



**SHRI KHANDERAI PRATISHTHAN'S
DNYANSAGAR INSTITUTE OF MANAGEMENT & RESEARCH**

(Approved by AICTE, New Delhi, Recognized By Govt. of Maharashtra, Affiliated to S. P. Pune University)
(AISHE Code : C - 41293, PUN Code - IMMP014030)



7.1.3

Green audit



ENGRESS SERVICES

Yashashree, 26, Nirmal Bag Society, Near Mukhtangan English School,
Parvati, Pune 411 009 Tel: 09890444795 Email: engress123@gmail.com
MEDA Registration No: ECN/2022-23/CR-43/1709
ISO: 9001-2015 Certified (Cert No: 23EQKC13),
ISO: 14001-2015 Certified (Cert No: 23EEKW20)

GREEN AUDIT CERTIFICATE

Certificate No: ES/DIMR/22-23/02

Date: 13/7/2023

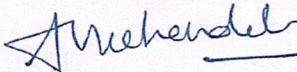
This is to certify that we have conducted Green Audit at Dnyansagar Institute of Management & Research, SKP Campus, Baner-Balewadi Road, Baner, Pune-411045, in the Academic year 2022-23.

The Institute has adopted following Green & Sustainable Practices:

- Usage of Energy Efficient LED Fittings
- Installation of Roof Top Solar PV Plant of Capacity 10 kWp
- Segregation of Waste at source
- Provision of Bio Composting Bed, for conversion of Organic Waste
- Implementation of Rain Water Management Project
- Good internal Road within the campus
- Tree Plantation in the campus
- Provision of Ramp for Divyangajan
- Creation of Awareness on Energy Conservation by Display of Posters

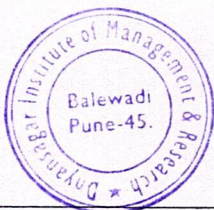
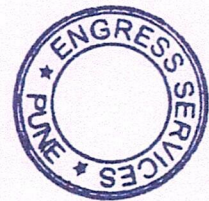
We appreciate the support of Management, involvement of faculty members and students in the process of Energy Conservation & making the campus Energy Efficient & Green.


For Engress Services,



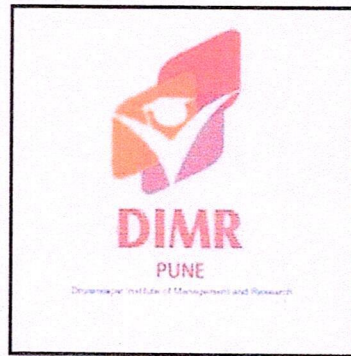
A Y Mehendale,

B E- Mech, M Tech-Energy, Certified Energy Auditor, EA-8192
ASSOCHAM GEM Certified Professional: GEM: 22/788




Director
Dnyansagar Institute of Management and
Research
Balewadi, Pune-411045

GREEN AUDIT REPORT
of
**DNYANSAGAR INSTITUTE OF MANAGEMENT &
RESEARCH,**
SKP Campus, Baner-Balewadi Road, Baner, Pune

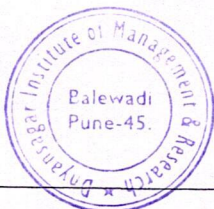


Year: 2022-23

Prepared by

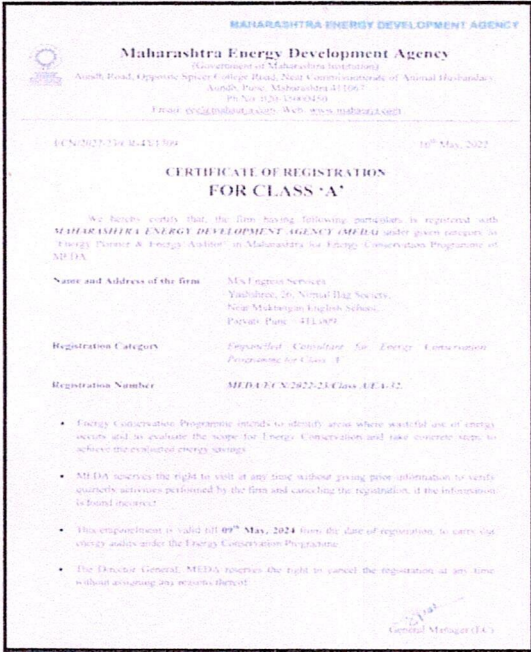
ENGRESS SERVICES

Yashashree, 26, Nirmal Bag Society
Near Muktangan English School, Parvati, Pune 411009
Phone: 09890444795 Email: engress123@gmail.com



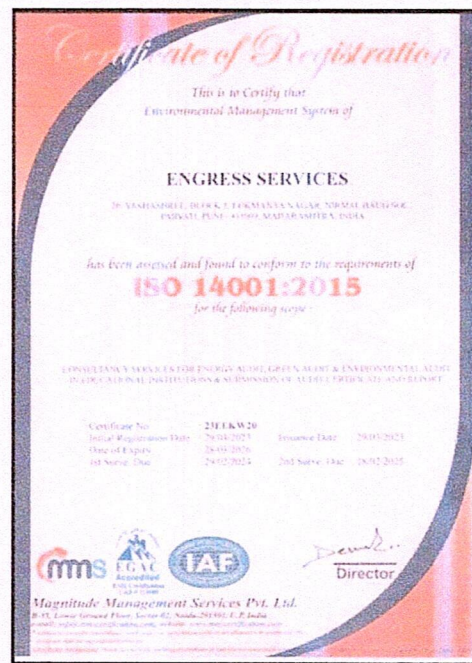

Director
Dnyansagar Institute of Management and
Research
Balewadi, Pune-411045

REGISTRATION CERTIFICATES



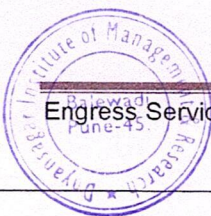
MEDA REGISTRATION CERTIFICATE

ASSOCHAM GEM CP CERTIFICATE



ISO: 9001-2015 CERTIFICATE

ISO: 14001-2015 CERTIFICATE

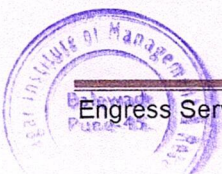


Director
 Dnyansagar Institute of Management and
 Research
 Balewadi, Pune-411045

INDEX

Sr. No	Particulars	Page No
I	Acknowledgement	4
II	Executive Summary	5
III	Abbreviations	6
1	Introduction	7
2	Study of Energy Consumption & CO ₂ Emission	8
3	Study of Usage of Renewable Energy	9
4	Study of Waste Management	10
5	Study of Rain Water Management	11
6	Study of Green & Sustainable Practices	12


Director
Dnyansagar Institute of Management and
Research
Balewadi, Pune-411045




ACKNOWLEDGEMENT

We at Engress Services, Pune, express our sincere gratitude to the management of Dnyansagar Institute of Management & Research, SKP Campus, Baner - Balewadi Rd, Laxman Nagar, Baner, Pune, 411045, for awarding us the assignment of Green Audit of their Baner campus for the Academic Year: 2022-23.

We are thankful to all the Staff members for helping us during the field study.




Director
Dnyansagar Institute of Management and
Research
Balewadi, Pune-411045

EXECUTIVE SUMMARY

1. Dnyansagar Institute of Management & Research, SKP Campus, Baner - Balewadi Rd, Laxman Nagar, Baner, Pune, 411045, consumes Energy in the form of Electrical Energy; used for various equipment.

2. Present Energy Consumption & CO₂ Emission:

No	Particulars	Value	Unit
1	Annual Energy Purchased	343935	kWh
2	Annual CO ₂ Emissions	31.44	MT

3. Renewable Energy & Reduction in CO₂ Emissions:

- The Institute has installed Roof Top Solar PV Plant of Capacity **10 kWp**.
- The Energy generated by Solar PV Plant in 22-23 is **12000 kWh**.
- Reduction in CO₂ Emissions in 22-23 is **10.8 MT**

4. Waste Management:

No	Head	Particulars
1	Solid Waste	Segregation of Waste at source
2	Organic Waste	Provision of Bio Composting Bed
3	E Waste	Recommended to dispose of through Authorized Agency

5. Rain Water Management:

The Rain water falling on the terrace is used to increase the Underground Water Table.

6. Green & Sustainable Practices:

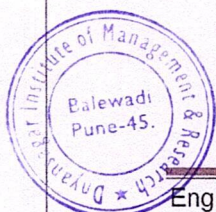
- Maintenance of good Internal Road
- Tree Plantation in the campus.
- Provision of Ramp for Divyangajan
- Creation of awareness on Energy Conservation by Display of Posters


7. Assumptions:

1. **1 kWh** of Electrical Energy releases **0.9 Kg of CO₂** into atmosphere
2. Energy generated by Roof Top Solar PV Plant: **4 kWh/kWp per Day**
3. Annual Solar Energy generation Days: **300 Nos**
4. Energy Consumption is computed on the basis of Load Utilization Factor

8. References:

- For CO₂ Emissions: www.tatapower.com
- For Solar PV Energy generation: www.solarrooftop.gov.in




Director
Dnyansagar Institute of Management and
Research
Balewadi, Pune-411045

ABBREVIATIONS

LED	:	Light Emitting Diode
KLPD	:	Kilo Liters per Day
Kg	:	Kilo Gram
kWh	:	kilo-Watt Hour
kWp	:	Kilo Watt Peak
Qty	:	Quantity
MT	:	Metric Ton
CO ₂	:	Carbon Di Oxide



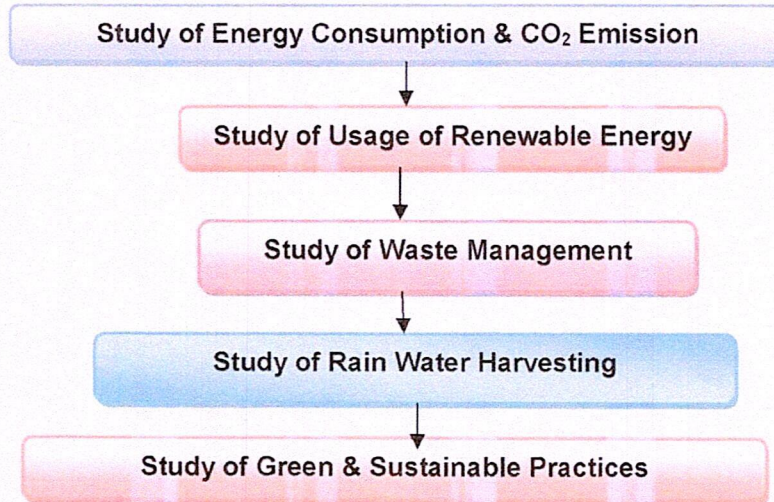

Director
Dnyansagar Institute of Management and
Research
Balewadi, Pune-411045

CHAPTER-I INTRODUCTION

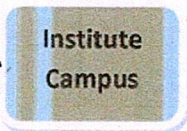
1.1 Introduction:

A Green Audit is conducted at Dnyansagar Institute of Management & Research, SKP Campus, Baner - Balewadi Rd, Laxman Nagar, Baner, Pune

1.2 Audit Procedural Steps:



1.3 Institute Location Image:



[Signature]
Director
Dnyansagar Institute of Management and
Research
Balewadi, Pune-411045

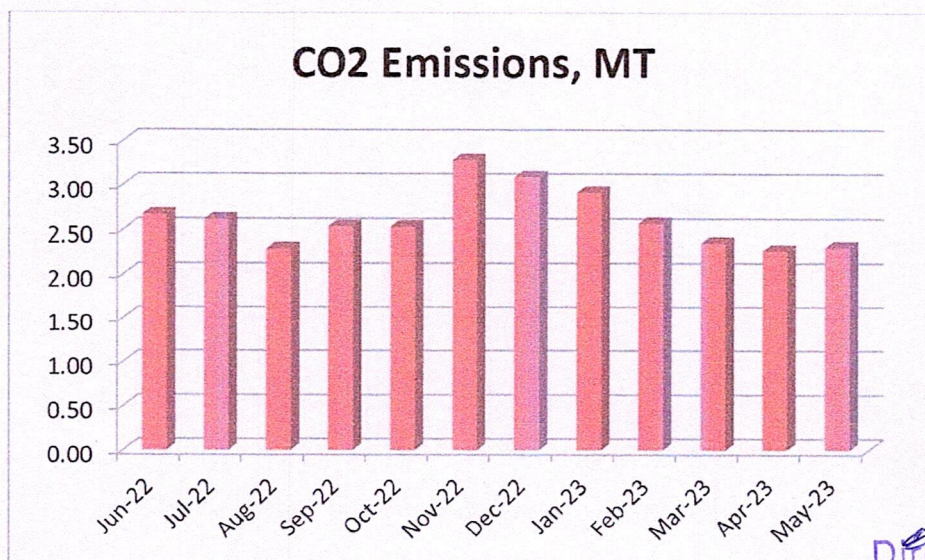
CHAPTER-II STUDY OF ENERGY CONSUMPTION & CO₂ EMISSION

A Carbon Foot print is defined as the Total Greenhouse Gas emissions, emitted due to various activities. **Basis for computation of CO₂ Emissions: 1 kWh of Electrical Energy releases 0.9 Kg of CO₂ into atmosphere.**

Table No 1: Month wise Energy Consumption & CO₂ Emissions:

No	Month	Energy Purchased, kWh	CO ₂ Emissions, MT
1	Jun-22	2965	2.67
2	Jul-22	2908	2.62
3	Aug-22	2545	2.29
4	Sep-22	2822	2.54
5	Oct-22	2818	2.54
6	Nov-22	3647	3.28
7	Dec-22	3433	3.09
8	Jan-23	3241	2.92
9	Feb-23	2860	2.57
10	Mar-23	2616	2.35
11	Apr-23	2519	2.27
12	May-23	2561	2.30
13	Total	34935	31.44
14	Maximum	3647	3.28
15	Minimum	2519	2.27
16	Average	2911.25	2.62

Chart No 1: Month wise CO₂ Emissions:



CHAPTER-III STUDY OF USAGE OF RENEWABLE ENERGY

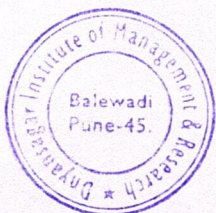
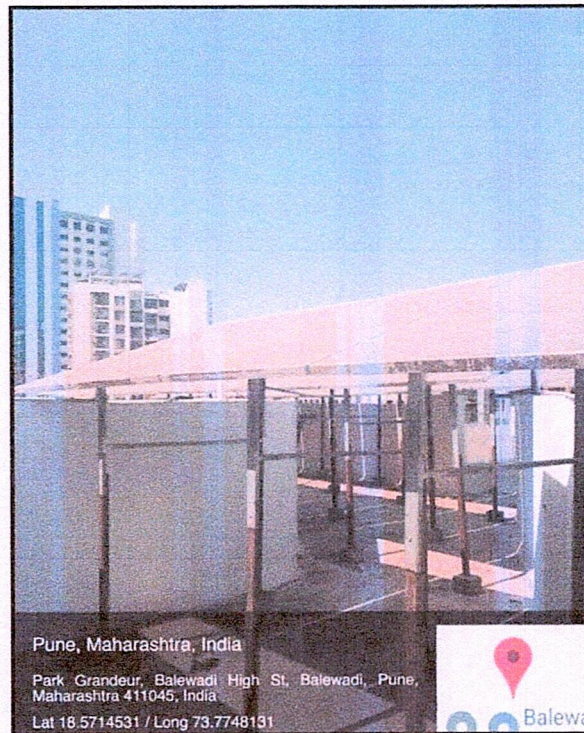
The Institute has installed Roof Top Solar PV Plant of Capacity 15 kWp.

In the following Table, we compute the Annual Reduction in CO₂ Emissions due to installation of Roof Top Solar PV Plant.

Table No 4: Computation of Annual Reduction in CO₂ Emissions:

No	Particulars	Value	Unit
1	Installed Capacity of Roof Top Solar PV Plant Capacity	15	kWp
2	Energy Generated in per kWp	4	4 kWh/kWp
3	Annual Solar Energy generation Days	300	Nos
4	Energy Generated in the Year: 22-23	18000	kWh
5	1 kWh of Electrical Energy saves	0.9	Kg/kWh
6	Qty of CO ₂ Saved by Solar PV Plant = (4)*(5) /1000	16.2	MT of CO ₂

Photograph of Roof Top Solar PV Plant:



CHAPTER-IV STUDY OF WASTE MANAGEMENT

4.1 Segregation of Waste at Source:

The waste is segregated at source. Waste collection bins are kept at various locations.

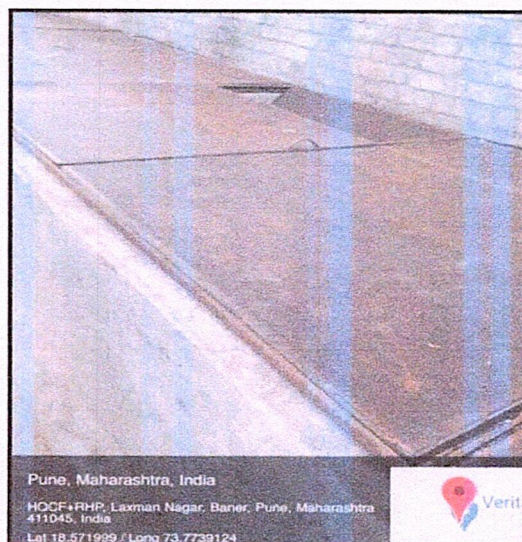
Photograph of Waste Collection Bin:



4.2 Organic Waste:

The Institute has installed Bio Composting Bed for conversion of Organic Waste.

Photograph of Bio Composting Bed:



4.3 E-Waste Management:

It is recommended to dispose the E Waste through Authorized Agency.

[Signature]
Director

Dnyansagar Institute of Management and
Research

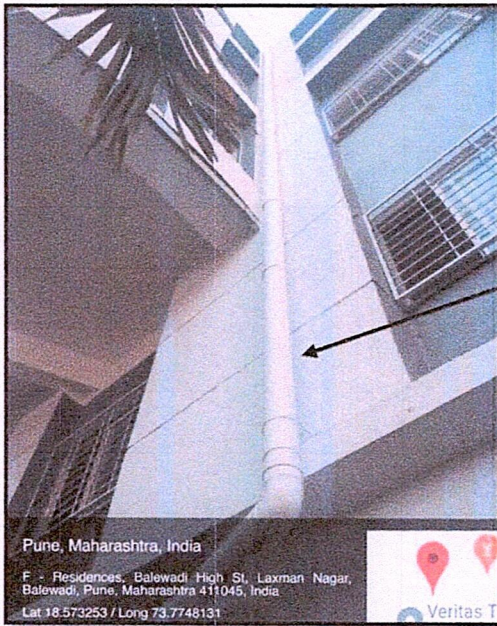
Balewadi, Pune-411045

Page 10

CHAPTER-V STUDY OF RAIN WATER MANAGEMENT

The Institute has installed the Rain Water Harvesting Project. The Rain Water falling on the terrace is used to increase the Underground Water table.

Photograph of Rain Water Collecting Pipe:



Rain Water
Carrying Pipe

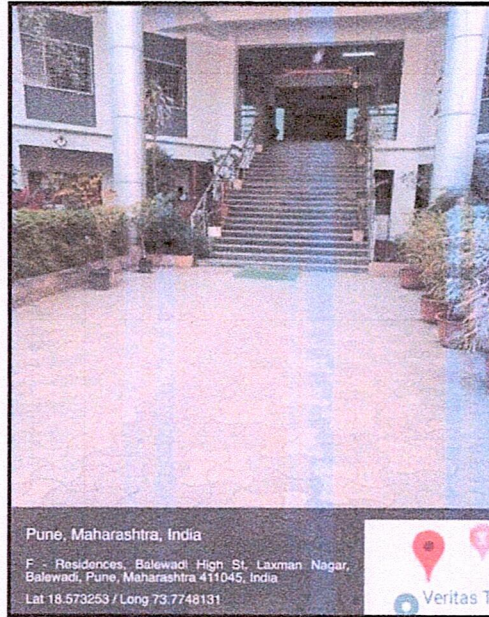


CHAPTER-VII STUDY OF GREEN & SUSTAINABLE PRACTICES

7.1 Pedestrian Friendly Road:

The Institute has well maintained internal road as to facilitate the easy movement of the students within the campus.

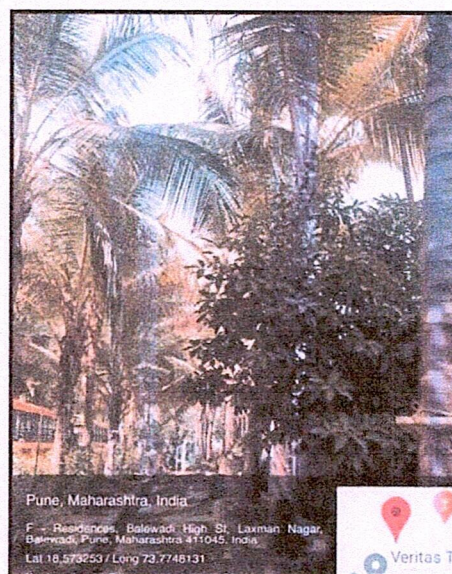
Photograph of Road within campus:



7.2 Plantation in the Campus:

The Institute has well maintained Garden, inside the campus.

Photograph of Internal Tree Plantation:

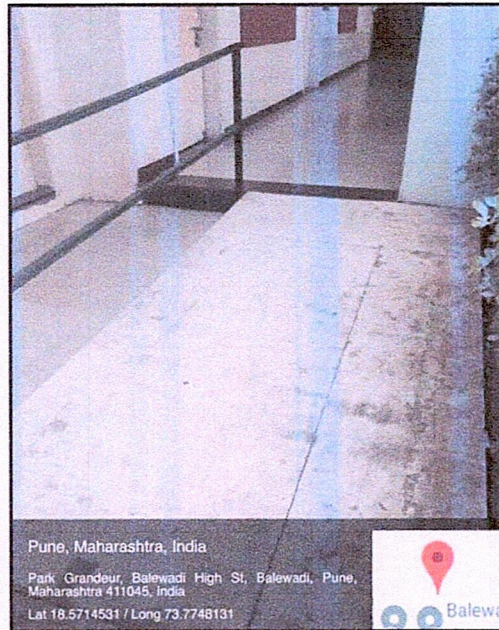


Director
Dnyansagar Institute of Management and
Research
Balewadi, Pune-411045

7.3 Provision of Ramp for Divyangajan:

The Institute has made provision of Ramp for easy movement of Divyangajan.

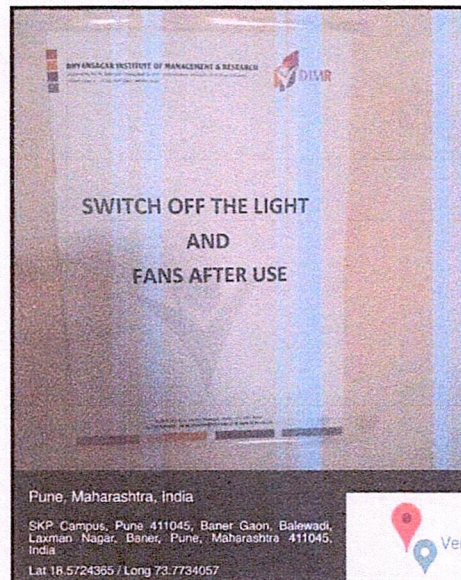
Photograph of Ramp:



7.4 Creation of Awareness on Energy Conservation:

In order to create awareness, the Institute has displayed Posters on Energy Conservation

Photograph of Poster on Energy Conservation:





**SHRI KHANDERAI PRATISHTHAN'S
DNYANSAGAR INSTITUTE OF MANAGEMENT & RESEARCH**

(Approved by AICTE, New Delhi, Recognized By Govt. of Maharashtra, Affiliated to S. P. Pune University)
(AISHE Code : C - 41293, PUN Code - IMMPO14030)



7.1.3

Environment audit



📍 SKP Campus, Baner, Balewadi, Pune - 411 045 INDIA
☎ 7767800401 - 10 ✉ director@dimr.edu.in 🌐 www.dimr.edu.in



ENGRESS SERVICES

Yashashree, 26, Nirmal Bag Society, Near Muktangan English School,
Parvati, Pune 411 009 Tel: 09890444795 Email: engress123@gmail.com
MEDA Registration No: ECN/2022-23/CR-43/1709
ISO: 9001-2015 Certified (Cert No: 23EQKC13),
ISO: 14001-2015 Certified (Cert No: 23EEKW20)

ENVIRONMENTAL AUDIT CERTIFICATE

Certificate No: ES/DIMR/22-23/03

Date: 13/7/2023

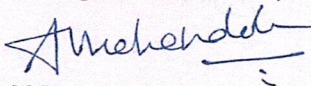
This is to certify that we have conducted Environmental Audit at Dnyansagar Institute of Management & Research, SKP Campus, Baner-Balewadi Road, Baner, Pune 411045, in the Academic year 2022-23.

The Institute has adopted following Environment Friendly Practices:

- Usage of Energy Efficient LED Fittings
- Installation of Roof Top Solar PV Plant of Capacity 15 kWp
- Segregation of Waste at source
- Provision of Bio Composting Bed, for conversion of Organic Waste
- Implementation of Rain Water Management Project
- Tree Plantation in the campus
- Creation of Awareness on Energy Conservation, by Display of Posters

We appreciate the support of Management, involvement of faculty members and students in the process of making the campus Environment Friendly.

For Engress Services,



A Y Mehendale,

B E- Mech, M Tech-Energy, Certified Energy Auditor, EA-8192
ASSOCHAM GEM Certified Professional: GEM: 22/788




Director
Dnyansagar Institute of Management and
Research
Balewadi, Pune-411045

ENVIRONMENTAL AUDIT REPORT

Of

DNYANSAGAR INSTITUTE OF MANAGEMENT & RESEARCH,

SKP Campus, Baner-Balewadi Road, Baner, Pune

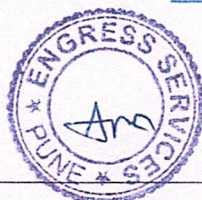
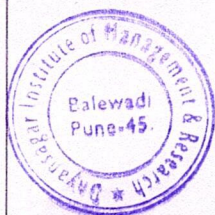


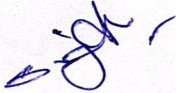
Year: 2022-23

Prepared by

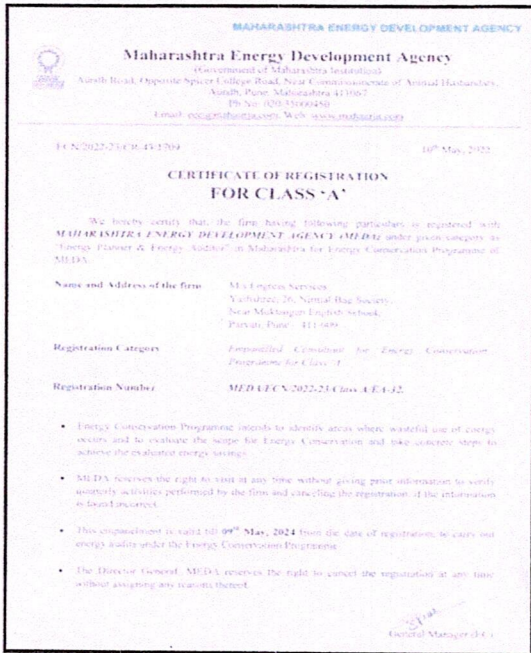
ENGRESS SERVICES

Yashashree, 26, Nirmal Bag Society
Near Mukhtangan English School, Parvati, Pune 411009
Phone: 09890444795 Email: engress123@gmail.com




Director
Dnyansagar Institute of Management and
Research
Balewadi, Pune-411045

REGISTRATION CERTIFICATES



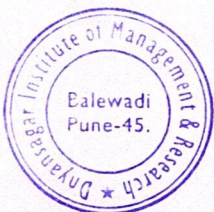
MEDA REGISTRATION CERTIFICATE

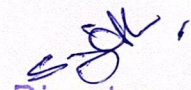
ASSOCHAM GEM CP CERTIFICATE



INDEX

Sr. No	Particulars	Page No
I	Acknowledgement	4
II	Executive Summary	5
III	Abbreviations	7
1	Introduction	8
2	Study of Resource Consumption & CO ₂ Emission	10
3	Study of Usage of Renewable Energy	12
4	Study of Indoor Air Quality	13
5	Study of Indoor Comfort Condition Parameters	14
6	Study of Waste Management	15
7	Study of Rain Water Management	16
8	Study of Eco Friendly Practices	17
	Annexure	
I	Indoor Air Quality, Noise, & Indoor Comfort Standards	18

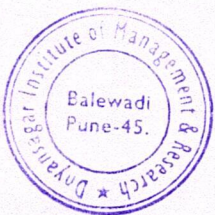


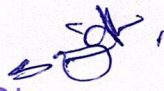

Director
Dnyansagar Institute of Management and
Research
Balewadi, Pune-411049

ACKNOWLEDGEMENT

We at Engress Services, Pune, express our sincere gratitude to the management of Dnyansagar Institute of Management & Research, SKP Campus, Baner - Balewadi Rd, Laxman Nagar, Baner, Pune, 411045, for awarding us the assignment of Environmental Audit of their Baner campus for the Academic Year: 2022-23.

We are thankful to all the Staff members for helping us during the field study.




Director
Dnyansagar Institute of Management and
Research
Balewadi, Pune-411045

EXECUTIVE SUMMARY

1. Dnyansagar Institute of Management & Research, SKP Campus, Baner - Balewadi Rd, Laxman Nagar, Baner, Pune, 411045, consumes Energy in the form of Electrical Energy; used for various equipment.

2. Pollution due to Institute Activities:

- **Air pollution:** Mainly CO₂ on account of Electricity Consumption
- **Solid Waste:** Bio degradable Garden Waste, Paper & Plastic Waste
- **Liquid Waste:** Human liquid waste

3. Present Energy Consumption & CO₂ Emission:

No	Particulars	Value	Unit
1	Annual Energy Purchased	343935	kWh
2	Annual CO ₂ Emissions	31.44	MT

4. Renewable Energy & Reduction in CO₂ Emissions:

- The Institute has installed Roof Top Solar PV Plant of Capacity **15 kWp**.
- The Energy generated by Solar PV Plant in 22-23 is **18000 kWh**.
- Reduction in CO₂ Emissions in 22-23 is **16.2 MT**

5. Indoor Air Quality Parameters:

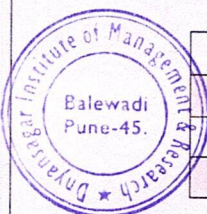
No	Parameter/Value	AQI	PM-2.5	PM-10
1	Maximum	63	37	45
2	Minimum	56	34	38

6. Indoor Comfort Conditions:

No	Parameter/Value	Temperature, °C	Humidity, %	Lux Level	Noise Level, dB
1	Maximum	28	81	125	45
2	Minimum	27.8	80	110	41.9

7. Waste Management:

No	Head	Particulars
1	Solid Waste	Segregation of Waste at source
2	Organic Waste	Provision of Bio Composting Bed
3	E Waste	Recommended to dispose of through Authorized Agency



8. Rain Water Management:

The Rain water falling on the terrace is used to increase the Underground Water Table.

9. Environment Friendly Initiatives:

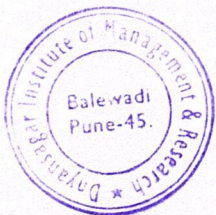
- Tree Plantation in the campus.
- Creation of awareness on Energy Conservation by Display of Posters


10. Assumptions:

1. 1 kWh of Electrical Energy releases 0.9 Kg of CO₂ into atmosphere
2. Energy generated by Roof Top Solar PV Plant: 4 kWh/kWp per Day
3. Annual Solar Energy generation Days: 300 Nos
4. Energy Consumption is computed on the basis of Load Utilization Factor

11. References:

- For CO₂ Emissions: www.tatapower.com
- For Solar PV Energy generation: www.solarrooftop.gov.in
- For Various Indoor Air Parameters: www.ishrae.com
- For AQI Standards: www.cpcb.com

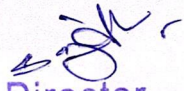



Director
Dnyansagar Institute of Management and
Research
Balewadi, Pune-411045

ABBREVIATIONS

DIMR	:	Dnyansagar Institute of Management and Research
Kg	:	Kilo Gram
MSEDCL	:	Maharashtra State Distribution Company Limited
MT	:	Metric Ton
kWh	:	kilo-Watt Hour
LPD	:	Liters per Day
LED	:	Light Emitting Diode
AQI	:	Air Quality Index
CPCB	:	Central Pollution Control Board
PM	:	Particulate Matter




Director
Dnyansagar Institute of Management and
Research
Balewadi, Pune-411045
Page 7

CHAPTER-I INTRODUCTION

1. Important Definitions:

1.1. Environment: Definition as per environment Protection Act: 1986

Environment includes water, air and land and the inter-relationship which exists among and between Water, Air, Land and Human beings, other living creatures, plants microorganism and property

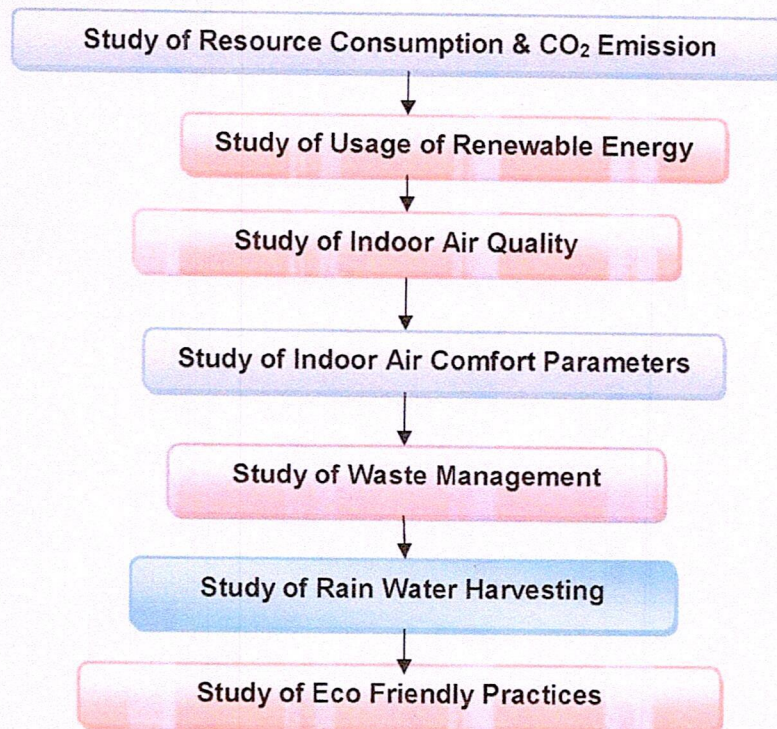
1.2. Environmental Audit: Definition:

An audit which aims at verification and validation to ensure that various environmental laws are compiled with and adequate care has been taken towards environmental protection and preservation

According to UNEP, 1990, "Environmental audit can be defined as a management tool comprising systematic, documented and periodic evaluation of how well environmental organization management and equipment are performing with an aim of helping to regularize the environment"

1.3. Environmental Pollutant: means any solid, liquid and gaseous substance present in the concentration as may be, or tend to be, injurious to Environment.

1.4 Audit Procedural Steps:




Director
Dnyansagar Institute of Management and
Research
Balewadi, Pune-411045

1.5 Institute Location Image:



Institute
Campus




Director
Dnyansagar Institute of Management and
Research
Balewadi, Pune-411045

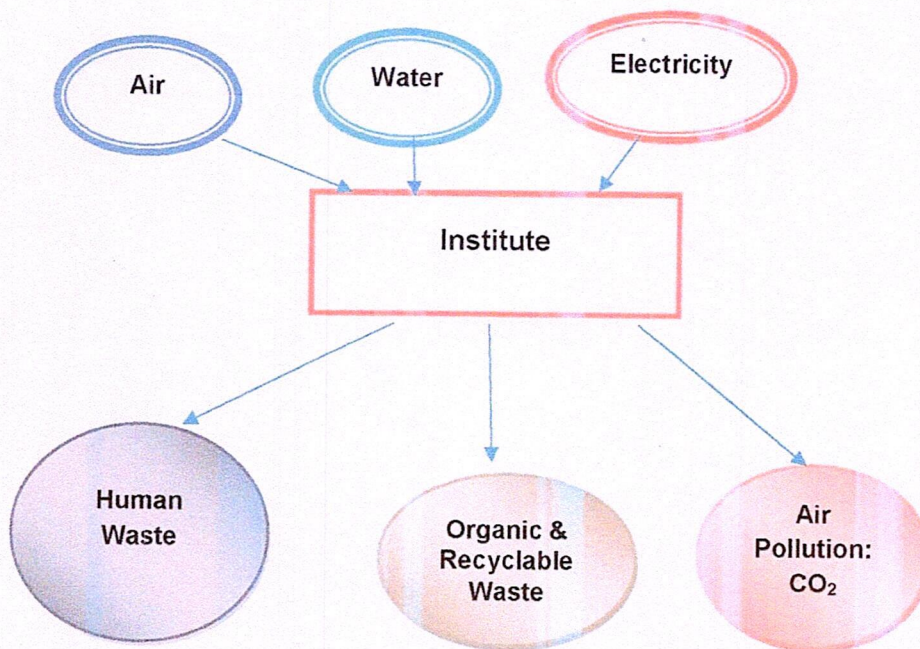
CHAPTER-II STUDY OF CONSUMPTION OF RESOURCES & CO₂ EMISSION

2.1 The Institute consumes following Natural/derived Resources:

1. Air
2. Water
3. Electrical Energy

We try to draw a schematic diagram for the Institute System & Environment as under.

2.2 Chart No 1: Representation of Institute as a System:



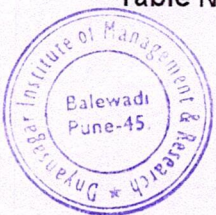
2.3 Computation of CO₂ Emissions: A Carbon Foot print is defined as the Total Greenhouse Gas Emissions, emitted due to various activities. The Institute uses Electrical Energy for various Electrical gadgets & day to day activities.

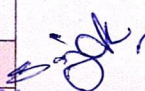
Basis for computation of CO₂ Emissions:

- 1 kWh of Electrical Energy releases 0.9 Kg of CO₂ into atmosphere

Table No 1: Month wise CO₂ Emissions:

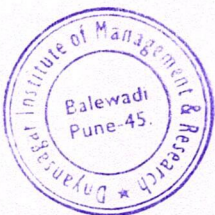
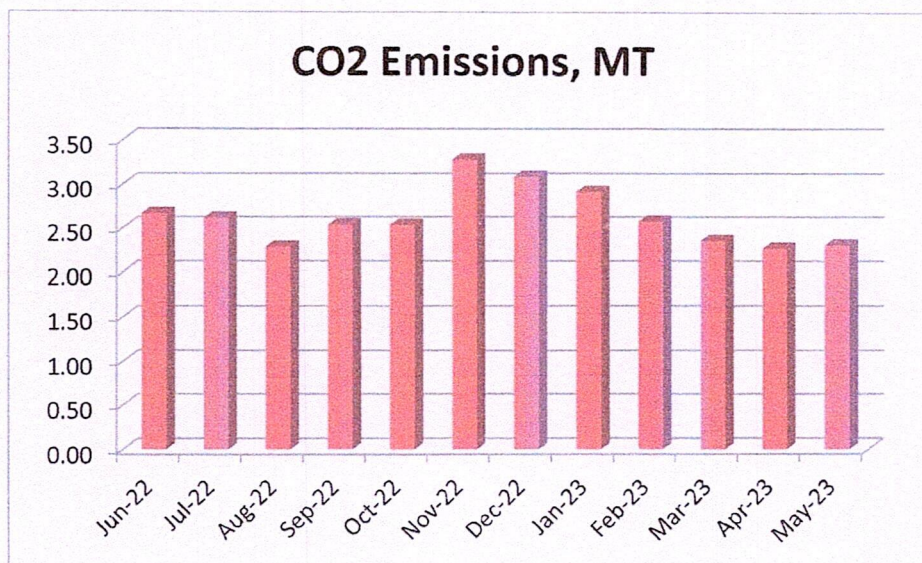
No	Month	Energy Purchased, kWh	CO ₂ Emissions, MT
1	Jun-22	2965	2.67
2	Jul-22	2908	2.62





Director
Dnyansagar Institute of Management and
Research

3	Aug-22	2545	2.29
4	Sep-22	2822	2.54
5	Oct-22	2818	2.54
6	Nov-22	3647	3.28
7	Dec-22	3433	3.09
8	Jan-23	3241	2.92
9	Feb-23	2860	2.57
10	Mar-23	2616	2.35
11	Apr-23	2519	2.27
12	May-23	2561	2.30
13	Total	34935	31.44
14	Maximum	3647	3.28
15	Minimum	2519	2.27
16	Average	2911.25	2.62

Chart No 2: Representation of Month wise CO₂ emissions:




 Director
 Dnyansagar Institute of Management and
 Research
 Balewadi, Pune-411045

CHAPTER-III STUDY OF USAGE OF RENEWABLE ENERGY

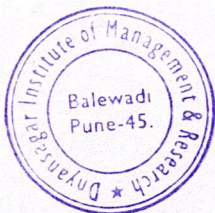
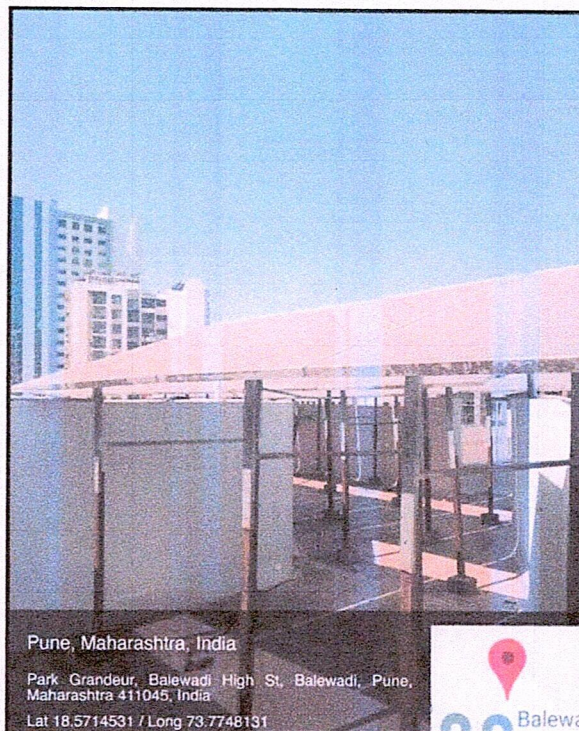
The Institute has installed Roof Top Solar PV Plant of Capacity 15 kWp.

In the following Table, we compute the Annual Reduction in CO₂ Emissions due to installation of Roof Top Solar PV Plant.

Table No 2: Computation of Annual Reduction in CO₂ Emissions:

No	Particulars	Value	Unit
1	Installed Capacity of Roof Top Solar PV Plant Capacity	15	kWp
2	Energy Generated in per kWp	4	4 kWh/kWp
3	Annual Solar Energy generation Days	300	Nos
4	Energy Generated in the Year: 22-23	18000	kWh
5	1 kWh of Electrical Energy saves	0.9	Kg/kWh
6	Qty of CO ₂ Saved by Solar PV Plant $= (4) * (5) / 1000$	16.2	MT of CO ₂

Photograph of Roof Top Solar PV Plant:



[Signature]
Director
Dnyansagar Institute of Management and
Research
Balewadi, Pune-411045

CHAPTER IV STUDY OF INDOOR AIR QUALITY

4.1 Importance of Air Quality:

Air: The common name given to the atmospheric gases used in breathing and photosynthesis.

By volume, Dry Air contains 78.09% Nitrogen, 20.95% Oxygen, 0.93% Argon, 0.039% carbon dioxide, and small amounts of other gases.

On average, a person inhales about **14,000 liters** of air every day. Therefore, poor air quality may affect the quality of life now and for future generations by affecting the health, the environment, the economy and the city's liveability.

Air quality is a measure of the suitability of air for breathing by people, plants and animals.

According to Section 2(b) of Air (Prevention and control of pollution) Act, 1981 'air pollution' has been defined as 'the presence in the atmosphere of any air pollutant.'

As per Section 2(a) of Air (Prevention and control of pollution) Act, 1981 'air pollutant' has been defined as 'any solid, liquid or gaseous substance [(including noise)] present in the atmosphere in such concentration as may be or tend to be injurious to human beings or other living creatures or plants or property or environment

4.2 Air Quality Index:

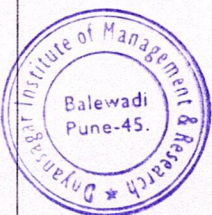
An **Air Quality Index (AQI)** is a number used by government agencies to measure the **air pollution** levels and communicate it to the population.


We present herewith following important Parameters.

1. AQI- Air Quality Index
2. PM 2.5- Particulate Matter of Size 2.5 micron
3. PM 10- Particulate Matter of Size 10 micron

Table No 3: Indoor Air Quality Parameters:

No	Location	AQI	PM2.5	PM10
1	Classroom	61	37	44
2	Board Room	60	36	38
3	Sports Room	63	37	45
4	Seminar Hall	60	34	39
5	Library	56	34	39
	Maximum	63	37	45
	Minimum	56	34	38




Director
Dnyansagar Institute of Management and
Research
Balewadi, Pune-411045

CHAPTER V STUDY OF INDOOR COMFORT CONDITION PARAMETERS

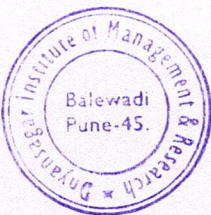
In this Chapter, we present the various Indoor Comfort Parameters measured during the Audit.

The Parameters include:

1. Temperature
2. Humidity
3. Lux Level
4. Noise Level.

Table No 4: Study of Indoor Comfort Condition Parameters:

No	Location	Temperature, °C	Humidity, %	Lux Level	Noise Level, dB
1	Classroom	28	81	123	44
2	Board Room	27.9	80	125	43.6
3	Sports Room	27.8	80	120	41.9
4	Seminar Hall	27.9	81	118	42
5	Library	28	81	110	45
	Maximum	28	81	125	45
	Minimum	27.8	80	110	41.9




Director
Dnyansagar Institute of Management and
Research
Balewadi, Pune-411045

CHAPTER-VI STUDY OF WASTE MANAGEMENT

6.1 Segregation of Waste at Source:

The waste is segregated at source. Waste collection bins are kept at various locations.

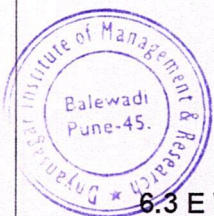
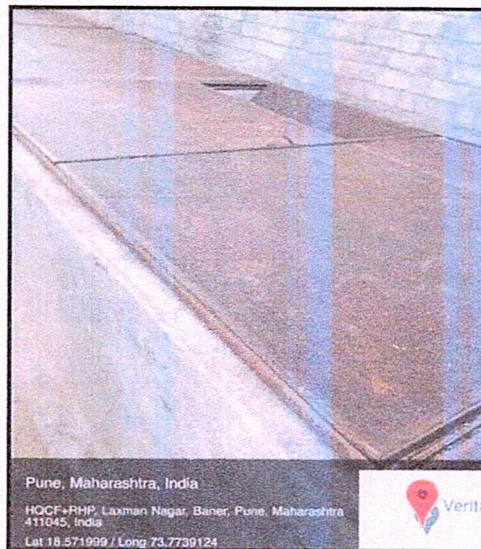
Photograph of Waste Collection Bin:



6.2 Organic Waste:

The Institute has installed Bio Composting Bed for conversion of Organic Waste.

Photograph of Bio Composting Bed:



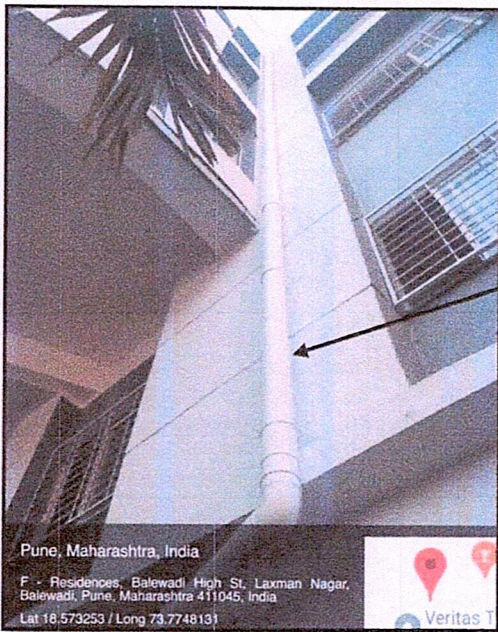
6.3 E Waste Management:

It is recommended to dispose the E Waste through Authorized Agency.

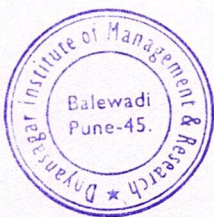
CHAPTER-VII STUDY OF RAIN WATER MANAGEMENT

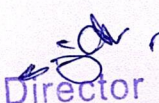
The Institute has installed the Rain Water Harvesting Project. The Rain Water falling on the terrace is used to increase the Underground Water table.

Photograph of Rain Water Collecting Pipe:



Rain Water
Carrying Pipe



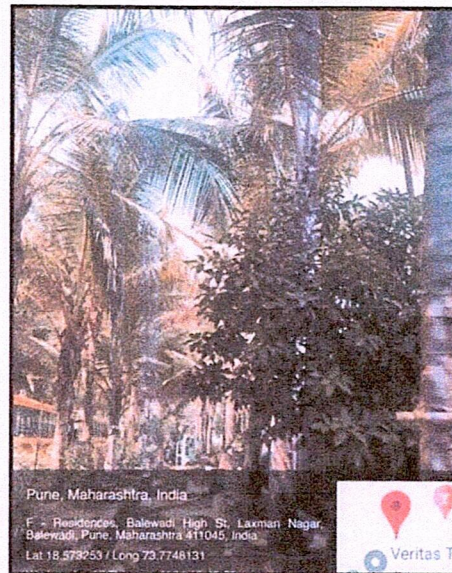

Director
Dnyansagar Institute of Management and
Research
Balewadi, Pune-411045
Page 16

CHAPTER VIII STUDY OF ECO FRIENDLY PRACTICES

8.1 Plantation in the Campus:

The Institute has well maintained Tree Plantation inside the campus.

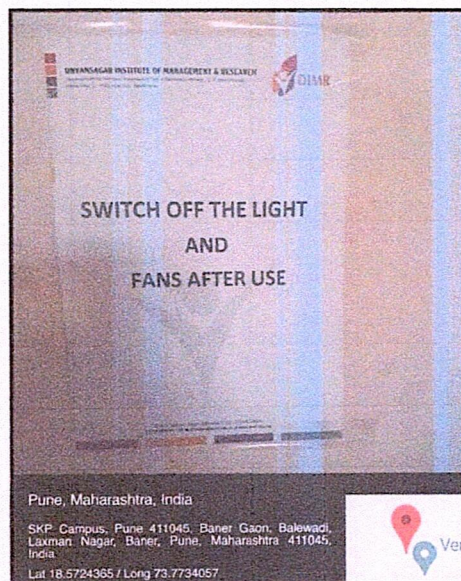
Photograph of Internal Tree Plantation:



8.2 Creation of Awareness on Energy Conservation:

In order to create awareness, the Institute has displayed Posters on Energy Conservation.

Photograph of Poster on Energy Conservation:



**ANNEXURE-I:
AIR QUALITY, NOISE & INDOOR COMFORT STANDARDS:**

1. Category Wise Air Quality Index Values & Concentration of PM 2.5 & PM10:

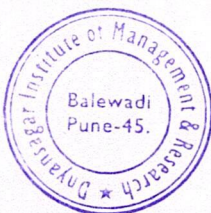
No	Category	AQI Value	Concentration Range, PM 2.5	Concentration Range, PM 10
1	Good	0 to 50	0 to 30	0 to 50
2	Satisfactory	51 to 100	31 to 60	51 to 100
3	Moderately Polluted	101 to 200	61 to 90	101 to 250
4	Poor	201 to 300	91 to 120	251 to 350
5	Very Poor	301 to 400	121 to 250	351 to 430
6	Severe	401 to 500	250 +	430 +

2. Recommended Noise Level Standards:

No	Location	Noise Level dB
1	Auditoriums	20-25
2	Outdoor Playground	55
3	Occupied Class Room	40-45
4	Un occupied Class Room	35
5	Apartment, Homes	35-40
6	Offices	45-50
7	Libraries	35-40
8	Restaurants	50-55

3. Thermal Comfort Conditions: For Non-conditioned Buildings:

No	Parameter	Value
1	Temperature	Less Than 33°C
2	Humidity	Less Than 70%




Director
Dnyansagar Institute of Management and
Research
Balewadi, Pune-411045