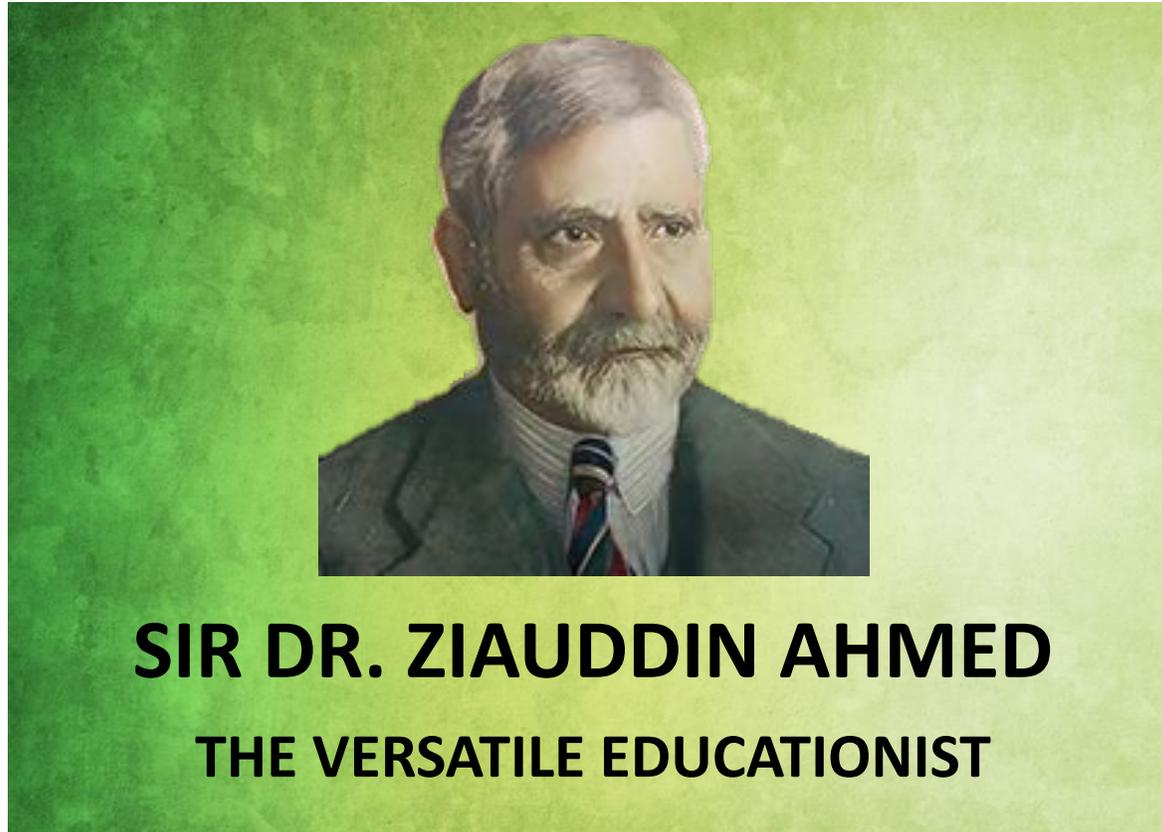




# ZIAUDDIN UNIVERSITY



**SIR DR. ZIAUDDIN AHMED**

**THE VERSATILE EDUCATIONIST**

**Sustainability Report & Green Metric International Ranking**

# INTRODUCTION

- HEC recognized degree awarding institution which was founded in the memory of Sir Dr. Ziauddin Ahmad.
  - A renowned academician, philosopher, mathematician, and political figure.
  - His vision was to spread quality education.
- Ziauddin University is providing and promoting the advancement of knowledge through excellence in teaching, research, and public service.
- Ziauddin University represents its firm commitment to become a Sustainable & Internationally acclaimed educational entity, hence its Quality Enhancement Cell does its utmost to work on all essential criteria to represent the University in Green Metric Ranking.

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# Ziauddin University Striving Efforts for Sustainability

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To be recognized as the icon of the innovative, leading-edge educational institute that endeavors to International sustainability efforts for the Environment, Economy, and Equity.



# Ziauddin University as Sustainable University

## Sustainable University in a Changing World: Lessons, Challenges and Opportunities

- It contributes to academic discourses on sustainability in education and the greening of campus.
- It promotes university-led social change regarding sustainability goals and as a tool for self-assessment on-campus sustainability for higher education institutions (HEIs) around the globe.



# Ziauddin University as Sustainable University

## Sustainable University in a Changing World: Lessons, Challenges and Opportunities

- It will be evident to inform governments, international and local environmental agencies, and the society about sustainability.
- It is based on the concept of Environment, Economy & Impartiality to achieve development goals.
- It is devised to help the university for internalization, recognition benefit, and to address global challenges.



# Benefits of Sustainability

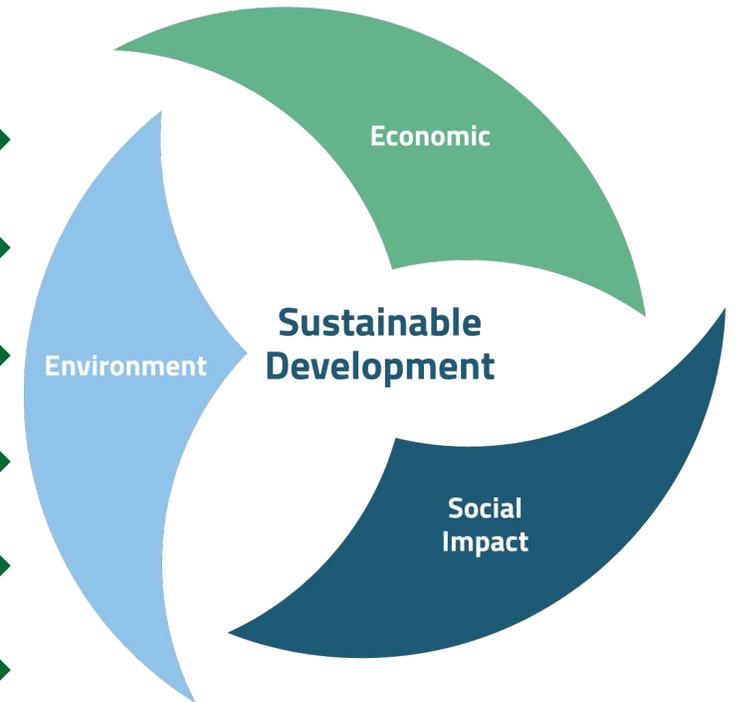
- Internationalization and Recognition
- Increased Awareness of Sustainability Issues
- Social Change and Action
- Networking

**Save Earth Save Life**



# Domains & Green Metric International Ranking Criteria's

- Setting & Infrastructure of University Campus
- Energy & Climate Change
- Waste Management
- Water Management
- Transportation Management
- Education & Research



Sustainability, by definition, is at the intersection of economic, social and environment interests

# 1. Infrastructure & Settings

The data and record collection consists of various components that include Infrastructure and Architecture details of the university campus. The data collected is mentioned below:

- Total campus's area record in square yard.
- Infrastructure map & evidences.
- Environmental & plantation record.



# 1. Infrastructure & Settings

## QUESTIONNAIRE RECORDS

- Ziauddin University is a specialized higher education institution
- The climate it bears is oceanic and humid due to 4 multi-regional campus sites
- The campus setting of Ziauddin University is urban



## 1. Infrastructure & Settings

### QUESTIONNAIRE RECORDS

- The ratio of open space area to total area is  $> 90\%$ .
- The total area on campus covered with forest vegetation is  $> 2-9\%$



# 1. Infrastructure & Settings

## QUESTIONNAIRE RECORDS

- The total area covered with planted vegetation is > 10-20 %.

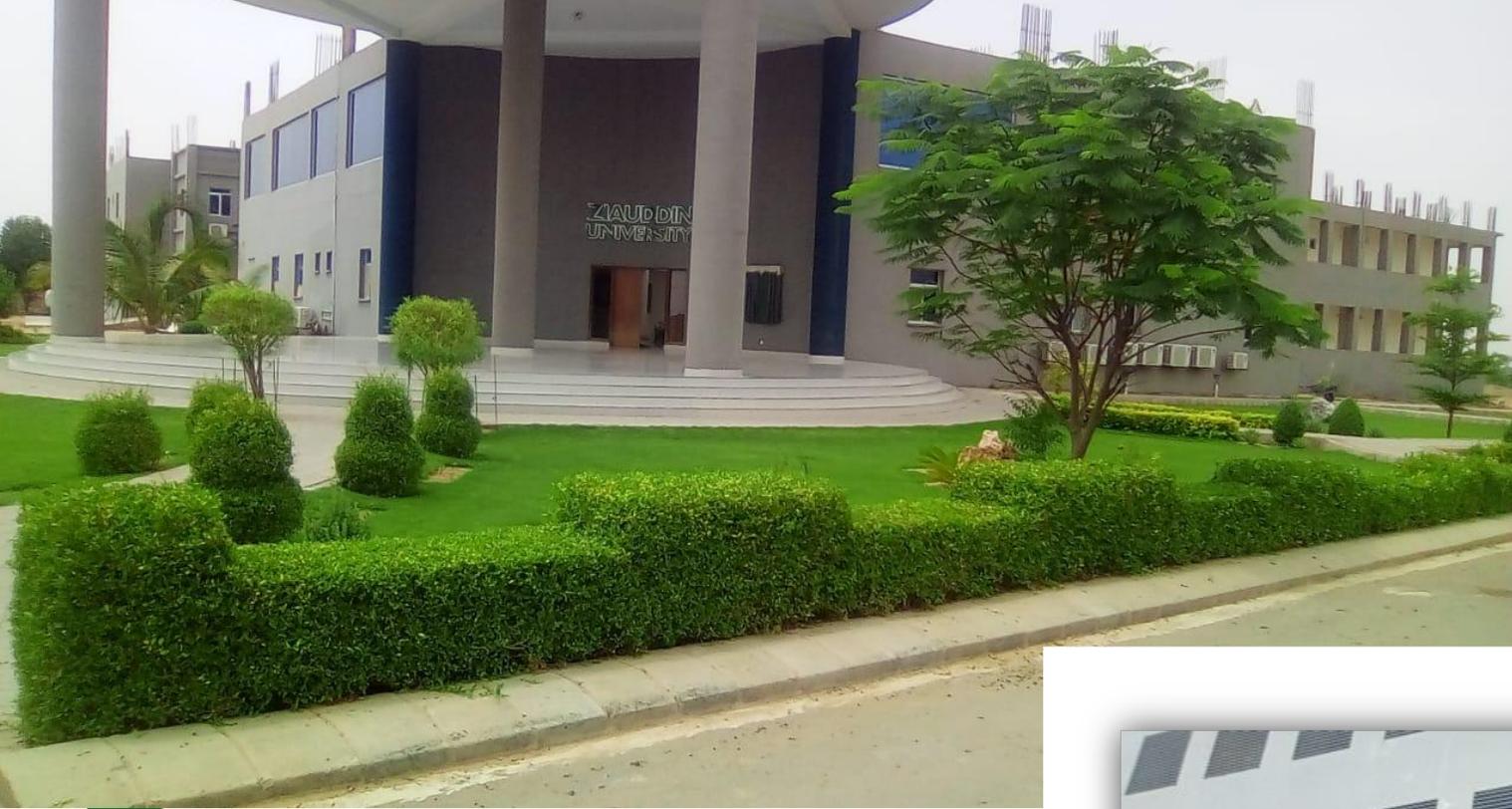


# 1. Infrastructure & Settings

## QUESTIONNAIRE RECORDS

- Total number of regular students at all campus sites more than 5352
- Total number of academic staffs 908.
- Total open space divide by total campus population is > 20 – 40 meter sq/person
- The percentage of university sustainability budget is > 15%





# Dr. Aijaz Fatima Library



## 2. Energy & Climate Change

The energy management system operated at Ziauddin University is in accordance with the climate remodeling concept.

- The renewable energy resource for cost-effective energy production & utilization operating at Ziauddin University is Solar Energy with Smart Space utilization.
- As a responsible education institute, Ziauddin University also concentrates on the state of the facilities for students by using energy-efficient appliances & equipment at the campus.

## 2. Energy & Climate Change

### QUESTIONNAIRE RECORDS

- Energy efficient appliance usage is > 50-75% at Ziauddin university
- Total campus smart building area **2,123,781** meter sq.
- Smart building implementation is > 25 – 50 % at Ziauddin university
- Number of renewable energy resources are two solar power & combine heat & power which are implemented at Ziauddin university

## 2. Energy & Climate Change

### QUESTIONNAIRE RECORDS

- The specific renewable energy resource is solar power.
- Electricity usage per year is 22093085



Energy Efficient System in Classroom



# Ziauddin University Solar Systems



### 3. Waste Management System



To meet the standards of proper hygiene and health safety, Ziauddin University centralizes the waste management system with the public waste management body.

### 3. Waste Management System

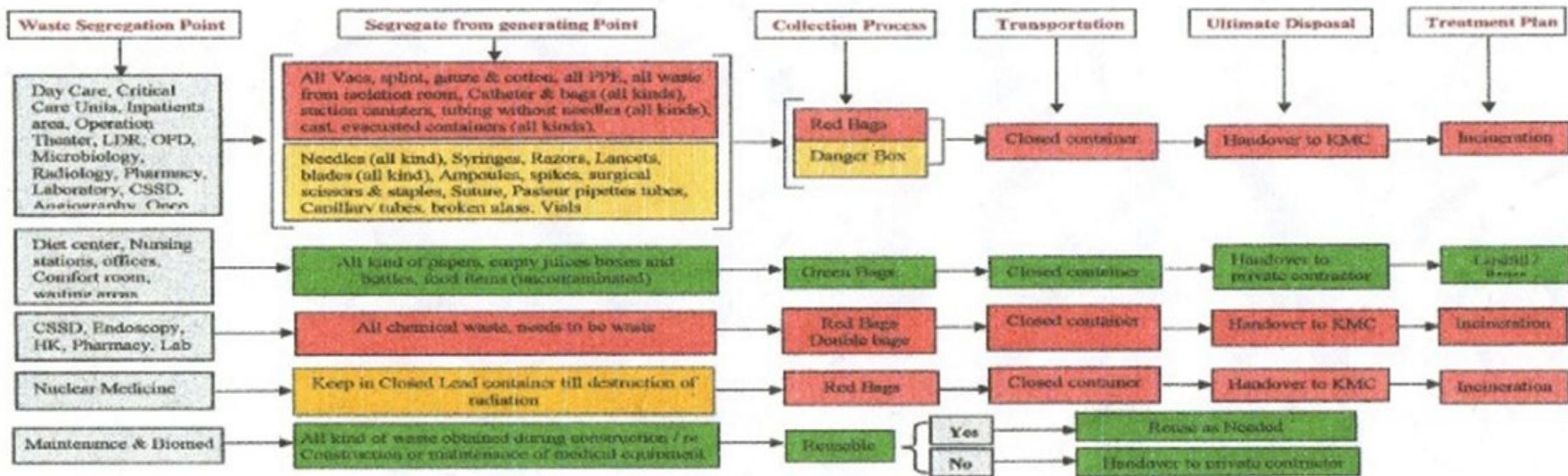
#### QUESTIONNAIRE RECORDS

- Organic waste treatment at university campus is open dumping
- Inorganic waste treatment is extensively treated > 75% along with the KMC contact for dumping.
- Toxic waste is dumped with all precaution by KMC.
- Sewage disposal is untreated into water ways.



# University Waste Management Plan & SOP

DZH/INF/PF 02  
Date of Issue : 23-08-17  
Revision : Original



Initiated By

Riffat Shaheen  
Chief Infection Control Practitioner

Reviewed By

Mr. Salahuddin  
Housekeeping Manager

Reviewed By

Mr. Mehfooz ur Rehman  
Maintenance Manager

Reviewed By

Mr. Khurram Farid  
Biomedical Manager

Approved By

Dr Anoop Kumar  
Medical Superintendent

Approved By

Ms. Sabina Khalid  
Chief Operating Officer

DR. ZIAUDDIN  
CONTROLLED DOCUMENT

# INFECTION PREVENTION & CONTROL DEPARTMENT

## WASTE MANAGEMENT



## ENVIRONMENTAL CLEANING



**RED MOP  
CLINICAL AREA /  
PATIENT ROOM**



**BLACK MOP  
WASH ROOM**



**YELLOW MOP  
CORRIDOR &  
OFFICES AREA**

**DEPARTMENT OF INFECTION CONTROL**

### 3. Waste Management System



Tool & equipment's for proper Cleanness at Ziauddin Campuses & Hospital



Different colors bucket for organic & inorganic waste dumping at all Campuses & Hospital Sites

### 3. Waste Management System



KMC Truck usage for final Dumping of Waste management System at all sites of Ziauddin Hospital & Campuses

# KMC contract for Waste Management System



KARACHI METROPOLITAN CORPORATION  
IN JOINT VENTURE WITH  
ASTROTECH INTERNATIONAL

FOR

Transportation & Disposal of Hospital Hazardous Waste  
through KMC Incineration Plants

DATE-01-09-19 REGISTRATION FORM REG No-242

- Type of Institution: Hospital / Clinic / Laboratory / Other - Please Specify HOSPITAL
- Name of Institution: DR. ZIAUDDIN HOSPITAL (CLIFTON)
- Address: St-4/B Block-6, Scheme-5 Clifton.
- Phone No: 021-35862937 Fax No: 9221-35837212
- Contact Person / Administrator / Owner: Saad Moim Khan
- Number of Beds: (If Applicable) 150
- Waste Generation: (If Known) - Kg/day.
- Waste Collection Day / Time: - Collection Frequency: -
- Present Mode of Waste Disposal: (If Any) KMC

I, \_\_\_\_\_ do hereby declare the information submitted is correct.

Signature of Authorized Person:

Name: Saad Moim Khan

Designation: G.M Administration

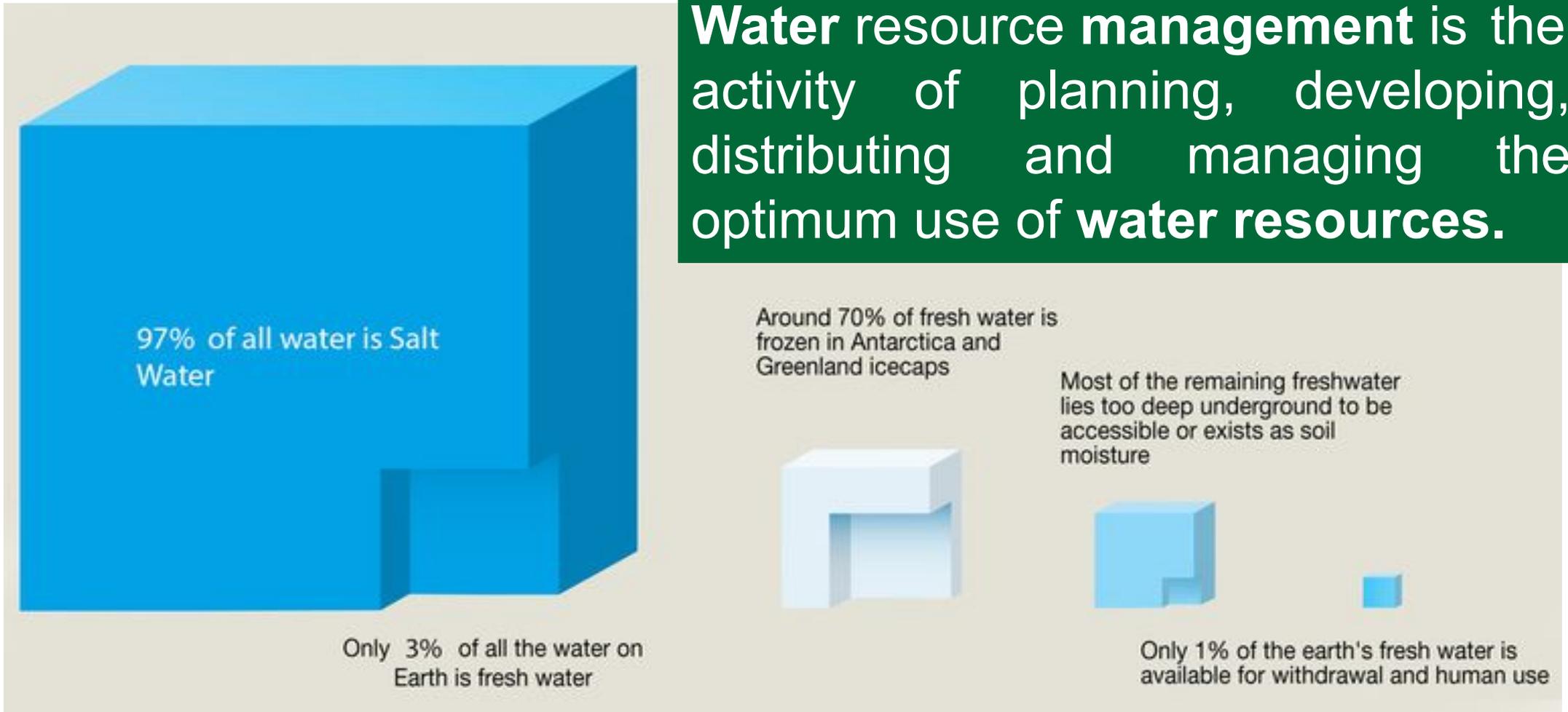
Stamp: \_\_\_\_\_

Contact: 021-35862937

DEPUTY DIRECTOR  
SOLID WASTE MANAGEMENT  
KARACHI METROPOLITAN CORPORATION

# 4. Water Management System

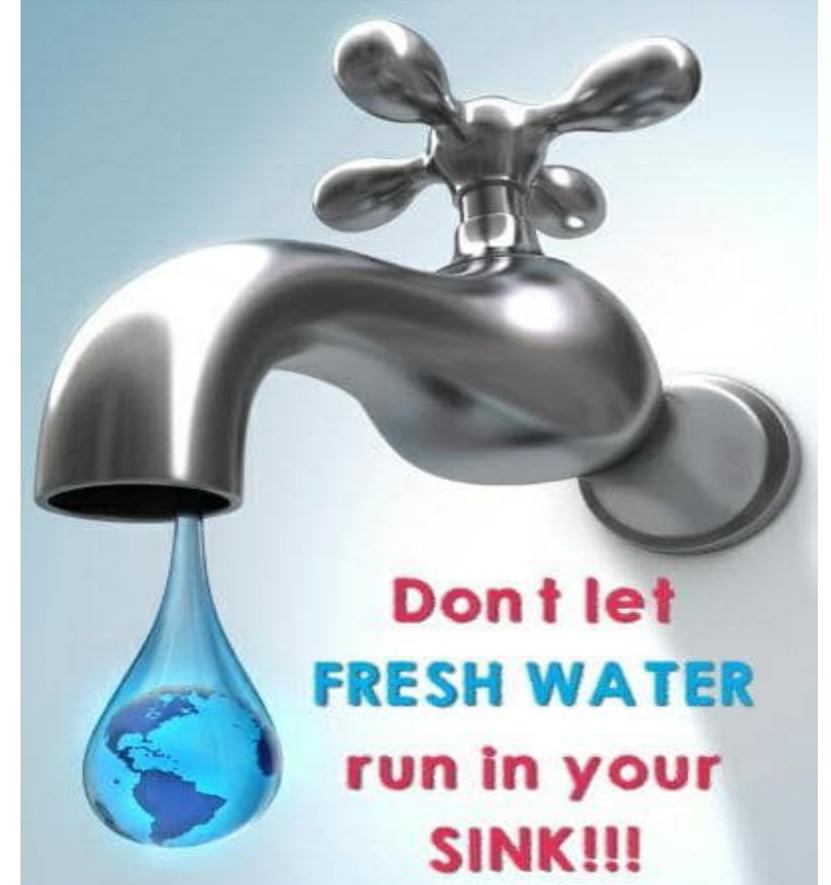
Water resource management is the activity of planning, developing, distributing and managing the optimum use of water resources.



## 4. Water Management System

At Ziauddin University, water consumption and utilization are according to the standard need which represents no water wastage along with water efficient appliance usage.

Water management and its treatment are at par with global policies and procedures.



## 4. Water Management System

### QUESTIONNAIRE RECORDS

- Water Conservation Program Implementation is > 25- 50% implemented at early stage (measurement of potential surface runoff volume )
- The water efficient appliance usage is 1-25 % water efficient appliances installed.

## 4. Water Management System



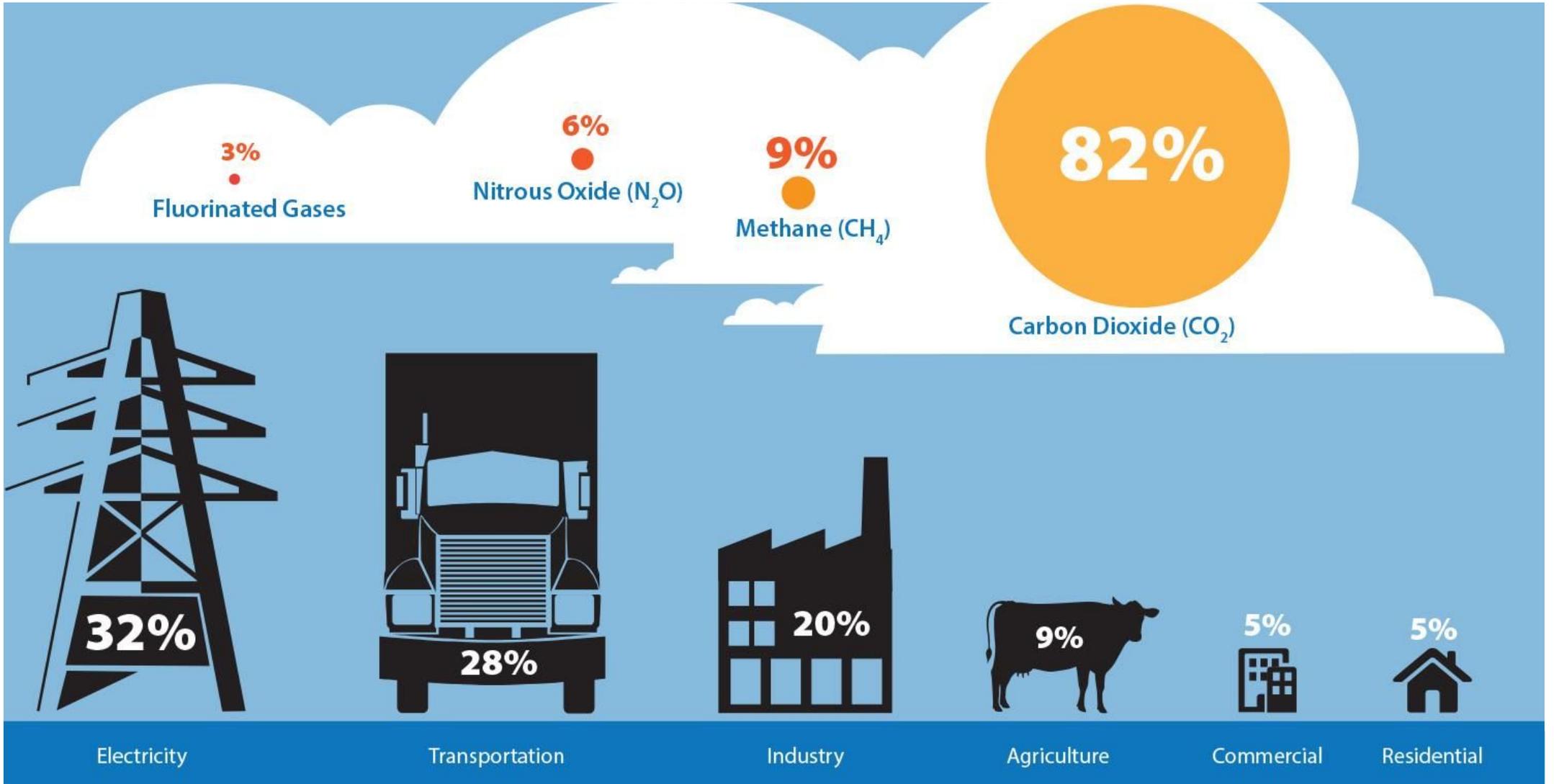
RO Plant & Water Treatment Process at Ziauddin Hospital & Campuses sites

# 4. Water Management System



RO Plant & Water Treatment Process at Ziauddin Hospital & Campuses sites

# 5. Transport Management System



## 5. Transport Management System

Ziauddin University is providing transportation services to university students and employees and minimizing greenhouse emissions.



## 5. Transport Management System

### QUESTIONNAIRE RECORDS

- Number of cars actively used and managed by university are 37.
- Number of cars entering the university daily are 40.
- Number of bikes entering the university daily are above 150.
- Total number of vehicle's divided by total campus population is  $< 0.045$ .

# 5. Transport Management System

## QUESTIONNAIRE RECORDS

- Shuttle service provided by the university is regular & free.
- The number of shuttles operated in university at multiple campus site is 10.
- The average number of passengers in each shuttle 40.
- Total trips of each shuttle service on each campus site are 10.
- Total Parking area of Ziauddin University's all campus sites is 3790.7227 meter sq.

# 5. Transport Management System

## QUESTIONNAIRE RECORDS

- The ratio of the parking area to total campus sites area is  $> 4 - 1\%$ .
- Transportation program designed to limit the parking area on campus for the last 3 years - program in preparation e.g. feasibility study and promotion.
- The number of transportation initiatives to decrease private vehicles on campus is 2.
- The pedestrian path are available , designed for safety, convenience, and in some parts provided with disabled-friendly features.

## 5. Transport Management System

### QUESTIONNAIRE RECORDS

- The approximate daily travel distance of a vehicle inside our campus is 0.25 km.
- There is no zero-emission vehicle policy on campus.
- The average number of zero-emission vehicles on campus per day has no records.
- There is no application of evidence of the total number of zero-emission vehicles divided by the total campus population.

## 6. Education & Research

### Ziauddin University educational and research efforts on SDG

- Research funding of worth 363541.39 US Dollar from HEC on environmental monitoring for the weather forecast, contingent disease threat, and potential climate changes.
- Integration of environment and sustainability related courses in the curriculum.
- Installation of Air Pollution Monitors at different locations of Karachi.
- Allocation of budget on energy-efficient devices and appliances.



## 6. Education & Research

Ziauddin  
University  
educational and  
research efforts  
on SDG

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## 6. Education & Research

Ziauddin  
University  
educational and  
research efforts  
on SDG

- Climate Change Committee
- The first Climate Change Committee sat down to discuss leading climate issues. Mr. Butt, a leading climate change activist in Pakistan, spoke on the Pakistan Air Quality Initiative and the committee included many others such as Eric Sharoon, Muaz Shah and more

## 6. Education & Research

Ziauddin  
University  
educational and  
research efforts  
on SDG

- Climate Change Committee



# 6. Education & Research

Ziauddin University educational and research efforts on SDG

ZU SEMINAR

## 36 percent of Pakistan’s glaciers will disappear by 2100: experts

News Desk

In Pakistan, condition of climate change is very dangerous. Worldwide Pakistan is the 7th most vulnerable country to climate change and 3rd in South Asia. According to the Massachusetts Institute of Technology MIT, USA, 36 percent of Pakistan’s glaciers will disappear by 2100. Our glaciers are melting at unprecedented rates due to climate change.

Experts made these observations at an interactive public awareness seminar organised by the Department of Centre for Human Rights, Faculty of Law, Ziauddin University, and themed “Global Warming to Global Warning – A Social Justice Seminar on Climate Change” at Ziauddin University, according to a press release is-



An expert speaks at an interactive public awareness seminar organised by the Department of Centre for Human Rights, Faculty of Law, Ziauddin University — Photo courtesy: ZU



## 6. Education & Research

### QUESTIONNAIRE RECORDS

- Number of subjects related to sustainability offered are 70
- Numbers of subjects offered as per colleges and faculty along with diploma courses.
- The ratio of sustainability subjects to total subjects is > 5-10%

## 6. Education & Research

### QUESTIONNAIRE RECORDS

- The ratio of sustainability research funding to total research funding is  $> 40\%$
- Number of events related to sustainability is 5 – 17.
- Number of scholarly publication on sustainability is 1 – 20.
- Number of student organization related to sustainability is 0.
- University sustainability website: [www.zu.edu.pk](http://www.zu.edu.pk)

## 6. Education & Research



22 June 2018



23 January 2019



15 October 2019



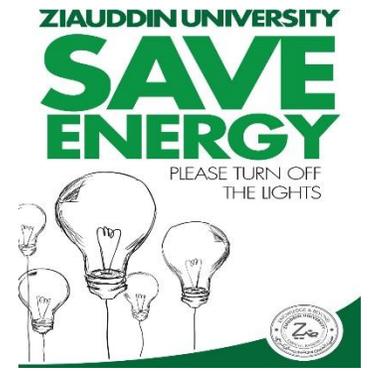
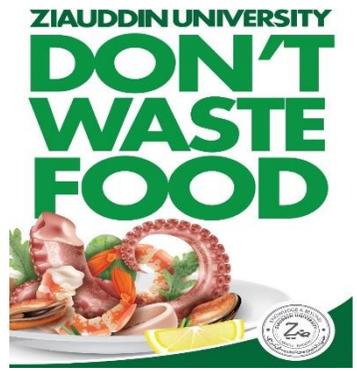
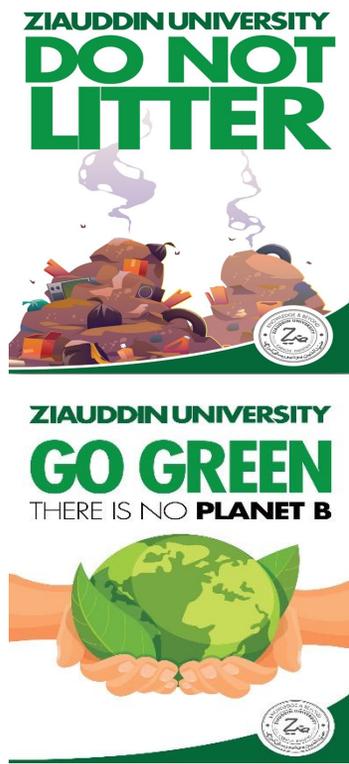
8 June 2020

**A little efforts by Chairperson Civil Engineering, Engr. Syed Faraz Jafri**

**Ziauddin University's exertions for Green Environmental structure at all its campuses sites**



# 6. Education & Research



*Thank you*