SDG
07
AFFORDABLE AND CLEAN ENERGY

EVIDENCE DOCUMENT | INDICATOR 7.2.3

Carbon management and reducing carbon dioxide emissions

METRIC 7.2 University measures towards affordable and clean energy

REFERENCE YEAR	COVERAGE	DATE PREPARED
In place by 2025	All campuses and constituent units; Scope 1, 2 and 3 emissions	5 November 2026

ISSUING OFFICE	EVIDENCE ID
Directorate of Quality Assurance, Head Office	E-07-7.2.3

THE SIR 2027 REQUIREMENT

Does your university as a body have a process for carbon management and reducing carbon dioxide emissions?

01 Statement of Evidence

Bahria University's direct answer to the requirement

Yes. Bahria University has a process for carbon management and reducing carbon dioxide emissions. CORE-CF coordinates greenhouse gas inventory and carbon accounting, supported by campus records, the Environmental Management Plan framework and assigned reporting responsibilities. Its 2024-25 inventory records 414.84 tCO2e of Scope 1, 3,554.18 tCO2e of Scope 2 and 17,182.51 tCO2e of Scope 3 emissions, a total of 21,151.53 tCO2e. CORE-CF was formally established on 24 November 2025. The Sustainability and Climate Action Policy (BU-SCAP-2025), effective 7 December 2025, assigns inventory and compliance coordination to CORE-CF (para 4.2) and requires annual inventories under the GHG Protocol and ISO 14064-1, a 2024 baseline and third-party verification (para 8.1). It commits to a 50 per cent reduction in Scope 1 and 2 emissions by 2040 (para 3.1). The University's institutional commitment, set in the Carbon Emissions Management Policy and led by CORE-CF, is net zero across all scopes by 2050, with a 50 per cent absolute reduction by 2040, supported by carbon budgets, quarterly reviews, internal audit, verification and public reporting. The current HSE Policy requires a Climate Action Plan, Scope 1 to 3 measurement, carbon targets and annual energy audits (para 6.2), campus management plans and monitoring (paras 6.3 to 6.6), and solar transition, transport emission monitoring and environmental audits (para 6.21). Its register records editions in 2021, November 2025 and July 2026; the current wording is presented as the reviewed 2026 policy. Delivery includes 923,403 kWh of on-campus solar generation in 2025 and 325 trees planted at Health Sciences Islamabad in February and March 2025.

02 Evidence and Activity Record

Dated facts and records that substantiate the statement

Section 1 presents the HSE Policy, amendment register, complete contents and carbon management extracts. Section 2 presents CORE-CF and its establishment records; Section 3 presents the 2024-25 greenhouse gas inventory. Sections 4 and 5 present the Carbon Emissions Management Policy and Sustainability and Climate Action Policy, with their separately stated targets and management requirements. Section 6 records implementation and photographs, and Section 7 summarises the evidence.

TABLE 1 Process for carbon management and reducing carbon dioxide emissions, in place by 2025

No.	Element	Record	Provision	Date	Evidence
1	Commitment	Climate Action Plan; Scope 1 to 3 measurement; carbon targets; energy audits and renewable KPIs	All campuses	Reviewed 22 Jul 2026	HSE para 6.2(a–f)
2	Management cycle	Campus Environmental Management Plans; continuous improvement cycle; monitoring by Earth and Environment Sciences	Each campus	Reviewed 22 Jul 2026	HSE paras 6.3–6.6, 6.22
3	Reduction measures	Transport emission monitoring; mass transit and electric vehicles; solar transition; annual footprint audits	Annual audit	Reviewed 22 Jul 2026	HSE para 6.21
4	Data and oversight	Campus data sent to Head Office; CORE-CF supports consolidation; campus management and funding	As required	Reviewed 22 Jul 2026	HSE paras 6.23–6.25
5	Responsible centre	CORE-CF established; coordinates the greenhouse gas inventory and carbon accounting	Head and Manager, CORE-CF	24 Nov 2025	Registrar Notification No. 60/2025; SCAP, para 4.2
6	Measurement	2024-25 inventory across six campus units: 21,151.53 tCO2e in Scopes 1 to 3	Annual inventory	2024-25	CORE-CF inventory record; Section 3
7	Carbon management cycle	Annual inventory; assigned responsibilities; campus carbon budgets; quarterly review; internal audit; verification and public reporting	Annual	SCAP effective Dec 2025	CEMP, paras 1.2, 4, 5, 6.3, 9, 11; SCAP, para 8.1
8	Targets	Institutional commitment (CEMP and CORE-CF webpage): net zero across all scopes by 2050; 50% absolute reduction by 2040. SCAP: 50% Scope 1 and 2 reduction by 2040.	FY2024 baseline	SCAP effective 7 Dec 2025	SCAP 1.2, 3.1; CEMP 1.2; webpage
9	Reductions delivered	923,403 kWh solar generation; energy audits; tracked electricity reduction; 325 trees planted and campus plantation drives	Under way	2024-25; 2025	Section 6

1. Health Safety and Environment Policy

The HSE Policy amendment register records the first edition of 15 November 2021, a second edition of 22 November 2025 under the Director Admin, and a third edition of 22 July 2026 (BU-HO/Admin/2026/827). The current third edition is reproduced below; its wording is presented as the reviewed 2026 policy, separately from the dated carbon inventory and implementation records.

The policy applies to all premises, operations and activities under University control (para 1.3), including the Head Office, campuses and constituent units (para 1.6). Para 6.2 requires a Climate Action Plan (a), measurement and reporting of greenhouse gas emissions in Scopes 1, 2 and 3 (b), carbon reduction targets including long-term net-zero commitments (c), annual energy audits against defined benchmarks (d), measurable renewable energy KPIs (e), and regular webpage data updates (f). It also promotes mass travel to reduce carbon emission and continual improvement of environmental performance (l–m).

Each Campus Director prepares, implements and audits an Environmental Management Plan, with support from Earth and Environment Sciences (para 6.3). The plan follows a policy, planning, implementation, checking and management review cycle (para 6.4), maintaining continuous improvement (para 6.5(f)). Earth and Environment Sciences monitor implementation, with environmental issues addressed through the Standing HSE Committee (paras 6.6(b) and 6.22).

Para 6.21 requires sustainable commuting targets and monitoring of transport carbon emissions (a), mass transit and electric vehicles (b), a gradual campus shift to solar energy to minimise emissions (c), and annual environmental audits with footprint calculation and plan revision (d). Environmental data is forwarded to Head Office, with CORE-CF supporting consolidation and reporting (para 6.23). Campus Directors and heads of department implement, monitor and fund the policy (para 6.24); CORE-CF supports climate governance, financial planning and institutional coordination under Sustainability Governance (para 6.25).

1. HSE Policy continued


BAHRIA UNIVERSITY
ISLAMABAD

BAHRIA UNIVERSITY
أطلبوا العلم
PAKISTAN

BU HEALTH, SAFETY AND ENVIRONMENT POLICY

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Figure 1: HSE Policy, third edition, PDF page 1: cover.

1. HSE Policy continued

RECORD OF AMENDMENTS

Amendment No	Dated	Authority	Clause (s) Amended	Status
1st Edition	15 Nov 2021	Admin/Safety/2021/3224	-	superseded
2nd Edition	22 Nov 2025	Director Admin	Para 6.17 (second sentence added); Para 6.17.3 (new); Para 6.20.1 (new)	New Print
3rd Edition	22 July 2026	BU-HO/Admin/2026/827	Para 6.17 (second	New Print

Note: Amendments are to be recorded, cross-checked and their incorporation in the document authenticated (with name, designation, and signatures).

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Figure 2: HSE Policy, third edition, PDF page 2: Record of Amendments: first edition 15 November 2021; second edition 22 November 2025; third edition 22 July 2026.

1. HSE Policy continued

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1. HSE Policy continued

CHAPTER 1

INTRODUCTION TO SAFETY POLICY

1.1 Safety Policy. Maintaining high standards of Health, Safety and Environment (HSE) is an integral part of campus life at Bahria University. All employees, students, and contractors shall remain vigilant, adhere to safe working practices, and comply with the controls prescribed in this Policy. Every individual has a legal and moral responsibility to report unsafe conditions and contribute towards continuous improvement.

1.2 Policy Statement. Bahria University is committed to providing a safe and secure environment for its students, staff, and visitors through effective safety systems, procedures, and practices. Achieving this objective requires active participation at all levels. All members of BUHO and Campuses/Units are responsible for compliance within their Areas of Responsibility (AOR), with particular accountability resting on senior leadership to ensure safe conduct of all activities.

1.3 Policy Framework. This Policy applies to all premises, operations, and activities under the University's control. It establishes the framework within which responsibilities are assigned and implemented. Campus Management, through respective Heads of Departments (HODs), shall ensure compliance and enforcement at all tiers.

1.4 Aim. To ensure the safety of all individuals at Bahria University while safeguarding University assets through a structured and effective HSE framework.

1.5 Preamble. Safety is a collective responsibility and can only be achieved through coordinated effort. This Policy defines roles and responsibilities for implementation while encouraging continuous feedback to further strengthen safety practices.

1.6 Applicability. The HSE Policy shall be applicable to the following:

a. Bahria University Head Office (BUHO)
b. All Campuses of Bahria University and Constituent Units (CUs)
c. Business Incubation Centers/ Offices of Research, Innovation & Commercialization (ORIC), Islamabad.
d. Institute of Professional Psychology (IPP), Karachi.
e. National Institutes of Maritime Affairs (NIMA), Islamabad and Karachi.

1.7 Conflict in Orders. The contents of this policy shall not supersede any orders or instructions issued from time to time by BUHO or the Campus Administration. Any conflict or discrepancy observed may be referred to the Safety Dte for clarification.

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Figure 7: HSE Policy, third edition, PDF page 7: printed page 1: policy scope and campus applicability.

1. HSE Policy continued

CHAPTER 6

ENVIRONMENT PROTECTION

6.1 **Importance.** Environment plays an important role in healthy living and the existence of human life. Planet Earth is a home for different living species. We all are dependent on the environment for food, air, water, and other needs. This chapter aims to formulate and implement policies that improve the environment at various BU Campuses/ CUs. An attempt has been made to raise the level of understanding about the environment putting in place a framework where everyone joins hands to produce a healthy environment not only at BU but in other places.

6.2 **BU Environment Policy (Climate Action and Carbon Management).** The Environment Policy sets the high-level objectives for the Environmental Management Plan which shall encompass following:

a. Develop and implement a **Climate Action Plan**.

b. Measure and report **GHG emissions (Scope 1, 2 and 3)**.

c. Establish **carbon reduction targets**, including long-term net-zero commitments.

d. Annual energy audits shall be conducted with defined efficiency benchmarks.

e. Renewable energy adoption be tracked through measurable KPIs.

f. Regular updating of data on webpage (e.g. **CORE-CF** webpage).

g. Develop effective material management (from raw to waste).

h. Increase awareness of environmental responsibility among staff, students and visitors.

i. Have an environmental management system that ensures the University complies with national environmental standards.

j. Ensure that every new building, extension and renovation of University premises, including work done through contractors, meets the energy-efficiency code at para 1.15(c). The Directorate of Planning and Development shall certify compliance before design approval and keep the record.

k. Maintain the premises in an environmentally sensitive way, having regard to the protection of natural habitats and local wildlife.

l. Promote and encourage sustainable forms of mass travel by staff and students to reduce carbon emission.

m. Constantly improve BU's environmental performance.

6.3 **Organization.** The Director of respective campus shall be responsible for the preparation, implementation and audit of the Environment Management Plan (EMP). HODs Earth & Environment Sciences (E&ES) shall render help to all campuses in the city in preparation of EMP as given below. However, the implementation remains responsibility of each campus. Similar help is to be provided to all BU setups coming up in future as well:

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Figure 8: HSE Policy, third edition, PDF page 32: printed page 26: para 6.2, climate action and carbon management objectives, and para 6.3, campus responsibility.

1. HSE Policy continued

a. BUKC, BUHSCK E&ES department Karachi
b. BUIC E-8 & H-11, BUHSCI, BULC E&ES department Islamabad

6.4 **ENVIRONMENTAL MANAGEMENT PLAN (EMP).** This Environment Management Plan (EMP) establishes a mechanism for delivering on the aims and objectives of BU's Environmental Policy. EMP assigns and defines the roles and responsibilities of management to meet the requirements for maintaining environmental quality. Each Campus/ CU is to formulate EMP of its own and implement it. The expertise of faculty members (E&ES deptt) may be utilized to promote effective planning and implementation. Incentive may be considered for the subject work. The flow chart of Environment Management Policy is given below:

Flow Chart of Environmental Policy



6.5 **Purpose of the EMP**

a. Promote healthy environment through implementation of environment standards and procedures.

b. Prevent workplace illnesses caused by poor environment.

c. Avoid property losses or damage.

d. Protect the environment by reducing adverse impacts.

e. To highlight the environmental aspects of university operations and manage the impact of those aspects.

f. To ensure continuous improvement loop is established and maintained.

6.6 **Components of the EMP.** Main components of EMP include following:

a. **Organizational Structure.** The EMP has to function under the supervision of Director Campus. The HOD E&ES Islamabad/ Karachi is to advise Director Campuses/ CUs on environment issues.

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Figure 9: HSE Policy, third edition, PDF page 33: printed page 27: paras 6.4 to 6.6, Environmental Management Plan, management cycle and continuous improvement.

1. HSE Policy continued

b. **Monitoring Requirements.** The EMP has many components spread over wide range of activities falling under the management ambit of different departments. Each department is responsible of its part of environment protection efforts. However, the overall monitoring responsibility shall rest with E&ES department. Standing HSE committee meetings are appropriate forum to discuss and resolve various environmental issues.

c. **Training Requirements**. All the areas of this plan assign roles and responsibilities to personnel employed in different sections of administration and faculty. E&ES department is to identify the training needs and arrange courses at campus level. BUHO is to be kept informed on conduct of the training. Any training requirement requiring assistance/ approval of BUHO be forwarded accordingly. Proposed training programmes are as follows:

Training Required	Target Trainees	Suggested Frequency
Chemical Hygiene Training	Students & staff working in laboratories	Initial and Annual
Waste Management Training	All administrative personnel, faculty & students, lower staff	Initial and Annual
Lab Ventilation Training		Initial and Annual
Safety Orientation and Right-To-Know Training	For individuals who don't work with chemicals (potential affectees)	Initial and Annual

d. **Communication and Documentation**. All activities in and outside the campus falling under the ambit of promoting environment safety are to be recorded on paper and electronic documents as evidence. All procedural/ documentation revisions are to be communicated to respective E&ES department under intimation to Safety directorate at BUHO.

6.7 **Scope**. The scope of the EMP will focus on the following categories:

a. Waste Water/ Storm Water Management.

b. Solid Waste Management.

c. Noise & Air Monitoring and Management Options.

d. Green Energy.

6.8 **Water Management**

a. Water consumption shall be measured and the annual consumption (m^3/year) shall be recorded and posted on the relevant page.

b. The University shall also develop water sustainability dashboards for internal reporting.

6.9 **Waste/ Storm Water Management**. The purpose of the adopted procedure is

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Figure 10: HSE Policy, third edition, PDF page 34: printed page 28: para 6.6(b), monitoring responsibilities, with training and documentation requirements.

1. HSE Policy continued

6.19 **Plantation.** There are a number of ways plants can reduce noise. One way is through sound absorption. Plant parts such as stems, leaves, branches, wood, etc. absorb sound. Rough bark and thick, fleshy leaves are particularly effective at absorbing sound due to their dynamic surface area. Indoor/ outdoor plantation be encouraged to achieve better noise levels. Plant factors that affect sound absorption:

a. Number of plants (the more the better)
b. Size of the plant(s)
c. Surface area of the leaves and of the plants themselves.

6.20 **Pollution Control Technology Management.** This aspect is applicable to the areas like construction sites and experimentation laboratories using noxious chemicals, dust and biological agents. For this, exhaust hoods, local exhaust ventilation system, scrubbers and other engineering controls may be employed.

6.20.1 **Prevention of Marine Pollution.** BU is committed to preventing and reducing marine pollution of all kinds, in particular pollution from land-based activities. Every Campus/CU, and in particular those in Karachi, shall:

a. prevent untreated sewage, wastewater and hazardous effluent from reaching drains, nullahs, rivers or the sea (paras 6.9 to 6.11);
b. control storm-water runoff from campuses and construction sites so that sediment, oil, chemicals and litter do not enter water bodies;
c. stop plastic and other solid waste from entering drains and water bodies (paras 6.12 to 6.17);
d. store fuel, oil and chemicals with secondary containment and keep spill kits; and
e. require contractors and suppliers on University premises to comply with this para.

The Earth and Environment Sciences departments shall monitor implementation, and the Director Campus shall report any spill or discharge to the Standing HSE Committee within three days.

6.21 **Reducing Environmental Foot Prints**. This significantly important aspect needs to be covered through following options:

a. BU shall define sustainable commuting targets. Monitoring systems shall track:

(1) Vehicle usage.
(2) Carbon emissions from transport.
(3) University-owned vehicle movement (via digital applications).

b. **Mass Transit/ Optimize Shuttle Service**. All campuses/ CUs are to promote means of mass transit and discourage use of private vehicles. BU shall also promote use of e-vehicles.

c. **Renewable Energy**. All campuses are to work out the option of utilizing solar energy not only to cut the cost but to minimize carbon emissions. The campuses be gradually shifted to the solar energy.

d. **Annual Environmental Audits**. Calculation of environmental footprints, cost benefit analysis be conducted by E&ES department and EMP be revised accordingly. Annual environmental audits of units be conducted annually.

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Figure 11: HSE Policy, third edition, PDF page 38: printed page 32: para 6.21, commuting, transport emissions, solar energy and annual environmental audits.

1. HSE Policy continued

6.22 Roles and Responsibilities. Each Campus/ CU shall be responsible to formulate and implement their EMP. Help from Department of Earth and Environment Sciences (E&ES) may be sought as and when required. E&ES department shall be responsible to monitor the implementation.

6.23 Director Quality Assurance. All campuses are to forward environmental data to BUHO as and when required. Director Quality Assurance at BUHO shall be responsible for obtaining Green Matrix certification from Environment Protection Agency (EPA) for all campuses, with the Head of the Center of Excellence for Core Finance supporting data consolidation, reporting coordination, and internal follow-ups across campuses.

6.24 Director Campus/ CU HODs are responsible for following:

a. Implementation of BU HSE policy.

b. Developing various plans and SOPs as per environment policy.

c. Monitoring implementation of policy parameters as per environment policy.

d. Resource management.

e. Providing sufficient funding for implementation and enforcement of Environment Policy.

f. Designating authority/ area of responsibility to E&ES coordinator.

6.25 Sustainability Governance. A Sustainability Committee shall be established. The BU Administration shall periodically review this policy in collaboration with the Center of Research Excellence Core Finance. The CORE-CF shall support:

a. Climate governance.

b. Financial planning for sustainability.

c. Institutional coordination.

6.25 SDG Alignment, Monitoring & Reporting. BU shall align its policies and operations with the UN Sustainable Development Goals (SDGs). A Sustainable Report (Waste, Emissions etc) shall be developed by the Core Climate Finance (CORE-CF) and Institutional processes shall support accountability in environmental and social performance. The BU shall track:

a. Impact/ Outcomes of events organized by BU as per UN SDGs.

b. Cross-sector collaborations (MOUs etc).

6.26 Local Environment Coordinator. The HoDs of E&ES at Islamabad and Karachi are responsible for implementation of Environment Policy and act as consultant and coordinator on environmental issue of all campuses/ CUs located in these two cities. Duties are as follows:

a. Facilitating and monitoring local implementation of this policy.

b. Providing technical assistance for the development and implementation of

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Figure 12: HSE Policy, third edition, PDF page 39: printed page 33: paras 6.22 to 6.26 as printed, campus responsibilities, data reporting, sustainability governance and coordination.

1. HSE Policy carbon management objectives

6.2 BU Environment Policy (Climate Action and Carbon Management). The Environment Policy sets the high-level objectives for the Environmental Management Plan which shall encompass following:

a. Develop and implement a **Climate Action Plan**.

b. Measure and report **GHG emissions (Scope 1, 2 and 3)**.

c. Establish **carbon reduction targets**, including long-term net-zero commitments.

d. Annual energy audits shall be conducted with defined efficiency benchmarks.

e. Renewable energy adoption be tracked through measurable KPIs.

f. Regular updating of data on webpage (e.g. **CORE-CF** webpage).

g. Develop effective material management (from raw to waste).

h. Increase awareness of environmental responsibility among staff, students and visitors.

i. Have an environmental management system that ensures the University complies with national environmental standards.

j. Ensure that every new building, extension and renovation of University premises, including work done through contractors, meets the energy-efficiency code at para 1.15(c). The Directorate of Planning and Development shall certify compliance before design approval and keep the record.

k. Maintain the premises in an environmentally sensitive way, having regard to the protection of natural habitats and local wildlife.

l. Promote and encourage sustainable forms of mass travel by staff and students to reduce carbon emission.

m. Constantly improve BU's environmental performance.

Figure 13: Enlarged extract, HSE Policy, PDF page 32, printed page 26: para 6.2, Climate Action Plan, Scope 1 to 3 measurement, carbon targets, energy audits, renewable KPIs and data updates.

1. HSE Policy monitoring and footprint reduction

b. **Monitoring Requirements.** The EMP has many components spread over wide range of activities falling under the management ambit of different departments. Each department is responsible of its part of environment protection efforts. However, the overall monitoring responsibility shall rest with E&ES department. Standing HSE committee meetings are appropriate forum to discuss and resolve various environmental issues.

Figure 14: Enlarged extract, HSE Policy, PDF page 34, printed page 28: para 6.6(b), overall monitoring by Earth and Environment Sciences.

Reducing Environmental Foot Prints. This significantly important aspect needs covered through following options:

a. BU shall define sustainable commuting targets. Monitoring systems shall track:

(1) Vehicle usage.

(2) Carbon emissions from transport.

(3) University-owned vehicle movement (via digital applications).

b. **Mass Transit/ Optimize Shuttle Service**. All campuses/ CUs are to promote means of mass transit and discourage use of private vehicles. BU shall also promote use of e-vehicles.

c. **Renewable Energy**. All campuses are to work out the option of utilizing solar energy not only to cut the cost but to minimize carbon emissions. The campuses be gradually shifted to the solar energy.

d. **Annual Environmental Audits**. Calculation of environmental footprints, cost benefit analysis be conducted by E&ES department and EMP be revised accordingly. Annual environmental audits of units be conducted annually.

Figure 15: Enlarged extract, HSE Policy, PDF page 38, printed page 32: para 6.21, transport monitoring, mass transit, solar energy and environmental audits.

1. HSE Policy responsibilities and governance

6.22 Roles and Responsibilities. Each Campus/ CU shall be responsible to formulate and implement their EMP. Help from Department of Earth and Environment Sciences (E&ES) may be sought as and when required. E&ES department shall be responsible to monitor the implementation.

6.23 Director Quality Assurance. All campuses are to forward environmental data to BUHO as and when required. Director Quality Assurance at BUHO shall be responsible for obtaining Green Matrix certification from Environment Protection Agency (EPA) for all campuses, with the Head of the Center of Excellence for Core Finance supporting data consolidation, reporting coordination, and internal follow-ups across campuses.

6.24 Director Campus/ CU HODs are responsible for following:

a. Implementation of BU HSE policy.

b. Developing various plans and SOPs as per environment policy.

c. Monitoring implementation of policy parameters as per environment policy.

d. Resource management.

e. Providing sufficient funding for implementation and enforcement of Environment Policy.

f. Designating authority/ area of responsibility to E&ES coordinator.

6.25 Sustainability Governance. A Sustainability Committee shall be established. The BU Administration shall periodically review this policy in collaboration with the Center of Research Excellence Core Finance. The CORE-CF shall support:

a. Climate governance.

b. Financial planning for sustainability.

c. Institutional coordination.

6.25 SDG Alignment, Monitoring & Reporting. BU shall align its policies and operations with the UN Sustainable Development Goals (SDGs). A Sustainable Report (Waste, Emissions etc) shall be developed by the Core Climate Finance (CORE-CF) and Institutional processes shall support accountability in environmental and social performance. The BU shall track:

a. Impact/ Outcomes of events organized by BU as per UN SDGs.

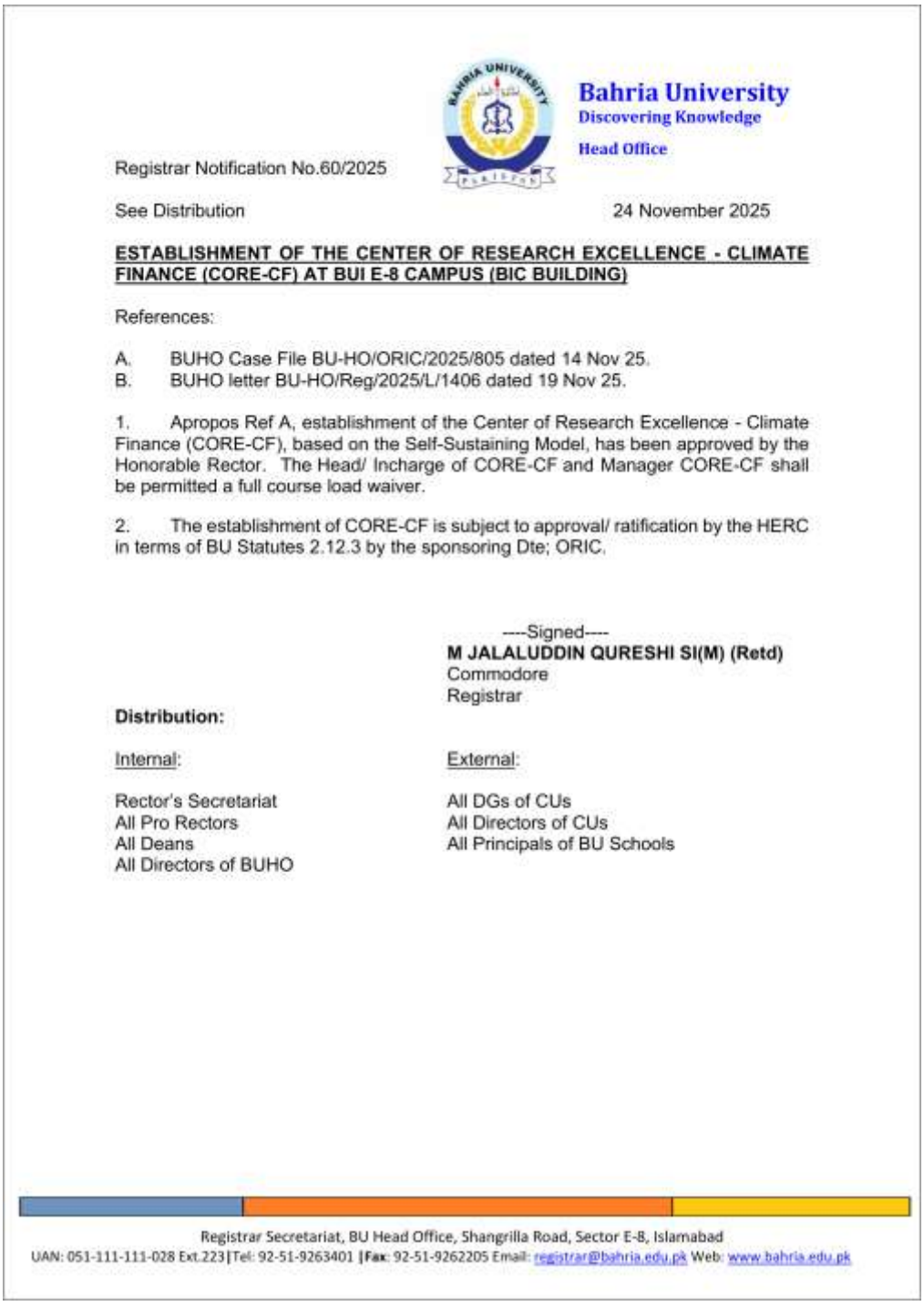
b. Cross-sector collaborations (MOUs etc).

Figure 16: Enlarged extract, HSE Policy, PDF page 39, printed page 33: campus implementation, data consolidation, funding and Sustainability Governance.

2. Center of Research Excellence in Climate Finance (CORE-CF)

On 24 November 2025 Registrar Notification No. 60/2025 notified the establishment, approved by the Rector, of the Center of Research Excellence in Climate Finance (CORE-CF) at the Islamabad E-8 campus, with a Head and a Manager (Figure 17). The Sustainability and Climate Action Policy assigns to CORE-CF the coordination of the University's greenhouse gas inventory and carbon accounting (Section 5), and the current HSE Policy assigns its Head the consolidation of environmental data across campuses (Section 1).

2. Center of Research Excellence in Climate Finance (continued): establishment



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Registrar Notification No.60/2025

See Distribution

24 November 2025

ESTABLISHMENT OF THE CENTER OF RESEARCH EXCELLENCE - CLIMATE FINANCE (CORE-CF) AT BUI E-8 CAMPUS (BIC BUILDING)

References:

A. BUHO Case File BU-HO/ORIC/2025/805 dated 14 Nov 25.
B. BUHO letter BU-HO/Reg/2025/L/1406 dated 19 Nov 25.

1. Apropos Ref A, establishment of the Center of Research Excellence - Climate Finance (CORE-CF), based on the Self-Sustaining Model, has been approved by the Honorable Rector. The Head/ Incharge of CORE-CF and Manager CORE-CF shall be permitted a full course load waiver.

2. The establishment of CORE-CF is subject to approval/ ratification by the HERC in terms of BU Statutes 2.12.3 by the sponsoring Dte; ORIC.

----Signed----
M JALALUDDIN QURESHI SI(M) (Retd)
Commodore
Registrar

Distribution:

Internal:

Rector's Secretariat
All Pro Rectors
All Deans
All Directors of BUHO

External:

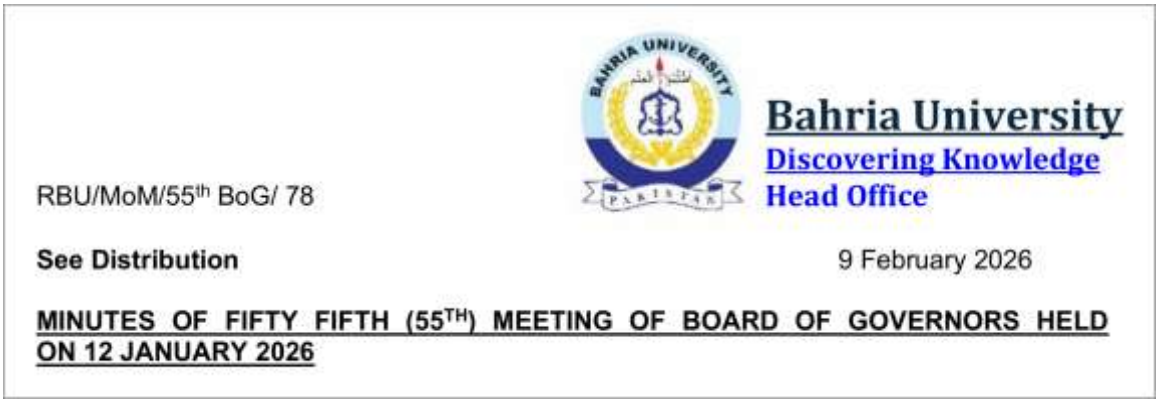
All DGs of CUs
All Directors of CUs
All Principals of BU Schools

Registrar Secretariat, BU Head Office, Shangrilla Road, Sector E-8, Islamabad
UAN: 051-111-111-028 Ext.223|Tel: 92-51-9263401 |Fax: 92-51-9262205 Email: registrar@bahria.edu.pk Web: www.bahria.edu.pk

Figure 17: Registrar Notification No. 60/2025 of 24 November 2025: establishment of the Center of Research Excellence - Climate Finance (CORE-CF) at the Islamabad E-8 campus (BIC Building), approved by the Rector.

2. Center of Research Excellence in Climate Finance (continued): Board of Governors

The minutes of the 55th meeting of the Board of Governors, held on 12 January 2026 and issued on 9 February 2026, record the Center of Excellence in Climate Finance among the University's research facilities, one of its two Centers of Excellence (Figures 18 and 19).



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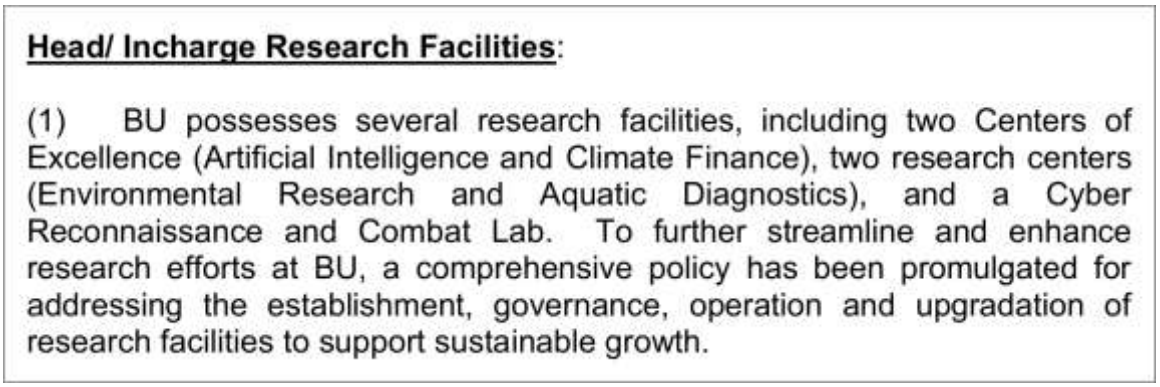
RBU/MoM/55th BoG/ 78

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9 February 2026

MINUTES OF FIFTY FIFTH (55TH) MEETING OF BOARD OF GOVERNORS HELD ON 12 JANUARY 2026

Figure 18: Minutes of the 55th meeting of the Board of Governors held on 12 January 2026, RBU/MoM/55th BoG/78 of 9 February 2026 (extract, page 1).



Head/ Incharge Research Facilities:

(1) BU possesses several research facilities, including two Centers of Excellence (Artificial Intelligence and Climate Finance), two research centers (Environmental Research and Aquatic Diagnostics), and a Cyber Reconnaissance and Combat Lab. To further streamline and enhance research efforts at BU, a comprehensive policy has been promulgated for addressing the establishment, governance, operation and upgradation of research facilities to support sustainable growth.

Figure 19: Minutes of the 55th meeting of the Board of Governors (extract, page 25): the University's research facilities, including two Centers of Excellence, in Artificial Intelligence and in Climate Finance.

2. Center of Research Excellence in Climate Finance (continued): public webpage

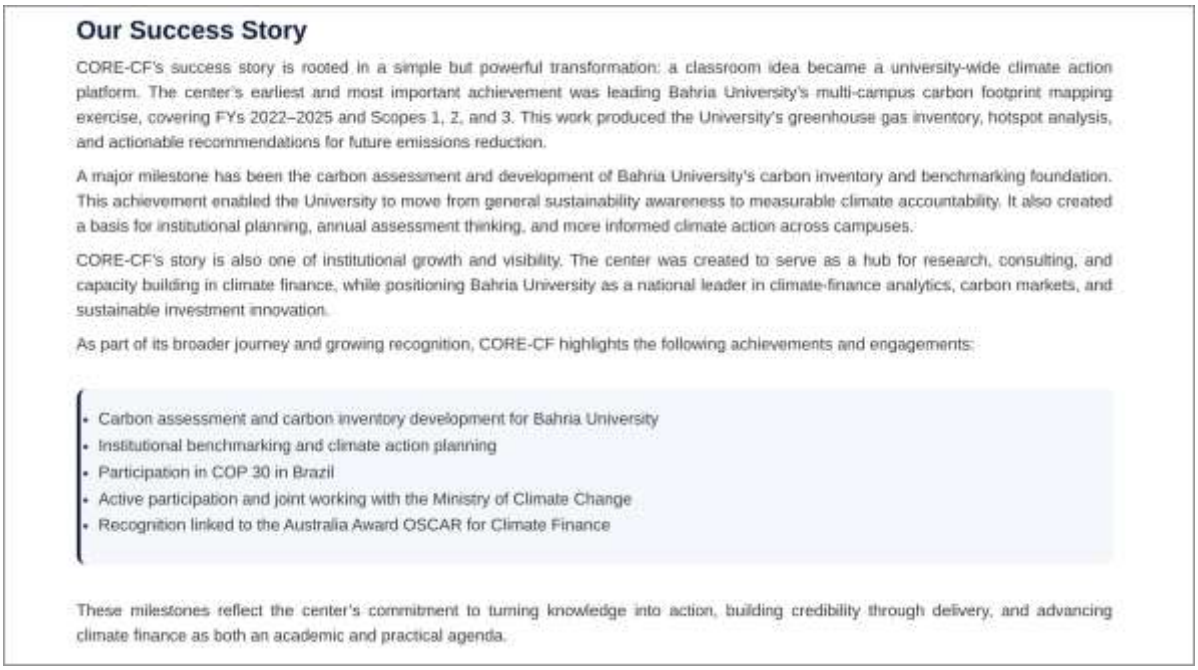
The CORE-CF webpage on the University website records that the Center led the University's multi-campus carbon footprint mapping, covering the Islamabad, Karachi and Lahore campuses across Scopes 1, 2 and 3 under the GHG Protocol for fiscal years 2022 to 2025. The exercise produced the University's first consolidated greenhouse gas emissions baseline, its greenhouse gas inventory, a hotspot analysis and recommendations for future emissions reduction, and showed the need for a permanent structure to sustain measurement, reporting, coordination and implementation (Figure 20). The page publishes the University's goal of net-zero greenhouse gas emissions across all scopes by 2050, with an interim target of a 50 per cent reduction in absolute emissions by 2040 against the FY2024 baseline.



Figure 20: University website, Center of Research Excellence - Climate Finance webpage (captured on 4 November 2026): the multi-campus carbon footprint mapping for fiscal years 2022 to 2025 under the GHG Protocol, and the net-zero goal.
CORE-CF webpage: https://bahria.edu.pk/page/PageTemplate4?pageContentId=8302&websiteId=1

2. Center of Research Excellence in Climate Finance (continued): carbon management strategy

The webpage lists the Center's achievements, among them the carbon assessment and carbon inventory development for the University, institutional benchmarking and climate action planning, participation in COP30 in Brazil, and joint working with the Ministry of Climate Change (Figure 21). It sets out a four-phase carbon management strategy: carbon footprint mapping to establish the baseline through greenhouse gas quantification; a carbon data hub integrating the ISO 14064 framework; a net-zero framework; and climate finance innovation, including verification, validation and carbon credits (Figure 22).



Our Success Story

CORE-CF's success story is rooted in a simple but powerful transformation: a classroom idea became a university-wide climate action platform. The center's earliest and most important achievement was leading Bahria University's multi-campus carbon footprint mapping exercise, covering FYs 2022–2025 and Scopes 1, 2, and 3. This work produced the University's greenhouse gas inventory, hotspot analysis, and actionable recommendations for future emissions reduction.

A major milestone has been the carbon assessment and development of Bahria University's carbon inventory and benchmarking foundation. This achievement enabled the University to move from general sustainability awareness to measurable climate accountability. It also created a basis for institutional planning, annual assessment thinking, and more informed climate action across campuses.

CORE-CF's story is also one of institutional growth and visibility. The center was created to serve as a hub for research, consulting, and capacity building in climate finance, while positioning Bahria University as a national leader in climate-finance analytics, carbon markets, and sustainable investment innovation.

As part of its broader journey and growing recognition, CORE-CF highlights the following achievements and engagements:

- Carbon assessment and carbon inventory development for Bahria University
- Institutional benchmarking and climate action planning
- Participation in COP 30 in Brazil
- Active participation and joint working with the Ministry of Climate Change
- Recognition linked to the Australia Award OSCAR for Climate Finance

These milestones reflect the center's commitment to turning knowledge into action, building credibility through delivery, and advancing climate finance as both an academic and practical agenda.

Figure 21: CORE-CF webpage (continued): carbon assessment and carbon inventory development for Bahria University, benchmarking and climate action planning, and engagements.

2. Center of Research Excellence in Climate Finance (continued): carbon management strategy



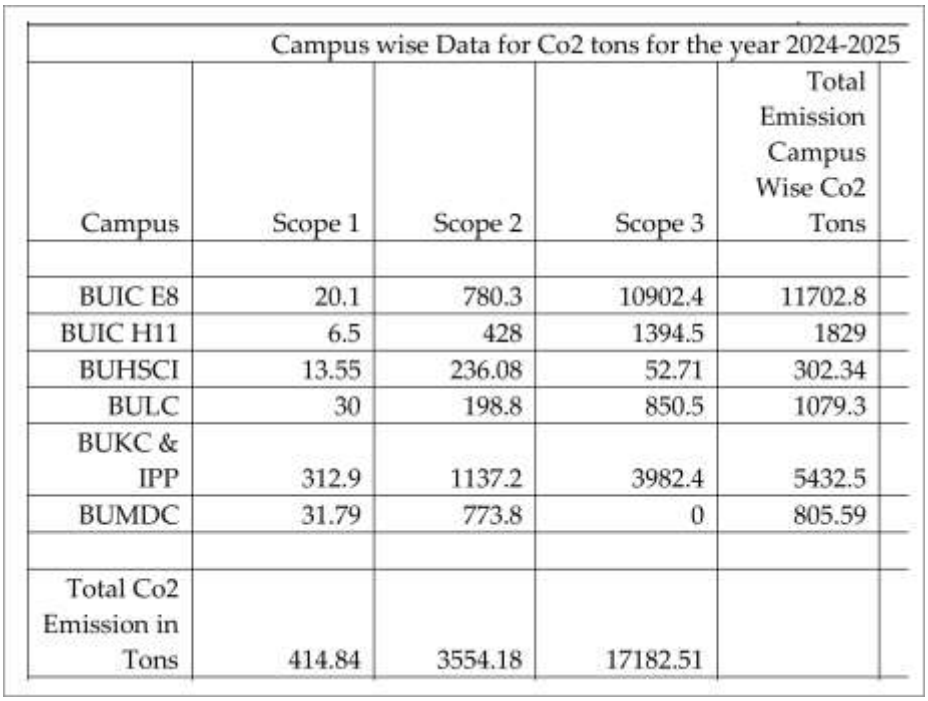
Figure 22: CORE-CF webpage (continued): the four-phase carbon management strategy.

3. Greenhouse gas inventory, 2024-25

The University began recording its emissions to GHG standards in 2024-25. The greenhouse gas inventory for that year, compiled by CORE-CF for six campus units and submitted by the Dean of Management Sciences, who heads CORE-CF, records Scope 1 emissions of 414.84 tonnes of carbon dioxide equivalent (tCO2e), Scope 2 emissions of 3,554.18 tCO2e and Scope 3 emissions of 17,182.51 tCO2e, a total of 21,151.53 tCO2e (Table 2 and Figure 23). Scope 1 covers direct emissions from University sources such as generators, boilers and vehicles; Scope 2 the electricity purchased for the campuses; and Scope 3 other indirect emissions, such as commuting, business travel, procurement and waste. Purchased electricity accounts for 89.5 per cent of the Scope 1 and 2 total of 3,969.02 tCO2e, which directs the reduction effort to energy efficiency and on-campus solar generation (Section 6).

Table 2: Greenhouse gas emissions by campus, 2024-25 (tCO2e)

Campus	Scope 1	Scope 2	Scope 3	Total
Islamabad Campus, E-8	20.10	780.30	10,902.40	11,702.80
Islamabad Campus, H-11	6.50	428.00	1,394.50	1,829.00
Health Sciences Campus, Islamabad	13.55	236.08	52.71	302.34
Lahore Campus	30.00	198.80	850.50	1,079.30
Karachi Campus and Institute of Professional Psychology	312.90	1,137.20	3,982.40	5,432.50
Health Sciences Campus, Karachi	31.79	773.80	0.00	805.59
Total	414.84	3,554.18	17,182.51	21,151.53



Campus wise Data for Co2 tons for the year 2024-2025

Campus	Scope 1	Scope 2	Scope 3	Total Emission Campus Wise Co2 Tons
BUIC E8	20.1	780.3	10902.4	11702.8
BUIC H11	6.5	428	1394.5	1829
BUHSCI	13.55	236.08	52.71	302.34
BULC	30	198.8	850.5	1079.3
BUKC & IPP	312.9	1137.2	3982.4	5432.5
BUMDC	31.79	773.8	0	805.59
Total Co2 Emission in Tons	414.84	3554.18	17182.51	

Figure 23: CORE-CF greenhouse gas inventory, 2024-25: Scope 1, 2 and 3 emissions by campus unit, in tonnes of CO2 equivalent (extract of the CORE-CF record). BUIC E8 and H11, Islamabad campuses; BUHSCI, Health Sciences Campus, Islamabad; BULC, Lahore Campus; BUKC and IPP, Karachi Campus and Institute of Professional Psychology; BUMDC, Health Sciences Campus, Karachi.

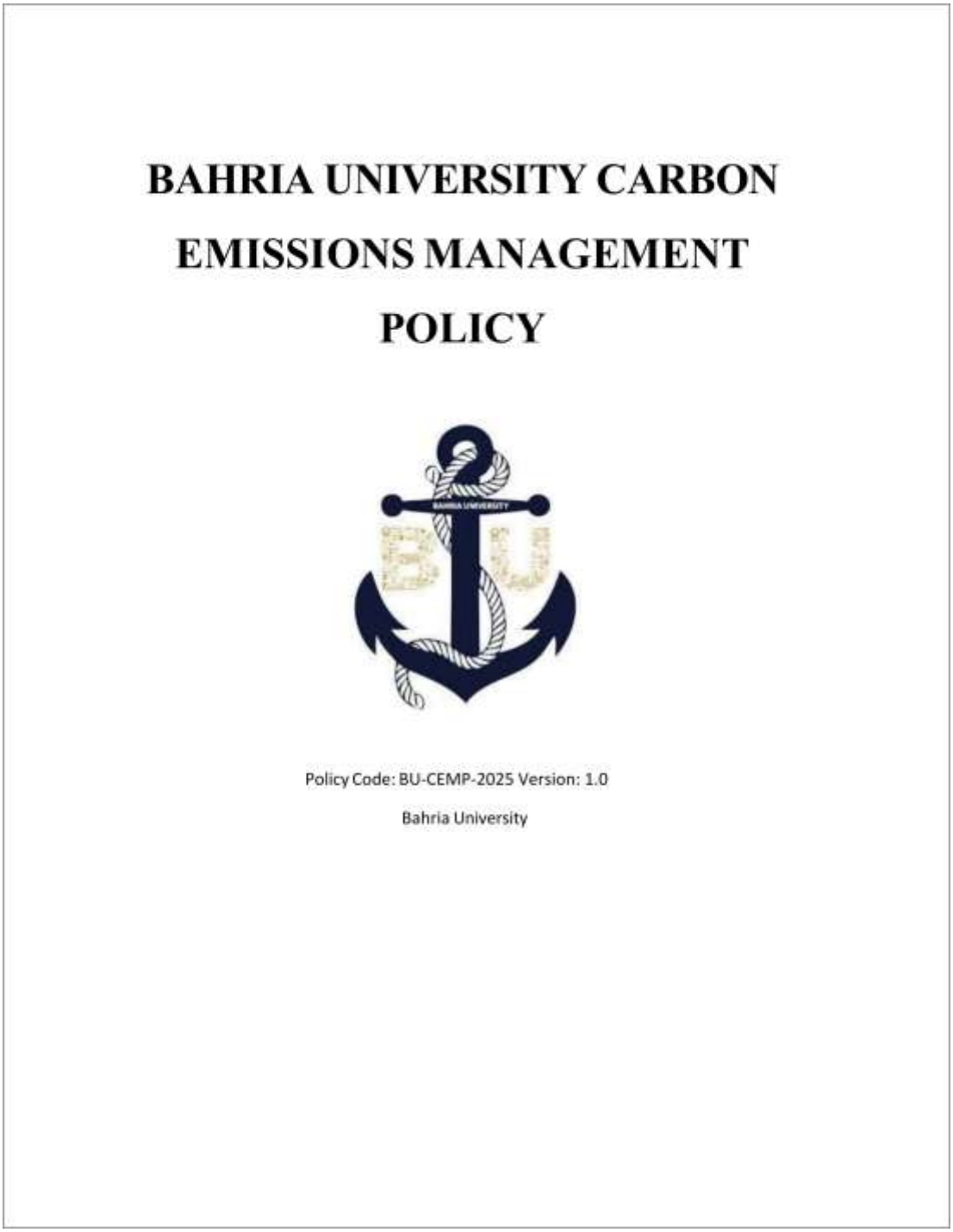
4. Carbon Emissions Management Policy: the carbon management cycle

The Bahria University Carbon Emissions Management Policy (Policy Code BU-CEMP-2025, version 1.0), published on the University website, sets the University's carbon management cycle. The University commits to net-zero greenhouse gas emissions across all scopes by 2050, with an interim 50 per cent reduction in absolute emissions by 2040 against the FY2024 baseline, and to comprehensive, accurate and transparent carbon accounting following the GHG Protocol Corporate Standard and ISO 14064-1, with all emissions data publicly reported and used to drive continuous improvement (para 1.2).

Responsibilities run from the University Sustainability Council, which approves the carbon strategy, targets and budgets and reviews the annual inventory and verification reports, through the Head and Manager of CORE-CF, who carry overall responsibility for the carbon management programme, and a Carbon Accounting Team that manages the inventory day to day, to campus sustainability officers who collect campus data, implement reduction initiatives and report monthly (para 4.1). A matrix assigns each emission source to the office that supplies its data (para 4.2), and the accounting framework sets the sources, activity data, emission factors and calculation method for each scope (para 5).

Annual carbon budgets are allocated to each campus and department and monitored against actual emissions every quarter, and capital projects above PKR 10 million undergo a carbon impact assessment, with a shadow carbon price of PKR 5,000 per tCO2e (para 6.3). The inventory is subject to annual third-party verification to ISO 14064-3, quarterly internal reviews and an annual internal audit of the carbon management system, and is published in an annual carbon report covering emissions by scope and source, performance against targets and reduction initiatives (paras 9.1 to 9.3). The policy is reviewed annually against performance, methodology and emission factor updates, and comprehensively every three years (para 11.1).

4. Carbon Emissions Management Policy (continued)



BAHRIA UNIVERSITY CARBON EMISSIONS MANAGEMENT POLICY

Policy Code: BU-CEMP-2025 Version: 1.0

Bahria University

Figure 24: Carbon Emissions Management Policy, cover: Policy Code BU-CEMP-2025, version 1.0.

4. Carbon Emissions Management Policy (continued)



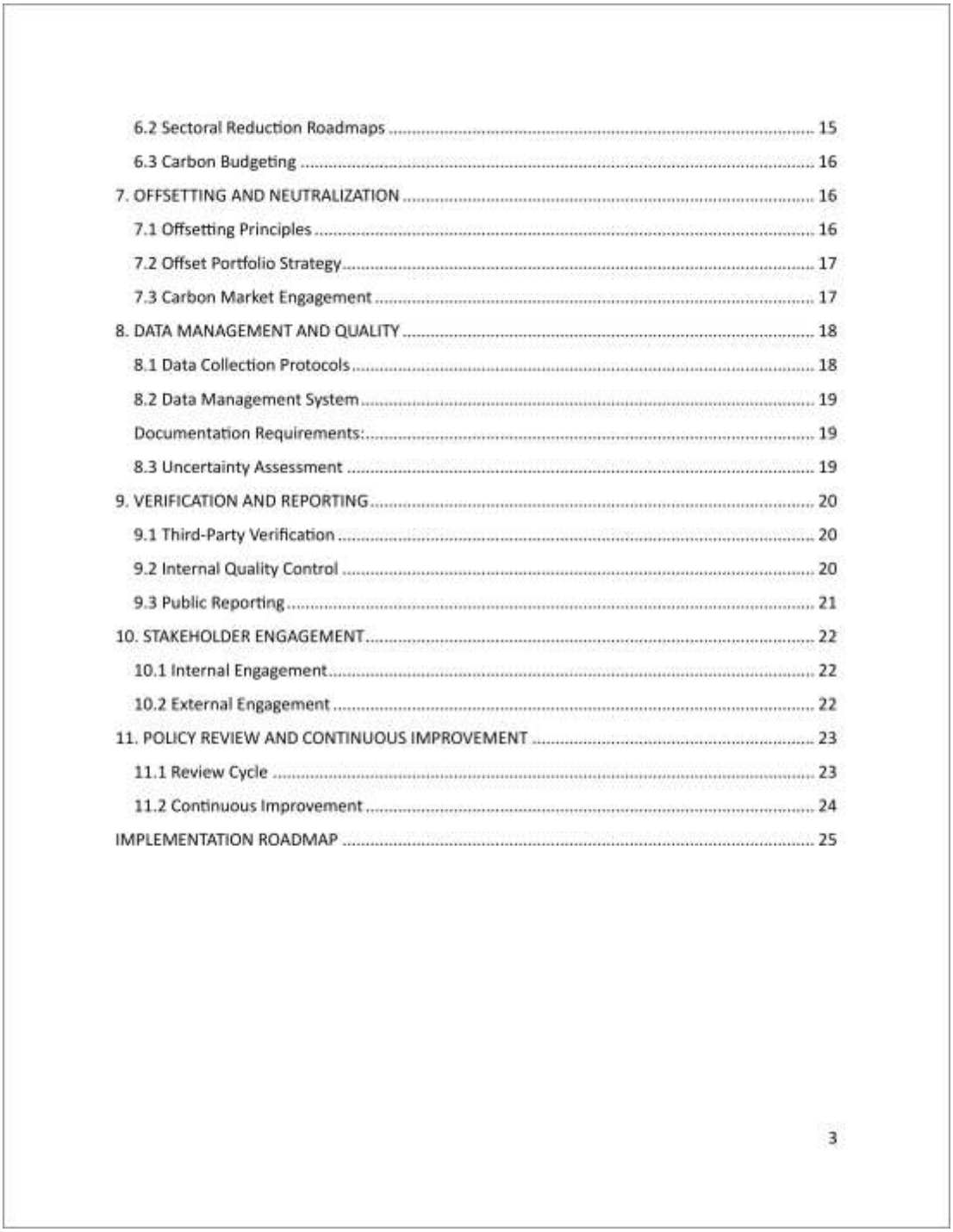
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Figure 25: Carbon Emissions Management Policy, Table of Contents (page 2), sections 1 to 6.

4. Carbon Emissions Management Policy (continued)

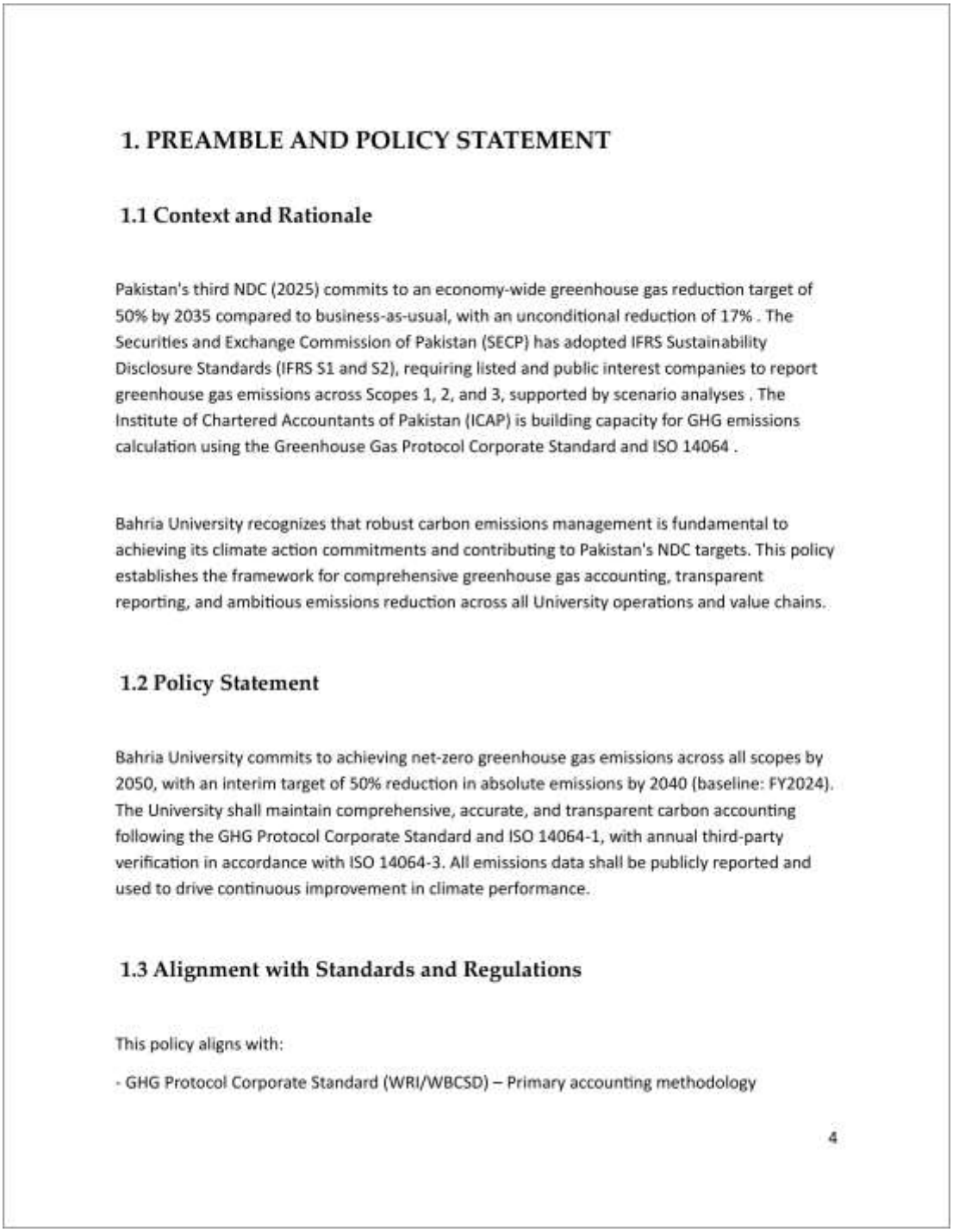


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Figure 26: Carbon Emissions Management Policy, Table of Contents (page 3), sections 6 to 11 and the Implementation Roadmap.

4. Carbon Emissions Management Policy (continued): pages cited



1. PREAMBLE AND POLICY STATEMENT

1.1 Context and Rationale

Pakistan's third NDC (2025) commits to an economy-wide greenhouse gas reduction target of 50% by 2035 compared to business-as-usual, with an unconditional reduction of 17% . The Securities and Exchange Commission of Pakistan (SECP) has adopted IFRS Sustainability Disclosure Standards (IFRS S1 and S2), requiring listed and public interest companies to report greenhouse gas emissions across Scopes 1, 2, and 3, supported by scenario analyses . The Institute of Chartered Accountants of Pakistan (ICAP) is building capacity for GHG emissions calculation using the Greenhouse Gas Protocol Corporate Standard and ISO 14064 .

Bahria University recognizes that robust carbon emissions management is fundamental to achieving its climate action commitments and contributing to Pakistan's NDC targets. This policy establishes the framework for comprehensive greenhouse gas accounting, transparent reporting, and ambitious emissions reduction across all University operations and value chains.

1.2 Policy Statement

Bahria University commits to achieving net-zero greenhouse gas emissions across all scopes by 2050, with an interim target of 50% reduction in absolute emissions by 2040 (baseline: FY2024). The University shall maintain comprehensive, accurate, and transparent carbon accounting following the GHG Protocol Corporate Standard and ISO 14064-1, with annual third-party verification in accordance with ISO 14064-3. All emissions data shall be publicly reported and used to drive continuous improvement in climate performance.

1.3 Alignment with Standards and Regulations

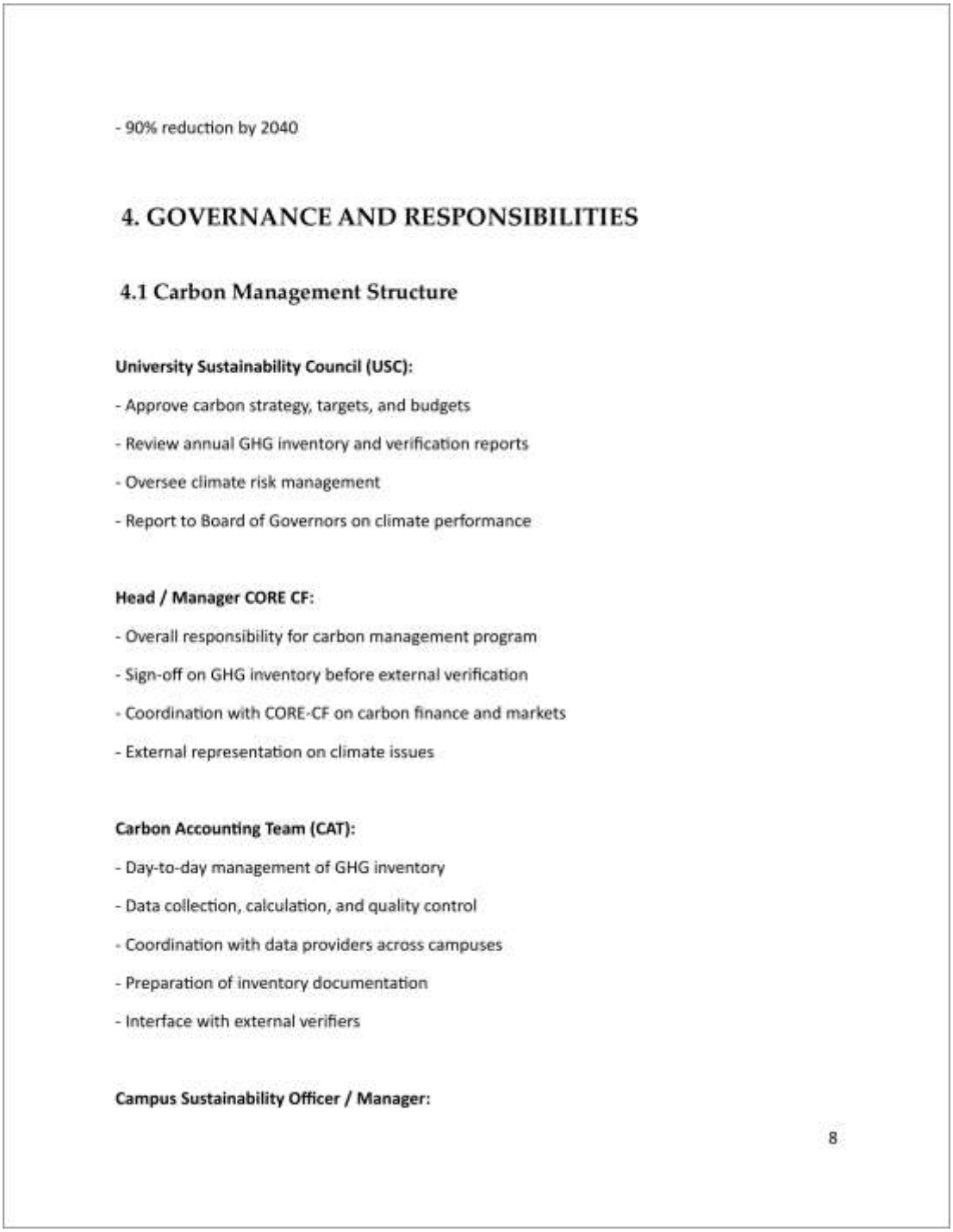
This policy aligns with:

- GHG Protocol Corporate Standard (WRI/WBCSD) – Primary accounting methodology

4

Figure 27: Carbon Emissions Management Policy, page 4: para 1.1, Context and Rationale; para 1.2, Policy Statement; para 1.3, Alignment with Standards and Regulations.

4. Carbon Emissions Management Policy (continued): pages cited



- 90% reduction by 2040

4. GOVERNANCE AND RESPONSIBILITIES

4.1 Carbon Management Structure

University Sustainability Council (USC):

- Approve carbon strategy, targets, and budgets
- Review annual GHG inventory and verification reports
- Oversee climate risk management
- Report to Board of Governors on climate performance

Head / Manager CORE CF:

- Overall responsibility for carbon management program
- Sign-off on GHG inventory before external verification
- Coordination with CORE-CF on carbon finance and markets
- External representation on climate issues

Carbon Accounting Team (CAT):

- Day-to-day management of GHG inventory
- Data collection, calculation, and quality control
- Coordination with data providers across campuses
- Preparation of inventory documentation
- Interface with external verifiers

Campus Sustainability Officer / Manager:

8

Figure 28: Carbon Emissions Management Policy, page 8: para 4.1, Carbon Management Structure.

4. Carbon Emissions Management Policy (continued): pages cited

- Data collection at campus level
- Implementation of emissions reduction initiatives
- Local stakeholder engagement
- Monthly reporting to CAT

4.2 Roles and Responsibilities Matrix

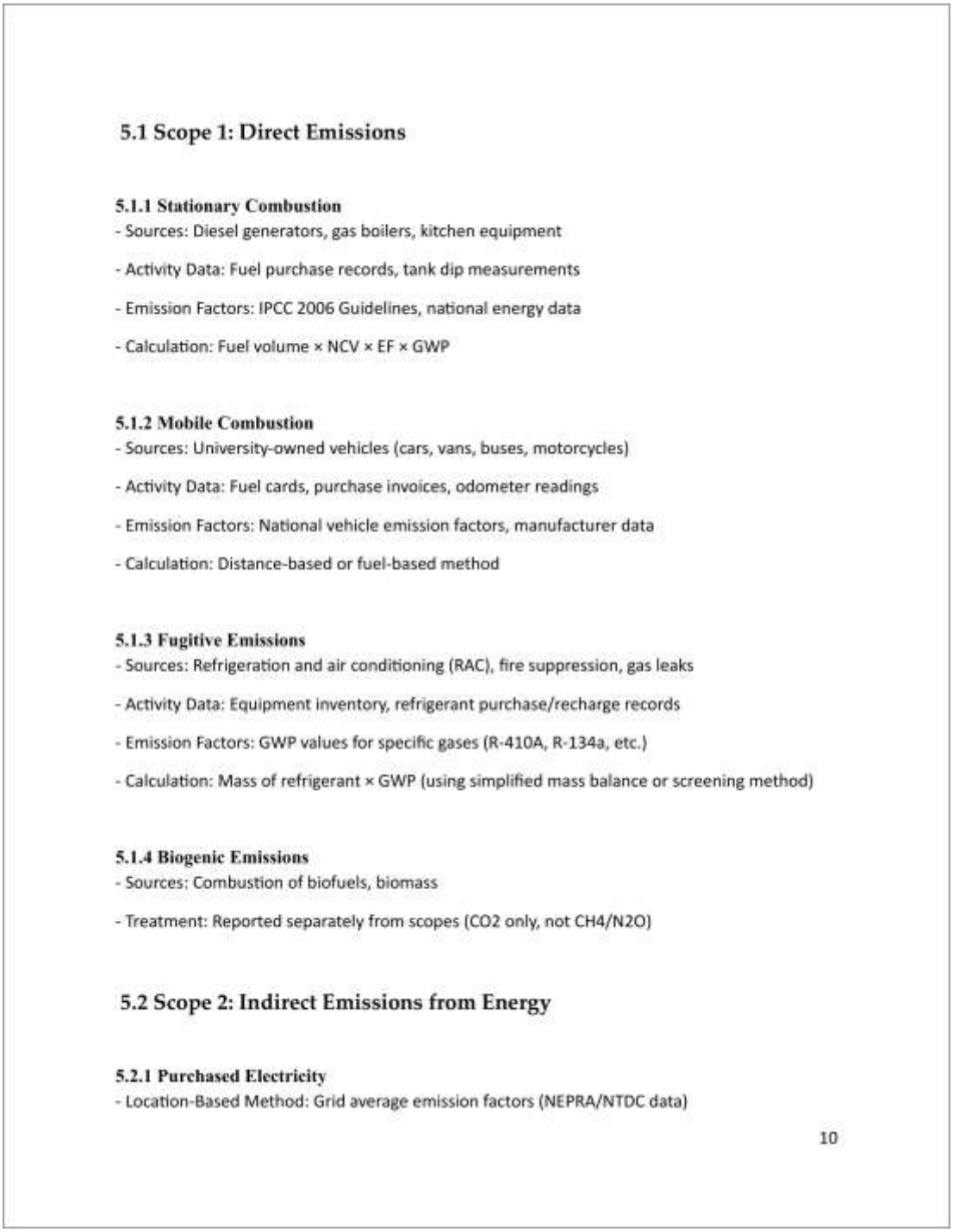
S.No	Function	Responsibility	Key Activities
1	Facilities Management	Scope 1 stationary, Scope 2	Energy data, generator logs, refrigerant records
2	Transport Office	Scope 1 mobile	Fleet fuel consumption, vehicle logs
3	Procurement	Scope 3	purchased goods Supplier data, procurement volumes
4	HR/Admin	Scope 3	commuting, business travel Employee surveys, travel records
5	Finance	Scope 3	investments Investment portfolio data
6	IT Services	Scope 3	cloud computing Data center energy, cloud service usage
7	Waste Management	Scope 3 waste	Waste quantities, disposal methods
8	All Departments	Data provision	Timely, accurate data submission

5. EMISSIONS ACCOUNTING FRAMEWORK

9

Figure 29: Carbon Emissions Management Policy, page 9: para 4.2, Roles and Responsibilities Matrix.

4. Carbon Emissions Management Policy (continued): pages cited



5.1 Scope 1: Direct Emissions

5.1.1 Stationary Combustion

- Sources: Diesel generators, gas boilers, kitchen equipment
- Activity Data: Fuel purchase records, tank dip measurements
- Emission Factors: IPCC 2006 Guidelines, national energy data
- Calculation: Fuel volume × NCV × EF × GWP

5.1.2 Mobile Combustion

- Sources: University-owned vehicles (cars, vans, buses, motorcycles)
- Activity Data: Fuel cards, purchase invoices, odometer readings
- Emission Factors: National vehicle emission factors, manufacturer data
- Calculation: Distance-based or fuel-based method

5.1.3 Fugitive Emissions

- Sources: Refrigeration and air conditioning (RAC), fire suppression, gas leaks
- Activity Data: Equipment inventory, refrigerant purchase/recharge records
- Emission Factors: GWP values for specific gases (R-410A, R-134a, etc.)
- Calculation: Mass of refrigerant × GWP (using simplified mass balance or screening method)

5.1.4 Biogenic Emissions

- Sources: Combustion of biofuels, biomass
- Treatment: Reported separately from scopes (CO_2 only, not CH_4/N_2O)

5.2 Scope 2: Indirect Emissions from Energy

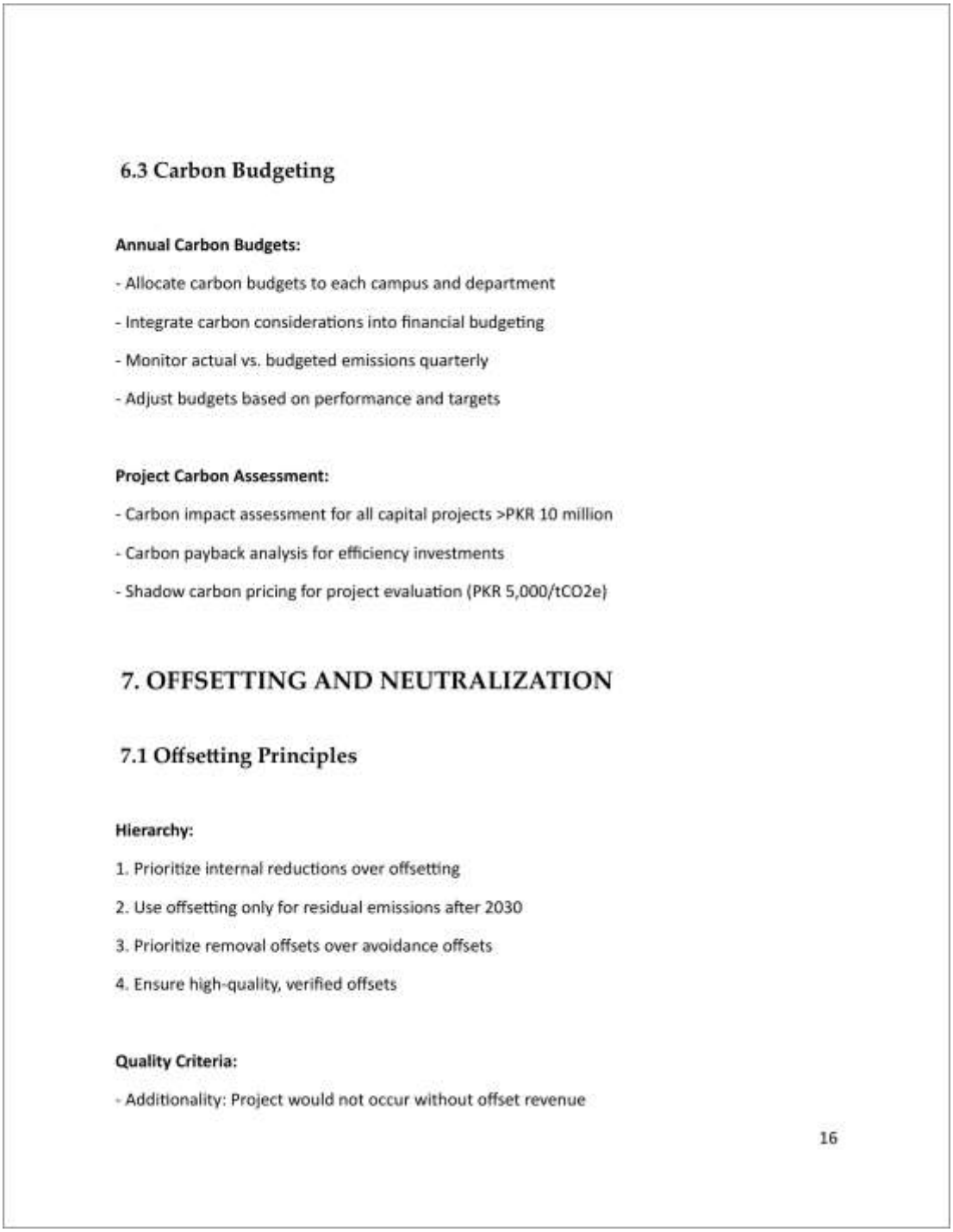
5.2.1 Purchased Electricity

- Location-Based Method: Grid average emission factors (NEPRA/NTDC data)

10

Figure 30: Carbon Emissions Management Policy, page 10: para 5.1, Scope 1 accounting, and para 5.2, Scope 2 accounting.

4. Carbon Emissions Management Policy (continued): pages cited



6.3 Carbon Budgeting

Annual Carbon Budgets:

- Allocate carbon budgets to each campus and department
- Integrate carbon considerations into financial budgeting
- Monitor actual vs. budgeted emissions quarterly
- Adjust budgets based on performance and targets

Project Carbon Assessment:

- Carbon impact assessment for all capital projects >PKR 10 million
- Carbon payback analysis for efficiency investments
- Shadow carbon pricing for project evaluation (PKR 5,000/tCO2e)

7. OFFSETTING AND NEUTRALIZATION

7.1 Offsetting Principles

Hierarchy:

1. Prioritize internal reductions over offsetting
2. Use offsetting only for residual emissions after 2030
3. Prioritize removal offsets over avoidance offsets
4. Ensure high-quality, verified offsets

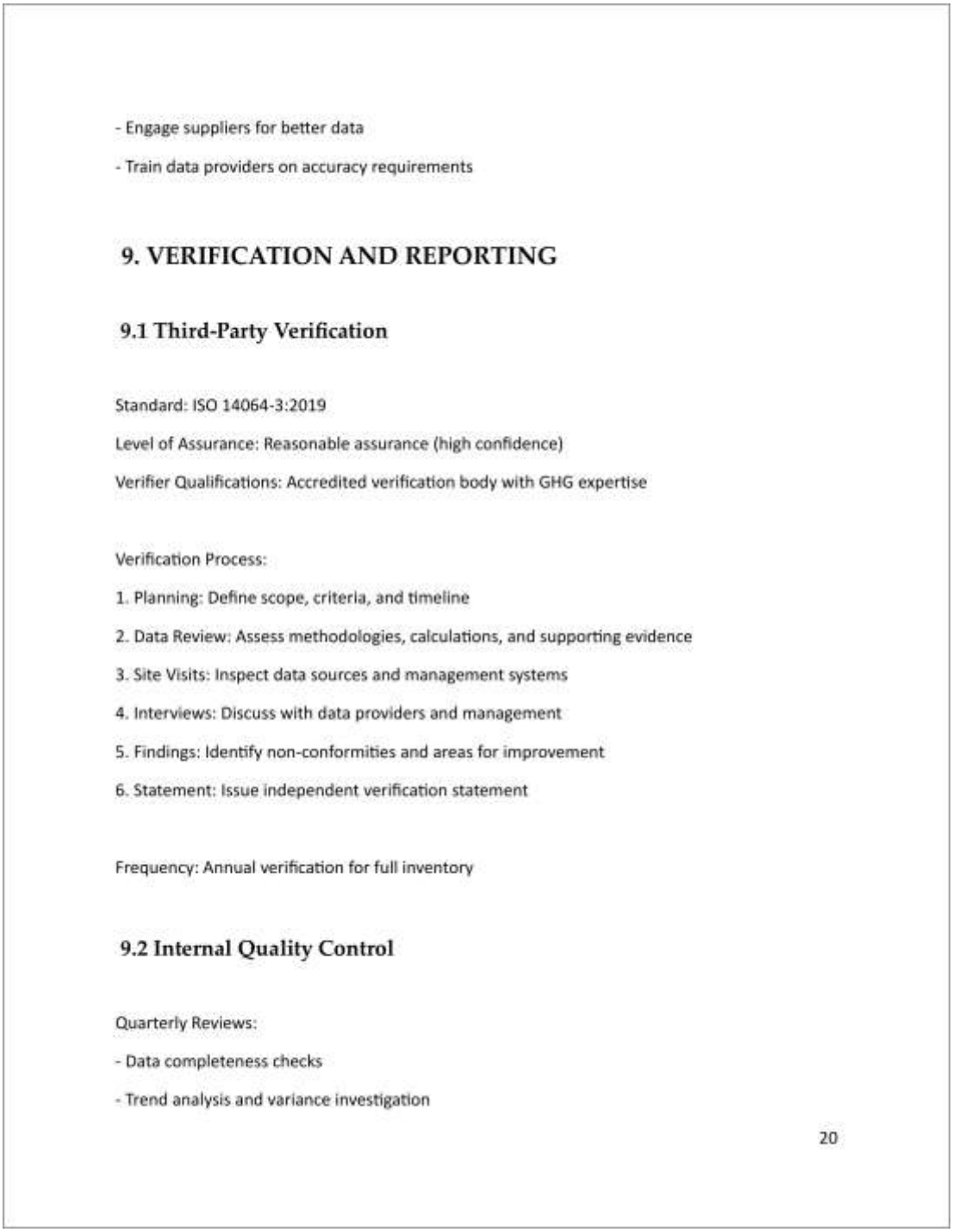
Quality Criteria:

- Additionality: Project would not occur without offset revenue

16

Figure 31: Carbon Emissions Management Policy, page 16: para 6.3, Carbon Budgeting, and para 7.1, Offsetting Principles.

4. Carbon Emissions Management Policy (continued): pages cited



- Engage suppliers for better data
- Train data providers on accuracy requirements

9. VERIFICATION AND REPORTING

9.1 Third-Party Verification

Standard: ISO 14064-3:2019

Level of Assurance: Reasonable assurance (high confidence)

Verifier Qualifications: Accredited verification body with GHG expertise

Verification Process:

1. Planning: Define scope, criteria, and timeline
2. Data Review: Assess methodologies, calculations, and supporting evidence
3. Site Visits: Inspect data sources and management systems
4. Interviews: Discuss with data providers and management
5. Findings: Identify non-conformities and areas for improvement
6. Statement: Issue independent verification statement

Frequency: Annual verification for full inventory

9.2 Internal Quality Control

Quarterly Reviews:

- Data completeness checks
- Trend analysis and variance investigation

20

Figure 32: Carbon Emissions Management Policy, page 20: para 9.1, Third-Party Verification, and para 9.2, Internal Quality Control.

4. Carbon Emissions Management Policy (continued): pages cited



- Calculation verification
- Documentation review

Annual Internal Audit:

- Process audit of carbon management system
- Data trail verification
- Corrective action follow-up
- Management review

9.3 Public Reporting

Annual Carbon Report:

- Executive summary and key highlights
- Emissions inventory by scope and source
- Performance against targets
- Reduction initiatives and outcomes
- Offsetting activities (if any)
- Verification statement
- Future plans and commitments

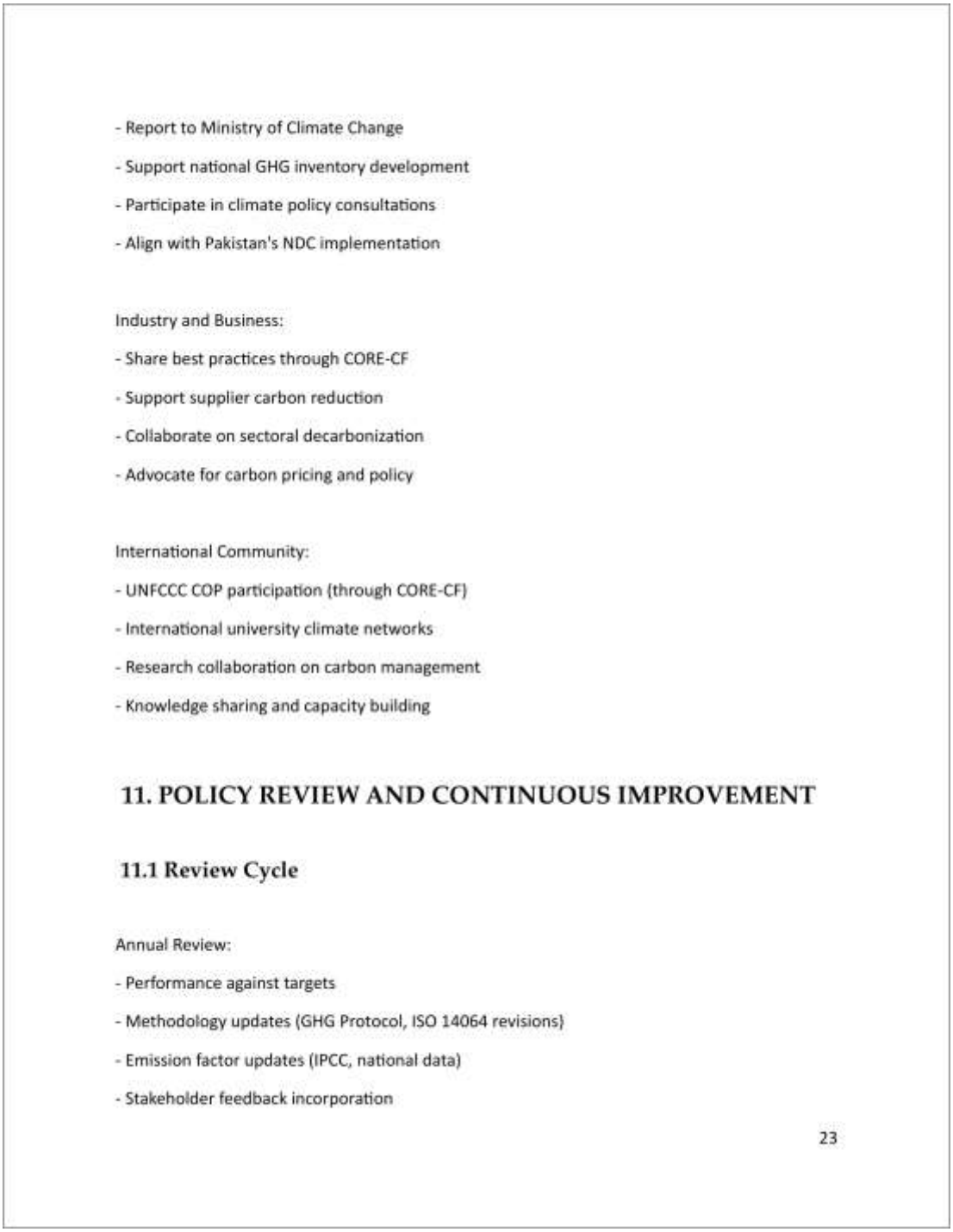
Reporting Frameworks:

- GRI Standards (GRI 305: Emissions)
- CDP Climate Change questionnaire
- IFRS S2 Climate-related Disclosures
- Times Higher Education Impact Rankings
- HEC sustainability reporting

21

Figure 33: Carbon Emissions Management Policy, page 21: para 9.2 (continued), Annual Internal Audit, and para 9.3, Public Reporting.

4. Carbon Emissions Management Policy (continued): pages cited



- Report to Ministry of Climate Change
- Support national GHG inventory development
- Participate in climate policy consultations
- Align with Pakistan's NDC implementation

Industry and Business:

- Share best practices through CORE-CF
- Support supplier carbon reduction
- Collaborate on sectoral decarbonization
- Advocate for carbon pricing and policy

International Community:

- UNFCCC COP participation (through CORE-CF)
- International university climate networks
- Research collaboration on carbon management
- Knowledge sharing and capacity building

11. POLICY REVIEW AND CONTINUOUS IMPROVEMENT

11.1 Review Cycle

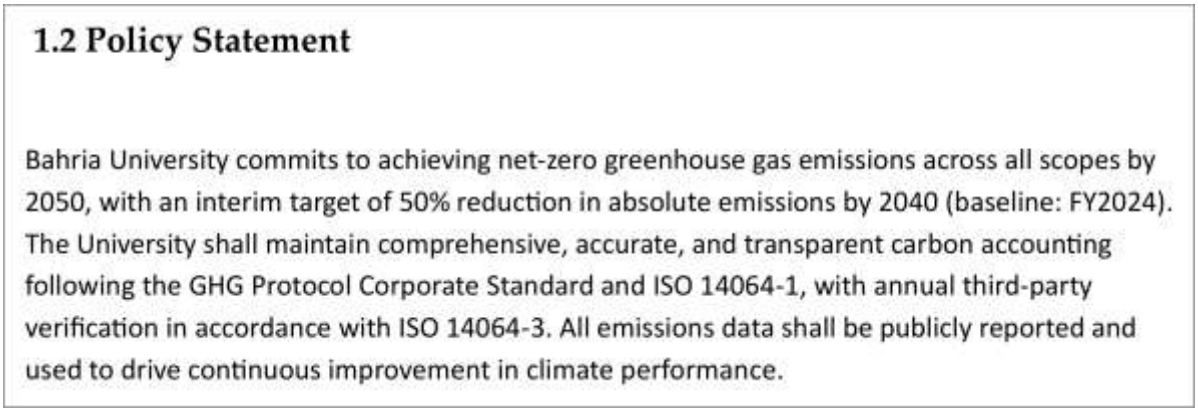
Annual Review:

- Performance against targets
- Methodology updates (GHG Protocol, ISO 14064 revisions)
- Emission factor updates (IPCC, national data)
- Stakeholder feedback incorporation

23

Figure 34: Carbon Emissions Management Policy, page 23: para 11.1, Review Cycle.

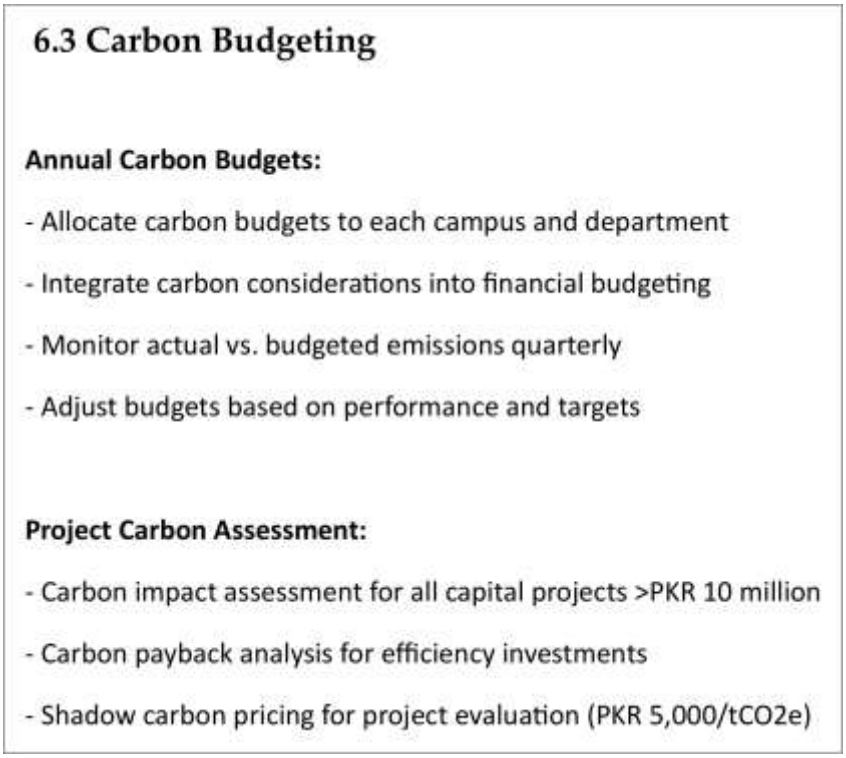
4. Carbon Emissions Management Policy (continued): paragraphs cited



1.2 Policy Statement

Bahria University commits to achieving net-zero greenhouse gas emissions across all scopes by 2050, with an interim target of 50% reduction in absolute emissions by 2040 (baseline: FY2024). The University shall maintain comprehensive, accurate, and transparent carbon accounting following the GHG Protocol Corporate Standard and ISO 14064-1, with annual third-party verification in accordance with ISO 14064-3. All emissions data shall be publicly reported and used to drive continuous improvement in climate performance.

Figure 35: Enlarged extract, page 4: para 1.2, Policy Statement; net-zero emissions across all scopes by 2050, a 50 per cent reduction by 2040 (baseline FY2024) and carbon accounting under the GHG Protocol and ISO 14064-1.



6.3 Carbon Budgeting

Annual Carbon Budgets:

- Allocate carbon budgets to each campus and department
- Integrate carbon considerations into financial budgeting
- Monitor actual vs. budgeted emissions quarterly
- Adjust budgets based on performance and targets

Project Carbon Assessment:

- Carbon impact assessment for all capital projects >PKR 10 million
- Carbon payback analysis for efficiency investments
- Shadow carbon pricing for project evaluation (PKR 5,000/tCO2e)

Figure 36: Enlarged extract, page 16: para 6.3, Carbon Budgeting; budgets for each campus and department monitored quarterly, and carbon assessment of capital projects.

4. Carbon Emissions Management Policy (continued): paragraphs cited



4.1 Carbon Management Structure

University Sustainability Council (USC):

- Approve carbon strategy, targets, and budgets
- Review annual GHG inventory and verification reports
- Oversee climate risk management
- Report to Board of Governors on climate performance

Head / Manager CORE CF:

- Overall responsibility for carbon management program
- Sign-off on GHG inventory before external verification
- Coordination with CORE-CF on carbon finance and markets
- External representation on climate issues

Carbon Accounting Team (CAT):

- Day-to-day management of GHG inventory
- Data collection, calculation, and quality control
- Coordination with data providers across campuses
- Preparation of inventory documentation
- Interface with external verifiers

Figure 37: Enlarged extract, page 8: para 4.1, Carbon Management Structure; University Sustainability Council, Head and Manager of CORE-CF and Carbon Accounting Team.

4. Carbon Emissions Management Policy (continued): paragraphs cited



9.1 Third-Party Verification

Standard: ISO 14064-3:2019

Level of Assurance: Reasonable assurance (high confidence)

Verifier Qualifications: Accredited verification body with GHG expertise

Verification Process:

1. Planning: Define scope, criteria, and timeline
2. Data Review: Assess methodologies, calculations, and supporting evidence
3. Site Visits: Inspect data sources and management systems
4. Interviews: Discuss with data providers and management
5. Findings: Identify non-conformities and areas for improvement
6. Statement: Issue independent verification statement

Frequency: Annual verification for full inventory

9.2 Internal Quality Control

Quarterly Reviews:

- Data completeness checks
- Trend analysis and variance investigation

Figure 38: Enlarged extract, page 20: para 9.1, Third-Party Verification, and para 9.2, Internal Quality Control (quarterly reviews).

4. Carbon Emissions Management Policy (continued): paragraphs cited



- Calculation verification
- Documentation review

Annual Internal Audit:

- Process audit of carbon management system
- Data trail verification
- Corrective action follow-up
- Management review

9.3 Public Reporting

Annual Carbon Report:

- Executive summary and key highlights
- Emissions inventory by scope and source
- Performance against targets
- Reduction initiatives and outcomes
- Offsetting activities (if any)
- Verification statement
- Future plans and commitments

Figure 39: Enlarged extract, page 21: Annual Internal Audit and para 9.3, Public Reporting (annual carbon report).

5. Sustainability and Climate Action Policy: annual greenhouse gas inventory

The Bahria University Sustainability and Climate Action Policy (Policy Code BU-SCAP-2025, version 1.0), effective 7 December 2025 and approved by the Rector, assigns to CORE-CF the day-to-day implementation of the policy, the coordination of the greenhouse gas inventory and carbon accounting, the preparation of annual sustainability reports, and the coordination of compliance monitoring and verification (para 4.2). Under para 8.1 the University conducts an annual greenhouse gas inventory following the GHG Protocol Corporate Standard and ISO 14064-1, covering all Scope 1, Scope 2 and relevant Scope 3 emissions, with 2024 as the baseline year and third-party verification to ISO 14064-3, across reporting categories from stationary and mobile combustion and purchased electricity to business travel, commuting, procurement and waste. Objective 1 sets a 50 per cent reduction in Scope 1 and 2 emissions by 2040 against FY2024 (para 3.1), the interim milestone toward the University's institutional commitment of net zero across all scopes by 2050, set in the Carbon Emissions Management Policy and led by CORE-CF.

5. Sustainability and Climate Action Policy (continued)

BAHRIA UNIVERSITY SUSTAINABILITY AND CLIMATE ACTION POLICY

Policy Code: BU-SCAP-2025

Version: 1.0

Effective Date: 07/12/2025

Review Cycle: Biennial

Approved By: Rector, Bahria University

Figure 40: Sustainability and Climate Action Policy, PDF page 1: BU-SCAP-2025, version 1.0, effective 7 December 2025, approved by the Rector.

5. Sustainability and Climate Action Policy (continued)

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5. Sustainability and Climate Action Policy carbon targets

1. PREAMBLE AND POLICY STATEMENT

1.1 Context and Rationale

Pakistan stands at the forefront of climate vulnerability despite contributing less than 1% to global greenhouse gas emissions. The 2022 catastrophic floods caused damages exceeding USD 30 billion, affecting over 33 million people. Pakistan has submitted its third Nationally Determined Contribution (NDC) in September 2025, committing to an economy-wide greenhouse gas reduction target of 50% by 2035 compared to business-as-usual, with an unconditional contribution of 17%. The National Climate Finance Strategy (NCFS) 2024 estimates climate finance needs of USD 348 billion for climate-resilient development by 2030.

Bahria University, as a federally chartered public sector institution established by the Pakistan Navy, recognizes its moral, ethical, and institutional obligation to contribute to national climate resilience and global sustainability goals. This policy operationalizes the University's Vision "to become a knowledge and creativity driven international university that contributes towards the development of society" and its Mission "to ensure academic excellence through deliverance of quality education and applied research in a collegiate environment having strong linkages with industry and international community to meet the societal challenges".

1.2 Policy Statement

Bahria University is committed to achieving carbon neutrality across all campuses by 2050, integrating climate action into every aspect of its operations, research, teaching, and community engagement. This commitment aligns with Pakistan's NDC targets, the National Climate Change Policy 2021, and the global 1.5°C pathway under the Paris Agreement. The University shall serve as a living laboratory for climate solutions, demonstrating leadership in sustainable higher education while building national capacity for climate resilience.

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Figure 44: Sustainability and Climate Action Policy, PDF page 5: para 1.1, Context and Rationale, and para 1.2, Policy Statement.

5. Sustainability and Climate Action Policy objectives

9	Scope 1 Emissions	Direct greenhouse gas emissions from owned or controlled sources (e.g., campus vehicles, generators)
10	Scope 2 Emissions	Indirect emissions from purchased electricity, heat, or steam
11	Scope 3 Emissions	All other indirect emissions occurring in the value chain (e.g., commuting, business travel, purchased goods)
12	Science-Based Targets	Emission reduction targets aligned with climate science to limit global warming to 1.5°C

3. POLICY OBJECTIVES AND SCOPE

3.1 Strategic Objectives

Objective 1: Carbon Neutrality and Emissions Reduction

- Achieve 50% reduction in Scope 1 and 2 emissions by 2040 (baseline: FY2024)
- Achieve carbon neutrality (Net Zero) across all campuses by 2050
- Transition to 100% renewable electricity by 2035
- Phase out fossil fuel-based transportation fleet by 2032

Objective 2: Climate Resilient Infrastructure

- Climate-proof all new infrastructure developments against 2050 climate projections
- Retrofit existing buildings to achieve 40% energy efficiency improvement by 2030
- Implement nature-based solutions for stormwater management and urban heat island mitigation
- Establish climate-resilient water management systems ensuring zero water waste

Objective 3: Sustainability Integration in Academia

- Embed climate and sustainability content across 100% of academic programs by 2028

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Figure 45: Sustainability and Climate Action Policy, PDF page 7: para 3.1, Strategic Objectives, including a 50 per cent reduction in Scope 1 and 2 emissions by 2040 against FY2024.

5. Sustainability and Climate Action Policy (continued): pages cited

Functions:

- Approve sustainability strategies, targets, and action plans
- Oversee climate risk assessment and management
- Review annual sustainability performance and reports
- Ensure alignment with national and international climate commitments
- Approve major sustainability investments and partnerships
- Report to Rector on climate performance

4.2 Center of Research Excellence Climate Finance (CORE – CF)

Structure:

- Manager CORE CF
- Sustainability Managers (one per campus)
- Data and Reporting Analyst
- Engagement and Communications Coordinator

Responsibilities:

- Day-to-day implementation of this policy
- Coordination of GHG inventory and carbon accounting
- Management of sustainability projects and initiatives
- Stakeholder engagement and communications
- Preparation of annual sustainability reports
- Compliance monitoring and verification coordination

4.3 Campus Sustainability Manager

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Figure 46: Sustainability and Climate Action Policy, PDF page 11, printed page 10: para 4.2, CORE-CF structure and responsibilities, including greenhouse gas inventory coordination.

5. Sustainability and Climate Action Policy (continued): pages cited

8. MONITORING, REPORTING, AND VERIFICATION

8.1 Greenhouse Gas Inventory

Inventory Standards:

- Conduct annual GHG inventory following GHG Protocol Corporate Standard and ISO 14064-1
- Include all Scope 1, Scope 2, and relevant Scope 3 emissions
- Establish 2024 as baseline year for all emission calculations
- Engage third-party verification for inventory accuracy (ISO 14064-3)

Reporting Categories:

- Stationary combustion (generators, boilers)
- Mobile combustion (fleet vehicles)
- Fugitive emissions (refrigerants, fire suppression)
- Purchased electricity and steam
- Business travel (air, rail, road)
- Employee commuting
- Purchased goods and services
- Capital goods and construction
- Waste generated in operations

8.2 Performance Metrics and Key Performance Indicators (KPIs)

Category	KPI	Target 2030	Target 2040
Energy	Renewable energy share	60%	100%

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Figure 47: Sustainability and Climate Action Policy, PDF page 25, printed page 23: paras 8.1 and 8.2, annual inventory requirements and performance indicators.

5. Sustainability and Climate Action Policy (continued): paragraphs cited



4.2 Center of Research Excellence Climate Finance (CORE – CF)

Structure:

- Manager CORE CF
- Sustainability Managers (one per campus)
- Data and Reporting Analyst
- Engagement and Communications Coordinator

Responsibilities:

- Day-to-day implementation of this policy
- Coordination of GHG inventory and carbon accounting
- Management of sustainability projects and initiatives
- Stakeholder engagement and communications
- Preparation of annual sustainability reports
- Compliance monitoring and verification coordination

Figure 48: Enlarged extract, Sustainability and Climate Action Policy, PDF page 11, printed page 10: para 4.2, CORE-CF responsibilities, inventory and carbon accounting coordination, reporting and verification.



8.1 Greenhouse Gas Inventory

Inventory Standards:

- Conduct annual GHG inventory following GHG Protocol Corporate Standard and ISO 14064-1
- Include all Scope 1, Scope 2, and relevant Scope 3 emissions
- Establish 2024 as baseline year for all emission calculations
- Engage third-party verification for inventory accuracy (ISO 14064-3)

Reporting Categories:

- Stationary combustion (generators, boilers)
- Mobile combustion (fleet vehicles)
- Fugitive emissions (refrigerants, fire suppression)
- Purchased electricity and steam
- Business travel (air, rail, road)
- Employee commuting
- Purchased goods and services
- Capital goods and construction
- Waste generated in operations

Figure 49: Enlarged extract, Sustainability and Climate Action Policy, PDF page 25, printed page 23: para 8.1, annual inventory under the GHG Protocol and ISO 14064-1, 2024 baseline and third-party verification.

6. Emission reductions delivered in 2024-25 and 2025

Purchased electricity is the largest source of the University's Scope 1 and 2 emissions, and the University is reducing it at source through solar generation. The Annual Progress Report of the Directorate of Planning and Development for 2024-25 records three solarization projects completed during the year at existing campuses, a combined 870 kW (Figure 50), and on-campus solar systems generated 923,403 kWh in 2025 (Table 3).

Table 3: Solar energy generated on campus, January to December 2025

Campus	System	Energy generated (kWh)
Islamabad E-8	100 kW, Sir Syed Block	100,134
Islamabad E-8	100 kW, Business School block	98,209
Islamabad E-8	500 kW, completed 2024-25; generation from October 2025	66,140
Islamabad H-11	300 kW, completed 2024-25	360,000
Lahore	70 kW, completed 2024-25	55,320
Health Sciences, Karachi	Solar system	243,600
Total		923,403

Source: campus administration records and the University's published renewable energy data for 2025.

Annual Progress Report (2024-2025) of P&D Directorate:

1. Planning department completed following solarization projects during the Year 2024-2025 (Picture is attached in Annex A):

S.No	Description	Quantity	Project Cost	Department
1.	Provision & Installation of Solar System	500 KW	42.4 M	BUIC
2.	Provision & Installation of Solar System	300 KW	25.5 M	BU H-11 Campus
3.	Provision & Installation of Solar System	70 KW	9.33 M	BULC

2. Development department completed the following projects during the Year 2024-2025 (Pictures are attached in Annex A):

S.No	Description	Quantity	Project Cost	Department
1.	Dental College & Hospital at Karahi	1 Job	915 M	BUKC
2.	Sky Room	1 Job	61.14 M	BUHO

Figure 50: Annual Progress Report (2024-2025) of the Directorate of Planning and Development (extract): solarization projects (500 kW, 300 kW and 70 kW) completed during 2024-25.

6. Emission reductions delivered (continued): solar generation



Figure 51: Solarization projects completed in 2024-25: canopy-mounted and rooftop solar arrays. Directorate of Planning and Development, Annual Progress Report 2024-25, Annex A.



Figure 52: Islamabad E-8 campus: rooftop solar arrays on the existing academic blocks. Campus record, undated.

6. Emission reductions delivered (continued): energy audits and electricity reduction

On 24 November 2025 the Rector directed the Director Admin to conduct comprehensive energy audits across all campuses and facilities, to implement the recommended energy conservation measures through the facility management teams and to conduct periodic follow-up audits (Figure 53). The University's Strategic Management Plan tracks, under KPI 5.9.4, the percentage reduction in the electricity requirement of each building or block achieved through renewable energy sources and energy-efficient systems, with targets rising from 5 per cent in 2020-21 to 20 per cent in 2029-30; the University-level value reported was 1.43 per cent for 2024-25 and 7.14 per cent for 2025-26 (Figure 54).

Bahria University, Islamabad

Rector's Briefing: Action Points

24th November, 2025

Academic Wing

Sr.N	Action Points by the Honorable Rector	Action by
7	a. Deploy AI-based tools and software to conduct comprehensive energy audits across all campuses and facilities. b. Collect and analyze real-time data on electricity, heating, cooling, and equipment usage using AI-driven systems. c. Identify inefficiencies and generate AI-powered recommendations for energy conservation and cost reduction. d. Implement the recommended measures through facility management teams and monitor performance. e. Conduct periodic follow-up audits to assess improvements and refine energy-saving strategies. f. Train relevant staff on the use and interpretation of AI-based energy audit tools.	Director Admin

Figure 53: Rector's Briefing: Action Points, Academic Wing, 24 November 2025 (extract): item 7, energy audits across all campuses and facilities, implementation of the recommended energy conservation measures and follow-up audits; action by the Director Admin.

6. Emission reductions delivered (continued): electricity reduction tracked by KPI

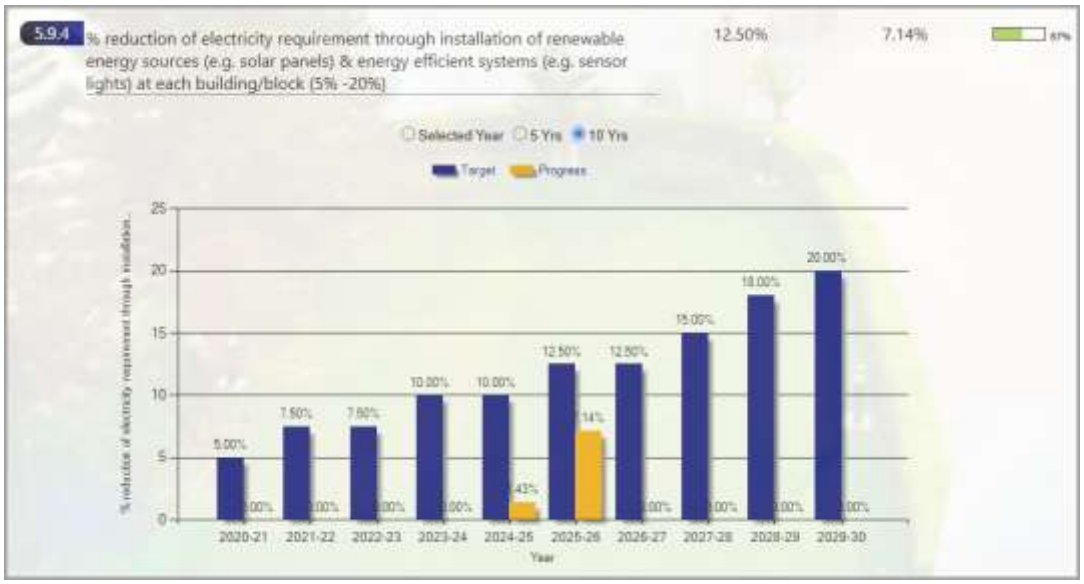


Figure 54: Strategic Management Plan, KPI 5.9.4, ten-year view: targets for the reduction in electricity requirement of each building or block, from 5.00 per cent (2020-21) to 20.00 per cent (2029-30), and the progress reported for 2024-25 (1.43 per cent) and 2025-26 (7.14 per cent). Captured on 4 November 2026.

6. Emission reductions delivered (continued): tree plantation

The campuses also plant trees, which the University records as a measure for reducing carbon emissions (Table 4).

Table 4: Tree plantation, 2024-25 and 2025

Campus	Activity	Date	Record
Health Sciences, Islamabad	325 trees planted by 225 faculty and staff members and 100 students of the College of Medicine	Feb and Mar 2025	Campus report, January to June 2025
Lahore	Tree plantation drive under the Community Service Program, promoting a cleaner and greener environment	20 Mar 2025	Community Service Program report, 2024-25
Institute of Professional Psychology, Karachi	Tree plantation and beach cleaning drives by students	2024-25	Community Support Program annual report, 2024-25
Islamabad E-8	Participation in the plantation drive of the Assistant Commissioner Islamabad and the Capital Development Authority at the Shaheen Chowk green belt	30 Dec 2025	University social media post



Figure 55: Health Sciences campus, Islamabad: students and faculty of the College of Medicine after the tree plantation campaign, February and March 2025. Campus report, January to June 2025.

6. Emission reductions delivered (continued): tree plantation



Figure 56: Lahore campus: tree plantation drive under the Community Service Program, 2024-25. Campus records.



Figure 57: Islamabad E-8 campus: plantation drive at the Shaheen Chowk green belt with the Assistant Commissioner Islamabad and the Capital Development Authority, 30 December 2025. University social media.
University social media post, 30 December 2025:
https://www.facebook.com/officialBU/posts/pfbid02AJNTXLtZx17HAA5YkiWCjkVLEgNgugQC2B2ZwPLwc4p6ZrRfPZHjntaGXRdMNjhkl

6. Emission reductions delivered (continued): carbon accounting shared at COP30

In November 2025 the Dean of Management Sciences, who heads CORE-CF, represented the University at the 30th United Nations Climate Change Conference (COP30) in Belém, Brazil, and the University presented its model for mapping and monetising institutional carbon footprints, reported on its official social media on 30 November 2025 as a commitment to carbon accountability and responsible resource management (Figure 58).



Figure 58: COP30, Belém, Brazil, November 2025: the Head of CORE-CF at the conference venue (left and right) and a session in the Pakistan pavilion (centre). University social media, 30 November 2025.
University social media post, 30 November 2025:
https://www.facebook.com/officialBU/posts/pfbid0AjpPBneDh8sqsihMoCyT9JXxAzbmtVPuCWQXg33rm7HpwnESusoUnMh3TonqkxJxl

7. Summary of evidence

Element	Evidence	Figures
Process in place by 2025	2024-25 greenhouse gas inventory; CORE-CF established 24 November 2025; Rector's November 2025 energy audit directive; campus reduction initiatives; SCAP effective 7 December 2025, assigning carbon accounting and annual inventory requirements. Current HSE environmental management cycle is reproduced as reviewed in July 2026.	2; 17 to 23; 40 to 49; Section 6
Measurement	Emissions recorded to GHG standards by CORE-CF from 2024-25; 2024-25 inventory: Scope 1, 414.84; Scope 2, 3,554.18; Scope 3, 17,182.51; total 21,151.53 tCO2e; multi-campus carbon footprint mapping under the GHG Protocol described on the CORE-CF webpage	23; Table 2; 20
Responsibility	Campus Directors implement and audit EMPs; Earth and Environment Sciences monitors; Head Office receives data with CORE-CF support (HSE 6.3, 6.6, 6.22–6.25). CORE-CF establishment and Board records; Sustainability Council, Carbon Accounting Team and campus officers (CEMP 4.1; SCAP 4.2).	7 to 16; 17 to 19; 24 to 49
Targets and planning	CEMP 1.2 and CORE-CF webpage: net zero across all scopes by 2050 and absolute emissions 50% lower by 2040. SCAP 3.1: Scope 1 and 2 emissions 50% lower by 2040 (FY2024 baseline). Carbon budgets and project assessments (CEMP 6.3); building electricity targets (KPI 5.9.4).	20; 24 to 39; 44 to 45
Monitoring, verification and reporting	Current HSE: Scope 1 to 3 measurement (6.2(b)), monitoring and annual environmental audits (6.6(b), 6.21(d)). SCAP: annual inventory with verification (8.1). CEMP: quarterly reviews, annual internal audit and annual carbon report (9.1–9.3).	8 to 16; 24 to 49
Reductions delivered	923,403 kWh of on-campus solar generation in 2025 from systems including 870 kW completed in 2024-25; energy audit directive of 24 November 2025; 325 trees planted and plantation drives at four campuses; carbon footprint model presented at COP30	50 to 58; Tables 3 and 4
Public	CORE-CF webpage publishes inventory work, its stated net-zero goal and four-phase strategy; retained University social media posts document activities.	20 to 22; Section 6

The dated records show a carbon management process operating in 2025 through greenhouse gas measurement, CORE-CF establishment, energy audits and campus reduction initiatives. The Sustainability and Climate Action Policy became effective in December 2025 and sets annual inventory, verification and coordination requirements. The current HSE Policy provides the reviewed environmental management cycle and reporting responsibilities; the Carbon Emissions Management Policy provides carbon budgets, internal review and public reporting. The targets reproduced from each policy and the CORE-CF webpage are attributed to their respective sources.