SDG
07
AFFORDABLE AND CLEAN ENERGY

EVIDENCE DOCUMENT | INDICATOR 7.4.3

Energy efficiency and clean energy services for industry

METRIC 7.4 Energy and the community

REFERENCE YEAR	COVERAGE	DATE PREPARED
2025	Karachi and Islamabad; maritime, energy and industrial sectors	5 November 2026

ISSUING OFFICE	EVIDENCE ID
Directorate of Quality Assurance, Head Office	E-07-7.4.3

THE SIR 2027 REQUIREMENT

Does your university as a body provide direct services to local industry aimed at improving energy efficiency and clean energy (energy efficiency assessments, workshops, research renewable energy options)?

01 Statement of Evidence

Bahria University's direct answer to the requirement

Yes. Bahria University as a body provides direct services to industry aimed at improving energy efficiency and clean energy, through training, research, advisory services and knowledge exchange. From 19 to 23 August 2024 the Department of Maritime Sciences at the Karachi campus offered a fee-based International Certificate Course on Energy Efficiency Measures for Ports and Shipping Industry, with a registration category for maritime professionals. The National Institute of Maritime Affairs (NIMA), which operates under the auspices of the University, published a study of green shipping technologies for Pakistan's shipping sector in January 2025, held a webinar on the IMO Net-Zero Framework with Karachi Shipyard, the Pakistan National Shipping Corporation and the Karachi and Port Qasim port authorities on 30 April 2025, and met Renewable Resources Pvt on renewable energy solutions on 8 August 2025. CORE-CF offers carbon footprint mapping, reduction pathways, compliance readiness and training to private organisations and industries. The University also signed an MoU on energy solutions with Creative Group of Industries and met Shandong Haizhichen New Energy Technology on renewable energy technologies, and its faculty published research on renewable energy options in 2025.

02 Evidence and Activity Record

Dated facts and records that substantiate the statement

Sections 1 to 4 present the services delivered: the fee-based certificate course on energy efficiency for the ports and shipping industry of August 2024; the research, webinar and renewable energy knowledge exchange that NIMA provided to the maritime and energy industries in 2025; the advisory and training services that CORE-CF offers to private organisations and industries; and the University's agreements and meetings with energy industry partners, each with its public record and photographs. Section 5 lists the research on renewable energy options published by University faculty in 2025. Section 6 presents the policy framework, the Sustainability and Climate Action Policy and the Human Resource Policy Manual, each from its cover through its complete table of contents followed by the pages cited, and Section 7 summarises the evidence against each element of the requirement.

TABLE 1 Energy efficiency and clean energy services for industry, 2025

No.	Element	Record	Industry served	Date	Evidence
1	Fee-based training for industry	International Certificate Course on Energy Efficiency Measures for Ports and Shipping Industry; resource person from the Amsterdam University of Applied Sciences; maritime professionals registered at PKR 17,500	Maritime professionals; ports and shipping industry	19 to 23 Aug 2024	Department of Maritime Sciences, Karachi campus; Section 1
2	Research for the shipping sector	NIMA study of MARPOL Annex VI and green shipping technologies, recommending a national action plan for reducing greenhouse gas emissions from shipping; copies on request	Shipping sector and regulators	Jan 2025	NIMA website; Section 2
3	Industry webinar	Webinar on the IMO Net-Zero Framework under MARPOL Annex VI with Karachi Shipyard and Engineering Works, the Pakistan National Shipping Corporation, Karachi Port Trust, Port Qasim Authority and the Office of the DG Ports and Shipping	Shipyard, national shipping company, port authorities	30 Apr 2025	NIMA website; Section 2
4	Renewable energy knowledge exchange	Meeting with Renewable Resources Pvt on integrating renewable energy solutions into Pakistan's blue economy; commitment to share expertise and explore collaborative projects	Renewable energy company	8 Aug 2025	NIMA website; Section 2
5	Advisory and training services	CORE-CF: carbon footprint mapping and inventories, practical reduction pathways, CBAM and climate compliance readiness for institutions and industries, training and workshops for professionals	Private organisations and industries	Offered from Nov 2025	CORE-CF webpage; Section 3

No.	Element	Record	Industry served	Date	Evidence
6	Agreements and meetings with industry	MoU with Creative Group of Industries, Lahore, on energy, engineering and technology solutions; meeting with Shandong Haizhichen New Energy Technology on renewable energy technologies, internships and joint research	Industrial group; energy enterprise	14 Feb 2025; 17 Oct 2025	University social media; Section 4
7	Research on renewable energy options	Geothermal resource assessment in Pakistan; tilt angle and photovoltaic panel performance; floating offshore wind turbines; energy management of microgrids and shipboard power systems	Energy and maritime sectors	2025	Published research with DOIs; Section 5
8	Policy framework	Faculty consultancy to industry for compensation through University-led and faculty-led streams; commitment to net zero across all campuses by 2050; research priority on industrial decarbonisation; partnerships with renewable energy companies, technology providers and the construction industry	University-wide	In force	HR Policy Manual, chapter 10; SCAP, paras 1.2, 3.1, 6.2 and 7.2; Section 6

1. Fee-based training for industry: energy efficiency for ports and shipping

From 19 to 23 August 2024 the Department of Maritime Sciences at the Karachi campus, in collaboration with the International Office, offered an International Certificate Course on Energy Efficiency Measures for Ports and Shipping Industry. The course was led by Mr Hubert Schaafsma, Head of the Nautical College at the Amsterdam University of Applied Sciences, Netherlands, and combined academic discussions, industry case studies and collaborative learning to build participants' understanding of energy efficiency in the maritime sector.

The course was a paid service open to industry. Its announcement set out three registration categories, each with its own fee: the University's own students, alumni and faculty (PKR 3,750); students and faculty of other institutions (PKR 10,000); and maritime professionals (PKR 17,500), with registration by 13 August 2024. The University record states that it was designed for students, alumni and maritime professionals (Figures 1 and 2).

1. Fee-based training for industry (continued): University record

INTERNATIONAL SUMMER SCHOOL PROGRAMMES BY BAHRIA BUSINESS SCHOOL ISLAMABAD AND SCHOOL OF LAW (AUGUST 19 – AUGUST 23, 2024)

Bahria University Karachi Campus (BUKC), in collaboration with the International Office, organized an International Summer School programme from 19 to 23 August 2024, focusing on "Energy Efficiency Measures for Ports and Shipping Industry". The initiative aimed to provide students, alumni, and maritime professionals with an immersive academic and practical learning experience aligned with BU's Strategic Plan and commitment to internationalization.



The programme was led by Mr. Hubert Schaafsma, Head of Nautical College at Amsterdam University of Applied Sciences, Netherlands, as the main resource person. Sessions included intensive academic discussions, industry-relevant case studies, and collaborative learning activities designed to enhance participants' understanding of energy efficiency in the maritime sector

This programme reflects Bahria University's continued dedication to providing globally relevant academic exposure, fostering interdisciplinary learning, and strengthening collaboration with international institutions such as Amsterdam University of Applied Sciences. Incentives were also offered to faculty, staff, and students who facilitated sponsorships, further promoting engagement and support for the initiative.

Figure 1: Bahria University annual report data, 2024-25: International Summer School programme, Karachi campus, 19 to 23 August 2024, on Energy Efficiency Measures for Ports and Shipping Industry, with the course announcement of the Department of Maritime Sciences.

1. Fee-based training for industry (continued): course announcement

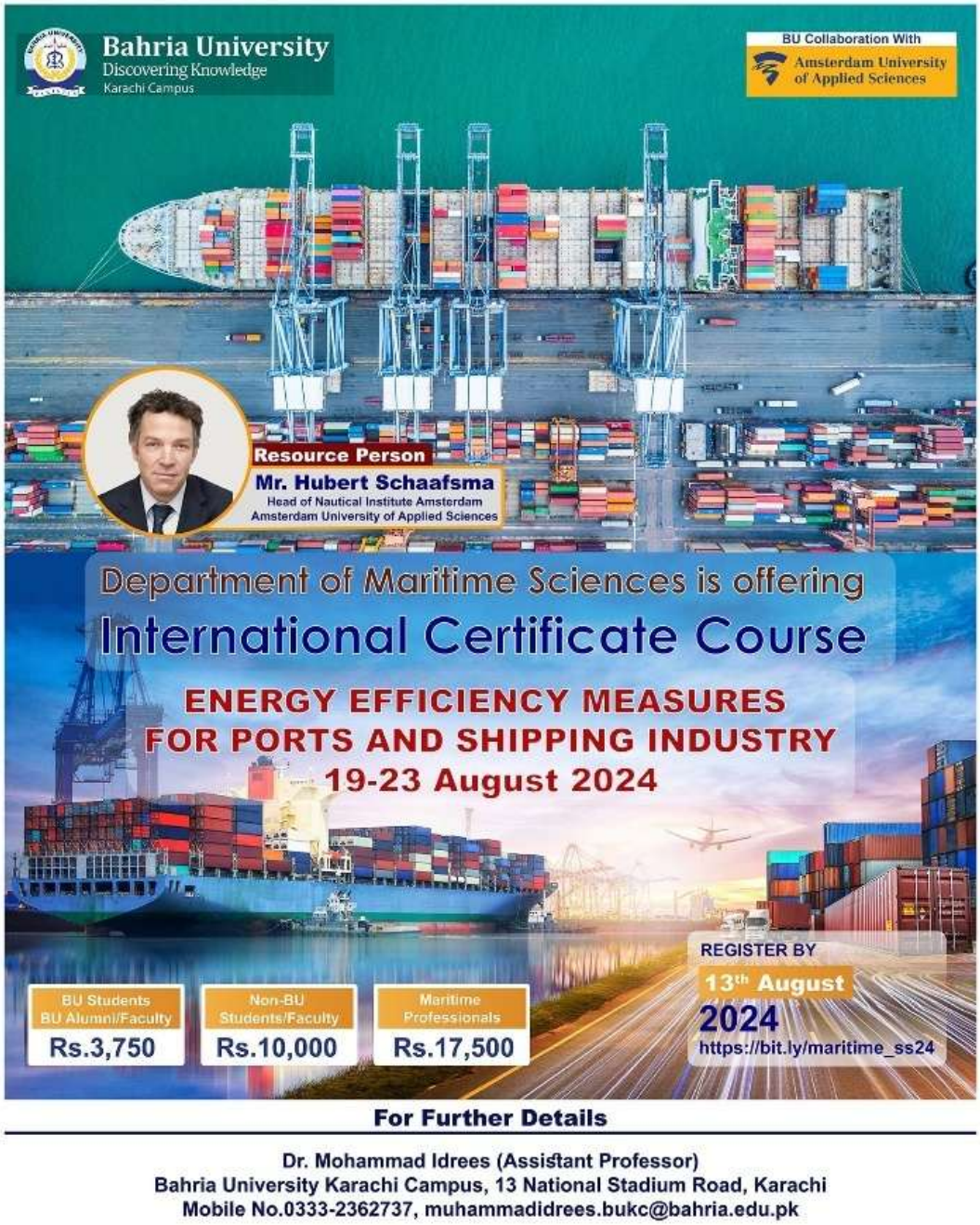

Figure 2: Course announcement, Department of Maritime Sciences, Karachi campus, extracted from the record: International Certificate Course, Energy Efficiency Measures for Ports and Shipping Industry, 19 to 23 August 2024, in collaboration with the Amsterdam University of Applied Sciences; registration fees for BU students, alumni and faculty (PKR 3,750), non-BU students and faculty (PKR 10,000) and maritime professionals (PKR 17,500).

2. NIMA: research, webinar and knowledge exchange for the maritime and energy industries

The National Institute of Maritime Affairs (NIMA) operates under the auspices of Bahria University, with its head office at the University's E-8 campus in Islamabad, as the NIMA website states. In 2025 it provided three services to industry on clean energy and energy efficiency.

Research for the shipping sector. In January 2025 NIMA published its report "Introduction to MARPOL Annex VI; Advancements in Green Shipping Technologies and Way Forward for Pakistan". The study examines the provisions of MARPOL Annex VI, the IMO instrument on air emissions and energy efficiency of ships, for their applicability in Pakistan, and serves as a stepping stone for the green shipping sector of Pakistan; it highlights ratification of the Annex, a National Action Plan for reducing greenhouse gas emissions from the shipping sector and international cooperation for Pakistan's green transition. Copies are available on request from NIMA (Figures 3 and 4).

Webinar with the shipping industry. On 30 April 2025 NIMA hosted the webinar "IMO's Net-Zero Framework under MARPOL Annex VI: Pakistan's Commitment and Way Forward", with speakers including a representative of Karachi Shipyard and Engineering Works and representatives of the Office of the DG Ports and Shipping, the Pakistan National Shipping Corporation, Karachi Port Trust and Port Qasim Authority. Speakers emphasised the role of research, institutional collaboration and policy integration in aligning Pakistan's shipping sector with the IMO Net-Zero Framework (Figures 5 and 6).

Renewable energy knowledge exchange. On 8 August 2025 a delegation from Renewable Resources Pvt, led by its Chief Executive Officer, Mr Attiq ur Rehaman, with Dr Irfan Mirza (President, WWEA) and Dr Shoaib Ahmed (Director), met NIMA to discuss how to integrate renewable energy solutions to support sustainable and climate-resilient growth in Pakistan's blue economy; both parties committed to sharing expertise and exploring collaborative projects (Figures 7 and 8).

2. NIMA (continued): report on green shipping technologies



Figure 3: NIMA website: NIMA Report on Introduction to MARPOL Annex VI; Advancements in Green Shipping Technologies and Way Forward for Pakistan, January 2025, with abstract, authors and the request for copies; footer with the NIMA head office at Bahria University; captured on 5 November 2026.

2. NIMA (continued): report on green shipping technologies

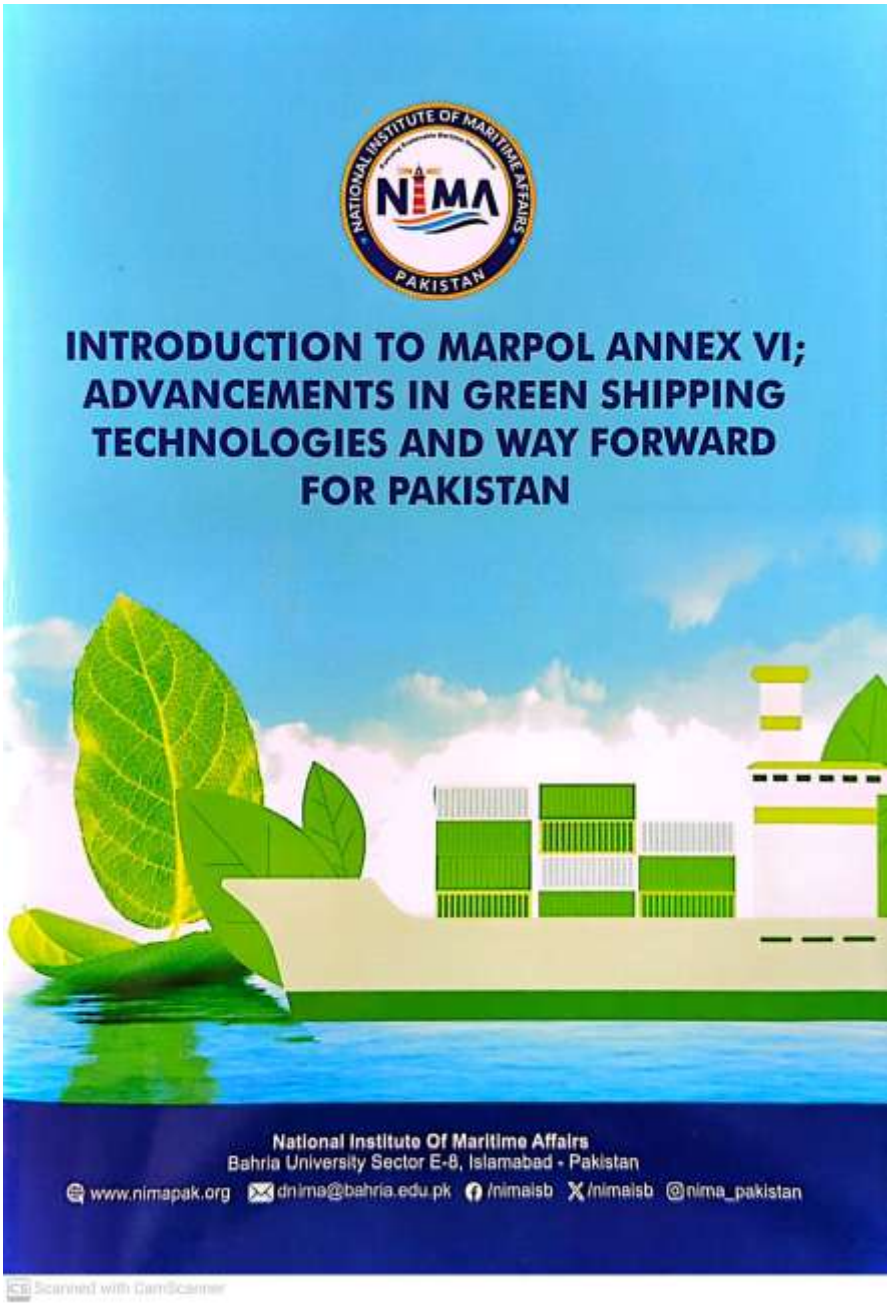

Figure 4: Cover of the NIMA report, Introduction to MARPOL Annex VI; Advancements in Green Shipping Technologies and Way Forward for Pakistan. Image from the NIMA website.

2. NIMA (continued): webinar with the shipping industry

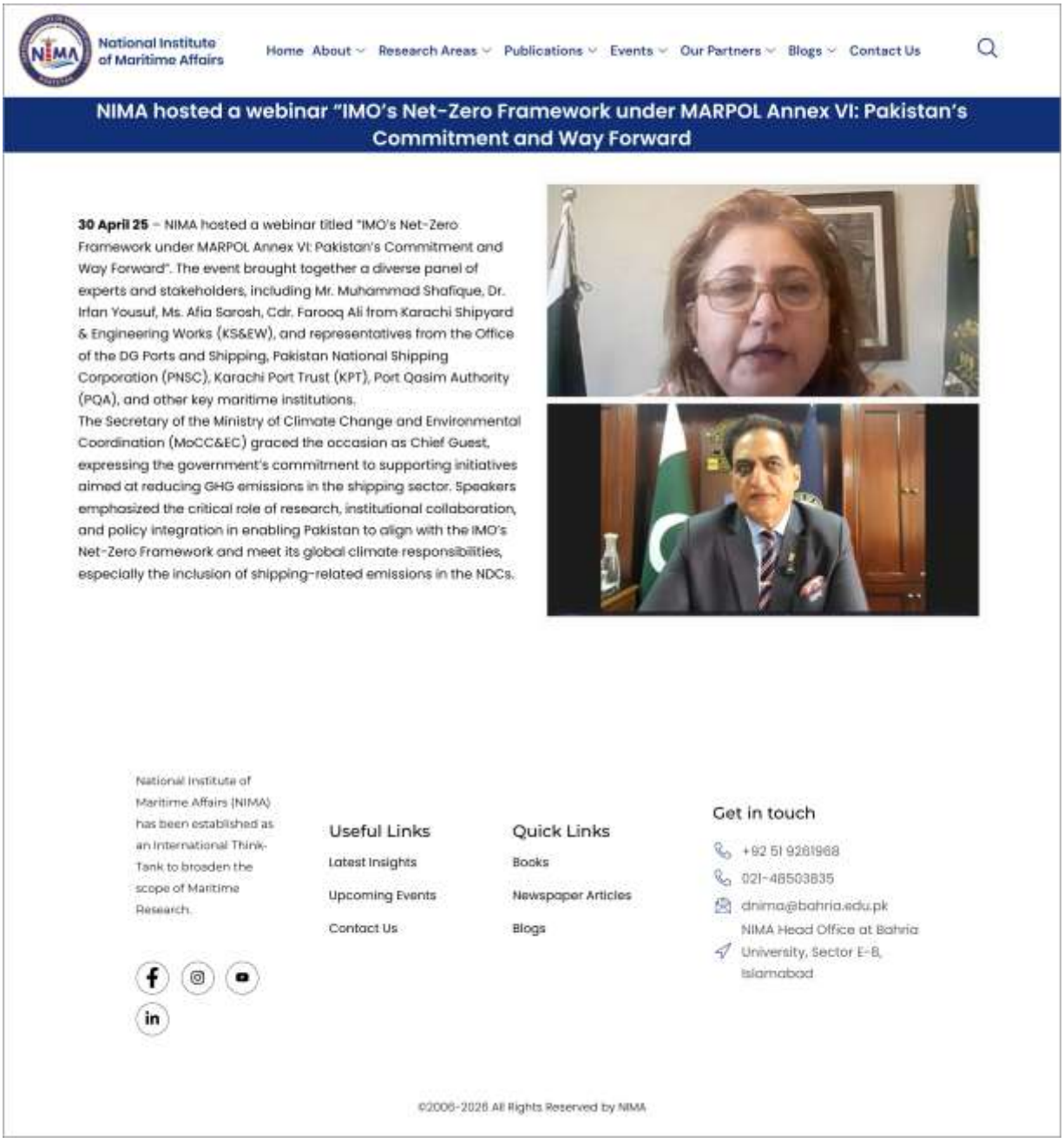

Figure 5: NIMA website: "NIMA hosted a webinar 'IMO's Net-Zero Framework under MARPOL Annex VI: Pakistan's Commitment and Way Forward'", 30 April 2025, with representatives of Karachi Shipyard and Engineering Works, the Office of the DG Ports and Shipping, PNSC, Karachi Port Trust and Port Qasim Authority; captured on 5 November 2026.

2. NIMA (continued): webinar with the shipping industry



Figure 6: Webinar on the IMO Net-Zero Framework under MARPOL Annex VI, 30 April 2025: speakers. Photograph from the NIMA website.

2. NIMA (continued): renewable energy knowledge exchange

NIMA website, 8 August 2025: https://nimapak.org/a-delegation-from-renewable-resources-pvt-led-by-mr-attiq-ur-rehaman-visited-nima/

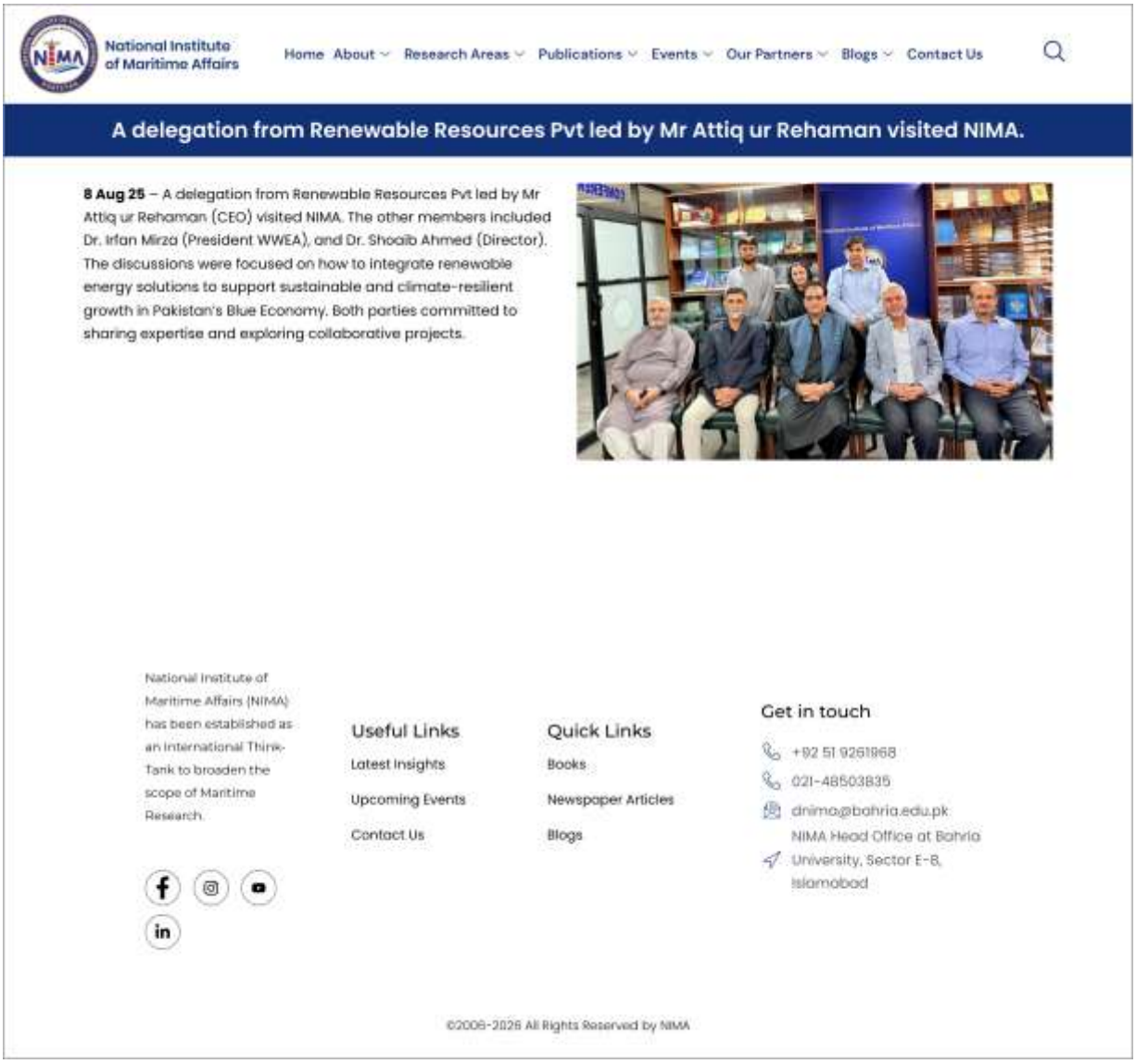

Figure 7: NIMA website: “A delegation from Renewable Resources Pvt led by Mr Attiq ur Rehaman visited NIMA”, 8 August 2025, with the footer showing the NIMA head office at Bahria University, E-8, Islamabad; captured on 5 November 2026.

2. NIMA (continued): renewable energy knowledge exchange



Figure 8: Delegation of Renewable Resources Pvt with NIMA, Islamabad, 8 August 2025. Photograph from the NIMA website.
NIMA website, green shipping report: https://nimapak.org/nima-report-on-introduction-to-marpol-annex-vi-advancements-in-green-shipping-technologies-and-way-forward-for-pakistan/
NIMA website, webinar of 30 April 2025: https://nimapak.org/nima-hosted-a-webinar-imos-net-zero-framework-under-marpol-annex-vi-pakistans-commitment-and-way-forward/

3. CORE-CF: advisory and training services for organisations and industries

The Center of Research Excellence in Climate Finance (CORE-CF), established on 24 November 2025, offers on its public webpage research, advisory and capacity-building services for universities, public institutions, private organisations and development partners (Figure 10). The services include carbon footprint mapping and carbon inventory development, through which the Center supports organisations in measuring greenhouse gas emissions, identifying hotspots and creating practical reduction pathways; CBAM and climate compliance readiness, through which it assists institutions and industries in understanding the Carbon Border Adjustment Mechanism and related climate-policy developments that affect competitiveness and export preparedness; and seminars, trainings, workshops and knowledge sessions on climate finance, sustainability and carbon management for organisational leaders and professionals. The webpage describes the Center as a hub for research, consulting and capacity building that works with academia, government, regulators and industry (Figures 9 to 12).

University website, Center of Research Excellence in Climate Finance:
https://bahria.edu.pk/page/PageTemplate4?pageContentId=8302&websiteId=1

3. CORE-CF (continued): webpage



Bahria University
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BU

ABOUT ACADEMICS ADMISSIONS RESEARCH & INNOVATIONS INTERNATIONAL CAMPUS

Center of Research Excellence - Climate Finance

"Accountability – Not Aid, Assets – Not Appeals"

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.

Who We Are and How We Were Born: The Story of Carbon Sensitization

CORE-CF was established at Bahria University as a dedicated platform to respond to the growing urgency of climate change and the increasing need for innovative, evidence-based climate finance solutions. The center brings together research, policy thinking, institutional action, and stakeholder engagement to support sustainable development and climate resilience in Pakistan and beyond.

Our journey began in the classroom. A BBA final-semester class project first developed the idea of mapping Bahria University's carbon footprint to turn sustainability into measurable institutional action. It was later expanded into a university-wide Carbon Footprint Mapping Initiative covering the Islamabad, Karachi, and Lahore campuses across Scopes 1, 2, and 3 under the GHG Protocol for FYs 2022–2025. This initiative produced Bahria University's first consolidated greenhouse gas emissions baseline and actionable recommendation for the future.

The findings made one thing clear: climate action needed to move beyond isolated efforts. The mapping exercise showed the scale of the University's climate challenge and highlighted the need for a permanent structure to sustain measurement, reporting, coordination, and implementation. CORE-CF emerged from this realization as a hub for carbon sensitization, climate-finance leadership, and institutional transformation.

Today, CORE-CF represents Bahria University's commitment to linking academic excellence with national relevance. It is a center designed not only to study climate finance, but to apply it through carbon mapping, policy dialogue, training, partnerships, and practical solutions for a low-carbon future.

OUR GOAL: NET ZERO

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)

Driving sustainable transformation through accountability, innovation, and climate leadership.

Figure 9: University website, Center of Research Excellence in Climate Finance webpage, captured on 4 November 2026, part 1 of 4: the Center and its mission.

3. CORE-CF (continued): webpage

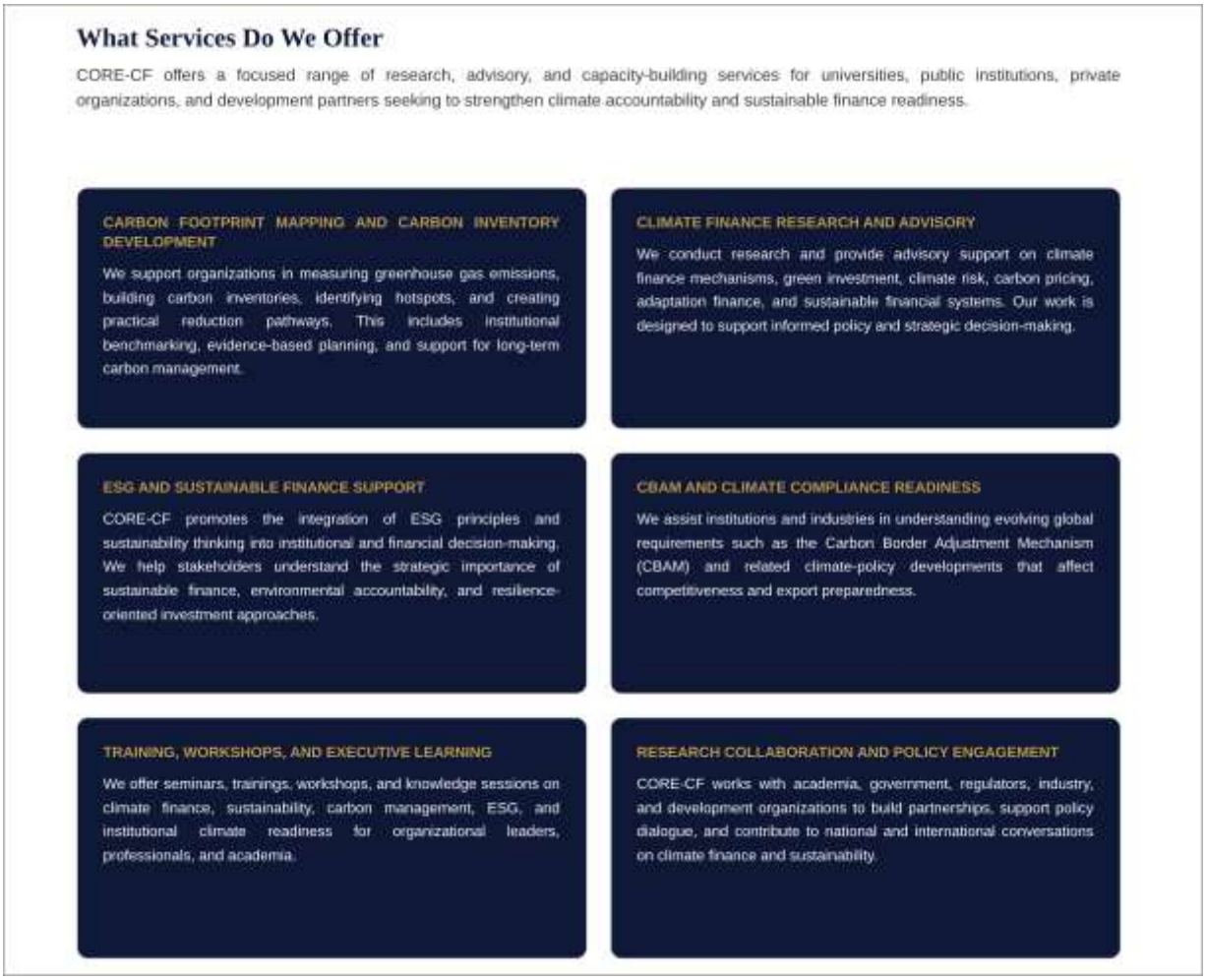
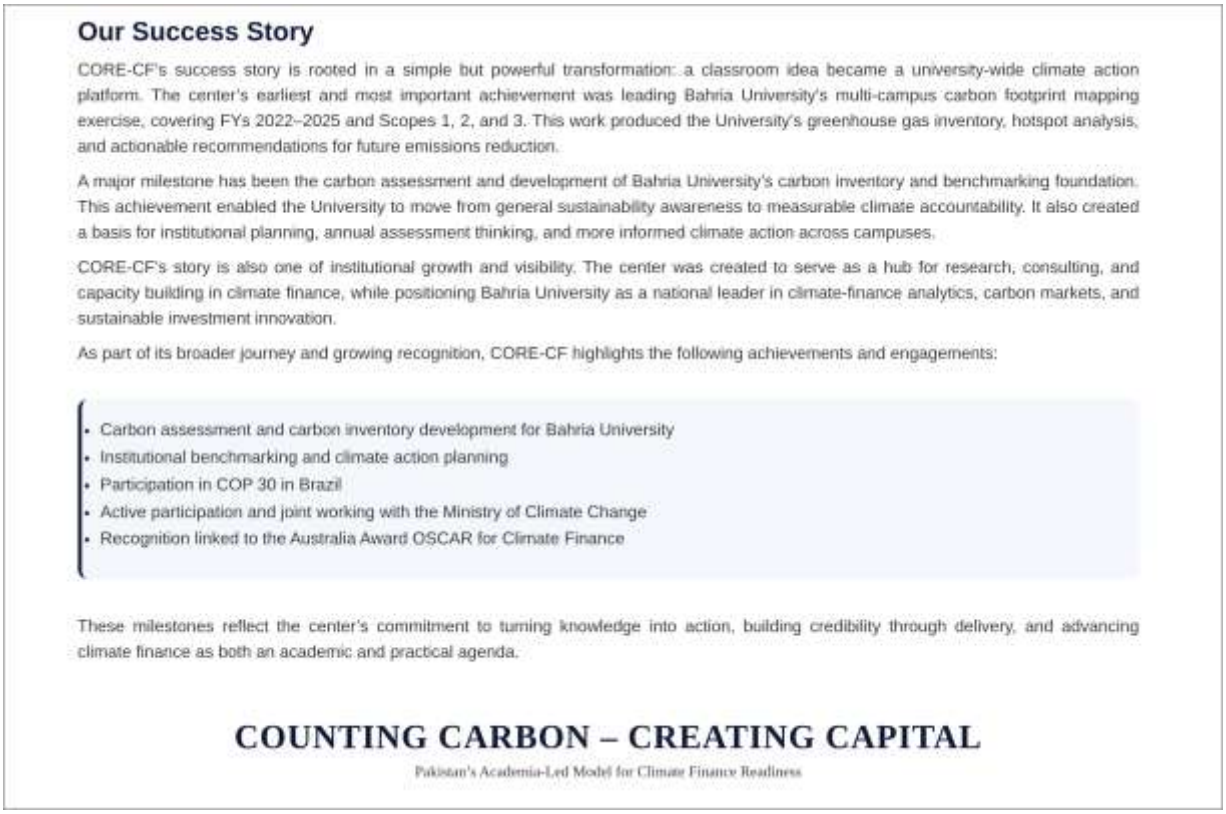


Figure 10: CORE-CF webpage, part 2 of 4: services for universities, public institutions, private organisations and development partners, including carbon footprint mapping and carbon inventory development, CBAM and climate compliance readiness for institutions and industries, and training, workshops and executive learning for professionals.

3. CORE-CF (continued): webpage



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.

COUNTING CARBON – CREATING CAPITAL

Pakistan's Academia-Led Model for Climate Finance Readiness

Figure 11: CORE-CF webpage, part 3 of 4: the Center's achievements and engagements, as a hub for research, consulting and capacity building.

3. CORE-CF (continued): webpage

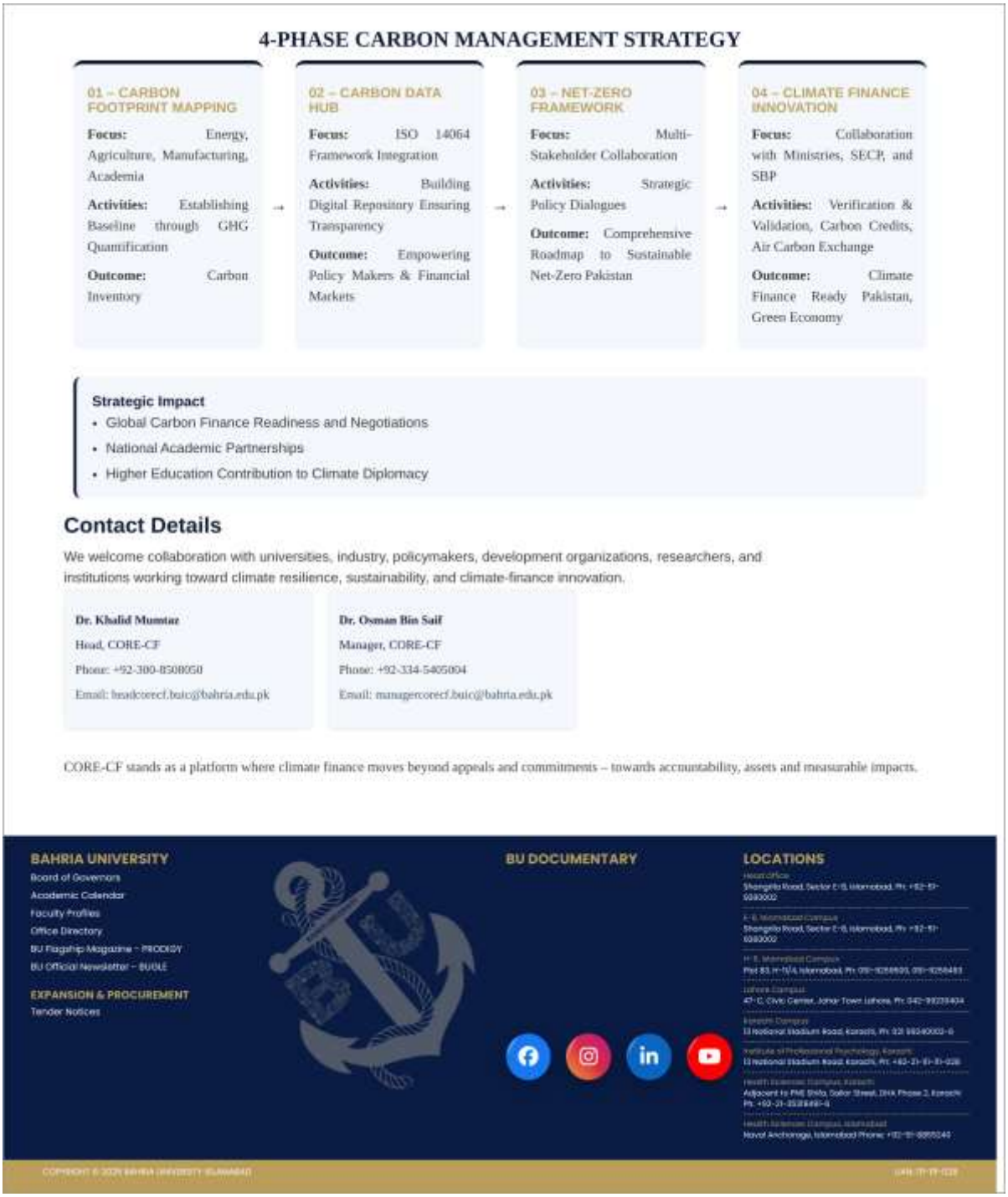


Figure 12: CORE-CF webpage, part 4 of 4: the four-phase carbon management strategy and contact details.

4. Agreements and meetings with energy industry partners

On 14 February 2025 Bahria University and Creative Group of Industries (CGI), Lahore, signed a Memorandum of Understanding to foster collaboration in energy, engineering and technology solutions, bridging academia and industry through research, innovation and professional development. The signing was chaired by the Rector, who highlighted the University's commitment to strengthening industrial linkages (Figures 13 to 15).

University social media, 14 February 2025:
https://www.facebook.com/officialBU/posts/pfbid0UGLzLDiSxKwbp5P1xAvTB3QBeg8Cbjfa9coAHCARAn3RbESaS3bDCX6Xz63dBCeLl



Figure 13: Signing of the MoU between Bahria University and Creative Group of Industries, Lahore, 14 February 2025: exchange of the signed agreement. University social media.

4. Agreements and meetings with energy industry partners (continued): Creative Group of Industries



Figure 14: MoU signing with Creative Group of Industries, 14 February 2025: meeting chaired by the Rector. University social media.



Figure 15: MoU signing with Creative Group of Industries, 14 February 2025: University and industry representatives. University social media.

4. Agreements and meetings with energy industry partners (continued): Shandong Haizhichen New Energy Technology

On 17 October 2025 a delegation from Shandong Haizhichen New Energy Technology, China, a subsidiary of Shandong Energy Group Co. Ltd. (SDE), one of China's largest state-owned energy enterprises with interests in electric power and new energy, met the University to discuss collaboration in research, innovation and renewable energy technologies, with the aim of opening avenues for student internships, joint research projects and knowledge exchange in the energy sector (Figures 16 to 19).

University social media, 17 October 2025:
https://www.facebook.com/officialBU/posts/pfbid02TZcH5QJMF7HgzecnTryHdYByffCZFABkBtgb4pc5Qfhun2puVkucjy9spA2LPLAdl



Figure 16: Meeting with the delegation of Shandong Haizhichen New Energy Technology, 17 October 2025: discussion of collaboration in research, innovation and renewable energy technologies. University social media.

4. Agreements and meetings with energy industry partners (continued): Shandong Haizhichen New Energy Technology



Figure 17: Meeting of 17 October 2025: a member of the delegation addressing the meeting. University social media.



Figure 18: Meeting of 17 October 2025: exchange of souvenirs with members of the delegation. University social media.

4. Agreements and meetings with energy industry partners (continued): Shandong Haizhichen New Energy Technology



Figure 19: Meeting of 17 October 2025: the delegation with University representatives. University social media.

5. Research on renewable energy options, 2025

University faculty published research in 2025 on renewable energy options and the efficient management of clean power, of direct relevance to Pakistan's energy and maritime industries (Table 2). The Department of Earth and Environmental Sciences assessed geothermal energy resources in Pakistan from satellite, geological, seismic and borehole data; engineering faculty measured the effect of tilt angle on the performance of photovoltaic panels, developed vibration control for floating offshore wind turbines, and designed energy management for multi-microgrid virtual power plants and for battery and power management in shipboard microgrids. Each paper is publicly accessible through its DOI.

Table 2: Research on renewable energy options and clean power management published by University faculty in 2025 (source: Directorate of Research and Innovation, publications record, January to December 2025)

Area	Publication	University author(s)	DOI
Geothermal energy	An integrated study to detect geothermal anomalies based on Landsat 8, geological, and geophysical data sets in Southeast Pakistan. Geothermics, 131, 103399 (2025)	Dr Muhsan Ehsan	10.1016/j.geothermics.2025.103399
Geothermal energy	Geothermal investigation of sandstone reservoirs using a probabilistic neural network with 2D seismic and borehole data: insights into structural and reservoir characteristics. Geothermics, 131, 103394 (2025)	Dr Muhsan Ehsan	10.1016/j.geothermics.2025.103394
Geothermal energy	Lithofacies and sandstone reservoir characterization for geothermal assessment through artificial intelligence. Results in Engineering, 26, 105173 (2025)	Dr Muhsan Ehsan; Dr Muhammad Raiees Amjad	10.1016/j.rineng.2025.105173
Solar energy	Experimental study to gauge the influence of tilt angle on photovoltaic panel performance. Revue Roumaine des Sciences Techniques, Série Électrotechnique et Énergétique, 70, 139–144 (2025)	Dr Basit Ali	10.59277/rrst-ee.2025.1.24
Offshore wind energy	Robust vibration control of a barge-type floating offshore wind turbine with a rotational-translational actuator. Ocean Engineering, 337, 121821 (2025)	Dr Rashid Iqbal	10.1016/j.oceaneng.2025.121821
Microgrids and virtual power plants	A collaborative energy management and price prediction framework for multi-microgrid aggregated virtual power plants. Sustainability, 18, 275 (published online 26 December 2025)	Dr Mukesh Kumar Maheshwari	10.3390/su18010275
Shipboard power	A robust multi-agent based hierarchical control strategy for SoC balancing and power management in DC shipboard microgrids. Battery Energy, 5, e70075 (published online 29 December 2025)	Dr Rashid Iqbal; Dr Adil Ali Raja	10.1002/bte2.70075

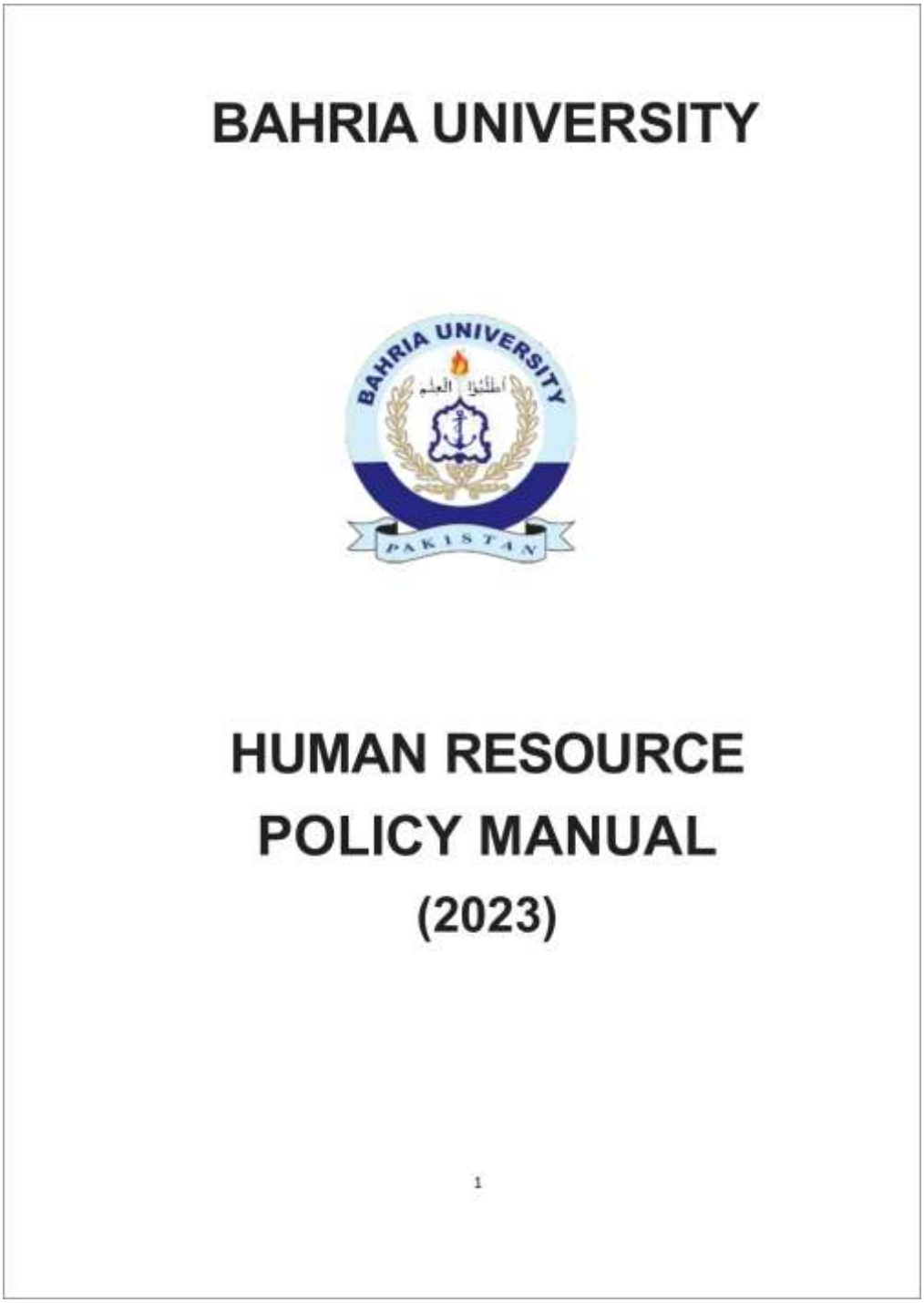
https://doi.org/10.1016/j.geothermics.2025.103399
https://doi.org/10.1016/j.geothermics.2025.103394
https://doi.org/10.1016/j.rineng.2025.105173
https://doi.org/10.59277/rrst-ee.2025.1.24
https://doi.org/10.1016/j.oceaneng.2025.121821
https://doi.org/10.3390/su18010275
https://doi.org/10.1002/bte2.70075

6. Policy framework for services to industry

Two University policies frame these services. The Human Resource Policy Manual (2023), approved by the Executive Committee at its 19th meeting on 20 July 2023 and promulgated with effect from 2 August 2023, sets out the Faculty Consultancy Policy (chapter 10). It encourages faculty to consult for agencies outside the University for compensation, to transfer knowledge gained through University research to industry, business, government and others (paras 10.1 and 10.2), defines consultancy to include advising, performing analysis, testing and system formulation (para 10.3), and provides a University-led stream in which the University arranges consultancy for its faculty through its own network, alongside a faculty-led stream (para 10.7), with income shared between the faculty member and the University (para 10.8).

The Sustainability and Climate Action Policy (BU-SCAP-2025), effective 7 December 2025 and approved by the Rector, commits the University to carbon neutrality (net zero) across all campuses by 2050, with a 50 per cent reduction in Scope 1 and 2 emissions by 2040 (paras 1.2 and 3.1). Toward this commitment it sets circular economy and industrial decarbonisation among the University's research priorities (para 6.2) and, under its industry and finance partnerships, commits the University to collaborate with renewable energy companies, engage technology providers and work with the construction industry on green building standards (para 7.2).

6. Human Resource Policy Manual (2023)


BAHRIA UNIVERSITY

HUMAN RESOURCE
POLICY MANUAL
(2023)

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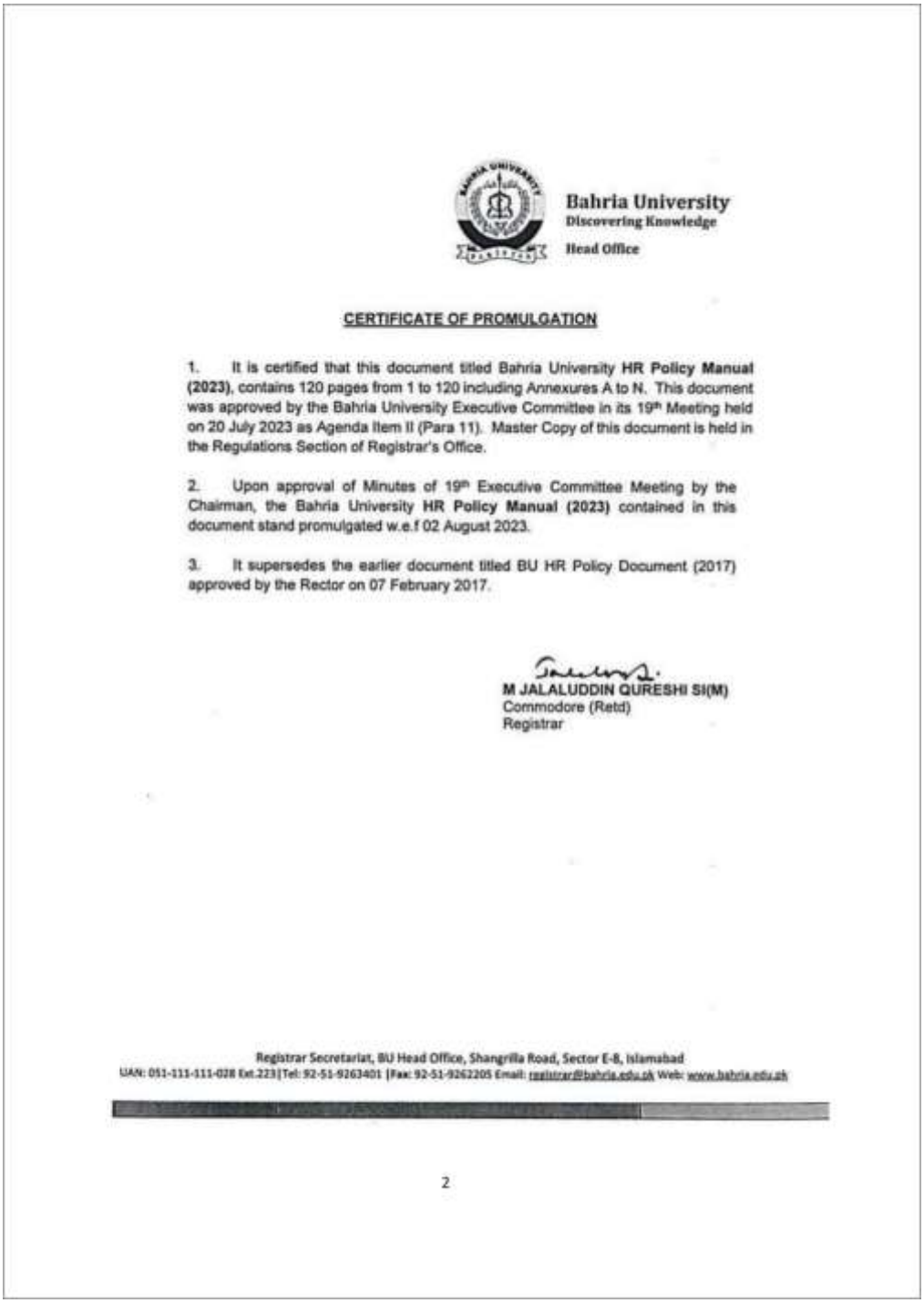
Figure 20: Human Resource Policy Manual (2023), PDF page 1: cover: Human Resource Policy Manual (2023).

6. Human Resource Policy Manual (2023)



Bahria University
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Head Office

CERTIFICATE OF PROMULGATION

1. It is certified that this document titled Bahria University **HR Policy Manual (2023)**, contains 120 pages from 1 to 120 including Annexures A to N. This document was approved by the Bahria University Executive Committee in its 19th Meeting held on 20 July 2023 as Agenda Item II (Para 11). Master Copy of this document is held in the Regulations Section of Registrar's Office.

2. Upon approval of Minutes of 19th Executive Committee Meeting by the Chairman, the Bahria University **HR Policy Manual (2023)** contained in this document stand promulgated w.e.f 02 August 2023.

3. It supersedes the earlier document titled BU HR Policy Document (2017) approved by the Rector on 07 February 2017.

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

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

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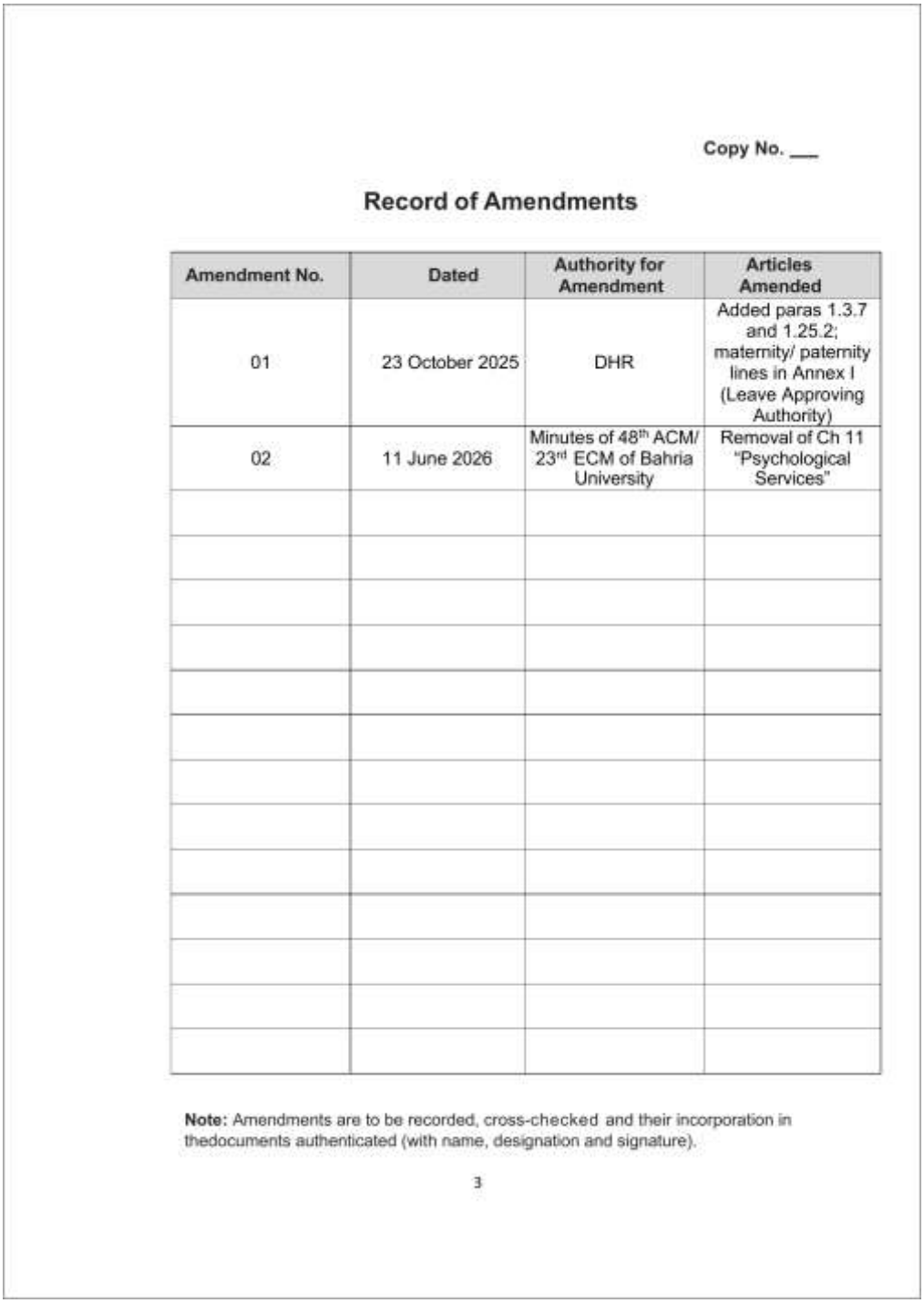
Figure 21: Human Resource Policy Manual (2023), PDF page 2: Certificate of Promulgation: approved by the Executive Committee in its 19th meeting on 20 July 2023; promulgated with effect from 2 August 2023.

6. Human Resource Policy Manual (2023)



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Record of Amendments

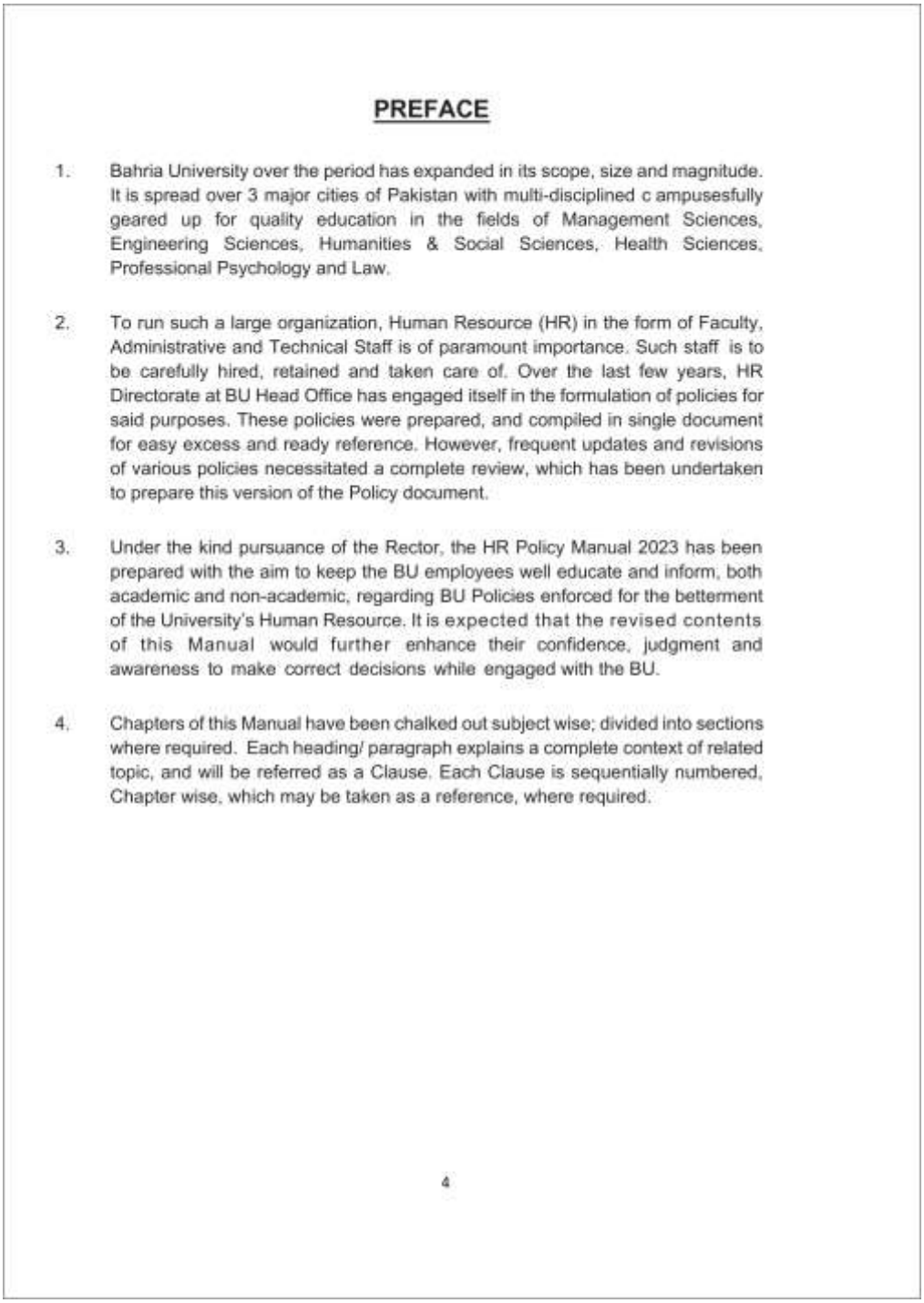
Amendment No.	Dated	Authority for Amendment	Articles Amended
01	23 October 2025	DHR	Added paras 1.3.7 and 1.25.2; maternity/ paternity lines in Annex I (Leave Approving Authority)
02	11 June 2026	Minutes of 48th ACM/ 23rd ECM of Bahria University	Removal of Ch 11 "Psychological Services"

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

3

Figure 22: Human Resource Policy Manual (2023), PDF page 3: Record of Amendments.

6. Human Resource Policy Manual (2023)



PREFACE

1. Bahria University over the period has expanded in its scope, size and magnitude. It is spread over 3 major cities of Pakistan with multi-disciplined c ampusesfully geared up for quality education in the fields of Management Sciences, Engineering Sciences, Humanities & Social Sciences, Health Sciences, Professional Psychology and Law.

2. To run such a large organization, Human Resource (HR) in the form of Faculty, Administrative and Technical Staff is of paramount importance. Such staff is to be carefully hired, retained and taken care of. Over the last few years, HR Directorate at BU Head Office has engaged itself in the formulation of policies for said purposes. These policies were prepared, and compiled in single document for easy excess and ready reference. However, frequent updates and revisions of various policies necessitated a complete review, which has been undertaken to prepare this version of the Policy document.

3. Under the kind pursuance of the Rector, the HR Policy Manual 2023 has been prepared with the aim to keep the BU employees well educate and inform, both academic and non-academic, regarding BU Policies enforced for the betterment of the University's Human Resource. It is expected that the revised contents of this Manual would further enhance their confidence, judgment and awareness to make correct decisions while engaged with the BU.

4. Chapters of this Manual have been chalked out subject wise; divided into sections where required. Each heading/ paragraph explains a complete context of related topic, and will be referred as a Clause. Each Clause is sequentially numbered, Chapter wise, which may be taken as a reference, where required.

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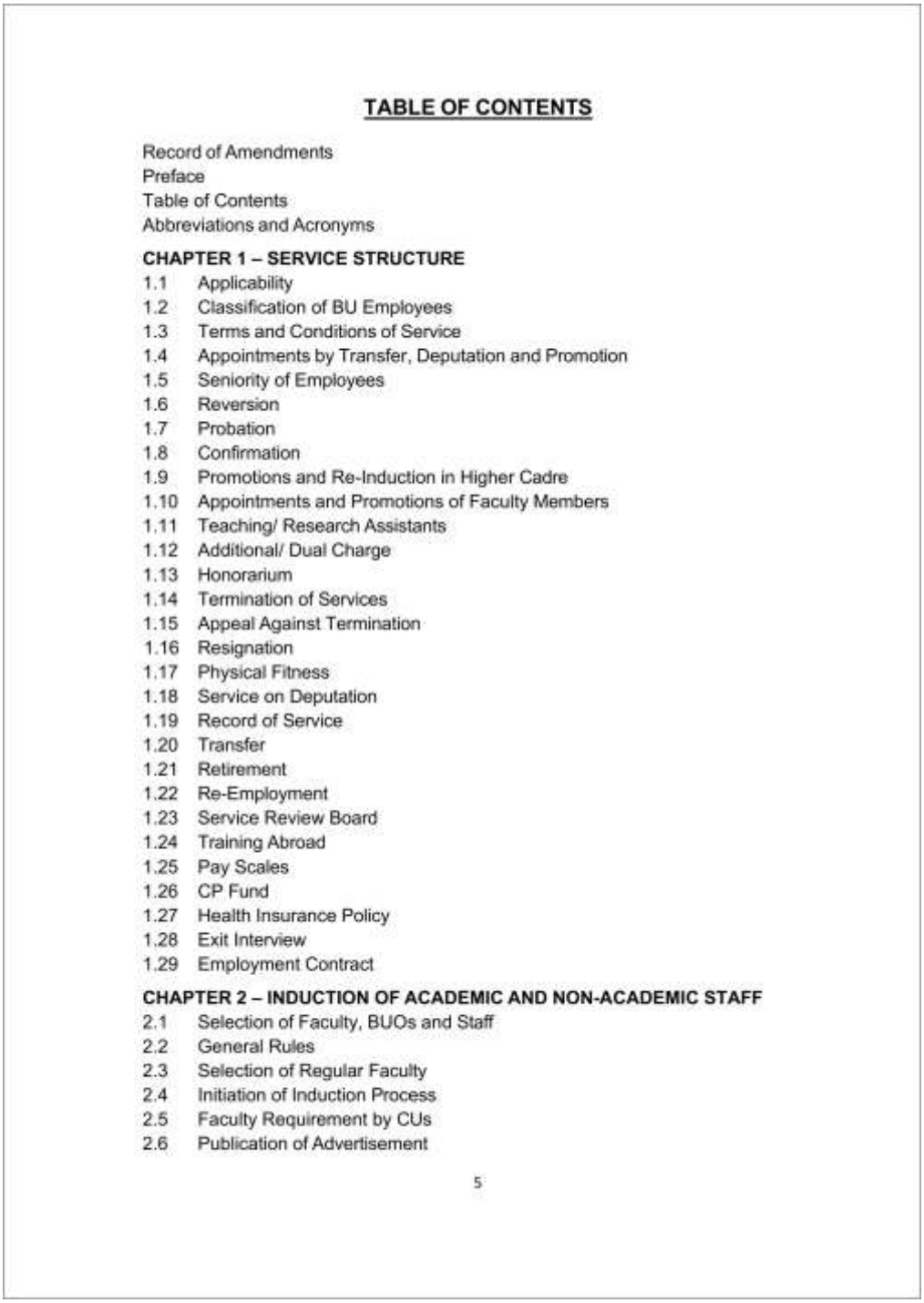
Figure 23: Human Resource Policy Manual (2023), PDF page 4: Preface.

6. Human Resource Policy Manual (2023)



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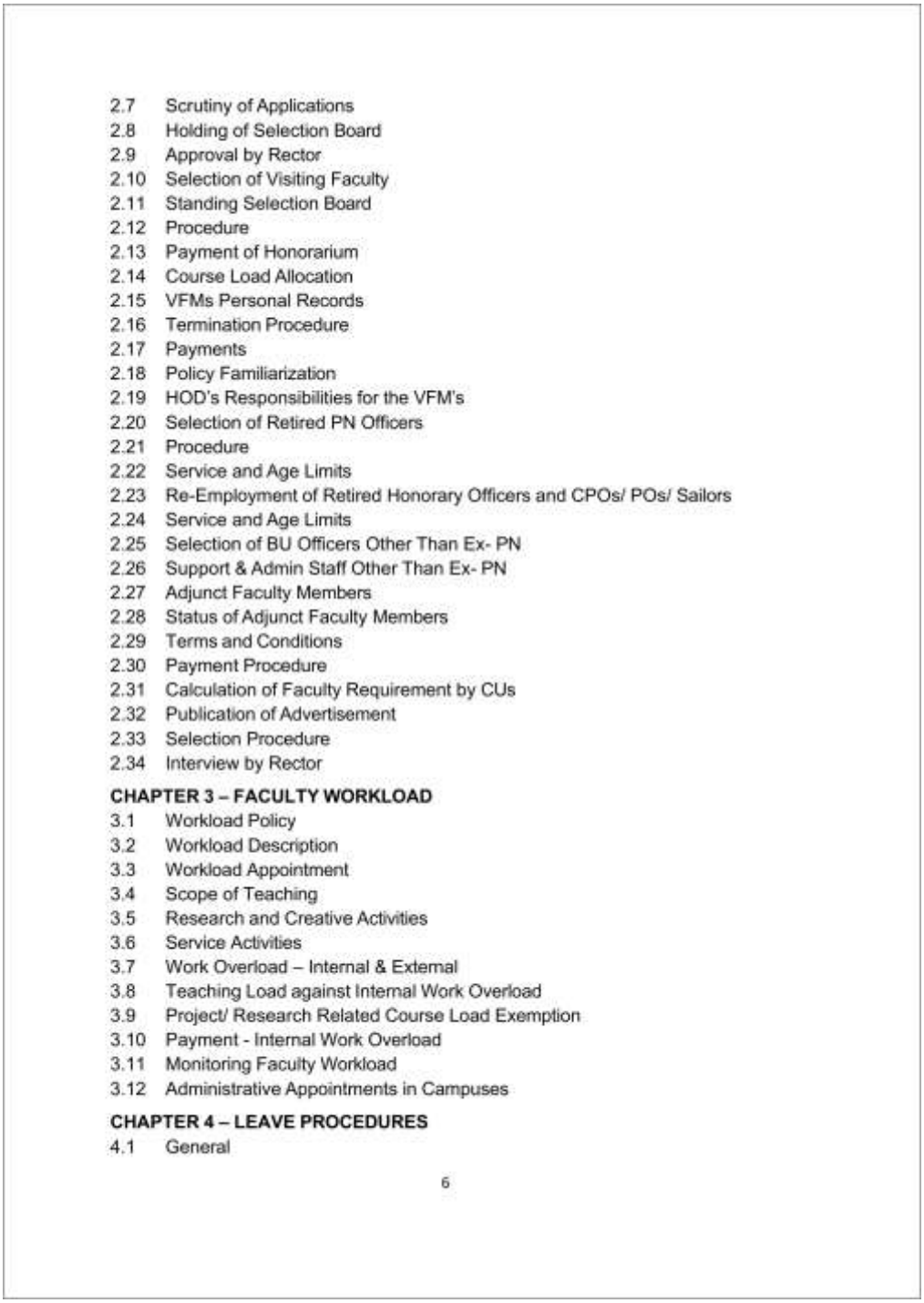

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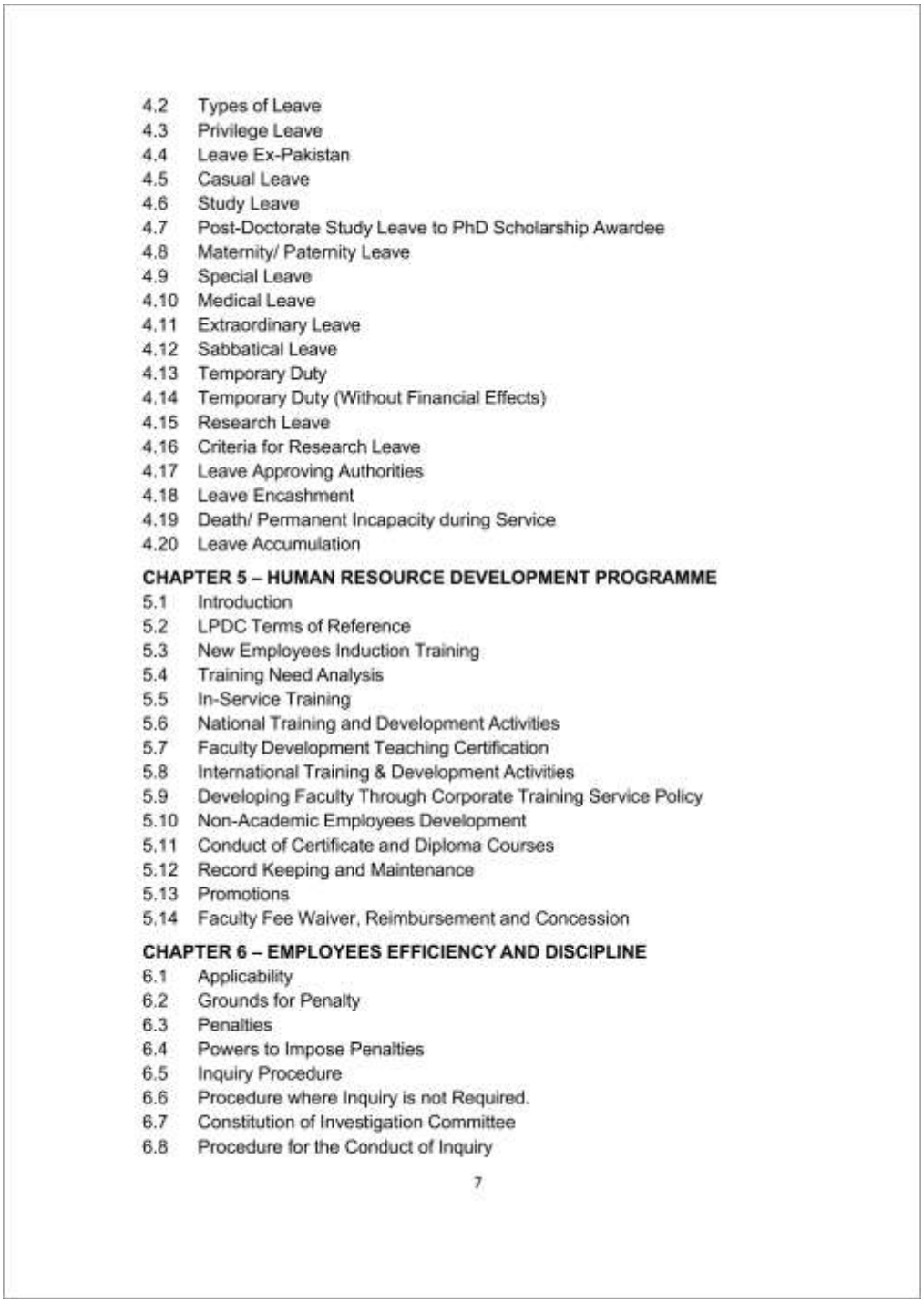

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Figure 26: Human Resource Policy Manual (2023), PDF page 7: Table of Contents (continued).

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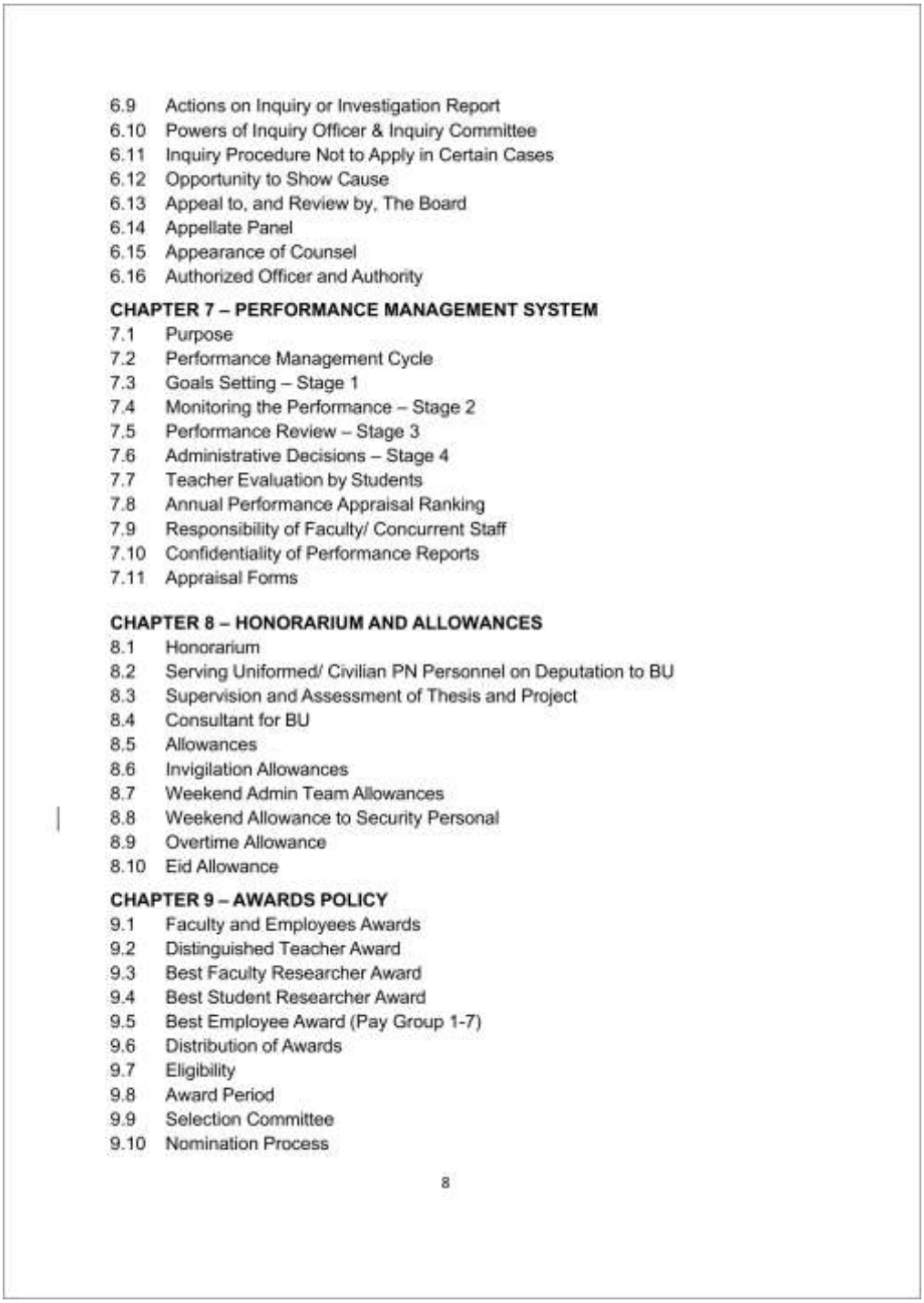

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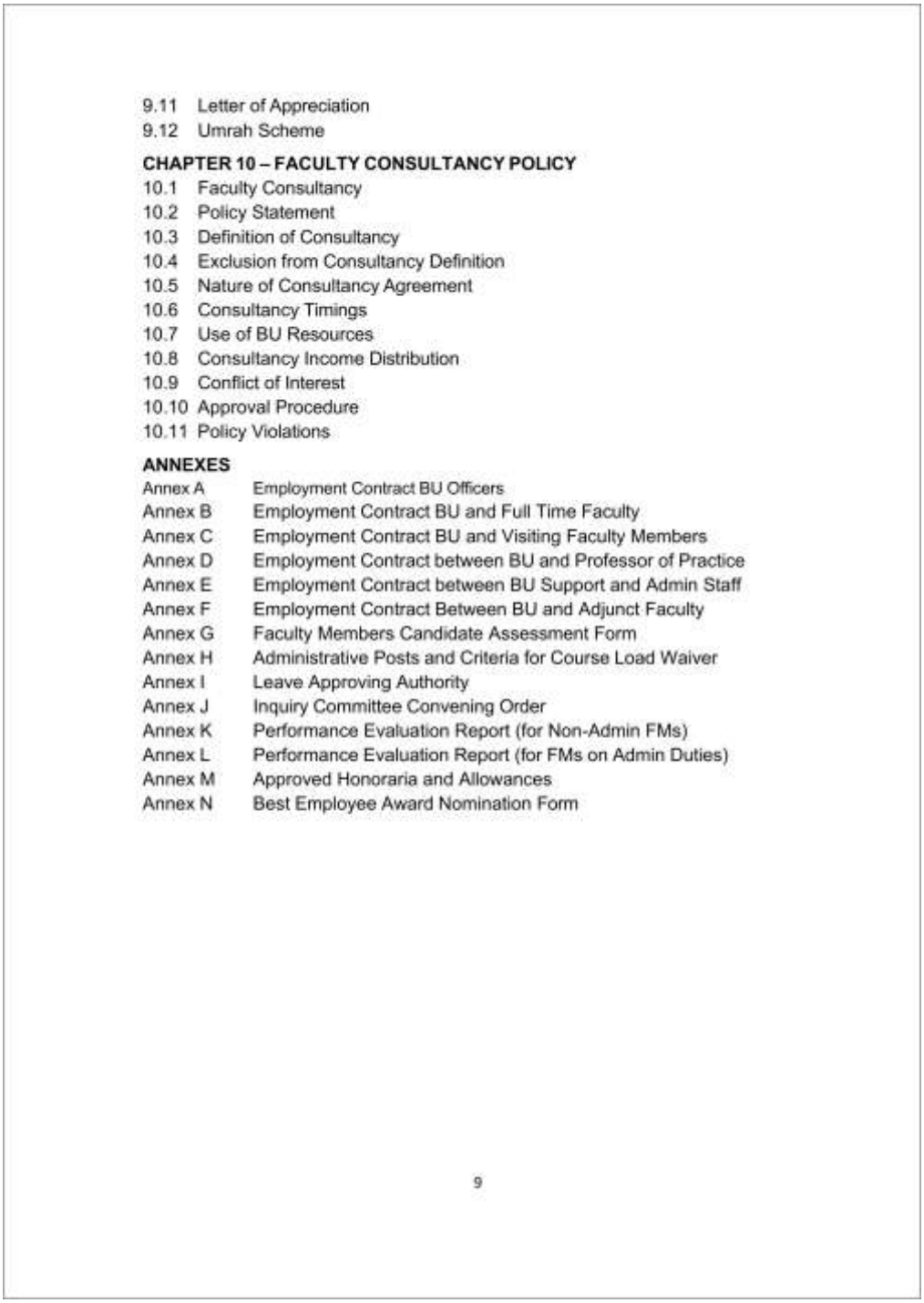

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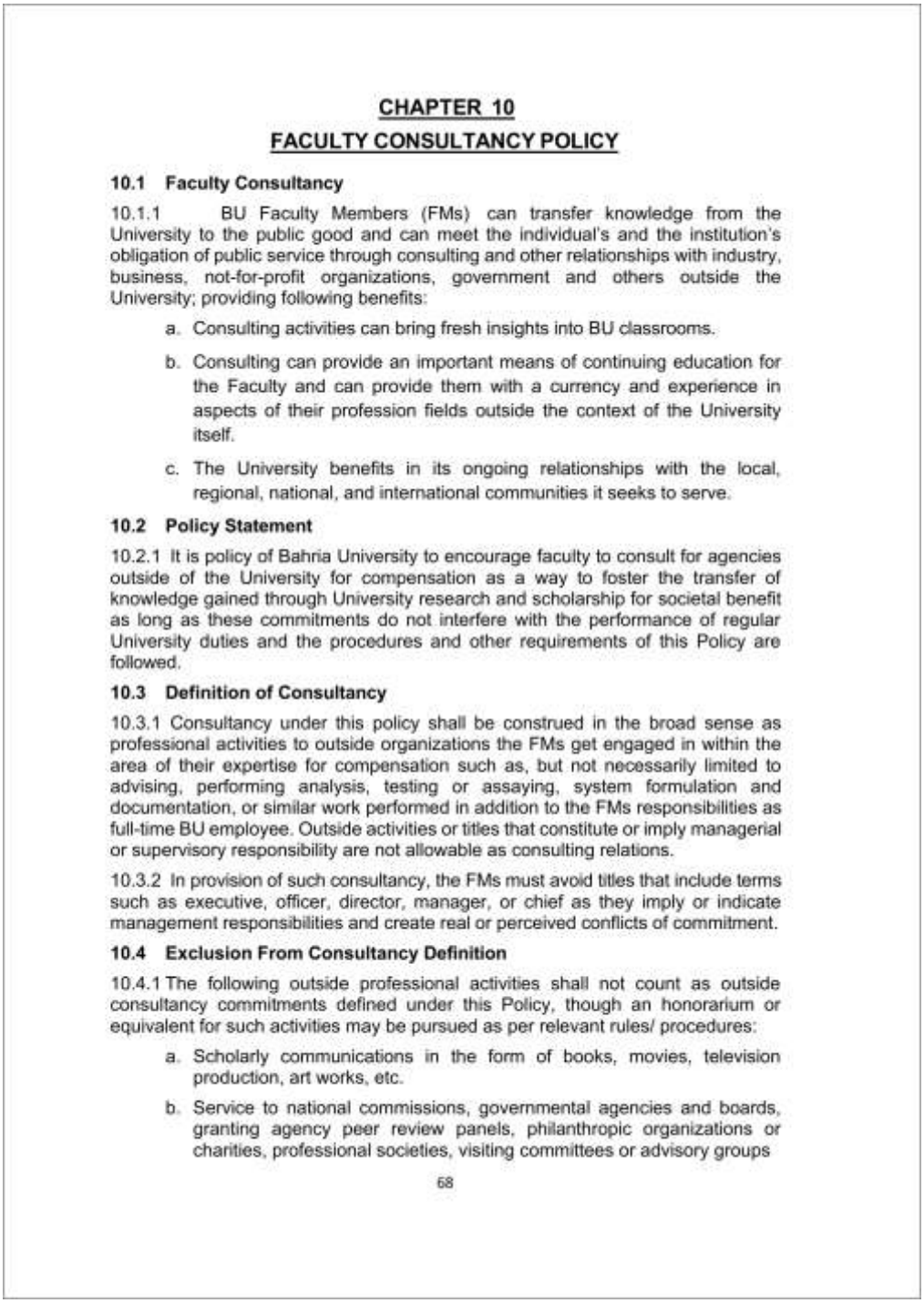
Figure 28: Human Resource Policy Manual (2023), PDF page 9: Table of Contents (final page), including Chapter 10, Faculty Consultancy Policy, paras 10.1 to 10.11.

6. Human Resource Policy Manual (continued): pages cited



CHAPTER 10

FACULTY CONSULTANCY POLICY

10.1 Faculty Consultancy

10.1.1 BU Faculty Members (FMs) can transfer knowledge from the University to the public good and can meet the individual's and the institution's obligation of public service through consulting and other relationships with industry, business, not-for-profit organizations, government and others outside the University; providing following benefits:

a. Consulting activities can bring fresh insights into BU classrooms.

b. Consulting can provide an important means of continuing education for the Faculty and can provide them with a currency and experience in aspects of their profession fields outside the context of the University itself.

c. The University benefits in its ongoing relationships with the local, regional, national, and international communities it seeks to serve.

10.2 Policy Statement

10.2.1 It is policy of Bahria University to encourage faculty to consult for agencies outside of the University for compensation as a way to foster the transfer of knowledge gained through University research and scholarship for societal benefit as long as these commitments do not interfere with the performance of regular University duties and the procedures and other requirements of this Policy are followed.

10.3 Definition of Consultancy

10.3.1 Consultancy under this policy shall be construed in the broad sense as professional activities to outside organizations the FMs get engaged in within the area of their expertise for compensation such as, but not necessarily limited to advising, performing analysis, testing or assaying, system formulation and documentation, or similar work performed in addition to the FMs responsibilities as full-time BU employee. Outside activities or titles that constitute or imply managerial or supervisory responsibility are not allowable as consulting relations.

10.3.2 In provision of such consultancy, the FMs must avoid titles that include terms such as executive, officer, director, manager, or chief as they imply or indicate management responsibilities and create real or perceived conflicts of commitment.

10.4 Exclusion From Consultancy Definition

10.4.1 The following outside professional activities shall not count as outside consultancy commitments defined under this Policy, though an honorarium or equivalent for such activities may be pursued as per relevant rules/ procedures:

a. Scholarly communications in the form of books, movies, television production, art works, etc.

b. Service to national commissions, governmental agencies and boards, granting agency peer review panels, philanthropic organizations or charities, professional societies, visiting committees or advisory groups

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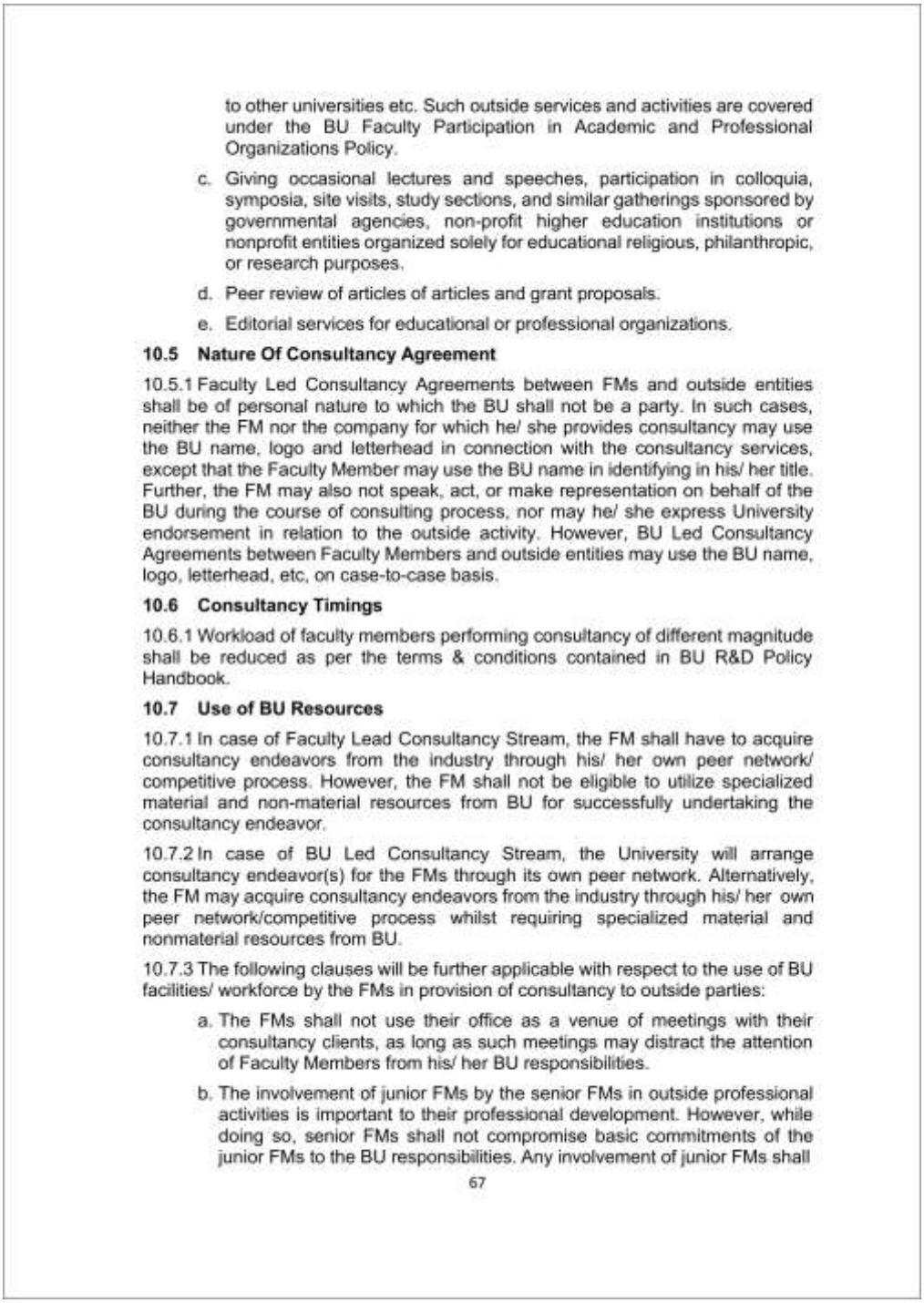
Figure 29: Human Resource Policy Manual (2023), PDF page 70: Chapter 10, Faculty Consultancy Policy: para 10.1, consulting relationships with industry, business, government and others; para 10.2, Policy Statement, consultancy for compensation; para 10.3, Definition of Consultancy.

6. Human Resource Policy Manual (continued): pages cited



to other universities etc. Such outside services and activities are covered under the BU Faculty Participation in Academic and Professional Organizations Policy.

c. Giving occasional lectures and speeches, participation in colloquia, symposia, site visits, study sections, and similar gatherings sponsored by governmental agencies, non-profit higher education institutions or nonprofit entities organized solely for educational religious, philanthropic, or research purposes.

d. Peer review of articles of articles and grant proposals.

e. Editorial services for educational or professional organizations.

10.5 Nature Of Consultancy Agreement

10.5.1 Faculty Led Consultancy Agreements between FMs and outside entities shall be of personal nature to which the BU shall not be a party. In such cases, neither the FM nor the company for which he/ she provides consultancy may use the BU name, logo and letterhead in connection with the consultancy services, except that the Faculty Member may use the BU name in identifying in his/ her title. Further, the FM may also not speak, act, or make representation on behalf of the BU during the course of consulting process, nor may he/ she express University endorsement in relation to the outside activity. However, BU Led Consultancy Agreements between Faculty Members and outside entities may use the BU name, logo, letterhead, etc, on case-to-case basis.

10.6 Consultancy Timings

10.6.1 Workload of faculty members performing consultancy of different magnitude shall be reduced as per the terms & conditions contained in BU R&D Policy Handbook.

10.7 Use of BU Resources

10.7.1 In case of Faculty Lead Consultancy Stream, the FM shall have to acquire consultancy endeavors from the industry through his/ her own peer network/ competitive process. However, the FM shall not be eligible to utilize specialized material and non-material resources from BU for successfully undertaking the consultancy endeavor.

10.7.2 In case of BU Led Consultancy Stream, the University will arrange consultancy endeavor(s) for the FMs through its own peer network. Alternatively, the FM may acquire consultancy endeavors from the industry through his/ her own peer network/competitive process whilst requiring specialized material and nonmaterial resources from BU.

10.7.3 The following clauses will be further applicable with respect to the use of BU facilities/ workforce by the FMs in provision of consultancy to outside parties:

a. The FMs shall not use their office as a venue of meetings with their consultancy clients, as long as such meetings may distract the attention of Faculty Members from his/ her BU responsibilities.

b. The involvement of junior FMs by the senior FMs in outside professional activities is important to their professional development. However, while doing so, senior FMs shall not compromise basic commitments of the junior FMs to the BU responsibilities. Any involvement of junior FMs shall

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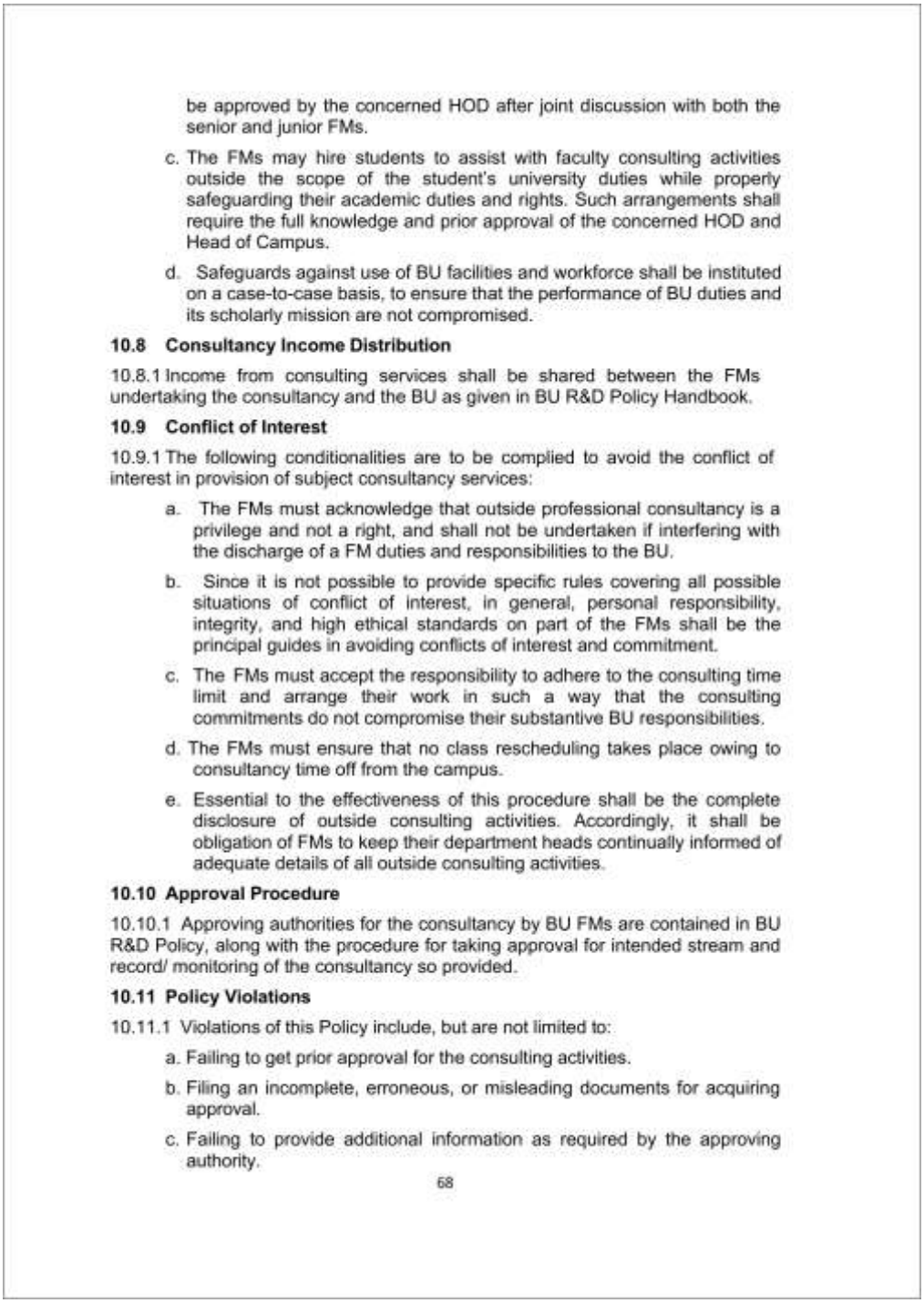
Figure 30: Human Resource Policy Manual (2023), PDF page 71: paras 10.4 to 10.7, including the University-led and faculty-led consultancy streams (para 10.7).

6. Human Resource Policy Manual (continued): pages cited



be approved by the concerned HOD after joint discussion with both the senior and junior FMs.

c. The FMs may hire students to assist with faculty consulting activities outside the scope of the student's university duties while properly safeguarding their academic duties and rights. Such arrangements shall require the full knowledge and prior approval of the concerned HOD and Head of Campus.

d. Safeguards against use of BU facilities and workforce shall be instituted on a case-to-case basis, to ensure that the performance of BU duties and its scholarly mission are not compromised.

10.8 Consultancy Income Distribution

10.8.1 Income from consulting services shall be shared between the FMs undertaking the consultancy and the BU as given in BU R&D Policy Handbook.

10.9 Conflict of Interest

10.9.1 The following conditionalities are to be complied to avoid the conflict of interest in provision of subject consultancy services:

a. The FMs must acknowledge that outside professional consultancy is a privilege and not a right, and shall not be undertaken if interfering with the discharge of a FM duties and responsibilities to the BU.

b. Since it is not possible to provide specific rules covering all possible situations of conflict of interest, in general, personal responsibility, integrity, and high ethical standards on part of the FMs shall be the principal guides in avoiding conflicts of interest and commitment.

c. The FMs must accept the responsibility to adhere to the consulting time limit and arrange their work in such a way that the consulting commitments do not compromise their substantive BU responsibilities.

d. The FMs must ensure that no class rescheduling takes place owing to consultancy time off from the campus.

e. Essential to the effectiveness of this procedure shall be the complete disclosure of outside consulting activities. Accordingly, it shall be obligation of FMs to keep their department heads continually informed of adequate details of all outside consulting activities.

10.10 Approval Procedure

10.10.1 Approving authorities for the consultancy by BU FMs are contained in BU R&D Policy, along with the procedure for taking approval for intended stream and record/ monitoring of the consultancy so provided.

10.11 Policy Violations

10.11.1 Violations of this Policy include, but are not limited to:

a. Failing to get prior approval for the consulting activities.

b. Filing an incomplete, erroneous, or misleading documents for acquiring approval.

c. Failing to provide additional information as required by the approving authority.

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Figure 31: Human Resource Policy Manual (2023), PDF page 72: paras 10.7 (continued) to 10.11, including para 10.8, Consultancy Income Distribution.

6. Human Resource Policy Manual (continued): pages cited



d. Indulging in conflict of interest in various forms and shapes.

e. Non-compliance with any of the restrictions outlined in this policy.

10.11.2 Further to the above, violations of any clause of this Policy may result in denial of approval for related consulting activities and may be the basis for conducting employee disciplinary action by the BU.

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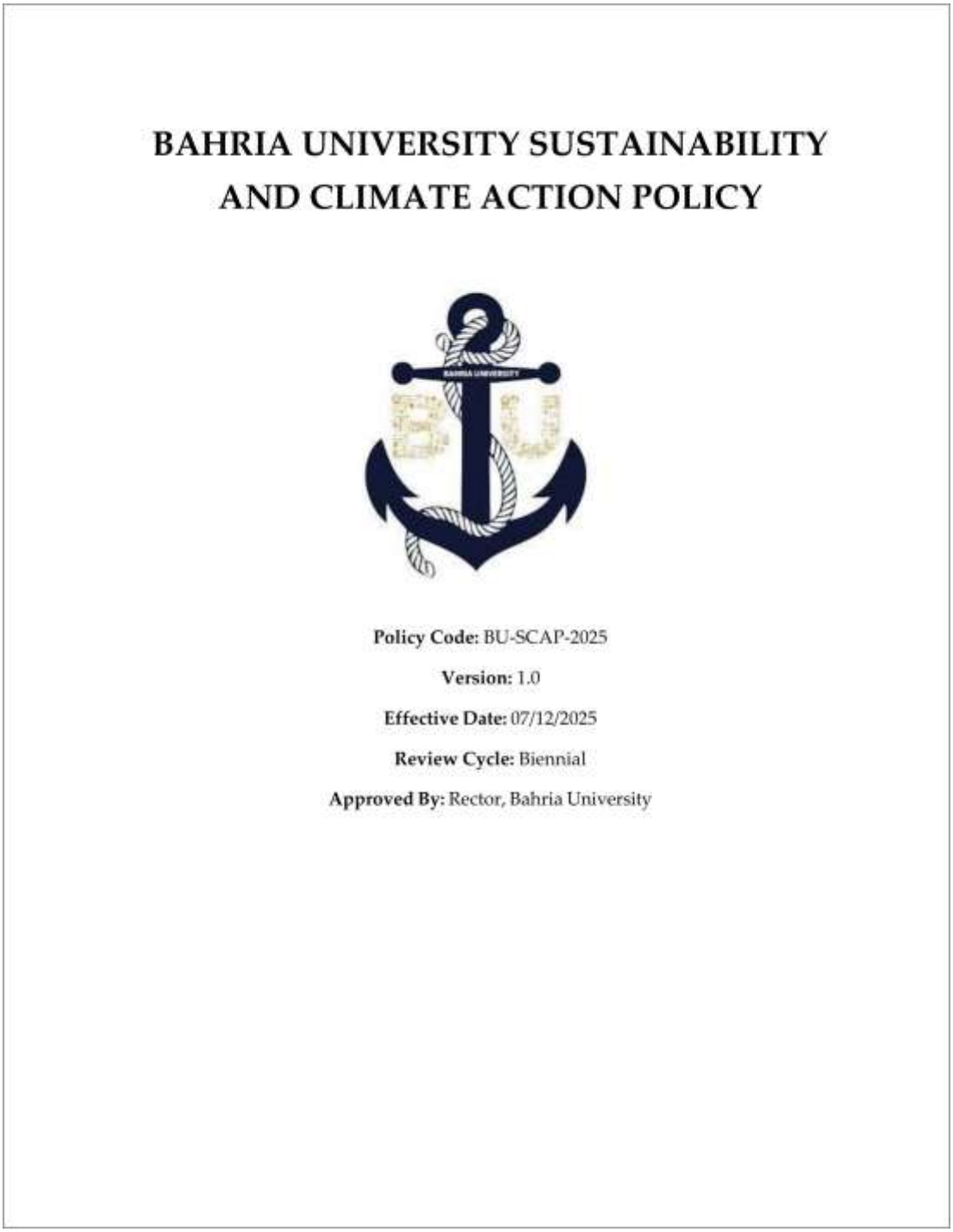
Figure 32: Human Resource Policy Manual (2023), PDF page 73: para 10.11 (continued), Policy Violations.

6. Sustainability and Climate Action Policy



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

6. Sustainability and Climate Action Policy

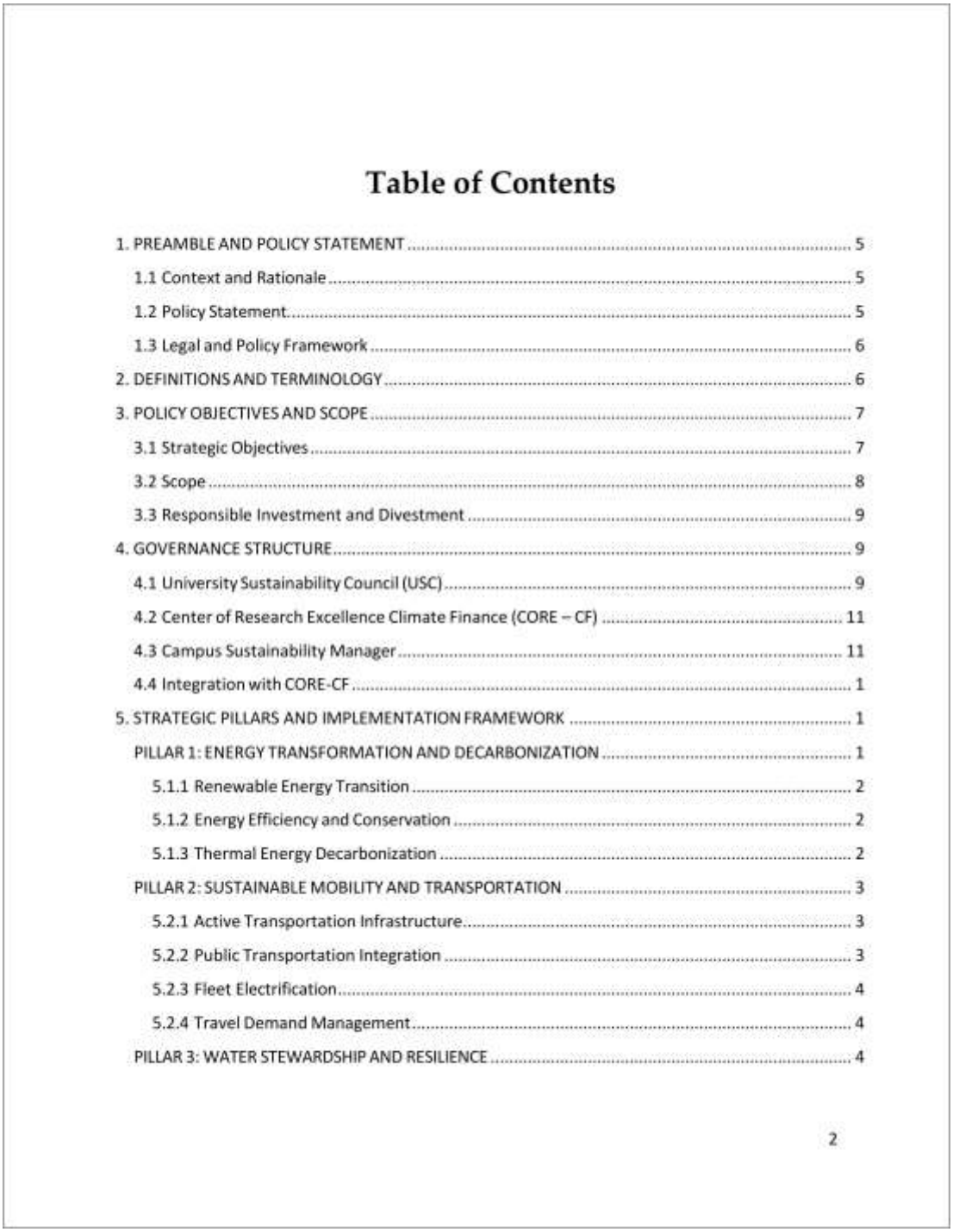


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Figure 34: Sustainability and Climate Action Policy, Table of Contents (page 2), sections 1 to 5, including para 1.2, Policy Statement, and para 3.1, Strategic Objectives.

6. Sustainability and Climate Action Policy

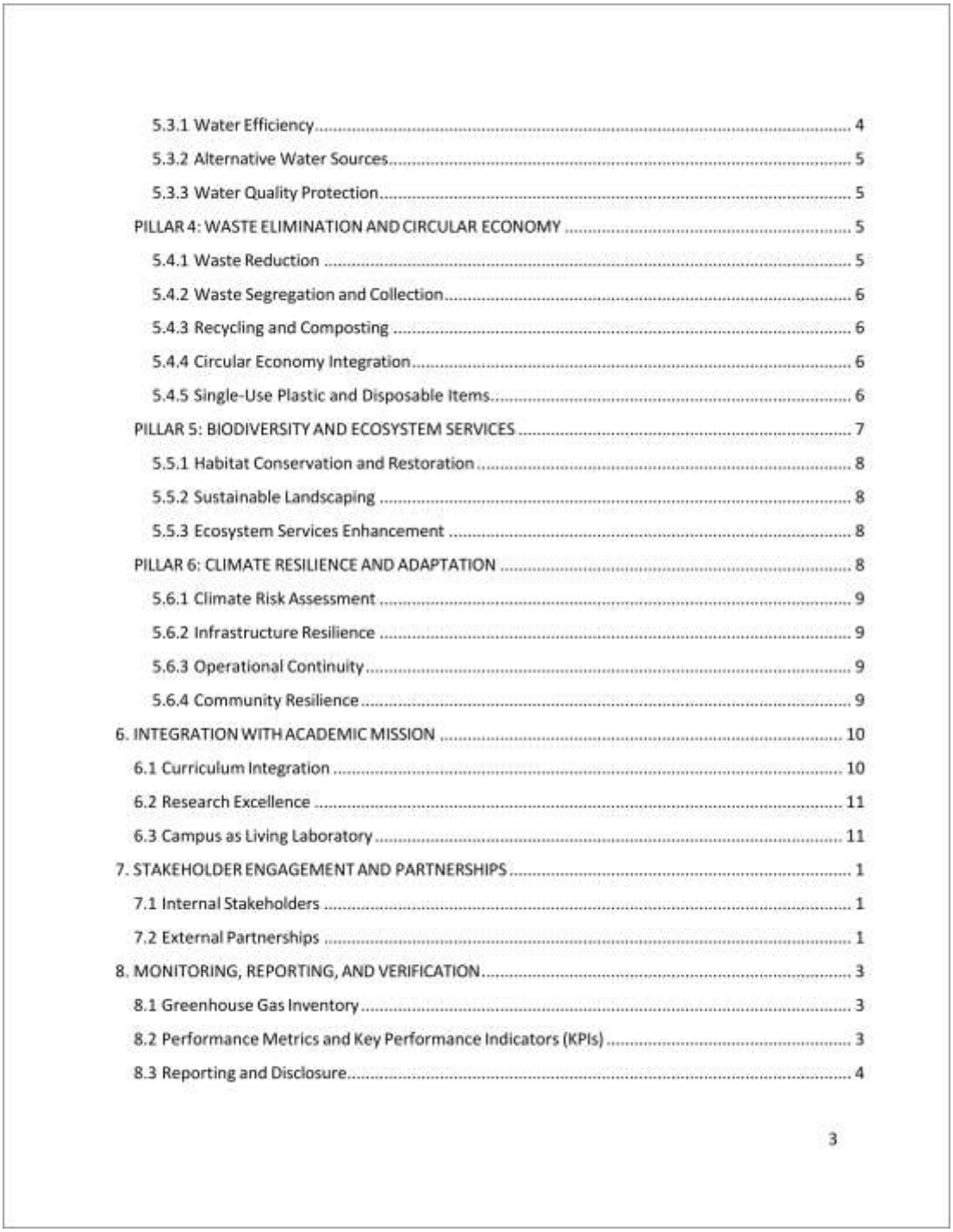

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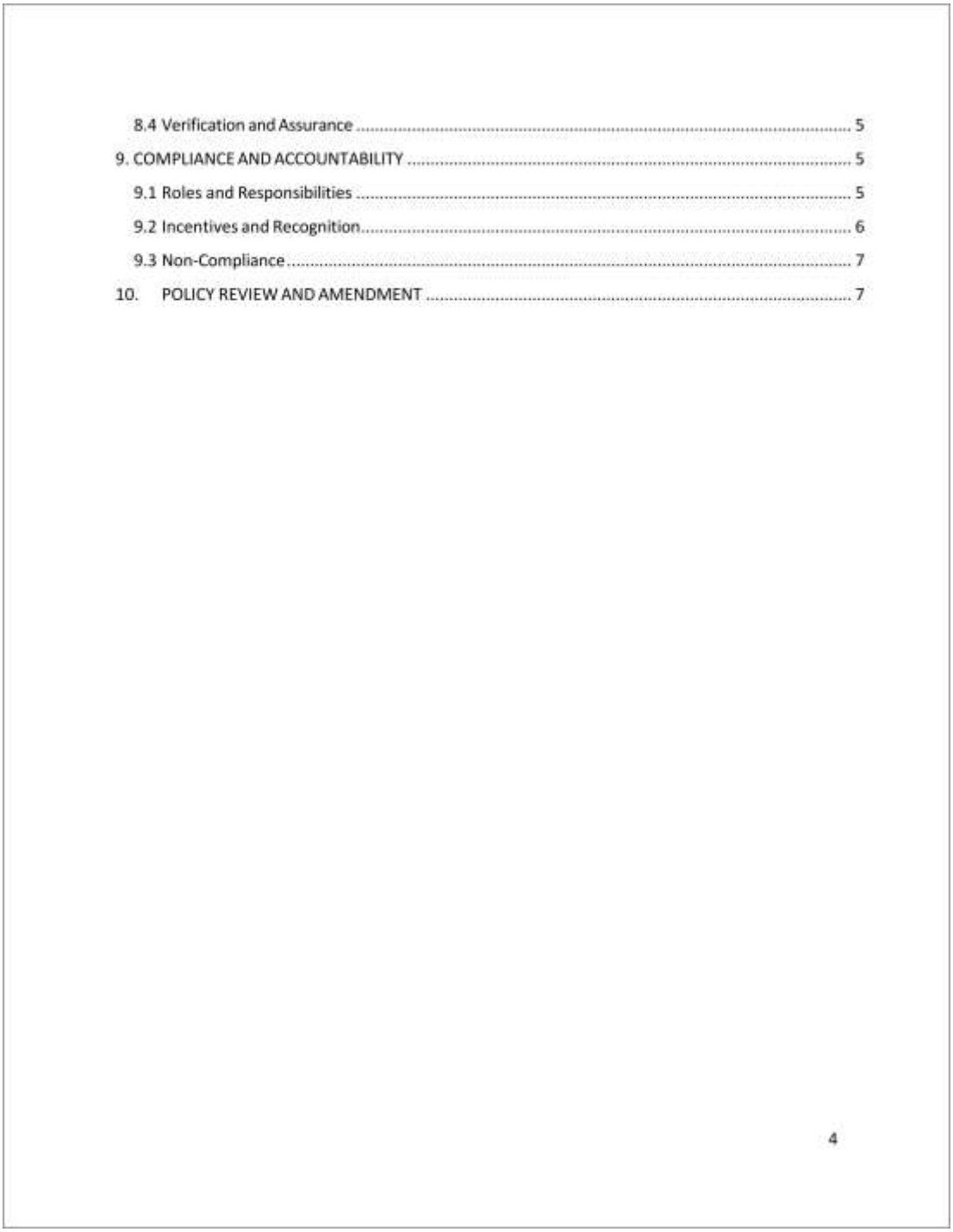
Figure 35: Sustainability and Climate Action Policy, Table of Contents (page 3), sections 5 to 8, including para 6.2, Research Excellence, and para 7.2, External Partnerships.

6. Sustainability and Climate Action Policy



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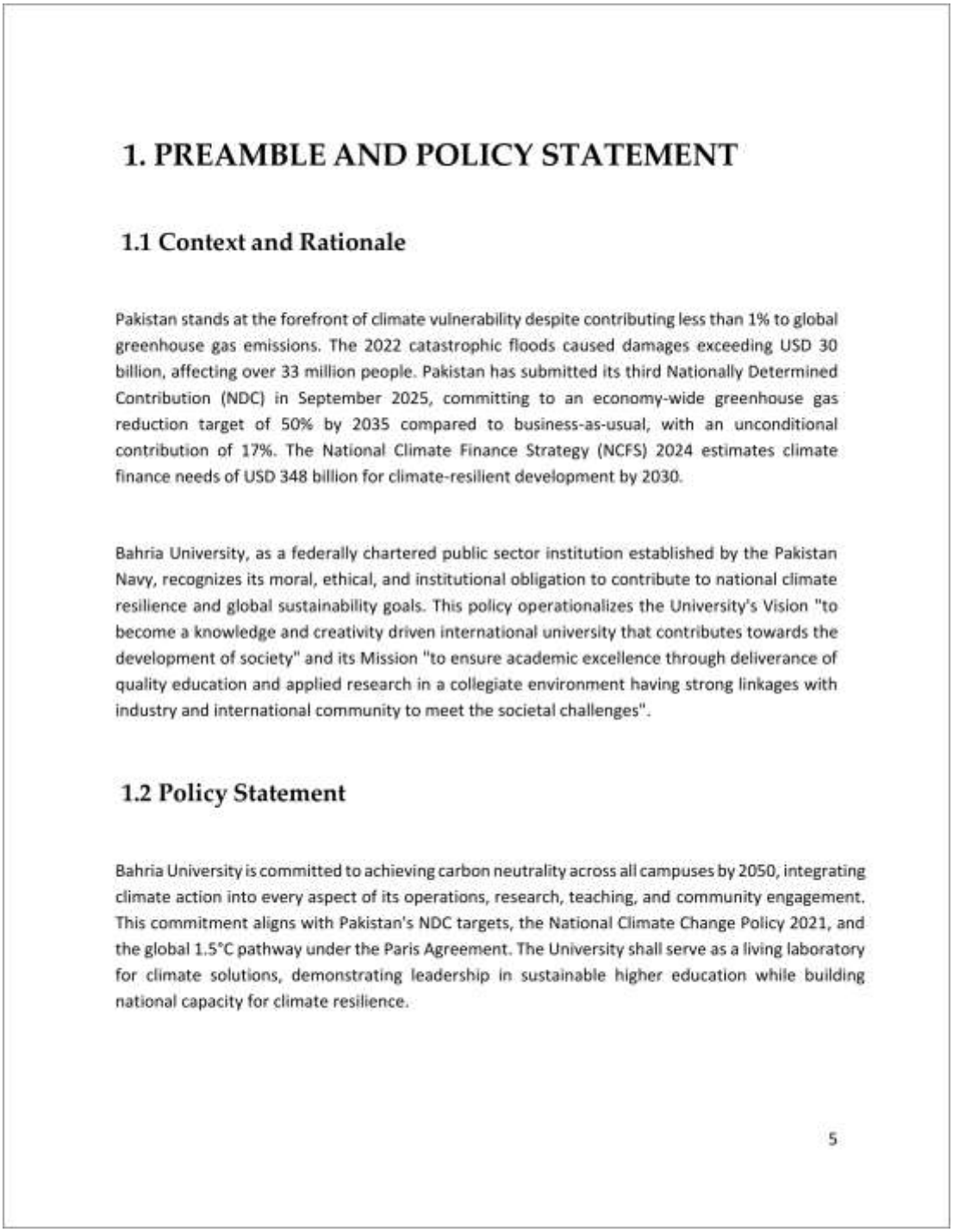
6. Sustainability and Climate Action Policy (continued): pages cited



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.

5

Figure 37: Sustainability and Climate Action Policy, PDF page 5: para 1.2, Policy Statement: carbon neutrality across all campuses by 2050.

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

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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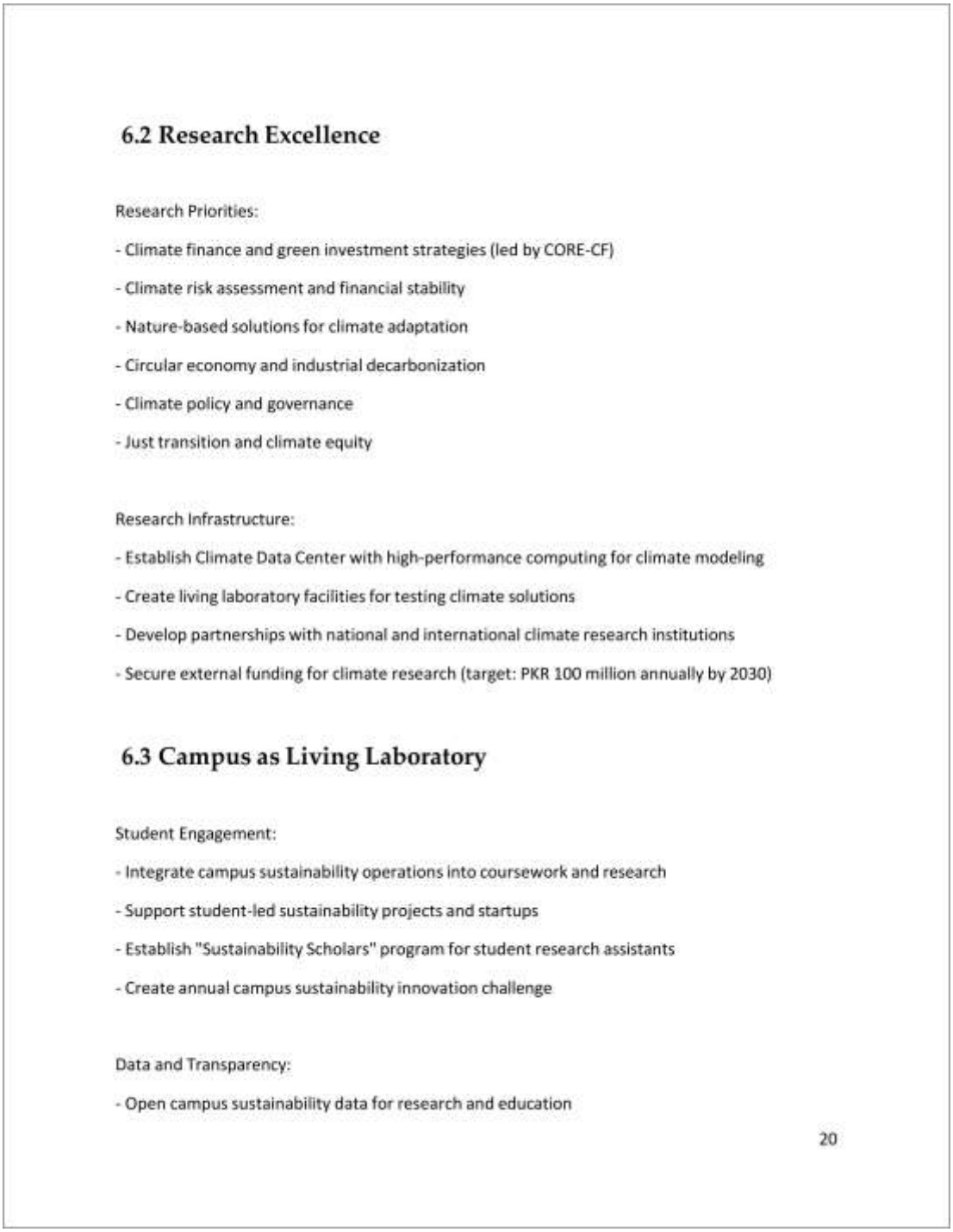
Figure 38: Sustainability and Climate Action Policy, PDF page 7: para 3.1, Strategic Objectives, Objective 1: 50 per cent reduction in Scope 1 and 2 emissions by 2040 and carbon neutrality (net zero) across all campuses by 2050.

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



6.2 Research Excellence

Research Priorities:

- Climate finance and green investment strategies (led by CORE-CF)
- Climate risk assessment and financial stability
- Nature-based solutions for climate adaptation
- Circular economy and industrial decarbonization
- Climate policy and governance
- Just transition and climate equity

Research Infrastructure:

- Establish Climate Data Center with high-performance computing for climate modeling
- Create living laboratory facilities for testing climate solutions
- Develop partnerships with national and international climate research institutions
- Secure external funding for climate research (target: PKR 100 million annually by 2030)

6.3 Campus as Living Laboratory

Student Engagement:

- Integrate campus sustainability operations into coursework and research
- Support student-led sustainability projects and startups
- Establish "Sustainability Scholars" program for student research assistants
- Create annual campus sustainability innovation challenge

Data and Transparency:

- Open campus sustainability data for research and education

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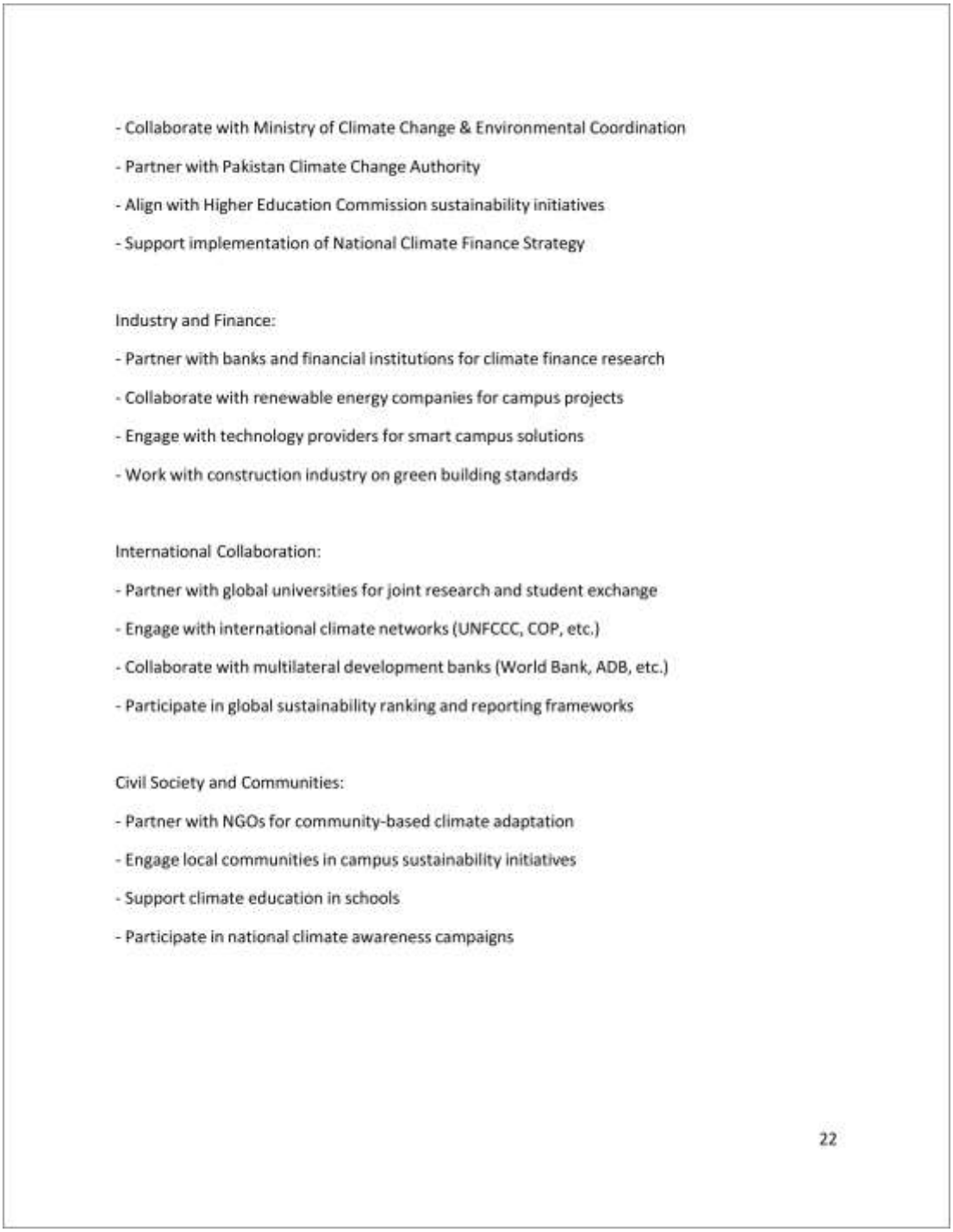
Figure 39: Sustainability and Climate Action Policy, PDF page 22: para 6.2, Research Excellence, including circular economy and industrial decarbonisation among the research priorities.

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



- Collaborate with Ministry of Climate Change & Environmental Coordination
- Partner with Pakistan Climate Change Authority
- Align with Higher Education Commission sustainability initiatives
- Support implementation of National Climate Finance Strategy

Industry and Finance:

- Partner with banks and financial institutions for climate finance research
- Collaborate with renewable energy companies for campus projects
- Engage with technology providers for smart campus solutions
- Work with construction industry on green building standards

International Collaboration:

- Partner with global universities for joint research and student exchange
- Engage with international climate networks (UNFCCC, COP, etc.)
- Collaborate with multilateral development banks (World Bank, ADB, etc.)
- Participate in global sustainability ranking and reporting frameworks

Civil Society and Communities:

- Partner with NGOs for community-based climate adaptation
- Engage local communities in campus sustainability initiatives
- Support climate education in schools
- Participate in national climate awareness campaigns

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Figure 40: Sustainability and Climate Action Policy, PDF page 24: para 7.2, External Partnerships, Industry and Finance: collaborate with renewable energy companies, engage technology providers and work with the construction industry on green building standards.

7. Summary of evidence

Element	Evidence	Figures
Workshops and training for industry (paid)	International Certificate Course on Energy Efficiency Measures for Ports and Shipping Industry, Karachi campus, 19 to 23 August 2024; maritime professionals registered at PKR 17,500	1 and 2
Research and knowledge services for the maritime and energy industries	NIMA report on green shipping technologies, January 2025; webinar on the IMO Net-Zero Framework with Karachi Shipyard, PNSC, Karachi Port Trust and Port Qasim Authority, 30 April 2025; renewable energy knowledge exchange with Renewable Resources Pvt, 8 August 2025	3 to 8
Assessments and advisory services	CORE-CF carbon footprint mapping and inventories, reduction pathways, CBAM and climate compliance readiness for institutions and industries, and training for professionals	9 to 12
Industry partnerships on energy	MoU with Creative Group of Industries on energy, engineering and technology solutions, 14 February 2025; meeting with Shandong Haizhichen New Energy Technology on renewable energy technologies, 17 October 2025	13 to 19
Research on renewable energy options	Seven 2025 publications on geothermal resources in Pakistan, photovoltaic performance, floating offshore wind, microgrid and shipboard energy management	Table 2
University as a body	Faculty Consultancy Policy: consultancy to industry for compensation through University-led and faculty-led streams; SCAP: net zero across all campuses by 2050, industrial decarbonisation research and partnerships with renewable energy companies and industry	20 to 40

Taken together, the records show that Bahria University as a body provides direct services to industry aimed at improving energy efficiency and clean energy: fee-based training on energy efficiency for the ports and shipping industry, research and a webinar on decarbonising shipping for shipyards, shipping companies and port authorities, renewable energy knowledge exchange with industry, carbon assessment, compliance and training services through CORE-CF, agreements with energy industry partners, and published research on renewable energy options, under policies that provide for consultancy to industry and partnerships with renewable energy companies.