BAHRIA UNIVERSITY
ISLAMABAD, PAKISTAN

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THE GLOBAL GOALS For Sustainable Development

BAHRIA UNIVERSITY

17

SUSTAINABLE DEVELOPMENT GOALS

Sustainability Report 2025

OUR COMMITMENT

Seventeen Goals, one University, one shared future.

Bahria University's report of its progress against all 17 Sustainable Development Goals in 2025, across teaching, research, operations and service to society

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Message from the Rector

Bahria University was founded to contribute to the development of society, and sustainability is the measure of how well we fulfil that purpose. This report sets out our progress in 2025 against all seventeen Sustainable Development Goals: in the education we provide, the research we publish, the way we run our campuses and the partnerships through which we serve Pakistan and the wider world.

Education remains our greatest contribution. In 2025, 5,095 students graduated, 51.9 per cent of them women. In academic year 2025 our students held 4,135 University scholarships worth Rs 171.13 million and 1,037 external scholarships worth Rs 189.28 million, and we educated 268 students from ten low and lower-middle income countries on full scholarships.

Our researchers published 1,655 works indexed by OpenAlex in 2025, on questions that range from maternal health and groundwater safety to climate finance and the rule of law. Our Business Incubation Centres incubated 61 start-ups, the University recorded 251 spin-offs, and we earned Rs 151.18 million in research income from industry and commerce.

On our campuses, solar systems generated 923,403 kWh of electricity, we measured 560.8 tonnes of waste across eight campuses and units, and every employee earned at least Rs 37,000 a month, the federal minimum wage. Our Center of Research Excellence in Climate Finance measured the University's greenhouse gas emissions across all three scopes, and our Sustainability and Climate Action Policy commits us to 100 per cent renewable electricity by 2035 and to carbon neutrality across all campuses by 2050.

Beyond our campuses, every undergraduate gives 40 contact hours to community service, and our National Institute of Maritime Affairs informs national maritime and fisheries policy. I thank our faculty, staff, students, alumni and partners for this progress, and I commit the University to reporting it openly every year.

Vice Admiral Engr. Abid Hameed HI(M) (Retd)
Rector, Bahria University

2025 IN FIGURES

5,095
Graduates in 2025

5,172
Scholarships held in academic year 2025

1,655
Research publications, 2025

923,403
kWh of solar electricity generated, 2025

About this report

This report sets out Bahria University's progress against all seventeen Sustainable Development Goals (SDGs) during 2025. Each Goal has its own chapter, which brings together the University's research, education, campus operations and work with society for that Goal. The report consolidates the Goal progress reports for 2025 on Goals 1, 3, 4, 5, 7, 8, 9, 10, 12 and 14 and extends the reporting to the other seven Goals.

Reporting period	1 January to 31 December 2025; student finance figures refer to academic year 2025, and building works and the greenhouse gas inventory to fiscal year 2025
Scope	Bahria University Head Office, Islamabad, and all campuses and constituent units: Islamabad E-8 Campus; Islamabad H-11 Campus; Karachi Campus; Lahore Campus; Health Sciences Campus, Islamabad; Health Sciences Campus, Karachi; Institute of Professional Psychology, Karachi; National Institute of Maritime Affairs, Islamabad and Karachi
Date published	November 2026
Edition	Sustainability Report, 2025 edition
Published by	Directorate of Quality Assurance, Head Office, on behalf of Bahria University
Approved by	Rector, Bahria University
Reporting framework	The 17 Sustainable Development Goals and their targets, United Nations 2030 Agenda for Sustainable Development
Related reports	Goal progress reports for 2025 on Goals 1, 3, 4, 5, 7, 8, 9, 10, 12 and 14, Directorate of Quality Assurance
Data sources	Directorates of Admissions, Student Affairs, Human Resource, International Office, Research and Innovation, and Planning and Development; Directorate of Information Technology (Campus Management System); Controller of Examinations; Treasurer; Director Admin, Head Office, and campus administrations; Center of Research Excellence in Climate Finance; Leadership and Professional Development Centre; National Institute of Maritime Affairs; Institute of Professional Psychology; approved University policies; OpenAlex (research publications); official University websites and social media
Data checks	All figures checked by the Directorate of Quality Assurance against the source records named in each chapter and in the Data notes
Public address	Bahria University Sustainability web page, https://www.bahria.edu.pk/page/PageTemplate4?pageContentId=2118&websiteId=1
Contact	Directorate of Quality Assurance, Bahria University Head Office, Islamabad (bahria.edu.pk)

How this report is organised

Chapters 1 to 17 follow the numbering of the Goals and the colours of the United Nations Goal icons. Each chapter opens with a page that states the Goal, the University's main achievement and three key figures, and lists the chapter's sections with their page numbers. The first section of every chapter reports the

University's research on the Goal; the sections that follow report teaching, campus operations, policies and work with communities, each headed by the UN targets it addresses. Every chapter presents one initiative in depth as a case study and closes with the University's priorities for the year ahead. Tables and figures are numbered by chapter, and a fact shared by several Goals is reported in full once and referred to elsewhere.

TABLE A **The elements of each Goal chapter**

No.	Element	What it contains
1	Opener	The Goal and its United Nations statement, the University's main achievement, three key figures and the sections of the chapter
2	Research	University publications of 2025 linked to the Goal, with the strongest examples
3	Thematic sections	Teaching, campus operations, policies and engagement, each headed by the UN targets it addresses
4	Case study	One initiative in depth: the need, the University's response and the result
5	Looking ahead	The University's priorities for the next reporting year

Bahria University at a glance

Bahria University is a federally chartered public sector university, founded by the Pakistan Navy in 2000. It teaches and conducts research at six campuses in Islamabad, Karachi and Lahore, including two Health Sciences Campuses, and at two constituent units, the Institute of Professional Psychology and the National Institute of Maritime Affairs, under its Head Office in Islamabad.

The University's Vision is "to become a knowledge and creativity driven international university that contributes towards the development of society", and its Mission is "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" (Sustainability and Climate Action Policy, para 1.1).

23,866
Students, 2025

8,451
Semester 1 entrants, Spring and Fall 2025 intakes

5,095
Graduates in 2025, 51.9 per cent of them women

2,238
Employees, 2025

1,350
Academic staff, 2025

1,655
Research publications indexed by OpenAlex, 2025

TABLE B Campuses and constituent units covered by this report

No.	Campus or unit	City	Profile
1	Head Office	Islamabad	University governance, policy and reporting; Business Incubation Centre with 14 start-ups in 2025
2	Islamabad E-8 Campus	Islamabad	500 kW of new solar capacity; LLM (Environmental Law)
3	Islamabad H-11 Campus	Islamabad	300 kW of new solar capacity; 360,000 kWh of solar electricity in 2025; Department of Earth and Environmental Sciences
4	Karachi Campus	Karachi	Business Incubation Centre with 37 start-ups in 2025; Department of Earth and Environmental Sciences
5	Lahore Campus	Lahore	70 kW of new solar capacity; Business Incubation Centre with 10 start-ups in 2025
6	Health Sciences Campus, Islamabad	Islamabad	College of Medicine; 325 trees planted by its staff and students in 2025
7	Health Sciences Campus, Karachi	Karachi	Bahria University Dental College and Hospital, new building inaugurated on 20 September 2025; 243,600 kWh of solar electricity in 2025
8	Institute of Professional Psychology	Karachi	Education in professional psychology; women 93.0 per cent of its Semester 1 entrants
9	National Institute of Maritime Affairs	Islamabad and Karachi	Maritime policy research and advice to government; 14 seminars, webinars and conferences in 2025, all free of charge

Our approach to sustainability

The University's commitment to sustainability is set out in its Sustainability and Climate Action Policy (BU-SCAP-2025), approved by the Rector and effective from 7 December 2025. The policy commits Bahria University to carbon neutrality across all campuses by 2050 and to integrating climate action into its operations, research, teaching and community engagement, with the University serving as a living laboratory for climate solutions (para 1.2). Its six pillars set targets for energy, transport, water, waste, biodiversity and resilience (paras 5.1 to 5.6), and its key performance indicators set the levels to be reached by 2030 and 2040 (para 8.2).

Sustainability runs through the University's other approved policies. The Admissions Policy provides that no qualified candidate is refused admission for inability to pay the fees; the Equality and Non-Discrimination Policy protects students, employees and visitors on fourteen grounds; the Human Resource Policy Manual provides equal pay for work of equal value, reviewed every year; the Health, Safety and Environment Policy governs energy, water, waste and pollution on every campus; and the Sustainable Procurement and Purchasing Policy carries these standards into the University's supply chains.

Governance of sustainability

The Rector chairs the University Sustainability Council, which approves the University's sustainability strategies, targets and action plans and reviews its annual sustainability performance and reports. The Center of Research Excellence in Climate Finance (CORE-CF), established on 24 November 2025, implements the Sustainability and Climate Action Policy day to day, and the offices in Table C carry the University's commitments into teaching, research and campus operations.

TABLE C **Responsibilities for sustainability across the University**

No.	Body or office	Responsibility	Basis
1	University Sustainability Council, chaired by the Rector	Approves sustainability strategies, targets, action plans and major sustainability investments and partnerships; oversees climate risk; reviews annual sustainability performance and reports. Members include the Pro-Rectors, the Head of CORE-CF, the Director Quality Assurance and the Director of the Bahria Innovation Center	SCAP para 4.1
2	Center of Research Excellence in Climate Finance (CORE-CF)	Day-to-day implementation of the policy; greenhouse gas inventory and carbon accounting; annual sustainability reports; technical advice on carbon accounting, climate finance and policy advocacy	SCAP paras 4.2 and 4.4
3	Campus Directors and campus sustainability officers	Campus-level implementation, monitoring and reporting; engagement with local communities and authorities	SCAP para 4.3
4	Director Admin, Head Office	Health, Safety and Environment Policy; energy audits; the Institutional Waste Generation and Recovery Register; Cafeteria and Sports Policies	HSE Policy; Cafeteria Policy; Sports Policy
5	Directorate of Planning and Development	Energy Conservation Building Code 2023 for every new building and renovation; solarization projects	HSE Policy paras 1.15(c) and 6.2(j)

No.	Body or office	Responsibility	Basis
6	Sustainable Procurement Committee, chaired by the Director Administration	Sustainable procurement plans and criteria; monitoring of compliance	SPPP para 4.1
7	Directorate of Human Resource	Equality, diversity and inclusion; annual gender pay review with the Treasurer; maternity and paternity leave	EDI Policy; HR Policy Manual
8	Directorate of Admissions	Admission on merit, reserved seats for underrepresented groups and reporting of applications and enrolments by group	Admissions Policy
9	Directorate of Student Affairs	Scholarships, interest-free loans, Student Support Centres and the Community Support Program	University structure
10	Directorate of Research and Innovation and Business Incubation Centres	Research, consultancy and research for industry, and incubation of start-ups	HR Policy Manual chapter 10; SCAP para 6.3
11	Directorate of Quality Assurance	Compilation and checking of the data in the Goal reports and in this report	University structure

Policy framework

Table D lists the approved University policies cited in this report, with their approving body and edition. Each is available on the University's Sustainability web page, which carries its policies, https://www.bahria.edu.pk/page/PageTemplate4?pageContentId=2118&websiteId=1.

TABLE D **University policies cited in this report**

No.	Policy	Approved by	Edition	Goal chapters
1	Sustainability and Climate Action Policy (BU-SCAP-2025)	Rector	Version 1.0, effective 7 December 2025	1, 2, 4, 6, 7, 9, 11, 12, 13, 14, 15, 16 and 17
2	Sustainable Procurement and Purchasing Policy (BU-SPPP-2025)	Rector	Version 1.0, effective 15 November 2025	1, 2, 5, 7, 8, 9, 10, 12, 13, 14 and 15
3	Health, Safety and Environment Policy	Director Admin, Head Office	Second edition, 22 November 2025	2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14 and 15
4	Human Resource Policy Manual	Executive Committee	2023 edition, amended 23 October 2025	3, 5, 7, 8, 9, 10, 12 and 16
5	Equality and Non-Discrimination Policy	Directorate of Human Resource	Amended 20 October 2025	4, 5, 8, 10 and 16
6	Admissions Policy	Director Admissions	3rd Edition, 3 November 2025	1, 4, 5 and 10
7	Cafeteria Policy	Director Admin, Head Office	Amended 2 November 2025	2, 3, 6, 8, 12, 14 and 15
8	Sports Policy	Director Admin, Head Office	Amended 25 August 2025	3 and 11
9	Policy for Psychological Services Centres	Academic Council	In force throughout 2025	1, 3 and 10

2025 at a glance

In 2025 Bahria University advanced every one of the seventeen Goals. Table E gives, for each Goal, the University's main achievement, three key figures and the page on which its chapter begins.

TABLE E **Progress by Goal in 2025**

Goal and achievement	Key figures	Page
 **Goal 1: No Poverty** From reserved seats to graduation for the poorest students.	**5,172** Scholarships held by students in academic year 2025 **268** International students on full scholarships, academic year 2025 **61** Start-ups incubated, 28 founded outside the University	15
 **Goal 2: Zero Hunger** From crop science to safe food and aquaculture skills.	**27** High-confidence publications on hunger and food security **30 per cent** Minimum local food share in University catering contracts **62.7 tonnes** Waste composted or reused across the University	25
 **Goal 3: Good Health and Well-being** Educating health professionals and caring for every campus community.	**1,358** Graduates in medicine and health-related subjects, 2025 **556** High-confidence publications on health and well-being **9,313** Employees and family members with health insurance	31
 **Goal 4: Quality Education** Quality teaching, open access and learning beyond the campus.	**24** Public lectures and educational events, free of charge **21** Executive education and vocational courses open to the public **65 of 84** Degree roadmaps with a sustainability course	43
 **Goal 5: Gender Equality** Women are more than half of the University's graduates.	**51.9 per cent** Women among the University's graduates, 2025 **2,875** Women undergraduates each assigned a faculty mentor **7 of 10** Leadership posts held by women, Centre of Excellence in AI	54
 **Goal 6: Clean Water and Sanitation** Safe water on every campus and research on groundwater risk.	**21** High-confidence publications on water and sanitation **Monthly** Testing of every potable water outlet and RO plant **2035** Target year for water-positive campuses	63
 **Goal 7: Affordable and Clean Energy** Solar power on campus and a pledge to clean electricity.	**923,403 kWh** Electricity generated by campus solar systems, 2025 **870 kW** New solar capacity at three campuses **100 per cent** Renewable electricity pledged by 2035	69
 **Goal 8: Decent Work and Economic Growth** Fair pay, equal rights and decent work for every employee.	**Rs 37,000** Minimum monthly gross salary of every employee **848.96** Rs million, financial effect of Revised Pay Scales 2025 **81** High-confidence publications on decent work and growth	80

Goal and achievement	Key figures	Page
 **Goal 9: Industry, Innovation and Infrastructure** Research that serves industry and ventures that create value.	**251** University spin-offs recorded for 2025 **Rs 151.18 million** Research income from industry and commerce **76** High-confidence publications on industry and innovation	91
 **Goal 10: Reduced Inequalities** Opening the University to every talent and every background.	**47.3 per cent** Women among Semester 1 entrants, 2025 **5 per cent** Seats reserved for underrepresented groups **6 of 6** Campuses with accessible facilities	101
 **Goal 11: Sustainable Cities and Communities** Open learning, living culture and cleaner journeys for our cities.	**23** University publications linked to sustainable cities, 2025 **5** Awards won by the dramatics team at APPAF 2025 **60 per cent** Transport emissions reduction targeted by 2030	112
 **Goal 12: Responsible Consumption and Production** Measuring, recovering and reducing waste on every campus.	**560.8 tonnes** Waste measured across eight campuses and units **21.5 per cent** Waste recovered, composted or reused, 2025 **2035** Target year for zero waste to landfill	119
 **Goal 13: Climate Action** A measured carbon footprint and a policy path to net zero.	**21,151.53 tCO2e** Emissions measured across Scopes 1 to 3, fiscal year 2025 **2050** Carbon neutrality across all campuses **46** High-confidence publications on climate action	129
 **Goal 14: Life Below Water** Bringing science, industry and coastal communities together for the ocean.	**14** NIMA seminars, webinars and conferences, free of charge **177** Staff and students trained on marine environment and plastic **4** Fishing and coastal communities engaged in Karachi	137
 **Goal 15: Life on Land** Planting, protecting and studying the land and its life.	**325** Trees planted by College of Medicine staff and students **2035** Target year for net-positive biodiversity on campuses **80 per cent** Native species in campus landscaping by 2030	148
 **Goal 16: Peace, Justice and Strong Institutions** Justice, integrity and fair procedures in every part of the University.	**79** High-confidence publications on peace, justice and institutions **6 of 6** Campuses with harassment complaint bodies **14** Grounds of discrimination prohibited by University policy	153
 **Goal 17: Partnerships for the Goals** Partnerships that carry the Goals from campus to national policy.	**1,655** University publications indexed by OpenAlex, 2025 **12** NIMA research reports on national policy issues **10** Progress reports on the SDGs published for 2025	160

Research for the Goals

University researchers published 1,655 works in 2025 that are indexed by OpenAlex. Figure A shows, for each Goal, the works that OpenAlex links to the Goal and those classified to it with high confidence (a score of 0.8 or above). Health research leads, with 556 works classified to Goal 3 with high confidence, followed by Goals 4, 8, 16 and 9.

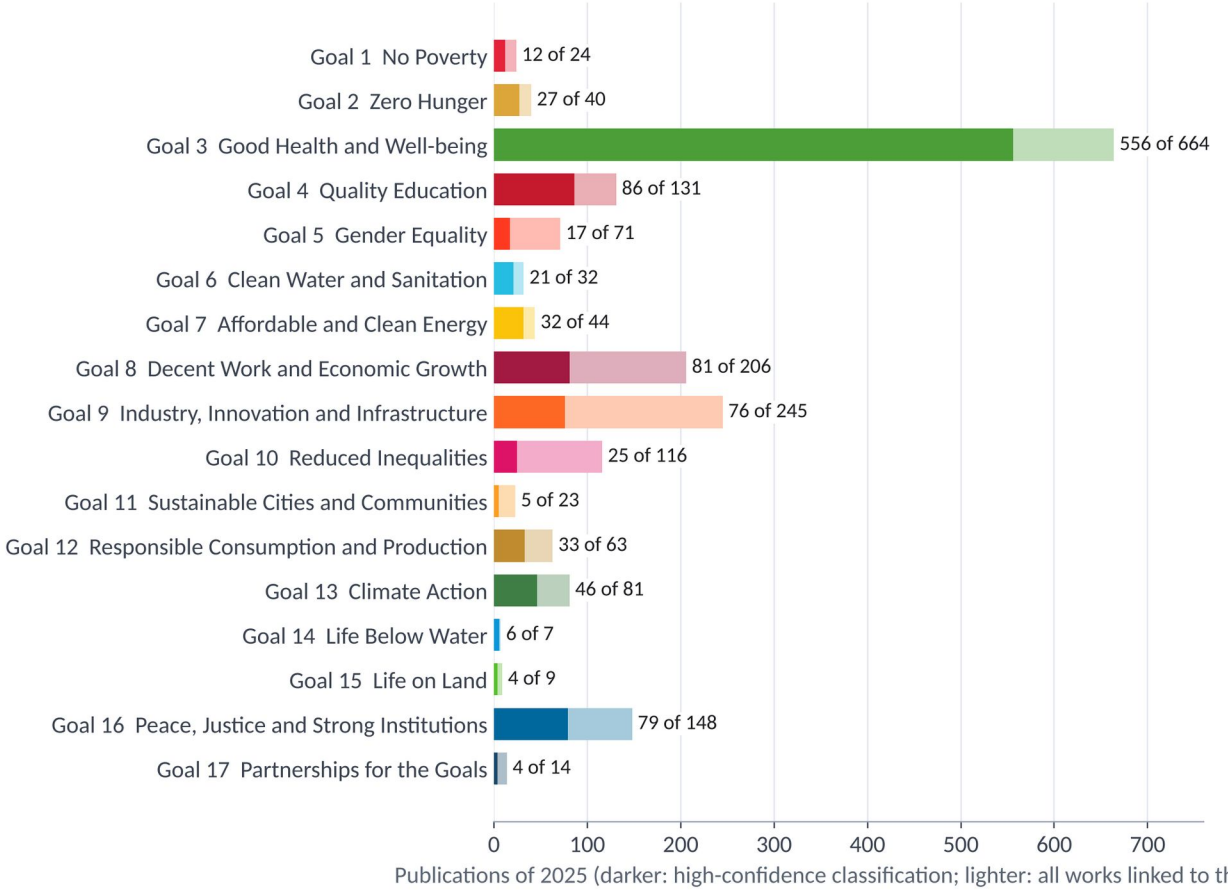

Figure A: University publications of 2025 linked to each Goal, with the high-confidence classifications in the darker shade (OpenAlex, works with Bahria University authors, retracted works excluded).

Highlights of 2025

1. **5,095 graduates** in 2025, 51.9 per cent of them women, including 1,358 graduates in medicine and health-related subjects.
2. **5,172 scholarships worth Rs 360.41 million** held by students in academic year 2025, and 268 full scholarships for students from ten low and lower-middle income countries.
3. **1,655 research publications** in 2025, with 556 classified to good health and well-being with high confidence.
4. **251 university spin-offs and 61 start-ups**, with Rs 151.18 million in research income from industry and commerce.
5. **923,403 kWh of solar electricity** generated by campus solar systems, and 870 kW of new solar capacity completed at three campuses in fiscal year 2025.

6	**21,151.53 tCO2e measured** across Scopes 1 to 3 in fiscal year 2025 by the Center of Research Excellence in Climate Finance, under a commitment to carbon neutrality by 2050.
7	**A living wage floor for every employee**: at least Rs 37,000 a month, the federal minimum wage, from 1 March 2025, with equal pay for work of equal value reviewed every year.
8	**560.8 tonnes of waste measured** across eight campuses and units, 21.5 per cent of it recovered, composted or reused, with single-use plastic banned on every campus.
9	**9,313 employees and family members** covered by the University's health insurance scheme, and psychological treatment free of cost for clients unable to afford the fee.
10	**Policy input at national level**: the National Institute of Maritime Affairs contributed to the draft National Fisheries and Aquaculture Policy, the National Maritime Policy 2025 and the Balochistan Fisheries and Aquaculture Rules 2025.

SUSTAINABLE DEVELOPMENT GOAL

1

NO POVERTY

End poverty in all its forms everywhere.



BAHRIA UNIVERSITY IN 2025

From reserved seats to graduation for the poorest students.

In academic year 2025 the University's students held 5,172 scholarships worth Rs 360.41 million, and 1,505 holders of University scholarships covering half or more of their fees were followed by name through both semesters. The Admissions Policy reserves seats for 114 less developed districts and for Balochistan, 268 students from ten low and lower-middle income countries studied on full scholarships, and 61 start-ups were incubated, 28 of them founded outside the University.

5,172
Scholarships held by students in academic year 2025

268
International students on full scholarships, academic year 2025

61
Start-ups incubated, 28 founded outside the University

IN THIS CHAPTER

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1.1 Research on poverty

UN TARGETS **1.2, 1.4 and 1.5**

In 2025 Bahria University published 24 works that OpenAlex links to Goal 1, 12 of them with a high-confidence classification (score of 0.8 or above). The 12, all journal articles, are the work of 18 University authors and appeared in 11 journals. Every one of them is open access and free for anyone to read; one was written with researchers in Saudi Arabia and China, and one is among the 10 per cent most cited publications of its type, year and subfield. They study fiscal decentralisation and poverty reduction, microfinance, state charity for low income families, health protection under the Sehat Sahulat Program, fintech and financial inclusion, women entrepreneurs, the health of women rag pickers, fisheries livelihoods and the resilience of flood-affected communities (OpenAlex, Goal 1 publications of 2025).

24
Publications linked to Goal 1 by OpenAlex, 2025

12
High-confidence articles, all of them open access

18
University authors of the 12 articles

The social sciences account for 4 of the 12 articles, business, management and accounting for 3 and medicine for 2, followed by psychology, economics and the agricultural and biological sciences (Figure 1.1). Table 1.1 sets out five of the articles, at least one for each Goal 1 target the research addresses.

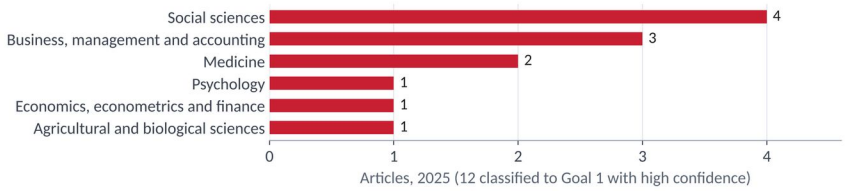

Figure 1.1: Research fields of the 12 University articles of 2025 classified to Goal 1 with high confidence (OpenAlex).

TABLE 1.1 **Selected University publications on poverty, 2025**

No.	UN target	Publication	University authors	DOI
1	1.2	Fiscal Decentralization and Its Role in Poverty Reduction: Insights from the ARDL Model. Social Science Review Archives, 3(4), 2324 to 2338	Sumera Iqbal	10.70670/sra.v3i4.1339
2	1.3	Social Impact of State Charity on Vulnerable Populations: An Ethnographic Study of the low income Families in Baltistan. Journal of Development and Social Sciences, 6(II)	Arifa Batool; Syeda Sakina Mosvi; Abdul Waheed Rana	10.47205/jdss.2025(6-ii)22
3	1.4	Empowering women entrepreneurs: Harnessing social networks and resource gap with the role of institutional support to achieve sustainable development goals in Pakistan. Acta Psychologica, 261, 105744	Shakeel Muhammad	10.1016/j.actpsy.2025.105744
4	1.4	Ragged Health: A Qualitative Study of Women Rag Pickers in Rawalpindi, Pakistan. The Critical Review of Social Sciences Studies, 3(1), 570 to 580	Hadia Rashid; Majid Hussain Alias Ghalib Hussain	10.59075/9akmq303
5	1.5	Psychological Resilience in Flood-Affected Communities of Pakistan: Coping Strategies and Mental Health Outcomes. The Critical Review of Social Sciences Studies, 3(1), 2606 to 2617	Komal Saleem	10.59075/6t85c367

1.2 Admission for students from the poorest regions

UN TARGETS 1.3 and 1.4

The Admissions Policy, issued by the Director Admissions in its 3rd Edition on 3 November 2025, sets admission targets for students from the poorest parts of Pakistan: 2 per cent of seats in every programme for applicants from 114 less developed districts and 1 per cent for applicants from Balochistan, 3 per cent in all for the poorest regions, each filled from a separate merit list approved by the Rector, with domicile verified by the campus Admission Committee (paras 2.21 to 2.27; see Chapter 10). The Policy also reserves 2 per cent of seats for students with disabilities (see Chapter 10). No qualified candidate is refused admission because he or she cannot pay the fees (para 2.5.4), and with the applicant's consent the application records family income or a request for financial assistance, reported to the Rector after every cycle (para 4.1.2).

Annex D lists the districts of Balochistan, Gilgit-Baltistan, Azad Jammu and Kashmir, the former FATA, interior Sindh and south Punjab, with selected districts of Khyber Pakhtunkhwa and Punjab: the regions where Pakistan's official Multidimensional Poverty Index found the deepest poverty, reaching 73 per cent of people in the former FATA and 71 per cent in Balochistan, against 39 per cent nationally (Multidimensional Poverty in Pakistan). On 1 June 2025 the University published its special admission quotas and invited applicants from underrepresented areas to apply (Facebook, 1 June 2025), and its Admission Quota page sets out the process (Admission Quota; see Chapter 10).

Free education for students from low income countries

For academic year 2025 the Directorate of International Office recorded **268 international students, all on full scholarships, from ten low and lower-middle income countries**: 254 from low income countries and 14 from lower-middle income countries in the World Bank classification, with Afghanistan (148) and Somalia (91) the largest groups (Table 1.2; World Bank country classifications). Afghan nationals are further supported through the Allama Iqbal Scholarship for Afghan Nationals, with 10 awards in academic year 2025. Chapter 8 of the Admissions Policy gives international students a dedicated admission procedure, completed early to allow time for visas, charges no application fee and sets their fees at the level of national students (paras 8.1 to 8.7.1). On 10 June 2025 the Rector hosted the Deputy Head of Mission of the Embassy of Somalia with Somali students of the University (Facebook, 10 June 2025; Figure 1.2), and on 14 November 2025 the University presented its programmes at the Tashkent Education and Profession Exhibition in Uzbekistan (Facebook, 14 November 2025).

TABLE 1.2 International students on full scholarships by nationality, academic year 2025

Country	Students	Income group	Country	Students	Income group
Afghanistan	148	Low income	Syria	2	Low income
Somalia	91	Low income	Rwanda	1	Low income
Ethiopia	4	Low income	Bangladesh	5	Lower-middle income
Sudan	4	Low income	Palestine	5	Lower-middle income
Yemen	4	Low income	Nigeria	4	Lower-middle income
All countries	**268**	**254 low income**			**14 lower-middle income**



Figure 1.2: Somali students of the University with the delegation of the Embassy of Somalia, 10 June 2025.

1.3 Financial support to complete a degree

UN TARGETS 1.3 and 1.4

In academic year 2025 the University's students held **5,172 scholarships worth Rs 360.41 million**: 4,135 University scholarships worth Rs 171.13 million, including the need-based Financial Assistance Scholarship, and 1,037 external scholarships worth Rs 189.28 million (Table 1.3). The external awards included 397 Higher Education Commission (HEC) Ehsaas and 176 HEC need-based scholarships, 130 from The Citizen Foundation for students from low income communities and 44 from the Worker Welfare Fund for the children of industrial workers. Interest-free study loans of Rs 1.6 million were disbursed, and the Sponsor-a-Student scheme continued through alumni, philanthropists and partner organisations (Scholarships).

TABLE 1.3 Scholarships held, academic year 2025

No.	Type	Awards	Amount (Rs million)
1	University scholarships, including the Financial Assistance Scholarship	4,135	171.13
2	External scholarships	1,037	189.28
	All scholarships	**5,172**	**360.41**

The rules in the Student Handbook, Spring 2025, offer need-based scholarships on the principle that inability to pay must not deprive anyone of education, with improved access for students from the far-flung areas of Pakistan among their objectives (paras 4.1 and 4.2(c)). Support given because of financial need lasts until the student graduates (Table 1.4): the Financial Assistance Scholarship remains available for the whole degree at a CGPA of 2.50, and the Central Scholarship Committee, chaired by the Pro-Rector (Academics), reviews every holder each semester and recommends continuation to the Rector (paras 4.5.2 and 4.11). Every first-semester student also has a trained faculty mentor, one to 25 students (see Chapter 5).

TABLE 1.4 Support for students from low income households

No.	Support	What it provides	Basis
1	Financial Assistance Scholarship	Need-based award assessed on declared household income and expenditure and an interview, for the whole degree at a CGPA of 2.50	Student Handbook 4.5, 4.6, 4.11
2	Rector's Need-Based Scholarships	A 50 per cent tuition fee waiver for undergraduate students, announced on 26 March 2025	University announcement
3	Sponsor-a-Student	Educational expenses with a boarding, meal and books allowance, funded by individuals, companies and donor agencies, from the first semester to graduation	Student Handbook 4.16
4	Interest-free loans	Laptop loans for undergraduates; the zero-interest Student Study Loan; Qarz-e-Hasna until completion	Student Handbook 4.9, 4.17
5	External need-based schemes	HEC Ehsaas and HEC Need Based Scholarships, provincial endowment funds and the Workers Welfare Boards, administered by the University	Student Handbook 4.18

The Directorate of Student Affairs follows every holder of a University scholarship by name, enrolment number, campus and programme. Its scholarship return lists 1,076 holdings of University scholarships covering 100 per cent or at least 50 per cent of fees in Spring 2025 and 1,249 in Fall 2025: **1,505 students in all**, 820 of whom held their scholarship in both semesters and 401 of whom held a full-fee scholarship (Figure 1.3).

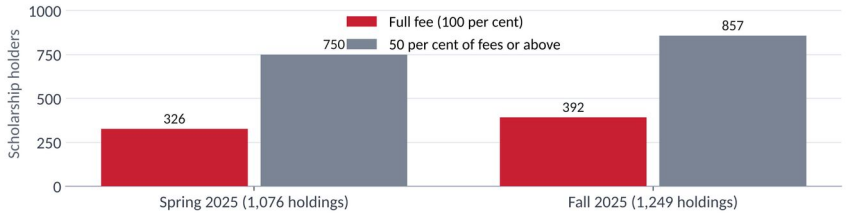

Figure 1.3: University scholarships of 50 to 100 per cent of fees by semester and level of award, 2025: 1,505 students counted once, 401 of them on full-fee scholarships (Directorate of Student Affairs).

On 26 March 2025 the University announced the BU Silver Jubilee Rector's Need-Based Scholarships (Facebook, 26 March 2025), and on 12 September 2025 it called on students of all batches to apply for the Financial Assistance Scholarship Scheme (Facebook, 12 September 2025). For students from the poorest regions it announced the Coastal Region Higher Education Undergraduate Scholarship Program for Balochistan on 23 January 2025 and the HEC Undergraduate Scholarships for students of Balochistan and the former FATA on 27 September 2025 (Facebook, 23 January 2025; Facebook, 27 September 2025). On 16

January 2025 the Advancement Directorate signed a memorandum of understanding with DIYA Pakistan to support deserving students (Facebook, 16 January 2025), and on 24 April 2025 fourteen students of the Bahria University Hashoo School of Hospitality Management received scholarships from the Pakistan Education Endowment Fund (Facebook, 24 April 2025; Figure 1.4).



Figure 1.4: Scholarship cheque presented by the Pakistan Education Endowment Fund to fourteen students of the Bahria University Hashoo School of Hospitality Management, 24 April 2025.

1.4 Start-ups and livelihoods for local communities

UN TARGET 1.4

The University's Business Incubation Centres at Islamabad, Karachi and Lahore incubated 61 start-ups in 2025, engaging 269 people (see Chapter 9). Of them, **28 start-ups at the Karachi centre, engaging 95 people, were founded by people from the local community**, with no student, faculty member or alumnus of the University in their teams; they work in fields from food and manufacturing to women's healthcare, water resources and educational technology (Table 1.5; Business Incubation Centre, Karachi, start-ups). On 14 October 2025 the Karachi centre launched Startup Huddle Karachi, the city chapter of the Global Entrepreneurship Network, at which founders present their journeys and receive feedback from peers and experts (CW Pakistan; see Chapter 9).

TABLE 1.5 **Start-ups founded by people from outside the University, Business Incubation Centre, Karachi, 2025**

Start-up	Field	People	Start-up	Field	People
Multiplatform Surveillance System (WeSecure)	Information technology	5	Derma AI	AI skin cancer detection	3
IBDP Private Limited	Information technology and business	5	Empower Lift	Women's healthcare and wellness	3
Tuame Khaas Private Limited	Food	8	HYDRO-GEN	Water resources and renewable energy	3
COMPANION	Information technology	3	POOKIES	Artificial jewellery	3
Breaking the Walls of Energy Crisis through Intellica	Information technology	5	EarthAdobe	Sustainable building innovation	3
DiabEazy	Information technology	1	ScentStep	Embedded fragrance technology	3
She-Guard	Manufacturing	5	BioDex	Bio-innovation	3

Start-up	Field	People	Start-up	Field	People
Chiragh Education Technologies	Information technology	7	Libro	AI book hub	3
IG Detection Systems	Waste management	2	Sonex	AI insights	3
IRIS AI	AI surveillance system	3	Beautify	AI skin care detection	3
Women On Wheels	Mobile beauty services	2	Therapease	AI emotional support	3
ZAWAAN	Educational technology	2	Sublinker Services	Escrowed service platform	3
MISSING'S FINDER	Technology and public safety	2	Bone Guard	AI orthopaedic assistance	3
ACS Urdu	Natural language processing	3	Lung Sage	AI pulmonary scan	3
28 start-ups		**95**			

The Sustainable Procurement and Purchasing Policy (BU-SPPP-2025), approved by the Rector and effective from 15 November 2025, carries the same commitment into the University's own purchasing, with a target of 20 per cent of procurement spend with local small and medium enterprises by 2028, preference for local suppliers and support for small and medium enterprises and businesses owned by women and young people (paras 3.2 and 5.3.2). Students learn to build ventures of their own: on 26 April 2025 more than 20 student teams pitched solutions to global challenges at the Hult Prize event in Islamabad (Facebook, 26 April 2025).

1.5 Basic services for underprivileged communities

UN TARGETS 1.4 and 1.5

Every undergraduate gives 40 contact hours to community service under the Community Support Program, a degree requirement run by the Directorate of Student Affairs since 2013, whose first objective is to encourage students to work with NGOs, government agencies and international organisations for social welfare. The Policy for Psychological Services Centres, approved by the Academic Council and in force throughout 2025, opens the University's mental health services to the public and provides treatment free of cost, with approval, for a client unable to afford the fee (paras 1.1 and 14.4), and the Umeed-e-Nau Psychological Services Clinic of the Institute of Professional Psychology, Karachi, serves the community (Umeed-e-Nau). Table 1.6 sets out the programmes of 2025 by basic service (the health programmes are described in Chapter 3); students also served at Ramadan iftar drives with Helping Hand, Al-Mustafa Trust and Zakat Foundation of America.

Community service for the basic needs of the underprivileged

Directorate of Student Affairs and the Community Support Program, all campuses; 2025

THE CHALLENGE

Underprivileged households need access to health care, food and relief, and floods deepen the hardship of communities that already live in poverty.

WHAT WE DID

Every undergraduate gives 40 hours to community service under the Community Support Program, working with welfare organisations on health, food and relief. In 2025 students ran blood donation drives for thalassemia patients, served at Ramadan food drives and distributed rations, and on 27 October 2025 the University signed a memorandum of understanding with Alkhidmat Foundation Pakistan on humanitarian service.

THE RESULT

The Hope Campaign raised Rs 658,060 for flood-affected communities, donated through the Alkhidmat Foundation, and students, faculty and staff gave blood for the Afzaal Memorial Thalassemia Foundation, which supplies blood to thalassemia patients.

KEY FIGURES

40

Contact hours of community service by every undergraduate

658,060

Rupees raised for flood-affected communities

2013

Year the Community Support Program was launched

PARTNERS

Alkhidmat Foundation Pakistan; Afzaal Memorial Thalassemia Foundation; Allah Walay Trust; Rizq



Figure 1.5: Delegation of Alkhidmat Foundation Pakistan with the Rector and University officials at the signing of the memorandum of understanding, 27 October 2025.



Figure 1.6: Blood donation drive of the Community Support Program, Lahore Campus, organised with Sundus Foundation, 2025.

Sources: Directorate of Student Affairs, annual report, academic year 2025; Lahore Campus Community Support Program record; University Facebook page, memorandum with Alkhidmat Foundation Pakistan.

TABLE 1.6 **Programmes to improve access to basic services, 2025**

No.	Date	Basic service	Programme	Unit and partner
1	Academic year 2025	Relief and shelter	Hope Campaign flood relief drive: Rs 658,060 raised and donated; visits to Alkhidmat Aghosh Home and Edhi Old Age Home	Community Support Program with the Alkhidmat Foundation
2	4 March	Food	Ramadan food drive served by students	Lahore Campus, with Rizq
3	18 March	Food	Ramadan ration distribution; memorandum of understanding signed on 17 April 2025	Lahore Campus, with the Allah Walay Trust
4	January to June	Sanitation and hygiene	Hand-hygiene initiative with practical demonstrations (see Chapter 6)	College of Medicine, Islamabad
5	23 August	Health	Thalassemia Social Worker Program on awareness, premarital screening and genetic counselling	Health Sciences Campus, Karachi, with the Afzaal Memorial Thalassemia Foundation (AMTF)
6	3 October	Health	Seminar Rabies Prevention and Control: Strategies for a Healthier Community	College of Allied Health Sciences, with the Global Alliance for Rabies Control
7	From 27 October	Mental health	Mental health lectures and counselling for the pupils of Government Boys Secondary School, Lyari	School of Business, Karachi, with HOL Foundation Pakistan
8	27 November	Health	Blood donation drive for thalassemia patients	Karachi Campus, with the AMTF
9	2025	Drinking water	Water Conservation Seminar (see Chapter 6)	Green Youth Movement Club, Islamabad, with WaterAid Pakistan

1.6 Policy making to end poverty

UN TARGETS 1.b and 1.5

The University takes part in policy making on the livelihoods and food security of fishing households, jobs in the maritime economy and access to health care. Its National Institute of Maritime Affairs (NIMA) holds a mandate to provide policy input in the maritime domain (NIMA objectives), the Sustainability and Climate Action Policy (BU-SCAP-2025), approved by the Rector and effective from 7 December 2025, makes the Center of Research Excellence in Climate Finance (CORE-CF) the University's advisory body for policy advocacy (para 4.4), and on 29 April 2025 the University signed a memorandum of understanding with the Sustainable Development Policy Institute (Facebook, 29 April 2025; Table 1.7; see Chapter 17).

NIMA's research report on a National Action Plan for Sustainable and Resilient Fisheries and Aquaculture System in Pakistan proposes social inclusion among its recommendations (NIMA Research Reports). The Head of CORE-CF represented the University at COP30 in Belém, Brazil, in November 2025 (see Chapter 13).

TABLE 1.7 **Participation in policy making on dimensions of poverty, 2025**

No.	Level	Date	Policy process and contribution	Dimension of poverty
1	National	28 February	National Maritime Policy 2025: the President of NIMA a panellist at the Ministry of Maritime Affairs workshop to finalise the policy	Jobs and livelihoods in the maritime economy
2	National	11 July	Draft National Fisheries and Aquaculture Policy: NIMA in the review of the draft, and the President of NIMA urging its swift promulgation with the Food and Agriculture Organization of the United Nations (FAO)	Livelihoods and food security of fishing households
3	National	26 August	Briefing to the Ministry of Planning, Development and Special Initiatives on the potential of Pakistan's blue economy, including fisheries management	Livelihoods in the blue economy
4	Provincial	September	Consultative meeting on Minimum Service Delivery Standards for Mental Health Services in Sindh, with a Professor of the Institute of Professional Psychology	Access to health care
5	Provincial	25 November	Technical Working Group of the Government of Balochistan: all six draft Balochistan Fisheries and Aquaculture Rules 2025 approved with NIMA's technical inputs	Livelihoods in the poorest province
6	Local	December	Session of Karachi Campus students with the Pakistan Fisherfolk Forum at Ibrahim Hyderi on maritime rights, community representation and advocacy	Rights and livelihoods of fishing communities

1.7 Looking ahead

Building on the record of 2025, the University sets four priorities for the next reporting year:

1. The University will publicise its reserved seats for the less developed districts and Balochistan at every admission cycle and report entrants on those seats, with family income recorded at application.
2. The University will sustain its need-based scholarships, the Sponsor-a-Student scheme and interest-free loans, and will follow every scholarship holder each semester through to graduation.
3. The University will continue full scholarships for students from low and lower-middle income countries and report them by nationality and income group.
4. The University will continue to incubate founders from the wider community and to contribute to fisheries, maritime and health policy.

SUSTAINABLE DEVELOPMENT GOAL

2

ZERO HUNGER

End hunger, achieve food security and improved nutrition and promote sustainable agriculture.



BAHRIA UNIVERSITY IN 2025

From crop science to safe food and aquaculture skills.

In 2025 the University published 40 works that OpenAlex links to Goal 2, 27 of them with high confidence, on crop disease detection, soils, aquaculture and nutrition. Its policies require healthy, affordable food on every campus, with at least 30 per cent sourced locally in catering contracts; its campuses composted or reused 62.7 tonnes of waste; and its Karachi Campus trains students and entrepreneurs in sustainable aquaculture.

27
High-confidence publications on hunger and food security

30 per cent
Minimum local food share in University catering contracts

62.7 tonnes
Waste composted or reused across the University

IN THIS CHAPTER

2.1 Research on hunger and food security 26
2.2 Healthy, safe and sustainable food on campus 27
2.3 Food security for farming and fishing communities 28
2.4 Looking ahead 30

2.1 Research on hunger and food security

UN TARGETS 2.1, 2.3, 2.4 and 2.a

In 2025 Bahria University published 40 works that OpenAlex links to Goal 2, 27 of them with a high-confidence classification (score of 0.8 or above). The 27, 20 of them journal articles and 4 conference papers, are the work of 36 University authors and appeared in 26 journals and other venues. Twenty of them are open access, 19 were written with co-authors in 17 countries, led by Saudi Arabia and China, and **8 are among the 10 per cent most cited publications** of their type, year and subfield, 2 of them among the top 1 per cent; together they had been cited 150 times (OpenAlex, Goal 2 publications of 2025).

40
Works linked to Goal 2 by OpenAlex, 2025

19
High-confidence works with co-authors in 17 countries

8
Among the 10 per cent most cited in their field

The agricultural and biological sciences account for 16 of the 27 publications, environmental science and medicine for 4 each (Figure 2.1). The research applies deep learning to the early detection of wheat rust, potato leaf disease and crop pests, tests phosphate fertilisers, pyrogenic carbon for drought-stressed crops and smart vertical farming, and improves fish farming with plant-based feed additives (Table 2.1). A student project on wheat rust detection, led by a faculty member of the Centre of Excellence in Artificial Intelligence, received an Appreciation Award at the HBL P@SHA ICT Awards 2025 (Facebook, 22 September 2025).

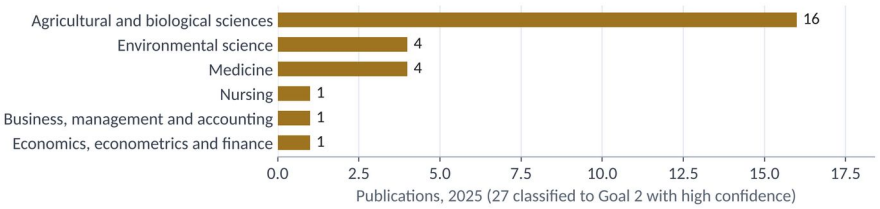

Figure 2.1: Research fields of the 27 University publications of 2025 classified to Goal 2 with high confidence (OpenAlex).

TABLE 2.1 Selected University publications on hunger and food security, 2025

No.	UN target	Publication	University authors	DOI
1	2.1	A Novel Predictive Model for Integrating Pest Detection and Environmental Factors for Food Security Assessment. World Sustainability Series, 457 to 472	Asifa Bibi	10.1007/978-3-032-00098-9_37
2	2.3	Extract of Moringa oleifera Leaves: Possible Useful Additives to Enhance Reproductive and Growth Performance of Male Oreochromis niloticus. Turkish Journal of Fisheries and Aquatic Sciences, 25(10)	Saima Majeed	10.4194/trjfas27626
3	2.3	Field Experiment to Evaluate the Phosphate Fertilizers Effect on Wheat' Morphological Traits. Trends in Ecological and Indoor Environmental Engineering, 1 to 11	Ambreen Afzal	10.62622/teiee.025.3.4.01-11
4	2.4	An Advanced Deep Learning Framework for Proactive Potato Leaf Disease Detection to Revolutionize Agriculture. Systems and Information Engineering Design Symposium, 456 to 461	Maryam Shabbir	10.1109/sieds65500.2025.11021096

No.	UN target	Publication	University authors	DOI
5	2.4	Impact of pyrogenic carbon on tomato root architecture and metabolites (ABA and proline) under drought stress. Frontiers in Plant Science, 16, 1634455	Rifat-Un-Nisa; Aansa Rukya Saleem	10.3389/fpls.2025.1634455
6	2.4	Solución de agricultura vertical inteligente y sostenible basada en IoT para los desafíos agrícolas en Pakistán (IoT-based smart vertical farming). Memoria Investigaciones en Ingeniería, (29), 95 to 108	Muhammad Adeel Mannan	10.36561/ing.29.7
7	2.a	Automated Detection and Severity Prediction of Wheat Rust Using Cost-Effective Xception Architecture. Plant, Cell and Environment, 48(6), 4126 to 4139	Amina Jameel	10.1111/pce.15413
8	2.a	Efficient Wheat Disease Identification Using Hybrid Swin-SHARP Vision Model. IEEE Access, 13, 141781 to 141797	Waqar Khalid; Syed Muhammad Usman; Shehzad Khalid	10.1109/access.2025.3597539

2.2 Healthy, safe and sustainable food on campus

UN TARGETS 2.1, 2.2 and 2.4

Every campus feeds its students and staff under the Cafeteria Policy, amended by the Director Admin, Head Office, on 2 November 2025, which applies to all cafeterias, kiosks, hostels, pantries and messes of the Head Office, campuses and constituent units and sets the aim of fresh, healthy and hygienic food at affordable prices (paras 2 and 3). Prices and portions are fixed in the tender documents, campus Food Committees keep the price list and the menu up to date with students' input, Food Inspectors check hygiene and food safety, and Medical Officers keep the fitness and vaccination of food handlers up to date and have drinking water tested every quarter (items 5(a), 5(d), 5(e) and 5(p)). Every vendor must source food ethically, with fair trade or other certification where available and a preference for local producers, and serve seafood exclusively from certified sustainable sources (item 5(u); see Chapter 14). Inspections of cafeterias, dining halls and food-service facilities at every campus concluded on 2 November 2025, and on 5 November the Director Admin (Safety and Security) confirmed that all food outlets were in full compliance with the University's quality, hygiene and food-safety standards (see Chapter 3).

The Health, Safety and Environment Policy, issued by the Director Admin, Head Office, in its second edition on 22 November 2025, requires healthy, affordable and sustainable food with vegetarian choices, priority for local and sustainable food sources, initiatives to alleviate student hunger such as subsidised meals, and the monitoring of food waste in kilograms a year and per person (para 7.5.7), with good quality food at low prices for students (para 7.5.9). The Sustainable Procurement and Purchasing Policy (BU-SPPP-2025), approved by the Rector and effective from 15 November 2025, makes **at least 30 per cent local sourcing**, from within 200 kilometres, seasonal menus, the elimination of single-use plastics and food waste reduction and donation programmes mandatory in food and catering contracts (para 6.1.5). In 2025 the University's campuses and units composted or reused **62.7 tonnes of waste** (see Chapter 12). Table 2.2 sets out the provisions.

TABLE 2.2 **Food provisions in University policy, 2025**

No.	Policy	Clause	Requirement
1	Cafeteria Policy	2 and 3	Fresh, healthy and hygienic food at affordable prices in every cafeteria, kiosk, hostel, pantry and mess
2	Cafeteria Policy	5(a) and 5(d)	Prices and portions fixed in tender documents; campus Food Committees keep price lists and menus with students' input
3	Cafeteria Policy	5(e) and 5(p)	Food Inspectors; medical fitness and vaccination of food handlers; quarterly drinking-water tests; monthly sanitary rounds
4	Cafeteria Policy	5(u)	Ethical sourcing, fair trade certification where available, local producers preferred, certified sustainable seafood; records checked quarterly
5	HSE Policy	7.5.7	Healthy, affordable and sustainable food with vegetarian choices; local and sustainable sources; initiatives to alleviate student hunger; food waste monitored in kilograms a year and per person
6	HSE Policy	7.5.9	Good quality food at low prices for students
7	Sustainable Procurement and Purchasing Policy	6.1.5	At least 30 per cent local sourcing within 200 kilometres; seasonal menus; no single-use plastics; food waste reduction and donation programmes
8	Sustainability and Climate Action Policy	5.4	Zero waste to landfill by 2035, with waste segregation, recycling and composting

2.3 Food security for farming and fishing communities

UN TARGETS **2.3, 2.4, 2.5 and 2.a**

The University's National Institute of Maritime Affairs (NIMA) contributes to the policies that govern Pakistan's fisheries: in July 2025 it took part with the Food and Agriculture Organization of the United Nations (FAO) in the review of the draft National Fisheries and Aquaculture Policy 2025 to 2035 (NIMA, 11 July 2025), and on 25 November 2025 a NIMA Research Associate, as a member of the Technical Working Group of the Government of Balochistan, contributed to the approval of all six draft Balochistan Fisheries and Aquaculture Rules 2025 (NIMA, 25 November 2025; see Chapter 17). On 8 May 2025 the University hosted a delegation of Northwest A&F University, China, led by an expert in organic and bio-health agriculture, to discuss collaboration in food security, agriculture and health sciences, joint research and student exchange (Facebook, 8 May 2025).



Figure 2.2: Students of the University at the Pak Agri and Livestock Farm, Gharo, on a field visit to shrimp and fish farming organised by NIMA Karachi, 30 May 2025.

Students learn about food systems in their degrees: the BS Economics offers the elective Food Sustainability and the BS Coastal and Marine Sciences the elective Introduction to Aquaculture. Students also served at Ramadan food drives and ration distributions with Rizq and the Allah Walay Trust (see Chapter 1), and on 30 May 2025 NIMA Karachi took students to the Pak Agri and Livestock Farm at Gharo to see shrimp and fish farming in practice (Figure 2.2).

Skills for sustainable aquaculture

Karachi Campus, Leadership and Professional Development Centre and NIMA Karachi, with AquaHatch International; 2025

THE CHALLENGE

Aquaculture can supply fish without adding pressure on wild stocks when farmers are trained to farm responsibly.

WHAT WE DID

Through its Leadership and Professional Development Centre the Karachi Campus offers a two-month Certified Diploma in Aquaculture and Fisheries, open to applicants with an intermediate qualification in any field, including entrepreneurs: the first month is taught on campus five days a week and the second at the farms of AquaHatch International seven days a week, with boarding and lodging. The fee of Rs 100,000 includes course material and the certificate, and full-fee sponsorship is offered to financially deserving students who commit to a period of service at the sponsor's farm. On 27 December 2025 the campus signed an amendment to its memorandum of understanding with AquaHatch International strengthening the hands-on training.

THE RESULT

Students and entrepreneurs gain practical skills in sustainable aquaculture with a commercial partner, and shrimp farmers were recognised: on 4 May 2025 the Director NIMA Karachi awarded certificates to the trainees and master trainers of a shrimp farming cluster development project.

KEY FIGURES

2

Months of study in the Diploma

1

Month of training at AquaHatch farms

Rs 100,000

Diploma fee, fully sponsored for deserving students

PARTNERS

AquaHatch International; Pak Agri and Livestock Farm, Gharo



Figure 2.3: Exchange of the amended memorandum of understanding with AquaHatch International for the Diploma in Aquaculture and Fisheries, Karachi Campus, 27 December 2025.



Figure 2.4: The Director NIMA Karachi with trainees and master trainers of a shrimp farming cluster development project at its closing ceremony, 4 May 2025.

Sources: Leadership and Professional Development Centre, Diploma in Aquaculture and Fisheries; University Facebook page, amended memorandum with AquaHatch International, 27 December 2025; NIMA website and Facebook page, 4 and 30 May 2025.

2.4 Looking ahead

Building on the record of 2025, the University sets four priorities for the next reporting year:

1. The University will measure food waste at every campus in kilograms a year and per person, as the HSE Policy requires, and report it with the share of food sourced locally.
2. The University will apply the 30 per cent local sourcing requirement in every new catering contract, with food waste reduction and donation programmes.
3. The University will continue its research on crop disease detection, soils and aquaculture with partners in Pakistan and abroad.
4. The University will widen access to the Diploma in Aquaculture and Fisheries, with sponsored places for deserving students.

SUSTAINABLE DEVELOPMENT GOAL

3

GOOD HEALTH AND WELL-BEING

Ensure healthy lives and promote well-being for all at all ages.



BAHRIA UNIVERSITY IN 2025

Educating health professionals and caring for every campus community.

In 2025, 1,358 of the University's 5,095 graduates completed degrees in medicine and health-related subjects, including psychology, and 556 University publications were classified to Goal 3 with high confidence. Six psychological service points support students, staff and the community, health insurance covered 9,313 employees and family members, and the University worked with 38 health institutions and delivered 28 community health outreach programmes.

1,358
Graduates in medicine and health-related subjects, 2025

556
High-confidence publications on health and well-being

9,313
Employees and family members with health insurance

IN THIS CHAPTER

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3.1 Research on health and well-being

UN TARGETS 3.1, 3.3, 3.4, 3.8 and 3.b

In 2025 Bahria University published 664 works that OpenAlex links to Goal 3, 556 of them with a high-confidence classification (score of 0.8 or above), the largest body of the University's research on any Goal. The 556, among them 455 journal articles and 63 reviews, are the work of 592 University authors and appeared in 277 journals and other venues. Of these, 485 are open access, 224 were written with co-authors in 81 countries, led by Saudi Arabia, the United States and the United Kingdom, and 61 are among the 10 per cent most cited publications of their type, year and subfield, 14 of them among the top 1 per cent; together they had been cited 2,752 times (OpenAlex, Goal 3 publications of 2025).

664
Works linked to Goal 3 by OpenAlex, 2025

224
High-confidence works with co-authors in 81 countries

61
Among the 10 per cent most cited in their field

Medicine accounts for 280 of the 556 publications, psychology for 78, the social sciences for 51 and the health professions for 28, with computer science, biomedical sciences, dentistry and neuroscience behind them (Figure 3.1). Table 3.1 sets out eight of them, from maternal health and infectious disease to non-communicable disease, medicines and critical care.

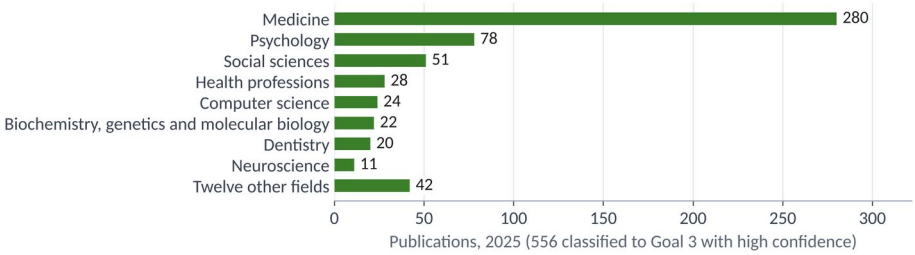


Figure 3.1: Research fields of the 556 University publications of 2025 classified to Goal 3 with high confidence (OpenAlex).

TABLE 3.1 Selected University publications on health and well-being, 2025

No.	UN target	Publication	University authors	DOI
1	3.1	Trends in the levels, causes, and risk factors of maternal mortality in Pakistan: A comparative analysis of national surveys of 2007 and 2019. PLoS ONE, 20(1), e0311730	Farid M. Midhet; Shehla M Baqai	10.1371/journal.pone.0311730
2	3.3	Revolutionizing sepsis diagnosis using machine learning and deep learning models: a systematic literature review. BMC Infectious Diseases, 25(1), 1396	Nadeem Sarwar	10.1186/s12879-025-11423-2
3	3.4	Role of Mobile Health and Wearable Devices in Cardiovascular Disease Prevention: A Comprehensive Review. Cureus, 17(5), e83673	Lalain Masood	10.7759/cureus.83673
4	3.4	Relationship Between Perceived Stress and Blood Pressure Control in Young Adults With a Family History of Hypertension. Cureus, 17(7), e87821	Zara Jawaid Chaudhry	10.7759/cureus.87821
5	3.4	Mortality trends in multiple sclerosis and cardiovascular disease in adults in the United States: A 25-year mortality perspective. Multiple Sclerosis and Related Disorders, 105, 106861	Muhammad Raza Sarfraz	10.1016/j.msard.2025.106861

No.	UN target	Publication	University authors	DOI
6	3.b	Comparing intermittent and daily prednisone in duchenne muscular dystrophy: a systematic review and meta-analysis. Annals of Medicine and Surgery, 87(3), 1637 to 1645	Shirin Hussain	10.1097/ms9.0000000000003049
7	3.b	Comparative Efficacy and Safety of Tegoprazan Versus Proton Pump Inhibitors for Erosive Esophagitis: A Systematic Review and Meta-Analysis. Cureus, 17(5), e83302	Deepa Kumari	10.7759/cureus.83302
8	3.8	The SOFA score as a mortality predictor in ICU patients: insights from a tertiary care hospital in Pakistan. BMC Research Notes, 19(1), 12	Tuba Shariq	10.1186/s13104-025-07596-3

3.2 Educating health professionals

UN TARGET 3.c

The University educates doctors, dentists, nurses, allied health professionals and psychologists through its Health Sciences Campuses at Islamabad and Karachi and its psychology institute and departments (Table 3.2). In 2025, **1,358 of the University's 5,095 graduates completed degrees in medicine and health-related subjects, including psychology; 1,084 of them, or 79.8 per cent, were women** (Figure 3.2; Controller of Examinations).

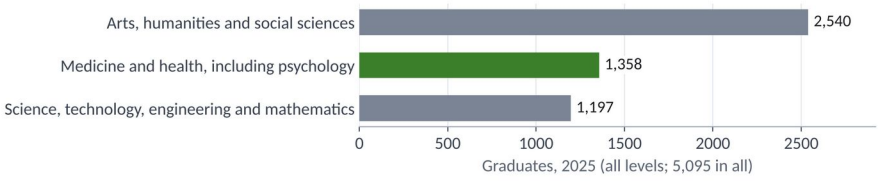


Figure 3.2: Graduates by broad subject area, 2025: 5,095 at bachelor's, master's and doctoral level (Controller of Examinations).

TABLE 3.2 **Colleges and institutes that educate health professionals**

No.	College or institute	Campus	Health professions prepared
1	College of Medicine	Health Sciences Campus, Islamabad	Doctors (MBBS)
2	Bahria University Medical and Dental College	Health Sciences Campus, Karachi	Doctors (MBBS) and dentists (BDS)
3	Bahria University Dental College and Hospital	Health Sciences Campus, Karachi	Dentists, in the new building inaugurated in 2025
4	Pakistan Navy Nursing College	Health Sciences Campus, Karachi	Nurses (BS Nursing)
5	College of Allied Health Sciences	Health Sciences Campus, Karachi	Allied health professionals, including medical laboratory technologists
6	Bahria University College of Physical Therapy	Health Sciences Campus, Karachi	Physical therapists (Doctor of Physical Therapy)
7	Institute of Professional Psychology and Departments of Professional Psychology	Karachi, Islamabad H-11 and Lahore	Clinical and professional psychologists

On 20 September 2025 the new building of the Bahria University Dental College and Hospital at the Health Sciences Campus, Karachi, was inaugurated, delivered by the Directorate of Planning and Development among its development works of 2025 (Facebook, 20 September 2025; Figure 3.3).



Figure 3.3: New building of the Bahria University Dental College and Hospital, Health Sciences Campus, Karachi, and the unveiling of its plaque at the inauguration, 20 September 2025.

Students, faculty and staff build clinical and life-saving skills beyond the curriculum through workshops with professional bodies, hospitals and the Leadership and Professional Development Centre (LPDC) (Table 3.3). On 6 October 2025 the College of Allied Health Sciences held a one-day workshop on CPR and bleeding control with the Pakistan Life Savers Programme (PLSP) and the Centre of Excellence for Trauma and Emergencies of Aga Khan University Hospital: three modules covered personal safety and communication with rescue services, the recognition and management of cardiac arrest and the control of bleeding, and participants practised adult, child and infant CPR on manikins, completed a practical assessment and received certification (Facebook, CPR and bleeding-control training; Figure 3.4).

TABLE 3.3 Clinical and professional skills training, 2025

No.	Date	Training	Organised by	Participants
1	18 February	Cervical cancer prevention	LPDC, Karachi	8 participants
2	April	Topical delivery to chronic wounds	Robert Gordon University, at the Health Sciences Campus, Islamabad	Pharmacy students
3	27 May	First Aid Training, three hours	LPDC	Staff and officers
4	27 May	Lifestyle education for cardiac health	LPDC, Health Sciences Campus, Karachi	45 participants
5	18 June	First Aid Training, two hours	LPDC	Staff and officers
6	6 October	CPR and bleeding control, with practical assessment and certification	College of Allied Health Sciences, with PLSP and Aga Khan University Hospital	Workshop participants
7	20 November	Basic Life Support	Pakistan Navy Nursing College, with PLSP	Nursing students



Figure 3.4: Participants practise CPR on training manikins at the CPR and bleeding-control workshop, College of Allied Health Sciences, Health Sciences Campus, Karachi, 6 October 2025.

3.3 Health services, insurance and mental health support

UN TARGETS 3.4 and 3.8

Every campus provides students, faculty and staff with medical care and access to professional mental health support. Under the Health, Safety and Environment Policy, issued by the Director Admin, Head Office, in its second edition on 22 November 2025, campus sickbays provide healthcare, first aid and emergency medical assistance with qualified medical and paramedical staff, medicines, equipment and ambulance provision; care includes patient counselling, emergency treatment and stabilisation for evacuation to nearby hospitals, and each sickbay is led by a Senior Medical Officer (paras 7.6.1 to 7.6.4). Where advanced care is required, the Medical Centre refers patients to affiliated hospitals.

The Policy for Psychological Services Centres, approved by the Academic Council at its 47th meeting and in force throughout 2025, provides psychological assessment, counselling and psychotherapy to students, to employees and their families and to the community (paras 1.1 and 2.1). Students self-refer or are referred by faculty with informed consent (para 10.4), sessions are confidential under a Psychological Services Ethics Committee (para 13), and treatment is free of charge, on approval, for any client unable to afford the fee (para 14.4). The University's **six psychological service points** in Islamabad, Karachi and Lahore are listed in Table 3.4.

TABLE 3.4 **Psychological service points, 2025**

No.	Service	Location	Services
1	College of Medicine Psychological Well-Being Centre and Counselling Cell	Health Sciences Campus, Islamabad	Confidential assessment and counselling, psychiatric referral; supported 35 medical students in 2025 and assisted faculty and staff
2	Psychological Support Centre, with a Trauma Therapy Unit	Islamabad	Counselling and therapy for students, faculty, staff and the community
3	Umeed-e-Nau and Well-Being Centre	Islamabad E-8 Campus	Individual, couple and group sessions for students, staff, faculty and the wider community
4	Umeed-e-Nau, Institute of Professional Psychology	National Stadium Road, Karachi	Assessment, counselling and psychotherapy; weekday walk-in service; minimal charges for students and faculty
5	Umeed-e-Nau	Health Sciences Campus, Karachi	Assessment, counselling and psychotherapy
6	Umeed-e-Nau Psychological Service Centre	Lahore Campus	In-house and outpatient assessment, counselling and psychotherapy for students and the community

The Bahria Psychology Society of the Department of Professional Psychology delivered the University's **Mental Health Campaign from 6 to 15 October 2025, with free psychological support and assessment camps on 6 to 8 October** at Khalida Iqbal Free Education School, at the 6th Road Metro Station and on the Islamabad H-11 Campus, and awareness booths, on-site counselling and assessments on World Mental Health Day (campaign account); in December the Institute of Professional Psychology led Mental Health Week. The LPDC, the College of Medicine and the psychology departments ran 11 mental health and well-being sessions for students and 10 for faculty and staff in 2025 (Table 3.5; College of Medicine mental health service).

TABLE 3.5 **Mental health and well-being training for students and staff, 2025 (selection)**

No.	Date	Session	Campus	Participants
1	20 February	The Art of Being You: self-care and resilience, with an alumna clinical psychologist	Karachi and Islamabad	More than 80 postgraduate students
2	26 February	Emotional Intelligence in the Workplace	Karachi	25 staff and officers
3	4 June	Addiction and Its Consequences	Islamabad E-8	25 students
4	27 June	Psychological First Aid	Faculty development programme	Faculty
5	22 and 25 July	Work-Life Balance	Islamabad E-8	12 faculty; 7 staff and officers
6	16 September	Mastering Emotional Intelligence	Karachi	48 students
7	28 October	Time Management, Stress Control and Exam Confidence	College of Medicine, Islamabad	100 students
8	19 November	Anger Management and Emotional Well-being	Lahore	95 faculty and students

Health insurance is mandatory for all faculty members, officers and administrative staff under the Human Resource Policy Manual, approved by the Executive Committee (2023 edition, amended 23 October 2025), which also grants medical leave on medical advice (paras 1.27.1 and 4.9.2). In 2025 the health and life insurance contract was awarded to Jubilee General Insurance Company Limited, and the scheme covered **9,313 employees and family members (employees, spouses and children)** at the start of the contract, with access to 602 panel hospitals across Pakistan (Table 3.6).

TABLE 3.6 **Health insurance cover and claims, 2025**

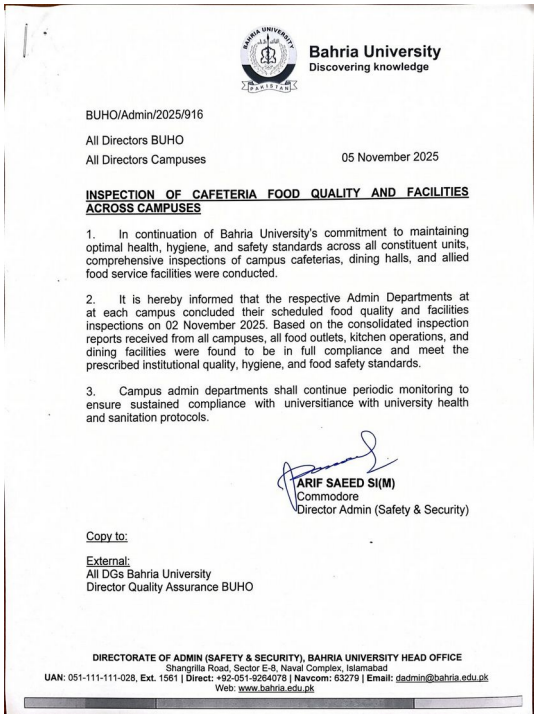
No.	Measure	2025
1	Employees and family members (employees, spouses and children) covered at the start of the contract	9,313
2	Panel hospitals of the insurer, Jubilee General Insurance Company Limited	602
3	Hospitalisation claims reimbursed	2,373
4	Outpatient claims reimbursed	8,598
5	Medical claims reimbursed	Rs 179,184,903

3.4 Smoke-free campuses and healthy lifestyles

UN TARGETS **3.4, 3.5 and 3.a**

The University is smoke-free. Para 7.5.12 of the Health, Safety and Environment Policy prohibits the use, possession, sale, distribution or facilitation of drugs, tobacco and alcohol, with tobacco defined to include cigarettes, vaping, e-cigarettes, smokeless tobacco and gutka, and the Smoke-Free Campus provision at para 7.5.12.1 covers buildings, hostels, transport, grounds and all University-organised activities, with no designated smoking area. Each Director Campus displays no-smoking signs and designates an enforcement officer, and breaches by students, employees, contractors and visitors are dealt with under the relevant disciplinary rules, contracts or instructions. The Cafeteria Policy, amended by the Director Admin, Head Office, on 2 November 2025, bans the sale and use of chalia, gutka and paan on every campus (para 5(m)).

The Cafeteria Policy also requires fresh, healthy and hygienic food at affordable prices (para 2): each campus Medical Officer keeps the medical fitness of food handlers up to date every six months, ensures their vaccination, has water from every drinking-water outlet tested in a laboratory each quarter and conducts monthly sanitary rounds (para 5(p)), while a Food Inspector at each campus monitors hygiene and food safety (para 5(e)). Scheduled inspections of cafeterias, dining halls and food-service facilities at every campus concluded on 2 November 2025, and on 5 November the Director Admin (Safety and Security) confirmed that all food outlets, kitchen operations and dining facilities were in full compliance with the University's quality, hygiene and food-safety standards (Figure 3.5).



Bahria University
Discovering knowledge

BUHO/Admin/2025/916

All Directors BUHO
All Directors Campuses

05 November 2025

INSPECTION OF CAFETERIA FOOD QUALITY AND FACILITIES ACROSS CAMPUSES

1. In continuation of Bahria University's commitment to maintaining optimal health, hygiene, and safety standards across all constituent units, comprehensive inspections of campus cafeterias, dining halls, and allied food service facilities were conducted.

2. It is hereby informed that the respective Admin Departments at at each campus concluded their scheduled food quality and facilities inspections on 02 November 2025. Based on the consolidated inspection reports received from all campuses, all food outlets, kitchen operations, and dining facilities were found to be in full compliance and meet the prescribed institutional quality, hygiene, and food safety standards.

3. Campus admin departments shall continue periodic monitoring to ensure sustained compliance with universitiance with university health and sanitation protocols.

ARIF SAEED SI(M)
Commodore
Director Admin (Safety & Security)

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All DGs Bahria University
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Figure 3.5: Memorandum of the Director Admin (Safety and Security), Head Office, confirming full compliance of cafeteria food quality and facilities across all campuses, 5 November 2025.

Health promotion reached students, staff and the public through the year (Table 3.7).

TABLE 3.7 **Health promotion activities, 2025**

No.	Date	Activity	Organised by and with
1	20 January	Lifestyle Medicine awareness for faculty: nutrition, physical activity, stress, sleep and substance use	College of Medicine, Islamabad, with the Pakistan Association of Lifestyle Medicine
2	19 March; 25 September	Training on etiquette and personal hygiene	LPDC, Islamabad E-8
3	30 May	World No-Tobacco Day poster competition on the harms of tobacco and industry tactics	College of Medicine, Islamabad, with the Student Support Centre
4	25 June	World Drug Day seminar, Overcoming Addiction Together	Institute of Professional Psychology, with the Sindh Mental Health Authority
5	15 August	World Hepatitis Day programme with free hepatitis B and C screening and an awareness walk	Health Sciences Campus, Karachi, with the Pakistan Society of Physicians (Sindh)
6	3 October	Seminar on rabies prevention and control	College of Allied Health Sciences, with the Global Alliance for Rabies Control
7	28 November	Empowering Action: Diabesity at Workplace, on diabetes and obesity	College of Medicine, Islamabad, with Novo Nordisk and the Health Services Academy

3.5 Sport and physical activity

UN TARGET 3.4

The Sports Policy, amended by the Director Admin, Head Office, on 25 August 2025, extends the use of University sports facilities to local schools, community groups and members of the public (para 1.3.1(d)). Each campus opens its facilities to these users outside the hours needed by students and staff, with free

access for registered school groups, and publishes its facilities, hours and booking procedure (para 1.15.2); community use is managed and reported each year (para 1.4), and future facilities are designed for safe access by students with disabilities (para 1.17.1). The University's courts for basketball, volleyball, badminton, table tennis and futsal, separate fitness centres for men and women and the Jahangir Khan Gymnasium at the Islamabad E-8 Campus hosted external clubs and institutions throughout 2025, closing in December with an **Inter-University Volleyball Tournament for teams from 25 universities** (Table 3.8; Facebook, 26 December 2025).

TABLE 3.8 **Sports events hosted for external clubs and institutions, 2025**

No.	Date	Event	Venue	External participants
1	3 and 15 January	Basketball friendly matches	Gymnasium, Islamabad Campus	Islamabad Bulls Club; Islamabad Reporter Club
2	11 to 16 February	All Islamabad University Sports Week Gala: basketball, volleyball, futsal, table tennis and badminton	Islamabad Campus	Universities of Islamabad
3	16 February	Futsal exhibition match	Karachi Campus	Al-Kawther University
4	28 February	Volleyball friendly match	Islamabad Campus	Islamabad Bulls Club
5	April	International basketball training camp, 40 players from across Pakistan, including eight from the University	Jahangir Khan Gymnasium, Islamabad E-8 Campus	Federal Basketball Association; Coaches Team International
6	30 April	Women's volleyball friendly match	Islamabad Campus	Islamic International University women's team
7	14 May	Badminton friendly match	Islamabad Campus	NUML Islamabad
8	8 October	Volleyball friendly match	Karachi Campus	SZABIST
9	December	Inter-University Volleyball Tournament	Islamabad Campus	Teams from 25 universities



Figure 3.6: Women's badminton in the community sports programme, Islamabad H-11 Campus, 2025.

The Islamabad H-11 Campus also welcomed players from local colleges and universities, women among them, to football, volleyball and badminton free of charge (Figure 3.6), and the badminton court at the Health Sciences Campus, Karachi, is shared with PNS Shifa. Every campus runs a calendar of sport for its own students: the Sports Gala of the Health Sciences Campus, Karachi, drew 500 students to 24 games on 17 February, the women's badminton team won at the AKU Sports Olympiad of 34 universities on 17 April, and the College of Medicine held its first Sports Gala, with 42 medals awarded.

3.6 Health partnerships and community outreach

UN TARGETS 3.3, 3.7, 3.8 and 3.d

The University works with local, national and international health institutions to train health professionals, prevent disease and extend access to care. In 2025 it **engaged 38 health institutions and organisations, 8 of them international**, through 17 agreements in force (Table 3.9) and joint health programmes with 21 more, from the Pakistan Life Savers Programme, the Sindh Mental Health Authority and Shaukat Khanum Memorial Cancer Hospital to the University of Essex, Durham University and the University of the Philippines Manila, which confirmed its October 2025 cooperation with the University on simulation and health-sciences education (host university account).

Preventing thalassemia: screening, counselling and blood donation

Health Sciences Campus, Karachi; College of Allied Health Sciences; Karachi Campus; August to November 2025

THE CHALLENGE

Thalassemia is one of the most common inherited blood disorders in Pakistan; children with the major form depend on regular transfusions, and prevention depends on awareness, premarital screening and genetic counselling.

WHAT WE DID

With the Afzaal Memorial Thalassemia Foundation (AMTF), the Health Sciences Campus, Karachi, trained medical, dental and nursing students, faculty and staff as thalassemia social workers in August 2025. Allied health students delivered awareness, screening and testing with the Kashif Iqbal Thalassemia Care Centre (KITCC) on 2 September, psychology students ran a resilience session for its young patients on 11 November, and on 27 November the Community Support Program of the Karachi Campus held a blood donation drive with the Foundation.

THE RESULT

Future health professionals gained practical skills in prevention and counselling, the community received screening and education, and donated blood supported patient care.

KEY FIGURES

2

Specialist thalassemia partners

4

Joint activities in 2025

3

Health professions trained as social workers

PARTNERS

Afzaal Memorial Thalassemia Foundation; Kashif Iqbal Thalassemia Care Centre



Figure 3.7: Thalassemia Social Worker Program with the Afzaal Memorial Thalassemia Foundation, Health Sciences Campus, Karachi, 23 August 2025.



Figure 3.8: Donor registration at the blood donation drive with the Foundation, Karachi Campus, 27 November 2025.

Sources: University Facebook page, Thalassemia Social Worker Program and blood donation drive; College of Allied Health Sciences and Institute of Professional Psychology records.

Alongside the agreements of 2025 in Table 3.9, seven more were in force, with the AMTF, Special Olympics Pakistan, Kazim Trust, GAK Healthcare International Limited, Safe Care Trust International, Hayat Rehabilitation Clinic and Omer-e-Rawan, whose child mental-health partnership with the Health Sciences Campus, Islamabad, gives children from low-income communities a screening-to-referral pathway.

TABLE 3.9 **Agreements with health institutions signed or renewed in 2025**

No.	Partner	Agreement and purpose	Date
1	Indus Hospital and Health Network	Academic alliance for joint healthcare and community-welfare initiatives, Health Sciences Campus, Karachi	25 February
2	Sarwar Shahida Memorial Cardiac Center and Research Institute	Memorandum of understanding with a cardiac-care and research institute	14 April
3	Robert Gordon University, United Kingdom	Memorandum of understanding signed during the delegation visit; pharmacy lecture on chronic wounds, Health Sciences Campus, Islamabad	April
4	Aga Khan University	University-level memorandum of understanding; stress-management session for paediatric residents; nursing-education agreement with the Pakistan Navy Nursing College	15 January; 16 May; December
5	Lahore Institute of Special Care and Attention; Centre for Special Needs; Step Ahead Bringing Out Abilities	Memoranda of understanding with disability-service and special-needs organisations	29 May
6	Pedia Care Therapy Clinic	Clinical exposure, training, research and community initiatives with Professional Psychology, Islamabad H-11	29 September
7	University of Perpetual Help System DALTA, Philippines	Nursing education, research and professional development	10 October
8	Islamabad Diagnostic Centre	Academic memorandum of understanding and an agreement for subsidised diagnostic services for students, employees and their families	22 December

Faculty and supervised students also take health education, screening and psychological support into the community. Every undergraduate completes 40 contact hours of community service under the Community Support Program (see Chapter 1), and the Program of the Institute of Professional Psychology alone lists 22 community partners. In 2025 the University delivered **28 community health outreach programmes**: 13 in mental health and psychosocial support, 7 in preventive health, screening and blood donation, and 8 with care homes, children and persons with disabilities (Table 3.10). From 27 October 2025 the School of

Business, Karachi, with HOL Foundation Pakistan, delivered mental health lectures and counselling for the pupils of Government Boys Secondary School, Lyari (Facebook, Lyari).

TABLE 3.10 **Community health outreach programmes, 2025 (selection)**

No.	Date	Programme	Delivered by	Community served
1	6 and 7 October	Free counselling and psychological assessment; public mental health camp	Professional Psychology and Bahria Psychology Society, Islamabad H-11	Khalida Iqbal Free Education School; public at 6th Road Metro Station
2	From 27 October	Mental health lectures and counselling	School of Business, Karachi, with HOL Foundation Pakistan	Pupils of Government Boys Secondary School, Lyari
3	11 November	Character strengths and resilience session	Institute of Professional Psychology	Young patients at KITCC
4	2 September	Thalassemia awareness, screening and testing	College of Allied Health Sciences	Participants at KITCC
5	12 and 23 September	Cervical cancer prevention and HPV vaccination seminars	Health Sciences Campus, Karachi	More than 500 girls, teachers and principals
6	27 November	Blood donation drive	Community Support Program, Karachi Campus, with the AMTF	Patients supported by the AMTF
7	18 March	Iftar and companionship with elderly residents	15 students, Health Sciences Campus, Karachi	JDC Old Age Home-II
8	21 May	Wish-Granting Ceremony with Make-A-Wish Foundation Pakistan	School of Humanities and Social Sciences, Karachi	Children supported by the Foundation
9	15 October; 19 December	Gratitude and life-story sessions; recreation for elderly women	Institute of Professional Psychology	Residents of JDC and Gosha Khatoon-e-Jannat old age homes

3.7 Looking ahead

Building on the record of 2025, the University sets four priorities for the next reporting year:

1. The University will turn its agreements of 2025 with the Indus Hospital and Health Network, the University of Perpetual Help System DALTA and the Islamabad Diagnostic Centre into action plans for clinical training, exchange, joint research and subsidised services.
2. The University will extend its free mental health campaigns and its staff and student training, and will report the use of its psychological services each year.
3. The University will keep every campus smoke-free and continue health promotion, screening and blood donation with its partners.
4. The University will report community use of its sports facilities each year under the Sports Policy.

SUSTAINABLE DEVELOPMENT GOAL

4

QUALITY EDUCATION

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.



BAHRIA UNIVERSITY IN 2025

Quality teaching, open access and learning beyond the campus.

In 2025 the University opened its campuses to learners of every age through 24 free public lectures and educational events, 21 executive education and vocational courses and 19 outreach activities beyond campus. All 30 young people on its national skills programme were certified, and 65 of its 84 degree roadmaps include a course on environment, climate or sustainability.

24
Public lectures and educational events, free of charge

21
Executive education and vocational courses open to the public

65 of 84
Degree roadmaps with a sustainability course

IN THIS CHAPTER

4.1 Research on education and lifelong learning 44
4.2 Teaching quality and educator development 45
4.3 Widening access to higher education 46
4.4 Free learning resources and public events 46
4.5 Executive education and vocational training 48
4.6 Education outreach beyond campus 51
4.7 Education for sustainable development 52
4.8 Looking ahead 53

4.1 Research on education and lifelong learning

UN TARGETS 4.1, 4.3, 4.4, 4.7 and 4.c

In 2025 Bahria University published 131 works that OpenAlex links to Goal 4, 86 of them with a high-confidence classification (score of 0.8 or above). The 86, 78 of them journal articles, are the work of 117 University authors and appeared in 65 journals and other venues. Of these, 75 are open access, 23 were written with co-authors in 23 countries, led by the United Kingdom and Malaysia, and **18 are among the 10 per cent most cited publications** of their type, year and subfield, 3 of them among the top 1 per cent; together they had been cited 289 times (OpenAlex, Goal 4 publications of 2025). The research studies artificial intelligence in personalised learning and feedback, the prediction of learning outcomes, inquiry-based and innovative pedagogy, technology in school education, socio-emotional skills in the school curriculum and entrepreneurship education (Figure 4.1; Table 4.1).



Figure 4.1: Research fields of the 86 University publications of 2025 classified to Goal 4 with high confidence (OpenAlex).

TABLE 4.1 Selected University publications on quality education, 2025

No.	UN target	Publication	University authors	DOI
1	4.1	Enhancing IoT education for middle school students in Oman with interactive e-book and portable kit. International Journal of Technology Enhanced Learning, 17(2), 197 to 222	Osama Rahman	10.1504/ijtel.2025.145313
2	4.3	AI in Education: Personalized Learning Systems and Their Impact on Student Performance and Engagement. The Critical Review of Social Sciences Studies, 3(1), 2445 to 2459	Muhammad Umar Aziz	10.59075/c35qa453
3	4.3	Optimizing learning outcomes: a deep dive into hybrid AI models for adaptive educational feedback. Journal Of Big Data, 12(1)	Muhammad Taseer Suleman	10.1186/s40537-025-01187-6
4	4.3	AI-Based Prediction of Program Learning Outcomes for an Engineering Undergraduate Degree. Computer Applications in Engineering Education, 33(6)	Fahad Hassan Zaman; Junaid Imtiaz; Maryam Iqbal; Ayesha Waqar Mir	10.1002/cae.70092
5	4.4	Inquiry based learning in software engineering education: exploring students' multiple inquiry levels in a programming course. Frontiers in Education, 10	Sohaib Ahmed; Osama M. Hussain Rehman	10.3389/feduc.2025.1503996
6	4.4	Empowering Entrepreneurship Education with Digital Technologies Tools. Qlantic Journal of Social Sciences, 6(1), 234 to 251	Syed Rizwan Ali; Muhammad Faraz	10.55737/qjss.vi-i.25305
7	4.7	Metacognitive and Socio-Emotional Skills: A Critical Need in Pakistani Schools' Curriculum: A Quantitative Study. Journal of Asian Development Studies, 14(2), 71 to 85	Naghma Tareen	10.62345/jads.2025.14.2.6
8	4.c	Innovative Pedagogies: Exploring Effective Teaching and Learning Methodology from Students' Perspective. Pakistan Journal of Health Sciences, 137 to 143	Farzeen Tanwir; Ahmed Bin Khalid Khan	10.54393/pjhs.v6i7.3065

4.2 Teaching quality and educator development

UN TARGET 4.c

The University develops its own faculty continuously. The Leadership and Professional Development Centre (LPDC) recorded **40 faculty development sessions** in 2025, each mapped to the Sustainable Development Goals, among them outcome-based education training at the Islamabad E-8 and H-11, Lahore and Karachi campuses in January and February, attended by **91 faculty members**, and hands-on outcome-based education training at the Karachi Campus on 18 July (Table 4.2). Partner universities contributed to teaching practice: the University of Essex led a workshop on innovative teaching pedagogies at the Lahore Campus, and Ilmenau University of Technology, Germany, a hybrid workshop on integrating AI into the classroom on 1 December 2025 (Facebook, 1 December 2025). On 24 October 2025 a Higher Education Commission (HEC) delegation, part of the World Bank Implementation Completion Mission, reviewed the outcomes of the Higher Education Development in Pakistan initiatives implemented at the University (see Chapter 17).

TABLE 4.2 Selected faculty development, 2025

No.	Date	Session	Campus	Participants
1	January and February	Outcome-based education training, for curriculum alignment and learning outcomes	E-8, H-11, Lahore and Karachi	91
2	28 February	Prospects and Challenges to the Blue Economy	Karachi	22
3	25 April	SDGs in Action: Integrating Sustainability into Pedagogy and Research	Karachi	17
4	3 July	Training on the Sustainable Development Goals	Karachi	10
5	4 July	How to Curb Plastic to Protect the Marine Environment	Karachi	20
6	18 July	Outcome Based Education Hands-on Training	Karachi	26
7	31 July	Advancing Gender Equity in Academia and Workplace	Islamabad H-11	Faculty
8	1 December	Integrating AI into the Classroom, with Ilmenau University of Technology	Islamabad E-8	Faculty
9	23 December	Innovative Teaching Pedagogies, with the University of Essex	Lahore	Faculty

The Centre also ran **53 group mentoring and grooming sessions** for students across the campuses in 2025, with **2,087 participants**, on career and personal development, well-being, conduct and research skills; women led 26 of them (49.1 per cent), with 912 participants. The University also prepares educators beyond its own faculty. Its courses for school leaders, teachers and parents are open to the public, among them the Certificate in Advanced Education Leadership, an eight-week Certification in Managing Dyslexia from 12 August 2025 at the Islamabad E-8 Campus, with 10 participants, and a four-week dyslexia course in Lahore (Table 4.5). On 1 October 2025 students and faculty were briefed on the Each One Teach One adult literacy initiative of the National Commission for Human Development (Facebook, 1 October 2025), and on 18 December 2025 Teach For Pakistan held a fellowship session for students at the Islamabad E-8 Campus on teaching in primary and middle grades (Facebook, 18 December 2025).

4.3 Widening access to higher education

UN TARGETS 4.3, 4.5 and 4.b

The University works to ensure that no deserving student is left behind. The Admissions Policy, issued by the Director Admissions in its 3rd Edition on 3 November 2025, provides for fair, merit-based admissions with equal opportunity regardless of gender, nationality, race, religion, disability or immigration status and with no condition of domicile (paras 2.1.1 to 2.1.3), and the Equality and Non-Discrimination Policy, amended by the Directorate of Human Resource on 20 October 2025, applies the same principle to every programme, admission and public learning activity of the University (para 3). In academic year 2025 the University's students held 5,172 scholarships worth Rs 360.41 million, among them 4,135 University scholarships worth Rs 171.13 million, and 268 international students from ten low and lower-middle income countries studied on full scholarships (see Chapter 1). New scholarship partnerships of 2025 included a memorandum of understanding of the Advancement Directorate with DIYA Pakistan to support deserving students (Facebook, 16 January 2025) and Pakistan Education Endowment Fund scholarships for fourteen students of the Bahria University Hashoo School of Hospitality Management (Facebook, 24 April 2025). Campuses provide wheelchair ramps, lifts, accessible washrooms, wheelchairs and designated parking for students, staff and visitors with disabilities (see Chapter 10).

4.4 Free learning resources and public events

UN TARGETS 4.3, 4.6 and 4.7

The University opens its learning resources and its lecture halls to people who are not its students: under the Equality and Non-Discrimination Policy every public learning activity, from library access to public lectures, training and outreach, is open to all regardless of ethnicity, religion, disability, immigration status or gender, with the Directorate of Human Resource monitoring equal access (paras 3 and 22). Table 4.3 sets out the free resources available to people outside the University. On 10 February 2025 heads of department, faculty and students of the University of Balochistan visited the Main Library to explore its resources and digital services, and the library of the Health Sciences Campus, Karachi, alone holds more than 5,867 books, 200 e-books and 50 desktop computers, with seating for 200 users.

TABLE 4.3 Free educational resources for people outside the University, 2025

No.	Form of provision	University provision	Open to
1	Campus facilities and equipment	Library facilities, computers, Wi-Fi and electronic resources without charge, after approval	Researchers, alumni and members of the community
2	Campus facilities and equipment	On-site Web of Science and Scopus access within the University library in Islamabad, approved 9 December 2025	Faculty of the National Defence University
3	Free courses leading to a certificate	Six-month training in two IT trades, certified by the National Vocational and Technical Training Commission (NAVTTC); all 30 trainees certified	Merit-selected young people, 13 women and 17 men
4	Campus facilities for certificate learners	Full use of the University Library, computer laboratories, internet and learning spaces	All 30 NAVTTC trainees

No.	Form of provision	University provision	Open to
5	Online resources	Public library catalogue; open-access books and journals; recorded lecture collections of the Virtual University and MIT	Anyone, without enrolment or sign-in
6	Online resources	Full text of the Journal of Bahria University Medical and Dental College, published open access	Anyone, including practitioners

In 2025 the University hosted **24 lectures, conferences, community educational events and fairs open to people beyond its students and staff**, at its Islamabad, Karachi, Health Sciences and Lahore campuses, none with an admission charge (Table 4.4; Figure 4.2). The **7th Iqbal Conference (International)**, held on 12 November 2025 across the Islamabad E-8, Lahore and Karachi campuses with more than 125 research papers, was announced through an open public invitation and streamed live (Facebook, 12 November 2025; Figure 4.3). The 11th Annual Book Fair on 18 and 19 February brought 16 booksellers, vendors and publishers to the Main Library, and the 12th Annual Book Fair followed on 20 November.

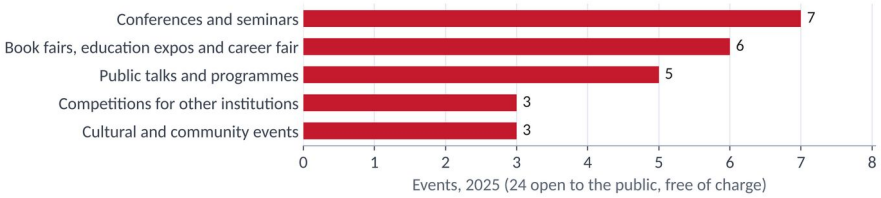

Figure 4.2: Public lectures and educational events by type, 2025: 24 events open to the public, free of charge (event records).

TABLE 4.4 **Public lectures and educational events, 2025**

No.	Event	Date	Campus	External participation
1	7th Iqbal Conference (International), with an open invitation and a live stream	12 November	E-8, Lahore and Karachi	Public; National Language Promotion Department; Bahria Colleges
2	The 2 AIs: Allama Iqbal and Artificial Intelligence	22 April	Islamabad E-8	Public registration; University of Colorado Boulder; KUST; NUST
3	International conference: Bridging Regions	26 May	Islamabad E-8	Experts, scholars and policymakers
4	International Seminar on the San Remo Manual	28 April	Islamabad E-8	Pakistan Navy; ICRC; Research Society of International Law
5	World Environment Day expert talks	11 June	Islamabad H-11	Ministry of Foreign Affairs; banking sector; Oxford Institute of Policy Management
6	Women's leadership and legal-rights programme	23 and 24 November	Islamabad	Federal Ombudsperson for Protection against Harassment; women entrepreneurs
7	Special talk on Ramadan by Inzamam-ul-Haq	24 March	Lahore	Guests with students and faculty
8	Harvesting Hope: inclusion in education	20 December	Islamabad	Society for Access to Quality Education; experts
9	World Hepatitis Day programme with free screening	15 August	Health Sciences, Karachi	Pakistan Society of Physicians; community
10	World Drug Day seminar	25 June	Karachi	Sindh Mental Health Authority; professionals; policymakers
11	Rabies prevention and control seminar	3 October	Karachi	Global Alliance for Rabies Control

No.	Event	Date	Campus	External participation
12	Young Philosophers	25 February	Islamabad E-8	School and college students; six universities
13	Pre-Iqbal Conference 2025	17 September	Islamabad E-8	Stage play by visiting schoolchildren
14	Future Ready Training Programme	18 April	Lahore	Students from five colleges
15	11th Annual Book Fair	18 and 19 February	Islamabad E-8	16 booksellers, vendors and publishers
16	12th Annual Book Fair	20 November	Islamabad E-8	Publishers, exhibitors and book lovers
17	Critter's Carnival 2025, pet-care awareness	12 December	Islamabad E-8	Open public announcement; families
18	Inter-University Declamation Competition	6 June	Islamabad E-8	36 institutions
19	Bazm-e-Guftar 4.0 declamation contest	28 November	Karachi	Institutions across Karachi
20	IDP Education Expo	12 February	Islamabad E-8	More than 40 universities from the UK, Ireland and Australia
21	International Education Expo	26 April	Islamabad E-8	Universities from Canada, Europe, Malaysia, the US and the UK
22	IDP Education Expo	8 October	Islamabad E-8	IDP Education
23	Global Village 2025	24 and 26 November	Islamabad	Embassies and missions of six countries
24	Career Fair and Open House	30 May	Islamabad E-8	Employers and alumni; more than 1,200 visitors



Figure 4.3: Opening of the 7th Iqbal Conference (International), Islamabad E-8 Campus, 12 November 2025.



Figure 4.4: 11th Annual Book Fair, Main Library, Islamabad E-8 Campus, 18 and 19 February 2025.

4.5 Executive education and vocational training

UN TARGET 4.4

Through its Leadership and Professional Development Centre and its academic departments, the University offers short courses, certificates, diplomas and vocational training to people who are not enrolled at the University, on a programmed basis and ad hoc; none of them leads to a degree. In 2025 it offered **21 executive education and vocational courses open to the public** (Table 4.5). Throughout the year the Centre published a monthly public training calendar with course titles, durations, campuses and public

registration contacts; the calendars of six months contained **67 course listings**, from diplomas in cyber security, mediation and project management to certificates in legal technology, data science and robotics.

TABLE 4.5 **Executive education and vocational training open to the public, 2025**

No.	Course and participants	Dates in 2025	Venue	Basis
1	LPDC monthly public training calendar: certificates, diplomas and short courses	April to November	All campuses	Programmed
2	Prime Minister's Youth Skills Development Program (NAVTTC vocational training)	Six months from March	Islamabad E-8	Programmed
3	Certified Human Resource Professional, Batch 10	July to September	Islamabad E-8	Programmed
4	Certification in Managing Dyslexia, for educators, therapists and parents	From 12 August	Islamabad E-8	Programmed
5	Language Proficiency Certification in seven languages	From 12 July; cohort from 18 August	Islamabad E-8	Programmed
6	Diploma in Mediation	19 June to 26 July	Islamabad E-8	Programmed
7	Diploma in Accounting and Finance	From 3 October	Karachi	Programmed
8	Professional Diploma in Clinical Psychology	From 21 November	Islamabad E-8	Programmed
9	Diploma in Project Management	From 5 December	Islamabad E-8	Programmed
10	International Summer School: International Business Skills	26 to 28 June	Lahore	Ad hoc
11	International Summer School: Trade, Logistics and Supply Chain	4 to 8 August	Karachi and E-8	Ad hoc
12	Certification in Data Science (online)	From 19 May	Lahore	Ad hoc
13	Machine Learning and Deep Learning training for NADRA employees	From 16 July	Islamabad E-8	Ad hoc
14	Primavera P-6 project management course	15 to 19 July	Islamabad E-8	Ad hoc
15	Certification Course on Environmental Health and Safety	25 to 29 August	Islamabad H-11	Ad hoc
16	5G and 6G Networks certificate course for telecom professionals	18 to 22 August	Islamabad H-11	Ad hoc
17	LEGO Robotics Summer School for children aged 8 to 15	11 to 13 August	Islamabad H-11	Ad hoc
18	Certificate Course in Dyslexia for parents and teachers	From 22 August	Lahore	Ad hoc
19	Certificate in Advanced Education Leadership for school leaders	4 to 19 October	Bahria College Anchorage	Ad hoc
20	Workshop on Mediation and Moderation Analysis Using SPSS	4 December	Islamabad E-8	Ad hoc
21	Certified Train the Trainer	20 December	Islamabad	Ad hoc

Recorded participation includes 30 certified NAVTTC trainees, 10 professionals in each of the Certified Human Resource Professional and dyslexia cohorts, 13 in the Professional Diploma in Clinical Psychology, 11 in the Environmental Health and Safety course, 9 in the Certificate in Advanced Education Leadership, 7 each in the Primavera P-6 course and the Diploma in Accounting and Finance, and 6 in the Diploma in Mediation, delivered with the Insaaf Dar Organization. From 16 July 2025 the University trained employees of the National Database and Registration Authority (NADRA) in machine learning and deep learning (Facebook, 16 July 2025), and the international summer schools of June and August, with experts from the

Amsterdam University of Applied Sciences and Heriot-Watt University, were open to external participants and professionals (Facebook, 26 June 2025).



Figure 4.5: Machine Learning and Deep Learning training for employees of NADRA, Islamabad E-8 Campus, 16 July 2025.



Figure 4.6: International Summer School on International Business Skills, Lahore Campus, 26 June 2025.

Free certified skills training for young people

Leadership and Professional Development Centre with NAVTTC; Islamabad E-8 Campus; 2025

THE CHALLENGE

Young people who are not enrolled in higher education need certified, market-relevant skills in information technology, a sector in which practical skills open direct routes to employment and self-employment.

WHAT WE DID

The Centre served as a Training Service Provider for the National Vocational and Technical Training Commission (NAVTTC) under the Prime Minister's Youth Skills Development Program. After a public call closing on 30 January 2025, NAVTTC awarded the University 20 places in Graphic Design and Video Editing and 10 in Advance Python Programming and Applications on 5 March 2025, and the two signed a memorandum of understanding on 13 March. Merit-selected trainees followed six months of training free of charge, with full use of the University Library, computer laboratories and internet.

THE RESULT

All 30 trainees completed the required credit hours, assessments and projects and received NAVTTC certificates, a completion rate of 100 per cent; 13 of them, or 43.3 per cent, were women.

KEY FIGURES

30 of 30

Trainees certified by NAVTTC

13

Women among the certified trainees

2

Information technology trades

PARTNERS

National Vocational and Technical Training Commission; Prime Minister's Youth Skills Development Program



Figure 4.7: Public call for the Prime Minister's Youth Skills Development Program at the Islamabad E-8 Campus, January 2025.



Figure 4.8: Record of completion and certification of the Leadership and Professional Development Centre: 30 of 30 trainees, 2025.

Sources: public call of the Leadership and Professional Development Centre, January 2025; NAVTTC award letters of 5 March 2025; Leadership and Professional Development Centre completion record.

4.6 Education outreach beyond campus

UN TARGETS 4.1, 4.5 and 4.7

Staff and students take learning beyond the campus into schools, colleges and community settings. The principal programmed channel is the Community Support Program, under which every undergraduate completes 40 contact hours of community service, with education at its centre (see Chapter 1). In 2025 the University recorded **19 education outreach activities beyond campus**, with partners such as the HOL Foundation and the Kiran Foundation, from a financial literacy workshop by Lahore Campus faculty at Concordia Colleges, Kasur, on 8 November 2025 to assessment camps for schoolchildren (Table 4.6).

TABLE 4.6 Education outreach beyond campus, 2025

No.	Activity and audience	Date	Location	Basis
1	Community Support Program: 40 contact hours of community service for every undergraduate	Spring and Fall	Partner schools, NGOs and communities	Programmed
2	Educational support and stationery for schoolchildren; awareness sessions on first aid, road and rail safety and thalassemia	2025	Khalida Iqbal Free Education School; Pehli Kiran School	Programmed
3	Mental Health Campaign: counselling and assessment camps for pupils, teachers and the public	6 and 7 October	Khalida Iqbal Free Education School; 6th Road Metro Station	Programmed
4	HOL Foundation partnership: mental health lectures and counselling for school pupils	From 27 October	Government Boys Secondary School, Lyari	Partnership
5	Kiran Foundation partnership: expressive arts with mothers; assessment camp for Grade 7	14 November	Deep Chand T. Ojha Campus, Karachi	Partnership
6	Stress management workshop for 71 students	30 April	Fazaia Degree College	Ad hoc
7	Financial literacy workshop for college students	8 November	Concordia Colleges, Kasur	Ad hoc
8	Antimicrobial resistance awareness session for schoolchildren	8 December	Sunny Model School, Rawalpindi	Ad hoc
9	Psychological assessment camp for children	11 December	Ghulaman-e-Abbas School	Ad hoc
10	Mandala art session on stress management for paediatric residents	15 January	Aga Khan University, Karachi	Ad hoc
11	Seminar on workplace mental health, with the Sindh Mental Health Authority	January	FPCCI, Karachi	Ad hoc

No.	Activity and audience	Date	Location	Basis
12	Talk on health awareness in education, International Day of Education	24 January	Islamabad Club	Ad hoc
13	Creative workshops and sensory games for special children and elderly residents	26 February	Darul Sukun, Karachi	Ad hoc
14	World Health Day lecture on early health education	20 April	Sweet Homes, Islamabad	Ad hoc
15	Cognitive and motor skill activities for persons with disabilities	14 August	Grand Independence Festival for Persons with Disabilities	Ad hoc
16	Talk with interactive activities on sensory gardens	26 August	Horticulture Society of Pakistan, Karachi	Ad hoc
17	Mental health camp for athlete leaders	10 October	With Special Olympics Pakistan	Ad hoc
18	Creative and therapeutic mental health activities	October	UJALA Parents Voice Association, Karachi	Ad hoc
19	World Disability Day visit with games and music for children	9 December	Special Children School, Karsaz, Karachi	Ad hoc

4.7 Education for sustainable development

UN TARGET 4.7

The Sustainability and Climate Action Policy (BU-SCAP-2025), approved by the Rector and effective from 7 December 2025, commits the University to embed climate and sustainability content in every academic programme (para 3.1) and to include a three-credit-hour course, Climate Change and Sustainability, in every undergraduate programme (para 6.1). In 2025 the general education course Civics and Community Engagement appeared in 75 of the 84 published bachelor's and associate degree roadmaps, and **65 of the 84 included a course on environment, climate or sustainability**. Dedicated degrees and courses on sustainability are set out in Chapter 17. On 29 April 2025 the University renewed its memorandum of understanding with Macquarie University, Australia, for five years (Figure 4.9).

Partnerships with universities abroad brought international expertise to teaching and learning in 2025 (Table 4.7; see Chapter 17).

TABLE 4.7 International partnerships for learning, 2025

No.	Partner	Activity	Date
1	Macquarie University, Australia	Renewal of the memorandum of understanding for five years: joint research, co-supervision and faculty development	29 April
2	Robert Gordon University, United Kingdom	Academic visit following the memorandum of understanding; lecture to pharmacy students at the Health Sciences Campus, Islamabad	21 April
3	Coventry University, University of Glasgow, Istanbul Medipol University, Gebze Technical University and Prince Sultan University	Speakers at C-CODE'25, the 4th International Conference on Communication, Computing and Digital Systems	1 October
4	Amsterdam University of Applied Sciences; Heriot-Watt University	Experts at the International Summer Schools on business skills and on trade, logistics and supply chain	June and August

No.	Partner	Activity	Date
5	Universities of the United Kingdom, Ireland, Australia, Canada, Europe, Malaysia and the United States	Education expos for students and the public at the Islamabad E-8 Campus	12 February; 26 April



Figure 4.9: Renewal of the memorandum of understanding between Bahria University and Macquarie University, Australia, 29 April 2025.

4.8 Looking ahead

Building on the record of 2025, the University sets four priorities for the next reporting year:

1. The University will introduce the three-credit-hour course Climate Change and Sustainability in every undergraduate programme and extend climate and sustainability content to all its programmes.
2. The University will continue faculty development on pedagogy, outcome-based education and artificial intelligence in learning, with group mentoring and grooming sessions for students.
3. The University will keep its public lectures, library resources and monthly public training calendar open to all, free of charge wherever possible.
4. The University will continue free certified vocational training under national programmes and education outreach through the Community Support Program.

SUSTAINABLE DEVELOPMENT GOAL

5

GENDER EQUALITY

Achieve gender equality and empower all women and girls.



BAHRIA UNIVERSITY IN 2025

Women are more than half of the University's graduates.

In 2025 women were 51.9 per cent of the University's 5,095 graduates and held 932 of the 1,505 University scholarships covering half or more of fees. Every woman who began an undergraduate degree, 2,875 in all, had a faculty mentor, and women held seven of the ten leadership posts of the Centre of Excellence in Artificial Intelligence.

51.9 per cent
Women among the University's graduates, 2025

2,875
Women undergraduates each assigned a faculty mentor

7 of 10
Leadership posts held by women, Centre of Excellence in AI

IN THIS CHAPTER

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5.1 Research on gender equality

UN TARGETS 5.1, 5.2 and 5.5

In 2025 Bahria University published 71 works that OpenAlex links to Goal 5, 17 of them with a high-confidence classification (score of 0.8 or above). The 17, 16 journal articles and a reference entry, are the work of 25 University authors and appeared in 16 journals and other venues; 15 of them are open access, 4 were written with co-authors in Saudi Arabia, Türkiye, China, Mexico, Qatar, Portugal and Italy, and one is among the 10 per cent most cited publications of its type, year and subfield. The social sciences account for 10 of the 17, business, management and accounting and the arts and humanities for 3 each. The research studies women surgeons, women entrepreneurs, street harassment and psychological distress, gender in medical faculties and the portrayal of women in the media (OpenAlex, Goal 5 publications of 2025; Table 5.1).

TABLE 5.1 Selected University publications on gender equality, 2025

No.	UN target	Publication	University authors	DOI
1	5.1	Reconfiguring Gendered Spaces: A Qualitative Analysis of U.S. Vision in Mitigating Inequality across Domestic and Public Spheres. ACADEMIA International Journal for Social Sciences, 4(3), 3431 to 3440	Syeda Aliza Naqvi	10.63056/acad.004.03.0624
2	5.1	Is The Woman Fragile? A Comparative Study of Pakistani Primetime Dramas: Khalil Ur-Rehman's Meray Pass Tum Ho and Sinf-e-Aahan. Pakistan Journal of Gender Studies, 25(2), 65 to 85	Bushra Nadeem; Usama Javed Iqbal	10.46568/pjgs.v25i2.967
3	5.2	Street Harassment and Psychological Distress Among Pakistani Women: Assertiveness as a Moderator. Journal of Asian Development Studies, 14(3), 2299 to 2311	Tooba Nadeem	10.62345/jads.2025.14.3.178
4	5.5	Challenges and Gender Disparities Faced by Women in Surgery in Pakistan. International Journal of Medical Students, 13(2), 214 to 216	Mushaim Gillani; Yumna Shariff; Amna Inayat; Manahil Bahrawar	10.5195/ijms.2025.2893
5	5.5	Exploring the Experiences of Male Faculty in Gender-Disparate Basic Medical Sciences Faculty: A Qualitative Study. The Journal of Basic and Clinical Dentistry, 2(2), 1 to 10	Syed Akbar Abbas Zaidi	10.64471/g9r47k48

5.2 Women's access to university

UN TARGET 5.1

Women made up **3,994 of the 8,451 students who entered the first semester** of the University's programmes in the Spring and Fall 2025 intakes, or 47.3 per cent: 44.9 per cent of undergraduate, 55.3 per cent of postgraduate and 29.6 per cent of doctoral entrants (Figure 5.1). The Directorate of Admissions records entry by gender, level, campus, subject field and department, and the Admissions Policy, issued by the Director Admissions in its 3rd Edition on 3 November 2025, requires it to review admissions by gender for every programme, act wherever women are disadvantaged and report to the Rector after each admission cycle, with scholarships, hostel places and safe transport as part of women's enrolment support (clause 2.1.6).

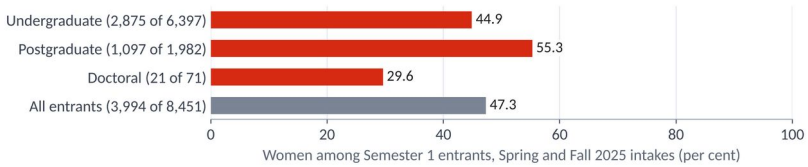

Figure 5.1: Women as a share of Semester 1 entrants by academic level, Spring and Fall 2025 intakes, per cent (Directorate of Admissions).

Women held most of the University's own scholarships. Of the 1,505 students who held a University scholarship covering 100 per cent, or at least 50 per cent, of their fees in Spring or Fall 2025, **932 were women (61.9 per cent)**, including 230 of the 401 holders of full-fee scholarships (Table 5.2); at the Institute of Professional Psychology women held 64 of the 66 scholarships in Spring 2025, and at the Karachi Campus 271 of 373 in Fall 2025.

TABLE 5.2 **University scholarships covering at least half of fees, holders by gender, 2025**

No.	Semester	Scholarship	Holders	Women	Women's share (per cent)
1	Spring 2025	100 per cent of fees	326	196	60.1
2	Spring 2025	50 per cent or more of fees	750	464	61.9
3	Fall 2025	100 per cent of fees	392	226	57.7
4	Fall 2025	50 per cent or more of fees	857	543	63.4
	2025, students counted once	**All**	**1,505**	**932**	**61.9**

On 3 September 2025 the University announced the Scotland Pakistan Scholarships for Bahria University's Young Women and Girls, funded by the Scottish Government, administered by the British Council and open to women. They cover tuition fees, hostel costs and two journeys home a year for bachelor's, master's and MPhil programmes in Education, Sustainable Energy, Food Security and Agriculture, Health Sciences, STEM and Climate, and the University's web page encourages applications from women in rural areas, from minority communities and with disabilities. The University also provides a Girls Hostel of 150 rooms at Islamabad.

5.3 Women's graduation and mentoring

UN TARGETS 5.1 and 5.5

Women make up a larger share of the University's graduates than of its entrants. In 2025 the University had 5,095 graduates at bachelor's, master's and doctoral level, of whom **2,644 were women (51.9 per cent)**. Women were 79.8 per cent of the 1,358 graduates in medicine and health, which includes psychology, 48.1 per cent of the 2,540 in arts, humanities and social sciences and 28.2 per cent of the 1,197 in STEM. The Admissions Policy requires the Directorate of Student Affairs and the Controller of Examinations to compare women's and men's graduation rates by programme each year (clause 2.1.7): women's share of graduates is above their share of entrants overall (51.9 against 47.3 per cent) and outside STEM (59.2 against 54.3 per cent), and the University's programmes for women in technology (Section 5.7) are directed at STEM fields (Figure 5.2).

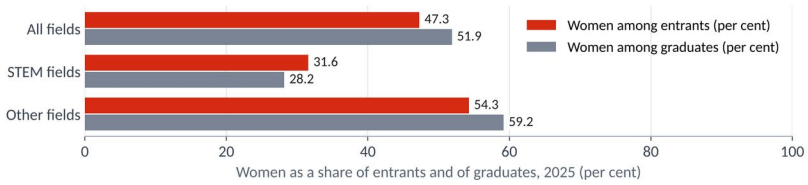

Figure 5.2: Women among entrants and among graduates by field, 2025, per cent (Directorate of Admissions; Controller of Examinations).

Mentoring every woman who begins a degree

Leadership and Professional Development Centre; all campuses; academic year 2025

THE CHALLENGE

The first year of a degree is when students most need guidance, and women entering programmes in which men are the majority, or living away from home for the first time, benefit from a mentor who has followed the same path.

WHAT WE DID

Under the Student Mentoring Programme every first-semester undergraduate is assigned a faculty mentor, one to 25 students, for two semesters, with gender among the mentoring areas, and Deans report each month to the Centre. Women faculty led 109 of the 139 sessions in the Centre's monthly report, including every session at the Institute of Professional Psychology (IPP) and at the Health Sciences Campus, Karachi, and a session titled When Women Work Together. In September 2025 the Centre trained 16 more faculty mentors at the Islamabad E-8 Campus, and in October the Karachi Campus trained 10.

THE RESULT

All 2,875 women who entered an undergraduate programme in 2025 received a mentor for their first year, 21.1 per cent of the University's 13,654 female students, and most were guided by women faculty.

KEY FIGURES

2,875

Women undergraduates assigned a mentor

21.1

Per cent of female students mentored

78.4

Per cent of sessions led by women mentors

PARTNERS

Leadership and Professional Development Centre; Deans and Heads of Department

Sources: Leadership and Professional Development Centre, Monthly Progress Report and training records; Directorate of Admissions, 2025.

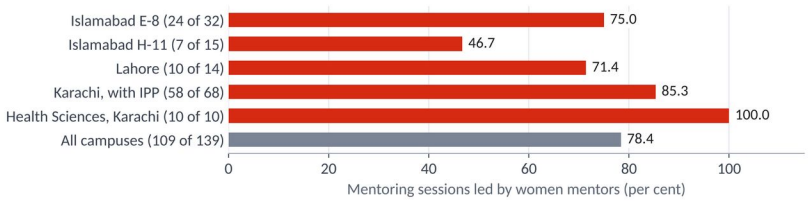

Figure 5.3: Mentoring sessions led by women mentors, by campus, academic year 2025, per cent (Leadership and Professional Development Centre).

The Centre's Monthly Progress Report for academic year 2025 recorded 139 mentoring sessions with first-semester classes; women led 109 of them (78.4 per cent) and 238 of the 300 mentoring hours (Figure 5.3).

Women also led 26 of the 53 group mentoring and grooming sessions held for students in 2025 (see Chapter 4).

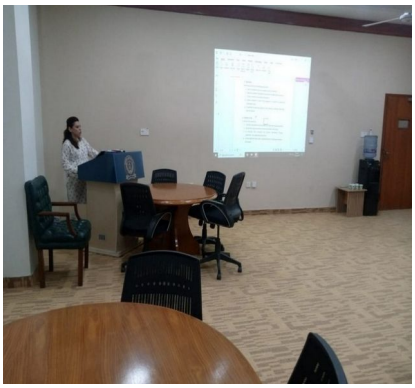

Figure 5.4: Train-the-trainer programme on student mentoring for faculty mentors, Islamabad E-8 Campus, 12 and 15 September 2025.

5.4 Women in leadership and the workforce

UN TARGETS 5.4, 5.5 and 5.c

Women hold leading posts in the University's technical fields. In the Centre of Excellence in Artificial Intelligence (CoE-AI), **women held seven of the ten leadership posts** in 2025: the Director, two of the three Heads and four of the six Wing Heads, across computer science, computer engineering, electrical engineering and software engineering; three of the Centre's four researchers were also women. Their work won national recognition in 2025: Smart Diabi Care, whose team of five included three women faculty members and a woman researcher, was first runner-up in the HealthTech category of the AI Wrapper Competition 2025, from 2,889 registered projects, and two projects with women faculty received Appreciation Awards at the HBL P@SHA ICT Awards 2025. Across the University, the Directorate of Human Resource records **591 senior academic staff, 252 of them women (42.6 per cent)**.

The Human Resource Policy Manual, approved by the Executive Committee (2023 edition), applies to every employee and was amended on 23 October 2025 to add clause 1.25.2, Pay Equity and Gender Pay Gaps: pay scales apply without distinction of gender, women and men doing work of equal value receive equal pay, and each year the Directorate of Human Resource and the Treasurer compare the pay of women and men in comparable roles and grades at every campus and report the gender pay gap to the Rector, closing any gap not explained by a documented, lawful factor within 12 months. The Revised Pay Scales 2025, approved by the Board of Governors on 7 July 2025, set one scale for each pay group and faculty grade, for women and men alike (see Chapter 8). The Sustainable Procurement and Purchasing Policy (BU-SPPP-2025), approved by the Rector, extends support to businesses owned by women in the University's purchasing (para 5.3.2).

Campuses, student societies and partners ran programmes in 2025 that build women's leadership, enterprise and confidence (Table 5.3): a student-led Women Leadership Week in Islamabad on 23 November 2025 combined a Hunar Bazar of women students' enterprises, a panel on Bahria University Women: Leading with Purpose and a bike-riding workshop by Vsisters (Facebook, 23 November 2025), and

the next day young women entrepreneurs presented their ventures in a Shark Tank (Facebook, 24 November 2025).

TABLE 5.3 **Programmes for women's leadership and empowerment, 2025**

No.	Programme	Date	Campus	Participants or partners
1	Advancing Gender Equity in Academia and Workplace, faculty development session	31 July	Islamabad H-11	Faculty members
2	Youth Club session designed for women students	5 September	Health Sciences, Karachi	Women students
3	Women Leadership Week: Hunar Bazar, leadership panel and Vsisters bike-riding workshop	23 November	Islamabad	Vsisters; women students
4	Shark Tank for women entrepreneurs, with a session on women's rights	24 November	Islamabad	Federal Ombudsperson for Protection against Harassment
5	Harvesting Hope: Advancing Gender Equality and Social Inclusion in Education	20 December	Islamabad	Society for Access to Quality Education



Figure 5.5: Hunar Bazar of women students' enterprises, Women Leadership Week, Islamabad, 23 November 2025.



Figure 5.6: Harvesting Hope: Advancing Gender Equality and Social Inclusion in Education, with the Society for Access to Quality Education, Islamabad, 20 December 2025.

5.5 Childcare and family support

UN TARGET 5.4

Female employees receive **180, 120 and 90 days of maternity leave on full pay**, outside the leave account, for the first, second and third births, and fathers up to **30 days of paternity leave on full pay**, so that the care of a newborn child does not fall on the mother alone; the leave shall not be refused to an eligible employee (HR Policy Manual clause 4.8.1 and Annex I, following the Maternity and Paternity Leave Act 2023). The University runs **day care centres at five campuses** so that mothers among its faculty, staff and students can continue their work and studies (Table 5.4). The Health, Safety and Environment Policy, issued by the Director Admin, Head Office, in its second edition on 22 November 2025, requires them to be managed to the Guidelines and Standards for Day Care Centres, with an evacuation drill at least every six months and an emergency plan approved by the campus Director (paras 1.15(b) and 4.12).

TABLE 5.4 **Day care centres for faculty, staff and students, 2025**

No.	Campus	Provision	Open to	Fee
1	Health Sciences Campus, Islamabad	Day care centre in the College of Medicine building, with a day care hall, a sleeping room and an office; average of six children a month in 2025	Faculty members, administrative staff and students	Rs 5,000 a month, full day
2	Health Sciences Campus, Karachi	Daycare Facilitation Centre, with full-day and half-day care by its caretakers	Faculty members, staff and students	Free of charge
3	Karachi Campus	Day Care Center under a standard operating procedure, for children from two months to below seven years	Women faculty, laboratory engineers and officers of the Karachi Campus, IPP and the National Institute of Maritime Affairs	Rs 1,500 a month
4	Lahore Campus	Day Care Centre in the charge of a woman faculty member, for children from two months to three years	Women faculty, officers and staff	Rs 2,000; Rs 1,000 for staff
5	Islamabad H-11 Campus	Day Care Center for up to 15 children aged three months to eight years, with routine medical rounds	Women faculty and officers	Rs 5,000 a month

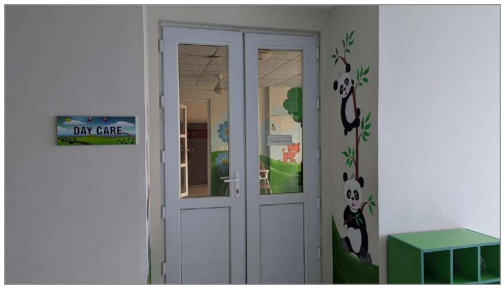

Figure 5.7: Entrance to the day care centre, Health Sciences Campus, Islamabad, 2025.

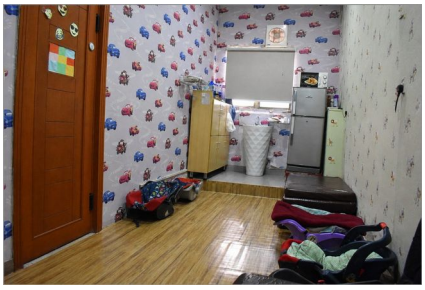

Figure 5.8: Day care room with infant seats and kitchen facilities, Lahore Campus, 2025.

5.6 Protection from discrimination and harassment

UN TARGETS **5.1, 5.2 and 5.c**

The Equality and Non-Discrimination Policy, amended by the Directorate of Human Resource on 20 October 2025, expressly includes non-discrimination against women in admissions, employment, operations and every public activity, prohibits discrimination on grounds that include gender and gender identity, and protects anyone who complains, takes part in an investigation or opposes discriminatory conduct from retaliation (paras 3, 4, 5 and 14). Any target or witness can complain, and the procedures guarantee impartiality, privacy and timeliness (paras 19 to 23). Para 24 sets out the harassment procedure: Focal Persons, an Inquiry Committee of three members including a woman and a Competent Authority, with complaints reaching the Inquiry Committee within 24 hours and decided within 30 days, under the Higher Education Commission (HEC) policy on protection against harassment and the Protection against Harassment of Women at the Workplace Act 2010. On 9 January 2025 the University renewed its Focal Persons, Inquiry Committees and Appellate Bodies at every campus and published the list (Focal Persons and committees; see Chapter 16).

The Leadership and Professional Development Centre (LPDC) held **six sessions on harassment at four campuses, with 246 participants** (Table 5.5; LPDC website). On 24 November 2025 the University hosted the Federal Ombudsperson for Protection against Harassment, who spoke on workplace harassment law, women's property rights and women's safety (Facebook, 24 November 2025), and on 3 December 2025, during the 16 Days of Activism, the College of Medicine, Islamabad, held a seminar and walk on Ending Digital Violence Against Women and Girls (Facebook, 3 December 2025; Figure 5.9).

TABLE 5.5 **Sessions on harassment, 2025**

No.	Date	Session	Audience	Campus	Participants
1	21 January	Workplace Harassment Awareness Session	Staff and officers	Islamabad E-8	25
2	26 May	Harassment and Its Prevention	Students	Islamabad H-11	70
3	5 June	Workplace Harassment Awareness Session	Staff	Health Sciences, Islamabad	100
4	23 August	Harassment and Workplace Violence: Impact on Individual and Organization	Staff and officers	Karachi	8
5	19 September	Anti-Harassment Awareness Session	Students	Islamabad E-8	30
6	21 October	Workplace Ethics and Harassment Awareness	Staff	Islamabad E-8	13
		Six sessions		**Four campuses**	**246**



Figure 5.9: Awareness walk on Ending Digital Violence Against Women and Girls, College of Medicine, Health Sciences Campus, Islamabad, 3 December 2025.

5.7 Women in underrepresented subjects

UN TARGETS **5.5 and 5.b**

Women are underrepresented in engineering and computing: in the Spring and Fall 2025 intakes they were 827 of the 2,619 students entering STEM fields (**31.6 per cent**), against 3,167 of the 5,832 entering other fields (54.3 per cent), with 25.1 per cent in engineering, manufacturing and construction, 32.8 per cent in information and communication technologies and 46.9 per cent in the natural sciences, mathematics and statistics (Figure 5.10). Women's share of entry reached 42.0 per cent in Computer Engineering at the Islamabad H-11 Campus and 54.9 per cent in Earth and Environmental Sciences at the Karachi Campus.

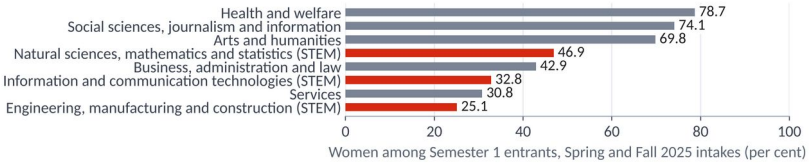

Figure 5.10: Women as a share of Semester 1 entrants by field of education (ISCED-F 2013), Spring and Fall 2025 intakes, per cent; STEM fields in colour (Directorate of Admissions).

The Admissions Policy commits the University to encourage women to apply in subjects where they are underrepresented, through outreach to girls' schools, colleges, families and partner organisations (clause 2.1.6(a)); in 2025 women faculty and engineers led that work (Table 5.6).

TABLE 5.6 **Outreach to women in underrepresented subjects, 2025**

No.	Activity	Date	Partner	Subject
1	SheCodes the Future on International Women's Day: six women speakers from faculty and industry; 46 registrations	11 March	Google Developer Groups on Campus, Lahore Campus	Computing
2	RoboGenius Camp: two-day robotics workshop for school pupils, girls among them, led by two women engineers of CoE-AI	May	Edopia School, Islamabad	Robotics and AI
3	Women faculty of CoE-AI judged graduating students' final-year projects at Open House 2025	May to June	Fatima Jinnah Women University; NUST	Computing and engineering
4	IEEE Meet Mentor, with women faculty of CoE-AI as mentors	August	IEEE	Engineering
5	Scotland Pakistan Scholarships for the University's women, including STEM, Sustainable Energy and Climate	3 September	Scottish Government; British Council	STEM
6	IEEE Day 2025, coordinated by a woman faculty member, with women students and faculty among the participants	7 October	IEEE Islamabad Section	Electrical engineering
7	Panel on Future Frontiers in Science at the 4th International Science Conference, with the Director of CoE-AI	November	Rawalpindi Women University	Science and AI

5.8 Looking ahead

Building on the record of 2025, the University sets three priorities for the next reporting year:

1. The University will extend its outreach to schoolgirls and women applicants in engineering and computing and report women's share of entry and graduation in STEM each year.
2. The University will report the results of the annual gender pay review required by clause 1.25.2 of the HR Policy Manual, with the share of women in senior academic posts.
3. The University will extend day care and on-campus accommodation for women students and assign a faculty mentor to every woman entering an undergraduate programme.

SUSTAINABLE DEVELOPMENT GOAL

6

CLEAN WATER AND SANITATION

Ensure availability and sustainable management of water and sanitation for all.



BAHRIA UNIVERSITY IN 2025

Safe water on every campus and research on groundwater risk.

In 2025 the University published 32 works that OpenAlex links to Goal 6, 21 of them with high confidence, on groundwater vulnerability, river pollution and water treatment. Its Health, Safety and Environment Policy requires monthly tests of every potable water outlet and RO plant and the treatment of sewage before discharge, and its Sustainability and Climate Action Policy commits every campus to become water-positive by 2035.

21
High-confidence publications on water and sanitation

Monthly
Testing of every potable water outlet and RO plant

2035
Target year for water-positive campuses

IN THIS CHAPTER

6.1 Research on water and sanitation 64
6.2 Safe drinking water, sanitation and wastewater 65
6.3 Water conservation and reuse on campus 66
6.4 Water education and cooperation with communities 67
6.5 Looking ahead 68

6.1 Research on water and sanitation

UN TARGETS 6.1, 6.3, 6.4 and 6.6

In 2025 Bahria University published 32 works that OpenAlex links to Goal 6, 21 of them with a high-confidence classification (score of 0.8 or above). The 21, 20 journal articles and a book chapter, are the work of 20 University authors and appeared in 20 journals and other venues. Of these, 15 are open access, and **15 were written with co-authors in 11 countries**, led by Saudi Arabia and China (Figure 6.1), and 5 are among the 10 per cent most cited publications of their type, year and subfield; together they had been cited 127 times (OpenAlex, Goal 6 publications of 2025). Environmental science accounts for 20 of the 21. The research maps groundwater vulnerability in Islamabad, Karak and Talagang, tracks heavy metals and water quality in the Indus and in fish farming systems, and develops graphene oxide membranes and adsorbents for industrial pollutants (Table 6.1).

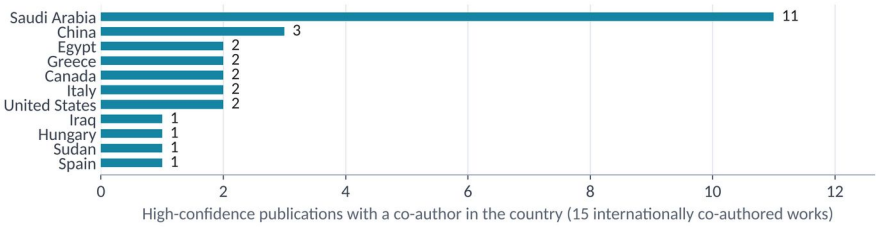

Figure 6.1: Countries of the co-authors of the 15 internationally co-authored University publications of 2025 classified to Goal 6 with high confidence (OpenAlex).

TABLE 6.1 Selected University publications on water and sanitation, 2025

No.	UN target	Publication	University authors	DOI
1	6.1	Assessment of water quality and health hazards using water quality index and human health risk evaluation in district Talagang Pakistan. Scientific Reports, 15(1), 5191	Mumtaz Ali Khan	10.1038/s41598-025-89932-y
2	6.3	Sludge removal frequency influences heavy metal accumulation, water quality, and growth in Nile tilapia (Oreochromis niloticus) biofloc systems. Water Environment Research, 97(6), e70081	Saima Majeed	10.1002/wer.70081
3	6.3	Enhanced water purification by using graphene oxide nano-membranes: A novel approach for mitigating industrial pollutant. Carbon Trends, 19, 100486	Aansa Rukya Saleem	10.1016/j.cartre.2025.100486
4	6.3	Nickel-Modified Orange Peel Biochar for the Efficient Adsorptive Removal of Eriochrome Black T from Aqueous Solution. Water, 17(10), 1484	Seema Gul	10.3390/w17101484
5	6.3	Harnessing C@Zn@TiO2 nanocomposites for cadmium adsorption in aquatic media. International Journal of Environmental and Analytical Chemistry, 105(19), 7802 to 7820	Kamal Khalifa Taha	10.1080/03067319.2025.2458144
6	6.6	Evaluating the contamination susceptibility of groundwater resources through anthropogenic activities in Islamabad, Pakistan: a GIS-based DRASTIC approach. Applied Water Science, 15(4)	Fayaz Ullah Shinwari; Mumtaz Ali Khan	10.1007/s13201-025-02374-9
7	6.6	Assessment of groundwater intrinsic vulnerability using GIS-based DRASTIC method in district Karak, Khyber Pakhtunkhwa, Pakistan. Frontiers in Water, 7	Mumtaz Ali Khan	10.3389/frwa.2025.1540703

6.2 Safe drinking water, sanitation and wastewater

UN TARGETS 6.1, 6.2 and 6.3

The Health, Safety and Environment Policy, issued by the Director Admin, Head Office, in its second edition on 22 November 2025, sets the University's standards for drinking water and wastewater at the Head Office and every campus and constituent unit (Table 6.2). High-quality potable water must be ensured at all campuses at all times: **water samples from all potable water outlets and reverse osmosis (RO) plants are tested every month** through laboratories or total dissolved solids (TDS) and pH meters, and an unsatisfactory result is followed by corrective measures and immediate re-testing (para 6.27). The Earth and Environmental Sciences departments at Karachi and Islamabad test the dispenser points of the campuses in their cities through the Senior Medical Officers, and the Lahore Campus uses local laboratories. Hostels must supply safe drinking water at convenient locations, with regular tests recorded and analysed, and at least one shower, one lavatory with running water and one toilet for every 10 residents (Annex J, items 4 and 5), and the Cafeteria Policy, amended by the Director Admin, Head Office, on 2 November 2025, adds quarterly laboratory tests of drinking water and monthly sanitary rounds (item 5(p)).

Under each campus's Environmental Management Plan, wastewater and storm water are quantified and properly disposed of, sewage is treated in septic tanks before discharge to the main lines, with septic tanks mandatory in every new building, hazardous effluent is treated or collected for licensed disposal before any discharge, and the efficiency of wastewater treatment is monitored (paras 6.4, 6.9, 6.10(h) and 6.11). Untreated sewage, wastewater and hazardous effluent must not reach drains, nullahs, rivers or the sea, and any spill or discharge is reported to the Standing HSE Committee within three days (para 6.20.1).

TABLE 6.2 Water and wastewater standards of the University

No.	Clause	Requirement	Responsible office
1	HSE Policy 6.27	Monthly testing of every potable water outlet and RO plant; corrective action and immediate re-testing	Earth and Environmental Sciences departments, Karachi and Islamabad; Senior Medical Officers
2	HSE Policy Annex J, items 4 and 5	Safe drinking water in hostels with regular recorded tests; one shower, lavatory and toilet for every 10 residents	Campus administrations
3	HSE Policy Annex L	Water samples from drinking points sent to the laboratory for bacteriological examination	In-charge of each campus sickbay
4	Cafeteria Policy 5(p)	Quarterly laboratory tests of drinking water; monthly sanitary rounds	Campus Medical Officers
5	HSE Policy 6.9 to 6.11	Wastewater quantified and properly disposed of; sewage treated in septic tanks before discharge; hazardous effluent treated or collected for licensed disposal	Director of each campus, under its Environmental Management Plan
6	HSE Policy 6.20.1	No untreated sewage, wastewater or hazardous effluent to drains, nullahs, rivers or the sea; spills reported within three days	Director of each campus; Standing HSE Committee
7	SCAP 5.3.3	Regular water quality monitoring and reporting; buffer zones beside water bodies; no chemical fertilisers or pesticides in landscaping	Center of Research Excellence in Climate Finance with the campus administrations

The Environmental Science Laboratory of the Earth and Environmental Sciences department at the Islamabad H-11 Campus analyses water, soil, plant, microbiological and air samples, and its Analytical Laboratory uses atomic absorption spectroscopy, high performance liquid chromatography and gas chromatography mass spectrometry to identify trace contamination (Earth and Environmental Sciences laboratories). The University's Environmental Research Center was established at the Karachi Campus to provide wastewater treatment solutions to local textile industries; its laboratory, recognised by the Federal Environmental Protection Agency, serves industry and hosts student research (Environmental Research Center).

Hygiene is taught by example. From January to June 2025 a student-led hand-hygiene initiative of the College of Medicine, Islamabad, demonstrated the seven steps of handwashing, visited faculty and administrative offices and distributed brochures (Figure 6.2), and the Community Support Program of the Islamabad E-8 Campus held hygiene awareness for the Basic Education community on Global Handwashing Day.



Figure 6.2: Practical handwashing demonstration in the student-led hand-hygiene initiative, College of Medicine, Health Sciences Campus, Islamabad, January to June 2025.

6.3 Water conservation and reuse on campus

UN TARGET 6.4

The HSE Policy requires every campus to measure its water consumption and record the annual figure in cubic metres, and the University to develop water sustainability dashboards for internal reporting (para 6.8). To reduce and reuse water, campuses inspect for points where better management saves water, install meters at key consumption points read every quarter, harvest rain and storm water for non-potable uses, treat ablution water from prayer areas for the greenery, use sprinklers and solar geysers and treat sewage for plantation (para 6.10). The Sustainability and Climate Action Policy (BU-SCAP-2025), approved by the Rector and effective from 7 December 2025, sets the target of **water-positive campuses by 2035**, with 50 per cent less dependence on municipal water, through smart metering and leak detection, high-efficiency fixtures, greywater recycling, smart irrigation, rainwater harvesting, treated wastewater reuse and constructed wetlands (paras 5.3, 5.3.1 and 5.3.2), and tracks water use intensity and alternative water sources as key performance indicators (para 8.2; Table 6.3).

TABLE 6.3 **Water targets and measures of University policy**

No.	Target or measure	Commitment	Clause
1	Water-positive campuses	By 2035, with 50 per cent less dependence on municipal water	SCAP 5.3
2	Water use intensity (litres per square metre)	40 per cent lower by 2030 and 60 per cent lower by 2040	SCAP 8.2
3	Alternative water sources	30 per cent by 2030 and 50 per cent by 2040	SCAP 8.2
4	Rainwater harvesting	30 per cent of irrigation needs	SCAP 5.3.2
5	Water efficiency	Smart metering and leak detection in all facilities; high-efficiency fixtures; greywater recycling; smart irrigation	SCAP 5.3.1
6	Measurement and reporting	Annual consumption recorded in cubic metres; meters at key points read every quarter; water sustainability dashboards	HSE Policy 6.8 and 6.10(b)

6.4 Water education and cooperation with communities

UN TARGETS **6.5, 6.a and 6.b**

The Green Youth Movement Club in Islamabad held a seminar on water conservation with WaterAid Pakistan for the local community, on efficient irrigation, water saving and recycling (Figure 6.3). On 18 September 2025 the Karachi research team of the University's National Institute of Maritime Affairs (NIMA) assessed air and water quality with the communities of Mubarak Village and Sonehri Beach (see Chapter 14), and on 4 October 2025, at the Pakistan Institute for Conflict and Security Studies, NIMA researchers set out the effects of climate change on shared water resources, with climate-hydrological modelling for flood risk assessment and a proposed Climate-Indus Observatory for data sharing in South Asia (NIMA, 4 October 2025).



Figure 6.3: Seminar on water conservation organised by the Green Youth Movement Club, Islamabad, with WaterAid Pakistan, 2025.

The University also takes part in international cooperation on water data. A faculty member of the School of Maritime and Applied Sciences, Karachi Campus, is a co-author, with 40 researchers from 17 countries, of the July 2025 article in Frontiers in Environmental Science on the mini- and midi-Secchi disks for participatory monitoring of the colour and clarity of lakes, estuaries and oceans: **more than 900 devices** have been distributed to citizens and scientists in six projects, and the data they collect, sent by mobile phone, are used among other purposes to verify satellite data products (10.3389/fenvs.2025.1610130).

Mapping groundwater risk in northern Pakistan

University researchers with co-authors in Egypt, Greece, Saudi Arabia, Canada and Hungary; four articles of 2025

THE CHALLENGE

Communities in Islamabad, Karak and Talagang draw drinking water from groundwater, and planners need to know where aquifers are most exposed to contamination.

WHAT WE DID

University researchers mapped groundwater vulnerability with the GIS-based DRASTIC method in Islamabad and in the district of Karak, Khyber Pakhtunkhwa, zoned Islamabad's groundwater by its chemistry and depth with GIS and water quality index techniques, and assessed water quality and the risks to human health in the district of Talagang, working with co-authors in Egypt, Greece, Saudi Arabia, Canada and Hungary.

THE RESULT

Four articles in Applied Water Science, Frontiers in Water and Scientific Reports give planners maps of where groundwater is most exposed and a baseline for safe extraction and for protection policies in high-risk areas.

KEY FIGURES

4

Articles on groundwater risk, 2025

54

Citations of the four articles

5

Countries of the co-authors

PARTNERS

Co-authors in Egypt, Greece, Saudi Arabia, Canada and Hungary

Sources: OpenAlex, University publications of 2025 classified to Goal 6 (10.1007/s13201-025-02374-9; 10.3389/frwa.2025.1540703; 10.3389/frwa.2025.1581668; 10.1038/s41598-025-89932-y).

6.5 Looking ahead

Building on the record of 2025, the University sets three priorities for the next reporting year:

1. The University will record the annual water consumption of every campus, build the water sustainability dashboards required by the HSE Policy and report the results of its monthly potable water tests.
2. The University will extend metering, rainwater harvesting and the reuse of treated water towards its target of water-positive campuses.
3. The University will continue its research on groundwater and wastewater treatment with partners in Pakistan and abroad.

SUSTAINABLE DEVELOPMENT GOAL

7

AFFORDABLE AND CLEAN ENERGY

Ensure access to affordable, reliable, sustainable and modern energy for all.



BAHRIA UNIVERSITY IN 2025

Solar power on campus and a pledge to clean electricity.

In 2025 Bahria University completed 870 kW of new solar capacity at three campuses, and its six campus solar systems generated 923,403 kWh of electricity. Every building project must meet the Energy Conservation Building Code 2023, electricity is metered at all six campus units, and the Sustainability and Climate Action Policy pledges 100 per cent renewable electricity by 2035 and divestment from coal and oil. The University also carried clean energy to communities, industry and government.

923,403 kWh
Electricity generated by campus solar systems, 2025

870 kW
New solar capacity at three campuses

100 per cent
Renewable electricity pledged by 2035

IN THIS CHAPTER

7.1 Research on affordable and clean energy 70
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7.1 Research on affordable and clean energy

UN TARGETS 7.2, 7.3 and 7.a

In 2025 the University published 44 works that OpenAlex links to Goal 7, 32 of them with a high-confidence classification (score of 0.8 or above). The 32 high-confidence works, 26 journal articles, 5 conference papers and a preprint, are the work of 40 University authors and appeared in 28 journals, proceedings and series. Twenty-five of them were written with researchers in 21 other countries, led by Saudi Arabia, China, Kuwait and Afghanistan; 18 are open access; and four are among the 10 per cent most cited publications of their type, year and subfield, one of them among the top 1 per cent. Engineering accounts for 18 of the 32 works and energy for 7 (Figure 7.1), with topics that range from load forecasting and community energy markets in smart microgrids to solar heat pumps and the performance of photovoltaic panels.

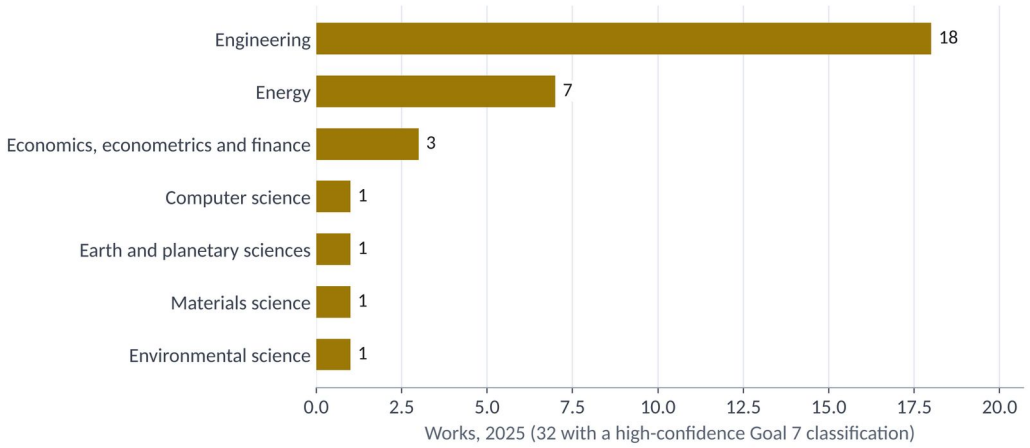


Figure 7.1: Research fields of the 32 University works of 2025 classified to Goal 7 with high confidence (OpenAlex).

The publications record of the Directorate of Research and Innovation highlights seven publications of 2025 on renewable energy and clean power (Table 7.1). The Department of Earth and Environmental Sciences assessed Pakistan's geothermal energy resources from satellite, geological, seismic and borehole data, the resource evidence on which national planning for geothermal development depends, and engineering faculty studied the tilt angle of photovoltaic panels, vibration control for floating offshore wind turbines and energy management in virtual power plants and shipboard microgrids. In January 2025 the University's National Institute of Maritime Affairs (NIMA) published Introduction to MARPOL Annex VI; Advancements in Green Shipping Technologies and Way Forward for Pakistan, which recommends that Pakistan ratify the Annex and prepare a National Action Plan for reducing greenhouse gas emissions from shipping.

TABLE 7.1 **Research on renewable energy and clean power highlighted by the Directorate of Research and Innovation, 2025**

No.	Area	Publication	University authors	DOI
1	Geothermal energy	An integrated study to detect geothermal anomalies based on Landsat 8, geological, and geophysical data sets in Southeast Pakistan. Geothermics, 131, 103399	Dr Muhsan Ehsan	10.1016/j.geothermics.2025.103399
2	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	Dr Muhsan Ehsan	10.1016/j.geothermics.2025.103394
3	Geothermal energy	Lithofacies and sandstone reservoir characterization for geothermal assessment through artificial intelligence. Results in Engineering, 26, 105173	Dr Muhsan Ehsan; Dr Muhammad Raiees Amjad	10.1016/j.rineng.2025.105173
4	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	Dr Basit Ali	10.59277/rrst-ee.2025.1.24
5	Offshore wind energy	Robust vibration control of a barge-type floating offshore wind turbine with a rotational-translational actuator. Ocean Engineering, 337, 121821	Dr Rashid Iqbal	10.1016/j.oceaneng.2025.121821
6	Microgrids and virtual power plants	A collaborative energy management and price prediction framework for multi-microgrid aggregated virtual power plants. Sustainability, published online 26 December 2025	Dr Mukesh Kumar Maheshwari	10.3390/su18010275
7	Shipboard power	A robust multi-agent based hierarchical control strategy for SoC balancing and power management in DC shipboard microgrids. Battery Energy, published online 29 December 2025	Dr Rashid Iqbal; Dr Adil Ali Raja	10.1002/bte2.70075

7.2 Energy-efficient buildings and upgrades

UN TARGET 7.3

Every new building, extension and renovation at the University must meet a named national energy code. The Health, Safety and Environment Policy (second edition, 22 November 2025) makes the Energy Conservation Building Code 2023 (ECBC-2023), issued by the National Energy Efficiency and Conservation Authority, or an equivalent or higher standard approved by the Rector, the minimum standard for the design, construction and renovation of University buildings (para 1.15(c)), and the Directorate of Planning and Development certifies compliance before design approval, including for work carried out by contractors (para 6.2(j)). The Sustainability and Climate Action Policy (BU-SCAP-2025) and the Sustainable Procurement and Purchasing Policy (BU-SPPP-2025) set further standards (Table 7.2), and the Sustainability and Climate Action Policy commits the University to make its existing buildings 40 per cent more energy efficient by 2030 (para 3.1). The policies are published on the University's policies page.

TABLE 7.2 Energy efficiency standards for new buildings and renovations

No.	Element	Standard	Basis
1	Minimum energy code	ECBC-2023, or an equivalent or higher standard approved by the Rector, for all new buildings, extensions and renovations; compliance certified before design approval	HSE Policy paras 1.15(c) and 6.2(j)
2	Green building certification	LEED Gold or equivalent for new buildings; compliance with the Green Building Council Pakistan standard	SPPP para 6.1.6
3	New construction	Energy performance at least 40 per cent better than code	SCAP para 5.1.2
4	Existing buildings	Building management systems; LED lighting with occupancy sensors and daylight harvesting; air conditioning at least 25 per cent more efficient; deep energy retrofit of buildings more than ten years old	SCAP para 5.1.2
5	Equipment	Energy-efficient equipment of at least a 3-star rating; Energy Star or equivalent for information technology	SPPP paras 5.2.1 and 6.1.1
6	Water heating	Solar geysers in place of gas-dependent geysers for winter water heating	HSE Policy para 6.10(g)

Since fiscal year 2021 the University's Strategic Management Plan has set two annual targets for every campus under Objective 5.9: a review each year of the buildings and blocks with the highest energy consumption (KPI 5.9.3), and a reduction in the electricity requirement of each building or block through renewable sources, such as solar panels, and energy-efficient systems, such as sensor lights (KPI 5.9.4). The reduction target rose from 5 per cent in fiscal year 2021 to 10 per cent in fiscal year 2025 and rises to 20 per cent by fiscal year 2030; in fiscal year 2025 the Lahore Campus reported a **10 per cent reduction**, meeting its target. The Annual Progress Report of the Directorate of Planning and Development for fiscal year 2025 records three solarization projects with a combined 870 kW of rooftop and canopy capacity, the renovation of the Sky Room at the Head Office with LED linear and recessed lighting and full-height glazing that admits daylight, and the new building of the Bahria University Dental College and Hospital, Karachi, inaugurated on 20 September 2025 (Table 7.3; see Chapter 3).

TABLE 7.3 Building works completed by the Directorate of Planning and Development, fiscal year 2025

No.	Work	Scope	Cost (Rs million)	Campus
1	Provision and installation of solar system	500 kW	42.4	Islamabad E-8
2	Provision and installation of solar system	300 kW	25.5	Islamabad H-11
3	Provision and installation of solar system	70 kW	9.33	Lahore
4	Dental College and Hospital, new building	1 job	915	Karachi
5	Sky Room, renovation with LED lighting and daylight glazing	1 job	61.14	Head Office, Islamabad

The campus administrations have replaced conventional lighting and air conditioning with efficient equipment. At the Islamabad E-8 Campus more than half of the conventional lights and split air conditioners have been replaced with LED and SMD lights with motion sensors and with inverter units; the Lahore Campus is lit entirely by LED, with solar panels supplying 25 per cent of its load; the Health Sciences Campus, Karachi, has installed 4,020 LED lamps; the Health Sciences Campus, Islamabad, combines LED lights with light detection, inverter air conditioning and a solar carport; and the Islamabad H-11 Campus

uses LED lighting in its corridors and offices and LED emergency and outdoor lights. Solarization of the Karachi Campus was under way in October 2025.



Figure 7.2: Sky Room, Head Office, Islamabad, renovated with LED linear and recessed lighting and full-height glazing that admits daylight, fiscal year 2025 (Directorate of Planning and Development, Annual Progress Report, Annex A).

7.3 Solar generation and energy use

UN TARGETS 7.2 and 7.3

Campus solar systems generated **923,403 kWh** of electricity in 2025 (Table 7.4 and Figure 7.3). The 300 kW system at the Islamabad H-11 Campus generated 360,000 kWh and the system at the Health Sciences Campus, Karachi, 243,600 kWh. At the Islamabad E-8 Campus two 100 kW systems on the Sir Syed Block and the Business School block were joined by the new 500 kW system, which generated 66,140 kWh from October to December 2025, the months for which the campus records its output; at the Lahore Campus solar panels supply 25 per cent of the campus load.

TABLE 7.4 Electricity generated by campus solar systems, January to December 2025

No.	Campus	System	Electricity generated (kWh)
1	Islamabad E-8	100 kW, Sir Syed Block	100,134
2	Islamabad E-8	100 kW, Business School block	98,209
3	Islamabad E-8	500 kW, in operation from October 2025	66,140
4	Islamabad H-11	300 kW	360,000
5	Lahore	70 kW	55,320
6	Health Sciences, Karachi	Solar system	243,600
	All campuses	**Six systems**	**923,403**

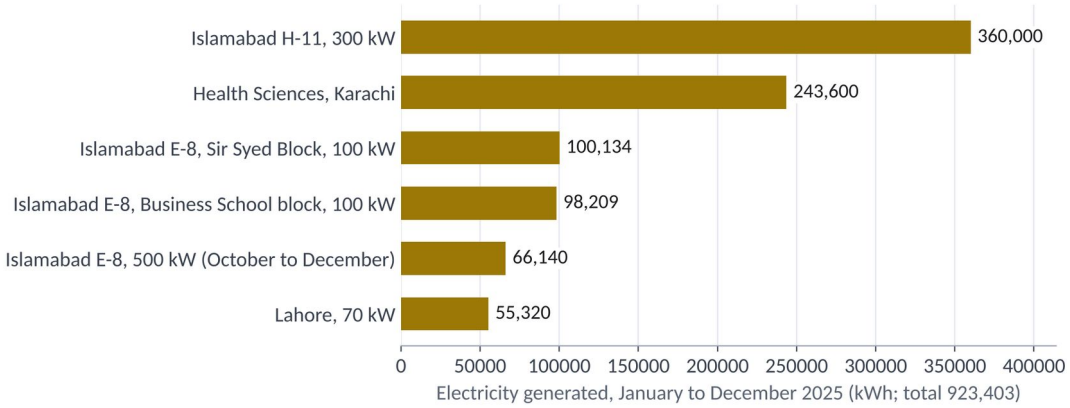


Figure 7.3: Electricity generated by campus solar systems, 2025 (campus administration records; University renewable energy data).

The six campus units used **6,268,326 kWh** of electricity in 2025, as recorded by each campus administration (Table 7.5). These records form the baseline against which the reductions required by the Strategic Management Plan and the Sustainability and Climate Action Policy are measured. The Islamabad E-8 Campus records the consumption and bill of each of its four meters every month, and the Health Sciences Campus, Islamabad, records its supply every month and installed a new automated (AMI) meter in November 2025.

TABLE 7.5 **Electricity consumption by campus unit, January to December 2025**

No.	Campus unit	Electricity consumed (kWh)	Record
1	Islamabad E-8	1,622,481	Director Admin, Islamabad E-8 Campus
2	Islamabad H-11	684,480	Director Campus, Islamabad H-11
3	Karachi Campus, with the Institute of Professional Psychology	1,827,218	Director Admin, Karachi Campus
4	Health Sciences, Islamabad	438,540	Director Campus, Health Sciences Islamabad
5	Lahore	288,080	Director, Lahore Campus
6	Health Sciences, Karachi	1,407,527	Director Campus, Health Sciences Karachi
	All campus units	**6,268,326**	**Sum of the campus records**

On 24 November 2025 the Rector directed the Director Admin to deploy AI-based tools for comprehensive energy audits across all campuses and facilities: to collect and analyse real-time data on electricity, heating, cooling and equipment use, identify inefficiencies, implement conservation measures through the facility management teams, conduct follow-up audits and train the staff concerned (Rector's Briefing: Action Points, item 7). The directive extends to every campus the annual review of high-consumption buildings required by the Strategic Management Plan, conducted in fiscal year 2025 at the Karachi Campus, together with a solarization feasibility study, and at the Lahore Campus, the Institute of Professional Psychology and the Health Sciences Campus, Karachi. Purchased electricity is the largest source of the University's Scope 1

and 2 emissions, 89.5 per cent of them in fiscal year 2025, and three campus units produce 75.7 per cent of these electricity emissions (see Chapter 13).

Bringing solar power to the campuses

Directorate of Planning and Development; Islamabad E-8, Islamabad H-11 and Lahore Campuses; 2025

THE CHALLENGE

Purchased electricity is the University's largest source of Scope 1 and 2 emissions, 89.5 per cent of them in fiscal year 2025, and the campuses together used 6,268,326 kWh of electricity in 2025.

WHAT WE DID

In fiscal year 2025 the Directorate of Planning and Development completed three solarization projects, a combined 870 kW of rooftop and canopy solar capacity: 500 kW at the Islamabad E-8 Campus (Rs 42.4 million), 300 kW at the Islamabad H-11 Campus (Rs 25.5 million) and 70 kW at the Lahore Campus (Rs 9.33 million). The Board of Governors was briefed on the solarization of the campuses at its meeting of 7 July 2025, and the Sustainability and Climate Action Policy now sets rooftop solar for at least 30 per cent of campus electricity demand by 2027.

THE RESULT

Campus solar systems generated 923,403 kWh in 2025. The 300 kW system at the Islamabad H-11 Campus generated 360,000 kWh in the year, the Lahore Campus now meets 25 per cent of its load from the sun, and the new 500 kW system at the Islamabad E-8 Campus added 66,140 kWh from October to December 2025.

KEY FIGURES

870

Kilowatts of solar capacity installed

923,403

Kilowatt-hours generated on campus, 2025

360,000

Kilowatt-hours from the 300 kW Islamabad H-11 system

PARTNERS

Directorate of Planning and Development; campus administrations



Figure 7.4: Rooftop solar arrays on the academic blocks of the Islamabad E-8 Campus, with the Bahria Innovation Center in the background (campus record).

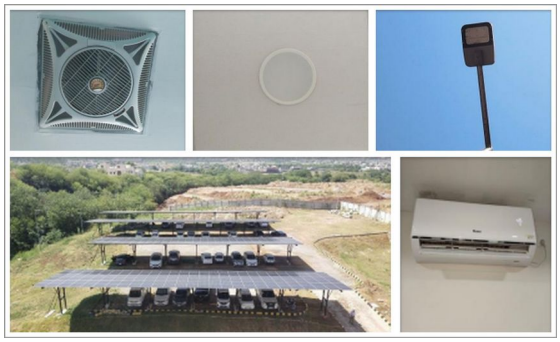


Figure 7.5: Health Sciences Campus, Islamabad: LED lights with light detection, solar carport and inverter air conditioning (campus administration record).

Sources: Directorate of Planning and Development, Annual Progress Report, fiscal year 2025; campus administration records; University renewable energy data, 2025.

Monthly metering shows when and where consumption peaks within a campus. At the Islamabad E-8 Campus the meter serving the Head Office, the Business School and the Business Incubation Centre recorded the highest consumption of the four meters in every month of 2025, 800,720 kWh in the year, and campus consumption peaked in September, at 201,452 kWh (Figure 7.6).

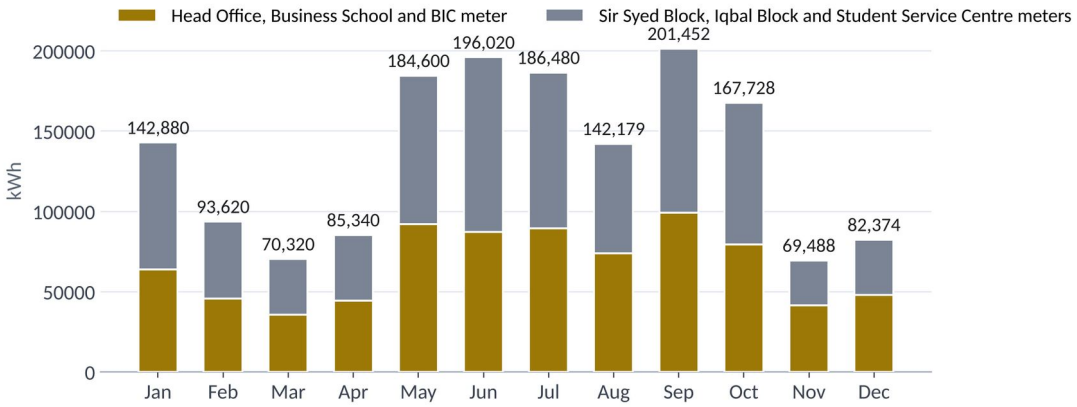


Figure 7.6: Electricity consumption by meter and month, Islamabad E-8 Campus, 2025; labels give the monthly total of the four meters (Director Admin, Islamabad E-8 Campus).

7.4 A pledge to 100 per cent renewable electricity

UN TARGET 7.2

The University has pledged publicly to move to **100 per cent renewable electricity by 2035**. Its Sustainability and Climate Action Policy, approved by the Rector and effective 7 December 2025 (Version 1.0), commits it under its first strategic objective, Carbon Neutrality and Emissions Reduction, to transition to 100 per cent renewable electricity by 2035, to a 50 per cent reduction in Scope 1 and 2 emissions by 2040, to phase out its fossil fuel-based transport fleet by 2032 and to carbon neutrality across all campuses by 2050 (paras 1.2 and 3.1). Pillar 1, Energy Transformation and Decarbonization, sets the route: rooftop solar for at least 30 per cent of campus electricity demand by 2027, the remaining electricity from certified renewable sources through green tariffs or power purchase agreements, assessment of on-campus wind energy, battery storage and microgrids, and the phasing out of diesel generators (para 5.1.1; Table 7.6). The 870 kW completed in fiscal year 2025 are its first steps, and at its 53rd meeting, on 7 July 2025, the Board of Governors was briefed on the progress of the solarization of the campuses.

TABLE 7.6 **Pathway to 100 per cent renewable electricity**

No.	Year	Milestone	Basis
1	2025	Energy audits and solar feasibility studies; 870 kW of solar capacity completed; 923,403 kWh generated on campus	SCAP timeline; Section 7.3
2	2027	Rooftop solar meets at least 30 per cent of campus electricity demand	SCAP para 5.1.1
3	2030	Renewable energy share of 60 per cent	SCAP para 8.2
4	2035	100 per cent renewable electricity; carbon neutral energy systems	SCAP paras 3.1 and 5.1
5	2040	Renewable energy share of 100 per cent	SCAP para 8.2
6	2050	Carbon neutrality across all campuses	SCAP paras 1.2 and 3.1

Under para 3.3 of the policy, Responsible Investment and Divestment, the University does not invest in carbon-intensive energy industries, notably coal and oil, and divests from any such holdings. The policy applies to all its investments (para 3.2), and its four requirements are set out in Table 7.7; the University Sustainability Council approves major sustainability investments (para 4.1).

TABLE 7.7 **Divestment requirements of the Sustainability and Climate Action Policy**

No.	Clause	Requirement
1	3.3(a)	From the date of approval, no new investment in any company or fund that draws more than 10 per cent of its revenue from coal or oil
2	3.3(b)	Existing coal and oil holdings sold in full by 30 June 2028
3	3.3(c)	Applies to the endowment and every other investment held by the University or any campus, directly or through mutual or other pooled funds
4	3.3(d)	A signed and dated annual statement by the Treasurer of the University's holdings, showing any coal or oil exposure, financed emissions and progress on divestment, submitted to the University Sustainability Council; summary published on the University website

The policy also commits the University to collaborate with the Ministry of Climate Change and Environmental Coordination, the Pakistan Climate Change Authority and renewable energy companies (para 7.2). On 17 October 2025 the University hosted a delegation of Shandong Haizhichen New Energy Technology, a subsidiary of Shandong Energy Group, to discuss collaboration in renewable energy technologies, internships and joint research.



Figure 7.7: Meeting with the delegation of Shandong Haizhichen New Energy Technology on renewable energy technologies, 17 October 2025.



Figure 7.8: The delegation of Shandong Haizhichen New Energy Technology with University representatives, 17 October 2025.

7.5 Clean energy for communities, industry and government

UN TARGETS 7.1, 7.a and 7.b

The University ran eight public programmes in 2025 through which professionals, students of other institutions, partners and the public learned about energy efficiency and clean energy (Table 7.8). The Sustainability and Climate Action Policy commits it to engage local communities and take part in national climate awareness campaigns (para 7.2).

The University also serves industry directly. The International Certificate Course is a paid course for maritime professionals (Rs 17,500), students and faculty of other institutions (Rs 10,000) and the University's own students, alumni and faculty (Rs 3,750). On 14 February 2025 the University signed a memorandum of understanding with Creative Group of Industries, Lahore, on energy, engineering and technology solutions (see Chapter 9); NIMA received a delegation of Renewable Resources Pvt on 8 August 2025 on renewable energy for Pakistan's blue economy; and from November 2025 the Center of Research Excellence in Climate Finance (CORE-CF) has offered organisations and industries carbon footprint mapping, reduction pathways and readiness for the Carbon Border Adjustment Mechanism. The Human Resource Policy Manual (2023 edition, amended 23 October 2025) encourages faculty to consult for industry, business and government (its Chapter 10; see Chapter 9).

NIMA, which grew out of the Institute of Maritime Affairs founded at the University and has its head office at the Islamabad E-8 Campus, has been an advisory member of the National Security Committee since 2023, with a mandate to give policy-level input to the Government of Pakistan. In 2025 it took its work on MARPOL Annex VI, the instrument that regulates air emissions from ships and sets mandatory energy efficiency measures for them, to the Ministries of Maritime Affairs, of Climate Change and Environmental Coordination and of Planning, Development and Special Initiatives, and to the Government of Sindh (see Chapter 17).

TABLE 7.8 Public programmes on energy efficiency and clean energy, 2025

No.	Date	Programme	Organised by	Participants and energy content
1	Academic year 2025	International Certificate Course on Energy Efficiency Measures for Ports and Shipping Industry, led by the Head of the Nautical College, Amsterdam University of Applied Sciences	Department of Maritime Sciences and International Office, Karachi Campus	Maritime professionals and students of other institutions
2	Academic year 2025	4th International Maritime Symposium, on the blue economy and the SDGs	NIMA with the University	Policymakers and academics; offshore wind and tidal power
3	30 April 2025	Webinar on the IMO Net-Zero Framework under MARPOL Annex VI (see Chapter 17)	NIMA	Ministry of Climate Change, ports and shipping agencies
4	22 May 2025	Session on maritime law, the blue economy and the SDGs	NIMA, Islamabad	ALHAMD Islamic University; renewable energy
5	10 October 2025	Green Tech for a Climate-Resilient Pakistan, under the CACRA Project (see Chapter 13)	Earth and Environmental Sciences, Karachi, with the Pakistan Red Crescent Society, Sindh	Students and volunteers; artificial intelligence in energy

No.	Date	Programme	Organised by	Participants and energy content
6	4 and 5 November 2025	11th International Maritime Conference (IMC-25), under PIMEC 2025 (see Chapter 17)	NIMA	Ministers, naval leaders and experts; offshore energy
7	27 November 2025	Awareness Session on Energy Consumption and Sustainability, Fatimah Jinnah Hall	Management Studies and Community Support Program, Karachi Campus	Responsible energy use
8	2 December 2025	Session on the role of maritime affairs in Pakistan's economy	NIMA	Pakistan Navy War College; marine renewable energy

Six of the start-ups incubated in 2025 foster a low-carbon economy, among them Enent, whose Intellica automatic load balancer reduces energy losses in buildings and industry (see Chapter 9).

7.6 Looking ahead

Building on its solar programme and its pledge, the University sets these priorities for the next reporting year:

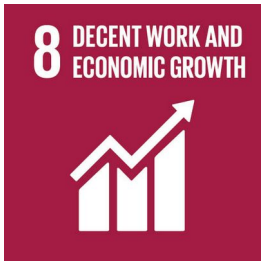
1. **Renewable electricity.** The University will extend solarization to the Karachi Campus and further buildings and report generation by system, toward rooftop solar for at least 30 per cent of campus electricity demand by 2027.
2. **Energy efficiency.** The University will complete AI-based energy audits at every campus and certify all new works to ECBC-2023.
3. **Divestment.** The University will publish on its website a summary of the Treasurer's signed annual statement of its coal and oil exposure.
4. **Clean energy beyond the campus.** The University will continue its courses, public programmes, policy work and support for start-ups in energy efficiency and clean energy.

SUSTAINABLE DEVELOPMENT GOAL

8

DECENT WORK AND ECONOMIC GROWTH

Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.



BAHRIA UNIVERSITY IN 2025

Fair pay, equal rights and decent work for every employee.

Since 1 March 2025 every employee of Bahria University has earned at least Rs 37,000 a month, the federal minimum wage, and the Revised Pay Scales 2025 apply from 1 July 2025. Equal pay and the prohibition of forced and child labour are written into employment policy, labour standards reach suppliers and vendors, and every employee can appeal on pay and rights.

Rs 37,000
Minimum monthly gross salary of every employee

848.96
Rs million, financial effect of Revised Pay Scales 2025

81
High-confidence publications on decent work and growth

IN THIS CHAPTER

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8.1 Research on decent work and economic growth

UN TARGETS 8.2, 8.3 and 8.5

In 2025 the University published 206 works that OpenAlex links to Goal 8, 81 of them with a high-confidence classification (score of 0.8 or above). The 81 publications, 72 journal articles, 4 preprints, 3 book chapters and 2 reference entries, are the work of 107 University authors and appeared in 65 journals and book series (Table 8.1); for 69 of them Goal 8 is the highest-scoring Goal. Seventy-three (90.1 per cent) are open access, free for anyone to read, and 15 (18.5 per cent) were written with researchers in seven other countries: Malaysia (6 publications), China (5), Canada (4), Saudi Arabia (2), and Australia, Türkiye and the United States (1 each). Eleven are among the 10 per cent most cited publications of the same type, year and subfield, five of them among the top 1 per cent.

TABLE 8.1 University research on Goal 8, publications of 2025

No.	Measure	Number	Basis
1	University publications indexed by OpenAlex	1,655	Publication year 2025; retracted works excluded
2	Publications linked to Goal 8	206	Goal 8 score above 0.4, the OpenAlex default; 12.4 per cent of all publications
3	Publications classified to Goal 8 with high confidence	81	Goal 8 score of 0.8 or above; 4.9 per cent of all publications
4	Journal articles	72	Also 4 preprints, 3 book chapters and 2 reference entries
5	University authors	107	Distinct authors with a University affiliation recorded by OpenAlex
6	Journals and book series	65	Venues of the 81 publications
7	Open access publications	73	90.1 per cent of the 81 publications
8	Internationally co-authored publications	15	18.5 per cent; co-authors in seven other countries
9	Publications among the 10 per cent most cited	11	Same type, year and subfield; five among the top 1 per cent
10	Citations received	201	Citations recorded by OpenAlex at the date of retrieval

Business, management and accounting accounts for 51 of the 81 publications, psychology for 9, the social sciences for 8 and economics, econometrics and finance for 8. The leading research topics are entrepreneurship and job satisfaction and organisational behaviour, with 12 publications each, followed by stress and burnout, employee performance, workplace violence and bullying, artificial intelligence in human resource management, and Islamic finance and banking (Figure 8.1). The publications also include studies of migration and labour, the employment of deaf people, child labour, women rag pickers in the informal economy, low pay and employee turnover in telecommunications, the rights of workers in Islamic teaching, and the effect of university education, health expenditure and investment on economic growth. Table 8.2 sets out eight publications, at least one for each Goal 8 target the research addresses; each can be located through its DOI.

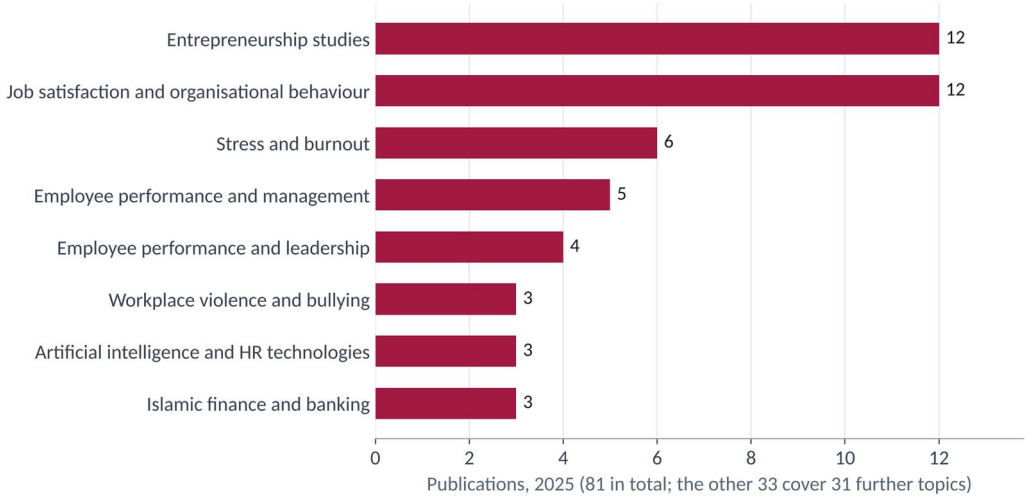


Figure 8.1: Leading research topics of the 81 University publications of 2025 classified to Goal 8 with high confidence (OpenAlex primary topics).

TABLE 8.2 **Selected University publications on decent work and economic growth, 2025**

No.	UN target	Publication	University authors	DOI
1	8.1	Digitalization, Education And Economic Growth: An Analysis Of Developing Countries. Journal of Economic Impact, 7(1), 63 to 67	Maliha Baig	10.52223/econimpact.2025.7107
2	8.2	Inclusivity of Structural Transformation. European Journal of Development Research, 37, 1099 to 1129	Madiha Kamal	10.1057/s41287-025-00721-9
3	8.3	Fostering entrepreneurship: analyzing the influence of access to finance, innovation investment, educational attainment, infrastructure development, and regulatory environment. Future Business Journal, 11	Mushab Rashid	10.1186/s43093-025-00557-z
4	8.5	Innovative Technology-Driven Model for Employment Accessibility in The Deaf Community. Sindh University Research Journal (Science Series), published 25 July 2025	Asia Samreen	10.26692/surjss.v57i1.7409
5	8.6	Investigating the impact of internship experience on work readiness among hospitality program students: the moderating role of student mindfulness. Frontiers in Education, 10	Muhammad Shoaib Saleem	10.3389/feduc.2025.1497721
6	8.7	Prevalence of Emotional Problems among Child Laborers: An Investigation of Child Laborers of Khyber Pakhtunkhwa. Advance Social Science Archive Journal, published 30 December 2025	Mussarat Shabbir	10.5281/zenodo.18098347
7	8.8	Exploring the Impact of AI Capabilities on Employee Well-Being: A Mediated Moderation Analysis. SAGE Open, 15(3)	Munaza Bibi	10.1177/21582440251361981
8	8.10	Narratives of SMEs on Access to Finance: Barriers and Opportunities in Pakistan's Banking Sector. The Critical Review of Social Sciences Studies, 3(4), 262 to 277	Kashif Abrar	10.59075/cea7sd86

8.2 A living wage and equal pay

UN TARGET 8.5

Every University employee has been paid a gross salary of at least **Rs 37,000 a month**, the federal minimum wage, since 1 March 2025. The University is a federally chartered public sector university and aligns its pay

with the national wage policy of the Federal Government: by letter BU-HO/Fin/2025/L/1474 of 10 March 2025, issued by the Treasurer to every campus and institute, the Rector approved the minimum with effect from 1 March 2025, in line with Finance Division Office Memorandum F. No. 1(2)R-5/2022, which set the federal minimum wage and gross salary at Rs 37,000 a month throughout 2025. A Special Allowance covers the difference between an employee's gross salary and Rs 37,000, each campus reports the adjustments employee by employee to the Treasurer's Directorate, and the pay of newly inducted staff follows the Government notification of minimum wages. On 208 working hours a month the minimum is Rs 177.88 an hour.

At its 53rd meeting on 7 July 2025, chaired by the Pro-Chancellor, the Board of Governors considered the effect of price escalation, inflation and income tax on the salaried class and, on the recommendation of a Pay Revision Committee to merge all ad hoc allowances into basic pay, approved the **Revised Pay Scales 2025** with effect from 1 July 2025, at a financial effect of Rs 848.96 million provided for in the budget. By letter BU-HO/Fin/2025/L/1668 of 21 August 2025 the Treasurer applied the scales to faculty members, officers and staff: House Rent Allowance is 45 per cent, and Medical and Conveyance Allowances 10 per cent each, of initial basic pay, and an Evening Allowance of 60 per cent of initial basic pay is paid to Pay Groups 1 to 7 and of 40 per cent to Pay Groups 8 to 13, where applicable. For the initial stages of Pay Groups 1 to 4 the Special Allowance brings total pay up to Rs 37,000 (Figure 8.2 and Table 8.3), and employees of Pay Groups 1 to 7 are also paid an overtime allowance for hours worked beyond normal duty timings and on holidays.

TABLE 8.3 **Minimum monthly pay under the Revised Pay Scales 2025, with the Special Allowance**

No.	Pay group or grade	Initial basic pay (Rs)	Total pay under the scale (Rs)	Special Allowance (Rs)	Minimum gross salary (Rs)
1	Pay Group 1	17,745	29,280	7,720	37,000
2	Pay Group 2	18,919	31,217	5,783	37,000
3	Pay Group 3	19,945	32,910	4,090	37,000
4	Pay Group 4	21,695	35,798	1,202	37,000
5	Pay Group 5	23,518	38,805	Not required	38,805
6	Pay Group 6	25,483	42,046	Not required	42,046
7	Pay Group 7	29,731	49,056	Not required	49,056
8	Pay Groups 8 to 13	36,855 to 110,565	60,812 to 182,432	Not required	60,812 to 182,432
9	Faculty, Lecturer to Senior Professor	66,012 to 179,361	108,919 to 313,881	Not required	108,919 to 313,881

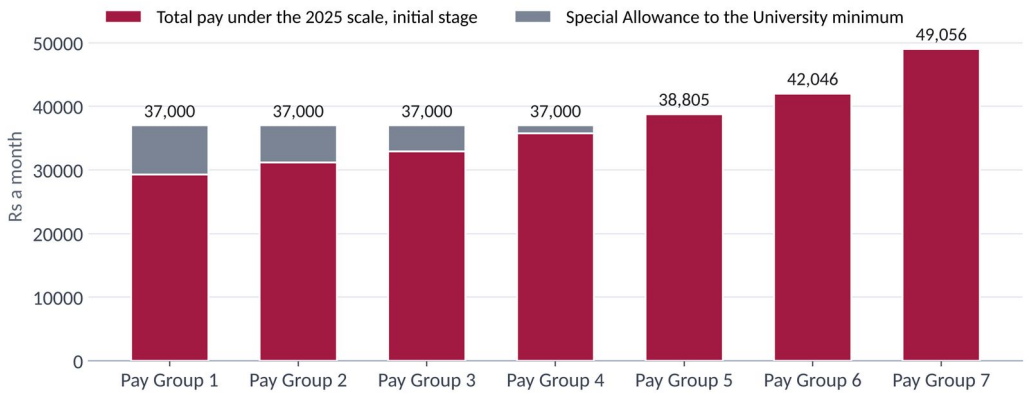


Figure 8.2: Initial monthly pay of Pay Groups 1 to 7 under the Revised Pay Scales 2025, with the Special Allowance to the University minimum of Rs 37,000 (Treasurer letters of 10 March and 21 August 2025).

Equal pay is written into the Human Resource Policy Manual (2023 edition, amended 23 October 2025). Clause 1.25.2, Pay Equity and Gender Pay Gaps, added by Amendment 01, provides that pay scales apply to all employees without distinction of gender and that women and men doing work of equal value receive equal pay; the comparison rests on a single pay structure, with one scale for each pay group and faculty grade, so that pay is set by the post and not by the gender of the person who holds it (clause 1.25.1; Table 8.4). Maternity and paternity leave on full pay protect the pay of women and men at the birth of a child (clause 4.8.1; see Chapter 5).

TABLE 8.4 Measuring and tracking pay scale gender equity

No.	Step	Requirement	Source
1	Responsible offices	The Directorate of Human Resource and the Treasurer	HR Manual 1.25.2
2	Frequency and population	Each year; faculty, officers and staff at every campus	HR Manual 1.25.2
3	Comparison	The pay of women and men in comparable roles and grades	HR Manual 1.25.2
4	Benchmark	One pay scale for each pay group and faculty grade under the Revised Pay Scales 2025, applied to women and men alike	HR Manual 1.25.1; Treasurer letter of 21 August 2025, Annex A
5	Data source	Electronic employee database under a computer number for each employee; personal files and service records	HR Manual 1.19.1 and 1.19.3
6	Output	A report to the Rector each year, including the gender pay gap	HR Manual 1.25.2
7	Action	Any gap not explained by a documented, lawful factor closed within 12 months by raising pay, without reducing any employee's pay	HR Manual 1.25.2
8	Employee input	Pay-equity concerns raised with the Directorate of Human Resource; complaints of unequal treatment on the basis of gender under the EDI procedures, with retaliation prohibited	HR Manual 1.25.2; EDI Policy paras 5, 6 and 19 to 21
9	Oversight	The Directorate of Human Resource monitors compliance with the commitment to ending discrimination in pay	EDI Policy paras 3 and 4

A living wage floor for every employee

Treasurer's Directorate and Board of Governors; all campuses and institutes; 2025

THE CHALLENGE

Price escalation, inflation and income tax weighed on the salaried class, and the total pay at the initial stages of Pay Groups 1 to 4 is below the federal minimum wage of Rs 37,000 a month.

WHAT WE DID

By letter of 10 March 2025 the Rector approved a minimum gross salary of Rs 37,000 a month for every University employee from 1 March 2025, with the Special Allowance making up any difference and each campus reporting its adjustments employee by employee. On 7 July 2025 the Board of Governors approved the Revised Pay Scales 2025 from 1 July 2025, merging all ad hoc allowances into basic pay at a financial effect of Rs 848.96 million, and the Treasurer applied them to every faculty member, officer and member of staff.

THE RESULT

No University employee earns less than Rs 37,000 a month, the federal minimum wage. The Special Allowance adds Rs 7,720 a month at the initial stage of Pay Group 1, Rs 5,783 for Pay Group 2, Rs 4,090 for Pay Group 3 and Rs 1,202 for Pay Group 4, and faculty pay starts at Rs 108,919 a month.

KEY FIGURES

37,000

Rupees a month: minimum gross salary

848.96

Rs million: financial effect of the Revised Pay Scales 2025

1 July 2025

Revised Pay Scales 2025 in effect

PARTNERS

Treasurer's Directorate; Board of Governors; campus accounts offices



MOST IMMEDIATE

Bahria University

BU-HO/Fin/2025/L/1474

Director Campus - BUHS
BUHSCK - BUHSCK

Director Admin - BUIC E-8
BUIC - BU Islamabad

Director NIMA Islamabad
NIMA - NIMA

Director Admin - BUKC
BUKC - BU Karachi

Director Campus - BUIC H-11
BUIC - BU Islamabad

Director - BULC
BULC - BU Lahore

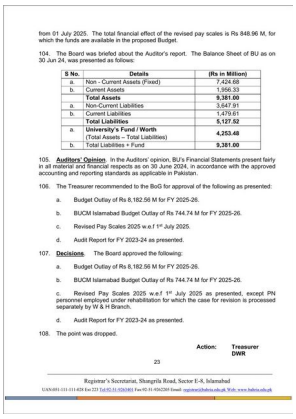
Director IPP
IPP - IPP

10 March 2025

MINIMUM WAGES OF BU EMPLOYEES

Muhammad Siddique Sl(M) (Retd)
Cdre
Treasurer

Figure 8.3: Treasurer letter BU-HO/Fin/2025/L/1474 of 10 March 2025, Minimum Wages of BU Employees, Head Office, page 1.



from 01 July 2025. The total financial effect of the revised pay scales is Rs 848.96 M, for which the funds are available in the proposed Budget.

104. The Board was briefed about the Auditor's report. The Balance Sheet of BU as on 30 Jun 24, was presented as follows:

S No.	Details	(Rs in Million)
a.	Non - Current Assets (Fixed)	7,424.68
b.	Current Assets	1,956.33
	Total Assets	**9,381.00**
a.	Non-Current Liabilities	3,647.91
b.	Current Liabilities	1,479.61
	Total Liabilities	**5,127.52**
a.	**University's Fund / Worth** (Total Assets – Total Liabilities)	**4,253.48**
b.	Total Liabilities + Fund	**9,381.00**

105. **Auditors' Opinion**. In the Auditors' opinion, BU's Financial Statements present fairly in all material and financial respects as on 30 June 2024, in accordance with the approved accounting and reporting standards as applicable in Pakistan.

106. The Treasurer recommended to the BoG for approval of the following as presented:

a. Budget Outlay of Rs 6,182.56 M for FY 2025-26.

b. BUCM Islamabad Budget Outlay of Rs 744.74 M for FY 2025-26.

c. Revised Pay Scales 2025 w.e.f 1st July 2025.

d. Audit Report for FY 2023-24 as presented.

107. **Decisions**. The Board approved the following:

a. Budget Outlay of Rs 8,182.56 M for FY 2025-26.

b. BUCM Islamabad Budget Outlay of Rs 744.74 M for FY 2025-26.

c. Revised Pay Scales 2025 w.e.f 1st July 2025 as presented, except PN personnel employed under rehabilitation for which the case for revision is processed separately by IV & H Branch.

d. Audit Report for FY 2023-24 as presented.

108. The point was dropped.

Action: Treasurer DWR

23

Registrar's Secretariat, Shangrila Road, Sector E-8, Islamabad

Figure 8.4: Minutes of the 53rd meeting of the Board of Governors, Head Office, 7 July 2025, page 23: approval of the Revised Pay Scales 2025.

Sources: Treasurer letters BU-HO/Fin/2025/L/1474 of 10 March 2025 and BU-HO/Fin/2025/L/1668 of 21 August 2025; minutes of the 53rd meeting of the Board of Governors.

8.3 Ending discrimination and harassment at work

UN TARGETS 8.5 and 8.8

The University prohibits discrimination at work on fourteen protected grounds (see Chapter 10). The Equality and Non-Discrimination Policy, amended on 20 October 2025 under the authority of the Director Human Resource, rests on clause 5 of the Bahria University Ordinance 2000 and para 2.7 of the Statutes, applies to all employment practices and to the conduct of all students, employees, guests, visitors, vendors and contractors (para 3), and commits the University to ending discrimination in recruitment, appointment, pay, training, promotion, discipline and termination (para 4); the Human Resource Policy Manual requires every appointment to be made without any condition of domicile, caste, creed or race (clause 1.3.1). Retaliation against anyone who files a complaint, takes part in an investigation or opposes discrimination is prohibited (para 5), concerns are reported to the Head of the Constituent Unit, or a Pro-Rector at the Head Office (para 6), complaints are resolved informally or through formal procedures (paras 19 to 21), and harassment complaints reach the Inquiry Committee within 24 hours and are decided within 30 days, with an appeal within 30 days (para 24), before the Focal Persons, Inquiry Committees and Appellate Bodies notified at every campus (see Chapter 16). The Leadership and Professional Development Centre (LPDC) and the University's schools applied the policy through training and awareness sessions (Table 8.5).

TABLE 8.5 Training and awareness on equality and harassment at work, 2025

No.	Date	Activity	Campus or unit	Participants or partners
1	12 May 2025	Seminar on Sustainable HRM: Adapting to Cultural, Technological, and Workforce Diversity Challenges	Bahria Business School, Karachi	HR professionals, industry experts, faculty and students
2	31 July 2025	Advancing Gender Equity in Academia and Workplace, by Dr Umme Laila Shah	Islamabad H-11 Campus	Faculty members
3	23 August 2025	Harassment and Workplace Violence: Impact on Individual and Organization, three hours	Karachi Campus	8 participants
4	21 October 2025	Workplace Ethics and Harassment Awareness	Islamabad E-8 Campus	13 staff members
5	3 December 2025	Seminar and walk on Ending Digital Violence Against Women and Girls, during the 16 Days of Activism	College of Medicine, Islamabad	Faculty, staff and students



Figure 8.5: Seminar on Sustainable HRM and workforce diversity, Bahria Business School, Karachi Campus, 12 May 2025.



Figure 8.6: Workplace Ethics and Harassment Awareness, staff development session, Islamabad E-8 Campus, 21 October 2025.

8.4 Labour rights, employee voice and appeals

UN TARGET 8.8

Every employee has a voice in the conditions of work and a route of appeal on pay and rights. The Directorate of Human Resource recorded three consultations with employees in March 2025: a focused consultation with international faculty and staff of all genders on 17 March 2025, on facilities, pay and allowances and conditions of service; a focused consultation with local academic, administrative, support and contract employees, women and men, on 24 March 2025, on pay review, meals, work timings and welfare; and a joint Town Hall of students, faculty and staff. The University reports staff welfare measures that include subsidised meals, salary increases and regular working hours of 8:30 am to 4:30 pm. Table 8.6 sets out each route of appeal on employee rights and pay.

TABLE 8.6 Appeal routes on employee rights and pay

No.	Matter	Route and deciding authority	Safeguards	Source
1	Penalty affecting pay or position, such as withholding of increment, recovery from pay or reduction in pay scale	Appeal to the Chairman of the Board of Governors against an order of the Rector, or review by the Board of its own order, through the Registrar	Written charges and defence; hearing in person; cross-examination; hearing before any order on appeal	HR Manual 6.3 to 6.13
2	Order altering or interpreting terms and conditions of service to the employee's disadvantage	Appeal to the Chairman of the Board of Governors, or review by the Board	Opportunity to be heard before any order on appeal	HR Manual 6.13
3	Termination	Appeal to the next higher authority before an Appellate Panel presided over by the Vice Chief of the Naval Staff or Chief of Staff at Naval Headquarters	Panel with the Pro-Rector or Director General concerned and the Principal of the School of Law	HR Manual 1.15 and 6.14
4	Adverse remarks in an evaluation report	Appeal to the officer next higher in rank, or to the Chairman of the Board for remarks recorded by the Rector	Remarks communicated within one month	HR Manual 1.19.2
5	Pay equity	Concern raised with the Directorate of Human Resource	Annual comparison of the pay of women and men; unexplained gaps closed within 12 months	HR Manual 1.25.2
6	Forced labour, modern slavery, human trafficking or child labour	Report by any person to the Directorate of Human Resource, which investigates	No one to suffer for a report made in good faith	HR Manual 1.3.7
7	Discrimination	Report to the head of the constituent unit or a Pro-Rector; informal or formal procedure	Impartiality, fair process, privacy and transparency; limit of 90 business days; retaliation prohibited	EDI Policy 5, 6 and 19 to 23
8	Harassment	Complaint to the Focal Persons or the Inquiry Committee; decision within 30 days	Appeal within 30 days; retaliation barred; committees notified in January 2025	EDI Policy 24; Notification No. 01/2025

The Human Resource Policy Manual gives every employee a route of appeal on pay and on the terms and conditions of service. An employee charged under Chapter 6 of the Manual is told the charge in writing and has the right to put in a written defence, to be heard in person and to cross-examine witnesses (clause 6.8).

Where an order punishes an employee, including by withholding an increment, recovering money from pay or reducing pay to a lower stage, or alters to the employee's disadvantage the terms or conditions of service, the employee has the right to appeal to the Chairman of the Board of Governors against an order of the Rector, or apply to the Board for review of its own order, through the Registrar, and no order on an appeal is passed without giving the appellant a hearing (clauses 6.3 and 6.13).

8.5 Fair work in contracts and supply chains

UN TARGETS 8.7 and 8.8

Forced labour, modern slavery, human trafficking and child labour are prohibited in the University's own employment and in every outsourced service and supply contract. Clause 1.3.7 of the Human Resource Policy Manual, added by Amendment 01 of 23 October 2025, provides that no person shall be engaged under threat, debt bondage or the retention of identity documents and that no child below the minimum age set by law shall be employed or engaged; any person can report a concern to the Directorate of Human Resource, which investigates it, and no one shall suffer for a report made in good faith. The Sustainable Procurement and Purchasing Policy (BU-SPPP-2025, Version 1.0, effective 15 November 2025) carries the commitment into the supply chain: every supplier must demonstrate no use of forced or child labour (para 5.1.2) and apply the ILO core conventions, fair wages under a living wage commitment, reasonable hours and freedom of association and collective bargaining (para 5.3.1); suppliers are screened for modern slavery and human rights due diligence (para 7.1); and contracts carry the right to audit, with suspension or debarment for serious or repeated violations (paras 8.3.1 and 9.3). Table 8.7 sets out the equivalence between University staff and outsourced workers.

TABLE 8.7 Equivalence between University staff and outsourced workers

No.	Element	Standard for University staff	Standard for outsourced workers	Evidence
1	Minimum pay	Minimum gross salary of Rs 37,000 a month for every employee from 1 March 2025	No less than comparable University staff or the legal minimum wage, whichever is higher (vendors); fair wages under a living wage commitment (suppliers)	Treasurer letter of 10 March 2025; Cafeteria 5(w); SPPP 5.3.1
2	Hours, rest and leave	Leave Procedures of the HR Manual, Chapter 4	No less favourable than comparable staff or the legal minimum (vendors); reasonable working hours (suppliers)	HR Manual, Chapter 4; Cafeteria 5(w); SPPP 5.3.1
3	Health and safety	HSE Policy, for all employees	The same HSE Policy, for contractors and vendors' workers, with work permits for contractors	HSE 1.1 and 2.12; Cafeteria 5(w)
4	Forced and child labour	Clause 1.3.7, own employment	The same clause, every outsourced contract	HR Manual 1.3.7
5	Non-discrimination	EDI Policy, all employees	The same policy, binding vendors, contractors and subcontractors	EDI Policy 3, 4 and 24
6	Raising concerns	Reporting to the Directorate of Human Resource	The same route, open to any person	HR Manual 1.3.7

Catering on the campuses is provided by vendors who run the cafeterias, kiosks, hostel messes and pantries under contracts of up to two years that cannot be sublet (Cafeteria Policy, items 5(b) and 5(c)). Item 5(w), Rights of Vendors' Workers, added on 2 November 2025, requires every vendor to pay each of its workers

no less than comparable University staff or the legal minimum wage, whichever is higher, and on time; to give hours, rest days and leave no less favourable than those of comparable staff or the legal minimum, whichever is higher; to provide safe working conditions under the Health, Safety and Environment Policy; and to respect freedom of association and collective bargaining within the law. The vendor gives the campus Food Inspector, whose duties under Annex A of the policy include reporting violations and imposing penalties, monthly proof of payment, and a breach is a ground for penalty and for exclusion from future contracts (items 5(j) and 5(n)). Any work by contractors that involves a safety or fire risk must be supervised and covered by a work permit from the campus Fire Officer (Health, Safety and Environment Policy, para 2.12).

8.6 Entrepreneurship, skills and youth employment

UN TARGETS 8.3 and 8.6

The University prepares its students for work and creates opportunity beyond its campuses. In 2025 **1,514 students** completed work placements of more than one month, recorded by the Directorate of Student Affairs. On 30 May 2025 the Islamabad E-8 Campus held its Career Fair and Open House at Bahria Business School, where employers from information technology, telecommunications, banking, media and engineering met students, alumni and guests, held interviews and networking sessions and visited exhibitions of final-year projects, with a footfall of more than 1,200. On 18 December 2025 the Rector inaugurated the campus's Annual Job Fair, where organisations from diverse industries met students and alumni, and on 7 December 2025 the School of Humanities and Social Sciences held a career counselling session on CV development, LinkedIn profiles, job-hunting strategies and emerging career opportunities. The Business Incubation Centres incubated 61 start-ups that engaged 269 people (see Chapter 9), and the Leadership and Professional Development Centre trained 30 young people free of charge under the Prime Minister's Youth Skills Development Program, all 30 certified by the National Vocational and Technical Training Commission (see Chapter 4). The Centre's monthly public training calendar also offered certificates, diplomas and short courses at every campus, including the Certified Human Resource Professional programme (Batch 10), the Diploma in Mediation and the Diploma in Accounting and Finance (see Chapter 4).



Figure 8.7: Opening of the Career Fair and Open House, Bahria Business School, Islamabad E-8 Campus, 30 May 2025.



Figure 8.8: Exhibition of final-year projects at the Career Fair and Open House, Islamabad E-8 Campus, 30 May 2025.

Work at the University is also safe, healthy and family-friendly. Health insurance is mandatory for all faculty members, officers and administrative staff (Human Resource Policy Manual, clause 1.27.1), and in 2025 the

scheme covered 9,313 employees and family members (employees, spouses and children; see Chapter 3); day care centres at five campuses support employees with young children (see Chapter 5).

8.7 Looking ahead

Building on its pay floor and its equal-pay rules, the University sets these priorities for the next reporting year:

1. **Fair pay.** The University will keep every employee at or above the federal minimum wage and review its pay scales as the University's Statutes require.
2. **Equal pay.** The University will compare, through the Directorate of Human Resource and the Treasurer, the pay of women and men at every campus, report the gender pay gap to the Rector and close any unexplained gap within 12 months.
3. **Decent work in the supply chain.** The University will screen and audit suppliers and check vendors' monthly proof of payment to their workers.
4. **Skills and employment.** The University will expand work placements, career fairs and skills training for students and young people.

SUSTAINABLE DEVELOPMENT GOAL

9

INDUSTRY, INNOVATION AND INFRASTRUCTURE

Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.



BAHRIA UNIVERSITY IN 2025

Research that serves industry and ventures that create value.

In 2025 Bahria University recorded 251 university spin-offs and earned Rs 151.18 million in research income from industry and commerce, 73.6 per cent of it in science, technology, engineering and mathematics. Its faculty consulted for 15 companies and organisations and carried out 18 research and development projects for the National Engineering and Scientific Commission, its Business Incubation Centres incubated 61 start-ups, and eight research centres served industry.

251
University spin-offs recorded for 2025

Rs 151.18 million
Research income from industry and commerce

76
High-confidence publications on industry and innovation

IN THIS CHAPTER

9.1	Research on industry, innovation and infrastructure	92
9.2	University spin-offs and start-ups	94
9.3	Research income from industry and commerce	95
9.4	Research centres and innovation infrastructure	97
9.5	Partnerships and services for industry	99
9.6	Looking ahead	100

9.1 Research on industry, innovation and infrastructure

UN TARGETS 9.1, 9.4 and 9.5

In 2025 the University published 245 works that OpenAlex links to Goal 9, 76 of them with a high-confidence classification (score of 0.8 or above). The 76 publications, 60 journal articles, 8 conference papers, 6 book chapters, a review and a preprint, are the work of 109 University authors and appeared in 66 journals, proceedings and book series (Table 9.1); for 63 of them Goal 9 is the highest-scoring Goal. The research is international and widely read. Forty-six of the 76 publications (60.5 per cent) were written with researchers in 31 other countries, led by China and Saudi Arabia (17 publications each), Malaysia (11), the United Kingdom (7) and the United Arab Emirates (5), and 54 (71.1 per cent) are open access, free for anyone to read. Twenty-two publications are among the 10 per cent most cited publications of the same type, year and subfield, six of them among the top 1 per cent.

TABLE 9.1 University research on Goal 9, publications of 2025

No.	Measure	Number	Basis
1	University publications indexed by OpenAlex	1,655	Publication year 2025; retracted works excluded
2	Publications linked to Goal 9	245	Goal 9 score above 0.4, the OpenAlex default; errata excluded; 14.8 per cent of all publications
3	Publications classified to Goal 9 with high confidence	76	Goal 9 score of 0.8 or above; 4.6 per cent of all publications
4	Journal articles	60	Also 8 conference papers, 6 book chapters, a review and a preprint
5	University authors	109	Distinct authors with a University affiliation recorded by OpenAlex
6	Journals, proceedings and book series	66	Venues of the 76 publications
7	Internationally co-authored publications	46	60.5 per cent; co-authors in 31 other countries
8	Open access publications	54	71.1 per cent of the 76 publications
9	Publications among the 10 per cent most cited	22	Same type, year and subfield; six among the top 1 per cent
10	Citations received	439	Citations recorded by OpenAlex at the date of retrieval

Business, management and accounting accounts for 23 of the 76 publications, engineering for 21 and computer science for 13, followed by decision sciences, economics and the social sciences (5 each) (Figure 9.1). The leading research topics are digital transformation in industry (6 publications), sustainable supply chain management (5), and energy, environment and economic growth (4), followed by Internet of Things networks and protocols, Internet of Things and edge computing, network security and intrusion detection, and blockchain applications (3 each). Table 9.2 sets out ten publications, on smart cities, transmission networks, Industry 4.0, intelligent machining and 6G networks among others, at least one for each Goal 9 target the research addresses; each can be located through its DOI.

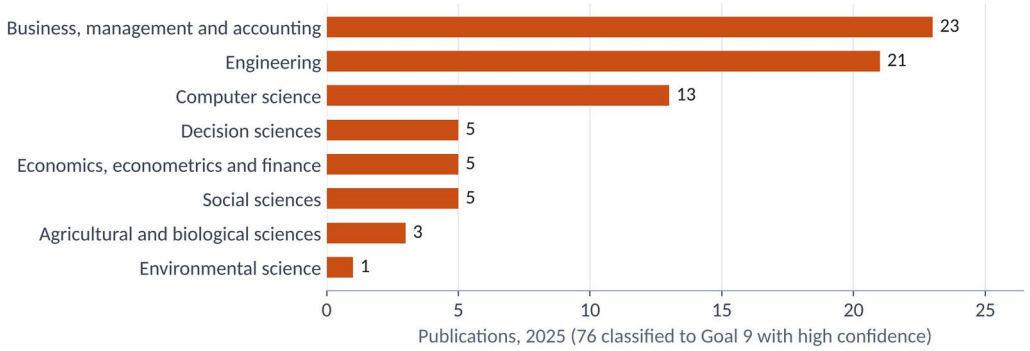


Figure 9.1: Research fields of the 76 University publications of 2025 classified to Goal 9 with high confidence (OpenAlex).

TABLE 9.2 Selected University publications on industry, innovation and infrastructure, 2025

No.	UN target	Publication	University authors	DOI
1	9.1	Toward sustainable smart cities: applications, challenges, and future directions. International Journal of Data Science and Analytics, 20(7), 6227 to 6247	Amin Ullah	10.1007/s41060-025-00856-2
2	9.1	Performance analysis of 765 kV, 500 kV and 220 kV NTDC-14 bus transmission network via optimal integration of UPFC. Ain Shams Engineering Journal, published online 20 November 2025	Asad Waqar; Muhammad Junaid	10.1016/j.asej.2025.103863
3	9.2	A novel and secure artificial intelligence enabled zero trust intrusion detection in industrial internet of things architecture. Scientific Reports, 15, 26843	Abdullah Ayub Khan	10.1038/s41598-025-11738-9
4	9.2	Exploring the Adoption of Industry 4.0 in Manufacturing Industry and Its Impact on Sustainable Performance: A Systematic Literature Review. Process Integration and Optimization for Sustainability, published online 23 October 2025	Alishabah Salman; Muhammad Rahies Khan; Mubashir Ali Khan; Moazzum Ahmed	10.1007/s41660-025-00580-1
5	9.3	Digital Innovation, Business Models Transformations, and Agricultural SMEs: A PRISMA-Based Review of Challenges and Prospects. Systems, 13(8), 673	Muhammad Zahid	10.3390/systems13080673
6	9.4	SDG 6 in Practice: Demonstrating a Scalable Nature-Based Wastewater Treatment System for Pakistan's Textile Industry. Sustainability, 17(13), 6226	Kamran Siddique; Aansa Rukya Saleem	10.3390/su17136226
7	9.4	Multi-objective Particle Swarm Optimization for Sustainable Industrial Operations: Energy and Cost Perspectives. International Journal of Computational Intelligence Systems, 18	Abdullah Ayub Khan	10.1007/s44196-025-01023-y
8	9.5	Strategic and organisational factors for advancing knowledge in intelligent automation. Journal of Innovation & Knowledge, 10(2), 100675	Mobashar Mubarik	10.1016/j.jik.2025.100675
9	9.b	Artificial Intelligence Based Contemporary Computational Paradigms for Intelligent Machining Processes: Review on Assessment, Progress and Recent Development. Archives of Computational Methods in Engineering, published online 24 December 2025	Abdullah Ayub Khan	10.1007/s11831-025-10478-3
10	9.c	A Comprehensive Survey on GenAI-Enabled 6G: Technologies, Challenges, and Future Research Avenues. IEEE Open Journal of the Communications Society, 6, 4563 to 4590	Sohail Imran Saeed	10.1109/ojcoms.2025.3568496

9.2 University spin-offs and start-ups

UN TARGETS 9.3 and 9.5

The University records **251 university spin-offs** for 2025 (Table 9.3). Its Business Incubation Centres, part of the Bahria Innovation Center, at the Islamabad, Karachi and Lahore campuses nurture early-stage start-ups founded by students, faculty, alumni and the wider community, with workspace, funding opportunities, legal, business and intellectual property advice and connections with industry partners. The Bahria Innovation Center comprises a Maker Space with electronic test equipment; a Startup Factory that provides workplace, virtual incubation, training, HR and technology support and access to finance; a six-month Business Accelerator Program for later-stage start-ups; and industry liaison offices.

TABLE 9.3 University spin-offs and start-ups, 2025

No.	Measure	Number	Basis
1	University spin-offs	251	University numerical data for 2025
2	Start-ups incubated at the Business Incubation Centres	61	Karachi 37; Islamabad, Head Office 14; Lahore 10
3	People engaged under start-up contracts	269	Directorate of Research and Innovation, start-ups record
4	Of them students, faculty or alumni of the University	137	Directorate of Research and Innovation, start-ups record
5	Final-year student projects funded by IGNITE	29	Islamabad H-11 8; Karachi 8; Lahore 13; Rs 1.55 million
6	Business Incubation Centres	3	Islamabad, Karachi and Lahore campuses

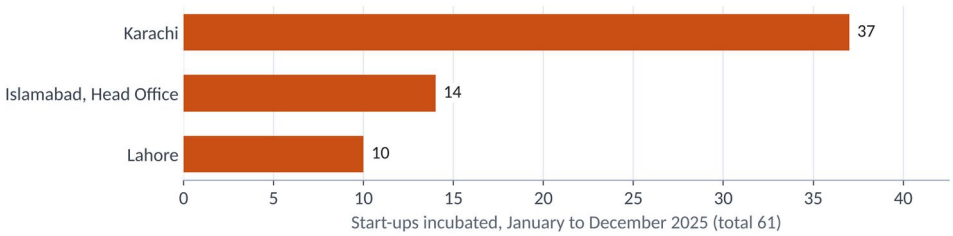


Figure 9.2: Start-ups incubated at the Business Incubation Centres, January to December 2025 (Directorate of Research and Innovation).

From January to December 2025 the centres incubated **61 start-ups**: 37 in Karachi, 14 at the Head Office centre in Islamabad and 10 in Lahore (Figure 9.2), engaging 269 people under their contracts, 137 of them students, faculty or alumni of the University. Among them are Enent, whose Intellica three-phase automatic load balancer reduces energy waste, HYDRO-GEN in renewable energy, EarthAdobe in sustainable building, the Smart Green Roof Ecosystem in the circular economy, and Irverde and IG Detection Systems in waste management. The incubation centre in Islamabad has twice been recognised by the World Bank among the top three university incubators in Pakistan.

The BU Student Led Startup Program gives student founders 6 to 12 months of support and resources, and the Virtual Incubation Program offers mentoring, workshops and training, networking, resources and

funding opportunities. On 14 October 2025 Startup Huddle Karachi, a chapter of the Global Entrepreneurship Network, was launched at and hosted by the Business Incubation Centre of the Karachi Campus (CW Pakistan). In 2025 IGNITE, the National Technology Fund, funded 29 final-year projects of University students, 8 at the Islamabad H-11 Campus, 8 at the Karachi Campus and 13 at the Lahore Campus, worth Rs 1.55 million. The Sustainability and Climate Action Policy (BU-SCAP-2025, Version 1.0, effective 7 December 2025) commits the University to support student-led sustainability projects and start-ups and to hold an annual campus sustainability innovation challenge (para 6.3).

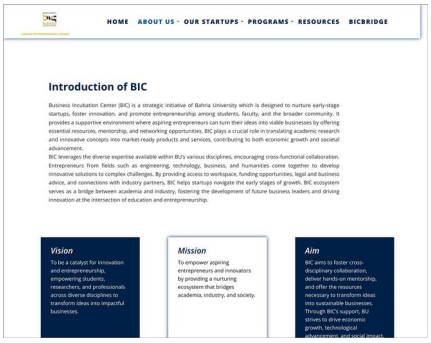


Figure 9.3: Business Incubation Centres website, What we do: the centres' role in nurturing early-stage start-ups and innovation.

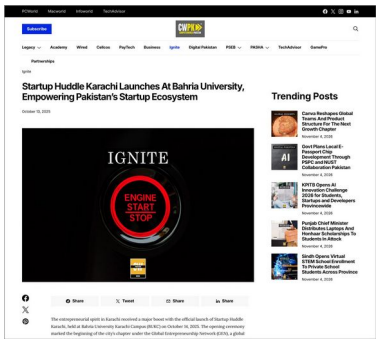


Figure 9.4: CW Pakistan, 14 October 2025: launch of Startup Huddle Karachi at the University's Business Incubation Centre, Karachi Campus.

9.3 Research income from industry and commerce

UN TARGETS 9.5 and 9.b

In 2025 the University earned **Rs 151.18 million** in research income from industry and commerce: Rs 111.25 million (73.6 per cent) in science, technology, engineering and mathematics, Rs 32.85 million (21.7 per cent) in medicine and Rs 7.08 million (4.7 per cent) in arts, humanities and social sciences (Table 9.4 and Figure 9.5). The income comes from research and development projects, consultancy, testing and professional services for companies, public bodies and other organisations, which the Directorate of Research and Innovation records project by project with the funding agency, date, principal investigator and department.

TABLE 9.4 Research income from industry and commerce by subject area, 2025

No.	Subject area	Income (Rs)	Share (per cent)
1	Science, technology, engineering and mathematics	111,253,000	73.6
2	Medicine	32,848,000	21.7
3	Arts, humanities and social sciences	7,076,000	4.7
	All subject areas	**151,177,000**	**100.0**

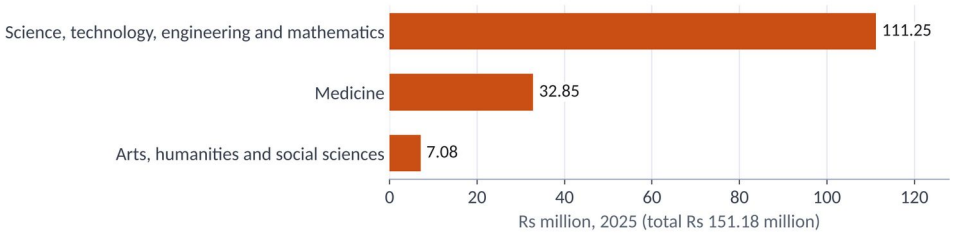


Figure 9.5: Research income from industry and commerce by subject area, 2025 (Rs million; University numerical data).

Under the Faculty Consultancy Policy of the Human Resource Policy Manual (2023 edition, amended 23 October 2025), faculty transfer the knowledge gained through University research to industry, business, not-for-profit organisations and government for compensation (paras 10.1.1 and 10.2.1), through University-led and faculty-led consultancy streams (paras 10.5 and 10.7), with consultancy income shared between the faculty member and the University (para 10.8.1) and outside consulting disclosed to heads of department (para 10.9.1). In 2025 faculty provided consultancy to 15 companies and organisations, among them SUPARCO SETC, Mazik Global, Softoo, Mercurial Minds, Computer Marketing Company, Bellwether Consulting and Newton Health Care, and carried out 18 research and development projects for the National Engineering and Scientific Commission in artificial intelligence, cyber security, maritime surveillance and embedded systems (Table 9.5).

TABLE 9.5 **Selected industry projects, consultancies and services, 2025**

No.	Project or service	Partner	University unit	Date	Rs million
1	Commercial testing services	Seafood industry	Environmental Research Center, Karachi	2025	16.00
2	Environmental testing and audit services	Industries	Environmental Research Center, Karachi	July to December 2025	10.00
3	Commercial testing services	Seafood industry	Aquatic Diagnostic Research Center, Karachi	2025	3.50
4	Research and development, 18 projects	National Engineering and Scientific Commission	CoE-AI; Electrical and Software Engineering; Computer Science	2025	2.70
5	Consultancy	SUPARCO SETC	Electrical Engineering, Karachi	16 April 2025	2.50
6	Consultancy	Computer Marketing Company	Computer Science, Islamabad	24 February 2025	2.10
7	Consultancy	Mazik Global, Karachi	Software Engineering, Karachi	May 2025	1.50
8	Consultancy	Softoo	Software Engineering, Islamabad H-11	16 January 2025	1.30
9	Consultancy	Mercurial Minds	Software Engineering, Islamabad H-11	29 July 2025	1.10
10	Impact assessment of interest-free loans for self-employment, Azad Jammu and Kashmir	Malcus and Myre Consulting Group	Management Sciences, Lahore	5 November 2025	0.83

No.	Project or service	Partner	University unit	Date	Rs million
11	Research on seafood by-products and seaweeds, two projects	National Cleaner Production Center Foundation	Aquatic Diagnostic Research Center, Karachi	January to October 2025	0.48

9.4 Research centres and innovation infrastructure

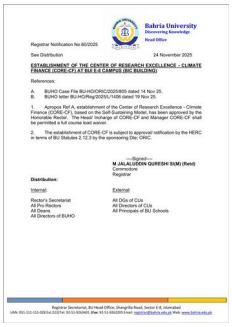
UN TARGETS 9.1 and 9.5

The Directorate of Research and Innovation records **eight research centres** that serve industry, in artificial intelligence, climate finance, earth and environmental sciences, biological sciences, applied student consulting, workplace excellence, environmental testing and aquatic diagnostics (Table 9.6).

TABLE 9.6 Research centres serving industry, 2025

No.	Centre	Focus and services
1	Centre of Excellence in Artificial Intelligence (CoE-AI), Islamabad E-8 Campus	Applied artificial intelligence research, industrial and research projects and training; projects for the National Engineering and Scientific Commission and international partners
2	Center of Research Excellence in Climate Finance (CORE-CF), Islamabad E-8 Campus	Carbon accounting, climate finance and the low-carbon transition; carbon footprint mapping, reduction pathways and climate compliance services to industry
3	Center of Research Excellence, Earth, Climate and Environment (CORE-ECE)	Research on earth, climate and the environment
4	Center of Research Excellence, Biological Sciences (CORE-BS)	Research in the biological sciences
5	Centre for Research Excellence for Student Consulting and Applied Solutions (CORE-SCAS), Bahria StudentSolve	Student consulting and applied solutions for organisations
6	Centre for Research Excellence for Workplace Excellence (CORE-WE), WORKQ (Work Quotient)	Research and services on workplace excellence
7	Environmental Research Center (ERC), Karachi Campus	Pollution control, renewable energy and climate resilience; laboratory recognised by the Federal Environmental Protection Agency; testing and environmental audit services for industry
8	Aquatic Diagnostic Research Center (ADRC), Karachi Campus	Aquatic health, diagnostics, water quality and sustainable aquaculture; testing services for the seafood industry

By Registrar Notification No. 60/2025 of 24 November 2025 the Rector approved the establishment of the Center of Research Excellence in Climate Finance at the Islamabad E-8 Campus, in the Bahria Innovation Center building, on a self-sustaining model, with the Directorate of Research and Innovation (ORIC) as its sponsoring directorate (see Chapter 13). The Sustainability and Climate Action Policy makes the Center the technical advisory body for carbon accounting, climate finance mechanisms and research-data integration (paras 4.2 and 4.4), and from November 2025 it offers private organisations and industries carbon footprint mapping, reduction pathways, readiness for the Carbon Border Adjustment Mechanism and climate compliance, and training.



Bahria University
Discovering Knowledge
Head Office

Registrar Notification No.60/2025

Sea Distribution 24 November 2025

ESTABLISHMENT OF THE CENTER OF RESEARCH EXCELLENCE – CLIMATE FINANCE (CORE-CF) AT BU E-8 CAMPUS (BC BUILDING)

References:

A. BUHO Case File BU-HO/ORIC/2025/805 dated 14 Nov 25.
B. BUHO letter BU-HO/Reg/2025/L/1408 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 Competent Authority. The Director In-charge 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 (S(M) (Retd)
Commodore
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Figure 9.6: Registrar Notification No. 60/2025, Head Office, 24 November 2025: establishment of the Center of Research Excellence in Climate Finance at the Islamabad E-8 Campus.

Artificial intelligence for industry and national institutions

Centre of Excellence in Artificial Intelligence, Islamabad E-8 Campus; 2025

THE CHALLENGE

Pakistan's industry and national institutions need applied artificial intelligence for maritime security, defence technology, healthcare and industrial automation, designed, built and tested by researchers in the country.

WHAT WE DID

In 2025 the Centre carried out projects for the National Engineering and Scientific Commission, among them intelligent ship detection for maritime surveillance, a MODBUS interface for servo motor drives and agentic artificial intelligence for human resource management; worked with the National University of Medical Sciences on a portable dry bath incubator; and led a research project funded by Al Jouf, Saudi Arabia, on attention-based models in healthcare and wellness.

THE RESULT

The Centre's eight industry and research projects of 2025 brought in Rs 9.62 million, Rs 7.50 million of it from the Al Jouf project, and in July 2025 its faculty spoke on digital twins and smart ports at the maritime training workshop of the National Institute of Maritime Affairs.

KEY FIGURES

8

Industry and research projects, 2025

9.62

Rupees million brought in

18

NESCOM projects across the University

PARTNERS

National Engineering and Scientific Commission; National University of Medical Sciences; Al Jouf, Saudi Arabia



Figure 9.7: CoE-AI Newsletter, Spring 2025 (January to June 2025), Islamabad E-8 Campus, page 1: cover and contents, including funded industrial and research projects.

Sources: Directorate of Research and Innovation, industry projects, consultancies and services, January to December 2025; CoE-AI Newsletters, Spring and Fall 2025.

The Environmental Research Center laboratory was established at the Karachi Campus to provide wastewater treatment solutions to local textile industries and, after its recognition by the Federal Environmental Protection Agency, grew into one of the largest and most highly respected commercial laboratory services in Pakistan. With the Aquatic Diagnostic Research Center, which tests for the seafood industry and carried out two research projects for the National Cleaner Production Center Foundation on seafood by-products and seaweeds, it earned **Rs 29.98 million** from industry in 2025: Rs 26.00 million at the Environmental Research Center and Rs 3.98 million at the Aquatic Diagnostic Research Center. The Earth and Environmental Sciences laboratories at the Islamabad H-11 Campus analyse water, soil, plant, microbiological and air samples, with atomic absorption spectroscopy, high performance liquid chromatography and gas chromatography mass spectrometry. The Health, Safety and Environment Policy requires laboratory-specific safety instructions from each department (para 3.30) and sets safeguards for server rooms and their battery banks (para 3.31).

The Sustainability and Climate Action Policy plans a Climate Data Center with high-performance computing for climate modelling, living laboratory facilities and Rs 100 million a year in external funding for climate research by 2030 (para 6.2), and commits the University to climate-proof all new infrastructure against 2050 climate projections (paras 3.1 and 5.6.2).

9.5 Partnerships and services for industry

UN TARGETS 9.2 and 9.4

On 14 February 2025 the University and Creative Group of Industries, Lahore, signed a Memorandum of Understanding, at a meeting chaired by the Rector, to foster collaboration in energy, engineering and technology solutions, bridging academia and industry through research, innovation and professional development; on 17 October 2025 a delegation from Shandong Haizhichen New Energy Technology, China, met the University on joint research and renewable energy technologies (see Chapter 7). The National Institute of Maritime Affairs (NIMA) works with Pakistan's ports, shipyards and ship recycling industry on technologies and practices that reduce their environmental impact (Table 9.7).

The Sustainability and Climate Action Policy commits the University to partner with industry for industrial symbiosis (para 5.4.4), and the Sustainable Procurement and Purchasing Policy (BU-SPPP-2025) makes

innovation a key performance indicator for suppliers (para 7.2), with a weight of 5 per cent in tender evaluation (para 8.2), and offers suppliers research partnerships with University faculty (para 7.3).

TABLE 9.7 **Partnerships and engagement with industry, 2025**

No.	Date	Partner	Activity	Unit
1	14 February 2025	Creative Group of Industries, Lahore	Memorandum of Understanding on energy, engineering and technology solutions	University
2	17 July 2025	Port Qasim Authority; Karachi Port Trust; Karachi Shipyard and Engineering Works; TELEC Group	Training workshop, Maritime Economy: Opportunities and Challenges	NIMA Karachi
3	26 and 27 August 2025	Ship recycling industry; ILO; IMO	Awareness workshop on safe ship recycling, with NIMA research on Gadani	NIMA
4	3 September 2025	Karachi Port Trust	Collaboration under the MoU: research, environmental management and sustainable port operations	NIMA Karachi
5	9 December 2025	Pakistan Maritime Security Agency; international delegates	International seminar on oil spill response	NIMA



Figure 9.8: Signing of the Memorandum of Understanding between the University and Creative Group of Industries, Lahore, 14 February 2025.



Figure 9.9: NIMA Karachi team at the Karachi Port Trust, Karachi, 3 September 2025.

9.6 Looking ahead

Building on its incubators, its industry income and its research centres, the University sets these priorities for the next reporting year:

1. **Spin-offs and start-ups.** The University will continue incubation at its three Business Incubation Centres and support student-led start-ups.
2. **Research with industry.** The University will continue consultancy, testing and research for industry and report the income by subject area.
3. **Climate finance services.** The University will extend the services of CORE-CF to more industries.

SUSTAINABLE DEVELOPMENT GOAL

10

REDUCED INEQUALITIES

Reduce inequality within and among countries.



BAHRIA UNIVERSITY IN 2025

Opening the University to every talent and every background.

Bahria University admits students on merit, with no domicile condition and 5 per cent of seats reserved for students from less developed districts, students with disabilities and students from Balochistan; in 2025 women were 47.3 per cent of its 8,451 Semester 1 entrants. All six campuses provide accessible facilities, reasonable accommodation is met at the University's cost, and University policy prohibits discrimination on fourteen grounds.

47.3 per cent
Women among Semester 1 entrants, 2025

5 per cent
Seats reserved for underrepresented groups

6 of 6
Campuses with accessible facilities

IN THIS CHAPTER

10.1 Research on reduced inequalities 102
10.2 Non-discriminatory admissions and tracking 103
10.3 Scholarships and support for students in need 106
10.4 Inclusion of people with disabilities 107
10.5 Ending discrimination and harassment 109
10.6 Mentoring, counselling and peer support 110
10.7 Looking ahead 111

10.1 Research on reduced inequalities

UN TARGETS 10.2 and 10.3

In 2025 the University published 116 works that OpenAlex links to Goal 10, 25 of them with a high-confidence classification (score of 0.8 or above). The 25 publications, all journal articles, are the work of 42 University authors and appeared in 21 journals (Table 10.1). Twenty-three of the 25 articles (92.0 per cent) are open access, 7 (28.0 per cent) were written with researchers in ten other countries, among them China, Qatar and Saudi Arabia (2 articles each), and six are among the 10 per cent most cited publications of the same type, year and subfield, one of them among the top 1 per cent.

TABLE 10.1 University research on Goal 10, publications of 2025

No.	Measure	Number	Basis
1	University publications indexed by OpenAlex	1,655	Publication year 2025; retracted works excluded
2	Publications linked to Goal 10	116	Goal 10 score above 0.4, the OpenAlex default; 7.0 per cent of all publications
3	Publications classified to Goal 10 with high confidence	25	Goal 10 score of 0.8 or above; 1.5 per cent of all publications
4	Journal articles	25	All 25 high-confidence publications
5	University authors	42	Distinct authors with a University affiliation recorded by OpenAlex
6	Journals	21	Venues of the 25 articles
7	Open access articles	23	92.0 per cent of the 25 articles
8	Internationally co-authored articles	7	28.0 per cent; co-authors in ten other countries
9	Articles among the 10 per cent most cited	6	Same type, year and subfield; one among the top 1 per cent
10	Citations received	63	Citations recorded by OpenAlex at the date of retrieval

The social sciences account for 10 of the 25 articles, medicine and psychology for 4 each and business, management and accounting for 3, followed by economics, dentistry and the arts and humanities (Figure 10.1). The articles study gender bias in medical education, women entrepreneurs, female journalists, the inclusion of the transgender community, the employment of deaf people, income inequality and financial inclusion, and social protection for low income families; Table 10.2 sets out seven of them, at least one for each Goal 10 target the research addresses.

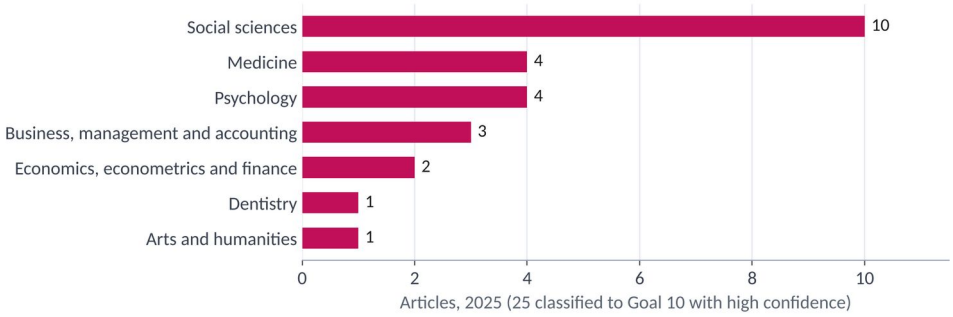

Figure 10.1: Research fields of the 25 University articles of 2025 classified to Goal 10 with high confidence (OpenAlex).

TABLE 10.2 **Selected University publications on reduced inequalities, 2025**

No.	UN target	Publication	University authors	DOI
1	10.1	Fintech and Income Inequality Nexus: Can Financial Inclusion and Financial Freedom Help to Achieve SDGs. Indus Journal of Social Sciences, 3(2), 1039 to 1068	Muhammad Rizwan Nazir; Hashir Hussain; Muhammad Imran Nazir; Rabia Umer	10.59075/ijss.v3i2.1694
2	10.2	Impact of Inclusive Diversity Practices on Psychological Well-Being of Marginalized Community: A Comparative Study of Transgender. Indus Journal of Social Sciences, 3(2), 188 to 199	Swaleha J. Khowaja	10.59075/ijss.v3i2.1126
3	10.2	Female journalists in Pakistan's media landscape: Analysing challenges and resilience. Journal of Applied Journalism and Media Studies, 14(3), 385 to 408	Syed Abdul Siraj; Tabinda Sadiq; Aysha Zaib	10.1386/ajms_00191_1
4	10.2	From Clinics to Communities: Understanding Public Perceptions of Dental Services in Pakistan. Health Expectations, 28(1), e70177	Saman Hakeem	10.1111/hex.70177
5	10.3	Gender bias faced by medical students during undergraduate medical education in Urban Private medical colleges in Pakistan. BMC Medical Education, 25, 1142	Shazia Fakhir Durrani	10.1186/s12909-025-07653-2
6	10.3	Racial disparities in suicide-related mortality in the US: Examining trends before, during, and after the COVID-19 pandemic using the CDC WONDER database. Psychiatry Research, 356, 116885	Muhammad Mughees	10.1016/j.psychres.2025.116885
7	10.4	Economic Dimensions of Health Protection under Sehat Sahulat Program: A Qualitative Assessment of Urban and Rural Households in Pakistan. ACADEMIA International Journal for Social Sciences, 4(4), 2259 to 2273	Kashif Abrar	10.63056/acad.004.04.1064

10.2 Non-discriminatory admissions and tracking

UN TARGETS **10.2 and 10.3**

The University admits students to all programmes of every campus and constituent unit on merit. Under the Admissions Policy, issued by the Director Admissions in its 3rd Edition on 3 November 2025, candidates from all over Pakistan and overseas can apply (para 2.1.2) and are admitted with equal opportunity regardless of gender, nationality, race, colour, ethnicity, culture, religion, disability, immigration status or any other ground in para 4 of the Equality and Non-Discrimination Policy, and no domicile condition applies except for the regional reserved seats (para 2.1.3). The policy commits the University to equality in

education, to selecting students on their individual merits, abilities and aptitudes, and to increasing the diversity of its student population (para 1.7.1).

As positive measures, the policy reserves **5 per cent of seats** for groups that are underrepresented in higher education, for applicants who meet the minimum admission criteria (Table 10.3; Admission quotas). To raise the number of women applicants, especially in subjects where women are under-represented, the University runs outreach to girls' schools, colleges and families, reviews applications, offers and acceptances by gender for every programme, supports women's enrolment with scholarships, hostel places and safe transport, and reports the results to the Rector after every cycle (para 2.1.6).

TABLE 10.3 **Seats reserved for underrepresented groups, Admissions Policy, 3rd Edition**

No.	Group	Seats	Procedure	Provision
1	Students from the less developed regions of Pakistan	2 per cent	114 districts listed in Annex D; separate merit list approved by the Rector; domicile verified by the campus Admission Committee	Paras 2.21.1 and 2.22
2	Students with disabilities	2 per cent	Facilities for admission, interview and entrance tests ensured by an Accessibility Committee at each campus; applicants consulted on their needs and advised how the campus will meet them	Paras 2.21.2 and 2.23
3	Students from Balochistan	1 per cent	Separate merit list of candidates from Balochistan approved by the Rector	Paras 2.21.6 and 2.27

With the applicant's consent, the online application form and the Campus Management System record each applicant's gender, disability, family income or request for financial assistance, ethnic or religious minority, refugee or newly settled status, entry as a mature or other non-traditional applicant and, as the law permits, transgender status (para 4.1.2), and after every cycle the Director Admissions reports to the Rector the applications, offers and enrolments by group and programme (para 4.7.1). For the Spring 2025 and Fall 2025 intakes, **50,762 applications** led to 8,662 offers after interview, 8,647 acceptances and **8,451 students registered in Semester 1**, of whom 3,994 were women (47.3 per cent; Table 10.4). Women formed 55.3 per cent of postgraduate entrants and 44.9 per cent of undergraduate entrants, and 93.0 per cent of entrants at the Institute of Professional Psychology, 47.2 per cent at the Karachi Campus and 43.2 per cent at the Islamabad E-8 Campus.

TABLE 10.4 **Applications, offers and entry of women by intake and level, 2025**

No.	Intake or level	Applications	Offered	Accepted	Semester 1 entrants	Women
1	Spring 2025	15,323	3,319	3,412	3,288	1,591
2	Fall 2025	35,439	5,343	5,235	5,163	2,403
3	Undergraduate	42,611	6,350	6,577	6,397	2,875
4	Postgraduate	7,634	2,236	1,997	1,982	1,097
5	Doctoral	510	76	72	71	21
6	Certificate and short course	7	0	1	1	1
	Total, 2025	**50,762**	**8,662**	**8,647**	**8,451**	**3,994**

The University tracks the applications and admissions of every underrepresented group, with a named office keeping each record (Table 10.5).

TABLE 10.5 Underrepresented groups tracked, 2025

No.	Group	2025 record	Record kept by
1	Women	3,994 women among 8,451 Semester 1 entrants (47.3 per cent), by level, campus and subject field	Directorate of Admissions
2	Transgender students	Recorded under the gender category X: 4 registrations in Spring 2025 and 4 in Fall 2025, one of them a new entrant	Directorate of Admissions
3	Students from low income families	4,135 University and 1,037 external scholarships, academic year 2025 (Section 10.3)	Directorate of Student Affairs
4	Students from low income countries	268 full scholarships for students from ten low and lower-middle income countries (Section 10.3)	Directorate of International Office
5	Students from Balochistan and the former FATA	Reserved seats; HEC scholarships announced on 23 January and 27 September 2025	Directorates of Admissions and Student Affairs
6	Students with disabilities	List of persons with disabilities kept at every campus, with enrolment, retention and performance tracked (HSE Policy, para 2.15)	Campuses; Disability Coordinators
7	Mature and non-traditional applicants	Entry as a mature or other non-traditional applicant recorded at application	Directorate of Admissions

The University reached out to applicants from every background in 2025. On 1 June 2025, with admissions for Fall 2025 open, it published its special admission quotas and invited applicants from underrepresented areas to apply, and on 11 December 2025 it repeated the message in a video. On 14 November 2025 it presented its programmes to prospective international students at the Tashkent Education and Profession Exhibition 2025 in Uzbekistan (see Chapter 1). On 21 November 2025 the Admissions Team of the Islamabad E-8 Campus guided students at education expos in Rawalpindi and Islamabad on admissions, scholarships, fee concessions and quota seats (University Facebook page), and on 15 December 2025 it guided the female and male cadets of Cadet College Jhang on application procedures, programmes, eligibility and careers (University Facebook page).



Figure 10.2: Admissions outreach and education expo, 21 November 2025: the Islamabad E-8 Campus Admissions Team guiding prospective students on admissions, scholarships, fee concessions and quota seats.



Figure 10.3: Admissions outreach visit by the Islamabad E-8 Campus Admissions Team to Cadet College Jhang, 15 December 2025.

10.3 Scholarships and support for students in need

UN TARGETS 10.2 and 10.4

In academic year 2025 the University's students held **5,172 scholarships** worth Rs 360.41 million: 4,135 University scholarships, including the Financial Assistance Scholarship, which is assessed on family income and expenditure, and 1,037 external scholarships (see Chapter 1). The external scholarships are recorded by scheme, which identifies the groups they serve: among them are 397 HEC Ehsaas and 176 HEC need-based scholarships for students from low income families, and others serve children of industrial workers, students from Sindh, Khyber Pakhtunkhwa, Balochistan and the former FATA, and Afghan nationals (Figure 10.4; Scholarships).

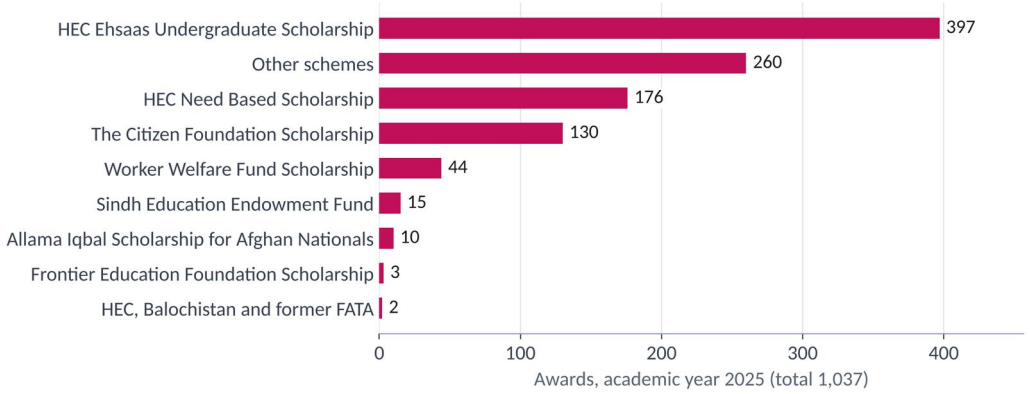

Figure 10.4: External scholarships held by University students by scheme, academic year 2025 (Directorate of Student Affairs).

New schemes widened access in 2025. On 26 March 2025 the University announced the BU Silver Jubilee Rector's Need-Based Scholarships, a 50 per cent tuition fee waiver for undergraduate students, and on 12 September 2025 it called on students of all batches to apply for the Bahria University Financial Assistance Scholarship Scheme. On 23 January 2025 it announced the Coastal Region Higher Education Undergraduate Scholarship Program for Balochistan, open to applicants from Gwadar, Lasbela and Hub, Kech (Turbat) and Awaran, and on 27 September 2025 it invited eligible students from Balochistan and the former FATA to apply for HEC undergraduate scholarships (see Chapter 1).

The Directorate of International Office records every international student on a scholarship by nationality and by World Bank income classification. For academic year 2025 it recorded **268 students, all on full scholarships**, from ten countries: 254 from low income countries and 14 from lower-middle income countries (Figure 10.5; see Chapter 1). Afghanistan (148) and Somalia (91) are the largest groups, and 10 Afghan students held the Allama Iqbal Scholarship for Afghan Nationals.

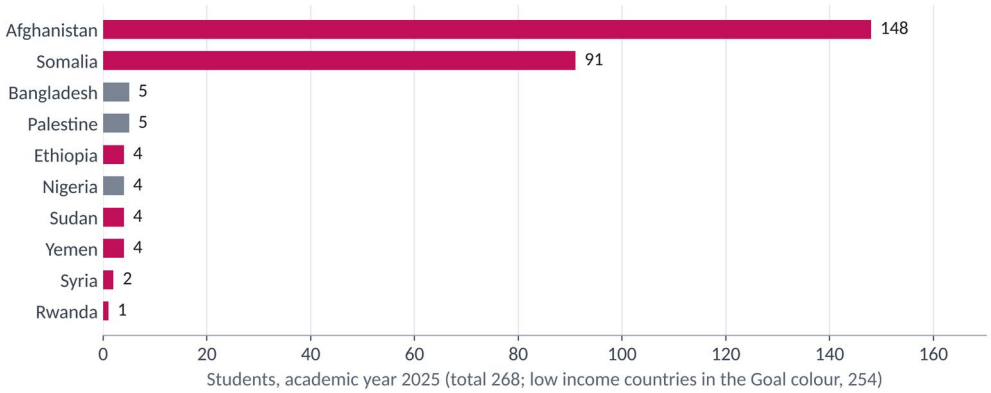

Figure 10.5: International students on full scholarships by nationality and World Bank income group, academic year 2025: low income countries (254 students) in the Goal colour, lower-middle income countries (14) in grey (Directorate of International Office).

10.4 Inclusion of people with disabilities

UN TARGET 10.2

The Health, Safety and Environment Policy, second edition issued by the Director Admin, Head Office, on 22 November 2025, requires the Head Office and every campus to keep a list of persons with disabilities and to facilitate them in studying and working, and the University tracks the enrolment, retention and performance of every person with a disability (para 2.15). In 2025 the Directorate of Student Affairs recorded **80 students with disabilities** and the Directorate of Human Resource **13 employees with disabilities**. Campuses provide ease of access to buildings, medical centres, recreational facilities, mosques, hostels and gymnasiums, with ramps and washrooms standardised across all campuses, reserved parking, sufficient accessible toilets and priority seats in University vehicles (para 2.15(a) to (d)), and under the Rights of Persons with Disability Act 2020, enclosed with the policy, it gives special attention to equity, access and mobility, and equity in education, employment and health (para 2.16).

The University provides reasonable accommodation, with adequate funding, to students, faculty and staff with disabilities, including a significant and long-term mental health difficulty (para 2.17). Students request accommodation through the Disability Coordinator and employees through the campus HR office; the Campus Accessibility Committee decides each request within 30 days, and an applicant can ask the Director Campus to review the decision. The University meets the cost of writers, typists, assistive devices and adapted workstations, and each year the Treasurer allocates a budget line for accommodation at each campus, with the Committee reporting requests, accommodations granted and expenditure to the Standing HSE Committee (para 2.17(a) to (d); Table 10.6).

TABLE 10.6 **Support services for people with disabilities**

No.	Service	What it provides	Basis
1	Disability Coordinator at each campus	The Manager of the Student Support Centre: a single point of contact who guides applicants, assesses needs, arranges facilitation in admissions, examinations, dissertations and activities, and refers students for counselling or academic coaching	Student Handbook 9.15.7; HSE 2.17(a)
2	Campus Accessibility Committee at each campus	Includes a psychologist and a representative of students with disabilities; decides requests within 30 days and ensures facilities for admission, interviews and entrance tests	HSE 2.17(b); Admissions Policy 2.23.1; Student Handbook 9.15.6
3	Examinations and learning	Examinations in Braille or on computer; writers on application; up to 45 minutes of extra time; trained facilitators during examinations; learning aids	Student Handbook 2.17, 5.22, 9.15.8
4	Confidential disclosure	A disability option at admission, kept confidential, supports each student's request for reasonable adjustments	Student Handbook 9.15.3
5	Accommodation for employees	Writers, typists, assistive devices and adapted workstations at the University's cost; Special Conveyance Allowance of Rs 2,000 a month approved by the Rector	HSE 2.17(c); Rector's approval
6	Counselling	Psychological Services Centres for students, employees and their families, free of cost for a client unable to afford the fee	PSC Policy 1.1 and 14.4

The campus facilities record, compiled from the returns of the campuses to the Directorate of Student Affairs, documents with photographs ramps and accessible passages at building entrances, lifts and elevators, accessible washrooms with grab bars, wheelchairs, reserved parking and drop-off points, and library seating marked for persons with disabilities at **all six campuses**: Islamabad E-8, Islamabad H-11, Karachi, Lahore and the Health Sciences Campuses at Islamabad and Karachi. At the Karachi Campus meals are taken to students with disabilities in their classrooms when required.

Training and awareness carried the commitment further in 2025. From 12 August 2025 the Leadership and Professional Development Centre ran an eight-week Certification in Managing Dyslexia at the Islamabad E-8 Campus, with 10 participants. The Institute of Professional Psychology hosted an awareness session by the Karachi Down Syndrome Program for its postgraduate students on 14 January 2025, took part in the Grand Independence Festival for Persons with Disabilities of the Department of Empowerment of Persons with Disabilities on 14 August 2025, and with Special Olympics Pakistan held a Mental Health Camp for Athlete Leaders on 10 October 2025. To mark the International Day of Persons with Disabilities, Karachi Campus students visited the Special Children School, Karsaz, on 9 December 2025 (University Facebook page), and the University repository holds 47 student projects and theses on sign language, among them real-time translators from sign language to text and speech (BU repository).

Accessible campuses and reasonable accommodation

Campuses, Disability Coordinators and Campus Accessibility Committees; 2025

THE CHALLENGE

Students and staff with disabilities study and work on equal terms when buildings, examinations and workplaces are open to them and the University meets the cost of adjustment.

WHAT WE DID

The Health, Safety and Environment Policy requires every campus to track persons with disabilities and give them ease of access, reserved parking and accessible toilets, and guarantees reasonable accommodation, decided within 30 days, at the University's cost. The Admissions Policy reserves 2 per cent of seats for students with disabilities.

THE RESULT

In 2025 the campus facilities record documented ramps, lifts, accessible washrooms, wheelchairs, reserved parking and marked library seating at all six campuses, and employees with disabilities received a Special Conveyance Allowance of Rs 2,000 a month.

KEY FIGURES

6 of 6

Campuses with accessible facilities

30

Days to decide an accommodation request

2

Per cent of seats reserved

PARTNERS

Special Olympics Pakistan; Karachi Down Syndrome Program; Department of Empowerment of Persons with Disabilities

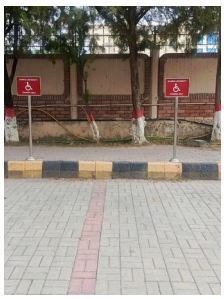

Figure 10.6: Parking spaces reserved for persons with disabilities, with signs, Islamabad E-8 Campus, campus facilities record, 2025.



Figure 10.7: Mental Health Camp for Athlete Leaders, Institute of Professional Psychology, Karachi, with Special Olympics Pakistan, 10 October 2025.

Sources: Directorate of Student Affairs, campus facilities record, 2025; Health, Safety and Environment Policy, paras 2.15 to 2.17; Admissions Policy, 3rd Edition, para 2.23; Directorate of Human Resource records.

10.5 Ending discrimination and harassment

UN TARGET 10.3

The Equality and Non-Discrimination Policy, amended on 20 October 2025 under the authority of the Director Human Resource, rests on clause 5 of the Bahria University Ordinance 2000 and para 2.7 of the Statutes (paras 1 and 2). It applies to all University programmes and activities, the induction of faculty members, officers and staff, the admission of students, employment practices and operations, and the

conduct of all students, employees, guests, visitors, vendors and contractors (para 3). Para 4 commits the University to equal opportunity and non-discrimination in education and employment and prohibits discrimination on **fourteen grounds**, and on any other legally protected basis (Table 10.7). The Human Resource Policy Manual requires every appointment to be made without any condition of domicile, caste, creed or race (clause 1.3.1), and the Sustainable Procurement and Purchasing Policy requires every supplier to demonstrate non-discrimination policies (para 5.1.2).

TABLE 10.7 **Grounds of discrimination prohibited by the Equality and Non-Discrimination Policy, para 4**

No.	Ground	Provision	Ground	Provision
1	Religion; creed	Para 4(f); 4(h)	Race	Para 4(b)
2	Gender; gender identity	Para 4(e); 4(l)	Colour	Para 4(c)
3	Age	Para 4(a)	National origin	Para 4(d)
4	Refugee or asylum-seeker status	Para 4(m)	Disability	Para 4(i)
5	Immigration status	Para 4(n)	Political beliefs	Para 4(j)
6	Caste	Para 4(g)	Ethnicity	Para 4(k)



Figure 10.8: Anti-Harassment Awareness Session for students, Islamabad E-8 Campus, 19 September 2025.

Retaliation against anyone who files a complaint, takes part in an investigation or opposes discrimination is prohibited (para 5), complaints are resolved informally or through formal procedures (paras 19 to 21), and para 24 extends the policy to all harassment: complaints reach the Inquiry Committee within 24 hours and are decided within 30 days, with an appeal within 30 days. Harassment Complaint Cells with Focal Persons, Inquiry Committees and Appellate Bodies serve every campus (see Chapter 16), and Faculty Grievance Redressal Committees at each constituent unit also hear complaints of discrimination. In 2025 the University trained 246 staff and students in six sessions on harassment at four campuses (see Chapter 5).

10.6 Mentoring, counselling and peer support

UN TARGET 10.2

Through the Student Mentoring Programme run by the Leadership and Professional Development Centre, every first-semester undergraduate at every campus has a trained faculty mentor, **one to 25 students**, who stays with the class in the second semester and acts as teacher, coach, role model and counsellor. The

mentoring areas include tolerance towards religious diversity, acceptance of cultural practices and geographical association, and gender; in academic year 2025 the Centre recorded 29 mentoring sessions on these areas and 14 on stress and well-being (see Chapter 5). Mentors are trained every year: on 12 and 15 September 2025 the Centre trained 16 faculty mentors at the Islamabad E-8 Campus, and on 13 October 2025 the Karachi Campus trained 10 more.

The Psychological Services Centres, named Umeed-e-Nau and Well-Being Centres, provide mental health services to students, employees, their families and the general public, and they treat free of cost, with approval, a client unable to afford the fee (Policy for Psychological Services Centres, in force throughout 2025, paras 1.1 and 14.4). Peer and inclusion programmes reached students across the campuses (Table 10.8), and on 24 and 26 November 2025 Global Village 2025, Unity in Diversity, brought international and local students together with embassy stalls (see Chapter 11).

TABLE 10.8 **Peer support and inclusion programmes, 2025**

No.	Date	Programme	Campus or unit	Group served
1	17 March 2025	Workshop on personal development by the Bahria University Psychology Club with Prism Pakistan, on self-awareness, confidence and growth	Lahore Campus	Students; peer support
2	21 July 2025	South Korean Cultural Exchange Event: traditional performances, cultural displays and interactive sessions (see Chapter 11)	Islamabad E-8 Campus	International students
3	5 September 2025	Youth Club session Allah and I, designed exclusively for female students, on inner peace, self-reflection, character and resilience	Health Sciences Campus, Karachi	Women students

10.7 Looking ahead

Building on its admissions, scholarships and accessibility measures, the University sets these priorities for the next reporting year:

1. **Access.** The University will publicise its reserved seats and report entrants by group after every admission cycle.
2. **Financial support.** The University will continue need-based scholarships and full scholarships for students from low income countries.
3. **Disability inclusion.** The University will decide every accommodation request within 30 days, at its own cost.
4. **Inclusion and safety.** The University will train staff and students on harassment and train new faculty mentors each year.

SUSTAINABLE DEVELOPMENT GOAL

11

SUSTAINABLE CITIES AND COMMUNITIES

Make cities and human settlements inclusive, safe, resilient and sustainable.



BAHRIA UNIVERSITY IN 2025

Open learning, living culture and cleaner journeys for our cities.

Bahria University opens its libraries, book fairs and cultural life to the public and to partner institutions, and its students carry Pakistan's arts and heritage to national stages: in 2025 the dramatics team won five awards at the All Pakistan Performing Arts Festival. Global Village 2025 brought six diplomatic missions to campus, and the Sustainability and Climate Action Policy targets a 60 per cent cut in transport emissions by 2030.

23
University publications linked to sustainable cities, 2025

5
Awards won by the dramatics team at APPAF 2025

60 per cent
Transport emissions reduction targeted by 2030

IN THIS CHAPTER

11.1 Research on sustainable cities and communities 113
11.2 Public access to learning, culture and sport 113
11.3 Arts, culture and heritage 114
11.4 Sustainable campuses and commuting 117
11.5 Looking ahead 118

11.1 Research on sustainable cities and communities

UN TARGETS 11.2, 11.3, 11.5 and 11.6

In 2025 the University published 23 works that OpenAlex links to Goal 11, 5 of them with a high-confidence classification (score of 0.8 or above). The five, all journal articles, are the work of five University authors in five journals. All five are open access, free for anyone to read; four were written with researchers in other countries, China (3), Saudi Arabia (2), and Australia, Poland and the United Kingdom (1 each); one is among the 10 per cent most cited publications of the same type, year and subfield; and together they have received 33 citations. Environmental science accounts for three of them and engineering and medicine for one each.

The research builds tools for safer and healthier cities: a predictive urban digital twin and deep learning models that monitor and forecast air quality in smart cities, data science models for the early detection of urban floods, and a drone-assisted vehicular network that restores emergency communications after a disaster (Table 11.1). Each publication can be located through its DOI.

TABLE 11.1 Selected University publications on sustainable cities and communities, 2025

No.	UN target	Publication	University author	DOI
1	11.5	Smart Flood Prevention: A Review of Cutting-Edge Data Science Models for Early Urban Flood Detection and Response Systems. Kashf Journal of Multidisciplinary Research, 2(09), 125 to 147	Muhammad Adeel Mannan	10.71146/kjmr620
2	11.5	A Novel UAV-Assisted VANET Routing Protocol for Post-Disaster Emergency Communications. IEEE Transactions on Network Science and Engineering, 13, 4863 to 4882	Faisal Bashir Hussain	10.1109/tnse.2025.3644432
3	11.6	Machine learning assisted predictive urban digital twin for intelligent monitoring of air quality index for smart city environment. Environmental Modelling & Software, 192, 106559	Khazina Naveed	10.1016/j.envsoft.2025.106559
4	11.6	Leveraging deep learning and ensemble learning for air quality forecasting in smart urban environment. PeerJ Computer Science, 11, e3162	Muhammad Taseer Suleman	10.7717/peerj-cs.3162

11.2 Public access to learning, culture and sport

UN TARGETS 11.4 and 11.7

The University shares its learning spaces with the wider community. Its libraries open their facilities, computers, Wi-Fi and electronic resources to alumni, researchers and members of the community free of charge after approval, and in December 2025 the University approved on-site access to Web of Science and Scopus for faculty of the National Defence University (see Chapter 4). Its book fairs bring the publishing trade to readers: the 11th Annual Book Fair on 18 and 19 February 2025 brought 16 booksellers, vendors and publishers to the Main Library of the Islamabad E-8 Campus (see Chapter 4), and on 20 November 2025 the 12th Annual Book Fair welcomed students, faculty members and book lovers to collections from renowned publishers and exhibitors.

Campus sports facilities are open to the community as well: the Sports Policy, amended by the Director Admin, Head Office, on 25 August 2025, requires every campus to open its sports facilities to local schools

and the general public outside the hours needed by students and staff, free of charge for registered school groups (paras 1.3.1(d) and 1.15.2; see Chapter 3). University experts also take their knowledge into public spaces: on 26 August 2025 the Director of the Institute of Professional Psychology, Karachi, spoke to more than 40 members of the Ladies Horticulture Club at the Horticulture Society of Pakistan on how sensory gardens stimulate memory, perception and well-being.

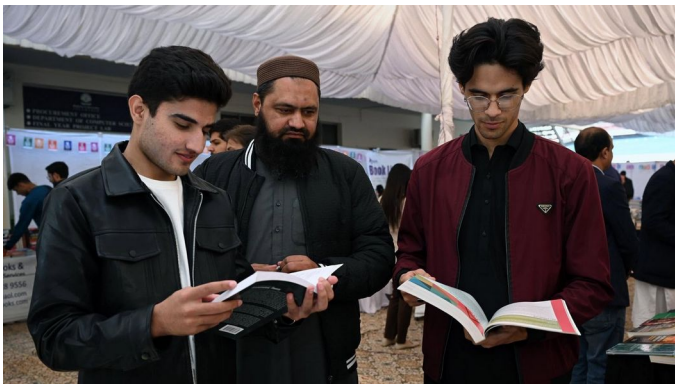

Figure 11.1: Young readers at the 12th Annual Book Fair, Main Library, Islamabad E-8 Campus, 20 November 2025.

11.3 Arts, culture and heritage

UN TARGET 11.4

Culture is part of everyday life on every campus. In 2025 students and staff celebrated Pakistan's musical, literary and visual traditions and welcomed the cultures of other nations (Table 11.2). Qawwali Nights at the Islamabad E-8 Campus on 17 February and at the Health Sciences Campus, Islamabad, on 28 October 2025 brought students, faculty and guests together in celebration of the Sufi musical tradition (University Facebook page); the Karachi Campus celebrated the country's cultural heritage at Bazm-e-Saqafat on 20 December 2025 with traditional attire, regional performances and cultural dances; and on 21 July 2025 the Islamabad E-8 Campus hosted a South Korean Cultural Exchange Event with traditional performances, cultural displays and interactive sessions (University Facebook page).

Students also carried the University's creative work to national stages. At the All Pakistan Performing Arts Festival (APPAF '25) at the GIK Institute in June 2025, the dramatics team competed against leading universities from across the country and brought home **five major awards**, from Best Actor to Best Team (University Facebook page). Heritage beyond the shoreline is part of the University's work too: researchers of the National Institute of Maritime Affairs (NIMA) took part in the National Consultation Workshop on the 2001 UNESCO Convention on the Protection of the Underwater Cultural Heritage, organised by the Department of Archaeology and Museums and UNESCO Pakistan on 6 October 2025, which highlighted the need for policy coordination, research and awareness (NIMA).



Figure 11.2: South Korean Cultural Exchange Event, Islamabad E-8 Campus, 21 July 2025.



Figure 11.3: National Consultation Workshop on the 2001 UNESCO Convention on the Protection of the Underwater Cultural Heritage, Islamabad, 6 October 2025 (photograph published by NIMA).

Global Village 2025: Unity in Diversity

Department of Humanities and Social Sciences, Islamabad; 24 and 26 November 2025

THE CHALLENGE

A university whose students come from every province of Pakistan and from many other countries needs shared spaces where cultures meet, are celebrated and are understood.

WHAT WE DID

The Department of Humanities and Social Sciences organised Global Village 2025 under the theme Unity in Diversity. The UAE Ambassador opened it as chief guest, with the Rector and the Director General of the campus, and the Ethiopian Chargé d'Affaires and Türkiye's Academic Counsellor attended as guests of honour; the embassies of the UAE, Türkiye, Ethiopia and Palestine set up their own stalls. On the second day the First Secretary of the High Commission of Maldives, the Chargé d'Affaires of Ethiopia and the Deputy Head of the Malaysian High Commission were chief guests.

THE RESULT

Students presented local and international cultures through performances, cultural stalls, traditional attire and international cuisine, leading television channels covered the event, and the two days strengthened cross-cultural understanding among students and guests.

KEY FIGURES

2

Days, 24 and 26 November 2025

6

Embassies and high commissions taking part

4

Embassy stalls on the opening day

PARTNERS

Embassies of the UAE, Türkiye, Ethiopia and Palestine; High Commissions of Maldives and Malaysia



Figure 11.4: The UAE Ambassador at the opening of Global Village 2025, Islamabad, 24 November 2025.



Figure 11.5: Students presenting local and international cultures at Global Village 2025, Department of Humanities and Social Sciences, 24 November 2025.

Sources: University Facebook page, 24 November 2025 (Day 1) and 26 November 2025 (Day 2).

TABLE 11.2 Arts, culture and heritage events, 2025

No.	Date	Event	Campus or unit	Highlights
1	9 January 2025	Exhibition of final-year photography projects	Karachi Campus	Student work under faculty mentorship
2	17 February 2025	Qawwali Night	Islamabad E-8 Campus	An evening of Qawwali
3	27 February 2025	Silver Jubilee celebration with live music	Islamabad E-8 Campus	25 years of the University
4	22 April 2025	Aqs-o-Aina, inter-departmental arts and dramatics competition	Inter-departmental	Two days of stage performances and art displays
5	2 June 2025	Music Club live performance at the Hubco Power Plant of Laraib Energy	Music Club	Recognised with an award by the General Manager
6	June 2025	All Pakistan Performing Arts Festival (APPAF '25), GIK Institute	Dramatics team	Five major awards, from Best Actor to Best Team
7	21 July 2025	South Korean Cultural Exchange Event	Islamabad E-8 Campus	Traditional performances and cultural displays
8	14 August 2025	78th Independence Day celebrations	All campuses	Flag hoisting and patriotic performances
9	6 October 2025	National consultation on the 2001 UNESCO Convention on the Protection of the Underwater Cultural Heritage	NIMA researchers, Islamabad	Department of Archaeology and Museums; UNESCO Pakistan
10	28 October 2025	Qawwali Night	Health Sciences Campus, Islamabad	Students, faculty and guests
11	24 and 26 November 2025	Global Village 2025, Unity in Diversity	Department of Humanities and Social Sciences, Islamabad	Six embassies and high commissions
12	16 December 2025	Exhibition of graphics and photography	School of Humanities and Social Sciences	Student work in visual storytelling
13	20 December 2025	Bazm-e-Saqafat, Al-Beruni Auditorium	Karachi Campus	Traditional attire, regional performances, national songs
14	25 December 2025	Quaid-e-Azam Day commemoration	Islamabad H-11 Campus	Speeches and a documentary
15	27 December 2025	Bonfire and Musical Night	Islamabad E-8 Campus	Live performances by the Music Club

11.4 Sustainable campuses and commuting

UN TARGETS **11.2, 11.3 and 11.6**

The University plans its campuses for cleaner journeys. The Health, Safety and Environment Policy, second edition issued by the Director Admin, Head Office, on 22 November 2025, requires the University to define sustainable commuting targets and to monitor vehicle usage, carbon emissions from transport and the movement of University-owned vehicles through digital applications (para 6.21(a)); all campuses and constituent units are to promote mass transit and shuttle services, discourage the use of private vehicles and promote electric vehicles (para 6.21(b)).

The Sustainability and Climate Action Policy (BU-SCAP-2025, Version 1.0, effective 7 December 2025) sets the targets. Its second pillar, sustainable mobility and transportation, aims at **60 per cent lower transport emissions by 2030** and a fully electric campus fleet by 2032 (para 5.2), through protected cycling lanes, bicycle parking and pedestrian-priority zones (para 5.2.1), dedicated shuttles from residential areas and partnerships with public transit authorities (para 5.2.2), electric charging at no fewer than 20 per cent of parking spaces by 2028 (para 5.2.3) and carpooling and flexible work and study arrangements (para 5.2.4). Its performance indicators set an electric share of 50 per cent of the University fleet and a 60 per cent cut in single-occupancy vehicle trips by 2030, and an 80 per cent cut in those trips by 2040 (para 8.2; Figure 11.6).

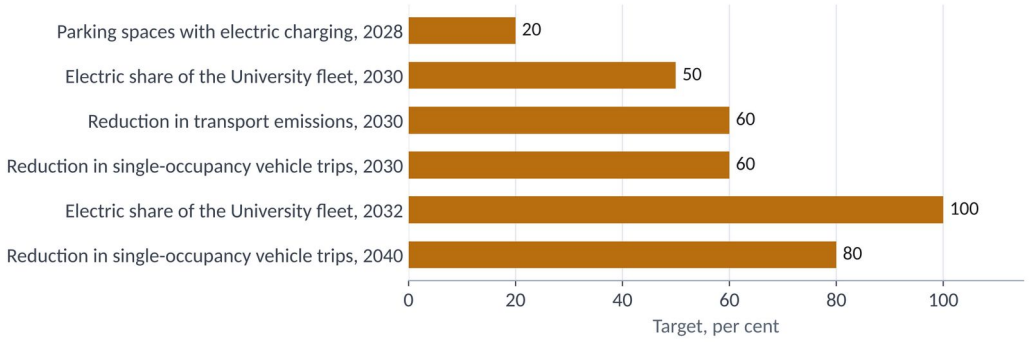

Figure 11.6: Sustainable mobility targets of the Sustainability and Climate Action Policy, by target year (paras 5.2, 5.2.3 and 8.2).

The campuses already run shared transport. The Lahore Campus runs four shuttle trips a day for women students living in its hostel and has run a Campus Parking Reduction initiative that encourages students and faculty to use public transport and reduces on-campus parking areas (Lahore Campus administration). At the Health Sciences Campus, Karachi, four shuttles make four trips a day, with the University meeting part of the cost (campus administration). New buildings, extensions and renovations meet the Energy Conservation Building Code 2023 (ECBC-2023), and new buildings are to achieve LEED Gold or an equivalent certification (see Chapter 7). The Sustainability and Climate Action Policy also commits the University to share campus resources with the community in climate emergencies and to support local adaptation (para 5.6.4). Students care for public spaces too: on 10 May 2025 volunteers of the Lahore Campus collected litter in a trash cleaning activity under the Community Support Program, to raise awareness of proper waste management (see Chapter 14), and on 30 December 2025 the Islamabad E-8 Campus joined the

plantation drive of the Assistant Commissioner Islamabad and the Capital Development Authority on the green belt of Shaheen Chowk (see Chapter 15).

11.5 Looking ahead

Building on its open campuses, its cultural programme and its mobility targets, the University sets these priorities for the next reporting year:

1. **Cleaner commuting.** The University will set sustainable commuting targets at every campus and monitor vehicle use and transport emissions against the 2030 targets of the Sustainability and Climate Action Policy.
2. **Shared transport.** The University will extend shuttle services and electric charging at its campuses.
3. **Culture and heritage.** The University will keep its cultural programme, exhibitions and book fairs open to students, families and guests at every campus.
4. **Research for cities.** The University will expand its research on urban air quality, flood risk and disaster communications.

SUSTAINABLE DEVELOPMENT GOAL

12

RESPONSIBLE CONSUMPTION AND PRODUCTION

Ensure sustainable consumption and production patterns.



BAHRIA UNIVERSITY IN 2025

Measuring, recovering and reducing waste on every campus.

In 2025 Bahria University recorded 560.8 tonnes of waste at its eight campuses and units in one register and recovered, composted or reused 120.3 tonnes of it. Single-use plastic and disposable items are banned on every campus, hazardous waste goes to licensed facilities, and every food vendor and supplier is bound by the University's rules on ethical sourcing, plastic and packaging. Researchers published 33 high-confidence studies on the Goal.

560.8 tonnes
Waste measured across eight campuses and units

21.5 per cent
Waste recovered, composted or reused, 2025

2035
Target year for zero waste to landfill

IN THIS CHAPTER

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12.2 Measuring waste generated and recovered 121
12.3 Safe disposal of hazardous waste 124
12.4 Eliminating single-use plastic and disposable items 126
12.5 Ethical sourcing and sustainable supply chains 127
12.6 Looking ahead 128

12.1 Research on responsible consumption and production

UN TARGETS 12.2, 12.4, 12.5, 12.6, 12.8 and 12.b

In 2025 the University published 63 works that OpenAlex links to Goal 12, 33 of them with a high-confidence classification (score of 0.8 or above). The 33 publications, 27 journal articles, 3 book chapters, a review, a conference paper and a preprint, are the work of 45 University authors and appeared in 32 journals, proceedings and book series; for 17 of them Goal 12 is the highest-scoring Goal (Table 12.1). Twenty-one (63.6 per cent) were written with researchers in 19 other countries, led by China (9 publications), Saudi Arabia (8), Malaysia (6) and the United Kingdom (4), and 19 are open access. Ten are among the 10 per cent most cited publications of the same type, year and subfield, three of them among the top 1 per cent, and together the 33 publications have received 192 citations.

TABLE 12.1 University research on Goal 12, publications of 2025

No.	Measure	Number	Basis
1	Publications linked to Goal 12	63	Goal 12 score above 0.4, the OpenAlex default
2	Publications classified to Goal 12 with high confidence	33	Goal 12 score of 0.8 or above
3	University authors	45	Distinct authors with a University affiliation
4	Internationally co-authored publications	21	63.6 per cent; co-authors in 19 other countries
5	Open access publications	19	Of the 33 publications
6	Publications among the 10 per cent most cited	10	Same type, year and subfield; three in the top 1 per cent
7	Citations received	192	Recorded by OpenAlex at the date of retrieval

Business, management and accounting accounts for 11 of the 33 publications and environmental science for 8, followed by agricultural and biological sciences, computer science and engineering with 3 each (Figure 12.1). Sustainable supply chain management is the leading topic, with 9 publications; others study zero waste and the circular economy, biochar and biosorbents that remove dyes, pesticides and metals from water, bioplastics from agricultural biomass, smart waste collection, food waste habits in Rawalpindi and Islamabad, green ports and green technologies for events. Table 12.2 sets out eight publications, at least one for each Goal 12 target the research addresses; the full list is available from OpenAlex.

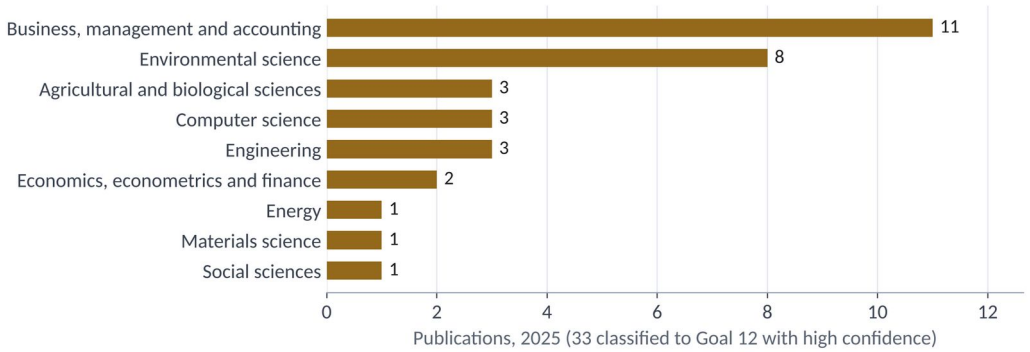

Figure 12.1: Research fields of the 33 University publications of 2025 classified to Goal 12 with high confidence (OpenAlex).

TABLE 12.2 **Selected University publications on responsible consumption and production, 2025**

No.	Target	Publication	University authors	DOI
1	12.2	From linear to circular: the impact of economic policies and technological innovations on greenhouse gas emissions in the Netherlands. Carbon Balance and Management, 20(1), 11	Muhammad Imran; Abdul Sufwan Sattar	10.1186/s13021-025-00297-1
2	12.4	Removal of pesticide Lambda-Cyhalothrin from aqueous medium by Parthenium hysterophorus biochar with non-linear adsorption modeling. Desalination and Water Treatment, 324, 101480	Rija Khalid; Asma Jamil; Kamran Younas	10.1016/j.dwt.2025.101480
3	12.5	Process Engineering for Sustainable Bioplastic Production Using Bacillus cereus ARD-03 and Agricultural Biomass. Waste and Biomass Valorization, 16(12), 6761 to 6771	Sana Ahmad	10.1007/s12649-025-03083-9
4	12.5	A Synergy of Distinct Contexts in AIoT-Based Smart Environments for Waste Collection in Urban Centers. Journal of Engineering, 2025(1)	Nazir Ahmed Malik	10.1155/je/4304586
5	12.6	Leveraging Green Intellectual Capital for Sustainability: The Strategic Role of Green Business Strategy and Green Technology Adoption. Business Strategy and the Environment, published online 3 October 2025	Javeria Aftab	10.1002/bse.70249
6	12.6	An analytical approach to blockchain technology influence on sustainable supply chain. Sustainable Futures, 10, 100898	Maryam Khokhar	10.1016/j.sftr.2025.100898
7	12.8	The Impact of Online Reviews on Sustainable Product Adoption in the Food Industry: A Serial Mediation Effect of Consumer Trust and Perceived Value. Journal of Promotion Management, 31(6), 933 to 955	Mehreen Qureshi	10.1080/10496491.2025.2530056
8	12.b	Green Technologies and Sustainable Infrastructure for Events and Festivals. Book chapter, CABI, 236 to 243	Eman Zameer Rahman; Syed Haider Ali Shah	10.1079/9781836990185.0019

12.2 Measuring waste generated and recovered

UN TARGETS **12.3 and 12.5**

Every campus of the University measures its waste. The Director Admin at the Head Office keeps the Institutional Waste Generation and Recovery Register, which consolidates the waste of all eight campuses and units for 1 January to 31 December 2025, campus by campus and month by month (Figure 12.3). In 2025 the register recorded **560.8 tonnes** of waste. Of this, **120.3 tonnes, or 21.5 per cent**, was recovered or reused: 57.6 tonnes through the recovery of materials, 30.6 tonnes of paper and cardboard and 27.0 tonnes of other materials, and 62.7 tonnes through composting and reuse. A further 432.4 tonnes was handed to municipal collection, and 8.1 tonnes of hazardous waste was treated through licensed disposal (Table 12.3 and Figure 12.2).

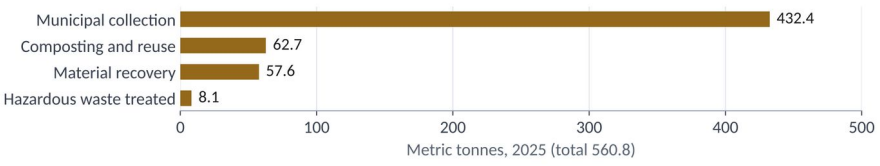

Figure 12.2: Waste by stream, all campuses and units, 2025 (metric tonnes; Institutional Waste Generation and Recovery Register).

The register puts into effect para 6.12 of the Health, Safety and Environment Policy, which requires each campus to track its total waste, organic, inorganic and toxic, generated, recycled and sent to landfill, to set landfill diversion targets and to strengthen reduce, reuse and recycle programmes with measurable key performance indicators. Waste is sorted into dedicated bins by type; paper, plastic and glass go to recyclers and the remainder to the city district waste collectors. Campuses forward their environmental data to the Head Office, with the Center of Research Excellence in Climate Finance (CORE-CF) supporting its consolidation (para 6.23).



DIRECTOR ADMIN, BUHO | BAHRIA UNIVERSITY

INSTITUTIONAL WASTE GENERATION & RECOVERY REGISTER | 2025

REPORTING YEAR: 2025 | REPORTING PERIOD: 01 JANUARY TO 31 DECEMBER 2025

2025 CONSOLIDATED WASTE SUMMARY / Consolidated institutional waste accounting for 2025

560.8	120.3	432.4	8.1
TOTAL WASTE • tonnes	RECOVERY + REUSE • tonnes	MUNICIPAL COLLECTION • tonnes	EST. HAZARDOUS TREATMENT • tonnes

DATA STATUS | Consolidated institutional waste record across all constituent campuses and units

1 | CAMPUS-WISE WASTE SUMMARY (metric tonnes)

Campus / constituent unit	Material recovery	Compost + reuse	Combined recovery	Municipal collection	Hazardous treated	Total estimated waste	Recovery + reuse %
Islamabad Campus | E-8	17.2	20.3	37.5	131.2	0.5	169.1	22.2%
Islamabad Campus | H-11	5.9	6.2	12.1	53.2	0.3	65.6	18.5%
Health Sciences Campus | Islamabad	4.1	4.8	8.9	35.4	3.0	47.3	18.7%
Bahria University Head Office	4.9	3.0	7.9	14.8	0.1	22.7	34.6%
Karachi Campus	13.9	15.3	29.1	108.4	0.3	137.9	21.1%
Health Sciences Campus | Karachi	5.6	6.5	12.2	46.8	3.9	62.8	19.4%
Lahore Campus	4.1	4.6	8.8	29.4	0.1	38.2	22.9%
Institute of Professional Psychology	2.0	2.0	3.9	13.2	0.0	17.2	22.9%
BAHRIA UNIVERSITY | CONSOLIDATED	57.8	62.7	120.3	432.4	8.1	560.8	21.5%

2 | MONTHLY WASTE BREAKDOWN (metric tonnes)

Month	Paper / cardboard	Other materials	Compost + reuse	Combined recovery	Municipal collection	Hazardous treated	Total estimated waste
Jan 2025	2.4	2.1	4.7	9.1	35.2	0.7	44.9
Feb 2025	2.7	2.3	5.1	10.0	37.4	0.7	48.1
Mar 2025	2.6	2.5	5.4	10.4	36.8	0.7	47.9
Apr 2025	2.9	2.3	5.6	10.8	38.6	0.7	50.0
May 2025	2.8	2.5	5.5	10.7	39.4	0.7	50.8
Jun 2025	3.1	2.7	5.1	10.8	35.0	0.7	46.5
Jul 2025	1.8	1.7	5.4	8.8	29.2	0.5	38.5
Aug 2025	2.0	1.8	5.9	9.6	30.8	0.6	41.0
Sep 2025	2.8	2.6	5.6	10.9	39.8	0.7	51.4
Oct 2025	2.7	2.4	5.2	10.3	38.6	0.7	49.6
Nov 2025	2.6	2.2	5.0	9.7	36.6	0.7	47.0
Dec 2025	2.6	2.3	4.5	9.4	35.0	0.7	45.1
TOTAL 2025	30.6	27.0	62.7	120.3	432.4	8.1	560.8

Figure 12.3: Director Admin, Bahria University Head Office: Institutional Waste Generation and Recovery Register 2025, reporting period 1 January to 31 December 2025, with the consolidated summary, the campus-wise summary and the monthly breakdown, in metric tonnes.

TABLE 12.3 Waste by campus and constituent unit, 2025 (metric tonnes)

No.	Campus or unit	Material recovery	Compost and reuse	Municipal collection	Hazardous treated	Total waste	Recovered or reused (per cent)
1	Islamabad E-8 Campus	17.2	20.3	131.2	0.5	169.1	22.2
2	Karachi Campus	13.9	15.3	108.4	0.3	137.9	21.1
3	Islamabad H-11 Campus	5.9	6.2	53.2	0.3	65.6	18.5
4	Health Sciences Campus, Karachi	5.6	6.5	46.8	3.9	62.8	19.4
5	Health Sciences Campus, Islamabad	4.1	4.8	35.4	3.0	47.3	18.7
6	Lahore Campus	4.1	4.6	29.4	0.1	38.2	22.9
7	Head Office	4.9	3.0	14.8	0.1	22.7	34.6
8	Institute of Professional Psychology	2.0	2.0	13.2	0.0	17.2	22.9
	University total	**57.6**	**62.7**	**432.4**	**8.1**	**560.8**	**21.5**

Values as displayed in the register, rounded to one decimal place; totals are computed from unrounded values, so rows can differ from the totals by 0.1 tonnes. Source: Director Admin, Head Office: Institutional Waste Generation and Recovery Register 2025.

The Islamabad E-8 Campus generated the most waste, 169.1 tonnes, followed by the Karachi Campus with 137.9 tonnes, and the Head Office recovered the highest share, 34.6 per cent (Figure 12.4). Monthly totals ranged from 38.5 tonnes in July to 51.4 tonnes in September (Figure 12.5).

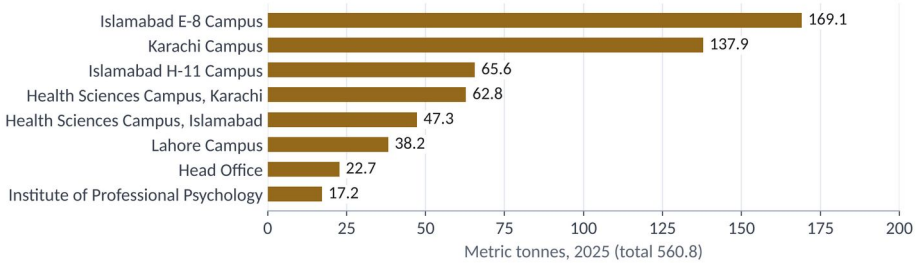

Figure 12.4: Total waste by campus and constituent unit, 2025 (metric tonnes; Institutional Waste Generation and Recovery Register).

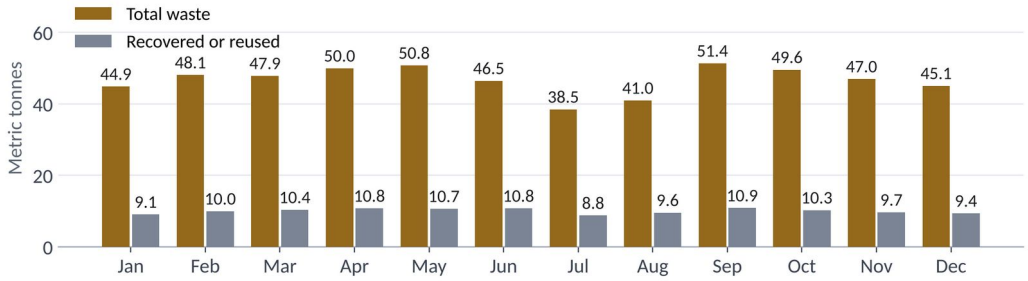

Figure 12.5: Waste by month, whole University, 2025: total waste and waste recovered or reused (metric tonnes; Institutional Waste Generation and Recovery Register).

Targets for diversion from landfill

The Sustainability and Climate Action Policy (BU-SCAP-2025) sets the University's targets: zero waste to landfill by 2035 and a waste diversion rate of 90 per cent by 2030 and 100 per cent by 2040. It provides for colour-coded bins on all campuses, collection points for e-waste, batteries and hazardous materials, on-site composting, certified recyclers for all waste streams and a Free Store for reusable items (Pillar 4, paras 5.4.1 to 5.4.4). The 2025 register is the baseline for these targets. Under para 7.5.7 of the HSE Policy the University monitors food waste, and in 2025, 62.7 tonnes of its waste was composted or reused.

A University-wide waste register

Director Admin, Head Office, with all campuses and constituent units; 2025

THE CHALLENGE

Targets for diverting waste from landfill need a reliable record of the waste that each campus generates, recovers and sends for disposal, stream by stream and month by month.

WHAT WE DID

The HSE Policy requires every campus to track the waste it generates, recycles and sends to landfill and to forward its environmental data to the Head Office, with CORE-CF supporting consolidation. The Director Admin at the Head Office brought the returns of all eight campuses and units together in the Institutional Waste Generation and Recovery Register, recording materials recovered, waste composted or reused, municipal collection and hazardous waste treated, by campus and by month.

THE RESULT

The register for 2025 records 560.8 tonnes of waste, of which 120.3 tonnes, 21.5 per cent, was recovered or reused; the Head Office recovered 34.6 per cent of its waste. The register is the baseline against which the University tracks its targets of a 90 per cent diversion rate by 2030 and zero waste to landfill by 2035.

KEY FIGURES

560.8

Tonnes of waste recorded, 2025

120.3

Tonnes recovered, composted or reused

8

Campuses and units in the register

PARTNERS

Center of Research Excellence in Climate Finance; campus administrations



Figure 12.6: Waste collection bin with liner, Islamabad H-11 Campus, 2025.



Figure 12.7: Covered waste bins at a collection point, Islamabad H-11 Campus, 2025.

Sources: Director Admin, Head Office: Institutional Waste Generation and Recovery Register 2025; Health, Safety and Environment Policy, paras 6.12 and 6.23; Sustainability and Climate Action Policy, Pillar 4.

12.3 Safe disposal of hazardous waste

UN TARGET 12.4

Hazardous waste at the University is handed exclusively to transporters and disposal facilities licensed by the competent authority. The HSE Policy, which binds employees, students and contractors at the Head

Office and every campus and constituent unit, defines hazardous waste as chemical, laboratory, infectious and biomedical waste, sharps, electronic waste, batteries and used oil (para 6.14(f)). At each campus such waste is segregated at source in labelled containers and stored securely with spill containment; infectious waste is treated before disposal and electronic waste is sent to certified recyclers. A register of consignment notes and disposal certificates is kept for five years, and the Director Campus names an owner for every source, including each laboratory and the medical centre (Table 12.4).

TABLE 12.4 Provisions on the disposal of hazardous materials

No.	Provision	Requirement	Basis
1	Hazardous waste	Segregation at source; secure storage with spill containment; licensed transporters and disposal facilities; infectious waste treated; e-waste to certified recyclers; register kept for five years; named owner for each source	HSE 6.14(f)
2	Medical centres	Waste classified into non-risk and risk (infectious) waste; infectious waste sealed before disposal; containers and storage inspected daily	HSE 6.14(g), (h)
3	Procurement	Hazardous substances prohibited under RoHS and REACH restrictions; non-toxic certified cleaning products	SPPP 5.2.3, 6.1.4
4	End of life	Reuse first; certified e-waste recyclers and data destruction certificates; disposal methods and quantities tracked; e-waste properly recycled, 90 per cent by 2027 and 100 per cent by 2030	SPPP 8.4, 9.1
5	Collection points	Collection points for e-waste, batteries and hazardous materials	SCAP 5.4.2

HSE: Health, Safety and Environment Policy; SPPP: Sustainable Procurement and Purchasing Policy (BU-SPPP-2025); SCAP: Sustainability and Climate Action Policy; RoHS: Restriction of Hazardous Substances; REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals.

The register recorded 8.1 tonnes of hazardous waste treated through licensed disposal in 2025, 6.9 tonnes of it at the two Health Sciences Campuses. The appropriate disposal of hazardous waste is tracked at every campus each year as key performance indicator 5.9.5 of the University's Strategic Management Plan. Every worker who handles waste is trained in waste handling and provided with protective equipment (para 6.14(j)). The Leadership and Professional Development Centre (LPDC) trains staff and students: four LPDC sessions on waste management with 179 participants at the Karachi Campus (22 February, 21 March and 8 October 2025) and the Health Sciences Campus, Islamabad (19 June 2025) covered the types of solid waste, segregation, recycling methods, safe disposal techniques and the environmental and health effects of improper waste handling (LPDC, Solid Waste Management, 22 February 2025).



Figure 12.8: Solid Waste Management training, Karachi Campus, 22 February 2025: participants with the trainer.



Figure 12.9: Waste Management training, Karachi Campus, 8 October 2025: participants and speaker.

12.4 Eliminating single-use plastic and disposable items

UN TARGET 12.5

Single-use plastic and disposable items are banned on every campus (HSE Policy, para 6.17): plastic bottles, polythene bags and straws and disposable plates, cups, cutlery and crockery are replaced with reusable or biodegradable alternatives, polythene shopping bags are restricted (para 6.16), and every campus ensures strict adherence (para 6.17.1). Contractors, cafeteria vendors and suppliers are bound by the bans through their contracts, and the Director Admin (Safety and Security) reports progress each year to the Standing HSE Committee (para 6.17.3). Every food vendor uses reusable or biodegradable alternatives and writes the same requirement into its contracts with its own suppliers (Cafeteria Policy, item 5(v)).

The Directive on Combating Plastic Pollution, promulgated by the Director Admin (Safety and Security) of the Head Office to every campus and institute and reissued as the University's action plan, works through a plastic audit, a plastic pollution campaign, the selection of target items and their ban. Audit teams of the Earth and Environmental Sciences departments make an inventory of the plastic thrown away, and the campaign changes habits with standees, reusable bottles and tote bags (Figure 12.10). The first sub-phase bans disposable plates and cups, plastic bottles and polythene bags, with fines on violators and reusable bottles, paper or tote bags and water fountains in their place; the second replaces plastic cutlery and crockery with reusable steel dishware and bans plastic straws and plastic-lined cups; and the third reduces the use of paper.

The Sustainability and Climate Action Policy makes single-use plastic elimination a key performance indicator with a target of 100 per cent (paras 5.4.5 and 8.2), the Sustainable Procurement and Purchasing Policy (BU-SPPP-2025) excludes single-use plastics from catering (para 6.1.5), and the Student Handbook for Spring 2025 tells every student that single-use plastic is banned on all campuses.

In 2025 the University trained **249 participants on waste and plastic in six sessions**. On 11 June 2025 a session on the ban on the use of plastic material at the Health Sciences Campus, Islamabad, was attended by 50 participants, and on 4 July 2025 a faculty development training at the Karachi Campus by Dr Salma Hamza of the Department of Earth and Environmental Sciences, attended by 20 participants, set out the harmful effects of plastic on marine ecosystems and sustainable solutions. On 11 June 2025 the Department of Earth and Environmental Sciences held a World Environment Day seminar on ending plastic pollution at the Islamabad H-11 Campus, with speakers from academia, the Ministry of Foreign Affairs, the banking sector and the Oxford Institute of Policy Management, and signed a memorandum of understanding with EcoBricks for recycling plastic waste into useful products (Figure 12.11). At the Health Sciences Campus, Karachi, students walked through the campus with placards against plastic pollution.



Figure 12.10: Campaign standee under the Directive on Combating Plastic Pollution: 'No plastic: BU going green, say no to plastic and pollution', 2025.



Figure 12.11: Signing of the memorandum of understanding between Bahria University and EcoBricks for recycling plastic waste, World Environment Day, Islamabad H-11 Campus, 11 June 2025.

12.5 Ethical sourcing and sustainable supply chains

UN TARGET 12.7

Every food vendor on the University's campuses is bound to source ethically. Item 5(u) of the Cafeteria Policy, Ethical and Sustainable Sourcing, added by the amendment of 2 November 2025 and applying to every cafeteria, pantry, kiosk and hostel mess, requires every vendor to source food and supplies ethically, using fair trade or other ethical certification where available and preferring local producers, and to serve fish and other seafood from sustainably harvested sources certified by the Marine Stewardship Council or an equivalent scheme; the Food Inspector checks vendors' supplier and certification records every quarter, and a breach is a ground for penalty and exclusion. Item 5(w) gives every worker of a vendor pay no less than that of comparable University staff or the legal minimum wage, whichever is higher, safe working conditions and freedom of association, and bars child labour. Scheduled inspections of cafeterias, dining halls and food-service facilities at every campus concluded on 2 November 2025, and on 5 November the Director Admin (Safety and Security) confirmed that all food outlets were in full compliance with the University's quality, hygiene and food-safety standards (see Chapter 3).

The Sustainable Procurement and Purchasing Policy governs all procurement of goods, services and works. Every supplier demonstrates compliance with Pakistani environmental and labour laws, no forced or child labour, safe working conditions and non-discrimination (para 5.1.2); catering services source at least 30 per cent of food locally, within 200 kilometres (para 6.1.5); sustainability carries **25 per cent** of the evaluation of every tender (para 8.2); and the policy sets measurable targets for 2027 and 2030 (Table 12.5). The Human Resource Policy Manual prohibits forced labour, modern slavery, human trafficking and child labour in every outsourced service and supply contract (clause 1.3.7).

The policies cited in this chapter are published on the University policies page.

TABLE 12.5 **Procurement sustainability targets, Sustainable Procurement and Purchasing Policy, para 9.1**

No.	Indicator	2027 target	2030 target
1	Sustainable procurement spend, per cent of total	50	80
2	Local supplier spend, per cent of total	50	60
3	SME supplier participation, per cent	40	50
4	Contracted suppliers with environmental management system certification, per cent	60	90
5	E-waste properly recycled, per cent	90	100
6	Single-use plastic elimination, per cent	80	100

The University's policies carry its plastic bans and packaging rules to every contractor, food vendor and supplier and through them to their own suppliers (Table 12.6). The Sustainable Procurement Committee, chaired by the Director Administration, monitors compliance and reports to the University Sustainability Council (para 4.1), and contracts open supply chain practices to audit (paras 8.3.1 and 8.3.2).

TABLE 12.6 **Provisions that extend the University's commitments to its supply chains**

No.	Instrument	Who is bound	Requirement	Enforcement
1	HSE Policy, para 6.17.3	Contractors, cafeteria vendors and suppliers	Bound by the bans in their contracts; pass them to their own suppliers	Annual report to the Standing HSE Committee
2	Cafeteria Policy, item 5(v)	Every food vendor	Same requirement in every contract with its own suppliers	Food Inspector checks; penalty and exclusion
3	SCAP, para 5.4.5(d)	Suppliers of goods, catering, equipment, stationery and building works	Bound by the bans and packaging rules; pass them to their own suppliers	Open to audit
4	SPPP, para 8.3.2	Suppliers and their sub-contractors	Minimal, reusable, recyclable or compostable packaging; no polythene bags, expanded polystyrene or single-use plastic wrapping	Audit; corrective action, suspension or debarment

12.6 Looking ahead

The University sets these priorities for the next reporting year:

1. **Waste diversion.** The University will raise the share of its waste that is recovered.
2. **Plastic-free campuses.** The University will reissue its plastic directive as a dated action plan.
3. **Supply chains.** The University will apply its sustainability weighting to every tender.
4. **Training and reporting.** The University will train every campus and publish its waste results.

SUSTAINABLE DEVELOPMENT GOAL

13

CLIMATE ACTION

Take urgent action to combat climate change and its impacts.



BAHRIA UNIVERSITY IN 2025

A measured carbon footprint and a policy path to net zero.

In 2025 Bahria University measured its greenhouse gas emissions across all three scopes, 21,151.53 tonnes of carbon dioxide equivalent in fiscal year 2025, established the Center of Research Excellence in Climate Finance and committed every campus to carbon neutrality by 2050. It presented its carbon footprint model at COP30, taught climate change across its degrees and with its partners, and its researchers published 46 high-confidence studies on climate action.

21,151.53 tCO2e
Emissions measured across Scopes 1 to 3, fiscal year 2025

2050
Carbon neutrality across all campuses

46
High-confidence publications on climate action

IN THIS CHAPTER

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13.2 Measuring the University's greenhouse gas emissions 131
13.3 Climate commitments and carbon neutrality 134
13.4 Climate education, adaptation and partnerships 135
13.5 Looking ahead 136

13.1 Research on climate action

UN TARGETS 13.1, 13.2 and 13.3

In 2025 the University published 81 works that OpenAlex links to Goal 13, 46 of them with a high-confidence classification (score of 0.8 or above). The 46 publications, 40 journal articles, 3 conference papers, 2 book chapters and a preprint, are the work of 63 University authors and appeared in 36 journals, proceedings and book series (Table 13.1). They measure and model carbon emissions and the forces that drive them, from energy consumption and natural resource rents to green finance, environmental taxes and green innovation, and study drought and climate variability in Pakistan and the role of media and education in climate awareness. Twenty-two were written with researchers in 19 other countries, led by China (9 publications), Saudi Arabia (5), India (3) and Malaysia (3); 33 are open access; and 15 are among the 10 per cent most cited publications of the same type, year and subfield, three of them among the top 1 per cent.

TABLE 13.1 University research on Goal 13, publications of 2025

No.	Measure	Number	Basis
1	Publications linked to Goal 13	81	Goal 13 score above 0.4, the OpenAlex default
2	Publications classified to Goal 13 with high confidence	46	Goal 13 score of 0.8 or above
3	University authors	63	Distinct authors with a University affiliation
4	Journals, proceedings and book series	36	Venues of the 46 publications
5	Internationally co-authored publications	22	Co-authors in 19 other countries
6	Open access publications	33	Of the 46 publications
7	Publications among the 10 per cent most cited	15	Same type, year and subfield; three in the top 1 per cent
8	Citations received	243	Recorded by OpenAlex at the date of retrieval

Economics, econometrics and finance accounts for 17 of the 46 publications and the social sciences for 11, followed by environmental science with 5 and business and engineering with 4 each (Figure 13.1). Table 13.2 sets out seven of the publications, at least one for each Goal 13 target the research addresses; the full list is available from OpenAlex.

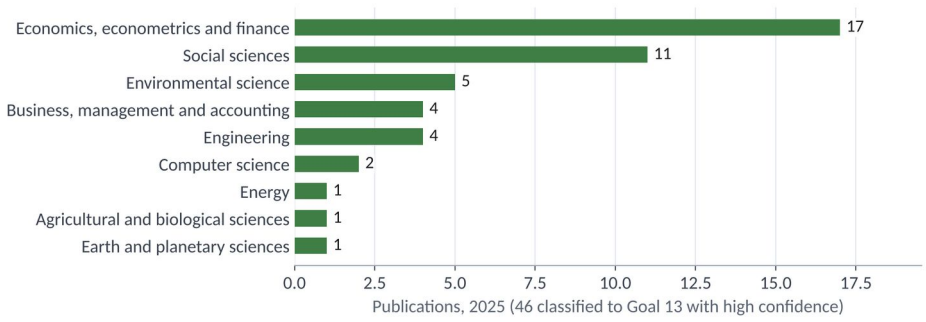

Figure 13.1: Research fields of the 46 University publications of 2025 classified to Goal 13 with high confidence (OpenAlex).

TABLE 13.2 **Selected University publications on climate action, 2025**

No.	Target	Publication	University authors	DOI
1	13.1	Geospatial assessment of climate variability and drought patterns: a case study from Pakistan. Theoretical and Applied Climatology, 156(3)	Humera Farah; Faiza Hafeez; Javaria Fahad	10.1007/s00704-025-05414-1
2	13.2	A neural network approach to carbon emission prediction in industrial and power sectors. Discover Applied Sciences, 7(6)	Abdullah Ayub Khan	10.1007/s42452-025-07257-x
3	13.2	Asia's carbon footprint: Unraveling the role of natural resource rent, standard of living and energy consumption. Energy Strategy Reviews, 61, 101837	Muhammad Imran; Mohammad Khalilullah	10.1016/j.esr.2025.101837
4	13.2	Do environmental taxes and green technological innovation represent the crux of environmental sustainability? Insights from OECD region with MMQR approach. Frontiers in Environmental Science, 13	Aleena Khan; Abdul Sufwan Sattar; Nudrat Fatima	10.3389/fenvs.2025.1537535
5	13.2	Examining the role of green finance, trade-adjusted carbon emissions and major green economic variables for the BRICST economies. Discover Sustainability, 6(1)	Muhammad Kamran Khan	10.1007/s43621-025-01325-3
6	13.3	From Awareness to Action: Exploring the Role of Media in Climate Change Education and Engagement in Pakistan. Annual Methodological Archive Research Review, 3(4), 383 to 397	Tanveer Nasir; Salman Khan	10.63075/pk1e7n43
7	13.3	The Role of Cognitive Flexibility in Adapting to Climate Change: AI-Driven Educational Strategies for Developing Adaptive Thinking. The Critical Review of Social Sciences Studies, 3(1), 2500 to 2515	Aisha Shaikh	10.59075/he5g9j06

13.2 Measuring the University's greenhouse gas emissions

UN TARGET 13.2

Bahria University manages its carbon emissions through a cycle of measurement, planning, implementation, checking and public reporting set by its policies (Table 13.3). The Health, Safety and Environment Policy requires a Climate Action Plan, the measurement and reporting of emissions in Scopes 1, 2 and 3, carbon reduction targets including long-term net-zero commitments, and annual energy audits (para 6.2(a) to (d)); each Campus Director prepares, implements and audits an Environmental Management Plan, monitored by the Department of Earth and Environmental Sciences; and environmental data is forwarded to the Head Office, where the Head of the Center of Research Excellence in Climate Finance (CORE-CF) supports its consolidation (para 6.23). The Sustainability and Climate Action Policy (BU-SCAP-2025) requires an annual greenhouse gas inventory following the GHG Protocol Corporate Standard and ISO 14064-1, with third-party verification (para 8.1), and assigns its coordination to CORE-CF (para 4.2).

TABLE 13.3 The University's carbon management cycle

No.	Stage	What the policies require	Responsible	Basis
1	Measure	Annual greenhouse gas inventory of Scopes 1, 2 and 3 under the GHG Protocol Corporate Standard and ISO 14064-1	CORE-CF; campus sustainability managers	SCAP 4.2, 8.1; HSE 6.2(b)
2	Plan	Climate Action Plan; carbon reduction targets, including net zero; sustainability strategies and targets approved	University Sustainability Council; CORE-CF	HSE 6.2(a), (c); SCAP 3.1, 4.1
3	Implement	Environmental Management Plans; solar transition; energy audits; efficient procurement	Campus Directors; Director Admin; Directorate of Planning and Development	HSE 6.3, 6.21; SPPP
4	Check	Internal audits; third-party verification to ISO 14064-3; annual environmental audits	CORE-CF; Department of Earth and Environmental Sciences	SCAP 8.1, 8.4; HSE 6.21(d)
5	Report	Annual sustainability report with the greenhouse gas inventory; regular updating of data on the CORE-CF web page	CORE-CF	SCAP 8.3; HSE 6.2(f)

CORE-CF 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, which produced the University's first consolidated emissions baseline, its greenhouse gas inventory, a hotspot analysis and recommendations for reducing emissions (CORE-CF web page). The greenhouse gas inventory for fiscal year 2025, compiled for six campus units and submitted by the Dean of Management Sciences, who heads CORE-CF, records **21,151.53 tCO2e** (Table 13.4): 414.84 tCO2e in Scope 1, from sources such as generators, boilers and vehicles; 3,554.18 tCO2e in Scope 2, from purchased electricity; and 17,182.51 tCO2e in Scope 3, from other indirect sources such as commuting and business travel.

TABLE 13.4 Greenhouse gas emissions by campus unit, fiscal year 2025 (tCO2e)

No.	Campus unit	Scope 1	Scope 2	Scope 3	Total
1	Islamabad E-8	20.10	780.30	10,902.40	11,702.80
2	Islamabad H-11	6.50	428.00	1,394.50	1,829.00
3	Health Sciences, Islamabad	13.55	236.08	52.71	302.34
4	Lahore	30.00	198.80	850.50	1,079.30
5	Karachi Campus, with the Institute of Professional Psychology	312.90	1,137.20	3,982.40	5,432.50
6	Health Sciences, Karachi	31.79	773.80	0.00	805.59
	All campus units	**414.84**	**3,554.18**	**17,182.51**	**21,151.53**

Purchased electricity accounts for 89.5 per cent of the University's Scope 1 and 2 emissions, and three campus units, the Karachi Campus with the Institute of Professional Psychology, the Islamabad E-8 Campus and the Health Sciences Campus, Karachi, produce 75.7 per cent of Scope 2 (Figure 13.2), which directs the reduction effort to those units. The University reduces purchased electricity at source: its six campus solar systems generated 923,403 kWh in 2025 (see Chapter 7), and on 24 November 2025 the Rector directed AI-based energy audits at every campus.

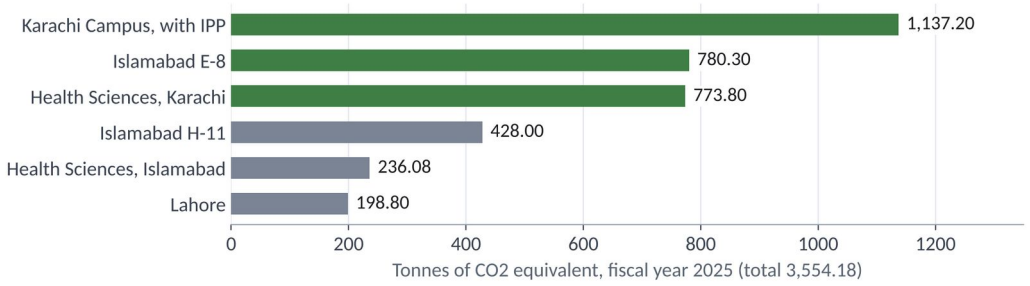

Figure 13.2: Scope 2 emissions from purchased electricity by campus unit, fiscal year 2025, in tCO2e (CORE-CF greenhouse gas inventory; the three units in the Goal colour produce 75.7 per cent; IPP: Institute of Professional Psychology).

Measuring and managing the University's carbon footprint

Center of Research Excellence in Climate Finance; all campuses; 2025

THE CHALLENGE

Managing emissions begins with measuring them, and the University's emissions arise across campuses in three cities, from purchased electricity, generators, vehicles, commuting and travel.

WHAT WE DID

CORE-CF led the University's multi-campus carbon footprint mapping across Scopes 1, 2 and 3 under the GHG Protocol, for fiscal years 2022 to 2025, and compiled the greenhouse gas inventory for six campus units. On 24 November 2025 the Rector approved its establishment as a Center of Research Excellence, and in November 2025 its Head represented the University at COP30 in Belém, Brazil, where the University presented its model for mapping and monetising institutional carbon footprints.

THE RESULT

The work produced the University's first consolidated emissions baseline, a greenhouse gas inventory of 21,151.53 tCO2e for fiscal year 2025 and a hotspot analysis showing three campus units with 75.7 per cent of electricity emissions. It underpins a four-phase strategy: footprint mapping, a carbon data hub, a net-zero framework and climate finance innovation.

KEY FIGURES

3

Emission scopes measured

6

Campus units in the inventory

75.7

Per cent of Scope 2 in three units

PARTNERS

Ministry of Climate Change; COP30, Belém



Figure 13.3: The Head of CORE-CF at COP30, the United Nations Climate Change Conference, Belém, Brazil, November 2025.



Figure 13.4: A session in the Pakistan pavilion at COP30, Belém, Brazil, November 2025.

Sources: CORE-CF greenhouse gas inventory, fiscal year 2025; CORE-CF web page; Registrar Notification No. 60/2025; University Facebook page, 30 November 2025.

13.3 Climate commitments and carbon neutrality

UN TARGET 13.2

The University is committed to carbon neutrality across all campuses by 2050 (Sustainability and Climate Action Policy, para 1.2). The policy, approved by the Rector and effective 7 December 2025, integrates climate action into the University's operations, research, teaching and community engagement, in line with Pakistan's Nationally Determined Contributions and the National Climate Change Policy, and sets interim targets for emissions, renewable electricity, transport and adaptation (Table 13.5): a 50 per cent reduction in Scope 1 and 2 emissions by 2040 and 100 per cent renewable electricity by 2035 (para 3.1).

TABLE 13.5 Climate targets of the University

No.	Target	Year	Clause
1	Rooftop solar meets at least 30 per cent of campus electricity demand	2027	SCAP 5.1.1
2	Full adaptation planning	2028	SCAP 5.6
3	Climate-resilient operations; renewable energy share of 60 per cent; Scope 3 emissions 30 per cent lower; transport emissions 60 per cent lower	2030	SCAP 5.2, 5.6, 8.2
4	A fully electric campus fleet	2032	SCAP 5.2
5	100 per cent renewable electricity; carbon neutral energy systems	2035	SCAP 3.1, 5.1
6	A 50 per cent reduction in Scope 1 and 2 emissions; renewable energy share of 100 per cent	2040	SCAP 3.1, 8.2
7	Carbon neutrality across all campuses	2050	SCAP 1.2, 3.1

On 24 November 2025 the Rector approved the establishment of CORE-CF at the Islamabad E-8 Campus (Registrar Notification No. 60/2025). It implements the Sustainability and Climate Action Policy, keeps the greenhouse gas inventory, prepares the annual sustainability report and serves as the advisory body for carbon accounting, climate finance and policy advocacy (paras 4.2 and 4.4). The University Sustainability Council, chaired by the Rector, with the Pro-Rectors, the Head of CORE-CF, the Director Quality Assurance,

the Director of the Bahria Innovation Center and an industry or community representative, approves the strategies and targets and oversees climate risk assessment (para 4.1). The University invests in no carbon-intensive energy industry: no new investment is made in any company or fund drawing more than 10 per cent of its revenue from coal or oil, existing holdings are sold by 30 June 2028, and the Treasurer signs an annual statement of the University's holdings (para 3.3).

13.4 Climate education, adaptation and partnerships

UN TARGETS 13.1, 13.3 and 13.b

Climate change is taught across the University's degrees and carried to its partners. The Sustainability and Climate Action Policy establishes mandatory climate literacy for all students and staff, a three-credit-hour course, Climate Change and Sustainability, in every undergraduate programme and climate modules in postgraduate programmes (para 6.1), and 65 of 84 bachelor's and associate degree roadmaps include a course on environment, climate or sustainability (see Chapter 4). In 2025 the University admitted students to the BS, MS and PhD in Environmental Sciences, whose curriculum includes Climate Change and Disaster Risk Management, and to the BS Development Studies at the Islamabad E-8 Campus, with a major in Climate Change and Development; the BS Coastal and Marine Sciences teaches Coastal Resilience and Disaster Risk Reduction, and the Bachelor of Laws offers Climate Change Law and Disaster Law and Climate Resilience (see Chapter 17).

The University opens this education to the public. On 10 October 2025 the Department of Earth and Environmental Sciences and the Pakistan Red Crescent Society, Sindh Branch, held at the Karachi Campus, under the CACRA project, a session on Green Tech for a Climate-Resilient Pakistan, on Pakistan's climate vulnerability, artificial intelligence in energy, agriculture and disaster management, and mangroves as natural infrastructure (Figures 13.5 and 13.6). On 22 April 2025 the Community Support Program of the Karachi Campus held a seminar on sustainability and climate change with a guest from the German Consulate (see Chapter 15), and on 12 December 2025 Prof. Dr Florian Meissner of Germany gave a guest lecture at the School of Humanities and Social Sciences, Islamabad E-8 Campus, on risk communication about cybersecurity and natural hazards such as floods, glacial lake outbursts and heatwaves.



Figure 13.5: Green Tech for a Climate-Resilient Pakistan, with the Pakistan Red Crescent Society, Sindh, Karachi Campus, 10 October 2025.



Figure 13.6: Presentation of a shield at the session on Green Tech for a Climate-Resilient Pakistan, Karachi Campus, 10 October 2025.

The University prepares for climate impacts and works with government on them. Pillar 6 of the Sustainability and Climate Action Policy sets climate-resilient operations by 2030 and full adaptation

planning by 2028: climate risk assessments for every campus location, adaptation plans for each campus, early warning systems for extreme weather, emergency response protocols, training of staff and students in climate emergency preparedness, and the sharing of campus resources, such as cooling centres and shelter, with local communities during climate emergencies (paras 5.6.1 to 5.6.4). Its National Institute of Maritime Affairs (NIMA) held on 30 April 2025 a joint consultative webinar with the Ministries of Climate Change and Maritime Affairs on the IMO Net-Zero Framework, and its post-event report of 21 May 2025 set out how shipping emissions can enter the national greenhouse gas inventory and Pakistan's Nationally Determined Contributions (see Chapter 17); at a dialogue at the Pakistan Institute for Conflict and Security Studies on 4 October 2025 its researchers proposed climate-hydrological modelling for flood risk assessment (see Chapter 6). Students of the Community Support Program raised Rs 658,060 through the Hope Campaign for flood-affected communities, donated to the Alkhidmat Foundation (see Chapter 1), and the campuses plant trees, 325 of them at the Health Sciences Campus, Islamabad (see Chapter 15).

The policies cited in this chapter are published on the University policies page.

13.5 Looking ahead

Building on its first consolidated inventory, its commitment to carbon neutrality and its climate partnerships, the University sets these priorities for the next reporting year:

1. **A verified inventory.** The University will compile its greenhouse gas inventory each year, with third-party verification, and publish it.
2. **Lower emissions.** The University will cut purchased electricity at the three campus units with the highest Scope 2 emissions.
3. **Adaptation.** The University will prepare a climate adaptation plan for each campus, with early warning and emergency protocols.
4. **Climate literacy.** The University will introduce the Climate Change and Sustainability course across its undergraduate programmes.

SUSTAINABLE DEVELOPMENT GOAL

14

LIFE BELOW WATER

Conserve and sustainably use the oceans, seas and marine resources for sustainable development.



BAHRIA UNIVERSITY IN 2025

Bringing science, industry and coastal communities together for the ocean.

Founded by the Pakistan Navy, with two campuses on the Arabian Sea coast, Bahria University works for healthy oceans, rivers and fisheries. In 2025 its National Institute of Maritime Affairs held 14 free seminars, webinars and conferences, the University worked with four fishing and coastal communities in Karachi, trained 177 staff and students on the marine environment and plastic, and committed every campus to preventing marine pollution and serving sustainably sourced seafood.

14
NIMA seminars, webinars and conferences, free of charge

177
Staff and students trained on marine environment and plastic

4
Fishing and coastal communities engaged in Karachi

IN THIS CHAPTER

14.1 Research on life below water 138
14.2 Education and outreach on water, fisheries and the ocean 139
14.3 Ocean conservation events and the marine industry 140
14.4 Sustainably harvested seafood on campus 142
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14.1 Research on life below water

UN TARGETS 14.1, 14.2, 14.a and 14.c

University researchers in the Departments of Earth and Environmental Sciences and Maritime Sciences at the Karachi Campus, the School of Law, the Department of Management Studies and the National Institute of Maritime Affairs (NIMA) study the health of Pakistan's coastal waters, rivers, groundwater and aquatic life, the environmental performance of ports and shipping, and the law of the sea. In 2025 the University published 7 works that OpenAlex links to Goal 14, 6 of them with a high-confidence classification (score of 0.8 or above). They are the work of 13 University authors, 5 of the 6 are open access, and for 5 of them Goal 14 is the highest-scoring Goal (Table 14.1).

TABLE 14.1 University research on Goal 14, publications of 2025

No.	Measure	Number	Basis
1	Publications linked to Goal 14	7	Goal 14 score above 0.4, the OpenAlex default; publication year 2025
2	Publications classified to Goal 14 with high confidence	6	Goal 14 score of 0.8 or above
3	Journal articles	5	Also a book chapter
4	University authors	13	Distinct authors with a University affiliation recorded by OpenAlex
5	Open access publications	5	Of the 6 publications
6	Internationally co-authored publications	2	Co-authors in China and the United States
7	Publications among the 10 per cent most cited	1	Same type, year and subfield

Among them, spatiotemporal modelling traced heavy metal pollution and water quality degradation in Karachi's coastal waters, and a comparison of marine environmental legislation for the China-Pakistan Economic Corridor, written with co-authors in China, proposed an ocean governance regime and is among the 10 per cent most cited publications of its subfield. The University's researchers published further studies in 2025 on the Indus Delta, the Indus River, green ports and underwater debris that inform the protection of aquatic ecosystems (Table 14.2; full list on OpenAlex).

TABLE 14.2 Selected University publications on life below water, 2025

No.	Target	Publication	University authors	DOI
1	14.1	Spatiotemporal Modelling of Heavy Metal Pollution and Water Quality Degradation in Karachi's Coastal Waters: Threat to Maritime Sustainability. Polaris: Journal of Maritime Research, 2025(1), 65 to 82	Muhammad Irfan and co-authors	10.53963/pjmr.2025.005.1
2	14.1	Marine Pollution and Environmental Sustainability: Challenges and Solutions for Karachi, Pakistan. Book chapter, IntechOpen	Yasmin Nergis; Mughal Shareef; M. Ahmed Jamil Qureshi	10.5772/intechopen.1009991
3	14.1	Real-Time Detection of Underwater Debris Using YOLOv11: An Optimized Approach. International Conference on Emerging Technologies in Electronics, Computing and Communication (IEEE)	Abdul Basit Mughal	10.1109/icetecc65365.2025.11070263

No.	Target	Publication	University authors	DOI
4	14.2	Spatiotemporal Modelling of Coastal Vulnerability and Ecosystem Degradation in Indus Delta: A Landsat and DSAS Approach. Mehran University Research Journal of Engineering and Technology	Muhammad Irfan; Shahzaib Farrukh; Shaista Mahmud	10.22581/muet1982.0502
5	14.2	Impact Assessment of Green Port Practices on the Triple Bottom Line of Sustainability: The Case of South Asia Pakistan Terminals. Transactions on Maritime Science, 14(1)	Muhammad Mutasim Billah Tufail; Muhammad Rahies Khan; Ameer Karore	10.7225/toms.v14.n01.019
6	14.a	Seasonal Trends in Heavy Metal Pollution and Water Quality in the Chashma (Indus River, Pakistan): A Study on Environmental Health Risks. Water, Air, and Soil Pollution	Saima Majeed	10.1007/s11270-025-08317-z
7	14.a	Seasonal Analysis of Heavy Metal Contamination in the Indus River: Impacts on Aquatic Life and Human Health Risks. Environmental Forensics	Saima Majeed	10.1080/15275922.2025.2539681
8	14.c	Developing an Ocean Governance Regime for China-Pakistan Economic Corridor: A Comparison of the Marine Environmental Legislation and Policy Framework by Utilizing CRILL Methodology. Frontiers in Marine Science, 12	M Jahanzeb Butt; Muhammad Murad Zaib Butt	10.3389/fmars.2025.1577975

14.2 Education and outreach on water, fisheries and the ocean

UN TARGETS 14.2, 14.4 and 14.b

The University offers educational programmes and outreach for local and national communities on freshwater ecosystems, sustainable fisheries and aquaculture, and the ocean, chiefly through NIMA, a constituent unit at Islamabad and Karachi whose events are all free of charge (Table 14.3). Its degree programmes carry the same knowledge to students: the BS Environmental Science teaches Water and Wastewater Treatment; the Course Code Handbook 2025 lists Freshwater Ecology, Groundwater Development and Management, Fisheries Resources and Management, Marine Protected Areas Management and Law of Marine Environment; and the BS Coastal and Marine Sciences includes Introduction to Aquaculture and Coastal Ecotourism Development and Management.

TABLE 14.3 Programmes and outreach for communities, 2025

No.	Date	Programme	Organiser and partners	Audience and content
1	27 Aug	Webinar for World Lakes Day, 'From Mountains to Coast: Safeguarding Pakistan's Lakes and Wetlands'	NIMA, with a WWF-Pakistan conservationist	Online participants; lakes and wetlands for biodiversity, livelihoods and climate resilience
2	2025	Seminar on water conservation	Green Youth Movement Club, with WaterAid Pakistan	Local community; efficient irrigation, water saving and recycling
3	18 Sep	Community engagement on eco-tourism	NIMA Karachi research team	Communities of Mubarak Village and Sonehri Beach; air and water quality
4	25 Sep	World Maritime Day seminar, 'Our Ocean, Our Obligation, Our Opportunities'	NIMA, with WWF-Pakistan and an FAO policy specialist	Sustainable fisheries; marine pollution; climate change and rising seas

No.	Date	Programme	Organiser and partners	Audience and content
5	21 Nov	World Fisheries Day awareness session on small-scale and sustainable fisheries	NIMA and the Korangi Fish Harbour Authority	Local fisherfolk; eco-friendly fishing practices and responsible fishing gear
6	December	Field visit and session on maritime rights and community representation	School of Humanities and Social Sciences, Karachi Campus, with the Pakistan Fisherfolk Forum	Students and the fishing community of Ibrahim Hyderi

On World Lakes Day, 27 August 2025, NIMA hosted the webinar 'From Mountains to Coast: Safeguarding Pakistan's Lakes and Wetlands', at which Mr Jamshed Iqbal Chaudhry of WWF-Pakistan set out the role of lakes in sustaining biodiversity, livelihoods and climate resilience and how Pakistan's lakes and wetlands can be protected from the highlands to the coast. The Green Youth Movement Club, with WaterAid Pakistan, held a seminar on water conservation for the local community covering efficient irrigation, water-saving behaviour and water recycling (see Chapter 6).

On World Fisheries Day, 21 November 2025, NIMA and the Korangi Fish Harbour Authority held an awareness session for local fisherfolk on small-scale and sustainable fisheries, promoting eco-friendly fishing practices and responsible fishing gear (Section 14.6). At NIMA's World Maritime Day seminar of 25 September 2025 a policy specialist of the Food and Agriculture Organization of the United Nations (FAO) spoke on sustainable fisheries, and NIMA's national seminar on fisheries and aquaculture brought policymakers, industry and provincial fisheries representatives together on marine resources, regulatory compliance, sustainable aquaculture and hatchery technology. NIMA researchers inform the public about illegal, unreported and unregulated fishing, overfishing, illegal nets and destructive trawl and stow nets through newspaper articles published on its website.

14.3 Ocean conservation events and the marine industry

UN TARGETS 14.1, 14.a and 14.c

NIMA organises events that promote the conservation and sustainable use of oceans, seas, lakes, rivers and marine resources, all free of charge. Its record of its 2025 events lists **14 seminars, webinars and conferences** and a four-day maritime training workshop in 2025 (Table 14.4), and its Maritime Environment and Climate Change Centre has research desks on the conservation of marine ecosystems and on marine and coastal pollution.

TABLE 14.4 Events on oceans, seas, lakes and marine resources, 2025

No.	Date	Event	Organisers	Focus
1	30 Apr	Webinar, 'IMO's Net-Zero Framework under MARPOL Annex VI: Pakistan's Commitment and Way Forward'	NIMA	Greenhouse gas emissions from shipping
2	15 May	International seminar, 'Deep-Sea Mining: Prospects and the Global Conservation Imperatives', for more than 200 participants	NIMA and the Institute of Strategic Studies Islamabad	Protection of fragile ocean ecosystems and species
3	27 Aug	Webinar for World Lakes Day	NIMA, with WWF-Pakistan	Conservation of lakes and wetlands

No.	Date	Event	Organisers	Focus
4	25 Sep	World Maritime Day seminar, 'Our Ocean, Our Obligation, Our Opportunities'	NIMA	Marine pollution; sustainable fisheries; rising seas
5	4 and 5 Nov	International Maritime Conference, 'Harnessing Blue Economy Potential for Sustainable Development'	NIMA, under PIMEC 2025	Sustainable use of marine resources
6	21 Nov	World Fisheries Day awareness session	NIMA and the Korangi Fish Harbour Authority	Sustainable fisheries; responsible gear
7	9 Dec	International seminar on responding to major oil spills, for clean and sustainable oceans	NIMA and the Pakistan Maritime Security Agency	Oil spill preparedness; marine environmental protection

On 15 May 2025 NIMA and the Institute of Strategic Studies Islamabad held the international seminar on deep-sea mining and the protection of fragile ocean ecosystems, and on 9 December 2025 NIMA and the Pakistan Maritime Security Agency held in Karachi, as part of Exercise BARRACUDA-XIII, an international seminar on coordinated responses to major oil spills (Figures 14.1 and 14.2). On 4 and 5 November 2025 NIMA organised in Karachi the International Maritime Conference under PIMEC 2025 (see Chapter 17).



Figure 14.1: International seminar on deep-sea mining and ocean conservation hosted by NIMA with the Institute of Strategic Studies Islamabad, 15 May 2025.



Figure 14.2: International seminar on oil spill response organised by NIMA and the Pakistan Maritime Security Agency, Karachi, 9 December 2025.

Technologies and practices for the marine industry

NIMA quantified the emissions of the national shipping fleet vessel by vessel and reviewed green shipping technologies that minimise air and water pollution. On 30 April 2025 it brought shipping, port and shipbuilding organisations together on the Net-Zero Framework of the International Maritime Organization (IMO) (see Chapter 17), and on 26 and 27 August 2025 it contributed its research on safe ship recycling at Gadani to an awareness workshop for the ship recycling industry on the Hong Kong Convention, organised with the International Labour Organization and the IMO. Under its memorandum of understanding with the Karachi Port Trust, a NIMA Karachi team visited the Port on 3 September 2025, where it was received by the Manager of the Marine Pollution Control Department, to advance collaboration on environmental management and sustainable port operations (see Chapter 9). University researchers assessed green port practices at Karachi Port and South Asia Pakistan Terminals and developed a deep learning model that detects underwater debris in real time (Table 14.2).

NIMA also works with conservation partners. On 22 September 2025 it hosted the founders of Life Sanctuary Pakistan to add marine life to their conservation work; on 11 July 2025 the President of the

Pakistan Aquaculture Association met the President NIMA on harbour pollution along the Sindh coast; and on 23 July 2025 NIMA signed a memorandum of understanding with the youth-led Progressive Climate Foundation on sustainable maritime practices (see Chapter 17). Its research report on the High Seas Treaty examines the conservation of marine biodiversity beyond national jurisdiction and its implications for Pakistan.

14.4 Sustainably harvested seafood on campus

UN TARGET 14.4

Since 2 November 2025 every cafeteria, food outlet and caterer on the University's campuses must source its fish and seafood sustainably. By letter of that day to all Directors of the Head Office and campuses, the Director Admin (Safety and Security) directed, with immediate effect across all campuses and constituent units, that cafeterias, food outlets, catering contractors and suppliers obtain seafood from legally authorised and sustainable fisheries or aquaculture sources, prohibited endangered, protected or illegally harvested aquatic species, and gave preference to suppliers adopting responsible fishing practices. Supplier declarations and supporting procurement documentation are required, the requirements are communicated to contractors and suppliers, and campus administrations monitor compliance.

The same day, item 5(u) of the Cafeteria Policy, added by Amendment 1, required every vendor running a cafeteria, kiosk, hostel mess or pantry to serve fish and other seafood from sustainably harvested sources certified by the Marine Stewardship Council (MSC) or an equivalent scheme and to keep supplier and certification records for quarterly checks by the Food Inspector, with penalty and exclusion for a breach. The Sustainable Procurement and Purchasing Policy (BU-SPPP-2025) requires sustainable seafood with MSC certification (para 5.2.4) and local and seasonal sourcing in catering (para 6.1.5), and the Health, Safety and Environment Policy requires procurement to prioritise local and sustainable food sources (para 7.5.7).

The policy draws on the University's expertise. NIMA has proposed Pakistan's first national seafood testing laboratory, for food safety and export compliance, to the Higher Education Commission (HEC), and the Aquatic Diagnostic Research Center at the Karachi Campus focuses on aquatic health and diagnostics, with research on aquatic diseases, water quality and ecosystem management. Through its Leadership and Professional Development Centre (LPDC) the Karachi Campus also offers a two-month Certified Diploma in Aquaculture and Fisheries, with a month of training at commercial fish and shrimp farms (see Chapter 2).

NIMA also contributes to the regulation of fishing (see Chapter 17). On 11 July 2025 the FAO Policy Specialist and Project Lead called on the President NIMA, with NIMA taking part in the review of the draft National Fisheries and Aquaculture Policy, and on 25 November 2025 a NIMA Research Associate contributed as a member of the Technical Working Group that met at the FAO office in Quetta, chaired by the Secretary Fisheries, to review the Balochistan Fisheries and Aquaculture Rules 2025 (Figure 14.3).



Figure 14.3: Meeting of the Technical Working Group on the Balochistan Fisheries Rules and Sector Plan, FAO office, Quetta, to which NIMA contributed as a member, 25 November 2025.

14.5 Preventing marine pollution from land

UN TARGET 14.1

Every campus of the University is committed to preventing marine pollution from land. Para 6.20.1 of the HSE Policy, Prevention of Marine Pollution, introduced by the second edition of 22 November 2025, commits the University to preventing and reducing marine pollution of all kinds, in particular pollution from land-based activities. Every campus, and in particular those in Karachi, must prevent untreated sewage, wastewater and hazardous effluent from reaching drains, nullahs, rivers or the sea; control storm-water runoff so that sediment, oil, chemicals and litter do not enter water bodies; stop plastic and other solid waste from entering drains and water bodies; store fuel, oil and chemicals with secondary containment and keep spill kits; and require contractors and suppliers to comply. The Earth and Environmental Sciences departments monitor implementation, and the Director Campus reports any spill or discharge to the Standing HSE Committee within three days.

Each campus treats its sewage through septic tanks and treats hazardous effluent, or collects it for licensed disposal, before any discharge (HSE Policy, paras 6.9 to 6.11; see Chapter 6), and the Sustainable Procurement and Purchasing Policy prohibits hazardous substances and requires non-toxic cleaning products and pesticide-free landscaping (para 5.2.3).

An action plan against plastic waste

Single-use plastic and disposable items are banned on every campus (HSE Policy, para 6.17), and the Directive on Combating Plastic Pollution is the University's action plan for reducing plastic waste on campus (para 6.17.3): a plastic audit led by the Earth and Environmental Sciences departments and an awareness campaign lead to phased bans, with fines and reusable alternatives, that bind contractors, cafeteria vendors and suppliers (see Chapter 12). The Sustainability and Climate Action Policy (BU-SCAP-2025) sets a target of 100 per cent single-use plastic elimination by 2030 (para 8.2).

The LPDC trained **177 staff and students** in five sessions on the marine environment, plastic and waste segregation (Table 14.5 and Figure 14.4). On 10 May 2025 students of the Lahore Campus collected litter

from the roadside and green belts beside the campus under the Community Support Program, keeping it out of the city's drains; students of the Institute of Professional Psychology cleaned a Karachi beach to protect marine life; and in June 2025 the University signed a memorandum of understanding with EcoBricks for recycling plastic waste (see Chapter 12).

TABLE 14.5 **Training on the marine environment, plastic and waste segregation, 2025**

No.	Date	Session	Campus	Participants
1	28 Feb	Prospects and Challenges to the Blue Economy, by Dr Fahim Jadoon	Karachi Campus	22
2	11 Jun	Ban on Use of Plastic Material	Health Sciences Campus, Islamabad	50
3	19 Jun	Segregation of Different Waste Materials	Health Sciences Campus, Islamabad	60
4	4 Jul	How to Curb Plastic to Protect the Marine Environment, by Dr Salma Hamza	Karachi Campus	20
5	22 Sep	Maritime Awareness, by Ms Sadia Sherazi, Department of Maritime Sciences (12 faculty and 13 students)	Karachi Campus	25
	All sessions			**177**

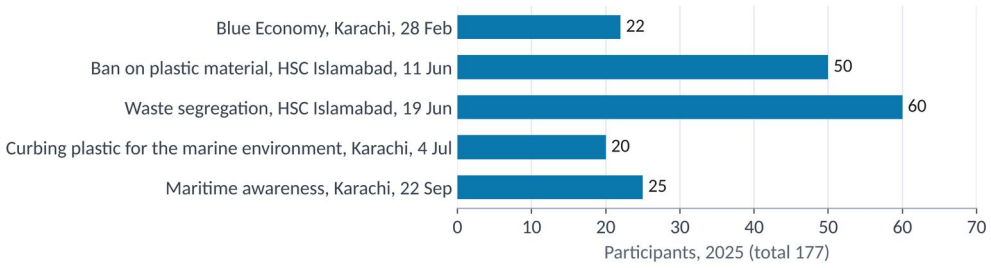

Figure 14.4: Participants in training on the marine environment, plastic and waste segregation, 2025 (Leadership and Professional Development Centre; HSC: Health Sciences Campus).

14.6 Protecting and monitoring aquatic ecosystems

UN TARGETS **14.2 and 14.5**

The University has a plan for minimising physical, chemical and biological alterations of the aquatic ecosystems related to its campuses, in particular the coastal waters, creeks and nullahs of Karachi and the streams, nullahs and aquifers of Islamabad (Table 14.6). Every campus prepares and implements an Environmental Management Plan covering wastewater, storm water and solid waste, monitored by the Earth and Environmental Sciences departments and audited every year (HSE Policy, paras 6.4 to 6.8 and 6.21 to 6.26). The plan is adopted for all campuses as a watershed management strategy that manages rain, storm water and wastewater from each campus to the waters into which it drains, and is based on the aquatic species and habitats of each location.

TABLE 14.6 **The plan for minimising alterations of related aquatic ecosystems**

No.	Alteration	Measures	Basis
1	Chemical	No untreated sewage, wastewater or hazardous effluent to drains, nullahs, rivers or the sea; septic tanks; secondary containment of fuel, oil and chemicals; hazardous waste to licensed facilities; no chemical fertilisers or pesticides in landscaping	HSE 6.9 to 6.11, 6.14(f), 6.20.1; SCAP 5.3.3
2	Physical	Control of storm-water runoff and sediment from campuses and construction sites; plastic and litter kept out of water bodies; buffer zones protecting water bodies; bioswales, rain gardens and permeable surfaces; rainwater harvesting	HSE 6.20.1; SCAP 5.3.2, 5.3.3
3	Biological	Biodiversity baseline assessments at every campus; protection of native vegetation and ecological corridors; removal of invasive species; constructed wetlands for water treatment and biodiversity; net-positive biodiversity by 2035	SCAP 5.3.2, 5.5
4	Monitoring and review	Environmental Management Plan at every campus; monitoring by the Earth and Environmental Sciences departments; annual environmental audits; monthly water testing; key performance indicators	HSE 6.4 to 6.8, 6.21 to 6.27; SCAP 8.2

HSE: Health, Safety and Environment Policy; SCAP: Sustainability and Climate Action Policy.

The Earth and Environmental Sciences laboratories, the Environmental Research Center, whose laboratory was recognised by the Federal Environmental Protection Agency, the Aquatic Diagnostic Research Center and NIMA's Maritime Environment and Climate Change Centre give the University the capacity to analyse water, sediment and aquatic life. On 18 September 2025 the NIMA Karachi research team assessed air and water quality at Mubarak Village and Sonehri Beach on the Karachi coast (Figure 14.5). In 2025 University researchers monitored six sites on Karachi's coast, Karachi Harbour, the coastal sediments, the Indus Delta by satellite, the Indus River at Chashma and Mianwali across the seasons, groundwater in Karachi, Islamabad, Talagang, Karak and Sialkot, and textile effluent before its discharge to rivers. The research also develops solutions: constructed wetlands that degrade more than 99 per cent of a pesticide, and a nature-based treatment system that brings textile effluent within national discharge standards (see Chapters 6, 9 and 15).



Figure 14.5: NIMA Karachi research team with members of the coastal community at Mubarak Village during its field engagement and air and water quality assessment, 18 September 2025.

The Sustainability and Climate Action Policy protects water bodies with buffer zones, integrated pest management without chemical fertilisers or pesticides and regular water quality monitoring (para 5.3.3), and provides for Student Sustainability Ambassadors, Sustainability Scholars, an annual campus

sustainability innovation challenge and sustainability awards; the HSE Policy provides for community programmes, student awareness campaigns and annual waste management training. Every undergraduate gives 40 contact hours of community service through the Community Support Program, which centres on water conservation and green initiatives (see Chapter 1).

The policies cited in this chapter are published on the University policies page.

Working with Karachi's fishing and coastal communities

National Institute of Maritime Affairs, Karachi, and the Karachi Campus; 2025

THE CHALLENGE

Karachi's fisherfolk and coastal villages depend on healthy coastal waters and fish stocks.

WHAT WE DID

On World Fisheries Day, 21 November 2025, NIMA and the Korangi Fish Harbour Authority held a free awareness session for local fisherfolk on sustainable fisheries and responsible gear. On 18 September 2025 NIMA engaged the communities of Mubarak Village and Sonehri Beach and assessed their air and water quality, and in December 2025 Karachi Campus students met the Pakistan Fisherfolk Forum at Ibrahim Hyderi.

THE RESULT

The University works with four fishing and coastal communities and carries their concerns into policy: on 25 November 2025 NIMA contributed to the review of the Balochistan Fisheries and Aquaculture Rules 2025, and it works with the Karachi Port Trust on the harbour these communities share.

KEY FIGURES

4

Fishing and coastal communities engaged

14

NIMA seminars, webinars and conferences

Free

Of charge, every NIMA event

PARTNERS

Korangi Fish Harbour Authority; Pakistan Fisherfolk Forum; Karachi Port Trust; FAO



Figure 14.6: World Fisheries Day awareness session for local fisherfolk held by NIMA with the Korangi Fish Harbour Authority, Korangi Fish Harbour, 21 November 2025.



Figure 14.7: Session with the representative of the Pakistan Fisherfolk Forum on maritime rights and community representation, Ibrahim Hyderi, December 2025.

Sources: NIMA website, 18 September, 21 November and 25 November 2025; University Facebook page, December 2025.

14.7 Looking ahead

The University sets these priorities for the next reporting year:

1. **Coastal communities.** The University will continue NIMA's free programmes for fishing communities.
2. **Clean water.** The University will audit the Environmental Management Plan of every campus.
3. **Sustainable seafood.** The University will check seafood sources every quarter.
4. **Marine science.** The University will carry its marine research into policy and practice.

SUSTAINABLE DEVELOPMENT GOAL

15

LIFE ON LAND

Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.



BAHRIA UNIVERSITY IN 2025

Planting, protecting and studying the land and its life.

In 2025 staff and students of Bahria University planted trees on its campuses, 325 of them at the College of Medicine, and joined the capital's authorities in planting a city green belt. The University committed every campus to net-positive biodiversity by 2035 and to native species in 80 per cent of campus landscaping by 2030, barred products that contribute to deforestation from its purchases, and its researchers measured ecosystem change in the Indus Delta.

325
Trees planted by College of Medicine staff and students

2035
Target year for net-positive biodiversity on campuses

80 per cent
Native species in campus landscaping by 2030

IN THIS CHAPTER

15.1 Research on land ecosystems and biodiversity 149
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15.4 Looking ahead 152

15.1 Research on land ecosystems and biodiversity

UN TARGETS 15.1, 15.2, 15.3 and 15.5

In 2025 the University published 9 works that OpenAlex links to Goal 15, 4 of them with a high-confidence classification (score of 0.8 or above). The four, two journal articles, a book chapter and a conference paper, are the work of 9 University authors; two were written with researchers in the United States, Spain and Italy, two are open access, and one is among the 10 per cent most cited publications of its type, year and subfield (OpenAlex). Table 15.1 sets out selected publications, at least one for each target the research addresses.

TABLE 15.1 Selected University publications on life on land, 2025

No.	Target	Publication	University authors	DOI
1	15.1	Treatment of Malathion by using Plant-Bacteria Consortia in Constructed Wetlands. Proceedings of the Pakistan Academy of Sciences B: Life and Environmental Sciences, 62(4), 305 to 324	Vijiha Nasir; Rija Khalid; Asma Jamil	10.53560/ppasb(62-4)1122
2	15.2	Land Use Land Cover Analysis of Forests of Pakistan, Case Studies of Chitral-Northern Mountainous Areas and Sindh-Southern Low Land. Book chapter, Advances in Geographical and Environmental Sciences, 43 to 75	Ambreen Afzal	10.1007/978-981-96-1733-3_4
3	15.2	FireSense: AI-Based Wildfire and Smoke Detection in Forests. International Conference on New Trends in Computing Sciences (ICTCS), 522 to 527	Abdul Basit Mughal	10.1109/ictcs65341.2025.10989359
4	15.3	Effect of Wastewater Irrigation on Heavy Metals Accumulation in Crop Plants Grown in Some Selected Districts of Khyber Pakhtunkhwa, Pakistan. Indus Journal of Bioscience Research, 3(10), 411 to 418	Memoona Javed	10.70749/ijbr.v3i10.2389

The research measures change in land ecosystems and builds the tools to protect them. Researchers of the Departments of Earth and Environmental Sciences and Maritime Sciences at the Karachi Campus used a decade of Landsat imagery to measure ecosystem change in the mangrove-fringed Indus Delta, close to the University's Karachi campuses: delta vegetation fell by 55 per cent, including 20 per cent of the mangrove area, suspended sediment by 25 per cent and species diversity by 33 per cent (see Chapter 14). Other studies analysed land use and land cover change in the forests of Chitral and of Sindh, built an artificial intelligence system that detects wildfire and smoke in forests, and showed that plant and bacteria consortia in constructed wetlands treat the pesticide malathion, and a study in Khyber Pakhtunkhwa traced the heavy metals that wastewater irrigation carries into crop plants.

15.2 Policies for biodiversity, land and sustainable food

UN TARGETS 15.1, 15.2, 15.5 and 15.8

The University is committed by policy to net-positive biodiversity on every campus by 2035. Pillar 5 of the Sustainability and Climate Action Policy (BU-SCAP-2025), Biodiversity and Ecosystem Services, provides for biodiversity baseline assessments at all campuses, native vegetation, ecological corridors, pollinator gardens and bird and bat boxes (para 5.5.1); the removal of invasive species, native meadows in place of half the lawn area, food forests and green walls (para 5.5.2); and strategic tree planting to cool the

campuses (para 5.5.3). Its strategic objectives eliminate harmful pesticides and herbicides by 2027 and make each campus an urban biodiversity sanctuary (para 3.1), and native species in landscaping and the green cover ratio are key performance indicators with targets for 2030 and 2040 (para 8.2; Table 15.2 and Figure 15.1).

TABLE 15.2 Policy commitments on biodiversity, land and sustainable sourcing

No.	Clause	Commitment	Target
1	SCAP 3.1, Objective 5	Net-positive biodiversity impact across all campuses; native vegetation protected and restored, with ecological corridors; each campus an urban biodiversity sanctuary	Net-positive biodiversity by 2035; no harmful pesticides or herbicides by 2027
2	SCAP 5.5.1 to 5.5.3	Biodiversity baseline assessments; pollinator gardens and wildlife-friendly structures; invasive species removed; native meadows, food forests and green walls; strategic tree planting	Baselines at all campuses; lawn areas reduced by 50 per cent
3	SCAP 5.3.3	No chemical fertilisers or pesticides in landscaping; integrated pest management; buffer zones to protect water bodies; water quality monitoring	All campus landscaping
4	SCAP 8.2	Native species in landscaping; green cover ratio	80 and 35 per cent by 2030; 95 and 50 per cent by 2040
5	SPPP 5.2.3, 5.2.4	Wood and paper certified by FSC or PEFC; no products contributing to deforestation; native species and pesticide-free landscaping services	Every purchase and contract
6	HSE 6.2(k), 6.4, 6.19	Premises maintained to protect natural habitats and local wildlife; Environmental Management Plan at every campus; indoor and outdoor plantation	Every campus

SCAP: Sustainability and Climate Action Policy; SPPP: Sustainable Procurement and Purchasing Policy; HSE: Health, Safety and Environment Policy; FSC: Forest Stewardship Council; PEFC: Programme for the Endorsement of Forest Certification.

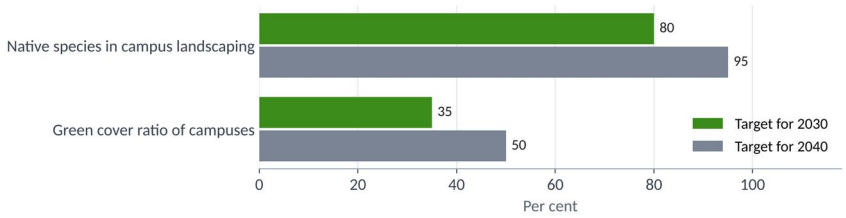

Figure 15.1: Biodiversity targets for the campuses: native species in landscaping and green cover ratio, 2030 and 2040 (Sustainability and Climate Action Policy, para 8.2).

The same commitments reach the University's purchases, grounds, food and waste. The Sustainable Procurement and Purchasing Policy (BU-SPPP-2025) requires wood and paper certified by the FSC or PEFC, prohibits products that contribute to deforestation and specifies native species for landscaping (para 5.2.4), and requires pesticide and herbicide-free landscaping services (para 5.2.3). Under the Health, Safety and Environment Policy every campus maintains its premises with regard to the protection of natural habitats and local wildlife (para 6.2(k)), implements an Environmental Management Plan (para 6.4), encourages indoor and outdoor plantation (para 6.19) and sends hazardous waste to licensed facilities and electronic waste to certified recyclers (para 6.14(f)). Food vendors source ethically and sustainably, preferring local producers (Cafeteria Policy, item 5(u); see Chapter 14), and in 2025 the University measured 560.8 tonnes of waste across eight campuses and units, 120.3 tonnes (21.5 per cent) of it recovered, composted or

reused, and treated 8.1 tonnes of hazardous waste through licensed disposal (see Chapter 12). The policies are published on the University policies page.

15.3 Planting and caring for land ecosystems

UN TARGETS 15.1 and 15.2

The campuses plant trees: 225 faculty and staff and 100 students of the College of Medicine at the Health Sciences Campus, Islamabad, planted **325 trees** in February and March 2025; the Lahore Campus held a plantation drive under its community service programme on 20 March 2025; students of the Institute of Professional Psychology held plantation and beach-cleaning drives; and on 30 December 2025 the Islamabad E-8 Campus joined the plantation drive of the Assistant Commissioner Islamabad and the Capital Development Authority at the Shaheen Chowk green belt (Figures 15.2 and 15.3). The University counts its tree planting among the measures that reduce its carbon emissions (see Chapter 13).



Figure 15.2: Students and faculty of the College of Medicine after the tree plantation campaign, Health Sciences Campus, Islamabad, 2025.



Figure 15.3: Plantation drive at the Shaheen Chowk green belt with the Capital Development Authority, Islamabad, 30 December 2025.

At the Karachi Campus the Community Support Program and the Department of Earth and Environmental Sciences followed a seminar on sustainability and climate change with a tree plantation drive on 22 April 2025, and planted fruit plants on 23 July 2025 (Figures 15.4 and 15.5).



Figure 15.4: Tree plantation drive after the seminar on sustainability and climate change, Karachi Campus, 22 April 2025.



Figure 15.5: Planting fruit plants during the Community Support Program plantation drive, Karachi Campus, 23 July 2025.

Teaching and campus events carry the same care for land and its life. The BS Environmental Science teaches Biodiversity and Conservation, the BS Coastal and Marine Sciences offers the elective Mangrove Coastal Forest Management, and the Course Code Handbook 2025 lists Wildlife, Forestry and Wetland Management and Watershed Management among the courses currently offered. On World Environment

Day, 11 June 2025, the Department of Earth and Environmental Sciences at the Islamabad H-11 Campus brought experts together on ending plastic pollution (see Chapter 12).

Planting trees on campus and in the capital

College of Medicine, Health Sciences Campus, Islamabad, and the Islamabad E-8 Campus, with the Assistant Commissioner Islamabad and the Capital Development Authority; 2025

THE CHALLENGE

Trees cool campuses and cities, take up carbon and shelter wildlife, and they thrive when a community plants and cares for them.

WHAT WE DID

In February and March 2025, 225 faculty and staff and 100 students of the College of Medicine at the Health Sciences Campus, Islamabad, planted 325 trees. On 30 December 2025 the Islamabad E-8 Campus joined the plantation drive organised by the Assistant Commissioner Islamabad in collaboration with the Capital Development Authority at the green belt of Shaheen Chowk (Figures 15.2 and 15.3).

THE RESULT

The University took its planting from its campuses into the capital, for a greener urban environment and the beautification of Islamabad, and its Sustainability and Climate Action Policy makes strategic tree planting a standing commitment of every campus (para 5.5.3).

KEY FIGURES

325

Trees planted at the College of Medicine

225

Faculty and staff who planted them

100

Students who planted them

PARTNERS

Assistant Commissioner Islamabad; Capital Development Authority

Sources: Health Sciences Campus, Islamabad, campus report, January to June 2025; University Facebook page, 30 December 2025.

15.4 Looking ahead

The University sets these priorities for the next reporting year:

1. **Biodiversity baselines.** The University will assess the biodiversity of every campus.
2. **Native planting.** The University will extend native species and green cover on every campus.
3. **Pesticide-free grounds.** The University will move its landscaping to integrated pest management.
4. **Partnerships for green spaces.** The University will plant green belts with the Capital Development Authority.

SUSTAINABLE DEVELOPMENT GOAL

16

PEACE, JUSTICE AND STRONG INSTITUTIONS

Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.



BAHRIA UNIVERSITY IN 2025

Justice, integrity and fair procedures in every part of the University.

Bahria University teaches and researches law and justice, from maritime and international humanitarian law to environmental law, and governs itself through a Board of Governors, a Sustainability Council and published policies. Every campus has a Harassment Complaint Cell, an Inquiry Committee and an Appellate Body, University policy prohibits discrimination on fourteen grounds, and every employee can appeal decisions on pay and service.

79
High-confidence publications on peace, justice and institutions

6 of 6
Campuses with harassment complaint bodies

14
Grounds of discrimination prohibited by University policy

IN THIS CHAPTER

16.1 Research on peace, justice and strong institutions 154
16.2 Law education and legal research 155
16.3 Integrity, equality and fair procedures 157
16.4 Working with government and the community 159
16.5 Looking ahead 159

16.1 Research on peace, justice and strong institutions

UN TARGETS 16.1, 16.3, 16.6 and 16.10

In 2025 the University published 148 works that OpenAlex links to Goal 16, 79 of them with a high-confidence classification (score of 0.8 or above). The 79 publications, 74 journal articles, 4 preprints and a conference paper, are the work of 90 University authors and appeared in 50 journals and series. Seventy-five of them are open access, free for anyone to read; 12 were written with researchers in ten other countries, led by China (4) and Indonesia, Italy and Portugal (2 each); and 13 are among the 10 per cent most cited publications of the same type, year and subfield, one of them among the top 1 per cent. Together they have received 92 citations.

The social sciences account for 59 of the 79 publications, followed by environmental science (5), business and psychology (4 each) and economics (3) (Figure 16.1). The research examines judicial independence and the separation of powers, criminal justice and juvenile delinquency, human trafficking, the legal protection of abandoned children, international humanitarian law, climate justice and human rights, civil-military relations and institutional stability, the regulation of cyberbullying and online harassment, and the roots of violent conflict. Table 16.1 sets out eight publications, at least one for each Goal 16 target the research addresses; each can be located through its DOI.

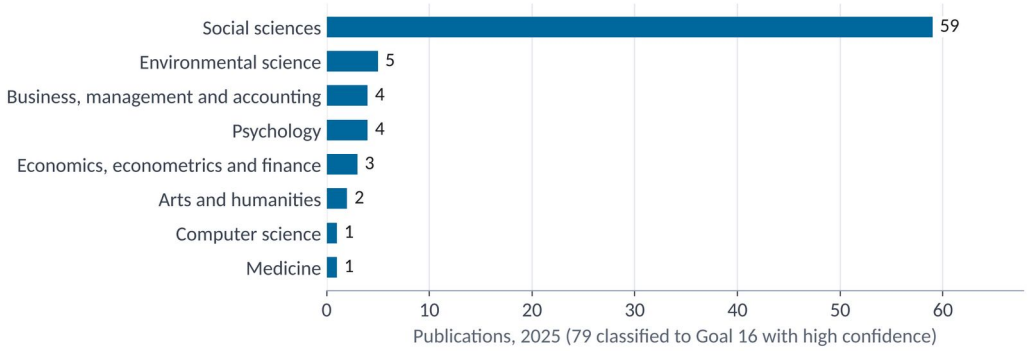

Figure 16.1: Research fields of the 79 University publications of 2025 classified to Goal 16 with high confidence (OpenAlex).

TABLE 16.1 Selected University publications on peace, justice and strong institutions, 2025

No.	UN target	Publication	University authors	DOI
1	16.1	Investigating Factors such as Frustration, Past Trauma, and High Aggression Levels that Contribute to Violent Conflicts in both Interpersonal and Social Contexts. Review of Applied Management and Social Sciences, 8(1), 223 to 235	Aamna Jawed	10.47067/ramss.v8i1.451
2	16.2	Combating Human Trafficking in Pakistan: Legal Framework, Enforcement Challenges, and Policy Gaps. Physical Education Health and Social Sciences, 3(4), 436 to 443	Muhammad Jamil	10.63163/jpehss.v3i4.840
3	16.2	Legal Discourse of Abandoned Children in Pakistani Law Analysis. Journal of Political Stability Archive, 3(1), 1037 to 1046	Kulsoom Saeed	10.63468/jpsa.3.1.62
4	16.3	Failure of Judicial Independence is the Failure of Doctrine of Trichotomy in Pakistan. Social Science Review Archives, 3(1), 313 to 331	Muhammad Ashraf Qureshi	10.70670/sra.v3i1.313

No.	UN target	Publication	University authors	DOI
5	16.3	The Application of International Humanitarian Law in Non-International Armed Conflicts: Examining the Challenges and Complexities of Applying IHL in Non-International Armed Conflicts. Social Science Review Archives, 3(2), 667 to 680	Muhammad Hassan Javed	10.70670/sra.v3i2.656
6	16.3	Climate Injustice: The legal analysis of the Human Rights Impact in Pakistan and Lessons from Germany. Social Science Review Archives, 3(2), 1862 to 1873	Dr Asma Mehboob; Maheen Yasin Mirza; Iram Farid	10.70670/sra.v3i2.805
7	16.6	Civil-Military Relations and Institutional Stability in Pakistan: A Case Study of SDG 16 Implementation. Social Science Review Archives, 3(3), 587 to 596	Javed Hussain Bhayo	10.70670/sra.v3i3.868
8	16.10	The Regulation of Cyberbullying and Online Harassment: Analyze the Regulation of Cyberbullying and Online Harassment, Including Issues Related to Freedom of Expression, Anonymity and Accountability. Annual Methodological Archive Research Review	Hasan Javed	10.63075/0txw9452

16.2 Law education and legal research

UN TARGET 16.3

The Bahria University School of Law, at the Islamabad E-8 Campus, is the pioneer of maritime law in Pakistan and the region (School of Law). It offers the four-year Bachelor of Laws, the two-year LLM, the LLM (International and Maritime Laws) and the PhD (Law). The Bachelor of Laws includes a natural science course in Environmental Sciences and Law and the course Civics and Community Engagement, with electives in Environmental Law, Environment and Climate Justice, Climate Change Law, Sustainable Development and Environmental Justice, Water Law and Policy, Energy Law, Environmental Governance and Policy, and Disaster Law and Climate Resilience. In 2025 the School also offered the LLM (Environmental Law), a two-year degree of 32 credit hours with courses in the environmental law of Pakistan, international environmental law, climate change law, sustainable development law, energy law and marine environmental protection law (see Chapter 17). Internships at renowned chambers are a mandatory part of the degree, so that students learn from real cases in court, and the Law Moot Society organises and takes part in national and international moot competitions every year.

Legal research reaches the profession and the state. On 28 April 2025 the National Institute of Maritime Affairs (NIMA) organised, with the International Committee of the Red Cross (ICRC), the International Seminar on the San Remo Manual and Contemporary Naval Warfare at the Islamabad E-8 Campus, with the Vice Chief of the Naval Staff as chief guest and the Pakistan Navy, the ICRC, the Research Society of International Law and legal scholars on the panel; it examined how international legal frameworks such as the San Remo Manual must adapt to artificial intelligence, autonomous systems and cyber warfare at sea (University Facebook page). On 26 December 2025 students of Forensic Psychology and Deviant Behaviour at the Lahore Campus visited Johar Town Police Station to see policing in practice, and shared stress management techniques with the police personnel (University Facebook page).

Summer School on Legal Research and Academic Writing

Bahria University School of Law, Islamabad E-8 Campus; 25 to 29 August 2025

THE CHALLENGE

Strong legal institutions need lawyers and scholars who can design sound research, write for academic journals and work in specialised fields such as maritime law.

WHAT WE DID

From 25 to 29 August 2025 the School of Law held a week-long Summer School on Legal Research and Academic Writing with the Centre for Law and Security and the Institute of Yellow and Bohai Seas, Dalian Maritime University (China). Dr Maruf opened it with an introduction to legal research and academic writing. The second day was dedicated to partners: Sheikh Waqas Bin Amir, Head of the Law Department of The Millennium University College, lectured on doctrinal and non-doctrinal research in law, and Mr Rehman Azhar, Executive Director of the Centre for Law and Security, introduced its work. On the third day Dr Maruf advised on choosing the right journal for a manuscript and Dr Sabrina Hassan of East China University spoke on research in maritime law.

THE RESULT

Participants gained the theoretical foundations, methodological frameworks and practical skills for high-quality legal research and academic writing, from research design to publication, with partners in Pakistan and China.

KEY FIGURES

5

Days, 25 to 29 August 2025

3

Partner institutions in Pakistan and China

4

Expert speakers in the first three days

PARTNERS

Centre for Law and Security; The Millennium University College; Institute of Yellow and Bohai Seas, Dalian Maritime University



Figure 16.2: Executive Director of the Centre for Law and Security introducing its work to participants of the Summer School, School of Law, 26 August 2025.



Figure 16.3: Participants of the Summer School on Legal Research and Academic Writing, School of Law, 26 August 2025.

Sources: University Facebook page, 25, 26 and 27 August 2025 (Day 1, Day 2, Day 3).



Figure 16.4: NIMA and ICRC International Seminar on the San Remo Manual and Contemporary Naval Warfare, Islamabad E-8 Campus, 28 April 2025.

16.3 Integrity, equality and fair procedures

UN TARGETS **16.5, 16.6, 16.7 and 16.b**

The University is governed by a Board of Governors chaired by the Chief of the Naval Staff as Pro-Chancellor, with the Rector, senior naval office holders, the Pro-Rectors, the heads of the campuses and the Deans, and external members from the Ministries of Science and Technology and of Finance, the Higher Education Commission (HEC) and an educationist approved by the Chairman. At its 53rd meeting on 7 July 2025 the Board approved the Revised Pay Scales 2025 (see Chapter 8) and was briefed on academic programmes, research collaborations and the solarization of the campuses, and at its 54th meeting on 18 November 2025 it was briefed on progress in academic development, new infrastructure projects and strategic and institutional governance. The University Sustainability Council, chaired by the Rector, brings the Pro-Rectors, a campus Director General, the Director of the Bahria Innovation Center, the Head of CORE-CF and the Director Quality Assurance together with one alumni representative and one industry or community representative to approve sustainability strategies, targets and investments (Sustainability and Climate Action Policy, para 4.1).

Every member of the University has a fair route to raise a complaint and to appeal. The Equality and Non-Discrimination Policy, amended on 20 October 2025, prohibits discrimination on fourteen grounds (see Chapter 10), forbids retaliation against anyone who complains, takes part in an investigation or opposes discrimination (para 5), and resolves complaints informally or through formal procedures under principles of impartiality, fair process, privacy and transparency (paras 19 to 23). Para 24 extends the policy to all harassment: by Registrar Notification No. 01/2025 of 9 January 2025 the University renewed the Harassment Complaint Cells at all six campuses, each with two Focal Persons who give immediate assistance to complainants, together with the Inquiry Committees, each of three members including a woman, and the Appellate Bodies, and published their names and contact details on its website (Focal Persons and committees). Complaints reach the Inquiry Committee within 24 hours and are decided within 30 days, with an appeal within 30 days. Faculty Grievance Redressal Committees, constituted at each constituent unit by Registrar Notification No. 30/2023 of 26 July 2023 (Faculty Grievance Redressal Committee), hear complaints of discrimination in service matters with no reprisal against any complainant or witness, and the Human Resource Policy Manual gives every employee a route of appeal on pay and service (Table 16.2).

TABLE 16.2 **Complaint and appeal bodies of the University**

No.	Body	Remit	Basis
1	Harassment Complaint Cell, two Focal Persons, at each of the six campuses	Receives complaints of harassment and gives complainants immediate assistance	EDI Policy para 24; Registrar Notification No. 01/2025
2	Inquiry Committee at each campus, three members including a woman	Investigates and decides harassment complaints within 30 days of receipt	EDI Policy para 24; Registrar Notification No. 01/2025
3	Appellate Body at each campus	Decides appeals against harassment decisions, lodged within 30 days	EDI Policy para 24; Registrar Notification No. 01/2025
4	Head of the constituent unit, or a Pro-Rector at the Head Office	Receives reports of discrimination; informal or formal procedure, with a limit of 90 business days for investigations	EDI Policy paras 6 and 19 to 23
5	Faculty Grievance Redressal Committee at each constituent unit	Complaints of faculty about discrimination in advance increments, promotions, transfers, leave and other service matters	Registrar Notification No. 30/2023
6	Directorate of Human Resource	Investigates reports of forced labour, modern slavery, human trafficking or child labour; no one suffers for a report made in good faith	HR Manual 1.3.7
7	Appellate Panel	Appeals against termination, decided by the next higher authority	HR Manual 1.15
8	Officer next higher in rank, or the Chairman of the Board for remarks recorded by the Rector	Appeals against adverse remarks in an evaluation report	HR Manual 1.19.2
9	Chairman of the Board of Governors; the Board for review	Appeals against orders of the Rector that affect pay or the terms of service, with a hearing before any order	HR Manual 6.13

Integrity is taught and tested in public. On 19 May 2025 the University hosted the HEC Postgraduate Program Review Committee, which evaluated its MS, MPhil and PhD programmes at the Islamabad E-8 and H-11 Campuses in an exercise coordinated by the Directorate of Quality Assurance (University Facebook page). On 16 September 2025 the Karachi Campus held a seminar on ethical social media use in the light of the Seerah, on the shared responsibility of state, society and individuals for responsible digital behaviour (University Facebook page), and on 22 December 2025 the Karachi Campus hosted an awareness seminar organised with the Global Compact Network Pakistan, the Maritime Anti-Corruption Network (MACN) and its Department of Marine Sciences, at which the Executive Director of Transparency International Pakistan spoke on transparency, accountability and good governance in the maritime sector.



Figure 16.5: Awareness seminar with the Global Compact Network Pakistan, MACN and Transparency International Pakistan, Karachi Campus, December 2025.

16.4 Working with government and the community

UN TARGETS **16.6, 16.7 and 16.10**

The University brings its expertise to the institutions of the state. NIMA co-hosted AMAN Dialogue 2025, held by the Pakistan Navy with Exercise AMAN on 9 and 10 February 2025 under the theme Secure Seas, Prosperous Future, at which global maritime leaders, practitioners, academics and industrialists deliberated strategies for common maritime challenges, including maritime security, cooperation and the Blue Economy. NIMA also gives policy input to federal and provincial ministries (see Chapter 17), and from 16 July 2025 the Centre of Excellence in Artificial Intelligence trained employees of the National Database and Registration Authority (NADRA) in machine learning and deep learning (see Chapter 4).

Students take part in public life. On 13 February 2025 University students volunteered at the Prime Minister's Youth Conference, held with the Commonwealth, and helped to host the inaugural session of the Commonwealth Asia Youth Alliance (CAYA) Secretariat, with youth ministers, senior officials and youth delegates from various countries (University Facebook page). On 24 November 2025 the Federal Ombudsperson for Protection against Harassment spoke at the University on workplace harassment law, women's property rights and women's safety (see Chapter 5).

16.5 Looking ahead

Building on its complaint bodies, its law school and its work with the state, the University sets these priorities for the next reporting year:

1. **Fair procedures.** The University will keep its complaint bodies notified and published at every campus.
2. **Law.** The University will extend its teaching and research in environmental and maritime law.
3. **Integrity.** The University will hold sessions on transparency and accountability at every campus.
4. **Public life.** The University will continue its dialogues with government and its support for youth.

SUSTAINABLE DEVELOPMENT GOAL

17

PARTNERSHIPS FOR THE GOALS

Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development.



BAHRIA UNIVERSITY IN 2025

Partnerships that carry the Goals from campus to national policy.

In 2025 Bahria University worked with government, NGOs, industry and universities on four continents for the Sustainable Development Goals (SDGs). Its National Institute of Maritime Affairs informed national fisheries, maritime and climate policy through twelve research reports, its researchers gathered SDG data in international networks, it signed agreements with 12 universities in six countries and with NGOs, think tanks and companies at home, and it reported its progress on every Goal.

1,655
University publications indexed by OpenAlex, 2025

12
NIMA research reports on national policy issues

10
Progress reports on the SDGs published for 2025

IN THIS CHAPTER

17.1 Research on partnerships for the Goals 161
17.2 Policy input to government and NGOs 162
17.3 Dialogue and collaboration on SDG data and practice 163
17.4 Partnerships with NGOs and institutions worldwide 165
17.5 Education for the Goals 169
17.6 Reporting on progress towards the Goals 170
17.7 Looking ahead 171

17.1 Research on partnerships for the Goals

UN TARGETS 17.6 and 17.16

Partnership for the SDGs starts in research. OpenAlex indexes **1,655 University publications of 2025**, and the University's researchers write many of them with co-authors abroad: among the publications classified to each Goal with high confidence, 224 on Goal 3 have co-authors in 81 countries, 46 on Goal 9 have co-authors in 31 countries and 25 on Goal 7 have co-authors in 21 countries (Figure 17.1). In 2025 the University published 14 works that OpenAlex links to Goal 17, 4 of them with a high-confidence classification (score of 0.8 or above): four open access journal articles by 5 University authors in 4 journals, one of them, on the law and practice of international disaster relief, written with researchers in China (OpenAlex). Table 17.1 shows publications of 2025 written with co-authors in Afghanistan, Brazil, China, India, Poland, Saudi Arabia and the United Kingdom.

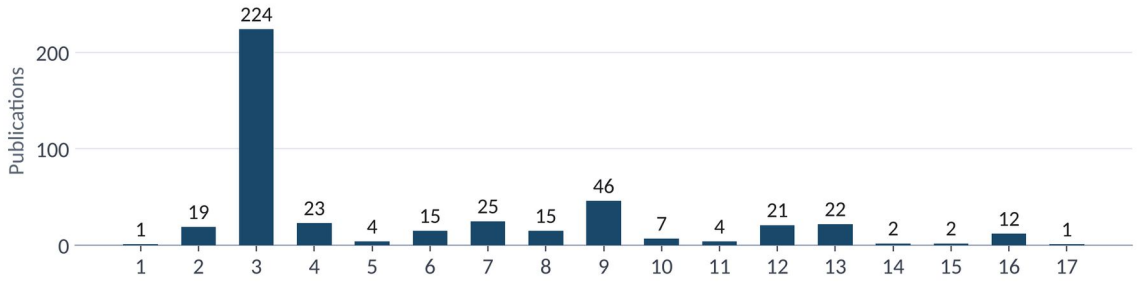

Figure 17.1: High-confidence University publications of 2025 with international co-authors, by Goal 1 to 17 (OpenAlex; a publication can be classified to more than one Goal, so the values are not added).

TABLE 17.1 **Selected University publications on Goal 17 and with international co-authors, 2025**

No.	Goal	Publication	Co-authors abroad	University authors	DOI
1	17	Research on the Jurisprudence and Practice of International Disaster Relief. Review of Law and Social Sciences, 3(1), 127 to 139	China	Ilyas Khan	10.71261/rlss/3.1.127139
2	17	Bridging Evidence Gaps in Sustainable Development Goals Research: A Comprehensive Review and Forward Agenda. Annual Methodological Archive Research Review	None	Abdul Samad Dahri	10.63075/dp3zpv02
3	2	AI-Enabled Mealybug Detection via MobileNet-ADRA: A Deep Learning Framework for Sustainable Precision Agriculture. International Conference on Soft Computing and Machine Intelligence (ISCMI), 595 to 598	Brazil; China; United Kingdom	Abdullah Ayub Khan; Asiya Khan	10.1109/iscmi67495.2025.11358548
4	7	A review on artificial intelligence thermal fluids and the integration of energy conservation with blockchain technology. Discover Sustainability, 6(1)	Afghanistan; China	Abdullah Ayub Khan; Laila Nadeem	10.1007/s43621-025-01124-w
5	7	Development and performance investigation of an indirect expansion solar heat pump integrated with a high-concentration conical cavity receiver for heating applications. Energy, 340, 139257	China	Atazaz Hassan	10.1016/j.energy.2025.139257
6	13	Deciphering the drivers of CO2 emissions in Haryana: a comprehensive analysis from 2005 to 2023. Frontiers in Environmental Science, 13	India; Saudi Arabia	Nudrat Fatima; Muhammad Kamran Khan	10.3389/fenvs.2025.1391418

No.	Goal	Publication	Co-authors abroad	University authors	DOI
7	13	China's Path to Energy Resilience: Analyzing the Contributions of Financial Development and Diversification to Sustainable and Clean Energy Solutions. Environmental Modeling and Assessment, 30(5), 1125 to 1145	China; Poland	Muhammad Imran	10.1007/s10666-025-10041-1

17.2 Policy input to government and NGOs

UN TARGET 17.17

The University takes a direct part in national and provincial policy for the SDGs. Its National Institute of Maritime Affairs (NIMA), a constituent unit at Islamabad and Karachi, holds a mandate to give policy-level input to the Government of Pakistan on maritime affairs, and the Center of Research Excellence in Climate Finance (CORE-CF; see Chapter 13) is the advisory body for policy advocacy under the Sustainability and Climate Action Policy (BU-SCAP-2025) (para 4.4), which commits the University to work with the Ministry of Climate Change and Environmental Coordination, the Pakistan Climate Change Authority and NGOs (para 7.2). In 2025 NIMA took part in the review of the draft National Fisheries and Aquaculture Policy 2025 to 2035, the first unified national policy for the sector, formulated by the Ministry of Maritime Affairs and the Food and Agriculture Organization of the United Nations (FAO), and on 25 November 2025, as a member of the Technical Working Group that met at the FAO office in Quetta, helped refine the Balochistan Fisheries and Aquaculture Rules 2025, all six of which were approved (Table 17.2).

TABLE 17.2 Policy input to government, 2025

No.	Date	Policy process	Government body	University contribution
1	28 Feb	National Maritime Policy 2025	Ministry of Maritime Affairs	The President of NIMA a panellist at the workshop to finalise the policy
2	21 Apr	Coastal and marine tourism policy	Pakistan Tourism Development Corporation	Meeting on sustainable coastal tourism; NIMA report on policy options, reviewed by the Corporation
3	30 Apr; 21 May	Shipping emissions in the national greenhouse gas inventory and the NDCs	Ministry of Climate Change and Environmental Coordination; Ministry of Maritime Affairs	Joint consultative webinar; post-event report; strategy for a National Action Plan
4	11 Jul	National Fisheries and Aquaculture Policy 2025 to 2035	Ministry of Maritime Affairs; FAO	Review of the draft policy; call for its swift promulgation
5	26 Aug	Blue Economy	Ministry of Planning, Development and Special Initiatives	NIMA briefing on the potential of the Blue Economy and the pathways to its benefits
6	Sep	Minimum service delivery standards for mental health services in Sindh	Sindh Healthcare Commission	A Professor of the Institute of Professional Psychology in the consultative meeting
7	6 Oct	2001 UNESCO Convention on the Protection of the Underwater Cultural Heritage	Department of Archaeology and Museums; UNESCO	NIMA researchers in the national consultation

No.	Date	Policy process	Government body	University contribution
8	Nov	Climate finance and carbon accounting	Ministry of Climate Change and Environmental Coordination	CORE-CF joint working with the Ministry (see Chapter 13)
9	25 Nov	Balochistan Fisheries and Aquaculture Rules 2025	Fisheries Department, Government of Balochistan; FAO	NIMA a member of the Technical Working Group; its inputs refined the final drafts

In 2025 NIMA published **twelve research reports** on its Research Reports page, each identifying problems in national policy and proposing responses. The National Action Plan for a Sustainable and Resilient Fisheries and Aquaculture System in Pakistan reviews every national and provincial policy for the sector and proposes a National Fisheries Authority with a monitoring and evaluation framework; the strategy for a National Action Plan on shipping emissions puts the annual emissions of Pakistan's maritime vessels at 2,468,789 tonnes of CO2e, 4.9 per cent of transport sector emissions, and proposes their inclusion in the Nationally Determined Contributions (NDCs) with a monitoring, reporting and verification system; and the report on the implementation of the conventions of the International Maritime Organization (IMO) records that Pakistan has ratified 26 conventions and recommends the ratification of 20 more, including MARPOL Annex VI. Further reports set out options for coastal and marine tourism, the transformation of Port Qasim into a green port and sustainable livelihoods for coastal communities.

NIMA also works with regional NGOs and think tanks on policy. On 8 August 2025 it launched with the Pakistan Business Forum the international conference series 'Blue Economy: Pakistan's Maritime Future' to generate policy recommendations across the provincial capitals, and it signed memoranda of understanding with the Centre for Law and Security (29 January 2025), the Centre for International Strategic Studies AJK (27 March 2025) and the youth-led Progressive Climate Foundation (23 July 2025). The University Sustainability Council, chaired by the Rector, includes an industry or community representative (Sustainability and Climate Action Policy, para 4.1).

17.3 Dialogue and collaboration on SDG data and practice

UN TARGETS 17.6 and 17.16

The University both convenes and joins dialogue on the SDGs with government, industry, NGOs and international organisations (Table 17.3), as the Sustainability and Climate Action Policy commits it to partnerships with government and regulators, industry and finance, international climate networks, including the United Nations Framework Convention on Climate Change (UNFCCC) and its Conference of the Parties (COP), and civil society (para 7.2). NIMA organised the International Maritime Conference (IMC-25) under the Pakistan International Maritime Expo and Conference (PIMEC 2025), on harnessing the potential of the Blue Economy for sustainable development, at which the Federal Minister for Finance set out offshore energy and climate-smart strategies (Figure 17.2). In November 2025 the Head of CORE-CF represented the University at COP30 in Belém, Brazil (see Chapter 13).

TABLE 17.3 Dialogues on the SDGs initiated or joined by the University, 2025

No.	Date	Dialogue	Sectors involved	Role
1	9 and 10 Feb	AMAN Dialogue 2025, 'Secure Seas, Prosperous Future', co-hosted by NIMA	Navies, government, academia, industry, international participants	Initiated
2	30 Apr	Webinar on the IMO Net-Zero Framework under MARPOL Annex VI, NIMA	Ministry of Climate Change, ports, shipping and shipbuilding	Initiated
3	22 May	Pre-Budget Session 'Shaping a Prosperous Future', Karachi Campus	Federal Minister for Investment, economists, industry	Initiated
4	26 May	International conference 'Bridging Regions: The Strategic Role of Central Asia and Pakistan in Regional Connectivity'	Experts, scholars and policymakers	Initiated
5	25 Jun	World Drug Day seminar 'Pathways toward Empowerment', with the Sindh Mental Health Authority	Provincial authority, medical professionals, educators, a Senator	Initiated
6	26 and 27 Aug	Workshop on the Hong Kong Convention and ILO instruments for the ship recycling industry	ILO, IMO, Norway, ministries, industry, labour union	Joined
7	4 and 5 Nov	International Maritime Conference (IMC-25), 'Harnessing Blue Economy Potential for Sustainable Development', NIMA	Federal ministers, Pakistan Navy, Government of Sindh, industry	Initiated
8	Nov	COP30, Belém, Brazil: the University's model for mapping and monetising institutional carbon footprints	Governments, NGOs and industry under the UNFCCC	Joined
9	22 Dec	Seminar on integrity in the maritime sector with the Global Compact Network Pakistan and the Maritime Anti-Corruption Network, Karachi Campus	UN Global Compact network, industry, Transparency International Pakistan	Initiated

The University's researchers gather and measure data for the SDGs with international partners (Table 17.4). A researcher of Allied Health Sciences at the Health Sciences Campus, Karachi, is a collaborator of the Global Burden of Disease Study 2023; a faculty member of the School of Maritime and Applied Sciences, Karachi Campus, is a co-author, with 40 researchers from 17 countries, of a study of a participatory network that has distributed more than 900 Secchi disks to monitor water colour and clarity (see Chapter 6); and a University psychology researcher in Islamabad is among 404 researchers who collected survey data from 117,293 participants in 175 countries.

TABLE 17.4 International collaboration on data for the SDGs, 2025

No.	Area	Record	International partners	Goals
1	Global health data	Global Burden of Disease Study 2023, The Lancet, October 2025: 375 diseases and injuries and 88 risk factors in 204 countries and territories (10.1016/S0140-6736(25)01637-X)	Collaborators in 110 countries	3
2	Survey data	Data from 117,293 participants in 175 countries, in 45 languages, on romantic love, relationship quality and gender equality, Scientific Data (10.1038/s41597-025-05365-2)	404 researchers	3, 5
3	Environmental measurement	Water quality, groundwater, geothermal resources, cropland, CO2 emissions and particulate pollution	Partner institutions in ten countries	2, 3, 6, 7, 13, 14
4	Carbon measurement	The University's carbon footprint across Scopes 1 to 3 and a Carbon Data Hub on the ISO 14064 framework, CORE-CF	UNFCCC COP30, Belém	13
5	Shipping emissions data	Emissions baseline for Pakistan's maritime vessels; proposed monitoring, reporting and verification system for the NDC, NIMA	IMO; UNFCCC NDC process	13, 14

No.	Area	Record	International partners	Goals
6	Fisheries data	Action plan built on FAO statistics, calling for catch reporting and data-driven policy; work with the FAO on policy and rules, NIMA	FAO	2, 14
7	Results measurement	Progress and outcomes of the University's Higher Education Development in Pakistan initiatives reviewed, 24 October 2025	World Bank; Higher Education Commission	4

The University also compares approaches and shares best practice internationally. In 2025 its researchers co-authored with partners in more than 20 countries comparative and systematic reviews on energy transition, green finance, compassionate healthcare, education technology, sepsis diagnosis and the circular economy, and NIMA compared Pakistan with global practice on green ports, coastal tourism, shipbuilding, aquaculture and shipping emissions. From 6 to 11 October 2025 a delegation of the Health Sciences Campuses benchmarked competency-based nursing education, quality assurance and simulation-based training at Saint Louis University, the University of the Philippines Manila and the University of Perpetual Help System DALTA, with which it signed a memorandum of understanding (see Chapter 3), and on 24 October 2025 a delegation of the Higher Education Commission, as part of the World Bank Implementation Completion Mission, reviewed the progress and outcomes of the University's Higher Education Development in Pakistan initiatives (Figure 17.3).



Figure 17.2: Speakers and guests at the International Maritime Conference (IMC-25) organised by NIMA under PIMEC 2025, Karachi, November 2025.



Figure 17.3: The Higher Education Commission and World Bank Implementation Completion Mission delegation with University leaders, 24 October 2025.

17.4 Partnerships with NGOs and institutions worldwide

UN TARGET 17.17

The University works with NGOs through student volunteering, research programmes and the development of educational resources (Table 17.5). The Sustainability and Climate Action Policy commits it to partner with NGOs for community-based climate adaptation (para 7.2), and the Community Support Program, a 40-hour degree requirement for every undergraduate (see Chapter 1), has as its first objective to encourage students to work with NGOs, government agencies and international organisations. On 29 April 2025 the University signed a memorandum of understanding with the Sustainable Development Policy Institute (SDPI), a policy think tank, for academic and policy research, knowledge exchange and capacity building

(Figure 17.4), and on 27 October 2025 the Rector and the President of Alkhidmat Foundation Pakistan signed one on community engagement, volunteerism and humanitarian service (see Chapter 1).

TABLE 17.5 **Collaboration with NGOs on the SDGs, 2025**

No.	Route	NGO partners	Collaboration
1	Student volunteering	Alkhidmat Foundation Pakistan; Afzaal Memorial Thalassemia Foundation; Make-A-Wish Foundation Pakistan; HOL Foundation Pakistan; Serve and Care Foundation; Special Olympics Pakistan; Rizq; Allah Walay Trust	Volunteering, blood donation, wish-granting, school mental health activities, sessions with refugee children and athletes, Ramadan drives (see Chapters 1 and 3)
2	Research programmes	Sustainable Development Policy Institute; Centre for Law and Security; Centre for International Strategic Studies AJK; Progressive Climate Foundation; Savaira Foundation; Kiran Foundation; Pakistan Fisherfolk Forum	Memoranda of understanding on policy, maritime and climate research; mental health programmes and assessment camps; field study at Ibrahim Hyderi
3	Educational resources	Paws Rescue Pakistan; Idara Al-Khair Welfare Society; Global Alliance for Rabies Control; Pakistan Society of Physicians; WWF-Pakistan; WaterAid Pakistan; Moawin Foundation; Teach For Pakistan	Awareness campaigns, a booklet on emotional regulation, public health seminars, webinars and seminars, an education memorandum of understanding
4	Access to education	DIYA Pakistan; Hult Prize Foundation	Support for deserving students; social entrepreneurship challenge for student teams (see Chapter 1)

Delegations came to the University from the University of Leicester, United Kingdom (12 February 2025), the Clermont School of Business, France (23 April), the Embassy of Lithuania (25 April), Northwest A&F University, China, with COMSTECH (8 May), twelve Malaysian universities with Education Malaysia Global Services and the Malaysian Ministry of Higher Education (19 September), French higher education institutions under the Choose France initiative (16 October), Vice Chancellors and Presidents of universities in Gaza (20 October; Figure 17.5) and Airlangga University, Indonesia, with the World University Association for Community Development (5 December 2025).



Figure 17.4: Exchange of the memorandum of understanding between Bahria University and the Sustainable Development Policy Institute, 29 April 2025.



Figure 17.5: Delegation of Vice Chancellors and Presidents of universities in Gaza at Bahria University, 20 October 2025.

Academic partnerships across four continents

Rector's delegations, NIMA and the Directorate of International Office; 2025

THE CHALLENGE

Students and researchers serve the SDGs best with partners across the world, in partnerships that are renewed and put to work.

WHAT WE DID

On 10 February 2025 NIMA signed a memorandum of understanding with the National Research Center for Maritime Law (DEHUKAM) of Ankara University, Türkiye; on 29 April a delegation led by the Rector renewed the University's memorandum of understanding with Macquarie University, Australia, for five years, for joint research, co-supervision, articulation and faculty development, and on 5 and 7 May it explored exchanges and summer programmes with Deakin and Curtin Universities. On 10 and 11 November 2025 the Rector signed memoranda with Clemson University and Lewis University in the United States, and on 17 November a University delegation signed agreements with four universities in Tashkent and Samarkand.

THE RESULT

In 2025 the University signed agreements with 12 universities in Australia, the Philippines, Türkiye, the United Kingdom, the United States and Uzbekistan, opening exchanges, joint research and summer schools on four continents.

KEY FIGURES

12

Universities abroad that signed agreements in 2025

6

Countries in Asia, Australia, Europe and North America

5 years

Renewal of the Macquarie University partnership

PARTNERS

Ankara University (DEHUKAM); Macquarie, Deakin and Curtin Universities; Clemson and Lewis Universities; Robert Gordon and East London Metropolitan Universities; universities of Uzbekistan



Figure 17.6: The University's delegation at Macquarie University, Sydney, Australia, during the renewal of the memorandum of understanding, 29 April 2025.



Figure 17.7: Exchange of the signed memorandum of understanding between NIMA and the National Research Center for Maritime Law (DEHUKAM), Ankara University, at NIMA, February 2025.

Sources: University events register 2025; University Facebook page, 29 April, 5 May, 7 May, 10 November and 17 November 2025; NIMA website, 10 February 2025.

Table 17.6 lists the memoranda of understanding of 2025 signed by the University and NIMA, among them agreements with 12 universities in Australia, the Philippines, Türkiye, the United Kingdom, the United

States and Uzbekistan and with universities, NGOs, think tanks, companies and clinics in Pakistan, and an amendment to the agreement with AquaHatch International (Figure 17.8). The agreements of the health colleges with hospitals, clinics and care organisations are listed in Chapter 3.

TABLE 17.6 Memoranda of understanding of the University and NIMA, 2025

No.	Date	Partner	Focus of the agreement
1	10 Jan	ASK Development Ltd., with the LPDC	Professional development and training
2	16 Jan	DIYA Pakistan, with the Advancement Directorate	Support for deserving students
3	19 Jan	School of Iqbal Studies (Thesis)	Academic collaboration
4	29 Jan	Centre for Law and Security, with The Millennium Universal College	Research on maritime security, the Blue Economy and maritime law
5	10 Feb	National Research Center for Maritime Law (DEHUKAM), Ankara University, Türkiye, with NIMA	Maritime law research and capacity building
6	14 Feb	Creative Group of Industries, Lahore	Energy, engineering and technology solutions
7	13 Mar	National Vocational and Technical Training Commission (NAVTTC), with the LPDC	Vocational training under the Prime Minister's Youth Skills Development Program (see Chapter 4)
8	27 Mar	Centre for International Strategic Studies AJK, with NIMA	Research and joint initiatives on maritime affairs
9	17 Apr	Allah Walay Trust, with the Lahore Campus	Food: Ramadan ration distribution (see Chapter 1)
10	24 Apr	Robert Gordon University, United Kingdom	Academic collaboration; guest lectures
11	29 Apr	Sustainable Development Policy Institute	Research, knowledge exchange and capacity building
12	29 Apr	Macquarie University, Australia (five-year renewal)	Joint research, co-supervision, articulation, faculty development
13	3 Jun	Moawin Foundation	Education and community development
14	11 Jun	EcoBricks	Recycling of plastic waste; internships and student projects
15	10 Jul	University of Geological Sciences, Uzbekistan	Summer schools, faculty exchange, curriculum development
16	11 Jul	Petroleum Exploration (Pvt) Ltd.	Research collaboration and internships
17	23 Jul	Progressive Climate Foundation, with NIMA	Maritime climate research, policy and youth engagement
18	31 Jul	East London Metropolitan University, United Kingdom	Summer and winter schools, exchange, credit transfer
19	24 Aug	University of the Punjab	Academic linkages and research
20	2 Sep	University of Engineering and Technology, Lahore	Academic linkages and research
21	22 Sep	Education Vision (EDUVISION), with the Bahria Business School	Aptitude assessment and career counselling for students
22	29 Sep	Pedia Care Therapy Clinic, with the Department of Professional Psychology	Clinical training, research and community projects
23	10 Oct	University of Perpetual Help System DALTA, Philippines, with the Health Sciences Campuses	Nursing education and simulation-based training

No.	Date	Partner	Focus of the agreement
24	27 Oct	Alkhidmat Foundation Pakistan	Community engagement, volunteerism, humanitarian service
25	1 Nov	Asian International University, Uzbekistan	Research collaboration and cross-border learning
26	10 Nov	Clemson University, United States	Exchange, joint research, summer schools
27	11 Nov	Lewis University, United States	Exchange, joint research, conferences
28	17 Nov	National University of Uzbekistan; University of Geological Sciences; Samarkand Institute of Economics and Service; Samarkand State University	Exchange, joint research, summer schools, webinars
29	22 Dec	Islamabad Diagnostic Centre	Healthcare education, research and community engagement
30	27 Dec	AquaHatch International (amendment)	Diploma in Aquaculture and Fisheries (see Chapter 2)

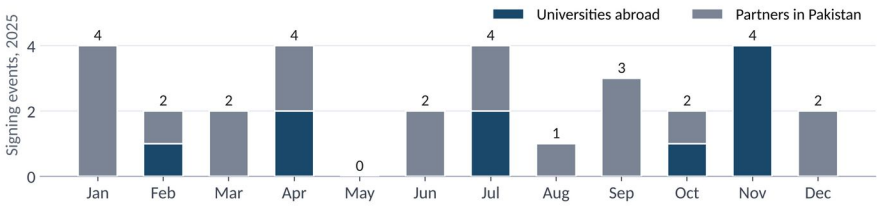

Figure 17.8: Signing events for memoranda of understanding of the University and NIMA by month, 2025 (Table 17.6; the visit to Uzbekistan of 17 November counts once for four agreements, and the December total includes one amendment).

17.5 Education for the Goals

UN TARGETS 4.7 and 17.16

Every student of the University learns about the SDGs. The Sustainability and Climate Action Policy commits the University to climate and sustainability content in all its programmes by 2028 and to mandatory climate literacy for all students and staff (para 3.1), with a three-credit-hour course, Climate Change and Sustainability, in every undergraduate programme and climate modules in postgraduate programmes (para 6.1). The general education course Civics and Community Engagement appears in 75 of the 84 published bachelor's and associate degree roadmaps, 65 of them include a course on environment, climate or sustainability (see Chapter 4), and under the Student Handbook for Spring 2025 every undergraduate completes 40 contact hours of the Community Support Program, which in 2025 included plantation drives, clean-ups and sessions on climate change and energy.

Dedicated degrees address sustainability and the SDGs throughout (Table 17.7), the BS Economics offers an elective titled Sustainable Development Goals, the Karachi Campus offers a Diploma in Aquaculture and Fisheries (see Chapter 2), and the Course Code Handbook 2025 lists more than 200 currently offered courses on environment, climate and sustainability. The University measures what students learn: under the Student Handbook for Spring 2025 every course is assessed through at least three quizzes, assignments or projects, a mid-semester examination and a comprehensive final examination, and programmes assess sustainability as a programme learning outcome, such as Environment and Sustainability (PLO-7) in the

Bachelor of Computer Engineering; in 2025 faculty at all campuses were trained on the University's outcome-based education system.

TABLE 17.7 **Degrees dedicated to sustainability and the SDGs, 2025**

No.	Programme	Campus	Sustainability focus
1	BS Environmental Science	Islamabad H-11; Karachi	Climate change; sustainable development; biodiversity and conservation
2	MS Environmental Science	Islamabad H-11; Karachi	Climate adaptation and mitigation; green economy
3	MS Environmental Policy and Management	Islamabad H-11	Environmental policy; sustainability management
4	PhD Environmental Sciences	Islamabad H-11; Karachi	Pollution and climate change; alternative energy
5	BS Development Studies	Islamabad E-8; Karachi	Courses aligned with the 17 SDGs; climate and gender majors
6	BS Coastal and Marine Sciences	Karachi	Marine protected areas; coasts and climate; mangroves
7	LLM (Environmental Law)	Islamabad E-8	Environmental and climate change law
8	Postgraduate Diploma in Maritime Safety, Health and Environmental Quality Management	Islamabad E-8	Marine environmental protection; courses aligned with the SDGs

The University carries this education beyond its students. Its more than 58,000 alumni, with 5 national and 14 international chapters, were offered the Alumni Digital Youth Hub, announced with the Prime Minister's Youth Programme on 20 July 2025, and summer schools, certificates and diplomas at reduced fees; NIMA's sessions for fisherfolk, coastal villages and young people are free of charge (see Chapter 14); and psychology students held psychosocial learning sessions for refugee children and families at the Serve and Care Foundation, Karachi.

17.6 Reporting on progress towards the Goals

UN TARGET **17.16**

The University reports its progress on the SDGs publicly. For 2025 the Directorate of Quality Assurance prepared ten progress reports, one for each of Goals 1, 3, 4, 5, 7, 8, 9, 10, 12 and 14, each with its policies, research, data and case studies, and published them on the University's Sustainability web page (Table 17.8); this report brings together the University's progress on all 17 Goals. The Sustainability and Climate Action Policy commits the University to report on its sustainability performance every year (para 8.3).

TABLE 17.8 **The University's progress reports on the SDGs for 2025**

No.	Goal	Progress report	Leading themes
1	1	No Poverty	Admission for students from the poorest regions; financial support; free education for students from low income countries
2	3	Good Health and Well-being	Educating health professionals; health services and mental health; community outreach
3	4	Quality Education	Teaching quality; widening access; lifelong learning; education for sustainable development

No.	Goal	Progress report	Leading themes
4	5	Gender Equality	Women's access and graduation; women in leadership; childcare and family support
5	7	Affordable and Clean Energy	Energy-efficient buildings; solar generation; carbon management; the pledge to 100 per cent renewable electricity
6	8	Decent Work and Economic Growth	A living wage; equal pay; labour rights; entrepreneurship and youth employment
7	9	Industry, Innovation and Infrastructure	Spin-offs and start-ups; research income from industry; research centres
8	10	Reduced Inequalities	Non-discriminatory admissions; scholarships; inclusion of people with disabilities
9	12	Responsible Consumption and Production	Measuring waste; hazardous waste; single-use plastic; ethical sourcing
10	14	Life Below Water	Ocean conservation events; sustainable seafood; preventing marine pollution

The policies cited in this chapter are published on the University policies page.

17.7 Looking ahead

In 2025 the University informed national policy, convened dialogue across sectors, gathered data with networks worldwide, signed agreements with partners at home and on four continents, taught the SDGs to every student and reported its progress Goal by Goal. Its priorities for the next reporting year are these:

1. **Policy partnerships.** The University will carry the research of NIMA and CORE-CF into national policy on fisheries, shipping, climate finance and the Blue Economy with the ministries and agencies concerned.
2. **Agreements into action.** The University will turn its new agreements with universities in Australia, the Philippines, Türkiye, the United Kingdom, the United States and Uzbekistan into exchanges, joint research and summer schools.
3. **Education for the Goals.** The University will bring the Climate Change and Sustainability course and climate literacy to every programme.
4. **Reporting.** The University will report its progress on the SDGs every year, with its greenhouse gas inventory and its partnerships.

Data notes and methodology

1. **Reporting period.** The report covers 2025. Student finance figures of the Directorate of Student Affairs refer to academic year 2025, and building works and the greenhouse gas inventory to fiscal year 2025.
2. **Scope.** The report covers the Head Office, Islamabad; the six campuses (Islamabad E-8 Campus, Islamabad H-11 Campus, Karachi Campus, Lahore Campus, Health Sciences Campus, Islamabad, and Health Sciences Campus, Karachi); and the constituent units, the Institute of Professional Psychology, Karachi, and the National Institute of Maritime Affairs, Islamabad and Karachi. Where a record covers a defined set of units, the chapter names it, for example the waste register of eight campuses and units and the electricity metering of six campus units.
3. **Shared figures.** Students: the 23,866 students of the University's campuses and constituent units in 2025, as defined for the University's numerical data for 2025 (Directorate of Information Technology, Campus Management System). Semester 1 entrants: the 8,451 students registered in Semester 1 of the Spring and Fall 2025 intakes, at all levels (Directorate of Admissions). Graduates: the 5,095 graduates at bachelor's, master's and doctoral level (Controller of Examinations). Employees and academic staff: 2,238 employees and 1,350 academic staff (Directorate of Human Resource). A figure used by several Goals is reported in full in one chapter and repeated elsewhere with the same value and wording.
4. **Research publications.** Research metrics come from OpenAlex: works with at least one author affiliated with Bahria University, publication year 2025, retracted works and errata excluded (https://api.openalex.org/works?filter=authorships.institutions.lineage:I59225215,publication_year:2025,is_retracted:false). A work is linked to a Goal when OpenAlex assigns it a Goal score above 0.4 and classified with high confidence at a score of 0.8 or above. University authors are counted by name, including authors without an OpenAlex identifier; international co-authorship means at least one co-author based outside Pakistan; the 10 per cent most cited works are those that OpenAlex places among the 10 per cent most cited works of the same type, publication year and subfield. Values were retrieved in November 2026; for Goals 1, 8, 9, 10, 12 and 14 they are those of the Goal progress reports.
5. **Activities and events.** Activities are drawn from the records and evidence of the offices concerned and from the University's official websites and social media, and are dated as those records give them.
6. **Policies.** Policies are cited by title, approving body and edition (Table D) and are available on the University's Sustainability web page.
7. **Goal progress reports.** The chapters on Goals 1, 3, 4, 5, 7, 8, 9, 10, 12 and 14 build on the Goal progress reports for 2025 and carry over their figures, with further figures supplied by the offices named in each chapter; the chapters on Goals 2, 6, 11, 13, 15, 16 and 17 extend the reporting to the remaining Goals.
8. **Data checks and presentation.** The Directorate of Quality Assurance checked every figure against the source record named in the chapter or in these notes. Shares are given to one decimal place, and money in Pakistani rupees (Rs).

Abbreviations

Abbreviation	Meaning	Abbreviation	Meaning
ADRC	Aquatic Diagnostic Research Center	KPI	Key performance indicator
AI	Artificial intelligence	KUST	Kohat University of Science and Technology
AJK	Azad Jammu and Kashmir	kW	Kilowatt
AKU	Aga Khan University	kWh	Kilowatt-hour
AMI	Advanced metering infrastructure	LED	Light-emitting diode
AMTF	Afzaal Memorial Thalassemia Foundation	LEED	Leadership in Energy and Environmental Design
APPAF	All Pakistan Performing Arts Festival	LLM	Master of Laws
BDS	Bachelor of Dental Surgery	LPDC	Leadership and Professional Development Centre
BS	Bachelor of Science	MACN	Maritime Anti-Corruption Network
CABI	CAB International	MARPOL	International Convention for the Prevention of Pollution from Ships
CAYA	Commonwealth Asia Youth Alliance	MBBS	Bachelor of Medicine and Bachelor of Surgery
CGPA	Cumulative grade point average	MoU	Memorandum of understanding
CO2	Carbon dioxide	MPhil	Master of Philosophy
CO2e	Carbon dioxide equivalent	MS	Master of Science
CoE-AI	Centre of Excellence in Artificial Intelligence	MSC	Marine Stewardship Council
COMSTECH	OIC Standing Committee on Scientific and Technological Cooperation	NADRA	National Database and Registration Authority
COP	Conference of the Parties	NAVTTC	National Vocational and Technical Training Commission
COP30	Thirtieth Conference of the Parties to the United Nations Framework Convention on Climate Change	NDC, NDCs	Nationally Determined Contribution
CORE-CF	Center of Research Excellence in Climate Finance	NESCOM	National Engineering and Scientific Commission
COVID-19	Coronavirus disease 2019	NGO, NGOs	Non-governmental organisation
CPR	Cardiopulmonary resuscitation	NIMA	National Institute of Maritime Affairs
CV	Curriculum vitae	NUML	National University of Modern Languages
DC	Direct current	NUST	National University of Sciences and Technology
DOI	Digital Object Identifier	OECD	Organisation for Economic Co-operation and Development
ECBC-2023	Energy Conservation Building Code 2023	ORIC	Office of Research, Innovation and Commercialization
EDI	Equality, diversity and inclusion; EDI Policy: Equality and Non-Discrimination Policy	PEFC	Programme for the Endorsement of Forest Certification
ERC	Environmental Research Center	PhD	Doctor of Philosophy
FAO	Food and Agriculture Organization of the United Nations	PIMEC	Pakistan International Maritime Expo and Conference
FATA	Federally Administered Tribal Areas	PLSP	Pakistan Life Savers Programme
FPCCI	Federation of Pakistan Chambers of Commerce and Industry	PNS	Pakistan Navy Ship
FSC	Forest Stewardship Council	PSC	Psychological Services Centres
GHG	Greenhouse gas	REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
GIK	Ghulam Ishaq Khan Institute of Engineering Sciences and Technology	RO	Reverse osmosis
GIS	Geographic information system	RoHS	Restriction of Hazardous Substances
HEC	Higher Education Commission	Rs	Pakistani rupees

Abbreviation	Meaning	Abbreviation	Meaning
HPV	Human papillomavirus	SCAP	Sustainability and Climate Action Policy
HR	Human Resource	SDG, SDGs	Sustainable Development Goal
HRM	Human resource management	SDPI	Sustainable Development Policy Institute
HSC	Health Sciences Campus	SMD	Surface-mounted device
HSE	Health, Safety and Environment	SME, SMEs	Small and medium-sized enterprise
ICRC	International Committee of the Red Cross	SOFA	Sequential Organ Failure Assessment
ICT	Information and communications technology	SPPP	Sustainable Procurement and Purchasing Policy
ICU	Intensive care unit	SPSS	Statistical Package for the Social Sciences
IEEE	Institute of Electrical and Electronics Engineers	STEM	Science, technology, engineering and mathematics
IGNITE	IGNITE National Technology Fund	SUPARCO	Space and Upper Atmosphere Research Commission
IHL	International humanitarian law	tCO2e	Tonnes of carbon dioxide equivalent
ILO	International Labour Organization	TDS	Total dissolved solids
IMC-25	International Maritime Conference 2025	UAE	United Arab Emirates
IMO	International Maritime Organization	UK	United Kingdom
IPP	Institute of Professional Psychology	UN	United Nations
ISCED-F	International Standard Classification of Education, Fields of Education and Training	UNESCO	United Nations Educational, Scientific and Cultural Organization
ISO	International Organization for Standardization	UNFCCC	United Nations Framework Convention on Climate Change
IT	Information technology	US	United States
KITCC	Kashif Iqbal Thalassemia Care Centre	VANET	Vehicular ad hoc network

PUBLICATION

Bahria University publishes this report as its institution-wide Sustainability Report for 2025. It is publicly available on the University's Sustainability web page, where it will remain available after later editions are published.

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