Does your university have a carbon reduction target covering Scope 1 & 2 emissions by at least 2050? If not, please leave the evidence field blank

Air University Islamabad has installed a **1,040 kW Solar Photovoltaic System** on the Main Campus. The system is roof-mounted and serves the **Administration Block, Academic Blocks, and Research Facilities**. This renewable energy initiative significantly reduces dependence on the national grid and contributes to sustainable campus operations.

No	Renewable Energy Source	Production (kWh per year)
1	Solar Panels (Roof-mounted)	**950,000 kWh**
2	Biodiesel	–
3	Biomass	–
4	Windmill	–
Total		**950,000 kWh**

Electricity Usage (per year): 1,583,520 kWh
Ratio of Renewable Energy Production:
950,000 ÷ 1,583,520 = **60%**
Air University South Sub Campus has recently initiated renewable energy projects to reduce dependence on conventional electricity sources and promote sustainability. A 500 kW solar power installation is currently in progress, which is expected to become operational in the upcoming year. Once fully functional, this solar facility will contribute significantly to the campus's overall electricity supply.
Estimated Renewable Energy Contribution

No.	Renewable Energy	Production (in kWh)
1	**Solar Panel (in progress)**	**500,000**

Total Renewable Energy Production (Projected): 500,000 kWh
Total Electricity Usage (Estimated): 3,000,000 kWh
Renewable Energy Share: (500,000 / 3,000,000) × 100% = 16.6%

Additional evidence link (i.e., for videos, more images, or other files that are not included in this file):
Template for Evidence(s)
UI GreenMetric Questionnaire

University : Air University, Islamabad (Kamra Campus)
Country : Pakistan
Web Address : https://www.au.edu.pk/

2 Energy and Climate Change (EC)

2.8 The ratio of renewable energy production divided by total energy usage per year

Description:

Installed Solar System at AUAACK

Description:

No	Renewable Energy	Production (in kWh)
1	Solar panel	250
	Total	250

250 / 500 (Electricity usage) = 50%.

Template for Evidence(s)

Description:

(*Please describe the renewable energy sources on your campus. The following is an example of the description. You can describe more related items if needed*.)

No	Renewable Energy	Production (in kWh)
1	Solar panel	11842.5
	Total	46458.8

46458.8 / 25329.6 (Electricity usage) = 29.5 %

Solar Plates installed at Air University Multan Campus

Solar Plates installed at Air University Multan Campus

Solar Plates are installed on Roof Top of Buses Shed Solar Plates are

Description:

Air University Multan Campus is actively transitioning toward sustainable energy use by adopting solar power as its primary energy source. The university has installed a comprehensive solar power system across its premises, including 145 panels on the buses shed, 445 on the academic block rooftop, and 236 on the boys' hostel rooftop—totaling 826 solar panels. Each panel is rated at 545 watts, giving the system a combined capacity sufficient to produce up to **45,000 units of electricity per month** (approximately **540,000 units per year**).

The campus's peak electricity demand during summer reaches **36,000 units per month**, or **432,000 units annually**. This means the solar system can generate **more than 100%** of the annual energy requirement, showcasing the campus's self-sufficiency and commitment to renewable energy.

No	Renewable Energy	Production (in kWh)
1	Solar Energy	45000
	Total	45000

Total electricity consumptions in peak hours is 36000 per month.

45000 / 36000 (Electricity usage) = 1.25

100% solar energy used in peak hours.

Additional evidence link (i.e., for videos, more images, or other files that are not included in this file):


1250 kVA
1250 kVA


630 kVA
630 kVA

Description:

Given:

- **Renewable energy (solar) production = 250,000 kWh**
- **Total electricity usage = 279,000 kWh**

$$\text{Ratio} = \frac{250,000}{279,000} = 0.896$$

✅ **Renewable Energy Ratio = 0.896 (≈ 89.6%)**
Interpretation:
Approximately 89.6% of the total electricity consumption at Fazaia Bilquis College of Education for Women is generated through solar energy, reflecting a strong commitment to renewable energy utilization and sustainable campus operations in alignment with Air University's green energy vision.

Template for Evidence(s)
UI GreenMetric Questionnaire

University : Air University Islamabad
Affiliated College: Fazaia college of Education for women Peshawar.
Country : Pakistan
Web Address : www.fcwp.edu.pk

[2] Energy and Climate Change (EC)

[2.8] ratio of renewable energy production divided by total energy usage per year (EC.5)

Description:

Solar Usage = 18200 kWh/year

Template for Evidence(s)

University : Air University Islamabad
Country : Pakistan
Web Address : au.edu.pk

[2] Energy and Climate Change (EC)

[2.8] ratio of renewable energy production divided by total energy usage per year (EC.5)

Example of Generator at FCoE, used to settle electricity issues at FCoE, Lahore

Another view at
(Fazaia College of Education for Women, Lahore)

Description:

(*Please describe the renewable energy sources on your campus. The following is an example of the description. You can describe more related items if needed*.)

No	Renewable Energy	Production (in kWh)
1	**Solar panel**	**15.000**

2	Generator	3.000
	Total	26.500

Carbon footprint reduction measures, renewable energy initiatives, or environmental monitoring systems

Air University Multan Campus is actively engaged in reducing its environmental impact through initiatives focused on carbon footprint reduction and broader environmental sustainability. A key pillar of this commitment is the promotion of green campus practices that enhance ecological balance and contribute to climate resilience. Among these efforts, Tree Plantation Drives serve as the primary and most impactful activity, directly supporting the university's objective of fostering a greener and more sustainable environment. These initiatives reflect a proactive approach toward addressing climate change challenges at the institutional level while encouraging environmental stewardship among students and staff.

The Tree Plantation Drives play a crucial role in carbon sequestration by increasing green cover across the campus, thereby absorbing carbon dioxide and improving air quality. These activities also contribute to enhanced biodiversity, soil conservation, and the overall ecological health of the region. Beyond their environmental benefits, these drives significantly raise awareness about climate change and the importance of individual and collective action in mitigating its effects. By actively involving students, faculty, and stakeholders, the university ensures that sustainability becomes a shared responsibility and an integral part of campus culture.

These environmental initiatives are strongly aligned with SDG 13 (Climate Action), reflecting the institution's commitment to combating climate change through practical, measurable actions. Through continuous plantation efforts and awareness campaigns, Air University Multan Campus reinforces its dedication to creating a low-carbon, environmentally responsible academic environment. These initiatives not only contribute to global climate goals but also help develop environmentally conscious graduates who are equipped to promote sustainability in their future endeavors.

The following are the related events held at the campus, attached with SDG alignment and supporting pictures are provided as evidence below:

Tree Plantation Drive with Allied Bank – 16th May 2024

Air University Multan Campus, in collaboration with Allied Bank, organized a Tree Plantation Drive on May 16, 2024, to promote environmental sustainability and green initiatives. Faculty members, students, and representatives from Allied Bank actively participated in planting a variety of trees across the campus, reinforcing the importance of ecological conservation.

The event aimed to raise awareness about climate change, air purification, and the long-term benefits of afforestation. Participants were encouraged to take responsibility for nurturing the planted trees, ensuring their growth for a greener future.

Alignment with SDGs

The initiative aligns with the United Nations Sustainable Development Goals (SDGs) in the following ways:

SDG 13: Climate Action – The plantation drive contributes to reducing carbon footprints and combating climate change through afforestation.

SDG 15: Life on Land – Planting trees helps restore ecosystems, promote biodiversity, and prevent soil erosion.

SDG 17: Partnerships for the Goals – Collaboration with Allied Bank highlights the importance of corporate and academic partnerships in addressing global sustainability challenges.

Tree Plantation Drive at Air University Multan Campus

Air University Multan Campus organized a Tree Plantation Drive on February 27, 2025, as part of its commitment to environmental sustainability and community engagement. Faculty members, students, and administrative staff actively participated in planting trees across the campus to promote a greener environment.

Alignment with SDGs

The initiative aligns with the United Nations Sustainable Development Goals (SDGs), particularly:

SDG 13: Climate Action – By increasing green cover, the plantation drive contributes to reducing carbon footprints and mitigating climate change.

SDG 15: Life on Land – Enhancing biodiversity and restoring degraded land by promoting afforestation efforts.

SDG 11: Sustainable Cities and Communities – Contributing to a healthier and more sustainable urban ecosystem.


PLANTING A TREE


PLANTING A TREE

Air University Islamabad – Main Campus

Air University Islamabad has recently initiated several measures to reduce greenhouse gas (GHG) emissions and minimize the campus carbon footprint. These programs focus on sustainable mobility, renewable energy, and awareness campaigns, aligning with the university's vision for a greener and cleaner future.

Key Initiatives

1. Promoting Clean Energy Transportation

- **E-Bikes Distribution Program: Air University has launched a new project to distribute electric bikes (E-bikes) among students, staff, and faculty members.**
- **The program aims to encourage the use of clean energy vehicles, significantly cutting down carbon emissions from petrol and diesel-based transport.**
- **Charging stations powered by the university's 1,040 kW solar system are being integrated to make the initiative more sustainable.**

2. Incentivizing Eco-Friendly Vehicles

- **Reserved parking spaces for electric and hybrid vehicles.**
- **Reduced parking charges for low-emission vehicles.**
- **Awareness campaigns to encourage adoption of sustainable transport options.**

3. Promoting Ride Sharing

- **Carpool Parking Stickers: Vehicles with multiple passengers are given priority parking.**
- **Awareness drives are conducted to promote carpooling culture, aiming to reduce the total number of single-occupancy vehicles on campus.**

4. Supporting Public Transportation

- **Collaboration with local transit services to provide convenient access for students and staff.**
- **Incentives such as discounted passes for those who regularly use public transport.**

5. Encouraging Alternative Modes of Transport

- **Safe and secure bicycle parking facilities across the campus.**
- **Walk-friendly pathways and shaded pedestrian routes to encourage walking.**

6. Awareness and Engagement

- **Workshops and seminars conducted on the impact of transportation on climate change.**
- **Student-led campaigns and sustainability clubs actively engaged in promoting green mobility.**

7. Monitoring and Reporting

- **ICT-based systems for monitoring the reduction of GHG emissions.**
- **Annual sustainability reports quantify the contribution of E-bikes, carpooling, and renewable energy in lowering emissions.**
- **Continuous evaluation of transport initiatives ensures further improvements.**

Example Outcomes (Expected)

- **Reduction in on-campus fuel-based vehicle use by 20% in the first year of E-bike distribution.**
- **Lower traffic congestion and emissions within the campus.**
- **Increased adoption of clean and shared mobility options by the Air University community.**

MVI_0812.MP4


METRO


METRO


IMMEDIATE DELIVERY
METRO


METRO
METRO
METRO

MVI_0864.MP4

Description:
(***Elements of Green Building Implementation at Air University South Sub Campus***

*Air University South Sub Campus has incorporated several **green building and sustainability practices** to minimize its environmental footprint and align with international green campus standards. The following initiatives reflect the campus's commitment to sustainable development:*

1. ***Designated Charging & Parking Facilities** – The campus provides dedicated parking and is planning for **charging stations for electric and hybrid vehicles**, encouraging the gradual shift from conventional fuel-based transport and reducing the number of private vehicles inside the campus.*
2. ***Renewable Energy Integration** – A **500 kW solar power installation** is in progress, aimed at reducing dependency on grid electricity and promoting clean, renewable energy usage across academic and administrative buildings.*
3. ***Carpool & Ride-Share Programs** – The campus promotes **carpooling and ride-sharing initiatives** for students, staff, and faculty, encouraging sustainable commuting practices, reducing traffic congestion, and lowering carbon emissions.*
4. ***Pedestrian-Friendly Design** – Walkways and shaded green areas are developed to encourage walking within the campus and reduce short-distance vehicle use.*

5. ***Green Landscaping & Water Conservation*** *– Native plantation, water-efficient irrigation, and rainwater harvesting practices are being introduced to conserve water while maintaining a sustainable and eco-friendly campus environment.*

Additional evidence link (i.e., for videos, more images, or other files that are not included in this file):

- https://carleton.ca/sustainability/campus/sustainable-transportation/carpool/


MVI_0851.MP4


MVI_0849.MP4


MVI_0847.MP4


MVI_0843.MP4


MVI_0864.MP4

[2.10] Greenhouse gas emission reduction program (EC.7)

Air University Islamabad – Main Campus

Air University Islamabad has recently initiated several measures to reduce greenhouse gas (GHG) emissions and minimize the campus carbon footprint. These programs focus on sustainable mobility, renewable energy, and awareness campaigns, aligning with the university's vision for a greener and cleaner future.

Key Initiatives

1. Promoting Clean Energy Transportation

- **E-Bikes Distribution Program: Air University has launched a new project to distribute electric bikes (E-bikes) among students, staff, and faculty members.**
- **The program aims to encourage the use of clean energy vehicles, significantly cutting down carbon emissions from petrol and diesel-based transport.**
- **Charging stations powered by the university's 1,040 kW solar system are being integrated to make the initiative more sustainable.**

2. Incentivizing Eco-Friendly Vehicles

- **Reserved parking spaces for electric and hybrid vehicles.**
- **Reduced parking charges for low-emission vehicles.**
- **Awareness campaigns to encourage adoption of sustainable transport options.**

3. Promoting Ride Sharing

- **Carpool Parking Stickers: Vehicles with multiple passengers are given priority parking.**
- **Awareness drives are conducted to promote carpooling culture, aiming to reduce the total number of single-occupancy vehicles on campus.**

4. Supporting Public Transportation

- **Collaboration with local transit services to provide convenient access for students and staff.**
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5. Encouraging Alternative Modes of Transport

- **Safe and secure bicycle parking facilities across the campus.**
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- **Workshops and seminars conducted on the impact of transportation on climate change.**
- **Student-led campaigns and sustainability clubs actively engaged in promoting green mobility.**

7. Monitoring and Reporting

- **ICT-based systems for monitoring the reduction of GHG emissions.**
- **Annual sustainability reports quantify the contribution of E-bikes, carpooling, and renewable energy in lowering emissions.**
- **Continuous evaluation of transport initiatives ensures further improvements.**

Example Outcomes (Expected)

- **Reduction in on-campus fuel-based vehicle use by 20% in the first year of E-bike distribution.**
- **Lower traffic congestion and emissions within the campus.**
- **Increased adoption of clean and shared mobility options by the Air University community.**

MVI_0812.MP4


METRO


METRO


IMMEDIATE DELIVERY
METRO


METRO
METRO
METRO

MVI_0864.MP4

*Air University South Sub Campus has incorporated several **green building and sustainability practices** to minimize its environmental footprint and align with international green campus standards. The following initiatives reflect the campus's commitment to sustainable development:*

6. ***Designated Charging & Parking Facilities** – The campus provides dedicated parking and is planning for **charging stations for electric and hybrid vehicles**, encouraging the gradual shift from conventional fuel-based transport and reducing the number of private vehicles inside the campus.*
7. ***Renewable Energy Integration** – A **500 kW solar power installation** is in progress, aimed at reducing dependency on grid electricity and promoting clean, renewable energy usage across academic and administrative buildings.*
8. ***Carpool & Ride-Share Programs** – The campus promotes **carpooling and ride-sharing initiatives** for students, staff, and faculty, encouraging sustainable commuting practices, reducing traffic congestion, and lowering carbon emissions.*
9. ***Pedestrian-Friendly Design** – Walkways and shaded green areas are developed to encourage walking within the campus and reduce short-distance vehicle use.*
10. ***Green Landscaping & Water Conservation** – Native plantation, water-efficient irrigation, and rainwater harvesting practices are being introduced to conserve water while maintaining a sustainable and eco-friendly campus environment.*

Additional evidence link (i.e., for videos, more images, or other files that are not included in this file):

- https://carleton.ca/sustainability/campus/sustainable-transportation/carpool/


MVI_0851.MP4


MVI_0849.MP4


MVI_0847.MP4


MVI_0843.MP4


MVI_0864.MP4

s**Template for Evidence(s)**
UI GreenMetric Questionnaire

University : ...AU KARACHI SSUB CAMPUS
Country : ...
Web Address : …

Description: Green Building Implementation – Air University Karachi Sub Campus
Air University Karachi Sub Campus has incorporated several green building and sustainable infrastructure practices to minimize environmental impact and promote a clean, energy-efficient learning environment. The campus design integrates green principles that support energy conservation, sustainable transportation, and resource efficiency.

1. **Charging Parking for Electric and Hybrid Vehicles:**
   The campus has designated charging stations for electric and hybrid vehicles, encouraging students, faculty, and staff to shift towards eco-friendly transportation. This initiative helps reduce on-campus carbon emissions and aligns with the university's goal of promoting zero-emission mobility.
2. **Use of Renewable Energy Sources:**
   A portion of the campus's electricity is generated through solar energy systems installed on rooftops and open areas. This clean energy reduces dependence on grid-based electricity and contributes to lower greenhouse gas emissions. Continuous monitoring ensures efficient utilization of renewable resources.
3. **Carpool and Ride-Share Programs:**
   To reduce traffic congestion and vehicle count on campus, the Karachi Sub Campus encourages carpooling and ride-sharing initiatives among students and staff. This practice not only promotes community interaction but also reduces the overall carbon footprint associated with daily commuting.
4. **Energy-Efficient Building Design:**
   Buildings are equipped with LED lighting, natural ventilation systems, and insulation materials that enhance thermal efficiency. These measures help maintain comfortable indoor conditions while minimizing energy consumption.
5. **Green Landscaping and Open Spaces:**
   The campus maintains extensive green areas and shaded spaces to support biodiversity and provide natural cooling effects. These open spaces also help in reducing the urban heat island effect and improving air quality.
6. **Water and Waste Management:**
   The Karachi Sub Campus incorporates rainwater harvesting systems and waste segregation bins to promote responsible water use and recycling practices.

Through these initiatives, Air University Karachi Sub Campus demonstrates a strong commitment to sustainability, aligning its infrastructure development with the Green Building Index (GBI) standards and contributing to SDG 7 (Affordable and Clean Energy), SDG 11 (Sustainable Cities and Communities), and SDG 13 (Climate Action).
Additional evidence link (i.e., for videos, more images, or other files that are not included in this file):

- https://carleton.ca/sustainability/campus/sustainable-transportation/carpool/

Energy-efficient appliances installed at Air University Multan Campus

Solar Energy system installed at campus

Green Fields and Forest within Air University Multan Campus

Description:

Air University Multan Campus is actively committed to reducing its greenhouse gas (GHG) emissions through a range of strategic programs and initiatives aligned with sustainable development goals. A cornerstone of this commitment is the extensive use of energy-efficient appliances across campus facilities, which significantly lowers electricity consumption and reduces carbon emissions. Complementing this effort is the successful implementation of a solar

power project that supplies the campus's entire electricity demand through renewable energy, effectively eliminating reliance on fossil fuels for power generation.

The campus also focuses on improving fuel efficiency in its transportation services by upgrading and maintaining university buses, thereby decreasing emissions from vehicle operations. This initiative not only minimizes the campus's carbon footprint but also promotes sustainable transport practices among students and staff.

In addition to energy and transportation measures, Air University Multan Campus prioritizes expanding green spaces by planting native trees and increasing overall campus greenery. These efforts enhance carbon sequestration, improve air quality, and create a healthier environment for the university community.

Collectively, these programs demonstrate the campus's proactive approach to mitigating climate change impacts by reducing GHG emissions across energy use, transportation, and land management sectors. Air University Multan continues to explore innovative solutions to strengthen its environmental stewardship and lead by example in sustainable campus development.


630 kVA
630 kVA


GREE

-

- **Description:**
- Fazaia Bilquis College of Education for Women has established a comprehensive Greenhouse Gas (GHG) Reduction Program focused primarily on cutting greenhouse emissions from purchased electricity.
-
- The strategy's most direct impact comes from initiatives that reduce energy consumption and generate clean power. This includes implementing energy efficiency upgrades (like LEDs and efficient appliances), a planned solar power installation to displace grid electricity, and a building design that maximizes natural light to reduce artificial lighting needs.
-

- The program is further strengthened by foundational efforts that support a culture of sustainability. These include an ICT infrastructure capable of supporting future smart energy management, the conservation of natural areas that act as carbon sinks, and awareness events that instill sustainable habits to ensure long-term effectiveness and reduce future indirect (Scope 3) emissions.

- **Summary Table: Linking Initiatives to GHG Reduction**

College Initiative	Link to GHG Reduction Program	Impact
Energy Efficiency Upgrades	**Direct Reduction:** Lowers electricity consumption, reducing demand for grid power and its associated emissions.	High
Solar Power Installation	**Direct Avoidance:** Generates zero-carbon electricity, displacing emissions-intensive grid power.	Very High
Sunlight-Optimized Design	**Direct Reduction:** Lowers lighting-related electricity consumption.	Medium
Natural Conservation	**Sequestration:** Trees and plants absorb and store CO2 from the atmosphere, offsetting emissions.	Medium
ICT Infrastructure	**Enabling Technology:** Provides data for measuring, managing, and optimizing energy use to minimize waste.	Foundational
Conservation Policy & Awareness	**Behavioral Change:** Creates a culture of efficiency, ensuring long-term sustainability of GHG reductions.	Critical for Long-Term Success

- **Conclusion:** The College is not just randomly implementing green projects; it is effectively executing the core components of a strategic GHG reduction program. By focusing on energy efficiency and renewable energy, it is directly attacking its largest source of emissions. The next step is to formally measure these reductions and set public targets to frame these actions within a recognized climate action framework.

- **Description:**
- **Greenhouse gas emission reduction programs**
- (a) Solar Energy
- (b) Energy Efficient appliances
- (c) Well-ventilated, well-lit classrooms
- (d) Water Recycling
- (e) Cut trees & Branches as fuel
- (f) Green Lawns
- (g) Fruits Trees as food
-

-

[2.10] Greenhouse gas emission reduction program (EC.7)

2. Green Sideways with plants

3. MoU Signed with Abrro Foundation for Environment Sustainablity

Description:

Highlights of FCoE, Step Towards Sustainability:

1. Solar Panel Implementation at campus which take load 100% of whole college
2. Using renewable energy for electricity that reducing purchased electricity
3. Green plants initiative taken by all departments of FCoE, Lahore campus
4. For Paper and Plastic recycling, an MOU is signed by the Abroo Foundation

Additional evidence link (i.e., for videos, more images, or other files that are not included in this file):
Link:

https://www.instagram.com/reel/DKOhhBtq-SE/?igsh=cDlsMGVoczJxejFm

https://www.instagram.com/reel/DNfIHjzKrjs/?igsh=cnl2bTRqZDY0ejEw

UI Green Metric Ranking 2022

University : FMC, Air University Islamabad
Campus : Main Campus
Country : Pakistan

Web Address: https://fazaiamedical.edu.pk/

Energy and Climate Change (EC)

Sr # 2.10 Greenhouse gas emission reduction program

Description:

The fazia medical college has made sure that all teachers, staff, and students adhere to the university's carbon emission policy in order to reduce air and land pollution.

- **The college is implementing a sticker van system to minimize the number of cars and vans on campus.**
- **Using renewable energy for electricity that is helping in reducing the cost of electricity**
- **Ride share is designed to encourage commuters to adopt healthy and sustainable transportation options.**
- **Provision of Shuttle service to Students, staff, and faculty to reduce the traffic of private vans at the University.**
- **The above-mentioned car riding system is working outside the University premises which is very easy to access and the luxury travel system is also cost-effective.**
- **The cost-effective car ride system to give easy access to transport services for people by bringing them online," while also cutting travel costs and use of fuel.**

Policy Low Carbon Emission

General

1. Speedy and unexpected climate changes have become a serious concern globally. Pollution, noise pollution, and smog adversely affect Pakistan's population. The education sector is adequately affected due to its location in the metropolitan cities of Pakistan. There is a dire need to formulate policies to mitigate climate change (reducing greenhouse gas emissions and removing greenhouse gases from the atmosphere). So that the climate does not change as much or as quickly as it is being deteriorated. To avoid the worst effects of warmer temperatures, extreme weather, and high carbon emission vehicles, Air University is adequately mindful of such pollution and takes appropriate measures to minimize the effects within the campus area.

Aim

2. To curtail the amount of greenhouse carbon emission gases within University premises while taking appropriate measures well within resources and to develop awareness on pollution control, and waste papers management to have a better atmosphere for education.

Carbon Emission Vehicles

3. Air University maintains an organized transportation network within and outside the campus for students, staff, and visitors. Air University has formulated a procedure for regular transport shuttle service. The environment-friendly vehicles with Euro II and IV standards run twice a day within the campus and are charged by the users.

4. Air University has also ensured that vehicles plying within the campus are Catalectic Converter fitted and those vehicles are issued with e-tags for entry and exit. Visitors' vehicles are parked outside the campus at a designated parking area. The visiting hours are spaced out to prevent excessively many parked and moving cars from interfering with class times and to reduce noise pollution.

5. Efforts are being made to reduce the high volume of vehicles coming into the campus. Students are encouraged to use bicycles and electric or low-power motorcycles that have separate entrances and parking areas designated to reduce carbon emissions in the academic and research sectors.

6. Commuter vehicles are not permitted on campus, thus many students and staff use the online pick-up and drop-off services using bikes, vans, and cars that are parked at a distance. The majority of students arrive via bike sharing, which lowers the amount of entering cars the university's grounds.

7. Additionally, buses used for routine transportation are parked in a restricted parking area and may only enter through certain gates. Early in the morning, these vehicles begin their routes and arrive at the university roughly 30 minutes before

courses begin and 15 minutes after they end. For the pick-up and drop-off of students and staff, they leave the building.

6. In order to improve their health and reduce carbon emissions, students and employees are urged to walk short distances inside the university's boundaries. To offer shade and offset carbon emissions, a sizable number of healthy trees and plants are planted and maintained.

7. Buses, coaches, or vans are arranged as needed, both inside and beyond the city, for events like club activities, study tours, recreational trips, industrial visits, inter-university championships, etc.

Papers Waste management

8. SOPs for paperless work has been formulated and as much office work as possible is being developed on computers. Double-sided printing of paper is mandatory to economize on stationary costs and to reduce paper waste.

9. At designated locations on campus, paper shredders are used for waste papers and materials. A registered vendor then removes the shredded debris from the school for disposal.

10. No one is allowed to burn waste papers, plastic bags, or any other material to avoid pollution/smoke/smog.

11. The usage of plastic or paper bags is prohibited on campus, and security personnel and CCTV cameras constantly check for compliance. Despite consumer instructions to refrain from using plastic bags, vendors on campus sell their wares in paper bags and with disposable cutlery.

12. Use the Air University LMS portal to provide course materials, e-books, questionnaires, and assignments to students.

13. To reduce the use of paper, faculty members of all the programs of the University provide their lecture handouts on LMS Portal as soft copies. Most students read the course using these electronic copies..

14. While spent confidential documents, such as exam papers, are destroyed by shredders, used non-confidential materials are sold to nearby paper recycling businesses. Waste papers are delivered to mills that make paper in order to create recycled paper, which may be purchased for less money.

Conclusion

15. In Pakistan's major cities, reducing pollution with an emphasis on low carbon emissions and removing carbon monoxide from the air where people are working has grown to be an enormous burden for the government and the public sector. This threat can only be lessened if all citizens take ownership of addressing all forms of pollution, starting in their homes and moving to their places of employment.

(Abdul Hayee)

Air Commodore Retired

Director A & S

Air University, Islamabad

Option 2: Recommended by UI GreenMetric

CO_2 (electricity)

$$= \frac{2,451,724}{100} \times 0,84$$

$= 20594$metric tons

CO_2 (bus)

$$= \frac{\text{number of shuttle bus in your university} \times \text{total trips for shuttle bus service each day} \times \text{approximate travel distance of vehicle each day inside campus only } (KM) \times 240}{10} \times 0,01$$

$= 17x4x4x240x0.01$
100

$= 6.52$ metric tons

CO_2 (cars)

$$= \frac{\text{number of cars entering your university} \times 2 \times \text{approximate travel distance of vehicle each day inside campus only (KM)} \times 240}{10} \times 0,02$$

$=$
$550x2x1x240x0.02/10$
0

$= 52.8$ metric tons

CO_2 (motorcycle)

$$= \frac{\text{number of motorcycle entering your university} \times 2 \times \text{approximate travel distance of vehicle each day inside campus only (KM)} \times 240}{10} \times 0,01$$

$= 1100x2x2x240x0.01$
100

$= 105.60$ metric tons

CO_2 (total)

$= 2072.92$metric tons

Carbon footprint in the Year = 2072.92 metric tons

Example of Total Carbon Footprint (UI

(Dr. Salman Hasan Khan)
Director Quality
Air University, Islamabad
Tel# +92519153289

IBD/AU/943/2/QEC April, 2026