.06
771	771	Sagwan	Timber	0.05
772	772	Sagwan	Timber	0.10
773	773	Sagwan	Timber	0.04
774	774	Sagwan	Timber	0.05
775	775	Sagwan	Timber	0.07
776	776	Sagwan	Timber	0.03
777	777	Sagwan	Timber	0.12
778	778	Amaltas	Medicinal	0.13
779	779	Amaltas	Medicinal	0.15
780	780	Amaltas	Medicinal	0.09
781	781	Amaltas	Medicinal	0.08
782	782	Amaltas	Medicinal	0.09
783	783	Gulmohar	Ornamental	0.11
784	784	Gulmohar	Ornamental	0.11
785	785	Gulmohar	Ornamental	0.15
786	786	Gulmohar	Ornamental	0.09
787	787	Gulmohar	Ornamental	0.11
788	788	Mahua	Medicinal	0.11
789	789	Siris	Medicinal	0.10
790	790	Siris	Medicinal	0.09
791	791	Siris	Medicinal	0.08
792	792	Siris	Medicinal	0.11
793	793	Pilkhan	Medicinal	0.10
794	794	Pilkhan	Medicinal	0.09

795	795	Pilkhan	Medicinal	0.10
796	796	Pilkhan	Medicinal	0.09
797	797	Pilkhan	Medicinal	0.07
798	798	Siris	Medicinal	0.03
799	799	Arjuna	Medicinal	0.05
800	800	Arjuna	Medicinal	0.04
801	801	Arjuna	Medicinal	0.30
802	802	Arjuna	Medicinal	0.05
803	803	Fig	Fruit / Medicinal	0.04
804	804	Fig	Fruit / Medicinal	0.06
805	805	Fig	Fruit / Medicinal	0.06
806	806	CHAMPA	Ornamental	0.11
807	807	CHAMPA	Ornamental	0.12
808	808	CHAMPA	Ornamental	0.14
809	809	CHAMPA	Ornamental	0.14
810	810	CHAMPA	Ornamental	0.21
811	811	CHAMPA	Ornamental	0.23
812	812	CHAMPA	Ornamental	0.31
813	813	CHAMPA	Ornamental	0.33
814	814	GURHAL	Ornamental	0.27
815	815	LEMON	Ornamental	0.46
816	816	CHAMPA	Ornamental	0.31
817	817	CHAMPA	Ornamental	0.34
818	818	CHAMPA	Ornamental	0.35
819	819	CHAMPA	Ornamental	0.38
820	820	CHAMPA	Ornamental	0.36
821	821	CHAMPA	Ornamental	0.39
822	822	CHAMPA	Ornamental	0.11
823	823	Poplar	Timber	0.14
824	824	Poplar	Timber	0.16
825	825	Poplar	Timber	0.15
826	826	Poplar	Timber	0.10
827	827	SAPODILLA	Fruit / Medicinal	0.09
828	828	SAPODILLA	Fruit / Medicinal	0.09
829	829	SAPODILLA	Fruit / Medicinal	0.07
830	830	SAPODILLA	Fruit / Medicinal	0.05
831	831	SAPODILLA	Fruit / Medicinal	0.04
832	832	SAPODILLA	Fruit / Medicinal	0.05
833	833	SAPODILLA	Fruit / Medicinal	0.11
834	834	SAPODILLA	Fruit / Medicinal	0.12
835	835	LEMON	Fruit / Medicinal	0.09

836	836	LEMON	Fruit / Medicinal	0.10
837	837	LEMON	Fruit / Medicinal	0.12
838	838	LEMON	Fruit / Medicinal	0.11
839	839	LEMON	Fruit / Medicinal	0.07
840	840	LEMON	Fruit / Medicinal	0.09
841	841	LEMON	Fruit / Medicinal	0.07
842	842	LEMON	Fruit / Medicinal	0.13
843	843	LEMON	Fruit / Medicinal	0.05
844	844	LEMON	Fruit / Medicinal	0.12
845	845	LEMON	Fruit / Medicinal	0.13
846	846	LEMON	Fruit / Medicinal	0.11
847	847	LEMON	Fruit / Medicinal	0.12
848	848	LEMON	Fruit / Medicinal	0.11
849	849	ALSTONIA	Medicinal	0.12
850	850	ALSTONIA	Medicinal	0.12
851	851	ALSTONIA	Medicinal	0.11
852	852	ALSTONIA	Medicinal	0.21
853	853	ALSTONIA	Medicinal	0.67
854	854	ALSTONIA	Medicinal	0.19
855	855	ALSTONIA	Medicinal	0.16
856	856	ALSTONIA	Medicinal	0.14
857	857	ALSTONIA	Medicinal	0.21
858	858	ALSTONIA	Medicinal	0.10
859	859	ALSTONIA	Medicinal	0.11
860	860	ALSTONIA	Medicinal	0.24
861	861	ALSTONIA	Medicinal	0.13
862	862	ALSTONIA	Medicinal	0.12
863	863	ALSTONIA	Medicinal	0.21
864	864	Sagwan	Timber	0.09
865	865	Sagwan	Timber	0.06
866	866	Sagwan	Timber	0.07
867	867	Sagwan	Timber	0.08
868	868	Sagwan	Timber	0.08
869	869	Sagwan	Timber	0.12
870	870	Sagwan	Timber	0.06
871	871	Sagwan	Timber	0.07
872	872	Sagwan	Timber	0.06
873	873	Kachnar	Ornamental / Medicinal	0.05
874	874	Kachnar	Ornamental / Medicinal	0.09

875	875	Kachnar	Ornamental / Medicinal	0.31
876	876	Kachnar	Ornamental / Medicinal	0.22
877	877	Kachnar	Ornamental / Medicinal	0.21
878	878	Kachnar	Ornamental / Medicinal	0.30
879	879	Sheesham	Timber	0.42
880	880	Sheesham	Timber	0.06
881	881	Sheesham	Timber	0.22
882	882	Sheesham	Timber	0.17
883	883	Sheesham	Timber	0.11
884	884	LEMON	Fruit / Medicinal	0.13
885	885	LEMON	Fruit / Medicinal	0.01
886	886	LEMON	Fruit / Medicinal	0.01
887	887	LEMON	Fruit / Medicinal	0.10
888	888	BER	Fruit	0.12
889	889	BER	Fruit	0.19
890	890	BER	Fruit	0.07
891	891	SAGUN	Timber	0.19
892	892	SAGUN	Timber	0.18
893	893	SAGUN	Timber	0.16
894	894	SAGUN	Timber	0.15
895	895	SAGUN	Timber	0.19
896	896	SAGUN	Timber	0.17
897	897	GUDHAL	Medicinal	0.12
898	898	GUDHAL	Medicinal	0.11
899	899	GUDHAL	Medicinal	0.20
900	900	Dry Cheena	Ornamental	0.21
901	901	Siris	Medicinal	0.17
902	902	Gudhal	Medicinal	0.21
903	903	Gudhal	Medicinal	0.19
904	904	Erythrina	Ornamental	0.18
905	905	Erythrina	Ornamental	0.14
906	906	Erythrina	Ornamental	0.13
907	907	Bottle Brush	Ornamental	0.12
908	908	Bottle Brush	Ornamental	0.18
909	909	Bottle Brush	Ornamental	0.21
910	910	Erythrina	Ornamental	0.19
911	911	Erythrina	Ornamental	0.14
912	912	Erythrina	Ornamental	0.07

913	913	Erythrina	Ornamental	0.23
914	914	Erythrina	Ornamental	0.11
915	915	Alstonia	Medicinal	0.16
916	916	Alstonia	Medicinal	0.13
917	917	Alstonia	Medicinal	0.21
918	918	Erythrina	Ornamental	0.23
919	919	Erythrina	Ornamental	1.24
920	920	Pilkhan	Medicinal	1.32
921	921	Pilkhan	Medicinal	1.33
922	922	Pilkhan	Medicinal	1.42
923	923	Kadam	Medicinal	0.12
924	924	Kadam	Medicinal	0.13
925	925	Kadam	Medicinal	0.12
926	926	Kadam	Medicinal	0.14
927	927	Kadam	Medicinal	0.16
928	928	Tectona	Ornamental	0.12
929	929	Tectona	Ornamental	0.14
930	930	Tectona	Ornamental	0.14
931	931	Tectona	Ornamental	0.20
932	932	Tectona	Ornamental	0.11
933	933	Ficus	Medicinal	0.11
934	934	Ficus	Medicinal	0.11
935	935	Ficus	Medicinal	0.10
936	936	Ficus	Medicinal	0.15
937	937	Ficus	Medicinal	0.14
938	938	Ficus	Medicinal	0.10
939	939	Sheesham	Timber	0.11
940	940	NEEM	Medicinal	0.10
941	941	Arjuna	Medicinal	0.10
942	942	Arjuna	Medicinal	0.11
943	943	Arjuna	Medicinal	0.10
944	944	Arjuna	Medicinal	0.11
945	945	Amaltas	Medicinal	0.09
946	946	Umbrella	Ornamental	0.12
947	947	Umbrella	Ornamental	0.13
948	948	Umbrella	Ornamental	0.12
949	949	Rhapis Palm	Ornamental	0.11
950	950	Rhapis Palm	Ornamental	0.11
951	951	Rhapis Palm	Ornamental	0.10
952	952	Rhapis Palm	Ornamental	0.09
953	953	BAMBOO	Medicinal	0.14

954	954	BAMBOO	Medicinal	0.09
955	955	BAMBOO	Medicinal	0.13
956	956	Kurejia	Ornamental	0.14
957	957	Kurejia	Ornamental	0.26
958	958	Kurejia	Ornamental	0.25
959	959	Kurejia	Ornamental	0.24
960	960	Kurejia	Ornamental	0.21
961	961	Amaltas	Medicinal	0.33
962	962	Amaltas	Medicinal	0.31
963	963	Amaltas	Medicinal	0.09
964	964	Amaltas	Medicinal	0.07
965	965	Amaltas	Medicinal	0.05
966	966	Amaltas	Medicinal	0.08
967	967	Amaltas	Medicinal	0.06
968	968	ALSTONIA	Medicinal	0.51
969	969	Fig	Fruit / Medicinal	0.35
970	970	Fig	Fruit / Medicinal	0.37
971	971	Kachnar	Ornamental / Medicinal	0.27
972	972	Kachnar	Ornamental / Medicinal	0.26
973	973	Bargad	Medicinal	0.28
974	974	Kachnar	Ornamental / Medicinal	0.33
975	975	Kachnar	Ornamental / Medicinal	0.29
976	976	Kachnar	Ornamental / Medicinal	0.23
977	977	Kachnar	Ornamental / Medicinal	0.31
978	978	Amaltas	Medicinal	0.21
979	979	Amaltas	Medicinal	0.18
980	980	ASHOKA	Medicinal	0.19
981	981	ASHOKA	Medicinal	0.58
982	982	ASHOKA	Medicinal	0.52
983	983	ASHOKA	Medicinal	0.29
984	984	ASHOKA	Medicinal	0.25
985	985	Bargad	Medicinal	0.20
986	986	Siris	Medicinal	0.17
987	987	Siris	Medicinal	0.19
988	988	Kurejia	Ornamental	0.82
989	989	Amaltas	Medicinal	0.76

990	990	Kachnar	Ornamental / Medicinal	1.12
991	991	Kachnar	Ornamental / Medicinal	0.56
992	992	Kachnar	Ornamental / Medicinal	0.80
993	993	Kachnar	Ornamental / Medicinal	0.38
994	994	Kachnar	Ornamental / Medicinal	0.25
995	995	Kachnar	Ornamental / Medicinal	1.36
996	996	Kachnar	Ornamental / Medicinal	1.06
997	997	ASHOKA	Medicinal	0.27
998	998	Arjuna	Medicinal	0.28
999	999	Arjuna	Medicinal	0.75
1000	1000	Arjuna	Medicinal	0.32
1001	1001	Arjuna	Medicinal	0.49
1002	1002	Arjuna	Medicinal	0.36
1003	1003	Siris	Medicinal	0.35
1004	1004	Siris	Medicinal	0.42
1005	1005	Siris	Medicinal	0.37
1006	1006	Siris	Medicinal	0.42
1007	1007	Guava	Fruit / Medicinal	0.67
1008	1008	MANGO	Fruit	0.36
1009	1009	MANGO	Fruit	0.46
1010	1010	Sehjal	Medicinal	0.27
1011	1011	Jamun	Fruit / Medicinal	1.03
1012	1012	Arjuna	Medicinal	0.58
1013	1013	Arjuna	Medicinal	0.49
1014	1014	NEEM	Medicinal	0.74
1015	1015	Siris	Medicinal	0.69
1016	1016	Siris	Medicinal	0.62
1017	1017	Siris	Medicinal	0.36
1018	1018	BER	Fruit	1.30
1019	1019	GUAVA	Fruit / Medicinal	0.61
1020	1020	Ber	Fruit	0.43
1021	1021	Siris	Medicinal	0.70
1022	1022	Arjuna	Medicinal	0.27
1023	1023	Arjuna	Medicinal	0.27
1024	1024	PEEPAL	Medicinal	1.27
1025	1025	CHAMPA	Ornamental	0.21

1026	1026	CHAMPA	Ornamental	0.47
1027	1027	CHAMPA	Ornamental	0.41
1028	1028	Arjuna	Medicinal	0.78
1029	1029	Arjuna	Medicinal	0.21
1030	1030	CHAMPA	Ornamental	0.18
1031	1031	CHAMPA	Ornamental	0.19
1032	1032	CHAMPA	Ornamental	0.17
1033	1033	CHAMPA	Ornamental	0.16
1034	1034	CHAMPA	Ornamental	0.27
1035	1035	CHAMPA	Ornamental	0.21
1036	1036	Amaltas	Medicinal	0.26
1037	1037	Amaltas	Medicinal	0.19
1038	1038	Amaltas	Medicinal	0.30
1039	1039	Amaltas	Medicinal	0.19
1040	1040	Amaltas	Medicinal	0.24
1041	1041	Amaltas	Medicinal	0.31
1042	1042	Amaltas	Medicinal	0.17
1043	1043	Amaltas	Medicinal	0.34
1044	1044	Amaltas	Medicinal	0.09
1045	1045	Amaltas	Medicinal	0.07
1046	1046	Kurejia	Ornamental	0.13
1047	1047	Kurejia	Ornamental	0.21
1048	1048	Kurejia	Ornamental	0.16
1049	1049	Kurejia	Ornamental	0.13
1050	1050	Kurejia	Ornamental	0.14
1051	1051	Kurejia	Ornamental	0.19
1052	1052	Kurejia	Ornamental	0.18
1053	1053	Kurejia	Ornamental	0.16
1054	1054	Kurejia	Ornamental	0.21
1055	1055	Kurejia	Ornamental	0.14
1056	1056	Kurejia	Ornamental	0.16
1057	1057	Kurejia	Ornamental	0.12
1058	1058	Kurejia	Ornamental	0.12
1059	1059	Kurejia	Ornamental	0.11
1060	1060	Kurejia	Ornamental	0.09
1061	1061	Kurejia	Ornamental	0.10
1062	1062	Kurejia	Ornamental	0.11
1063	1063	Kurejia	Ornamental	0.11
1064	1064	Terminalia	Ornamental	0.20
1065	1065	Terminalia	Ornamental	0.21
1066	1066	Terminalia	Ornamental	0.24

1067	1067	Terminalia	Ornamental	0.26
1068	1068	Terminalia	Ornamental	0.33
1069	1069	Terminalia	Ornamental	0.30
1070	1070	Terminalia	Ornamental	0.23
1071	1071	Terminalia	Ornamental	0.31
1072	1072	Terminalia	Ornamental	0.34
1073	1073	Terminalia	Ornamental	0.40
1074	1074	Terminalia	Ornamental	0.41
1075	1075	Juniperus	Timber	0.24
1076	1076	Juniperus	Timber	0.19
1077	1077	ALSTONIA	Medicinal	0.17
1078	1078	ALSTONIA	Medicinal	0.18
1079	1079	Juniperus	Timber	0.27
1080	1080	Tabebuia	Ornamental	0.22
1081	1081	Tabebuia	Ornamental	0.33
1082	1082	Tabebuia	Ornamental	0.21
1083	1083	Tabebuia	Ornamental	0.29
1084	1084	Tabebuia	Ornamental	0.25
1085	1085	Tabebuia	Ornamental	0.19
1086	1086	Tabebuia	Ornamental	0.17
1087	1087	Tabebuia	Ornamental	0.31
1088	1088	Tabebuia	Ornamental	0.16
1089	1089	Tabebuia	Ornamental	0.21
1090	1090	Kurejia	Ornamental	0.13
1091	1091	Kurejia	Ornamental	0.36
1092	1092	Kurejia	Ornamental	0.32
1093	1093	Kurejia	Ornamental	0.16
1094	1094	Erythrina	Ornamental	0.12
1095	1095	Erythrina	Ornamental	0.11
1096	1096	Erythrina	Ornamental	0.17
1097	1097	Ficus	Medicinal	0.10
1098	1098	Ficus	Medicinal	0.06
1099	1099	MANGO	Fruit	0.70
1100	1100	CHAMPA	Ornamental	0.43
1101	1101	CHAMPA	Ornamental	0.07
1102	1102	CHAMPA	Ornamental	0.06
1103	1103	CHAMPA	Ornamental	0.11
1104	1104	CHAMPA	Ornamental	0.14
1105	1105	CHAMPA	Ornamental	0.43
1106	1106	CHAMPA	Ornamental	0.25
1107	1107	Kachnar	Medicinal	0.26

1108	1108	Kachnar	Medicinal	0.24
1109	1109	Kachnar	Medicinal	0.30
1110	1110	Kachnar	Medicinal	0.32
1111	1111	Kachnar	Medicinal	0.24
1112	1112	Kachnar	Medicinal	0.22
1113	1113	Kachnar	Medicinal	0.37
1114	1114	Kachnar	Medicinal	0.64
1115	1115	Kachnar	Medicinal	0.44
1116	1116	Kachnar	Medicinal	1.32
1117	1117	Kachnar	Medicinal	0.70
1118	1118	Kachnar	Medicinal	0.90
1119	1119	Kachnar	Medicinal	0.75
1120	1120	Kachnar	Medicinal	0.91
1121	1121	Kachnar	Medicinal	0.79
1122	1122	KHAJOOR	Fruit	0.96
1123	1123	KHAJOOR	Fruit	0.78
1124	1124	ASHOKA	Medicinal	0.28
1125	1125	ASHOKA	Medicinal	0.41
1126	1126	ASHOKA	Medicinal	0.32
1127	1127	Erythrina	Ornamental	0.39
1128	1128	Erythrina	Ornamental	0.42
1129	1129	Erythrina	Ornamental	0.45
1130	1130	Erythrina	Ornamental	0.37
1131	1131	Erythrina	Ornamental	0.27
1132	1132	Erythrina	Ornamental	0.11
1133	1133	ASHOKA	Medicinal	0.14
1134	1134	ASHOKA	Medicinal	0.41
1135	1135	ASHOKA	Medicinal	0.14
1136	1136	Pilkhan	Medicinal	0.39
1137	1137	Siris	Medicinal	0.19
1138	1138	Arjuna	Medicinal	0.24
1139	1139	Arjuna	Medicinal	0.20
1140	1140	Arjuna	Medicinal	0.09
1141	1141	Arjuna	Medicinal	0.11
1142	1142	Arjuna	Medicinal	0.10
1143	1143	Arjuna	Medicinal	0.07
1144	1144	Arjuna	Medicinal	0.07
1145	1145	Arjuna	Medicinal	0.12
1146	1146	Arjuna	Medicinal	0.13
1147	1147	CHAMPA	Ornamental	0.30
1148	1148	Jamun	Fruit / Medicinal	0.14

1149	1149	CHAMPA	Ornamental	0.29
1150	1150	Jamun	Fruit / Medicinal	0.14
1151	1151	CHAMPA	Ornamental	0.27
1152	1152	Jamun	Fruit / Medicinal	0.12
1153	1153	CHAMPA	Ornamental	0.30
1154	1154	Jamun	Fruit / Medicinal	0.12
1155	1155	CHAMPA	Ornamental	0.27
1156	1156	Jamun	Fruit / Medicinal	0.17
1157	1157	CHAMPA	Ornamental	0.28
1158	1158	Jamun	Fruit / Medicinal	0.14
1159	1159	CHAMPA	Ornamental	0.26
1160	1160	Jamun	Fruit / Medicinal	0.13
1161	1161	Jamun	Fruit / Medicinal	0.17
1162	1162	Jamun	Fruit / Medicinal	0.16
1163	1163	Jamun	Fruit / Medicinal	0.17
1164	1164	Jamun	Fruit / Medicinal	0.20
1165	1165	CHAMPA	Ornamental	0.32
1166	1166	CHAMPA	Ornamental	0.33
1167	1167	Jamun	Fruit / Medicinal	0.28
1168	1168	CHAMPA	Ornamental	0.26
1169	1169	Jamun	Fruit / Medicinal	0.30
1170	1170	Jamun	Fruit / Medicinal	0.13
1171	1171	Jamun	Fruit / Medicinal	0.19
1172	1172	CHAMPA	Ornamental	0.31
1173	1173	CHAMPA	Ornamental	0.20
1174	1174	CHAMPA	Ornamental	0.27
1175	1175	CHAMPA	Ornamental	0.22
1176	1176	CHAMPA	Ornamental	0.36
1177	1177	Amaltas	Medicinal	0.40
1178	1178	Amaltas	Medicinal	0.13
1179	1179	Amaltas	Medicinal	0.43
1180	1180	Siris	Medicinal	0.20
1181	1181	Siris	Medicinal	0.29
1182	1182	Siris	Medicinal	0.28
1183	1183	Siris	Medicinal	0.27
1184	1184	KHAJLOOR	Fruit	0.29
1185	1185	KHAJLOOR	Fruit	0.78
1186	1186	KHAJLOOR	Fruit	0.67
1187	1187	KHAJLOOR	Fruit	0.73
1188	1188	Gulmohar	Ornamental	1.21
1189	1189	Gulmohar	Ornamental	1.24

1190	1190	Amaltas	Medicinal	0.43
1191	1191	Amaltas	Medicinal	0.20
1192	1192	Amaltas	Medicinal	0.15
1193	1193	CHAMPA	Ornamental	0.27
1194	1194	CHAMPA	Ornamental	0.26
1195	1195	CHAMPA	Ornamental	0.28
1196	1196	Amaltas	Medicinal	0.06
1197	1197	Amaltas	Medicinal	0.08
1198	1198	BAMBOO	Medicinal	0.11
1199	1199	BAMBOO	Medicinal	0.10
1200	1200	BAMBOO	Medicinal	0.12
1201	1201	BAMBOO	Medicinal	0.10
1202	1202	BAMBOO	Medicinal	0.12
1203	1203	BAMBOO	Medicinal	0.13
1204	1204	BAMBOO	Medicinal	0.12
1205	1205	BAMBOO	Medicinal	0.11
1206	1206	BAMBOO	Medicinal	0.10
1207	1207	Kachnar	Ornamental / Medicinal	0.14
1208	1208	Kachnar	Ornamental / Medicinal	0.13
1209	1209	Kachnar	Ornamental / Medicinal	0.12
1210	1210	Kachnar	Ornamental / Medicinal	0.09
1211	1211	Kachnar	Ornamental / Medicinal	1.07
1212	1212	Kachnar	Ornamental / Medicinal	0.13
1213	1213	Kachnar	Ornamental / Medicinal	0.11
1214	1214	Kachnar	Ornamental / Medicinal	0.07
1215	1215	Kachnar	Ornamental / Medicinal	0.09
1216	1216	Kachnar	Ornamental / Medicinal	0.06
1217	1217	Kachnar	Ornamental / Medicinal	0.14
1218	1218	Kachnar	Ornamental / Medicinal	0.07
1219	1219	Kachnar	Ornamental / Medicinal	0.05
1220	1220	Kachnar	Ornamental / Medicinal	0.07

1221	1221	Kachnar	Ornamental / Medicinal	0.62
1222	1222	Kachnar	Ornamental / Medicinal	0.09
1223	1223	Kachnar	Ornamental / Medicinal	0.06
1224	1224	Kachnar	Ornamental / Medicinal	0.02
1225	1225	Kachnar	Ornamental / Medicinal	0.40
1226	1226	Kachnar	Ornamental / Medicinal	0.47
1227	1227	Kachnar	Ornamental / Medicinal	0.51
1228	1228	Kachnar	Ornamental / Medicinal	0.52
1229	1229	Siris	Medicinal	0.49
1230	1230	Amaltas	Medicinal	0.09
1231	1231	BAMBOO	Medicinal	0.43
1232	1232	BAMBOO	Medicinal	0.42
1233	1233	Gulmohar	Ornamental	0.37
1234	1234	Gulmohar	Ornamental	0.40
1235	1235	Gulmohar	Ornamental	0.37
1236	1236	Ficus	Medicinal	0.44
1237	1237	Ficus	Medicinal	0.28
1238	1238	Ficus	Medicinal	0.42
1239	1239	Ficus	Medicinal	0.41
1240	1240	Ficus	Medicinal	0.33
1241	1241	Ficus	Medicinal	0.38
1242	1242	Ficus	Medicinal	0.27
1243	1243	Ficus	Medicinal	0.33
1244	1244	Ficus	Medicinal	0.31
1245	1245	Ficus	Medicinal	0.30
1246	1246	Ficus	Medicinal	0.33
1247	1247	ALSTONIA	Medicinal	0.27
1248	1248	ALSTONIA	Medicinal	0.24
1249	1249	ALSTONIA	Medicinal	0.30
1250	1250	ALSTONIA	Medicinal	0.46
1251	1251	Siris	Medicinal	0.28
1252	1252	Siris	Medicinal	0.33
1253	1253	ALSTONIA	Medicinal	0.43
1254	1254	ALSTONIA	Medicinal	0.31
1255	1255	ALSTONIA	Medicinal	0.11
1256	1256	ALSTONIA	Medicinal	0.13

1257	1257	ALSTONIA	Medicinal	0.27
1258	1258	ALSTONIA	Medicinal	0.13
1259	1259	Siris	Medicinal	0.11
1260	1260	Ficus	Medicinal	0.24
1261	1261	Ficus	Medicinal	0.15
1262	1262	Ficus	Medicinal	0.29
1263	1263	Arjuna	Medicinal	0.82
1264	1264	Arjuna	Medicinal	0.40
1265	1265	Arjuna	Medicinal	0.26
1266	1266	Arjuna	Medicinal	0.29
1267	1267	ALSTONIA	Medicinal	0.31
1268	1268	Jacaranda	Ornamental	0.12
1269	1269	Jacaranda	Ornamental	0.11
1270	1270	Jacaranda	Ornamental	0.10
1271	1271	Jacaranda	Ornamental	0.32
1272	1272	Jacaranda	Ornamental	0.33
1273	1273	Gulmohar	Ornamental	0.29
1274	1274	Siris	Medicinal	0.20
1275	1275	Siris	Medicinal	0.18
1276	1276	Kachnar	Ornamental / Medicinal	0.11
1277	1277	Siris	Medicinal	0.12
1278	1278	Siris	Medicinal	0.13
1279	1279	Siris	Medicinal	0.13
1280	1280	Siris	Medicinal	0.19
1281	1281	ALSTONIA	Medicinal	0.12
1282	1282	ALSTONIA	Medicinal	0.13
1283	1283	ALSTONIA	Medicinal	0.11
1284	1284	ALSTONIA	Medicinal	0.12
1285	1285	ALSTONIA	Medicinal	0.13
1286	1286	ALSTONIA	Medicinal	0.12
1287	1287	Gulmohar	Ornamental	0.13
1288	1288	ALSTONIA	Medicinal	0.12
1289	1289	Gulmohar	Ornamental	0.78
1290	1290	Gulmohar	Ornamental	0.14
1291	1291	ALSTONIA	Medicinal	0.11
1292	1292	Gulmohar	Ornamental	0.12
1293	1293	ALSTONIA	Medicinal	1.23
1294	1294	Gulmohar	Ornamental	0.13
1295	1295	Gulmohar	Ornamental	0.14
1296	1296	Gulmohar	Ornamental	0.14

1297	1297	Siris	Medicinal	0.13
1298	1298	ALSTONIA	Medicinal	1.18
1299	1299	Siris	Medicinal	0.76
1300	1300	Siris	Medicinal	0.68
1301	1301	Siris	Medicinal	0.72
1302	1302	ALSTONIA	Medicinal	0.14
1303	1303	ALSTONIA	Medicinal	0.76
1304	1304	ALSTONIA	Medicinal	0.81
1305	1305	Pilkhan	Medicinal	0.12
1306	1306	Peepal	Medicinal	0.11
1307	1307	Pilkhan	Medicinal	0.12
1308	1308	Kachnar	Ornamental / Medicinal	0.13
1309	1309	Kachnar	Ornamental / Medicinal	0.17
1310	1310	Kachnar	Ornamental / Medicinal	0.12
1311	1311	Kachnar	Ornamental / Medicinal	0.86
1312	1312	Kachnar	Ornamental / Medicinal	0.68
1313	1313	Arjuna	Medicinal	0.53
1314	1314	Arjuna	Medicinal	0.52
1315	1315	Arjuna	Medicinal	0.20
1316	1316	Arjuna	Medicinal	0.53
1317	1317	Arjuna	Medicinal	0.54
1318	1318	Arjuna	Medicinal	0.49
1319	1319	Arjuna	Medicinal	0.44
1320	1320	Arjuna	Medicinal	0.48
1321	1321	Arjuna	Medicinal	0.50
1322	1322	Amaltas	Medicinal	0.16
1323	1323	Amaltas	Medicinal	0.23
1324	1324	Amaltas	Medicinal	0.47
1325	1325	Amaltas	Medicinal	0.22
1326	1326	Siris	Medicinal	0.49
1327	1327	Arjuna	Medicinal	0.42
1328	1328	Arjuna	Medicinal	0.12
1329	1329	NEEM	Medicinal	0.19
1330	1330	Pilkhan	Medicinal	0.14
1331	1331	Arjuna	Medicinal	0.53
1332	1332	Arjuna	Medicinal	0.30
1333	1333	Arjuna	Medicinal	0.47
1334	1334	Arjuna	Medicinal	0.51

1335	1335	Arjuna	Medicinal	0.46
1336	1336	Arjuna	Medicinal	0.39
1337	1337	Arjuna	Medicinal	0.56
1338	1338	Arjuna	Medicinal	0.13
1339	1339	NEEM	Medicinal	0.53
1340	1340	Arjuna	Medicinal	0.48
1341	1341	Arjuna	Medicinal	0.29
1342	1342	Arjuna	Medicinal	0.34
1343	1343	Jati	Timber	0.26
1344	1344	Bakan	Timber	0.29
1345	1345	Bakan	Timber	0.10
1346	1346	Arjuna	Medicinal	0.13
1347	1347	Arjuna	Medicinal	0.37
1348	1348	Arjuna	Medicinal	0.41
1349	1349	Arjuna	Medicinal	0.43
1350	1350	Arjuna	Medicinal	0.14
1351	1351	Arjuna	Medicinal	0.07
1352	1352	Arjuna	Medicinal	0.09
1353	1353	NEEM	Medicinal	0.14
1354	1354	NEEM	Medicinal	0.40
1355	1355	Siris	Medicinal	0.36
1356	1356	Siris	Medicinal	0.40
1357	1357	Siris	Medicinal	0.33
1358	1358	Siris	Medicinal	0.46
1359	1359	Ficus	Medicinal	0.13
1360	1360	Ficus	Medicinal	0.28
1361	1361	Ficus	Medicinal	0.24
1362	1362	Arjuna	Medicinal	0.71
1363	1363	Arjuna	Medicinal	0.99
1364	1364	Tectona	Ornamental	0.16
1365	1365	Arjuna	Medicinal	0.13
1366	1366	Pilkhana	Medicinal	0.46
1367	1367	Bakan	Timber	0.44
1368	1368	Bakan	Timber	0.48
1369	1369	Arjuna	Medicinal	0.37
1370	1370	Arjuna	Medicinal	0.82
1371	1371	Arjuna	Medicinal	1.00
1372	1372	Arjuna	Medicinal	0.72
1373	1373	Arjuna	Medicinal	0.19
1374	1374	Arjuna	Medicinal	0.17
1375	1375	Arjuna	Medicinal	0.37

1376	1376	Arjuna	Medicinal	0.36
1377	1377	Arjuna	Medicinal	0.26
1378	1378	Arjuna	Medicinal	0.38
1379	1379	Gulmohar	Ornamental	0.31
1380	1380	Arjuna	Medicinal	0.39
1381	1381	Amaltas	Medicinal	1.10
1382	1382	BAMBOO	Medicinal	0.46
1383	1383	Siris	Medicinal	0.13
1384	1384	Arjuna	Medicinal	0.46
1385	1385	Arjuna	Medicinal	0.30
1386	1386	Arjuna	Medicinal	0.37
1387	1387	Arjuna	Medicinal	0.38
1388	1388	Pilkhan	Medicinal	0.63
1389	1389	Ficus	Medicinal	0.37
1390	1390	Ficus	Medicinal	0.53
1391	1391	Ficus	Medicinal	0.39
1392	1392	Ficus	Medicinal	0.33
1393	1393	Ficus	Medicinal	0.41
1394	1394	Ficus	Medicinal	0.58
1395	1395	Ficus	Medicinal	0.29
1396	1396	Ficus	Medicinal	0.58
1397	1397	Ficus	Medicinal	0.53
1398	1398	Ficus	Medicinal	0.17
1399	1399	Ficus	Medicinal	1.21
1400	1400	Ficus	Medicinal	1.03
1401	1401	Ficus	Medicinal	0.93
1402	1402	Ficus	Medicinal	0.81
1403	1403	Ficus	Medicinal	2.60
1404	1404	Ficus	Medicinal	0.53
1405	1405	Ficus	Medicinal	0.54
1406	1406	Ficus	Medicinal	0.56
1407	1407	Ficus	Medicinal	0.51
1408	1408	Ficus	Medicinal	0.19
1409	1409	ALSTONIA	Medicinal	1.24
1410	1410	ALSTONIA	Medicinal	0.13
1411	1411	ALSTONIA	Medicinal	0.86
1412	1412	ALSTONIA	Medicinal	1.17
1413	1413	ALSTONIA	Medicinal	0.54
1414	1414	ALSTONIA	Medicinal	0.67
1415	1415	ALSTONIA	Medicinal	0.87
1416	1416	ALSTONIA	Medicinal	1.03

1417	1417	Arjuna	Medicinal	0.31
1418	1418	NEEM	Medicinal	1.03
1419	1419	ALSTONIA	Medicinal	0.29
1420	1420	Kurejia	Ornamental	0.31
1421	1421	Kurejia	Ornamental	0.36
1422	1422	Kurejia	Ornamental	0.51
1423	1423	Kurejia	Ornamental	0.37
1424	1424	Kurejia	Ornamental	0.35
1425	1425	Kurejia	Ornamental	0.38
1426	1426	ALSTONIA	Medicinal	0.43
1427	1427	ALSTONIA	Medicinal	0.86
1428	1428	ALSTONIA	Medicinal	0.44
1429	1429	Amaltas	Medicinal	0.30
1430	1430	Amaltas	Medicinal	0.32
1431	1431	Amaltas	Medicinal	0.51
1432	1432	NEEM	Medicinal	0.60
1433	1433	POMEGRANATE	Fruit	0.95
1434	1434	POMEGRANATE	Fruit	0.28
1435	1435	POMEGRANATE	Fruit	0.11
1436	1436	POMEGRANATE	Fruit	0.14
1437	1437	POMEGRANATE	Fruit	0.06
1438	1438	POMEGRANATE	Fruit	0.28
1439	1439	POMEGRANATE	Fruit	0.50
1440	1440	POMEGRANATE	Fruit	0.29
1441	1441	POMEGRANATE	Fruit	0.50
1442	1442	POMEGRANATE	Fruit	0.31
1443	1443	NEEM	Medicinal	0.11
1444	1444	POMEGRANATE	Fruit	0.50
1445	1445	POMEGRANATE	Fruit	0.50
1446	1446	POMEGRANATE	Fruit	0.42
1447	1447	Sheesham	Timber	0.30
1448	1448	Amla	Medicinal	0.30
1449	1449	Amla	Medicinal	0.30
1450	1450	Amla	Medicinal	0.35
1451	1451	Amla	Medicinal	0.34
1452	1452	Amla	Medicinal	0.40
1453	1453	Amla	Medicinal	1.25
1454	1454	Amla	Medicinal	0.60
1455	1455	ALSTONIA	Medicinal	2.00
1456	1456	Kurejia	Ornamental	0.75
1457	1457	Kurejia	Ornamental	1.37

1458	1458	Kurejia	Ornamental	0.67
1459	1459	Kurejia	Ornamental	0.73
1460	1460	Kurejia	Ornamental	1.37
1461	1461	ALSTONIA	Medicinal	1.23
1462	1462	ALSTONIA	Medicinal	1.33
1463	1463	ALSTONIA	Medicinal	0.49
1464	1464	ALSTONIA	Medicinal	1.19
1465	1465	NEEM	Medicinal	1.01
1466	1466	NEEM	Medicinal	2.00
1467	1467	NEEM	Medicinal	0.53
1468	1468	NEEM	Medicinal	0.48
1469	1469	Arjuna	Medicinal	2.50
1470	1470	Arjuna	Medicinal	0.67
1471	1471	Arjuna	Medicinal	0.31
1472	1472	Arjuna	Medicinal	0.30
1473	1473	Arjuna	Medicinal	1.22
1474	1474	Arjuna	Medicinal	2.27
1475	1475	Arjuna	Medicinal	2.03
1476	1476	Lasoda	Medicinal	1.78
1477	1477	Lasoda	Medicinal	0.71
1478	1478	Lasoda	Medicinal	0.30
1479	1479	Lasoda	Medicinal	0.89
1480	1480	Lasoda	Medicinal	0.37
1481	1481	Papdi	Medicinal	0.36
1482	1482	Papdi	Medicinal	0.49
1483	1483	Papdi	Medicinal	0.17
1484	1484	Arjuna	Medicinal	0.15
1485	1485	NEEM	Medicinal	0.25
1486	1486	NEEM	Medicinal	0.24
1487	1487	Lasoda	Medicinal	0.17
1488	1488	Siris	Medicinal	0.13
1489	1489	Siris	Medicinal	0.14
1490	1490	ALSTONIA	Medicinal	0.11
1491	1491	ALSTONIA	Medicinal	0.23
1492	1492	ALSTONIA	Medicinal	0.63
1493	1493	ALSTONIA	Medicinal	0.18
1494	1494	ALSTONIA	Medicinal	0.13
1495	1495	ALSTONIA	Medicinal	0.16
1496	1496	ALSTONIA	Medicinal	0.52
1497	1497	NEEM	Medicinal	0.93
1498	1498	NEEM	Medicinal	0.15

1499	1499	NEEM	Medicinal	0.14
1500	1500	NEEM	Medicinal	0.11
1501	1501	NEEM	Medicinal	0.10
1502	1502	NEEM	Medicinal	0.89
1503	1503	Arjuna	Medicinal	0.11
1504	1504	Arjuna	Medicinal	0.40
1505	1505	ALSTONIA	Medicinal	0.49
1506	1506	ALSTONIA	Medicinal	0.15
1507	1507	ALSTONIA	Medicinal	0.13
1508	1508	ALSTONIA	Medicinal	0.12
1509	1509	ALSTONIA	Medicinal	0.16
1510	1510	ALSTONIA	Medicinal	0.12
1511	1511	ALSTONIA	Medicinal	0.18
1512	1512	ALSTONIA	Medicinal	0.10
1513	1513	ALSTONIA	Medicinal	0.50
1514	1514	Arjuna	Medicinal	0.47
1515	1515	Arjuna	Medicinal	0.47
1516	1516	Arjuna	Medicinal	0.48
1517	1517	Arjuna	Medicinal	0.13
1518	1518	Arjuna	Medicinal	0.61
1519	1519	Arjuna	Medicinal	0.51
1520	1520	Arjuna	Medicinal	0.48
1521	1521	Arjuna	Medicinal	0.46
1522	1522	Arjuna	Medicinal	0.07
1523	1523	Arjuna	Medicinal	0.06
1524	1524	Arjuna	Medicinal	0.48
1525	1525	Arjuna	Medicinal	0.28
1526	1526	Arjuna	Medicinal	0.42
1527	1527	Siris	Medicinal	0.43
1528	1528	Siris	Medicinal	0.46
1529	1529	Siris	Medicinal	0.43
1530	1530	Siris	Medicinal	0.39
1531	1531	Siris	Medicinal	0.54
1532	1532	Siris	Medicinal	0.06
1533	1533	Siris	Medicinal	0.07
1534	1534	Siris	Medicinal	0.42
1535	1535	Siris	Medicinal	0.13
1536	1536	Arjuna	Medicinal	0.40
1537	1537	Arjuna	Medicinal	0.93
1538	1538	Arjuna	Medicinal	0.14
1539	1539	Siris	Medicinal	0.07

1540	1540	Lasoda	Medicinal	0.51
1541	1541	NEEM	Medicinal	0.60
1542	1542	NEEM	Medicinal	0.43
1543	1543	NEEM	Medicinal	0.51
1544	1544	Arjuna	Medicinal	0.31
1545	1545	Arjuna	Medicinal	0.67
1546	1546	Arjuna	Medicinal	0.53
1547	1547	NEEM	Medicinal	0.77
1548	1548	ALSTONIA	Medicinal	0.12
1549	1549	ALSTONIA	Medicinal	0.31
1550	1550	ALSTONIA	Medicinal	0.18
1551	1551	ALSTONIA	Medicinal	0.17
1552	1552	ALSTONIA	Medicinal	0.15
1553	1553	ALSTONIA	Medicinal	0.14
1554	1554	ALSTONIA	Medicinal	0.15
1555	1555	ALSTONIA	Medicinal	0.63
1556	1556	ALSTONIA	Medicinal	0.52
1557	1557	ALSTONIA	Medicinal	0.53
1558	1558	ALSTONIA	Medicinal	0.33
1559	1559	ALSTONIA	Medicinal	0.89
1560	1560	ALSTONIA	Medicinal	0.73
1561	1561	KIKAR	Medicinal	0.75
1562	1562	KIKAR	Medicinal	0.13
1563	1563	ALSTONIA	Medicinal	0.28
1564	1564	Lasoda	Medicinal	0.20
1565	1565	Siris	Medicinal	0.15
1566	1566	Siris	Medicinal	0.30
1567	1567	Siris	Medicinal	0.29
1568	1568	ALSTONIA	Medicinal	0.26
1569	1569	ALSTONIA	Medicinal	0.36
1570	1570	ALSTONIA	Medicinal	0.61
1571	1571	ALSTONIA	Medicinal	0.03
1572	1572	ALSTONIA	Medicinal	0.47
1573	1573	ALSTONIA	Medicinal	0.61
1574	1574	ALSTONIA	Medicinal	0.48
1575	1575	ALSTONIA	Medicinal	0.39
1576	1576	ALSTONIA	Medicinal	0.50
1577	1577	ALSTONIA	Medicinal	0.32
1578	1578	ALSTONIA	Medicinal	1.30
1579	1579	Siris	Medicinal	0.67
1580	1580	Siris	Medicinal	0.70

1581	1581	Pilkhan	Medicinal	0.61
1582	1582	Pilkhan	Medicinal	0.52
1583	1583	ALSTONIA	Medicinal	0.51
1584	1584	Ficus	Medicinal	0.72
1585	1585	Ficus	Medicinal	0.31
1586	1586	AMALTAS	Medicinal	0.74
1587	1587	PEEPAL	Medicinal	0.65
1588	1588	AMALTAS	Medicinal	0.32
1589	1589	AMALTAS	Medicinal	0.41
1590	1590	NEEM	Medicinal	0.66
1591	1591	Arjuna	Medicinal	0.33
1592	1592	Arjuna	Medicinal	0.35
1593	1593	Arjuna	Medicinal	0.57
1594	1594	Arjuna	Medicinal	0.28
1595	1595	Arjuna	Medicinal	0.71
1596	1596	Arjuna	Medicinal	0.21
1597	1597	ALSTONIA	Medicinal	0.51
1598	1598	GUAVA	Fruit / Medicinal	0.05
1599	1599	GUAVA	Fruit / Medicinal	0.32
1600	1600	GUAVA	Fruit / Medicinal	0.29
1601	1601	Arjuna	Medicinal	0.48
1602	1602	Arjuna	Medicinal	1.80
1603	1603	Ficus	Medicinal	2.10
1604	1604	GUAVA	Fruit / Medicinal	0.32
1605	1605	GUAVA	Fruit / Medicinal	0.46
1606	1606	GUAVA	Fruit / Medicinal	0.26
1607	1607	GUAVA	Fruit / Medicinal	0.36
1608	1608	GUAVA	Fruit / Medicinal	0.32
1609	1609	GUAVA	Fruit / Medicinal	0.19
1610	1610	GUAVA	Fruit / Medicinal	0.21
1611	1611	GUAVA	Fruit / Medicinal	0.63
1612	1612	GUAVA	Fruit / Medicinal	0.06
1613	1613	KATHAL	Fruit	0.63
1614	1614	Kachnar	Ornamental / Medicinal	0.52
1615	1615	POMEGRANATE	Fruit	0.18
1616	1616	POMEGRANATE	Fruit	0.37
1617	1617	GUAVA	Fruit / Medicinal	0.20
1618	1618	POMEGRANATE	Fruit	0.50
1619	1619	GURHAL	Medicinal	0.31
1620	1620	POMEGRANATE	Fruit	0.40

1621	1621	CHABUTRA	Medicinal	0.17
1622	1622	CHABUTRA	Medicinal	0.15
1623	1623	CHABUTRA	Medicinal	0.71
1624	1624	CHABUTRA	Medicinal	0.20
1625	1625	Jamun	Fruit / Medicinal	0.15
1626	1626	GUAVA	Fruit / Medicinal	0.26
1627	1627	GUAVA	Fruit / Medicinal	0.17
1628	1628	Jack Fruit	Fruit	0.20
1629	1629	Kachnar	Ornamental / Medicinal	0.22
1630	1630	Kachnar	Ornamental / Medicinal	0.24
1631	1631	GUAVA	Fruit / Medicinal	0.30
1632	1632	GUAVA	Fruit / Medicinal	0.34
1633	1633	NEEM	Medicinal	0.71
1634	1634	CHABUTRA	Medicinal	0.20
1635	1635	CHABUTRA	Medicinal	0.20
1636	1636	MANGO	Fruit	0.42
1637	1637	MANGO	Fruit	0.20
1638	1638	MANGO	Fruit	0.30
1639	1639	ALSTONIA	Medicinal	0.30
1640	1640	ALSTONIA	Medicinal	0.15
1641	1641	Ficus	Medicinal	0.18
1642	1642	Ficus	Medicinal	0.67
1643	1643	Ficus	Medicinal	0.30
1644	1644	Lasoda	Medicinal	1.09
1645	1645	Lasoda	Medicinal	0.08
1646	1646	NEEM	Medicinal	0.15
1647	1647	NEEM	Medicinal	0.97
1648	1648	ALSTONIA	Medicinal	0.30
1649	1649	ALSTONIA	Medicinal	0.77
1650	1650	ALSTONIA	Medicinal	0.42
1651	1651	ALSTONIA	Medicinal	0.26
1652	1652	NEEM	Medicinal	0.89
1653	1653	NEEM	Medicinal	0.07
1654	1654	NEEM	Medicinal	0.06
1655	1655	NEEM	Medicinal	0.09
1656	1656	GUAVA	Fruit / Medicinal	0.20
1657	1657	GUAVA	Fruit / Medicinal	0.31
1658	1658	GUAVA	Fruit / Medicinal	0.10
1659	1659	GUAVA	Fruit / Medicinal	0.12
1660	1660	GURHAL	Fruit / Medicinal	0.37

1661	1661	PEEPAL	Medicinal	0.13
1662	1662	GURHAL	Medicinal	3.20
1663	1663	GUAVA	Fruit / Medicinal	0.12
1664	1664	GUAVA	Fruit / Medicinal	0.31
1665	1665	SAPODILLA	Fruit	0.31
1666	1666	SAPODILLA	Fruit	0.30
1667	1667	SAPODILLA	Fruit	0.63
1668	1668	SAPODILLA	Fruit	0.74
1669	1669	SAPODILLA	Fruit	0.34
1670	1670	SAPODILLA	Fruit	0.36
1671	1671	SAPODILLA	Fruit	0.56
1672	1672	SAPODILLA	Fruit	0.21
1673	1673	SAPODILLA	Fruit	0.27
1674	1674	SAPODILLA	Fruit	0.70
1675	1675	PEEPAL	Medicinal	2.01
1676	1676	Jamun	Fruit / Medicinal	0.32
1677	1677	Jamun	Fruit / Medicinal	0.42
1678	1678	Jamun	Fruit / Medicinal	0.38
1679	1679	Amla	Medicinal	0.30
1680	1680	Amla	Medicinal	0.28
1681	1681	Amla	Medicinal	0.33
1682	1682	Amla	Medicinal	0.34
1683	1683	PEEPAL	Medicinal	1.70
1684	1684	Bel Patra	Fruit	0.67
1685	1685	ALSTONIA	Medicinal	0.68
1686	1686	ALSTONIA	Medicinal	0.57
1687	1687	ALSTONIA	Medicinal	0.65
1688	1688	ALSTONIA	Medicinal	0.34
1689	1689	ALSTONIA	Medicinal	0.89
1690	1690	ALSTONIA	Medicinal	0.53
1691	1691	Ficus	Medicinal	0.68
1692	1692	Ficus	Medicinal	0.45
1693	1693	Ficus	Medicinal	0.63
1694	1694	Ficus	Medicinal	0.43
1695	1695	Ficus	Medicinal	1.70
1696	1696	Ficus	Medicinal	0.18
1697	1697	Ficus	Medicinal	0.06
1698	1698	Ficus	Medicinal	0.19
1699	1699	ALSTONIA	Medicinal	2.80
1700	1700	ALSTONIA	Medicinal	0.70
1701	1701	ALSTONIA	Medicinal	0.97

1702	1702	Champa	Ornamental	0.89
1703	1703	Ficus	Medicinal	0.65
1704	1704	Ficus	Medicinal	0.30
1705	1705	CHAMPA	Ornamental	0.22
1706	1706	Ficus	Medicinal	0.40
1707	1707	Ficus	Medicinal	0.07
1708	1708	CHAMPA	Ornamental	0.16
1709	1709	CHAMPA	Ornamental	0.17
1710	1710	CHAMPA	Ornamental	0.13
1711	1711	CHAMPA	Ornamental	0.15
1712	1712	CHAMPA	Ornamental	0.18
1713	1713	CHAMPA	Ornamental	0.17
1714	1714	CHAMPA	Ornamental	0.19
1715	1715	Champa	Ornamental	0.12
1716	1716	Champa	Ornamental	0.07
1717	1717	Champa	Ornamental	0.06
1718	1718	Champa	Ornamental	0.05
1719	1719	Amaltas	Medicinal	0.06
1720	1720	Peepal	Medicinal	1.91
1721	1721	Amaltas	Medicinal	0.04
1722	1722	NEEM	Medicinal	0.53
1723	1723	Siris	Medicinal	0.44
1724	1724	ALSTONIA	Medicinal	0.20
1725	1725	ALSTONIA	Medicinal	0.71
1726	1726	ALSTONIA	Medicinal	0.70
1727	1727	ALSTONIA	Medicinal	0.67
1728	1728	ALSTONIA	Medicinal	0.73
1729	1729	ALSTONIA	Medicinal	0.77
1730	1730	ALSTONIA	Medicinal	0.61
1731	1731	ALSTONIA	Medicinal	0.58
1732	1732	ALSTONIA	Medicinal	0.62
1733	1733	ALSTONIA	Medicinal	0.74
1734	1734	ALSTONIA	Medicinal	0.72
1735	1735	ALSTONIA	Medicinal	0.83
1736	1736	ALSTONIA	Medicinal	0.67
1737	1737	ALSTONIA	Medicinal	0.82
1738	1738	ALSTONIA	Medicinal	0.77
1739	1739	ALSTONIA	Medicinal	0.99
1740	1740	ALSTONIA	Medicinal	1.30
1741	1741	ALSTONIA	Medicinal	0.30
1742	1742	ALSTONIA	Medicinal	0.19

1743	1743	ALSTONIA	Medicinal	0.15
1744	1744	ALSTONIA	Medicinal	0.49
1745	1745	ALSTONIA	Medicinal	0.69
1746	1746	ALSTONIA	Medicinal	0.48
1747	1747	ALSTONIA	Medicinal	0.63
1748	1748	ALSTONIA	Medicinal	0.62
1749	1749	ALSTONIA	Medicinal	1.09
1750	1750	ALSTONIA	Medicinal	0.37
1751	1751	ALSTONIA	Medicinal	1.18
1752	1752	ALSTONIA	Medicinal	0.78
1753	1753	ALSTONIA	Medicinal	0.93
1754	1754	ALSTONIA	Medicinal	0.77
1755	1755	ALSTONIA	Medicinal	0.69
1756	1756	ALSTONIA	Medicinal	0.81
1757	1757	ALSTONIA	Medicinal	0.61
1758	1758	ALSTONIA	Medicinal	0.65
1759	1759	ALSTONIA	Medicinal	0.69
1760	1760	ALSTONIA	Medicinal	0.77
1761	1761	PEEPAL	Medicinal	2.20
1762	1762	PEEPAL	Medicinal	0.63
1763	1763	ALSTONIA	Medicinal	0.73
1764	1764	ALSTONIA	Medicinal	0.75
1765	1765	ALSTONIA	Medicinal	0.80
1766	1766	ALSTONIA	Medicinal	0.61
1767	1767	ALSTONIA	Medicinal	0.70
1768	1768	NEEM	Medicinal	0.65
1769	1769	Erythrina	Ornamental	0.30
1770	1770	Erythrina	Ornamental	0.23
1771	1771	Erythrina	Ornamental	0.74
1772	1772	Erythrina	Ornamental	0.30
1773	1773	NEEM	Medicinal	1.30
1774	1774	NEEM	Medicinal	0.93
1775	1775	ASHOKA	Medicinal	2.21
1776	1776	ASHOKA	Medicinal	0.05
1777	1777	ASHOKA	Medicinal	0.02
1778	1778	ASHOKA	Medicinal	0.31
1779	1779	ASHOKA	Medicinal	0.35
1780	1780	ASHOKA	Medicinal	0.27
1781	1781	ASHOKA	Medicinal	0.26
1782	1782	ASHOKA	Medicinal	0.25
1783	1783	ASHOKA	Medicinal	0.79

1784	1784	ASHOKA	Medicinal	1.20
1785	1785	MANGO	Fruit	1.36
1786	1786	MANGO	Fruit	0.36
1787	1787	MANGO	Fruit	0.97
1788	1788	ALSTONIA	Medicinal	1.83
1789	1789	ASHOKA	Ornamental	0.43
1790	1790	ASHOKA	Ornamental	0.42
1791	1791	ASHOKA	Ornamental	0.42
1792	1792	ASHOKA	Ornamental	0.31
1793	1793	ASHOKA	Ornamental	0.35
1794	1794	ASHOKA	Ornamental	0.31
1795	1795	ASHOKA	Ornamental	0.36
1796	1796	ASHOKA	Ornamental	0.94
1797	1797	CHAMPA	Ornamental	0.21
1798	1798	CHAMPA	Ornamental	0.17
1799	1799	LEMON	Fruit / Medicinal	0.15
1800	1800	LEMON	Fruit / Medicinal	0.13
1801	1801	LEMON	Fruit / Medicinal	0.14
1802	1802	LEMON	Fruit / Medicinal	0.15
1803	1803	LEMON	Fruit / Medicinal	0.24
1804	1804	FICUS	Medicinal	1.80
1805	1805	CHAMPA	Ornamental	0.12
1806	1806	CHAMPA	Ornamental	0.18
1807	1807	CHAMPA	Ornamental	0.13
1808	1808	CHAMPA	Ornamental	0.18
1809	1809	CHAMPA	Ornamental	0.16
1810	1810	CHAMPA	Ornamental	0.17
1811	1811	CHAMPA	Ornamental	0.27
1812	1812	CHAMPA	Ornamental	0.19
1813	1813	CHAMPA	Ornamental	0.14
1814	1814	CHAMPA	Ornamental	0.21
1815	1815	CHAMPA	Ornamental	0.19
1816	1816	CHAMPA	Ornamental	0.16
1817	1817	CHAMPA	Ornamental	0.19
1818	1818	CHAMPA	Ornamental	0.14
1819	1819	CHAMPA	Ornamental	0.17
1820	1820	CHAMPA	Ornamental	0.17
1821	1821	CHAMPA	Ornamental	0.15
1822	1822	CHAMPA	Ornamental	0.16
1823	1823	CHAMPA	Ornamental	0.16
1824	1824	CHAMPA	Ornamental	0.14

1825	1825	CHAMPA	Ornamental	0.14
1826	1826	CHAMPA	Ornamental	0.15
1827	1827	CHAMPA	Ornamental	0.16
1828	1828	CHAMPA	Ornamental	0.15
1829	1829	CHAMPA	Ornamental	0.20
1830	1830	CHAMPA	Ornamental	0.68
1831	1831	CHAMPA	Ornamental	0.38
1832	1832	AMALTAS	Medicinal	3.00
1833	1833	AMALTAS	Medicinal	0.37
1834	1834	AMALTAS	Medicinal	0.62
1835	1835	AMALTAS	Medicinal	0.18
1836	1836	AMALTAS	Medicinal	0.18
1837	1837	AMALTAS	Medicinal	0.30
1838	1838	AMALTAS	Medicinal	0.30
1839	1839	NEEM	Medicinal	0.61
1840	1840	SHETOOT	Fruit	0.92
1841	1841	NEEM	Medicinal	0.67
1842	1842	SAPODILLA	Fruit	0.89
1843	1843	SAPODILLA	Fruit	0.60
1844	1844	SAPODILLA	Fruit	0.57
1845	1845	Cassia	Ornamental / Medicinal	0.41
1846	1846	NEEM	Medicinal	0.52
1847	1847	Siris	Medicinal	0.50
1848	1848	SHETOOT	Fruit	0.44
1849	1849	SHETOOT	Fruit	0.40
1850	1850	SHETOOT	Fruit	0.56
1851	1851	SHETOOT	Fruit	0.67
1852	1852	SHETOOT	Fruit	0.40
1853	1853	PEEPAL	Medicinal	0.22
1854	1854	PEEPAL	Medicinal	1.37
1855	1855	PEEPAL	Medicinal	0.73
1856	1856	SHETOOT	Fruit	0.50
1857	1857	SHETOOT	Fruit	0.37
1858	1858	NEEM	Medicinal	1.40
1859	1859	PILKHAN	Medicinal	3.20
1860	1860	PEEPAL	Medicinal	0.60
1861	1861	AMALTAS	Medicinal	0.59
1862	1862	AMALTAS	Medicinal	0.26
1863	1863	CHAMPA	Ornamental	0.30
1864	1864	CHAMPA	Ornamental	0.30

1865	1865	PILKHAN	Medicinal	0.25
1866	1866	NEEM	Medicinal	0.30
1867	1867	KHAJUR	Fruit	0.30
1868	1868	PEEPAL	Medicinal	0.42
1869	1869	PEEPAL	Medicinal	0.96
1870	1870	SEHTOOT	Fruit	0.96
1871	1871	SEHTOOT	Fruit	0.60
1872	1872	AMALTAS	Medicinal	0.67
1873	1873	Gulmohar	Ornamental	0.78
1874	1874	PEEPAL	Medicinal	0.78
1875	1875	SHETOOT	Fruit	1.03
1876	1876	AMALTAS	Medicinal	0.85
1877	1877	ALSTONIA	Medicinal	1.07
1878	1878	Sheesham	Timber	0.86
1879	1879	Amaltas	Medicinal	0.82
1880	1880	ALSTONIA	Medicinal	0.87
1881	1881	KIKAR	Medicinal	1.47
1882	1882	Jati	Timber	0.72
1883	1883	Siris	Medicinal	0.96
1884	1884	NEEM	Medicinal	1.06
1885	1885	NEEM	Medicinal	0.65
1886	1886	Poplar	Timber	0.97
1887	1887	NEEM	Medicinal	1.30
1888	1888	Siris	Medicinal	1.26
1889	1889	Amaltas	Medicinal	1.35
1890	1890	ALSTONIA	Medicinal	1.56
1891	1891	Gulmohar	Ornamental	0.21
1892	1892	Siris	Medicinal	0.33
1893	1893	Amaltas	Medicinal	0.32
1894	1894	Gulmohar	Ornamental	0.41
1895	1895	Jamun	Fruit / Medicinal	0.35
1896	1896	Arjuna	Medicinal	0.30
1897	1897	Arjuna	Medicinal	0.15
1898	1898	Arjuna	Medicinal	0.11
1899	1899	Arjuna	Medicinal	0.06
1900	1900	Siris	Medicinal	0.12
1901	1901	Siris	Medicinal	0.13
1902	1902	Siris	Medicinal	0.14
1903	1903	Siris	Medicinal	0.12
1904	1904	Siris	Medicinal	0.11
1905	1905	Siris	Medicinal	0.10

1906	1906	Siris	Medicinal	0.09
1907	1907	Siris	Medicinal	0.08
1908	1908	Siris	Medicinal	0.14
1909	1909	Siris	Medicinal	0.80
1910	1910	Siris	Medicinal	1.28
1911	1911	NEEM	Medicinal	0.68
1912	1912	NEEM	Medicinal	1.30
1913	1913	Cassia	Ornamental / Medicinal	0.46
1914	1914	Cassia	Ornamental / Medicinal	0.49
1915	1915	Cassia	Ornamental / Medicinal	0.68
1916	1916	Siris	Medicinal	0.10
1917	1917	Siris	Medicinal	0.09
1918	1918	Gulmohar	Ornamental	0.10
1919	1919	Gulmohar	Ornamental	0.11
1920	1920	Gulmohar	Ornamental	0.56
1921	1921	Gulmohar	Ornamental	0.56
1922	1922	Gulmohar	Ornamental	0.52
1923	1923	Gulmohar	Ornamental	0.76
1924	1924	Gulmohar	Ornamental	0.62
1925	1925	Gulmohar	Ornamental	0.68
1926	1926	Lasoda	Medicinal	0.70
1927	1927	AMALTAS	Medicinal	0.54
1928	1928	AMALTAS	Medicinal	0.61
1929	1929	AMALTAS	Medicinal	0.52
1930	1930	AMALTAS	Medicinal	0.50
1931	1931	AMALTAS	Medicinal	0.67
1932	1932	AMALTAS	Medicinal	0.62
1933	1933	Jamun	Fruit / Medicinal	0.51
1934	1934	Siris	Medicinal	0.55
1935	1935	Siris	Medicinal	0.42
1936	1936	Siris	Medicinal	0.70
1937	1937	ALSTONIA	Medicinal	1.07
1938	1938	ALSTONIA	Medicinal	1.27
1939	1939	ALSTONIA	Medicinal	0.90
1940	1940	ALSTONIA	Medicinal	0.75
1941	1941	ALSTONIA	Medicinal	0.80
1942	1942	ALSTONIA	Medicinal	1.40
1943	1943	ALSTONIA	Medicinal	0.92
1944	1944	ALSTONIA	Medicinal	1.25

1945	1945	ALSTONIA	Medicinal	1.03
1946	1946	ALSTONIA	Medicinal	1.10
1947	1947	ALSTONIA	Medicinal	1.10
1948	1948	ALSTONIA	Medicinal	0.75
1949	1949	ALSTONIA	Medicinal	1.00
1950	1950	ALSTONIA	Medicinal	0.84
1951	1951	Siris	Medicinal	0.62
1952	1952	Kurejia	Ornamental	1.20
1953	1953	ALSTONIA	Medicinal	1.20
1954	1954	ALSTONIA	Medicinal	0.91
1955	1955	ALSTONIA	Medicinal	1.43
1956	1956	ALSTONIA	Medicinal	1.09
1957	1957	ALSTONIA	Medicinal	1.37
1958	1958	ALSTONIA	Medicinal	1.21
1959	1959	ALSTONIA	Medicinal	0.97
1960	1960	ALSTONIA	Medicinal	1.15
1961	1961	ALSTONIA	Medicinal	0.82
1962	1962	ALSTONIA	Medicinal	0.80
1963	1963	ALSTONIA	Medicinal	1.52
1964	1964	ALSTONIA	Medicinal	1.40
1965	1965	ALSTONIA	Medicinal	1.27
1966	1966	ALSTONIA	Medicinal	1.40
1967	1967	ALSTONIA	Medicinal	0.96
1968	1968	ALSTONIA	Medicinal	1.62
1969	1969	ALSTONIA	Medicinal	1.20
1970	1970	ALSTONIA	Medicinal	0.41
1971	1971	ALSTONIA	Medicinal	1.32
1972	1972	ALSTONIA	Medicinal	0.07
1973	1973	ALSTONIA	Medicinal	0.12
1974	1974	ALSTONIA	Medicinal	0.20
1975	1975	ALSTONIA	Medicinal	0.27
1976	1976	ALSTONIA	Medicinal	0.31
1977	1977	ALSTONIA	Medicinal	0.21
1978	1978	ALSTONIA	Medicinal	0.41
1979	1979	ALSTONIA	Medicinal	0.37
1980	1980	ALSTONIA	Medicinal	0.22
1981	1981	Siris	Medicinal	0.10
1982	1982	ASHOKA	Medicinal	0.12
1983	1983	ASHOKA	Medicinal	0.07
1984	1984	ASHOKA	Medicinal	0.11
1985	1985	ASHOKA	Medicinal	0.11

1986	1986	Ficus Lyarata	Ornamental	0.10
1987	1987	Ficus Lyarata	Ornamental	0.11
1988	1988	Ficus Lyarata	Ornamental	0.55
1989	1989	Ficus Lyarata	Ornamental	0.60
1990	1990	Ficus Lyarata	Ornamental	0.85
1991	1991	Ficus Lyarata	Ornamental	0.04
1992	1992	Ficus Lyarata	Ornamental	1.35
1993	1993	Pilkhan	Medicinal	0.05
1994	1994	Pilkhan	Medicinal	0.12
1995	1995	NEEM	Medicinal	0.12
1996	1996	Jamun	Fruit / Medicinal	0.16
1997	1997	Jamun	Fruit / Medicinal	0.17
1998	1998	Jamun	Fruit / Medicinal	0.08
1999	1999	Jamun	Fruit / Medicinal	0.36
2000	2000	Jamun	Fruit / Medicinal	0.35
2001	2001	Mahua	Medicinal	0.34
2002	2002	Mahua	Medicinal	0.15
2003	2003	Mahua	Medicinal	0.18
2004	2004	Mahua	Medicinal	0.72
2005	2005	Mahua	Medicinal	0.65
2006	2006	Mahua	Medicinal	1.00
2007	2007	Mahua	Medicinal	0.87
2008	2008	Mahua	Medicinal	0.50
2009	2009	ALSTONIA	Medicinal	1.30
2010	2010	ALSTONIA	Medicinal	0.10
2011	2011	ALSTONIA	Medicinal	0.75
2012	2012	ALSTONIA	Medicinal	0.48
2013	2013	ALSTONIA	Medicinal	0.53
2014	2014	ALSTONIA	Medicinal	0.48
2015	2015	ALSTONIA	Medicinal	0.46
2016	2016	ALSTONIA	Medicinal	0.90
2017	2017	ALSTONIA	Medicinal	0.13
2018	2018	ALSTONIA	Medicinal	0.38
2019	2019	ALSTONIA	Medicinal	0.14
2020	2020	Ficus	Medicinal	0.25
2021	2021	Ficus	Medicinal	1.10
2022	2022	Ficus	Medicinal	0.31
2023	2023	Ficus	Medicinal	0.12
2024	2024	Ficus	Medicinal	0.11
2025	2025	Ficus	Medicinal	0.10
2026	2026	Ficus	Medicinal	0.11

2027	2027	Ficus	Medicinal	0.11
2028	2028	Ficus	Medicinal	0.71
2029	2029	CHAMPA	Ornamental	0.12
2030	2030	CHAMPA	Ornamental	0.11
2031	2031	PEEPAL	Medicinal	1.57
2032	2032	Silver Oak	Timber	0.13
2033	2033	Silver Oak	Timber	0.11
2034	2034	Silver Oak	Timber	0.13
2035	2035	Silver Oak	Timber	0.12
2036	2036	Silver Oak	Timber	0.11
2037	2037	Phoenix Palm	Ornamental	1.02
2038	2038	Phoenix Palm	Ornamental	1.07
2039	2039	Phoenix Palm	Ornamental	1.10
2040	2040	Phoenix Palm	Ornamental	1.06
2041	2041	Jacaranda	Ornamental	0.13
2042	2042	Jacaranda	Ornamental	0.25
2043	2043	Jacaranda	Ornamental	0.35
2044	2044	Jacaranda	Ornamental	0.20
2045	2045	Jacaranda	Ornamental	0.22
2046	2046	PILKHAN	Medicinal	1.80
2047	2047	ALSTONIA	Medicinal	1.60
2048	2048	ALSTONIA	Medicinal	0.46
2049	2049	ALSTONIA	Medicinal	0.11
2050	2050	ALSTONIA	Medicinal	0.60
2051	2051	Jacaranda	Ornamental	0.67
2052	2052	Jacaranda	Ornamental	0.92
TOTAL TREES 2052 NOS.				

Annexure-L-List of custodian chemicals

S.No	Type	Description	Purchase Qty	Audit List Srl No.
1	Sodium Chloride (500gm)	12	185	12
2	Sodium Nitrate (500gm)	9	190, 199	9
3	Sodium Acetate (250gm)	1	203	1
4	Sodium Acetate (500gm)	1	203	1
5	Boric Acid (500gm)	3	44,45	3
6	Lithium Chloride (250gm)	2	119	2
7	Strontium Chloride (500gm)	1	213	1
8	Calcium Chloride (500gm)	5	205	5
9	Sodium Carbonate (500gm)	5	196,205	7
10	Borax (100gm) 500gm	1	43	1
11	Copper Sulphate (500gm)	1	61	2
12	Copper Chloride (500gm)	2	60 , 62	2
13	Potassium Sulphate (100gm)	1	163	1
14	Potassium Sulphate (500gm)	4	163	4
15	Potassium Nitrate (500gm)	1	160	1
16	Potassium Chloride(500gm)	3	154	3
17	Maq Sulphate(500gm)	1		
18	Hydrogen Peroxide H2O2 (500ml)	19	103,104,105	19
19	Maq (IV) Sulphate Mono hydrate(500gm)	1		
20	Sodium Iodide (100gm)	1	189	1
21	Starch (500gm)	22	212	21
22	Potassium Iodate (100gm)	1	171	1
23	Melodic Acid (100gm)	1	127	1
24	Glycerin (500ml)	1	94	1
25	Potassium Per magnet (500gm)	2	161	2
26	ISO propel Alcohol (500ml)	12	112	12
27	Naphthalene Indicator (100ml)	1	149	1
28	Vinegar (Acetic Acid) (500ml)	11	2	11
29	Vinegar (Acetic Acid) (250ml)	2	2	2
30	Vinegar (Acetic Acid) (2.5 Ltr)	1	1	1
31	Baking Soda (500gm)	1	204	1

32	Sodium Hydroxide (500gm)	13	188,197	11
33	Hydrochloride Acid (500ml)	14	101,96	7
34	Hydrochloride Acid (2.5 Ltr)	5	102	5
35	Sulfuric Acid (500ml)	28	217,218,219	8
36	Sulfuric Acid (2.5 Ltr)	2	220	2
37	Nitric Acid 500ml	10	141	10
38	Ammonium Chromatic 500gm Make-HPCL	9	25,26	9
39	Petrol (1 Ltr)	1	144	1
40	Ethanol (500ml)	24	78,79	24
41	Vac cum Grease 50gm	9	36	9
42	Spirit (Lt-rs)	7	210	7
43	Ascorbic Acid (500gm)	2	29	2
44	Ammonium Hydroxide (500ml)	13	20	13
45	Tylosin	1	232	1
46	Aniline	1	28	1
47	Rectified Spirit (5ltr)	1	210	1
48	pH 4 buffer solution for calibration (500 ml)	5	46	5
49	pH 9 buffer solution for calibration	3	47	3
50	pH 7 buffer solution for calibration (500ml)	10	48	10
51	Acetyl Chloride (500ml)	6	6,7	6
52	Hydrophone (500gm)	1	106	1
53	S4375-1Kg DL-Serine (K gs)	1	73	1
54	V0375-1Kg DL-Valine (Kgs)	1	74	1
55	Potassium Carbonate hydroxide 500gm	1	153	1
56	Di methyl Form-amide 500 ml	7	67	7
57	Litmus Paper Red (Pkt)	35	121,122	35
58	Litmus Paper Blue (Pkt)	31	120,123	31
59	Naphthalene (500 gm)	1	35	1
60	108804-250G 1-Allyl-2-Thiourea, 98% (250gm Pack)	4	31	4
61	TURB4000-50 Turbidity 4000 NTU Calibration Standard(500ml Pack)	1	230,	1
62	Mercuric Sulfate (250gm)	2	130	2
63	Silver Sulfate (100gm)	1	182	1
64	Potassium Di Chromatic (500gm)	6	155	6

65	Ferrous Ammonium Sulfate (500gm)	2	20	2
66	Ferroun Indicator (100ml)	1	88	1
67	Hydrazinium Hydroxide (100gm)	5	100	5
68	Phenanthroline (25gm)	8	150	8
69	Ammonium Per sulfate (500gm)	1	27	1
70	Hexamine (500gm)	1	97	1
71	Sodium Sulfate (500gm)	8	201,202	8
72	Ammonium Acetate (500gm)	2	17	2
73	Magnesium Sulfate (500gm)	8	125,126	8
74	Potassium Chromate (500gm)	2	166,170	2
75	Sodium Polyacrylate (250gm)	2	207	2
76	Barium Hydroxide, 500gms	5	37	5
77	Di Sodium organophosphate Di Hydrate 500gms	1	68	1
78	Sodium Di Hydrogen O-Phosphate, 500gms	4	68	4
79	Salicylic Acid, 500gms	3	177	3
80	Sulphur Powder , 500gms	2	215,216	2
81	Silica Gel (60-120), 500gms	45	178	45
82	Aluminium Potassium Sulphate (500gms) Make-H PLC	2	10,13	2
83	Bleaching Powder 500gms Make-H PLC	2	42	2
84	DiChloro methane 500ml Make-H PLC	31	64,69,70,71	31
85	Ethyl Acetate 500ml Make-H PLC	19	80,81,82	19
86	Hex-en 500ml Make-H PLC	20	99	20
87	Hydroxyl amine HCL 500gms Make-H PLC	2	107,108	2
88	Methyl Red 125ml Make-H PLC	7	134,135	7
89	Methyl Orange (25 gms)	4	133	4
90	Oxalic Acid Purified 500gms Make-H PLC	5	142,143	5
91	Phenolphthalien Sol, 125ml Make-H PLC	17	147,148	17
92	Silver Nitrate, 100gms Make-HPLC	7	180,181,183,184	7
93	Tri Sodium Citrate Dihyd 500gms Make-HPLC	1	186	1
94	Tetra Hydro Furan (THF) , 500ml Make-HPLC	13	221,222,223	13
95	Thymol Blue , 25 gms	1	224,225,226	1

96	Thymol Blue Ind Soln, 125ml Make-H PLC	10	224,225,226	10
97	Para Film	1	113	1
98	PH Paper with Colour Indicator	40	174	40
99	EDTA (500 gms)	10	76	10
100	Potassium Hydrogen Phthale (500 gms)	10	157	10
101	Potassium Iodide (500 gms)	10	159	10
102	Potassium Hydroxide (500 ml)	9	158,167,168	9
103	Potassium Thiocyanate (500 gms)	8	164	8
104	Potassium thiosulphae	2	165	2
105	Phosphoric Acid (500 ml)	5	151	5
106	Acetone (500 ml)	9	3,4	9
107	Ammonia Solution (500 ml)	4	16	4
108	Aluminium Sulphate (500 gms)	1	11	1
109	Ammonium Oxalate (500 gms)	1	22	1
110	Barium Sulfate (500 gms)	1	38	1
111	Calcium Sulfate (500 gms)	1	54	1
112	Chloroform (500 ml)	1	55	1
113	D Glucose (500 gms)	1	63	1
114	Phenol (500 ml)	4	145,146	4
115	Resorcenol (500 gms)	1	176	1
116	Resorcenol (250 gms)	2	176	2
117	Urea (500 gms)	5	233,234	5
118	Ammonia Solution (500 ml)	4	20	4
119	Ammonium Molybdate (500 gms)	4	21	4
120	Liquid Paraffin oil or Oil Bath (500 ml)	4	118	4
121	Toulene (500 ml)	2	227	2
122	Pentene (500 ml)	1	137	1
123	Sodium Phosphate (500 gms)	3	192,193,194	3
124	Sodium Thiosulfate (500 gms)	10	208	10
125	Calcium Carbonate (500 gms)	3	52	3
126	Magnesium Carbonate (250 gms)	6	124	6
127	1.10 Phenonthroline (25 gms)	10	150	10
128	Sodium Citrate (500 gms)	7	187	7
129	Manganous Sulfate (500 gms)	6	129	6

130	Glycerol (500 ml)	20	94	20
131	Ferric Nitrate (500 gms)	5	86,87	5
132	Potassium Ferrocyanide (500 gms)	6	156	6
133	Ferrous Sulfate (500 gms)	5	89,90	5
134	Silicon Oil (250 ml)	4	179	4
135	Glycine (500 gms)	2	95	2
136	Buffer Tab (Pack 20 Tabs)	8	46	8
137	Ammonium Chloride (500 gms)	6	23,24	6
138	Iodine Resublimed (100 gm)	10	110	10
139	Iodine Solution (Bottle)	1	111	1
140	Barium Chloride (500 gm)	5	36	5
141	Curric Sulfate (500 gm)	1	62	1
142	Ferric Chloride (500 gm)	3	85	3
143	Ferrous Sulfate (500 gm)	1	90	1
144	Lead Acetate (500 gm)	1	115	1
145	Lead Sulphate (500 gm)	1	117	1
146	Nickel Sulfate (500 gm)	1	140	1
147	Sodium Oxalate (500 gm)	1	191	1
148	Sodium Hydrogen In Carbonate (500 gm)	7	204	7
149	Sodium Hypochlorite (500 ml)	5	209 198	5
150	Ammonium Dihydrogen Orthophosphate (500 gm)	4	15	4
151	Formic Acid (500 ml)	8	92,93	8
152	Labolene Neutral (500 ml)	4	114	4
153	Erichrome Black T (25 gm)	6	77	6
154	B Naphthol (250 gm)	2	35	2
155	Formaldehyde (5 Ltr)	2	91	2
156	1.4 Dichlorobenzene (500 ml)	4	65	4
157	Sodium Bicarbonate (500 gm)	1	204	1
158	Benzoic Acid (500 gm)	1	40	1
159	Potassium Persulfate (500 gm)	2	162	2
160	Kim wipes Box	95	35	95
161	Methanol (500 ml)	71	131	1
162	Methanol (2.5 Ltr)	8	132	8
163	Lead Nitrate (500 Gms)	2	116	2
164	Sucrose (500 Gms)	2	214	2

165	Zinc Sulphate (500 Gms)	2	239	2
166	Soap for Glassware Lab Clean (500ml)	4	114	4
167	4000NTU Turbidity Standard (100ml)	1	231	1
168	Sodium Polyacrylate (100gm)	2	206	2
169	Polycarbonate (500 gms)	1	152	1
170	ABS Acrylonitrile Butadiene Styrene (500 gms)	1	8	1
171	Ag Agcl Ink (25ml)	1	9	1
172	Potassium Ionophore- I (10mg)	1	240	1
173	4- (4- Nitrophenylazo) Resorcinol (25 gms)	2	176	2
174	DMF (500ml)	2	67	2
175	Milk Powder (Kgs)	1	136	1
176	Triethylamine 500ml	2	229	2
177	Ethyl Alcohol 500ml	5	84	5
178	Buffer Solution 7.2 500ml	2	50	2
179	Ammonium Chloride (500gms)	2	18	1
180	Ammonia Solution (500gms)	4	20	4
181	Manga nous Sulphate	2	128	2
182	Magnesium Sulphate	1	126	1
183	Corvette Quartz 3.5ml (Prs)	3	25	3
184	Cobalt Acetate (100gms)	1	57	1
185	Nickel Chloride (500gms)	1	138	1
186	Iron Chloride (500gms)	1	84	1
187	Cobalt Chloride (100gms)	2	58	2
188	Cobalt Nitrate (100gms)	1	59	1
189	Pro pan 2 Oil (500ml)	4	112	4
190	Acetone (2.5 Ltr)	1	5	1
191	Dichloromethane (2.5 Ltr)	1	64	1
192	Hexane (2.5 Ltr)	2	98	2
193	Chloroform (500ml)	10	56	10
194	Toluene (500ml)	2	128	2
195	Pyridine (500ml)	2	173	2
196	Phenol Ph Halein (125ml)	2	145	2
197	Potassium Iodide (100gms)	2	169	2
198	Nickel Nitrate (500 gms)	1	139	1

199	Nickel Triflate (1 gm)	1	241	1
200	Iron Triflate (1 gm)	1	242	1
201	Silicon Oil (500ml)	4	179	4
202	Dow Cyclotene (500gms)	1	1	
203	Yeast Extract Agar (500gm)	2	2	
204	Calcium Chloride (500gm)	5		
205	DL Aniline	1	1	
206	Aluminium Hydroxide gel powder	1	1	
207	Yeast Powder (100gm)	1	1	

GREEN AUDIT REPORT

(June, 2021)



**BML MUNJAL
UNIVERSITY™**

FROM HERE TO THE WORLD

BML Munjal University (BMU)
67th Milestone, NH 48, Gurugram, Haryana 122413

Audit Conducted By:



EFS Engineering Facility Services

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2. Executive Summary:

The rapid urbanization and economic development at local, regional and global level has led to several environmental and ecological crisis. On this background it becomes essential to adopt the system of the green campus for the institute which will lead to sustainable development. BML Munjal University, Gurgaon is deeply concerned and unconditionally believes that there is an urgent need to address these fundamental problems and reverse the trends. Being a premier institution of higher studies, the college has initiated 'The Green Campus' programme few years back that actively promote the various projects for the environment protection and sustainability.

The purpose of this audit was to ensure that the practices followed in the campuses are in accordance with the green policy adopted by the institution, it works on several facets of Green Campus including water conservation, electricity conservation, tree plantation, waste management, paperless work, mapping of biodiversity. With these issues in mind, the specific objectives of the audit are to evaluate the adequacy of the management control framework of environment sustainability as well as the degree to which the departments are in compliance with the applicable regulations, policies and standards. It can make a tremendous impact on students' health and learning, college operational costs and the environment. The criteria, methods and recommendation used in the audit were based on the identified risks.

3. Introduction

Green Audit is a systematic, documented, periodic and objective review by regulated entities of facility operations and practices related to meeting environmental requirements (EPA, 2003). In other words, it is a management tool comprising of systematic, documented, periodic and objective evaluation of organization, which management and equipment are performing with the aim of helping to safeguard the environment by facilitating management control of practices and assessing compliance with company policies which would include regulatory requirements and standards applicable (International Chamber of Commerce, 1989).

Green auditing is essentially an environmental management tool for measuring the effects of certain activities on the environment against set criteria or standards. Depending on the types of standards and the focus of the audit, there are different types of audit. Organizations of all kinds now recognize the importance of environmental matters and accept that their environmental performance will be scrutinized by a wide range of interested parties.

4. Utility of Green Audit

These are used to help improve existing human activities, with the aim of reducing the adverse effects of these activities on the environment. An environmental auditor will study an organization's environmental effects in a systematic and documented manner and will produce a green audit report.

5. Objectives of the Study

The main objectives of the green audit are to promote the environment management and conservation in the institute campus. The purpose of the audit is to identify, quantify, describe and prioritize the framework of environment sustainability in compliance with the applicable regulations, policies and standards. The main objectives of carrying out green audit are-

- To introduce and make aware students to real concerns of environment and its sustainability.
- To secure the environment and cut down the threats posed to human health by analyzing the pattern and extent of resource use on the campus.
- To establish a baseline data to assess future sustainability by avoiding the interruptions in environment that are more difficult to handle and their corrections requires high cost.
- To bring out a present status report on environmental compliance.

6. Methodology

In order to perform green audit, the methodology included different techniques such as physical inspection of the campus, observation and review of the documentation, interviewing key persons and data analysis, measurements and recommendations. The study covered the following area to summarize the present status of environment management in the campus:

- Water consumption and management
- Air quality assessment and management
- Electricity consumption and management
- Sound pollution monitoring
- Waste management
- Biodiversity status of the campus

7. WATER SAVING POTENTIAL & BEST MANAGEMENT PRACTICES

Best management practices (BMPs) are a set of hands-on recommendations that help to identify opportunities and implement programs to save water in college. BMPs are developed for the various water-use categories in the office buildings and for monitoring and operational procedures. They are grouped according to indoor water use, outdoor water use, and monitoring and operational procedures. We can tailor water-saving program by using part or all the BMPs depending on budget and environmental requirements. Tips and information are provided on water-saving amounts and cost recovery to help in prioritizing measures and make the most knock for buck.

Based on the information collected and observations, the following can be recommended to reduce water use and increase its efficiency.

Faucets

Lavatory, bathing and hand wash facilities faucets average water use in the workshop buildings is approximately 28% of the total water received. In some of the faucets water run around 9 liter per minute. Faucets flows can easily be reduced without affecting the comfort of the water user by using appropriate flow regulator technology for these fixtures. This will result in impressive savings of around 50 percent of faucets water use. Flow regulators, especially the aerators are inexpensive and are easy to install and maintain. This is why they are often considered as the low hanging fruits of water saving programs.



Here are the recommended best management practices for achieving water savings for faucets at office building.

- Use pressure compensating and tamper proof aerators that can only be removed with a 'special' tool to reduce vandalism and theft.

- Regularly clean faucets as sediments may accumulate and reduce the flow.

Recommend flow rate for different type of uses	
Public hand-washing faucet or self-closing faucet	≤ 4.5 litres /min ≤ 1.0 litres /cycle
Restroom faucet	≤ 4.5 litres /min
Kitchen faucet	≤ 8.3 litres/min

Flow per minutes could be set to 2 or 3 or...6 Litres or more as per the requirement. The Flow Control aerator generates thin streams (like shower aerator) of water to cover wider area for rinse, when compared to conventional aerators. This results in lesser-run time of faucet and easiness for user and ultimately water saving. Flow Control Aerator can easily be installed in existing faucets.

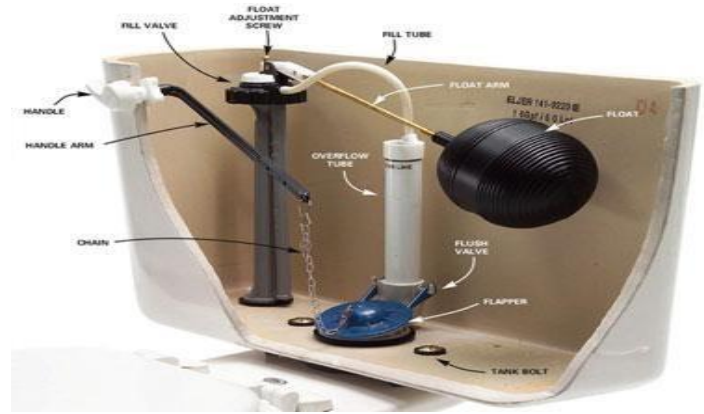
Urinals

Low water use urinals: In some of the standard systems, water is applied automatically through a continuous drip-feeding system or by automated flushing at a set frequency, 24x7, regardless of whether the urinal has been used. Water consumption varies with the system model at an average of 4 litres per flush. Water-efficient urinals use 2.8 litres per flush and in recent times smart flush systems using 0.8 litres per flush have also been launched.

Waterless urinals: There are various technologies available for waterless urinals. In oil barrier technology, the urinals operate using an oil wall between the urine and the atmosphere, preventing odor from escaping. In another technology, the barrier has been replaced by a seal with a collapsible silicone tube that closes after the fluid has passed through it, to prevent gases from flowing into room. A third system uses biological blocks which include microbial spores and surfactants which can be placed into any urinal, thus eliminating water use. By breaking down the urine into components, buildup of sludge and crystals which causes blockages is prevented. Bidets and urinals water use accounts for 3 percent of office buildings water use. These standards shown in the table offer a good water-saving opportunity for water saving in office buildings.

Toilets

A dual-flush toilet is a variation of the flush toilet that uses two buttons or handles to flush different levels of water. A significant way to save water in buildings is to replace single-flush toilets with dual flush toilets. The standard dual-flush toilets use six litres of water on full and three litres on a half-flush.



Replacing old toilets will result to a reduction of 35 percent of toilet water. More cost-effective results can be achieved by replacing only the toilet trim system.

Saving Water through Monitoring and Operational Procedures

Identifying and Fixing Leaks

The hidden water leaks can cause loss of considerable water and energy without anyone being aware of it. A small leak can amount to large volumes of water loss. Leaks become larger with time, and they can lead to other equipment failure. Fix that leaky pipe, toilet, faucet, or roof top tank to save considerable amount of money and water. The establishment of a leak detection and repair program would be a most cost-effective way to save money and water in the workshop building. Following are some best practices to identify and fixing leaks.

The Management must be committed for providing the staff and resources needed to maintain plumbing fixtures and equipment on a regular basis and assuring prompt identification and repair of leaks.

- Repair staff is given the tools needed and is trained to make leak repair a priority activity.
- Staffs are taught to report leaks and other water-using equipment malfunctions promptly.
- Staffs are rewarded for success.
- Rooftop tank overflow or leakage water should flow to rainwater gutter system not to sewage system to allow detection of rooftop water loss.
- Records of the type, location, number, and repair of leaks are kept in a central

location.

GENERAL RECOMMENDATIONS

Based on the physical inspection and document reviewed on water distribution system of Building, EFS recommends the following recommendations for using water efficiently at College & Hostel Building.

Implementation of water accounting & management system

It was noticed during the audit that water flow meters are nowhere installed at College and Hostel Building. Therefore, it is highly recommended to install digital water flow meters on all the main lines. Digital water meters are also required to install in each sections to monitor the section wise water consumption and planning for effective water management. It is also recommended to appoint internal Water Audit team who can inspect water distribution system and for the accounting of water usage in the hostel and college building.

Minimization of leakage water

Leakages were observed in Valves at hostel and college building resulting in water loss. It is recommended to close out these leakages by replacing faulty valves to avoid wastage of water. It is also recommended to regularly check for leakages and fix them on urgent basis.

Regular Maintenance of toilet system and use of water efficient fixtures

Regular maintenance of the toilets should be carried out. Test for leaks and make necessary repairs promptly. Keep the toilet in working order by periodically inspecting and replacing flappers and other defective parts. Water efficient fixtures such as aerator and water efficient taps need to be used to reduce water consumption.

Capacity building of Staff Involved in Water Distribution

The Management of college may arrange capacity building and awareness programs for the staff engaged in water distribution

OVERALL AIM FOR WATER CONSERVATION: ON THE WAY FORWARD WITH THE 3-R CONCEPT

“Water conservation is defined as any action that reduces the amount of water withdrawn from water supply sources, reduces consumptive use, reduces the loss or waste of water, improves the efficiency of water use, increases recycling and reuse of water, or prevents the pollution of water”.

Reduce

Reduction at Source

- Better operating controls such as arresting leakages
- Installation of water saving devices such as water tank alarm at all overhead tanks
- Change of device/ equipment such as replacement of water pumps and motor with energy efficient pumps and motors
- Process modification such as use of sprinklers for watering plants and garden

Recycle & Reuse

- Use of treated water in toilets flushing, gardening, fountains, fire fighting equipment's
- Use of storm water as Cooling Tower make-up water after treatment.
- Using storm water & sanitary water as fire water after treatment.
- Reduction of Fresh Water usage supplemented through waste water treatment.
- Direct use of Rain Water Harvesting through storage tanks

Recharge

- Installation of recharge wells / rain water harvesting pits for recharging ground water tables.
- Total recharging capacity (during rain time) to be estimated in m³/hr.
- Rain Water Harvesting and conservation.

8. Water Storage Profile

Description	Location	UOM	Qty	Capacity (Ltr)
Pump Room	Fire Water Tank 1	Nos	1	100000
	Fire Water Tank 2	Nos	1	100000
	Row Water Tank 1	Nos	1	100000
	Row Water Tank 2	Nos	1	100000
	Domestic Water Tank 1	Nos	1	100000
	Domestic Water Tank 2	Nos	1	100000
Domestic Water Tank	Gateway A	Nos	1	17500
	Gateway B	Nos	1	27000
	Library	Nos	1	20000
	Workshop	Nos	1	2600
	Hostel Tower	Nos	1	25000
	Apt A, B, C	Nos	1	20000
	Faculty	Nos	1	10000
	T5	Nos	1	23000
	SS Housing	Nos	1	3600
	E2	Nos	1	9000
	Apart D	Nos	1	17000
Fire Tank	Gateway A	Nos	1	17500
	Workshop	Nos	1	5000
	Faculty	Nos	1	25000
	T5	Nos	1	25000
	SS Housing	Nos	1	5000
	E2	Nos	1	25000
	Apart D	Nos	1	25000
Flushing Water Tank	Gateway A	Nos	1	20000
	Gateway B	Nos	1	3500
	Hostel Tower	Nos	1	13000
	Apt A, B, C	Nos	1	10000
	Faculty	Nos	1	5000
	T5	Nos	1	14000
	SS Housing	Nos	1	1800
	E2	Nos	1	10000
	Apart D	Nos	1	6000
Total			33	985500

9. Total electricity consumption per year

Electrical consumption detailed below:

Sr. No.	Month	KWh consumption
1	Apr-20	66700
2	May-20	62540
3	Jun-20	56740
4	Jul-20	66300
5	Aug-20	64260
6	Sep-20	83040
7	Oct-20	61800
8	Nov-20	51100
9	Dec-20	58620
10	Jan-21	61980
11	Feb-21	52820
12	Mar-21	91860
Total		777760

Yearly Electrical Consumption (DVVNL) **777,760** KWh

10. Solar Generation

Solar Plant Power generation detailed below:

Sr. No.	Month	Solar Generation (KWh)
1	May-21	25252
2	Apr-21	27200
3	Mar-21	27222
4	Feb-21	22671
5	Jan-21	18618
6	Dec-20	19706
7	Nov-20	14455
8	Oct-20	19256
9	Sep-20	23318
10	Aug-20	20322
11	Jul-20	25079
12	Jun-20	24909
Total		268008

Comments: Approximate per capita average consumption per year is 2.22 units/day (Including solar power generation and DVVNL).

11. Water Consumption

Water extraction detailed below:

Sr. No.	Month	Water Consumption (KL)
1	May-21	3223
2	Apr-21	3274
3	Mar-21	2795
4	Feb-21	2937
5	Jan-21	4637
6	Dec-20	6444
7	Nov-20	2780
8	Oct-20	4577
9	Sep-20	5895
10	Aug-20	4829
11	Jul-20	5774
12	Jun-20	6845
Total		54010

12. Sound Pollution Monitoring

The human ear is constantly being assailed by man-made sounds from all sides, and there remain few places in populous areas where relative quiet prevails. There are two basic properties of sound, (1) loudness and (2) frequency. Loudness is the strength of sensation of sound perceived by the individual. It is measured in terms of Decibels. Just audible sound is about 10 dB, a whisper about 20 dB, library place 30 dB, normal conversation about 35-60 dB, heavy street traffic 60-75 dB, boiler factories 120 dB, jet planes during take-off is about 150 dB, rocket engine about 180 db. The loudest sound a person can stand without much discomfort is about 80 db. Sounds beyond 80 dB can be regarded as pollutant as it harms hearing system. The WHO has fixed 45 dB as the safe noise level for a city to avoid sleep disturbances. For international standards a noise level up to 65 dB is considered tolerable. Frequency is defined as the number of vibrations per second. It is denoted in Hertz (Hz). Sound pollution is another important parameter that is taken into account for green auditing of the College Campus. Different sites were chosen for the monitoring purpose.

S.No.	Description	db (Min)
1	Gateway-A Ground Floor	55
2	Lobby Area	55
3	First Floor Class Room 104	55
4	Lobby Area	58
5	Second Floor Class Room 201	55
6	Lobby Area	55
7	Third Floor Class Room 302	55
8	Lobby Area	50
9	Corridor	55
10	Office Area	55
11	Hub room	58
12	Gateway -B G Floor	55
13	Gateway-B Lobby Area	56
14	First Floor Class Room 101	55
15	First Floor Class Room 204	55
16	2nd Floor Lobby	55
17	2nd floor class room 201	55
18	Gateway 1st floor gym	55
19	Second floor hub	55
20	Office Area	56
21	3rd floor Hub	55
22	3rd floor Cabin	50
23	Lobby area	55
24	3rd floor Hub	55
25	Hub -Lobby	55
26	Library	56

S.No.	Description	db (Min)
27	Library Cabin	65
28	Library Lobby	70
29	Chemistry Lab	65
30	Biotech Lab	60
31	Physics Lab	65
32	Robot Lab	60
33	Workshop Lobby Entry Gate	55
34	SS Building Lobby	65
35	SS 1st floor lobby area	56
36	Faculty Building lobby	55
37	Faculty Building lobby 1st floor	55
38	Girls Hostel B-C G Floor Lobby	60
39	Girls Hostel G Floor room	55
40	Girls hostel 1st floor lobby	65
41	Girls hostel 1st floor room	68
42	Boy hostel B- A. G FLOOR	55
43	G. floor Mass room	65
44	First floor lobby	55
45	First floor room	55
46	Second floor room	55
47	Third floor room	55
48	14th floor lobby	55
49	14th floor room	55
50	Boy hostel B- G FLOOR	55
51	Boy hostel B- 1st floor	55
52	Boy hostel B- 1st floor lobby	55
53	Boy hostel B-1st Floor room	58
54	Boy hostel B-2nd Floor room	55
55	Boy hostel B- 2nd floor lobby	55
56	Boy hostel B- 3rd floor lobby	55
57	Boy hostel B- 3rd floor room	55
58	Boy hostel B- 4th floor lobby	60

Recommended sound level as set in CPCB-Environmental Standards- Noise (ambient standards) dB (A)

SCHEDULE

(see rule 3(1) and 4(1))

Ambient Air Quality Standards in respect of Noise

Area Code	Category of Area / Zone	Limits in dB(A) Leq*	
		Day Time	Night Time
(A)	Industrial area	75	70
(B)	Commercial area	65	55
(C)	Residential area	55	45
(D)	Silence Zone	50	40

- Note:-
1. Day time shall mean from 6.00 a.m. to 10.00 p.m.
 2. Night time shall mean from 10.00 p.m. to 6.00 a.m.
 3. Silence zone is an area comprising not less than 100 metres around hospitals, educational institutions, courts, religious places or any other area which is declared as such by the competent authority
 4. Mixed categories of areas may be declared as one of the four above mentioned categories by the competent authority.

* dB(A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.

13. Lux Monitoring

S.No.	Description	Lux (Min)	Lux (Max)
1	Gateway-A Ground Floor	340	355
2	Lobby Area	320	335
3	First Floor Class Room 104	310	325
4	Lobby Area	280	310
5	Second Floor Class Room 201	300	315
6	Lobby Area	310	320
7	Third Floor Class Room 302	300	310
8	Lobby Area	290	300
9	Corridor	300	310
10	Office Area	280	295
11	Hub room	280	290
12	Gateway -B G Floor	280	310
13	Gateway-B Lobby Area	280	310
14	First Floor Class Room 101	280	300
15	First Floor Class Room 204	260	280
16	2nd Floor Lobby	250	265
17	2nd floor class room 201	320	345
18	Gateway 1st floor gym	320	345
19	Second floor hub	340	455
20	Office Area	320	345
21	3rd floor Hub	310	320
22	3rd floor Cabin	300	310
23	Lobby area	280	290
24	3rd floor Hub	245	255
25	Hub -Lobby	250	280
26	Library	280	300
27	Library Cabin	285	300
28	Library Lobby	280	310
29	Chemistry Lab	275	315
30	Biotech Lab	280	320
31	Physics Lab	285	310
32	Robot Lab	285	315
33	Workshop Lobby Entry Gate	270	320
34	SS Building Lobby	280	315
35	SS 1st floor lobby area	270	280
36	Faculty Building lobby	270	285
37	Faculty Building lobby 1st floor	275	285
38	Girls Hostel B-C G Floor Lobby	275	280
39	Girls Hostel G Floor room	270	285
40	Girls hostel 1st floor lobby	285	290
41	Girls hostel 1st floor room	260	286
42	Boy hostel B- A. G FLOOR	280	290
43	G. floor Mass room	270	289
44	First floor lobby	280	290

S.No.	Description	Lux (Min)	Lux (Max)
45	First floor room	265	285
46	Second floor room	245	270
47	Third floor room	265	280
48	14th floor lobby	265	280
49	14th floor room	265	278
50	Boy hostel B-. G FLOOR	265	270
51	Boy hostel B- 1st floor	270	290
52	Boy hostel B- 1st floor lobby	260	275
53	Boy hostel B-1st Floor room	265	278
54	Boy hostel B-2nd Floor room	265	280
55	Boy hostel B- 2nd floor lobby	275	285
56	Boy hostel B- 3rd floor lobby	270	280
57	Boy hostel B- 3rd floor room	275	280
58	Boy hostel B- 4th floor lobby	270	285

Comments: Lux level found satisfactory.

14. Waste Disposal

Waste disposal include the activities and actions required to manage waste from its inception to its final disposal. This includes the collection, transport, treatment and disposal of waste, together with monitoring and regulation of the waste management process.

Waste can be solid, liquid, or gas, each type has different methods of disposal and management. Waste management deals with all types of waste, including industrial, biological and household. In some cases, waste can pose a threat to human health. Waste is produced by human activity, for example, the extraction and processing of raw materials. Waste management is intended to reduce adverse effects of waste on human health, the environment or aesthetics.

Waste management practices are not uniform among countries (developed and developing nations) regions (urban and rural areas), and residential and industrial sectors can all take different approaches.

A large portion of waste management practices deal with municipal solid waste which is the bulk of the waste that is created by household, industrial, and commercial activity.



BML Munjal University, Gurgaon has employed waste bins for proper segregation of solid wastes in the campus.

Number of dustbins at BML MUNJAL UNIVERSITY, GURGAON listed below:

Details of dustbin & approx. waste disposal

Sr No.	Date of Receipt	UOM	Net Qty in Campus
1	Dust Bin 60 ltr Plastic (Sintex)	Nos	86
2	Dust Bin 80 ltr (Neelkamal)	Nos	2
3	Dust Bin 50 ltr (Rattan)	Nos	19
4	Dust Bin 15 ltr (Rattan)	Nos	113
5	Dust Bin 15 ltr Utility (Rattan)	Nos	18
6	Dust Bin 15 ltr Yoyo	Nos	20
7	Dust Bin Green 55 ltr.	Nos	4
8	Dust Bin Blue 50 ltr.	Nos	2
9	Dust Bin SS 52 ltr	Nos	11
10	Dust Bin s/s Small Open	Nos	11
11	Pedal Dust Bin (6-10 Ltr.) Make-Neelkanth Polymers, Model-Pedal 1005	Nos	81
12	Pedal Dust Bin (Blue) 16 ltr.	Nos	28
13	Dust Bin Plastic w/o Cover (MED) 5 ltr	Nos	30
14	Dust Bin Plastic with cover (small)	Nos	50
15	Dust Bin SS with cover	Nos	2
16	Dust Bin plastic with lifting lid (50 ltr)	Nos	21
17	Dust Bin Plastic with lifting lid (15 ltr)	Nos	180
18	Dust Bin Plastic open w/o lid (15 ltr)	Nos	164
19	Dust bin SS Hanging (Double dust bin in one stand)	Nos	22
20	Dust bin small plastic with lid (rectangular)	Nos	50
21	Color Coded Bin SS TD 52 ltr (GR 704)	Nos	20
22	Color Coded Bin Plastic FD 50 ltr Blue GR 717)	Nos	18
23	Wheeled Pedal Bin Plastic 55 ltr Green(GR 765)	Nos	20
24	SS Open Bin Perforated 8x12(GR 753) Office Area	Nos	12
25	Dust Bin Roll top	Nos	15
26	Garbage Bin with Wheel 120 Ltr (Green) (LBF Mess)	Nos	6
27	Garbage Bin with Wheel 120 Ltr (Red) (LBF Mess)	Nos	6

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Sr No.	Date of Receipt	UOM	Net Qty in Campus
28	Garbage Bin Pedal/Wheel Blue 120 Ltr (LBF Mess)	Nos	4
29	Paddle Dust Bin (Garbage Bin) 120 Ltr Green/Red (D Café)	Nos	11
Total		Nos	1026

Details of waste disposal

Dry Waste disposal: 600 Kg/Month

Wet Waste disposal: 600 Kg/Month

15. List of Trees in Campus

Total 2052 trees found at University, as list attached below:

S. No	TREE No	SPECIES	GIRTH
1	1		1.80
2	2	NEEM	0.95
3	3		1.73
4	4		1.85
5	5		1.50
6	6		1.20
7	7		0.53
8	8		1.10
9	9		0.58
10	10	NEEM	0.90
11	11		1.40
12	12	NEEM	0.87
13	13	NEEM	0.90
14	14		0.65
15	15	SAGON	1.06
16	16		1.43
17	17		1.25
18	18	NEEM	0.98
19	19		1.40
20	20	LEMON	0.37
21	21		0.78
22	22		0.98
23	23		1.30
24	24		1.20
25	25		0.31
26	26		0.40
27	27		1.36
28	28	GOAVA	0.35
29	29	GOAVA	0.20
30	30		0.30
31	31		0.35
32	32		0.42
33	33		1.24
34	34		1.36
35	35		1.47
36	36	AMLA	0.31
37	37	AMLA	0.40
38	38	AMLA	1.02
39	39	AMLA	0.87
40	40		0.88
41	41		2.40
42	42		0.86

S. No	TREE No	SPECIES	GIRTH
43	43		1.00
44	44		0.78
45	45	SAGON	0.76
46	46		1.04
47	47		1.20
48	48	SAGON	0.82
49	49		0.90
50	50		0.49
51	51		0.48
52	52		0.61
53	53		0.43
54	54		0.88
55	55		0.56
56	56		1.30
57	57		1.00
58	58		0.42
59	59		0.62
60	60		0.53
61	61		0.77
62	62		0.97
63	63		0.46
64	64		0.75
65	65		0.89
66	66		0.63
67	67		0.92
68	68		0.49
69	69		0.46
70	70		0.40
71	71	SAGON	0.37
72	72	SAGON	0.58
73	73		0.82
74	74		0.52
75	75		0.69
76	76	SAGON	0.25
77	77	SAGON	0.31
78	78		0.87
79	79		0.77
80	80	NEEM	0.83
81	81		0.64
82	82		1.07
83	83		0.68
84	84		0.84
85	85		1.30
86	86		1.22
87	87		1.26
88	88	SAGON	0.76

S. No	TREE No	SPECIES	GIRTH
89	89	NEEM	1.24
90	90	SAGON	0.25
91	91		0.97
92	92	ALSTONIA	0.94
93	93	NEEM	1.00
94	94	ASHOKA	0.74
95	95	NEEM	0.82
96	96		0.78
97	97	MAROD FALI	0.81
98	98		0.89
99	99		0.77
100	100	NEEM	0.96
101	101		0.35
102	102		0.31
103	103		0.74
104	104		0.66
105	105	BARGAD	2.40
106	106	NEEM	0.78
107	107	SAGON	0.69
108	108	NEEM	0.53
109	109	MAROD FALI	0.54
110	110	MAROD FALI	0.33
111	111		0.43
112	112		0.30
113	113		0.34
114	114		0.69
115	115		0.31
116	116		0.44
117	117	SAGON	0.56
118	118	SAGON	0.51
119	119	SAGON	0.69
120	120		0.52
121	121		0.83
122	122		1.08
123	123		1.50
124	124		0.79
125	125	SAGON	0.52
126	126	NEEM	1.21
127	127		0.43
128	128		1.33
129	129		1.26
130	130		1.07
131	131	NEEM	0.63
132	132		0.73
133	133		1.03
134	134		1.10

S. No	TREE No	SPECIES	GIRTH
135	135		0.96
136	136	SAGON	0.40
137	137	SAGON	0.56
138	138		0.51
139	139	SAGON	0.62
140	140	SAGON	0.72
141	141	SAGON	0.67
142	142	SAGON	0.49
143	143	SAGON	0.46
144	144		0.52
145	145		0.53
146	146	SAGON	0.47
147	147	NEEM	0.61
148	148		0.52
149	149	SAGON	0.47
150	150		0.43
151	151		0.56
152	152		0.44
153	153		0.37
154	154		1.30
155	155	SAGON	0.81
156	156		0.48
157	157		0.97
158	158	SAGON	0.73
159	159		0.67
160	160		0.82
161	161		0.96
162	162		1.21
163	163	NEEM	0.30
164	164		0.80
165	165		0.46
166	166		0.33
167	167	SAGON	0.63
168	168		0.73
169	169	SAGON	0.88
170	170	SAGON	0.68
171	171		1.22
172	172		0.97
173	173		0.67
174	174	SYMBOL	0.32
175	175	SYMBOL	0.31
176	176	SYMBOL	0.28
177	177	SYMBOL	0.33
178	178		0.42
179	179	SYMBOL	0.32
180	180	SYMBOL	0.28

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S. No	TREE No	SPECIES	GIRTH
181	181	NEEM	0.67
182	182		1.32
183	183		0.33
184	184		0.43
185	185		0.67
186	186		0.58
192	192		0.42
193	193	ALSTONIA	0.47
194	194		0.58
195	195	ALSTONIA	0.52
196	196		0.57
197	197		0.52
198	198		0.38
199	199		0.42
200	200		0.68
201	201		0.77
202	202		0.51
203	203		0.67
204	204		0.57
205	205		0.47
206	206		0.58
207	207		0.52
208	208		0.85
209	209		0.67
210	210		0.81
211	211		0.52
212	212		0.63
213	213		0.26
214	214		0.80
215	215		0.82
216	216		0.67
217	217		0.72
218	218		0.69
219	219		0.95
220	220		0.99
221	221	PEEPAL	1.30
222	222		0.68
223	223		0.32
224	224		0.52
225	225		1.70
226	226		0.61
227	227		0.84
228	228		0.89
229	229		0.57
230	230		1.30
231	231		0.40

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S. No	TREE No	SPECIES	GIRTH
232	232		0.68
233	233		0.64
234	234		0.49
235	235		0.53
236	236		0.67
237	237		0.58
238	238		0.56
239	239		0.50
240	240		0.31
241	241		0.57
242	242		1.81
243	243		0.42
244	244		1.07
245	245		0.51
246	246		0.48
247	247		0.70
248	248		0.43
249	249		1.62
250	250		0.67
251	251		1.13
252	252		1.07
253	253		1.41
254	254		1.61
255	255		1.72
256	256		0.30
257	257		0.27
258	258		0.43
259	259		0.40
260	260		0.42
261	261		0.44
262	262		0.46
263	263		0.47
264	264		0.51
265	265		0.74
266	266		0.42
267	267		0.43
268	268		0.54
269	269		0.56
270	270		0.32
271	271		0.92
272	272		0.86
273	273		0.87
274	274		0.71
275	275	MANGO	0.67
276	276		0.51
277	277		0.37

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S. No	TREE No	SPECIES	GIRTH
278	278		0.35
279	279		0.30
281	281		0.88
282	282		1.25
283	283		0.72
284	284		0.89
285	285		0.97
286	286		1.12
287	287		0.84
288	288		0.67
289	289		0.72
290	290		0.80
291	291		0.86
292	292		0.97
293	293		1.32
294	294		1.07
295	295		1.28
296	296		1.02
297	297		1.26
298	298		0.87
299	299		0.77
300	300		1.03
301	301		0.79
302	302		1.31
303	303		0.52
304	304		0.47
305	305	NEEM	1.42
306	306		0.78
307	307		0.81
308	308		0.67
309	309		0.42
310	310		0.66
311	311		0.59
312	312		0.62
313	313		1.22
314	314		0.71
315	315		0.69
316	316		0.70
317	317		0.52
318	318		0.72
319	319		0.46
320	320		0.57
321	321		0.43
322	322		1.00
323	323		0.71
324	324	NEEM	0.67

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S. No	TREE No	SPECIES	GIRTH
325	325		0.58
326	326		0.58
327	327	BER	1.30
280	280		0.57
328	328	PEEPL	1.47
329	329		0.94
330	330		0.47
331	331		0.35
332	332		0.85
333	333		0.85
334	334		0.40
335	335		0.61
336	336		0.55
337	337		0.71
338	338		0.48
339	339		0.47
340	340		0.46
341	341		0.57
342	342		0.43
343	343		0.46
344	344		0.41
345	345		0.42
346	346		0.56
347	347		0.62
348	348		0.59
349	349		0.58
350	350		0.38
351	351		0.39
352	352		0.42
353	353		0.82
354	354		1.21
355	355		0.37
356	356		0.62
357	357		0.53
358	358		0.67
359	359		0.48
360	360		0.47
361	361		0.42
362	362		0.58
363	363		0.68
364	364		0.52
365	365		0.80
366	366		0.51
367	367		0.62
368	368		0.76
369	369	NEEM	0.87

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S. No	TREE No	SPECIES	GIRTH
370	370		0.62
371	371		0.51
372	372		0.48
373	373		0.53
374	374		0.63
379	379		0.81
380	380		0.76
381	381		0.41
382	382		0.38
383	383		0.43
384	384		0.67
385	385		0.42
386	386		0.51
387	387		0.67
388	388		0.70
389	389		0.42
390	390		0.67
391	391		0.41
392	392		0.44
393	393		0.42
394	394		0.43
395	395	NEEM	1.30
396	396		0.62
397	397		0.73
398	398		0.54
399	399		0.53
400	400		0.58
401	401		0.73
402	402		1.31
403	403		0.77
404	404		0.81
405	405		0.67
406	406		0.54
407	407		0.53
408	408		1.31
409	409	NEEM	0.97
410	410	NEEM	0.85
411	411		0.53
412	412		0.48
413	413		0.51
414	414		0.56
415	415		0.43
416	416		0.42
417	417		0.46
418	418		0.56
419	419		0.49

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S. No	TREE No	SPECIES	GIRTH
420	420		0.52
421	421		0.47
422	422		0.67
423	423		0.58
424	424		0.48
425	425		0.73
426	426		0.63
427	427	NEEM	0.57
428	428		0.51
429	429		0.67
430	430		0.63
431	431		0.71
432	432		0.58
433	433		0.57
434	434		0.56
435	435		0.66
436	436		0.32
437	437		0.47
438	438		0.53
439	439		0.58
440	440		0.67
441	441		0.53
442	442		0.47
443	443		0.89
444	444		0.38
445	445		0.41
446	446		0.52
447	447		0.67
448	448		0.48
449	449		0.57
450	450		0.72
451	451		0.57
452	452		0.62
453	453		0.62
454	454		0.67
455	455		0.79
456	456		0.48
457	457		0.53
458	458		0.64
459	459		0.62
460	460		0.59
461	461		0.63
462	462		0.55
463	463		0.56
464	464		0.76
465	465		0.71

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S. No	TREE No	SPECIES	GIRTH
466	466		0.70
467	467		0.77
468	468		0.56
469	469		1.97
470	470		0.37
471	471		1.27
472	472		0.96
473	473		0.42
474	474		0.46
475	475		0.47
476	476		0.48
477	477		0.51
478	478		0.61
479	479	NEEM	1.07
480	480		0.87
481	481		0.72
482	482		0.42
483	483		0.73
484	484		0.84
485	485		0.37
486	486		0.46
487	487		0.52
488	488		0.77
489	489		0.61
490	490		0.32
491	491		0.33
492	492		0.31
493	493		0.58
494	494		0.61
495	495		1.21
496	496		0.71
497	497		0.34
498	498		0.46
499	499		0.87
500	500		0.51
501	501		0.57
502	502		0.62
503	503		0.53
504	504		0.62
505	505		0.62
506	506		0.67
507	507		0.63
508	508		0.31
509	509		0.44
510	510		0.51
511	511		0.49

S. No	TREE No	SPECIES	GIRTH
512	512		0.37
513	513		0.36
514	514		0.71
515	515		0.67
516	516		0.55
517	517		0.72
518	518		0.53
519	519		1.07
520	520		0.58
521	521		0.63
522	522		0.51
523	523		0.64
524	524		0.83
525	525		0.61
526	526		2.07
527	527		0.76
528	528	CHAMPA	0.40
529	529	CHAMPA	0.32
530	530	CHAMPA	0.30
531	531	CHAMPA	0.30
532	532	CHAMPA	0.30
533	533	CHAMPA	0.30
534	534	CHAMPA	0.30
535	535	CHAMPA	0.30
536	536	CHAMPA	0.35
537	537	CHAMPA	0.30
538	538	CHAMPA	0.30
539	539	CHAMPA	0.31
540	540	CHAMPA	0.30
541	541	CHAMPA	0.30
542	542	CHAMPA	0.30
543	543	CHAMPA	0.30
544	544	CHAMPA	0.30
545	545	CHAMPA	0.35
546	546	CHAMPA	0.30
547	547	CHAMPA	0.36
548	548	CHAMPA	0.31
549	549	CHAMPA	0.27
550	550	CHAMPA	0.28
551	551	CHAMPA	0.32
552	552	CHAMPA	0.30
553	553	CHAMPA	0.41
554	554	CHAMPA	0.38
555	555	CHAMPA	0.32
556	556	CHAMPA	0.46
557	557	CHAMPA	0.40

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S. No	TREE No	SPECIES	GIRTH
558	558	CHAMPA	0.42
559	559	CHAMPA	0.38
560	560	CHAMPA	0.41
561	561	CHAMPA	0.42
562	562	CHAMPA	0.42
563	563	CHAMPA	0.41
564	564	CHAMPA	0.44
565	565	CHAMPA	0.45
566	566	CHAMPA	0.46
567	567	CHAMPA	0.41
568	568	SYMBOL	0.42
569	569	SYMBOL	0.44
570	570	SYMBOL	0.51
571	571	SYMBOL	0.48
572	572	SYMBOL	0.56
573	573	SYMBOL	0.55
574	574	SYMBOL	0.54
575	575	ALSTONIA	0.63
576	576	SYMBOL	0.32
577	577	ALSTONIA	0.63
578	578		0.61
579	579		1.23
580	580		0.27
581	581		0.30
582	582		0.21
583	583		0.32
584	584		0.27
585	585		0.16
586	586		0.16
587	587		0.32
588	588		0.52
589	589		0.36
590	590		0.13
591	591		0.12
592	592		0.16
593	593		0.27
594	594		0.15
595	595		0.72
596	596		0.09
597	597		0.32
598	598		0.26
599	599	BER	0.46
600	600		1.09
601	601		0.43
602	602		0.38
603	603		1.42

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S. No	TREE No	SPECIES	GIRTH
604	604		0.51
605	605		0.27
606	606	NEEM	0.61
607	607		0.27
608	608		0.28
609	609	NEEM	0.96
610	610	BER	0.79
611	611		0.43
612	612		0.72
613	613		0.37
614	614		0.12
615	615	NEEM	0.95
616	616		0.62
617	617	NEEM	0.12
618	618	SAGON	0.58
619	619		0.46
620	620		0.76
621	621		0.47
622	622		0.53
623	623		0.11
624	624	NEEM	0.90
625	625		0.37
626	626		0.48
627	627		0.29
628	628		0.68
629	629		0.65
630	630		0.63
631	631		0.17
632	632		0.13
633	633		0.14
634	634		0.11
635	635	SAGON	0.56
636	636	SAGON	0.73
637	637		0.10
638	638		0.12
639	639		0.80
640	640		0.20
641	641		0.80
642	642		0.10
643	643		0.16
644	644		0.15
645	645		0.25
646	646		0.18
647	647		0.12
648	648		0.20
649	649		0.18

S. No	TREE No	SPECIES	GIRTH
650	650		0.12
651	651		0.13
652	652		0.12
653	653		0.20
654	654		0.19
655	655		0.11
656	656		0.13
657	657		0.11
658	658		0.12
659	659		0.27
660	660		0.19
661	661		0.11
662	662		0.58
663	663		0.11
664	664		0.17
665	665		0.21
666	666	NEEM	0.73
667	667		0.56
668	668		1.15
669	669	NEEM	0.96
670	670		1.21
671	671	MANGO	0.12
672	672	POMEGRANATE	0.37
673	673	POMEGRANATE	0.41
674	674	MANGO	0.27
675	675	POMEGRANATE	0.67
676	676	POMEGRANATE	0.73
677	677	POMEGRANATE	0.71
678	678	POMEGRANATE	0.58
679	679	POMEGRANATE	0.61
680	680	POMEGRANATE	0.57
681	681		0.12
682	682	PEEPAL	0.11
683	683		0.21
684	684	NEEM	1.25
685	685	NEEM	1.37
686	686		0.12
687	687		0.20
688	688		0.30
689	689		0.17
690	690		0.11
691	691		0.12
692	692		0.18
693	693		0.10
694	694		0.09
695	695		0.11

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S. No	TREE No	SPECIES	GIRTH
696	696		0.08
697	697		0.11
698	698		0.11
699	699		0.07
700	700		0.08
701	701		0.09
702	702		0.06
703	703		0.19
704	704		0.11
705	705		0.10
706	706		0.03
707	707		0.13
708	708		0.10
709	709		0.12
710	710		0.11
711	711		0.13
712	712		0.18
713	713		0.11
714	714		0.12
715	715		0.10
716	716		0.13
717	717		0.12
718	718		0.07
719	719		0.14
720	720		0.16
721	721		0.20
722	722		0.11
723	723		0.07
724	724		0.14
725	725		0.04
726	726		0.09
727	727		0.06
728	728		0.05
729	729	NEEM	0.14
730	730		0.10
731	731		0.12
732	732		0.04
733	733		0.13
734	734		0.15
735	735		0.13
736	736		0.09
737	737		0.11
738	738		0.16
739	739		0.08
740	740		0.11
741	741		0.07

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S. No	TREE No	SPECIES	GIRTH
742	742		0.11
743	743		0.06
744	744		0.10
745	745		0.08
746	746		0.12
747	747		0.16
748	748		0.14
749	749		0.12
750	750		0.09
751	751		0.07
752	752		0.11
753	753		0.07
754	754		0.09
755	755		0.07
756	756		0.08
757	757		0.05
758	758		0.06
759	759		0.06
760	760		0.05
761	761		0.12
762	762		0.11
763	763		0.09
764	764		0.06
765	765		0.08
766	766		0.11
767	767		0.06
768	768		0.11
769	769		0.16
770	770		0.06
771	771		0.05
772	772		0.10
773	773		0.04
774	774		0.05
775	775		0.07
776	776		0.03
777	777	SAGON	0.12
778	778		0.13
779	779		0.15
780	780		0.09
781	781		0.08
782	782		0.09
783	783		0.11
784	784		0.11
785	785		0.15
786	786		0.09
787	787		0.11

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S. No	TREE No	SPECIES	GIRTH
788	788		0.11
789	789		0.10
790	790		0.09
791	791		0.08
792	792		0.11
793	793		0.10
794	794		0.09
795	795		0.10
796	796		0.09
797	797		0.07
798	798		0.03
799	799		0.05
800	800		0.04
801	801		0.30
802	802		0.05
803	803		0.04
804	804		0.06
805	805		0.06
806	806		0.11
807	807		0.12
808	808	CHAMPA	0.14
809	809	CHAMPA	0.14
810	810	CHAMPA	0.21
811	811	CHAMPA	0.23
812	812	CHAMPA	0.31
813	813	CHAMPA	0.33
814	814	GURHAL	0.27
815	815	LEMON	0.46
816	816	CHAMPA	0.31
817	817	CHAMPA	0.34
818	818	CHAMPA	0.35
819	819	CHAMPA	0.38
820	820	CHAMPA	0.36
821	821	CHAMPA	0.39
822	822		0.11
823	823		0.14
824	824		0.16
825	825		0.15
826	826		0.10
827	827		0.09
828	828		0.09
829	829		0.07
830	830		0.05
831	831		0.04
832	832		0.05
833	833		0.11

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S. No	TREE No	SPECIES	GIRTH
834	834		0.12
835	835		0.09
836	836		0.10
837	837		0.12
838	838		0.11
839	839		0.07
840	840	LEMON	0.09
841	841	LEMON	0.07
842	842	LEMON	0.13
843	843	LEMON	0.05
844	844	LEMON	0.12
845	845	LEMON	0.13
846	846	LEMON	0.11
847	847	LEMON	0.12
848	848		0.11
849	849		0.12
850	850		0.12
851	851		0.11
852	852		0.21
853	853		0.67
854	854		0.19
855	855		0.16
856	856		0.14
857	857		0.21
858	858		0.10
859	859		0.11
860	860		0.24
861	861		0.13
862	862		0.12
863	863		0.21
864	864		0.09
865	865		0.06
866	866		0.07
867	867		0.08
868	868		0.08
869	869		0.12
870	870		0.06
871	871		0.07
872	872		0.06
873	873		0.05
874	874		0.09
875	875		0.31
876	876		0.22
877	877		0.21
878	878		0.30
879	879		0.42

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S. No	TREE No	SPECIES	GIRTH
880	880		0.06
881	881		0.22
882	882		0.17
883	883		0.11
884	884	LEMON	0.13
885	885	LEMON	0.01
886	886	LEMON	0.01
887	887	LEMON	0.10
888	888	BER	0.12
889	889	BER	0.19
890	890	BER	0.07
891	891	SAGUN	0.19
892	892	SAGUN	0.18
893	893	SAGUN	0.16
894	894	SAGUN	0.15
895	895	SAGUN	0.19
896	896	SAGUN	0.17
897	897	GUDHAL	0.12
898	898	GUDHAL	0.11
899	899	GUDHAL	0.20
900	900		0.21
901	901		0.17
902	902		0.21
903	903		0.19
904	904		0.18
905	905		0.14
906	906		0.13
907	907		0.12
908	908		0.18
909	909		0.21
910	910		0.19
911	911		0.14
912	912		0.07
913	913		0.23
914	914		0.11
915	915		0.16
916	916		0.13
917	917		0.21
918	918		0.23
919	919		1.24
920	920		1.32
921	921		1.33
922	922		1.42
923	923		0.12
924	924		0.13
925	925		0.12

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S. No	TREE No	SPECIES	GIRTH
926	926		0.14
927	927		0.16
928	928		0.12
929	929		0.14
930	930		0.14
931	931		0.20
932	932		0.11
933	933		0.11
934	934		0.11
935	935		0.10
936	936		0.15
937	937		0.14
938	938		0.10
939	939		0.11
940	940		0.10
941	941		0.10
942	942		0.11
943	943		0.10
944	944		0.11
945	945		0.09
946	946		0.12
947	947		0.13
948	948		0.12
949	949		0.11
950	950		0.11
951	951		0.10
952	952		0.09
953	953	BAMBOO	0.14
954	954	BAMBOO	0.09
955	955	BAMBOO	0.13
956	956		0.14
957	957		0.26
958	958		0.25
959	959		0.24
960	960		0.21
961	961		0.33
962	962		0.31
963	963		0.09
964	964		0.07
965	965		0.05
966	966		0.08
967	967		0.06
968	968	ALSTONIA	0.51
969	969		0.35
970	970		0.37
971	971		0.27

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S. No	TREE No	SPECIES	GIRTH
972	972		0.26
973	973		0.28
974	974		0.33
975	975		0.29
976	976		0.23
977	977		0.31
978	978		0.21
979	979		0.18
980	980		0.19
981	981		0.58
982	982		0.52
983	983		0.29
984	984	ASHOKA	0.25
985	985		0.20
986	986		0.17
987	987		0.19
988	988		0.82
989	989		0.76
990	990		1.12
991	991		0.56
992	992		0.80
993	993		0.38
994	994		0.25
995	995		1.36
996	996		1.06
997	997	ASHOKA	0.27
998	998		0.28
999	999		0.75
1000	1000		0.32
1001	1001		0.49
1002	1002		0.36
1003	1003		0.35
1004	1004		0.42
1005	1005		0.37
1006	1006		0.42
1007	1007		0.67
1008	1008		0.36
1009	1009		0.46
1010	1010		0.27
1011	1011		1.03
1012	1012		0.58
1013	1013		0.49
1014	1014	NEEM	0.74
1015	1015		0.69
1016	1016		0.62
1017	1017		0.36

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S. No	TREE No	SPECIES	GIRTH
1018	1018	BER	1.30
1019	1019	GUAVA	0.61
1020	1020		0.43
1021	1021		0.70
1022	1022		0.27
1023	1023		0.27
1024	1024	PEEPAL	1.27
1025	1025		0.21
1026	1026		0.47
1027	1027		0.41
1028	1028		0.78
1029	1029		0.21
1030	1030		0.18
1031	1031		0.19
1032	1032		0.17
1033	1033		0.16
1034	1034		0.27
1035	1035		0.21
1036	1036		0.26
1037	1037		0.19
1038	1038		0.30
1039	1039		0.19
1040	1040		0.24
1041	1041		0.31
1042	1042		0.17
1043	1043		0.34
1044	1044		0.09
1045	1045		0.07
1046	1046		0.13
1047	1047		0.21
1048	1048		0.16
1049	1049		0.13
1050	1050		0.14
1051	1051		0.19
1052	1052		0.18
1053	1053		0.16
1054	1054		0.21
1055	1055		0.14
1056	1056		0.16
1057	1057		0.12
1058	1058		0.12
1059	1059		0.11
1060	1060		0.09
1061	1061		0.10
1062	1062		0.11
1063	1063		0.11

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S. No	TREE No	SPECIES	GIRTH
1064	1064		0.20
1065	1065		0.21
1066	1066		0.24
1067	1067		0.26
1068	1068		0.33
1069	1069		0.30
1070	1070		0.23
1071	1071		0.31
1072	1072		0.34
1073	1073		0.40
1074	1074		0.41
1075	1075		0.24
1076	1076		0.19
1077	1077		0.17
1078	1078		0.18
1079	1079		0.27
1080	1080		0.22
1081	1081		0.33
1082	1082		0.21
1083	1083		0.29
1084	1084		0.25
1085	1085		0.19
1086	1086		0.17
1087	1087		0.31
1088	1088		0.16
1089	1089		0.21
1090	1090		0.13
1091	1091		0.36
1092	1092		0.32
1093	1093		0.16
1094	1094		0.12
1095	1095		0.11
1096	1096		0.17
1097	1097		0.10
1098	1098		0.06
1099	1099	MANGO	0.70
1100	1100		0.43
1101	1101		0.07
1102	1102		0.06
1103	1103		0.11
1104	1104		0.14
1105	1105		0.43
1106	1106		0.25
1107	1107		0.26
1108	1108		0.24
1109	1109		0.30

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S. No	TREE No	SPECIES	GIRTH
1110	1110		0.32
1111	1111		0.24
1112	1112		0.22
1113	1113		0.37
1114	1114		0.64
1115	1115		0.44
1116	1116		1.32
1117	1117		0.70
1118	1118		0.90
1119	1119		0.75
1120	1120		0.91
1121	1121		0.79
1122	1122	KHAJLOOR	0.96
1123	1123	KHAJLOOR	0.78
1124	1124		0.28
1125	1125		0.41
1126	1126		0.32
1127	1127		0.39
1128	1128		0.42
1129	1129		0.45
1130	1130		0.37
1131	1131		0.27
1132	1132		0.11
1133	1133		0.14
1134	1134		0.41
1135	1135		0.14
1136	1136		0.39
1137	1137		0.19
1138	1138		0.24
1139	1139		0.20
1140	1140		0.09
1141	1141		0.11
1142	1142		0.10
1143	1143		0.07
1144	1144		0.07
1145	1145		0.12
1146	1146		0.13
1147	1147	CHAMPA	0.30
1148	1148		0.14
1149	1149	CHAMPA	0.29
1150	1150		0.14
1151	1151	CHAMPA	0.27
1152	1152		0.12
1153	1153	CHAMPA	0.30
1154	1154		0.12
1155	1155	CHAMPA	0.27

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S. No	TREE No	SPECIES	GIRTH
1156	1156		0.17
1157	1157	CHAMPA	0.28
1158	1158		0.14
1159	1159	CHAMPA	0.26
1160	1160		0.13
1161	1161		0.17
1162	1162		0.16
1163	1163		0.17
1164	1164		0.20
1165	1165	CHAMPA	0.32
1166	1166	CHAMPA	0.33
1167	1167		0.28
1168	1168	CHAMPA	0.26
1169	1169		0.30
1170	1170		0.13
1171	1171		0.19
1172	1172	CHAMPA	0.31
1173	1173		0.20
1174	1174	CHAMPA	0.27
1175	1175		0.22
1176	1176	CHAMPA	0.36
1177	1177		0.40
1178	1178		0.13
1179	1179		0.43
1180	1180		0.20
1181	1181		0.29
1182	1182		0.28
1183	1183		0.27
1184	1184		0.29
1185	1185	KHAJLOOR	0.78
1186	1186	KHAJLOOR	0.67
1187	1187	KHAJLOOR	0.73
1188	1188		1.21
1189	1189		1.24
1190	1190		0.43
1191	1191		0.20
1192	1192		0.15
1193	1193	CHAMPA	0.27
1194	1194	CHAMPA	0.26
1195	1195	CHAMPA	0.28
1196	1196		0.06
1197	1197		0.08
1198	1198		0.11
1199	1199		0.10
1200	1200		0.12
1201	1201		0.10

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S. No	TREE No	SPECIES	GIRTH
1202	1202	BAMBOO	0.12
1203	1203	BAMBOO	0.13
1204	1204		0.12
1205	1205		0.11
1206	1206		0.10
1207	1207		0.14
1208	1208		0.13
1209	1209		0.12
1210	1210		0.09
1211	1211		1.07
1212	1212		0.13
1213	1213		0.11
1214	1214		0.07
1215	1215		0.09
1216	1216		0.06
1217	1217		0.14
1218	1218		0.07
1219	1219		0.05
1220	1220		0.07
1221	1221		0.62
1222	1222		0.09
1223	1223		0.06
1224	1224		0.02
1225	1225		0.40
1226	1226		0.47
1227	1227		0.51
1228	1228		0.52
1229	1229		0.49
1230	1230		0.09
1231	1231		0.43
1232	1232		0.42
1233	1233		0.37
1234	1234		0.40
1235	1235		0.37
1236	1236		0.44
1237	1237		0.28
1238	1238		0.42
1239	1239		0.41
1240	1240		0.33
1241	1241		0.38
1242	1242		0.27
1243	1243		0.33
1244	1244		0.31
1245	1245		0.30
1246	1246		0.33
1247	1247		0.27

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S. No	TREE No	SPECIES	GIRTH
1248	1248		0.24
1249	1249		0.30
1250	1250		0.46
1251	1251		0.28
1252	1252		0.33
1253	1253		0.43
1254	1254		0.31
1255	1255		0.11
1256	1256		0.13
1257	1257		0.27
1258	1258		0.13
1259	1259		0.11
1260	1260		0.24
1261	1261		0.15
1262	1262		0.29
1263	1263		0.82
1264	1264		0.40
1265	1265		0.26
1266	1266		0.29
1267	1267		0.31
1268	1268		0.12
1269	1269		0.11
1270	1270		0.10
1271	1271		0.32
1272	1272		0.33
1273	1273		0.29
1274	1274		0.20
1275	1275		0.18
1276	1276		0.11
1277	1277		0.12
1278	1278		0.13
1279	1279		0.13
1280	1280		0.19
1281	1281		0.12
1282	1282		0.13
1283	1283		0.11
1284	1284		0.12
1285	1285		0.13
1286	1286		0.12
1287	1287		0.13
1288	1288		0.12
1289	1289		0.78
1290	1290		0.14
1291	1291		0.11
1292	1292		0.12
1293	1293	ALSTONIA	1.23

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S. No	TREE No	SPECIES	GIRTH
1294	1294		0.13
1295	1295		0.14
1296	1296		0.14
1297	1297		0.13
1298	1298	ALSTONIA	1.18
1299	1299		0.76
1300	1300		0.68
1301	1301		0.72
1302	1302		0.14
1303	1303	ALSTONIA	0.76
1304	1304	ALSTONIA	0.81
1305	1305		0.12
1306	1306		0.11
1307	1307		0.12
1308	1308		0.13
1309	1309		0.17
1310	1310		0.12
1311	1311		0.86
1312	1312		0.68
1313	1313		0.53
1314	1314		0.52
1315	1315		0.20
1316	1316		0.53
1317	1317		0.54
1318	1318		0.49
1319	1319		0.44
1320	1320		0.48
1321	1321		0.50
1322	1322		0.16
1323	1323		0.23
1324	1324		0.47
1325	1325		0.22
1326	1326		0.49
1327	1327		0.42
1328	1328		0.12
1329	1329		0.19
1330	1330		0.14
1331	1331		0.53
1332	1332		0.30
1333	1333		0.47
1334	1334		0.51
1335	1335		0.46
1336	1336		0.39
1337	1337		0.56
1338	1338		0.13
1339	1339		0.53

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S. No	TREE No	SPECIES	GIRTH
1340	1340		0.48
1341	1341		0.29
1342	1342		0.34
1343	1343		0.26
1344	1344		0.29
1345	1345		0.10
1346	1346		0.13
1347	1347		0.37
1348	1348		0.41
1349	1349		0.43
1350	1350		0.14
1351	1351		0.07
1352	1352		0.09
1353	1353		0.14
1354	1354		0.40
1355	1355		0.36
1356	1356		0.40
1357	1357		0.33
1358	1358		0.46
1359	1359		0.13
1360	1360		0.28
1361	1361		0.24
1362	1362		0.71
1363	1363		0.99
1364	1364		0.16
1365	1365		0.13
1366	1366		0.46
1367	1367		0.44
1368	1368		0.48
1369	1369		0.37
1370	1370		0.82
1371	1371		1.00
1372	1372		0.72
1373	1373		0.19
1374	1374		0.17
1375	1375		0.37
1376	1376		0.36
1377	1377		0.26
1378	1378		0.38
1379	1379		0.31
1380	1380		0.39
1381	1381		1.10
1382	1382		0.46
1383	1383		0.13
1384	1384		0.46
1385	1385		0.30

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S. No	TREE No	SPECIES	GIRTH
1386	1386		0.37
1387	1387		0.38
1388	1388		0.63
1389	1389		0.37
1390	1390		0.53
1391	1391		0.39
1392	1392		0.33
1393	1393		0.41
1394	1394		0.58
1395	1395		0.29
1396	1396		0.58
1397	1397		0.53
1398	1398		0.17
1399	1399		1.21
1400	1400		1.03
1401	1401		0.93
1402	1402		0.81
1403	1403		2.60
1404	1404		0.53
1405	1405		0.54
1406	1406		0.56
1407	1407		0.51
1408	1408		0.19
1409	1409		1.24
1410	1410		0.13
1411	1411	ALSTONIA	0.86
1412	1412		1.17
1413	1413		0.54
1414	1414		0.67
1415	1415		0.87
1416	1416		1.03
1417	1417		0.31
1418	1418	NEEM	1.03
1419	1419		0.29
1420	1420		0.31
1421	1421		0.36
1422	1422		0.51
1423	1423		0.37
1424	1424		0.35
1425	1425		0.38
1426	1426		0.43
1427	1427		0.86
1428	1428		0.44
1429	1429		0.30
1430	1430		0.32
1431	1431		0.51

S. No	TREE No	SPECIES	GIRTH
1432	1432		0.60
1433	1433		0.95
1434	1434		0.28
1435	1435		0.11
1436	1436		0.14
1437	1437		0.06
1438	1438		0.28
1439	1439	POMEGRANATE	0.50
1440	1440		0.29
1441	1441	POMEGRANATE	0.50
1442	1442		0.31
1443	1443	NEEM	0.11
1444	1444	POMEGRANATE	0.50
1445	1445	POMEGRANATE	0.50
1446	1446	POMEGRANATE	0.42
1447	1447		0.30
1448	1448		0.30
1449	1449		0.30
1450	1450		0.35
1451	1451		0.34
1452	1452		0.40
1453	1453		1.25
1454	1454		0.60
1455	1455	ALSTONIA	2.00
1456	1456		0.75
1457	1457		1.37
1458	1458		0.67
1459	1459		0.73
1460	1460		1.37
1461	1461	ALSTONIA	1.23
1462	1462	ALSTONIA	1.33
1463	1463		0.49
1464	1464	ALSTONIA	1.19
1465	1465		1.01
1466	1466		2.00
1467	1467		0.53
1468	1468		0.48
1469	1469		2.50
1470	1470		0.67
1471	1471		0.31
1472	1472		0.30
1473	1473		1.22
1474	1474		2.27
1475	1475		2.03
1476	1476		1.78
1477	1477		0.71

S. No	TREE No	SPECIES	GIRTH
1478	1478		0.30
1479	1479		0.89
1480	1480		0.37
1481	1481		0.36
1482	1482		0.49
1483	1483		0.17
1484	1484		0.15
1485	1485		0.25
1486	1486		0.24
1487	1487		0.17
1488	1488		0.13
1489	1489		0.14
1490	1490		0.11
1491	1491		0.23
1492	1492	ALSTONIA	0.63
1493	1493		0.18
1494	1494		0.13
1495	1495		0.16
1496	1496	ALSTONIA	0.52
1497	1497	NEEM	0.93
1498	1498		0.15
1499	1499		0.14
1500	1500		0.11
1501	1501		0.10
1502	1502	NEEM	0.89
1503	1503		0.11
1504	1504		0.40
1505	1505	ALSTONIA	0.49
1506	1506		0.15
1507	1507		0.13
1508	1508		0.12
1509	1509		0.16
1510	1510		0.12
1511	1511		0.18
1512	1512		0.10
1513	1513	ALSTONIA	0.50
1514	1514		0.47
1515	1515		0.47
1516	1516		0.48
1517	1517		0.13
1518	1518		0.61
1519	1519		0.51
1520	1520		0.48
1521	1521		0.46
1522	1522		0.07
1523	1523		0.06

S. No	TREE No	SPECIES	GIRTH
1524	1524		0.48
1525	1525		0.28
1526	1526		0.42
1527	1527		0.43
1528	1528		0.46
1529	1529		0.43
1530	1530		0.39
1531	1531		0.54
1532	1532		0.06
1533	1533		0.07
1534	1534		0.42
1535	1535		0.13
1536	1536		0.40
1537	1537		0.93
1538	1538		0.14
1539	1539		0.07
1540	1540		0.51
1541	1541		0.60
1542	1542		0.43
1543	1543		0.51
1544	1544		0.31
1545	1545		0.67
1546	1546		0.53
1547	1547	NEEM	0.77
1548	1548		0.12
1549	1549		0.31
1550	1550		0.18
1551	1551		0.17
1552	1552		0.15
1553	1553		0.14
1554	1554		0.15
1555	1555	ALSTONIA	0.63
1556	1556		0.52
1557	1557		0.53
1558	1558		0.33
1559	1559		0.89
1560	1560		0.73
1561	1561	KIKAR	0.75
1562	1562		0.13
1563	1563		0.28
1564	1564		0.20
1565	1565		0.15
1566	1566		0.30
1567	1567		0.29
1568	1568		0.26
1569	1569		0.36

S. No	TREE No	SPECIES	GIRTH
1570	1570		0.61
1571	1571		0.03
1572	1572	ALSTONIA	0.47
1573	1573		0.61
1574	1574		0.48
1575	1575		0.39
1576	1576		0.50
1577	1577		0.32
1578	1578	ALSTONIA	1.30
1579	1579		0.67
1580	1580		0.70
1581	1581		0.61
1582	1582		0.52
1583	1583	ALSTONIA	0.51
1584	1584		0.72
1585	1585		0.31
1586	1586		0.74
1587	1587		0.65
1588	1588		0.32
1589	1589		0.41
1590	1590	NEEM	0.66
1591	1591		0.33
1592	1592		0.35
1593	1593		0.57
1594	1594		0.28
1595	1595		0.71
1596	1596		0.21
1597	1597	ALSTONIA	0.51
1598	1598		0.05
1599	1599	GUAVA	0.32
1600	1600		0.29
1601	1601		0.48
1602	1602		1.80
1603	1603		2.10
1604	1604		0.32
1605	1605		0.46
1606	1606	GUAVA	0.26
1607	1607		0.36
1608	1608		0.32
1609	1609	GUAVA	0.19
1610	1610	GUAVA	0.21
1611	1611		0.63
1612	1612		0.06
1613	1613	KATHAL	0.63
1614	1614		0.52
1615	1615		0.18

S. No	TREE No	SPECIES	GIRTH
1616	1616		0.37
1617	1617	GUAVA	0.20
1618	1618	POMEGRANATE	0.50
1619	1619	GURHAL	0.31
1620	1620	POMEGRANATE	0.40
1621	1621	CHABUTRA	0.17
1622	1622	CHABUTRA	0.15
1623	1623		0.71
1624	1624	CHABUTRA	0.20
1625	1625		0.15
1626	1626	GUAVA	0.26
1627	1627	GUAVA	0.17
1628	1628		0.20
1629	1629		0.22
1630	1630		0.24
1631	1631		0.30
1632	1632	GUAVA	0.34
1633	1633	NEEM	0.71
1634	1634	CHABUTRA	0.20
1635	1635		0.20
1636	1636	MANGO	0.42
1637	1637		0.20
1638	1638		0.30
1639	1639		0.30
1640	1640		0.15
1641	1641		0.18
1642	1642		0.67
1643	1643		0.30
1644	1644		1.09
1645	1645		0.08
1646	1646	NEEM	0.15
1647	1647	NEEM	0.97
1648	1648	ALSTONIA	0.30
1649	1649	ALSTONIA	0.77
1650	1650	ALSTONIA	0.42
1651	1651		0.26
1652	1652		0.89
1653	1653	NEEM	0.07
1654	1654	NEEM	0.06
1655	1655	NEEM	0.09
1656	1656	GUAVA	0.20
1657	1657	GUAVA	0.31
1658	1658		0.10
1659	1659	GUAVA	0.12
1660	1660	GURHAL	0.37
1661	1661	PEEPAL	0.13

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S. No	TREE No	SPECIES	GIRTH
1662	1662	GURHAL	3.20
1663	1663	GUAVA	0.12
1664	1664		0.31
1665	1665		0.31
1666	1666		0.30
1667	1667		0.63
1668	1668		0.74
1669	1669		0.34
1670	1670		0.36
1671	1671		0.56
1672	1672		0.21
1673	1673		0.27
1674	1674		0.70
1675	1675	PEEPAL	2.01
1676	1676		0.32
1677	1677		0.42
1678	1678		0.38
1679	1679		0.30
1680	1680		0.28
1681	1681		0.33
1682	1682		0.34
1683	1683	PEEPAL	1.70
1684	1684		0.67
1685	1685	ALSTONIA	0.68
1686	1686	ALSTONIA	0.57
1687	1687	ALSTONIA	0.65
1688	1688	ALSTONIA	0.34
1689	1689	ALSTONIA	0.89
1690	1690	ALSTONIA	0.53
1691	1691		0.68
1692	1692		0.45
1693	1693		0.63
1694	1694		0.43
1695	1695		1.70
1696	1696		0.18
1697	1697		0.06
1698	1698		0.19
1699	1699	ALSTONIA	2.80
1700	1700		0.70
1701	1701		0.97
1702	1702		0.89
1703	1703		0.65
1704	1704		0.30
1705	1705	CHAMPA	0.22
1706	1706		0.40
1707	1707		0.07

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S. No	TREE No	SPECIES	GIRTH
1708	1708	CHAMPA	0.16
1709	1709	CHAMPA	0.17
1710	1710	CHAMPA	0.13
1711	1711	CHAMPA	0.15
1712	1712	CHAMPA	0.18
1713	1713	CHAMPA	0.17
1714	1714	CHAMPA	0.19
1715	1715		0.12
1716	1716		0.07
1717	1717		0.06
1718	1718		0.05
1719	1719		0.06
1720	1720		1.91
1721	1721		0.04
1722	1722	NEEM	0.53
1723	1723		0.44
1724	1724		0.20
1725	1725	ALSTONIA	0.71
1726	1726	ALSTONIA	0.70
1727	1727	ALSTONIA	0.67
1728	1728	ALSTONIA	0.73
1729	1729	ALSTONIA	0.77
1730	1730	ALSTONIA	0.61
1731	1731	ALSTONIA	0.58
1732	1732	ALSTONIA	0.62
1733	1733	ALSTONIA	0.74
1734	1734	ALSTONIA	0.72
1735	1735	ALSTONIA	0.83
1736	1736		0.67
1737	1737		0.82
1738	1738		0.77
1739	1739	ALSTONIA	0.99
1740	1740	ALSTONIA	1.30
1741	1741		0.30
1742	1742		0.19
1743	1743		0.15
1744	1744	ALSTONIA	0.49
1745	1745	ALSTONIA	0.69
1746	1746	ALSTONIA	0.48
1747	1747	ALSTONIA	0.63
1748	1748	ALSTONIA	0.62
1749	1749		1.09
1750	1750		0.37
1751	1751		1.18
1752	1752	ALSTONIA	0.78
1753	1753	ALSTONIA	0.93

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S. No	TREE No	SPECIES	GIRTH
1754	1754	ALSTONIA	0.77
1755	1755	ALSTONIA	0.69
1756	1756	ALSTONIA	0.81
1757	1757	ALSTONIA	0.61
1758	1758	ALSTONIA	0.65
1759	1759	ALSTONIA	0.69
1760	1760	ALSTONIA	0.77
1761	1761	PEEPAL	2.20
1762	1762		0.63
1763	1763		0.73
1764	1764		0.75
1765	1765		0.80
1766	1766		0.61
1767	1767		0.70
1768	1768	NEEM	0.65
1769	1769		0.30
1770	1770		0.23
1771	1771		0.74
1772	1772		0.30
1773	1773		1.30
1774	1774		0.93
1775	1775		2.21
1776	1776		0.05
1777	1777		0.02
1778	1778	ASHOKA	0.31
1779	1779	ASHOKA	0.35
1780	1780	ASHOKA	0.27
1781	1781	ASHOKA	0.26
1782	1782	ASHOKA	0.25
1783	1783		0.79
1784	1784		1.20
1785	1785		1.36
1786	1786		0.36
1787	1787	MANGO	0.97
1788	1788	ALSTONIA	1.83
1789	1789	ASHOKA	0.43
1790	1790	ASHOKA	0.42
1791	1791	ASHOKA	0.42
1792	1792	ASHOKA	0.31
1793	1793	ASHOKA	0.35
1794	1794	ASHOKA	0.31
1795	1795	ASHOKA	0.36
1796	1796		0.94
1797	1797	CHAMPA	0.21
1798	1798		0.17
1799	1799		0.15

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S. No	TREE No	SPECIES	GIRTH
1800	1800		0.13
1801	1801		0.14
1802	1802		0.15
1803	1803	LEMON	0.24
1804	1804	FICUS	1.80
1805	1805	CHAMPA	0.12
1806	1806	CHAMPA	0.18
1807	1807	CHAMPA	0.13
1808	1808	CHAMPA	0.18
1809	1809	CHAMPA	0.16
1810	1810	CHAMPA	0.17
1811	1811	CHAMPA	0.27
1812	1812	CHAMPA	0.19
1813	1813	CHAMPA	0.14
1814	1814	CHAMPA	0.21
1815	1815	CHAMPA	0.19
1816	1816	CHAMPA	0.16
1817	1817	CHAMPA	0.19
1818	1818	CHAMPA	0.14
1819	1819	CHAMPA	0.17
1820	1820	CHAMPA	0.17
1821	1821	CHAMPA	0.15
1822	1822	CHAMPA	0.16
1823	1823	CHAMPA	0.16
1824	1824	CHAMPA	0.14
1825	1825	CHAMPA	0.14
1826	1826	CHAMPA	0.15
1827	1827	CHAMPA	0.16
1828	1828	CHAMPA	0.15
1829	1829	CHAMPA	0.20
1830	1830		0.68
1831	1831		0.38
1832	1832		3.00
1833	1833		0.37
1834	1834		0.62
1835	1835	AMALTAS	0.18
1836	1836	AMALTAS	0.18
1837	1837	AMALTAS	0.30
1838	1838	AMALTAS	0.30
1839	1839	NEEM	0.61
1840	1840	SHETOOT	0.92
1841	1841		0.67
1842	1842		0.89
1843	1843	SAPODILLA	0.60
1844	1844		0.57
1845	1845		0.41

S. No	TREE No	SPECIES	GIRTH
1846	1846		0.52
1847	1847		0.50
1848	1848	SHETOOT	0.44
1849	1849	SHETOOT	0.40
1850	1850	SHETOOT	0.56
1851	1851	SHETOOT	0.67
1852	1852		0.40
1853	1853	PEEPAL	0.22
1854	1854		1.37
1855	1855		0.73
1856	1856	SHETOOT	0.50
1857	1857		0.37
1858	1858	NEEM	1.40
1859	1859	PILKHAN	3.20
1860	1860		0.60
1861	1861		0.59
1862	1862	AMALTAS	0.26
1863	1863	CHAMPA	0.30
1864	1864	CHAMPA	0.30
1865	1865		0.25
1866	1866	NEEM	0.30
1867	1867	KHAJUR	0.30
1868	1868		0.42
1869	1869	PEEPAL	0.96
1870	1870	SEHTOOT	0.96
1871	1871	SEHTOOT	0.60
1872	1872	AMALTAS	0.67
1873	1873		0.78
1874	1874	PEEPAL	0.78
1875	1875	SHETOOT	1.03
1876	1876		0.85
1877	1877	ALSTONIA	1.07
1878	1878		0.86
1885	1885	NEEM	0.65
1886	1886		0.97
1887	1887	NEEM	1.30
1888	1888		1.26
1889	1889		1.35
1890	1890		1.56
1891	1891		0.21
1892	1892		0.33
1893	1893		0.32
1894	1894		0.41
1895	1895		0.35
1896	1896		0.30
1897	1897		0.15

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S. No	TREE No	SPECIES	GIRTH
1898	1898		0.11
1899	1899		0.06
1900	1900		0.12
1901	1901		0.13
1902	1902		0.14
1903	1903		0.12
1904	1904		0.11
1905	1905		0.10
1906	1906		0.09
1907	1907		0.08
1908	1908		0.14
1909	1909		0.80
1910	1910		1.28
1911	1911	NEEM	0.68
1912	1912	NEEM	1.30
1913	1913		0.46
1914	1914		0.49
1915	1915		0.68
1916	1916		0.10
1917	1917		0.09
1918	1918		0.10
1919	1919		0.11
1920	1920		0.56
1921	1921		0.56
1922	1922		0.52
1923	1923		0.76
1924	1924		0.62
1925	1925		0.68
1926	1926		0.70
1927	1927		0.54
1928	1928		0.61
1929	1929		0.52
1930	1930		0.50
1931	1931		0.67
1932	1932		0.62
1933	1933		0.51
1934	1934		0.55
1935	1935		0.42
1936	1936		0.70
1937	1937		1.07
1938	1938		1.27
1939	1939		0.90
1940	1940		0.75
1941	1941		0.80
1942	1942		1.40
1943	1943		0.92

S. No	TREE No	SPECIES	GIRTH
1944	1944		1.25
1945	1945		1.03
1946	1946		1.10
1947	1947		1.10
1948	1948		0.75
1949	1949		1.00
1950	1950		0.84
1951	1951		0.62
1952	1952		1.20
1953	1953		1.20
1954	1954		0.91
1955	1955		1.43
1956	1956		1.09
1957	1957		1.37
1958	1958		1.21
1959	1959		0.97
1960	1960		1.15
1961	1961		0.82
1962	1962		0.80
1963	1963	ALSTONIA	1.52
1964	1964	ALSTONIA	1.40
1965	1965	ALSTONIA	1.27
1966	1966	ALSTONIA	1.40
1967	1967	ALSTONIA	0.96
1968	1968	ALSTONIA	1.62
1969	1969	ALSTONIA	1.20
1970	1970	ALSTONIA	0.41
1971	1971	ALSTONIA	1.32
1972	1972		0.07
1983	1983		0.07
1984	1984		0.11
1985	1985		0.11
1986	1986		0.10
1987	1987		0.11
1988	1988		0.55
1989	1989		0.60
1990	1990		0.85
1991	1991		0.04
1992	1992		1.35
1993	1993		0.05
1994	1994		0.12
1995	1995	NEEM	0.12
1996	1996		0.16
1997	1997		0.17
1998	1998		0.08
1999	1999		0.36

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S. No	TREE No	SPECIES	GIRTH
2000	2000		0.35
2001	2001		0.34
2002	2002		0.15
2003	2003		0.18
2004	2004		0.72
2005	2005		0.65
2006	2006		1.00
2007	2007		0.87
2008	2008		0.50
2009	2009		1.30
2010	2010		0.10
2011	2011		0.75
2012	2012		0.48
2013	2013		0.53
2014	2014		0.48
2015	2015		0.46
2016	2016		0.90
2017	2017		0.13
2018	2018		0.38
2019	2019		0.14
2020	2020		0.25
2021	2021		1.10
2022	2022		0.31
2023	2023		0.12
2024	2024		0.11
2025	2025		0.10
2026	2026		0.11
2027	2027		0.11
2028	2028		0.71
2029	2029		0.12
2030	2030		0.11
2031	2031	PEEPAL	1.57
2032	2032		0.13
2033	2033		0.11
2034	2034		0.13
2035	2035		0.12
2036	2036		0.11
2037	2037		1.02
2038	2038		1.07
2039	2039		1.10
2040	2040		1.06
2041	2041		0.13
2042	2042		0.25
2043	2043		0.35
2044	2044		0.20
2045	2045		0.22

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S. No	TREE No	SPECIES	GIRTH
2046	2046	PILKHAN	1.80
2047	2047		1.60
2048	2048		0.46
2049	2049		0.11
2050	2050		0.60
2051	2051		0.67
2052	2052		0.92

17. Biodiversity status of the college campus

Introduction

BML Munjal University, Gurgaon situated in the vicinity of farms and agricultural areas is rich in biodiversity. To conserve this biodiversity, our first need is to learn about the existing diversity of the place. Unless we know whom to conserve, we will not be able to plan proper conservation initiatives. Also, it is important to have an understanding of the bio-diversity of an area so that the local people can be aware of the richness of bio-diversity of the place they are living in and their responsibility to maintain that richness.

In today's world, among the popular conservation measures which are taken to spread wildlife and environmental awareness, butterfly gardens can be placed in a significant position. To create butterfly garden, we need to know which associate plants and other fauna are present in the surrounding. This study allows us to understand the faunal and floral diversity of the surrounding areas of the college premises and their inter-relationship.

Objectives

The main objective of this study is to get a baseline data of bio-diversity of the area which will include:

- Documentation of the floral diversity of the area, its trees, herbs, shrubs and climbers.
- Documentation of the major faunal groups like mammals, reptiles, amphibians, birds and butterflies.
- Documentation of the specific interdependence of floral and faunal life.

Method of Study

Brief methodology for the floral and faunal survey is given below.

1. Sampling was done mostly in random manner.
2. The total area was surveyed by walking at daytime.
3. Surveys were conducted for the maximum possible hours in daytime.
4. Tree species were documented through physical verification on foot.
5. For faunal species we emphasized mainly on the direct sighting. Also call of various birds and amphibians and nesting of some faunal species were considered as direct evidences.
6. Observing mammals depend critically on the size of the species and its natural

history. Diurnal species are common and highly visible. Nocturnal species, however, are rare and difficult to detect. Small mammals like the field rats were found near their burrows, particularly during their entry or exit times in or out from their burrows respectively. In some cases, dung deposits and footprints were also observed that served as a potential clue for the presence and absence of the concerned species. These secondary evidences were all noted with time and space co-ordinates.

7. Birds are often brightly colored, highly vocal at certain times *of the year* and relatively easy to see. Sampling was done on the basis of direct sighting, call determination and from the nests of some bird species.
8. Reptiles were found mostly by looking in potential shelter sites like the under surface of rocks, logs, tree hollow sand leaf litter and also among and underneath the hedges. Sometimes some species, particularly the garden lizards were also observed in open spaces (on twigs and branches and even on brick constructions) while they were basking under direct and bright sunlight.
9. Amphibians act as potential ecological indicators. However, most of them are highly secretive in their habits and may spend the greater part of their lives underground or otherwise inaccessible to biologists. These animals do venture out but typically only at night. They were searched near pond, road beside wetland and in other possible areas. Diurnal search operations are also *successful*.
10. Active invertebrates like the insects require more active search. For larger winged insects like butterflies, random samplings were carried and point sampling was also done.
11. The easiest way to observe many of the invertebrates is simply looking for them in the suitable habitat or microhabitat. Searching was carried out under stones, logs, bark, in crevices in the walls and rocks and also in leaf litter, dung etc. Slugs and snails are more conspicuous during wet weather and especially at night when they were found using a torch.

Faunal Species

The list of Fauna indicates that the college campus is significantly rich in faunal diversity. We have seen a significant number of bird nests at many places. We have not been able to document other insect groups during this survey. The yearlong survey will add some more fauna in the checklist for sure after the seasonal survey.

Table 01: Checklist of Faunal groups with species number

1.	Birds	15	Table-2
2.	Reptiles	1	Table-3
3.	Amphibians	2	Table-4
4.	Butterflies	22	Table-5

Table 02: Checklist of Birds

No.	Common Name	Scientific Name	Family
1	Common HawkCuckoo	Hierococcyx varlus	Cuculidae
2	Common Hoopoe	Upupa epops	Upupidae
3	Common Iora	Aegithrna tipsia	Aegithinidae
4	Common Kingfisher	Alcedo atthis	Alcedinidae
5	Common Myna	Acridotheres tristis	Sturnidea
6	Common Pigeon	Colnmba livia	Columbidae
7	Common Sandpiper	Actitis hypoleucos	Scolopacidae
8	Common Tailorbird	Orthotomus sutortus	Cisticolidae
9	Coppersmith Barbet	Megalaima haemacephala	Ramphastidae
10	House Crow	Corvus splendens	Corvidae
11	House Sparrow	Passer domesticus	Passeridae
12	Indian Cormorant	Phalacrocorax fuscicollis	Phalacrocoracidae
13	Pale-billedElowerpecker	Dicoeum erythrorynchos	Dicaeidae
14	Taiga flycatcher	Ficedula albicilla	Muscicapidae
15	Yellow-footed Green Pigeon	Treron phoen icoptera	Columbibae

Table 03: Checklist of Reptiles

No.	Common Name	Scientific Name	Family
1.	Rat Snake	Zamenis longissimus	Colubridae

Table 04: Checklist of Amphibians

No.	Common Name	Scientific Name	Family
1	Indian Toad	Duttaphrynus melanostictus	Bufoidea
2	Frog	Enphldctis cyanophlyctis	Dicroglossidae

Table 05: Checklist of Butterflies

No.	Common Name	Scientific Name	Family
1	Blue Mormon	Papilio polymnestor	Papilionidae
2	Common Jay	Graphium doson	Papilionidae
3	Common Mime	Papilo clytia	Papilionidae
4	Common Mormon	Papilo polytes	Papilionidae
5	Common Rose	Pachliopta aristolochiae	Papilionidae
6	Lime Butterfly	Papitto demolis	Papilionidae
7	Tailed Jay	Graphium agamemnon	Papilionidae
8	Small Grass Yellow	Furema brigitta	Pieridae
9	Common Grass Yellow	Eurema hecabe	Pieridae
10	Common Gull	Cepora nerissa	Pieridae
11	Indian Jezebel	Delias eucharis	Pieridae
12	Indian Wanderer	Pareronia hippia	Pieridae
13	Lemon Emmigrant	Catopsila Pomona	Pieridae
14	Mottled Eemigrant	Catopsilia pyranthe	Pieridae
15	Psyche	Leptosia nina	Pieridae
16	Common Cerulean	Jamides celeno	Lycaenidae
17	Common Lineblue	Prosotosnora	Lycaenidae
18	Tailless Lineblue	Prosotas dubiosa	Lycaenidae
19	Common Pierrot	Castalius rosimon	Lycaenidae
20	Common Quaker	Neopithecops zalmora	Lycaenidae
21	Dark Grass Blue	Zizeeria karsandra	Lycaenidae
22	Forget-me-not	Catochrysops strabo	Lycaenidae

Floral species:

Number of Floral species observed: 125

The list of Flora indicates a significant diversity of plants which indicates the overall richness of the place. We have classified the overall flora in 8 groups. The most diverse group is the tree whereas there are 1 species of ornamental plant which shows the least diversity.

Table 06: Checklist of Floral groups with species number

1	Trees	14	Table 7
2	Grasses	2	Table 8
3	Herbs	36	Table 9
4	Shrubs	28	Table 10
5	Creepers	24	Table-11
6	Ornamental Plants	1	Table 12
7	Palms	7	Table 13
8	Fern & Season flower	13	Table-14

Table 7: Checklist of Trees

No.	Common Name	Scientific Name	Family
1	Ficus	Ficus Sp.	Moraceae
2	Amla	Emblica officinalis	Euphorbiaceae
3	Guava	Psidium guajava	Myrtaceae
4	Rosemallows	Hibiscaceae	Hibiscus
5	Champaca	Magnolia champaca	Magnoliaceae
6	Cycas	Cycas	Cycadaceae
7	Crepe Jasmine	Tabernaemontana Divaricata	Apocynaceae
8	pomegranate	Punica granatum	Punicaceae
9	Ashoka Tree	Saraca asoka	Fabaceae
10	Kadam	Anthocephalus chinensis	Rubiaceae
11	Indian Almond	Terminalia catappa	Combretaceae
12	Lichi	Litchi chinensis	Sapindaceae
13	Vilayati Babul	Pithecolobium dulce	Mimosaceae
14	Neem Tree	Azadirachta indica	Meliaceae

Table 8: Checklist of Grasses

No.	Common Name	Scientific Name	Family
1	Common Carpetgrass	Axonopus sp.	Poaceae
2	Durba	Cynodon dactylon	Graminae

Table 9: Checklist of Herbs

No.	Common Name	Scientific Name	Family
1	Curry tree	Murraya koenigii	Rutaceae
2	White cedar	Thuja occidentalis	Cupressaceae
3	Banyan tree	Ficus benghalensis	Moraceae
4	Yellow oleander	Cassipouira thevetia	Apocynaceae
5	Aloe vera	Aloe vera	Asphodelaceae
6	Barberry	Berberis vulgaris L	Berberidaceae
7	Lemon	Citrus Limonum	Rutaceae
8	China rose	Hibiscus rosa-sinensis	Malvaceae
9	Neem	Azadirachta indica	Mahaceae
10	Tulsi	Ocimum sanctum	Lamiaceae
11	Toon	Toona sinensis	Meliaceae
12	Ashok	Saraca Asoca	Caesalpiniaceae
13	Amla	Emblica officinalis	Euphorbiaceae
14	Henna/mehndi	Lawsonia inermis	Lythraceae
15	Marigold	Tagetes erecta	Asteraceae
16	Tej Patta	Cinnamomum tamala	Lauraceae
17	Arjun	Terminalia arjuna	Combretaceae
18	Aswagandha	Withania Somnifera	Solanaceae
19	Jamun	Syzygium cumini	Myrtaceae
20	Candyleaf	Stevia rebaudiana	Asteraceae
21	Tamarind (Imli)	Tamarindus indica	Fabaceae
22	Drumstick-Tree	Moringa oleifera	Moringaceae
23	Kachnar	Bauhinia variegata	Fabaceae
24	Lemon grass	Cymbopogon citratus	Poaceae
25	Safed aak	Calotropis Gigantea	Apocynaceae
26	Datura (Yellow)	Datura stramonium	Solanaceae
27	Datura (Black)	Datura stramonium	Solanaceae
28	Red oleander	Cassipouira thevetia	Apocynaceae

29	Sudarshana	Crinum latifolium	Amaryllidaceae
30	Kapur	Cinnamomum camphora	Lauraceae
31	Babri	Eclipta prostrata	Asteraceae
32	Common guava	Psidium guajava	Myrtaceae
33	Rose	Rosa rubiginosa	Rosaceae
34	Bakaian	Melia azedarach	Mahogany
35	Rangoon creeper	Quisqualis indica	Combrataceae
36	Bael (Wood apple)	Aegle marmelos	Rutaceae

Table 10: Checklist of Shrubs

No	Common Name	Scientific Name	Family
1	Giant Milkweed	Calotropis gigantea	Asclepiadaceae
2	Ban jamir	Glycosmis pentophylla	Ruraceae
3	Fever tea	Lippia javanica	Verbenaceae
4	Fever tea	Lippia javanica	Verbenaceae
5	Jasmine	Jusm inum pubescens	Oleaceae
6	Clerodendrum	Clerodendrum viscosum	Verbenaceae
7	Ground Fig	Ficus heterophylla	Moraceae
8	Bleeding Heart	Clerodendrum tiomsoniae	Lamiaceae
9	Stinking Cassia	Cassio tora	Fabaceae
10	Chitrak	Plumbago zeyla nica	Plumbaginaceae
11	Duranta	Duranta repens	Verbenaceae
12	GardenCosmos	Cosmos bipinna tus	Asteraceae
13	Devil's Trumpets	Datura sp.	Solanaceae
14	Dracaena	Pleomele reflea	Asparagaceae
15	Lagerstroemia	Lagerstroemia indica	Lythraceae
16	Citrus/Citron	Citrus medica	Rutaceae
17	Rose	Rosa sp. Var.	Rosaceae
18	Wild Pmumeria	Plumeria pudica	Apocynaceae
19	Wild Eggplant	Solanum Totvum	Solanaceae
20	Indian heliotrope	Heliotropium indicim	Boraginaceae
21	Heliconia	Strelitzia sp.	Musaceae
22	Common Wireweed	Sida acuta	Malvaceae
23	Thuja	Thuja orientalis	Cupressaceae
24	Chinese Rose	Hibiscus rosa -sinensi's	Malvaceae
25	Lime	Citrus acida	Rutaceae
26	Orange Jasmine	Mn rraya paniculata	Rutaceae
27	Oleander	Nerium oleander	Apocynaceae
28	Karipata	Murraya Koenigii	Rutaceae

Table 11: Checklist of Creepers

No.	Common Name	Scientific Name	Family
1	Aparajita	Clitoria ternatea	Fabaceae
2	Birdfoot Grape-Vine	Cayratia pedata	Vitaceae
3	Passion Flower	Passiflora suberosa	Passifloraceae
4	Cayratia	Coratia trifolia	Vitaceae
5	Corkystem Passionflower	Passiflora suberosa	Passiflozaceae
6	Birdfoot Grape-Vine	Cayratia sp.	Vitaceae
7	Gulanchalata	Tinospora cordifolia	Menispermaceae
8	Titakunja	Wattakaka votubillis	Asclepiaceae
9	Bengal Trumpet Vine	Thunbergia grandiflora	Acanthaceae
10	Ipomoea	Ipomoea aquatic	Convolvulaceae
11	Indian Stinging Nettle	Tragia involucrata	Euphorbiaceae
12	Money Plant, Ivy Arum	Epipremnum aureum	Araceae
13	Snake Vine	Stephania japonica	Menispermaceae
14	Philodendron	Philodendron sp.	Araceae
15	Chinese creeper	Micania micrantha	Asteraceae
16	White Morning Glory	Ipomoea obscura	Convolvulaceae
17	Telakuchu	Coccinia grandis	Cucurbitaceae
18	Tiliacora	Tiliacora racemosa	Menispermaceae
19	Roundleaf Bindweed	Evolvulus Nummularius	Convolvulaceae
20	Justicia	Justicia simplex	Acanthaceae
21	Hemigraphis	Hemigraphis hirta	Acanthaceae
22	Climbing Mallotus	Mallostus repandus	Euphorbiaceae
23	Bougainvillea	Bougainvillea sp.	Nyctaginaceae
24	Allamanda	Allamanda sp.	Apocynaceae

Table 12: Checklist of Ornamental Plant

No.	Common Name	Scientific Name	Family
1	Dracena (Red)	Dracena nana	Liliaceae

Table 13: Checklist of Palms

No.	Common Name	Scientific Name	Family
1	Areca Palm	Dypsis Intescens	Arecaceae
2	Bottle Palm	Hyoyhorbe lagenicaulis	Arecaceae
3	Indian Datepalm	Phoenix sylvestris	Palmae
4	Coconut	Cocos nucifera	Arecaceae
5	Palmyra Palm	Borassusflabe Hifer	Palmae
6	Areca	Areca catechu	Arecaceae
7	Palmyra Palm	Borassusflabellifer	Arecaceae

Table 14: Checklist of Ferns and Seasonal Flowers

No.	Common Name	Scientific Name	Family	Type
1	Bircl- nest Fern	Asplenium Sp.	Aspleniaceae	Fern
2	Fishtail Fern	Microsorium punctatum	Polypodiaceae	Fern
3	Oakleaf Fern	Drynoriaquercifolia	Polyqodiaceae	Fern
4	Snapdragon	Antirrhinum majus	Scrophulariaceae	Season
5	Garden stock	Matthiola incana	Brassicaceae	Season
6	Gazania	Gazania sp.	Asteraceae	Season
7	Gladiolus	Gladiolus sp.	Iridaceae	Season
8	Flaming Kaaty	Kalanchoeblossfeldiana	Crassulaceae	Season
9	Miaden Pink	Dianthus deltoids	Carryophyllaceae	Season
10	Amaryllis	Hippeastrum Sp	Amaryllideceae	Season
11	Pansy	Viola tricolor var.	Violaceae	Season
12	Petunin	Petunia hybrida	Solanaceae	Season
13	Verbena	Vei-hena sp.	Verbenaceae	Season

Conclusion:

Biodiversity status of college campus found satisfactory.

18. Suggestions and Recommendations

- The campus is no doubt biodiversified but more plantations especially medicinal plantations are required in the campus. Plantation of fruit plants will attract more birds.
- There is urgent need to form a Green Monitoring Committee. The priority of this body is to maintain the greenery of the college campus.
- The Green Monitoring Team should consist of members from teaching staffs, non-teaching staffs, and students and if possible, try to include some local interested people.
- Vermicompost facility may be practiced, the product of which can be used as manure or fertilizer for plantation purpose.
- Sustainable use of resource and ecology balance of the college campus must be maintained through the year.
- Dry leaves can be used as compost fertilizer.
- The prolific use of insecticides/pesticides should be checked as these harmful chemicals are detrimental and instrumental for killing of insects/butterflies which are natural prey for the birds.
- Enact stricter laws to control the capture or exploitation of females of any endangered species and enforce them.
- Enact stricter laws for single use plastic.
- Sound and air quality monitoring is being done on regular basis.

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THANKS



ENVIRONMENT AUDIT REPORT

(June, 2021)



**BML MUNJAL
UNIVERSITY™**

BML Munjal University

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Audit Conducted By:

EFS Engineering Facility Services

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4 INTRODUCTION

Environment Audit is a process of systematic identification, quantification, recording, reporting and analysis of components of environmental diversity of various establishments. It aims to analyze environmental practices within and outside of the concerned sites, which will have an impact on the eco-friendly ambience. Environment audit can be a useful tool for a college to determine how and where they are using the most energy or water or resources; the college can then consider how to implement changes and make savings. It can also be used to determine the type and volume of waste, which can be used for a recycling project or to improve waste minimization plan. It can create health consciousness and promote environmental awareness, values and ethics. It provides staff and students better understanding of Green impact on campus. If self-enquiry is a natural and necessary outgrowth of a quality education, it could also be stated that institutional self-enquiry is a natural and necessary outgrowth of a quality educational institution. Thus it is imperative that the college evaluate its own contributions toward a sustainable future. As environmental sustainability is becoming an increasingly important issue for the nation, the role of higher educational institutions in relation to environmental sustainability is more prevalent.

5 OVERVIEW OF INSTITUTE

Named after the chairman and founder of the Hero Group, Dr. Brijmohan Lall Munjal, BML Munjal University is engaged in creating, preserving and imparting internationally benchmarked knowledge and skills to a diverse community of students from across the world. BMU's aim is to nurture ethical leaders who are skilled, knowledgeable and have the life skills needed to lead organisations to success.

BMU seeks to transform higher education in India by creating a world-class and innovative teaching, learning and research environment. Founded by the Hero Group and mentored by Imperial College London, BMU is a not-for-profit initiative offering undergraduate and post-graduate courses.

Ranked **8th** in QS World University Rankings® 2019

BMU is mentored by the Imperial College London, the 108-year-old university.

Imperial College London is closely involved in a wide spectrum of activities such as curriculum design, content development, student exchanges, summer study programmes, joint research activities, digital learning platforms, PhD programmes, faculty training, educational outreach and executive education programmes.

BMU's unique experiential-learning environment will nurture the spirit of inquiry, creativity, problem-solving, entrepreneurship and innovation; and promote hands-on and cross-disciplinary learning; and inculcate a raft of values, job and life skills. This will ensure that BMU students are transformed into well-rounded, industry-ready individuals, who are equipped to take on leadership responsibilities from day one of graduating from the university and ensure a smooth transition to the workplace.

6 OBJECTIVES

The Environment Audit of an institution is becoming a paramount important these days for self-assessment of the institution, which reflects the role of the institution in mitigating the present environmental problems. The college has been putting efforts to keep the environment clean since its inception. But the auditing of this non-scholastic effort of the college has not been documented. Therefore, the purpose of the present environment audit is to identify, quantify, describe and prioritize framework of Environment Sustainability in compliance with the applicable regulations, policies and standards. The main objectives of carrying out Green Audit are:

1. To document the quality drinking water
2. The document the quality of recycled waste water for gardening
3. To document the solid Waste disposal system
4. To document the ambient environmental condition of air, water and noise in the campus.
5. Benchmarking for environmental protection initiatives
6. Reduction in resource use
7. Financial savings through a reduction in resource use

7 AUDIT TEAM

Audit was conducted by the EFS team:

Name	Position	Qualification
Deepak Bajpai	Lead Auditor	B.Tech (Mechanical Engineering) Bureau of Energy Efficiency Certified Energy Auditor, Chartered Engineer
Sandeep Sharma	Safety Auditor	Certification in Industrial Hygiene, NEBOSH National General Certificate. Advance Diploma in Fire & Safety Engineering And Environmental Management
Om Pal	Auditor	B. Tech
Deepak Gupta	Auditor	B. Tech

8 EXECUTIVE SUMMARY

An environmental audit is a snapshot in time, in which one assesses campus performance in complying with applicable environmental laws and regulations. Though a helpful benchmark, the audit almost immediately becomes outdated unless there is some mechanism in place to continue the effort of monitoring environmental compliance.

This is very first environmental audit of institute for NAAC affiliation; QS Programme and doing their bid towards environmental protection and environmental awareness at local and global front. Audit criterion is environmental cognizance, waste minimization and management, biodiversity conservation, water conservation, energy conservation and environmental legislative compliance by the campus. A questionnaire is used during audit. This audit report contains observations and recommendations for improvement of environmental consciousness.

9 AREA OF IMPROVEMENTS

- Internal inspection system should be developed for various equipments available in campus.
- Waste Management plan should be prepared for the campus.
- Environmental drills for response against spillage and leakage of chemicals in the campus
- The monthly inventory of e-waste is required to be maintained in formats on regular basis.

10 ENVIRONMENTAL AUDIT -QUESTIONARE

The areas of eco/environmental/green auditing to be followed/practiced by participating institutions:

- I. Waste Minimization and Recycling
- II. Greening
- III. Energy Conservation
- IV. Water Conservation
- V. Clean Air
- VI. Animal Welfare
- VII. Environmental Legislative
- VIII. General Practices

Dose any Environmental Audit conducted earlier?

No, this is first time a systematic way of monitoring their environmental eminence initiative taken by BML MUNJAL UNIVERSITY, GURGAON for environment protection.

What is the total permanent population of the Institute?

Particulars	Total
Students	1119
Teachers	71
Non-Teaching Staff	114
Sub Total	1304
Approximate Number of Visitors (Per day)	10

Where is the campus located?

BML Munjal University is a fully residential and co-educational private **university** located in Sidhrawali, Gurgaon district, Haryana, India. The **University** was **founded** in 2014 by the promoters of the Hero Group, and is named after the group's chairman and founder Brij Mohan Lall **Munjal**

Which of the following are available in your institute?

1 Garden area	Available
2 Play ground	Available
3 Kitchen	Available
4 Toilets	Available
5 Garbage Or Waste Store Yard	Available
6 Laboratory	Available
7 Canteen	Available
8 Hostel Facility (numbers)	Yes
9 Guest House	Available

Which of the following are found near your institute?

1 Municipal dump yard	Not in vicinity of institute
2 Garbage heap	No Garbage heaps
3 Public convenience	Yes , public convenience is available
4 Sewer line	STP installed (Cap 500+200 KLD)
5 Stagnant water	No stagnant water
6 Open drainage	No
7 Industry - (Mention the type)	No
8 Bus / Railway station	Yes
9 Market / Shopping complex / Public halls	Yes

I – WASTE MINIMIZATION AND RECYCLING

<p>1. Does your institute generate any waste? If so, what are they?</p>	<p>Yes, Solid waste Canteen waste, paper, plastic, Horticulture Waste etc</p>	
<p>2. What is the approximate amount of waste generated per day? (in Kilograms/month) (approx.)</p>	<p>Dry Waste</p>	<p>Wet Waste</p>
	<p>600 kg</p>	<p>600 Kg</p>
<p>3. How is the waste generated in the institute managed? By</p> <p>1 Composting</p> <p>2 Recycling</p> <p>3 Reusing</p> <p>4 Others (specify)</p>	<p>Reuse of one side printed Paper for internal communication. Sewage water used for gardening. Two types of Waste bins are provided at campus for biodegradable and non-biodegradable waste. Horticulture waste is also disposed by the Ghaziabad Authority.</p>	
<p>4. Do you use recycled paper in institute?</p>	<p>Yes</p>	
<p>5. Do you use reused paper in institute?</p>	<p>Yes</p>	
<p>6. How would you spread the message of recycling to others in the community? Have you taken any initiatives? If yes, please specify.</p>	<p>Done in locality for awareness of resource crunches</p>	
<p>7. Can you achieve zero garbage in your institute? If yes, how?</p>	<p>Not yet achieved. Possible through waste management plan.</p>	

II – GREENING THE CAMPUS

8.	Is there a garden in your institute?	Yes, about Approx. 60 % areas are developed as Gardens.	
9.	Do students spend time in the garden?	2-4 Hours during winters	
10.	Total number of Plants in Campus	Plant type	Approx. number
		Trees & Ornamental	37915
11.	Suggest plants for your campus. (Trees, vegetables, herbs, etc.)	Fycer Riznald, Black Fycus, Nerofoliya, Boganvilia Boganvilia Kezreena and many more as per geographical regime.	
12.	Is the university campus have any Horticulture Department	Yes	
	Number of Staff working in Horticulture Department	Ten Gardeners, One Supervisor and Services of External Experts are also taken	
13.	Number of TreePlantation Drives organized by college per annum. (If Any)	Yes, Two Tree Plantation Drives are Organized Annually.40 trees and 30 shrubs planted in this financial year.	
14.	Number of Trees Planted in Last FY.	55	
	Survival Rate	99%	
15.	Plant Distribution Program for Students and Community	Yes, Saplings are distributed to Students and visitors at various Occasions. Besides this landscape of some area in city are developed by Institute.	
16	Plant Ownership Program	Various Trees are Planted and owned by Visitors as well as students. The Name plates are also displayed near the plants.	

III – ENERGY

17.	List ten ways that you use energy in your institute. (Electricity, LPG, firewood, others). Using this list, try to think of ways that you could use less energy every day.	Electricity saves by use of CFL/LED bulbs for illumination, LPG saves by use of Pressure cookers for cooking food. Alternate source of energy i.e. Solar plant Installed.
18.	Are there any energy saving methods employed in your institute? If yes, please specify. If no, suggest some	Yes, Renewable source of energy through solar plant (246 KW) in commissioning phase. Messages are displayed at various locations to Aware the Peoples about Energy Savings. Use of Natural Lights and Natural Ventilation are promoted.
19.	How many CFL/LED bulbs has your institute installed?	100 % of Total Conventional bulbs are replaced by LED/CFL Lights.
20.	Are any alternative energy sources employed / installed in your institute? (photovoltaic cells for solar energy, windmill, energy efficient stoves, etc.) Specify.	Yes, photovoltaic cells for solar energy, energy efficient stoves
21.	Do you run “switch off” drills at institute?	Yes
22.	Are your computers and other equipment’s put on power-saving mode?	Yes, In Practice
23.	Does your machinery (TV, AC, Computer, weighing balance, printers, etc.) run on standby modes most of the time? If yes, how many hours?	Yes (6 to 7 Hr)

IV – WATER CONSERVATION

24.	List four uses of water in your institute	<p>Basic use of water in campus:</p> <ol style="list-style-type: none"> 1. Drinking – 200 KL/month 2. Gardening – STP treated water 3. Kitchen and Toilets – 800 KL/month 4. Others – 3500 KL/month
25.	How does your institute store water? Are there any water saving techniques followed in your institute?	<p>33 Nos of Water Tanks installed for storage of water.</p> <p>Avoid overflow of water controlled float valves are provided in water supply system. Close supervision for water supply system.</p> <p>Rain water harvesting pit 23 Nos..</p>
26.	If there is water wastage, specify why and How can the wastage be prevented / stopped?	No
27.	Locate the point of entry of water and point of exit of waste water in your institute. Entry- Exit-	<p>Entry- Water comes from 02 Nos Submersible Pumps at campus</p> <p>Exit- From Water Drainage System to STP(STP treated water used for gardening)</p>
28.	Write down four ways that could reduce the amount of water used in your institute	<p>Basic Four ways:</p> <ol style="list-style-type: none"> 1. Close the taps after usage 2. Maintenance and monitoring of valves in supply system to avoid overflow, leakage and spillage 3. Water Conservation awareness for new Students 4. Reuse STP water for gardening
29.	Record water use from the institute water meter for six months (record at the same time of each day). At the end of the period, compile a table to show how many liters of water have been used.	Yes, 02 nos Water Meters available for calculation of usage of total quantity only.
30.	Does your institute harvest rain water?	Twenty Three number of rain water harvesting system are available.
31.	Is there any water recycling System.	Yes

V – CLEAN AIR

32.	Are the Rooms in Campus are Well Ventilated?	Yes				
33.	Window Floor ratio of the Rooms	Very Good				
34.	What is the ownership of the vehicles used by your school? (Please Tick ✓ only one)	Yes				
		Operator-owned vehicles				
		✓	School-owned vehicles			
		A combination of campus-owned and operator-owned vehicles				
35.	Provide details of school-owned motorised vehicles?	Buses	Cars	Vans	Bike +Other	Total
	No. of vehicles	0	3	0	1+1	5
	No. of vehicles more than five years old	0	3	0	2	5
	No. of Non Air conditioned vehicles	0	0	0	1	1
	PUC done	Yes	Yes	Yes	Yes	Yes
36.	Specify the type of fuel used by your school's vehicles:	Buses	Cars	Vans	Other	
	Diesel	0	3	0	3	
	Petrol+CNG	0	0	0	0	
	CNG	0	0	0	0	
	LPG	0	0	0	0	
	Petrol	0	0	0	2	
	Electrical	0	0	0	0	
37.	Air Quality Monitoring Program (If Any)	No, Monitoring of air quality by approved Laboratory is under planning				
38.	Students suffer from respiratory ailments? (If Any)	No				
39.	Details of Genset	Yes, 04 Numbers of Silent DG Set The capacities of DG's are 1010X2 & 500X2 KVA.				

VI – ANIMAL WELFARE

40	List the animals (wild and domestic) found on the campus (dogs, cats, squirrels, birds, insects, etc.)	Birds and Squirrels are commonly found in campus. A variety of birds species and other flora and fauna available but these are not harmful to human so institute doing their bid for its conservation.
41.	How many dogs in your area have undergone Animal Birth Control - Anti Rabies (ABC - AR)?	Not required
42.	Does your institute have a Biodiversity Programme or a KARUNA CLUB?	Not Available

VII – ENVIRONMENTAL LEGISLATIVE COMPLIANCE

43.	Are you aware of any environmental Laws pertaining to different aspects of environmental management?	Yes
44.	Does your institute have any rules to protect the environment? List possible rules you could include.	No
45.	Dose Environmental Ambient Air Quality Monitoring conducted by the Institute?	No
46.	Dose Environmental Water and Wastewater Quality monitoring conducted by the Institute?	Yes
47.	Dose stack monitoring of DG sets conducted by the Institute?	Yes
48.	Is any warning notice, letter issued by state government bodies?	No
49.	Dose any Hazardous waste generated by the Institute? If yes explain its category and disposal method	Yes (Disposal of hazardous waste by dilution method)
50.	Dose any Bio medical waste generated by the Institute? If yes explain its category and disposal method	No

VIII – GENERAL

46.	Are you aware of any environmental Laws pertaining to different aspects of environmental management?	Yes
47.	Does your institute have any rules to protect the environment? List possible rules you could include.	No
48.	Does housekeeping schedule in your campus?	Yes, Swatch Bharat movement
49.	Are students and faculties aware of environmental cleanliness ways? If Yes Explain	Yes, Periodically pollution reduction, plantation, energy conservation awareness campaigns carried out by institute
50.	Dose Important Days Like World Environment Day, Earth Day, and Ozone Day etc. eminent in Campus?	Yes
51.	Dose Institute participated in National and Local Environmental Protection Movement?	Yes, Swatch Bharat Abhiyan by students at campus.
52.	Dose Institute has any Recognition/certification for environment friendliness?	No
53.	Dose Institute using renewable energy?	Yes
54.	Dose Institution conducts a green/environmental audit of its campus?	No, This is first environmental audit done by institution
55.	Has the institution been audited / accredited by any other agency such as NABL, NABET, TQPM, NAAC etc.?	No

11 BEST PRACTICES/INITIATIVES FOR ENVIRONMENT

A	Renewable Energy A clean source of energy is utilized at campus. Efforts towards Carbon Neutrality	The capacity of 246 KW Solar plant on building roofs is already installed.
B	Biodiversity Conservation Flora and fauna conservation	It is in schedule plan of Campus Environment committee
C	Tree Plantation Drives Two Drives Annually as well as Every Guest is honored by Tree Plantation at Campus.	Yes
D	Ground Water Recharge 03 units of Rain Water Harvesting System.	Yes
E	Pollution Reduction Personal Vehicles (Students) not allowed at campus	Reduction in Air Pollution through vehicular emission.
F	E Waste Management	Plan to Handover Authorized recycler
G	Solid Waste Management Lifting of garbage from BML MUNJAL UNIVERSITY, GURGAON campus daily by local dump yard.	Yes
H	Adoption of Village School CSR	No
I	Water Conservation	Yes, The STP treated water used for gardening in campus.
J	Corporate Resource Center (CRC)	BML MUNJAL UNIVERSITY, GURGAON College Corporate Resource Center (CRC) is dedicated to nurturing future leaders
K	Mitigation measures for Air pollution at construction stage and operation stage by developing adequate green belt.	Yes
L	Mitigation measures for noise pollution by isolation of noise generation activities	Yes
M	Disaster management plan	Yes
N	Fire protection system	Yes

12 RECOMENDATIONS

- Environmental Monitoring i.e. (Ambient Air Quality monitoring & Stack Monitoring of DG sets need to be conducted by Haryana State Pollution Control Board, approved laboratory with frequency of six month.
- E-waste monthly inventory be maintained at campus as per E waste rules 2016.
- Environment/Green committee formation for regulating eco-friendly initiatives at campus premises and periphery as already Unnat Bhrat Abhiyan and NSS team exists.
- Waste Management plan should be prepared for the campus.
- Waste disposal policy should be present at campus.
- Reduce the uses of CFC gases in AC plant.
- Environmental drills for response against spillage and leakage of chemicals in the campus

13 CONCLUSION

This audit involved extensive consultation with all the campus team, interactions with key personnel on wide range of issues related to Environmental aspects. The BML MUNJAL UNIVERSITY, GURGAON has Environmental Committee for sustainable use of resources. The audit has identified several observations for making the campus premise more environmental friendly. The recommendations are also mentioned with observations for college campus team to initiate actions.

The audit team opines that the overall site is maintained well from environmental perspective. There is no major observations but few things are important to initiate urgently are waste management records by monthly inventory of hazardous waste, water balance cycle and periodic inspection of buildings and initiation of composting at campus.

14 REFERENCE

- The Environment [Protection] Act – 1986 (Amended 1991) & Rules-1986 (Amended 2010)
- The Petroleum Act: 1934 – The Petroleum Rules: 2002
- The Central Motor Vehicle Act: 1988 (Amended 2011) and The Central Motor Vehicle Rules:1989 (Amended in 2005)
- Energy Conservation Act 2010.
- The Water [Prevention & Control Of Pollution] Act – 1974 (Amended 1988) & the Water (Prevention & Control of Pollution) Rules – 1975
- The Water [Prevention & Control Of Pollution] Cess Act-1977 (Amended 2003) and Rules-1978
- The Air [Prevention & Control Of Pollution] Act – 1981 (Amended 1987) The Air (Prevention & Control of Pollution) Rules – 1982
- The Gas Cylinders Rules – 2016 (Replaces the Gas Cylinder Rules – 1981
- E-waste management rules 2016
- Electrical Act 2003 (Amended 2001) / Rules 1956 (Amended 2006)
- The Hazardous Waste (Management and Handling and Trans-boundary Movement) Rules, 2008 (Amended 2016)
- The Noise Pollution Regulation & Control rules, 2000 (Amended 2010)
- The Batteries (Management and Handling) rules, 2001 (Amended 2010)
- Relevant Indian Standard Code practices

15 ANNEXURE – PHOTOGRAPHS OF ENVIRONMENT CONSIIOUSNESS

Swachhata Related Activities by University

- Village: Umren
- Gram Panchayat: Umrain
- Block: Umren
- District: Alwar
- State: Rajasthan

Number of people or families covered by effort

Approximately between 100-150

Description of Swachhata Promotion Work

Our team undertook the swachhata promotion work in the adopted Gram panchayat Umrain, Alwar (Raj.). For the betterment of the village and to spread the word about sanitation, we organized various programs to bring a positive behavioral change in the hearts of the villagers. We organized a variety of events that included swachhata awareness campaigns, door to door visits, school level movie screenings, school level swachhata painting competitions. We also performed solid waste management tasks to intrigue the villagers to come forward and join us. We cleaned the streets and drains. We also organized solid waste collection drives, compost pit digging and solid waste segregation drives. After this every people whom we have met in the village took a pledge not to spill garbage in the environment and always keep their society and environment clean. There we reduced case of open defecation in the village afterwards.

Description of Swachhata Promotion Work

Apart from this we also addressed the problem of overflowing of the garbage bins and poor monitoring of the garbage disposal in the Gram Panchayat meeting. We also gave some suggestive measures regarding the same which were appreciated by the Panchayat. So, to encounter this problem we have utilized our engineering skills and made Smart garbage bin prototype. It is smart in the sense that, it can automatically send the status of the filled garbage in the bin over the message to the mobile. After appreciation from the sarpanch and BDO , the presentation of the same was delivered to entire Panchayat Samiti Umren.

Environment Audit Report – BML Munjal University, Gurugram
Description of Swachhata Promotion Work



Environment Audit Report – BML Munjal University, Gurugram
Condition of the Place Before and After Intervention



Adoption and Cleanliness & other Educational Awareness Camp (Outside the University)

- Visited village (Gujjar Ghatal), Kapriwasas for Cleanliness & other Educational Awareness Campus.



**Adoption and Cleanliness & other Educational
Awareness Camp (Outside the University)**



Adoption and Cleanliness & other Educational Awareness Camp (Outside the University)



**Adoption and Cleanliness & other Educational
Awareness Camp (Outside the University)**







THANKS

