



Awareness and Perceptions of the Sustainable Development Goals among University Students and Faculty in Azad Jammu and Kashmir: Evidence from Mirpur University of Science and Technology

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Abstract

Universities are expected to advance the Sustainable Development Goals (SDGs), yet little is known about how the goals are understood on campuses in peripheral and politically contested regions. This study surveyed 335 students and faculty members at Mirpur University of Science and Technology (MUST) in Azad Jammu and Kashmir (AJK), Pakistan, on their awareness of the SDGs, where they first learned of them, and their views on SDG 1 (No Poverty) and SDG 16 (Peace, Justice and Strong Institutions). Four findings stand out. First, field of study is the strongest correlate of awareness: 60.4% of respondents in the Faculty of Social Sciences and Humanities scored high, against 4.8% in the Faculty of Natural and Applied Sciences. Second, 42.1% named the survey itself as the place they first encountered the SDGs, which indicates that self-rated awareness overstates familiarity. Third, awareness of SDG 16 is much lower than awareness of SDG 1, although most respondents regard peace as a concern in their community. Fourth, students are far more likely than faculty to see peace as solely the government's responsibility (31.2% vs 5.3%). The findings point to a discipline gap in SDG exposure within the university and to the need for knowledge-based rather than self-rated measurement.

Keywords: Sustainable Development Goals; SDG awareness; higher education; norm localisation; SDG 1; SDG 16; Azad Jammu and Kashmir; Pakistan

INTRODUCTION

The 2030 Agenda for Sustainable Development, adopted by all United Nations member states in 2015, set out 17 Sustainable Development Goals (SDGs) covering poverty, inequality, climate, institutions and peace (United Nations, 2015). The goals apply to all countries and span economic, social, environmental and technological development (Chankseliani & McCowan, 2021). Scholars describe this as "governing through goals": a form of global governance that steers action through shared aspirations and weak institutional arrangements rather than legal obligation, leaving states considerable leeway in how they respond (Biermann et al., 2017; Kanie & Biermann, 2017). Under such an arrangement, progress depends heavily on whether people and local institutions know the goals, find them relevant and choose to act on them.

Higher education institutions occupy a central position in this process. Universities can act as drivers of the full set of goals through their role in human formation, knowledge production and innovation (Chankseliani & McCowan, 2021), and they can model what a change-maker institution looks like (Zamora-Polo & Sánchez-Martín, 2019). Teachers matter in particular: what they know about the goals, and



how they translate that knowledge into content and pedagogy, shapes what students learn (Shulman, 1987). A first practical step in any institutional effort is therefore to establish what students and teachers currently know and think about the SDGs, and how that varies across the university community.

A growing number of surveys have examined SDG awareness among university students, including in Spain (Zamora-Polo et al., 2019; Leiva-Brondo et al., 2022), Italy (Smaniotto et al., 2020) and Nigeria (Omisore et al., 2017). Reported levels differ widely across settings and instruments. At Osun State University in Nigeria, for example, 43% of 450 students and staff were aware of the SDGs and only 4.2% had good knowledge of them (Omisore et al., 2017). Evidence from Pakistan, and in particular from Azad Jammu and Kashmir (AJK), is much scarcer. Pakistani studies have examined students' awareness of sustainability concepts in technology education at public-sector universities (Malik et al., 2019) and students' perceptions of climate change and sustainable development in Lahore (Nadeem & Nawaz, 2023), but we did not identify any that assess awareness of the SDGs among both students and faculty in AJK. Earlier survey work at MUST has examined political culture and democratic attitudes among students and faculty (Abbas & Khaliq, 2024), but not their awareness of the SDGs. To the authors' knowledge, no previous study has assessed SDG awareness at Mirpur University of Science and Technology (MUST).

MUST is a university in Mirpur District, AJK, which draws students and faculty from across the territory. AJK is a disputed territory that has experienced political conflict (Khaliq, 2012), and governance in AJK and the neighbouring region of Gilgit-Baltistan has been a recurring source of contestation and resistance (Lashari et al., 2025), and its development challenges, including poverty and the quality of institutions, make two goals especially relevant: SDG 1, which aims to end poverty in all its forms, and SDG 16, which concerns peaceful and inclusive societies, access to justice and effective, accountable institutions. How a university community in such a setting understands these goals, and how concerned it is about the problems they describe, bears directly on how the SDGs can be taught and used locally.

This study surveyed 335 respondents (221 students and 114 faculty members) at MUST. It asks three questions: (1) How aware of the SDGs are students and teachers, and where did they first learn of them? (2) How aware are they of SDG 1 and SDG 16, and how concerned are they about the problems these goals address? (3) Which characteristics of respondents, above all role and field of study, are associated with these outcomes? The study provides the first baseline of SDG awareness for a university in AJK. Its main contributions are to show that field of study matters more than any other characteristic, that a large share of self-reported awareness is an artefact of the survey itself, and that concern about peace runs well ahead of awareness of the goal that addresses it.

LITERATURE AND THEORETICAL FRAMEWORK

Sustainable development was defined in the Brundtland report as development that meets the needs of the present without compromising the ability of future generations to meet their own (World Commission on Environment and Development, 1987). The SDGs operationalise that idea in 17 goals and associated targets. Their novelty lies less in their content than in their governance logic. Biermann et al. (2017) argue that the SDGs represent a new strategy of global governance by goal-setting, characterised by an inclusive goal-setting process, non-binding goals, reliance on weak institutional arrangements and extensive leeway for states, so that success depends on how far states translate global ambitions into national contexts. The evidence on whether this strategy integrates global governance is mixed: Bogers et al. (2023) find that the goals have not been taken up by a substantial group of international organisations and that some organisations cherry-pick the goals that fit their own agendas. Wider assessments are



collected in Biermann et al. (2022).

For a study of awareness, the implication is straightforward. Because the SDGs steer through norms and shared understanding rather than enforcement, their influence at the national and local level depends on diffusion: on whether publics and institutions come to know the goals and treat them as a reference point. The literature on international norms offers two useful ideas. Finnemore and Sikkink (1998) describe norm dynamics as a three-stage life cycle of emergence, norm cascades and internalisation. Acharya (2004) argues that the spread of global norms is not a matter of wholesale acceptance or rejection: local actors adapt foreign norms to fit existing beliefs and practices, and acceptance depends on whether the norm can be made congruent with the local normative order. Awareness is the earliest observable stage of diffusion, since a goal that people have never heard of cannot yet be localised, and differences in awareness across disciplines and roles show where the diffusion channel, here the university, has not reached. Localisation also predicts that uptake will be uneven across goals. A goal whose content resonates with existing local concerns, or whose vocabulary is familiar, should travel more easily than one that is politically sensitive. SDG 16 was controversial from the outset and was perceived by some states as encroaching on national sovereignty (Milton & Alhamawi, 2024), which makes it a plausible candidate for slower or more selective local uptake, particularly in a contested territory. We use this expectation as an interpretive frame for the SDG 16 results, not as a hypothesis tested by the data.

Universities are one of the principal channels through which such norms reach the next generation. They contribute through curricula, research, campus operations and engagement with society, and the teacher's own knowledge is a precondition. Shulman's (1987) distinction between content knowledge and pedagogical content knowledge is useful here: teachers need to understand sustainability topics in their field and also know how to teach them. Dale and Newman (2005) distinguish education for sustainable development from environmental education and argue that it requires interdisciplinary, problem-based learning, which implies that the goals cannot be left to the disciplines that already address social questions. Which students are reached therefore depends on what they study, and one would expect awareness to vary accordingly. Studies of student knowledge point in this direction: in Spain, knowledge of the SDGs was low overall, with differences between health and education students (Zamora-Polo et al., 2019), and in Italy, knowledge was low but better among first-year students who had previously attended specific educational activities (Smaniotto et al., 2020).

Awareness studies typically ask respondents how familiar they are with the SDGs, where they learned of them and what they think of particular goals. Two measurement issues recur. The first is the distinction between awareness and knowledge: in the Nigerian study, awareness was moderate while good knowledge was rare (Omisore et al., 2017), so self-rated familiarity is an imperfect proxy for what respondents actually know. The second is that comparisons across studies are hampered by different response categories, populations and definitions of "aware". Evidence from Pakistan is limited and mostly concerns sustainability or climate change rather than the SDGs specifically. Malik et al. (2019) surveyed students at public-sector universities in technology-related fields and analysed the national technology curriculum; they report low awareness of sustainability concepts among students and limited coverage of sustainability in the curriculum. Nadeem and Nawaz (2023) surveyed 400 students at two public universities in Lahore and found that students had better perceptions of climate change than of sustainable development, even though very few degree programmes cover either topic; they recommend integrating relevant courses and action-oriented case studies. Both studies point to the curriculum as a limiting factor, both study students only, and neither focuses on AJK. Given the limited prior evidence, the analysis that follows is exploratory and is organised around the research questions set out above rather than around formal



hypotheses.

DATA AND METHODS

Setting, sample and instrument

We used a cross-sectional design based on a structured questionnaire administered in person at MUST, Mirpur District, AJK, during the first quarter of 2023. Sampling covered 43 departments grouped in five faculties, with questionnaires allocated in proportion to the size of each faculty and department. Within each faculty, a student and a faculty member were selected at random as starting points and every fourth person was then approached until the target of 304 was reached; forms that were not returned were replaced, and incomplete forms were discarded. The analysis uses 335 complete responses (221 students and 114 faculty members), evenly split by gender. For some comparisons the five faculties were grouped into a “social sciences” group (Social Sciences and Humanities plus the Business School; $n = 165$) and a “natural sciences” group (Engineering, Health and Medical Sciences, and Natural and Applied Sciences; $n = 170$). Descriptive results are reported for all five faculties because the grouping hides important differences. Most respondents (82%) were from AJK. Table 1 describes the sample.

Table 1. Sample characteristics (N = 335)

Characteristic	Category	n	%
Role	Student	221	66.0
	Faculty member	114	34.0
Gender	Male	167	49.9
	Female	168	50.1
Age (years, as coded)	15–25	166	49.6
	25–35	100	29.9
	35–45	69	20.6
Faculty	Social Sciences and Humanities	101	30.1
	Business School	64	19.1
	Engineering	56	16.7
	Health and Medical Sciences	52	15.5
	Natural and Applied Sciences	62	18.5
Homeland	Azad Jammu and Kashmir	274	81.8
	Gilgit-Baltistan	38	11.3
	Elsewhere	23	6.9

Note. Role, age and education overlap almost completely: 207 of 221 students hold FSc/O-level qualifications, 100 of 114 faculty hold an MPhil or PhD, and all 69 respondents aged 35–45 are faculty members. Age bands are reported as coded in the questionnaire.

The questionnaire was developed from a review of the literature and established scales on SDG awareness and perception. It had four sections: (A) demographic characteristics; (B) awareness of the SDGs, willingness to learn about them and sources of information; (C) awareness of and views on SDG 1; and (D) awareness of and views on SDG 16. Items in sections B to D were statements rated on a five-point scale from strongly disagree to strongly agree. The source question asked where respondents first came to know about the SDGs and offered traditional media, social media, educational institutions, government agencies or officials, non-governmental organisations, and "this survey form".



Measures and analysis

Four composite measures were built as the mean of five-point agreement items and divided into three bands: low (mean below 2.5), moderate (2.5 to below 3.5) and high (3.5 or above). The general awareness index is the mean of five items: familiarity with the SDGs, perceived relevance of the SDGs to the respondent's life, a sense of personal responsibility for contributing to them, participation in SDG-related events, and the perceived importance of the SDGs for the country's development. Willingness is the mean of two items: willingness to learn about the SDGs and the view that the university should play a role in raising awareness of them. Awareness of SDG 1 is the mean of familiarity with SDG 1 and awareness of the challenges in poverty reduction; awareness of SDG 16 is the mean of familiarity with SDG 16 and familiarity with its strategies. The middle band groups respondents whose answers are on average close to neutral, and "moderate" should be read in that sense. Views on poverty and peace, including whether the government is solely responsible, are single items grouped as disagree (1–2), neutral (3) and agree (4–5). Reliability was acceptable for the awareness index (Cronbach's alpha .76), modest for willingness (.62) and SDG 16 awareness (.67), and low for SDG 1 awareness (.37), so results for SDG 1 awareness are treated as indicative.

The analysis is descriptive. Each outcome is compared across role and field of study using Pearson chi-square tests, with Cramér's V as the effect size (Cohen, 1988). Because role, age and education overlap almost completely, and because few respondents come from outside AJK, results are reported for role and field of study, and other characteristics are mentioned only where they bear on interpretation. The comparisons are bivariate: because role and field overlap with other characteristics, a difference between groups cannot be attributed to any single characteristic. Given the number of comparisons, we concentrate on associations with $p < .01$ and treat the analysis as exploratory. Participation was voluntary, informed consent was obtained from all respondents and responses were kept confidential.

RESULTS AND ANALYSIS

Awareness of the SDGs

Across the sample, 14.0% ($n = 47$) scored low on the awareness index, 57.3% ($n = 192$) moderate and 28.7% ($n = 96$) high. Table 2 shows how this distribution varies by role and faculty.

Table 2. Awareness index by role and faculty, n (row %)

Group	Low	Moderate	High	Test
All respondents	47 (14.0)	192 (57.3)	96 (28.7)	
Student	45 (20.4)	111 (50.2)	65 (29.4)	$\chi^2(2) = 24.38, p < .001, V = .27$
Faculty member	2 (1.8)	81 (71.1)	31 (27.2)	
Soc. Sciences & Humanities	3 (3.0)	37 (36.6)	61 (60.4)	$\chi^2(8) = 109.97, p < .001, V = .41$
Business School	5 (7.8)	43 (67.2)	16 (25.0)	
Engineering	6 (10.7)	42 (75.0)	8 (14.3)	
Health & Medical Sciences	8 (15.4)	36 (69.2)	8 (15.4)	
Natural & Applied Sciences	25 (40.3)	34 (54.8)	3 (4.8)	

Note. Awareness did not differ significantly by gender ($p = .083$). Differences by age and education mirror those by role and are not shown.

Field of study made the largest difference. The Faculty of Social Sciences and Humanities (60.4% high) and the Faculty of Natural and Applied Sciences (4.8% high; 40.3% low) lie at opposite ends, while the Business School (25.0% high), Engineering



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(14.3%) and Health and Medical Sciences (15.4%) are closer to one another than to either. The divide is therefore between one faculty and the rest rather than between two broad sets of disciplines. Faculty members were rarely in the low band (1.8% vs 20.4% of students) but were no more often in the high band (27.2% vs 29.4%). The faculty advantage is thus one of baseline familiarity, not of depth. Age and education show the same pattern, as expected, since they largely describe the same group.

Asked where they first came to know about the SDGs, 42.1% of respondents named “this survey form”, followed by educational institutions (27.2%), social media (15.5%), traditional media (9.6%), government agencies (3.0%) and non-governmental organisations (2.7%). Since only 14.0% were in the low band of the awareness index, at least 28% of respondents rated themselves moderately or highly aware of goals they had, by their own account, just encountered. The “survey form” category is therefore a measurement artefact rather than an information channel, and it means that the absolute levels of self-rated awareness overstate familiarity. The source differed sharply by field of study ($\chi^2(5) = 80.02$, $p < .001$, $V = .49$) and not significantly by any other characteristic. Educational institutions were the first source for 44.2% of the social sciences group but for only 10.6% of the natural sciences group, of whom 62.9% named the survey form. The difference remains when the survey form is excluded ($V = .33$).

Willingness to learn about the SDGs, and to see the university raise awareness of them, was high throughout: 75.2% of respondents were in the high band and only 1.5% in the low band. It was higher in the social sciences group than in the natural sciences group (86.1% vs 64.7%; $V = .26$) and among women than among men (81.5% vs 68.9%; $V = .15$). The lowest levels were in Engineering (51.8% high) and Health and Medical Sciences (57.7%); the Faculty of Natural and Applied Sciences, despite its low awareness, was nearly as willing as the social science faculties (82.3%).

SDG 1 and SDG 16

Table 3 compares the two goals. Awareness of SDG 16 was much lower than awareness of SDG 1: 17.9% were in the high band for SDG 16 against 35.8% for SDG 1, and 39.4% were in the low band against 15.2%. For SDG 16, field of study was again decisive: 55.9% of the natural sciences group were in the low band, against 22.4% of the social sciences group ($V = .38$). Students were more often in the high band than faculty (21.3% vs 11.4%), although faculty were less often in the low band. SDG 1 awareness, which is measured less reliably, was higher among faculty (43.9% vs 31.7% high) and in the social sciences group (46.7% vs 25.3%).



Table 3. Awareness of SDG 1 and SDG 16 and views on poverty and peace, % within group

Group	Awareness: low	Awareness: high	Problem is a concern (agree)	Government solely responsible (agree)
A. SDG 1 and poverty				
All respondents	15.2	35.8	63.3	37.9
Faculty members	1.8	43.9	81.6	28.9
Students	22.2	31.7	53.8	42.5
Social sciences group	15.2	46.7	65.5	38.2
Natural sciences group	15.3	25.3	61.2	37.6
B. SDG 16 and peace				
All respondents	39.4	17.9	62.4	22.4
Faculty members	29.8	11.4	78.9	5.3
Students	44.3	21.3	53.8	31.2
Social sciences group	22.4	28.5	65.5	24.8
Natural sciences group	55.9	7.6	59.4	20.0

Note. Awareness columns show the low and high bands of the two-item composites (the remainder is moderate). "Problem is a concern" refers to agreement that poverty is a serious problem in the respondent's region (panel A) and that peace is a concern in the respondent's community (panel B). "Agree" combines "agree" and "strongly agree". Group sizes: faculty 114, students 221, social sciences 165, natural sciences 170.

Concern about the problems the goals address was much more widespread than awareness of the goals themselves. Most respondents agreed that poverty is a serious problem in their region (63.3%) and that peace is a concern in their community (62.4%); fewer than 7% disagreed with either statement. Concern about peace did not differ by field of study ($p = .31$) or homeland ($p = .67$), so the gap between concern and goal-specific awareness runs through the whole sample. Faculty were more concerned than students about both poverty (81.6% vs 53.8%) and peace (78.9% vs 53.8%).

The sharpest difference between students and faculty concerned responsibility. Only 5.3% of faculty agreed that achieving peace is solely the government's responsibility, against 31.2% of students, and two-thirds of faculty (66.7%) disagreed, against 24.0% of students ($\chi^2(2) = 63.60$, $p < .001$, $V = .44$). The same pattern, though weaker, holds for poverty reduction (28.9% vs 42.5% agreeing). Respondents were also critical of government performance on SDG implementation: 52.5% did not agree that it was performing well and only 13.4% agreed.

Most respondents at MUST place themselves in the moderate or high band of awareness, but this should not be read as the share of the university that knows the SDGs. The largest group, 57.3%, is closer to recognition than to understanding, and the index mixes familiarity with relevance, responsibility and participation, so it measures engagement with the goals as much as knowledge of them. More importantly, the many respondents who first met the goals in the questionnaire show that self-rated familiarity was inflated by the survey itself. This is consistent with the wider literature, in which general awareness is far more common than good knowledge (Omisor et al., 2017; Smaniotto et al., 2020; Zamora-Polo et al., 2019), and it means that levels cannot be compared across studies that use different instruments. Comparisons between groups within MUST remain informative as long as the tendency to over-rate is similar across groups, and it is on these comparisons that the main findings rest.

The central finding is the gap between fields of study. Respondents in the Faculty of Social Sciences and Humanities were far more likely than others to score high, to have



met the SDGs through their university and to be aware of SDG 16, while the other four faculties, including the Business School, look much more like one another than like Social Sciences and Humanities. The pattern is consistent with the expectation that curricula which engage directly with development, governance and equality produce more familiarity with the goals. It also fits Pakistani evidence that limited curriculum coverage constrains sustainability awareness (Malik et al., 2019; Nadeem & Nawaz, 2023), and the finding of Smaniotto et al. (2020) that students who had attended SDG-related educational activities knew more about the goals. The shortfall is institutional rather than individual: for natural science students and faculty, the university is barely functioning as a channel through which the SDGs are introduced, even though their willingness to learn, particularly in the Faculty of Natural and Applied Sciences, is high. The results for faculty members qualify the assumption that teachers are already equipped to carry the goals into the curriculum. Faculty were almost never in the low band, but they were no more often in the high band than students, and only a small minority scored high on SDG 16. At MUST, seniority and credentials appear to ensure that almost everyone has heard of the SDGs without ensuring that many know them well. Omisore et al. (2017) found good knowledge to be more common among academic staff in Nigeria; at MUST, the staff advantage appears only at the low end of the scale.

SDG 16 shows the clearest contrast between concern and awareness: peace is a widely shared concern, whatever the respondent's field or homeland, yet awareness of the goal that addresses it is low. Norm localisation offers a way to interpret this (Acharya, 2004). If peace and institutional quality are already salient local concerns, the content of SDG 16 may be congruent with local priorities even where its label is unfamiliar, and awareness-raising would work by connecting existing concern to the goal rather than by introducing a new idea. By contrast, because SDG 16 has been contested internationally as touching on sovereignty (Milton & Alhamawi, 2024), the goal's vocabulary may be adopted more selectively where governance and territorial status are themselves disputed, as they are in AJK and Gilgit-Baltistan (Lashari et al., 2025). The responsibility results add a further dimension. Students who regard peace and poverty reduction as the state's business, and who doubt the state's performance, may be less inclined to take up the goals as their own agenda, whereas faculty more often see responsibility as shared. Whether these differences reflect broader differences in political culture between students and faculty is a question that earlier work at MUST on democratic attitudes among the same two groups (Abbas & Khaliq, 2024) makes it possible to pursue. Our data cannot test these accounts, but they generate predictions for future work, for example that presenting SDG 16 content in locally familiar terms should raise awareness more than introducing the goal in its UN formulation.

Four implications follow for MUST. First, SDG content should be integrated into programmes in the Faculty of Natural and Applied Sciences, the technical faculties and the Business School, where exposure is lowest, instead of being treated as a social science topic. Second, faculty development is needed in its own right, since faculty familiarity is mostly at the moderate level. Workshops that build both content knowledge of the goals and the pedagogical capacity to teach them, in the sense of Shulman's (1987) distinction, would address this. Third, SDG 16 deserves specific attention, with teaching that links the goal to the peace, justice and governance issues that respondents already care about and that treats responsibility as shared among government, institutions and citizens. Fourth, MUST should monitor progress with a knowledge-based instrument, repeated at intervals, so that improvement can be measured and not merely assumed. Because willingness is lowest in Engineering and Health and Medical Sciences, interventions there will need to build interest as well as knowledge. Using items comparable to those of Smaniotto et al. (2020) and Zamora-Polo et al. (2019) would allow benchmarking against other universities, and a multi-site design across Pakistani universities, including AJK, would show whether the patterns found here reflect MUST, AJK or Pakistan more generally.



Conclusion

This study provides a first picture of SDG awareness at a university in Azad Jammu and Kashmir. Self-rated awareness is moderate and, given how many respondents first encountered the goals through the survey, overstates familiarity. Awareness is shaped most strongly by field of study: the Faculty of Social Sciences and Humanities stands well apart from the other faculties, and the university is much less often the place natural scientists first hear of the goals. Faculty members are seldom unaware of the SDGs but are no more often well informed than students. Awareness of SDG 16 lags well behind concern about peace, and students are much more likely than faculty to look to the government alone for peace and poverty reduction. Efforts to raise SDG literacy at MUST should therefore focus on the natural and technical faculties and on faculty development, connect SDG 16 to the governance and peace concerns that respondents already hold, and use knowledge-based measures to track change.

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