



Policy Dimensions

Status

1. Strategy for Tertiary Education

There is a new Vision 2025, which sets out an ambitious strategic plan for the sector. This vision was created with feedback from relevant stakeholders and is inclusive of all tertiary education subsectors in the country. The vision makes use of data, but there is some confusion about numbers and no systemic research to build on.

Established
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2. Governance of Systems and Institutions

Extensive legislation is in place that covers public and private providers. Public and private universities are autonomous on most dimensions. Public colleges have very limited autonomy, while private colleges have some autonomy. Some provisions exist in the regulatory framework to improve transparent, horizontal, and meritocratic human resource practices and horizontal governance practices, but they mostly apply to the universities subsector and do not cover affiliated colleges.

Established
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3. Financing

Both universities and colleges have a stable funding mechanism. University funding is allocated through a formula that includes some performance funding. Public colleges receive funding through budget allocations in the provinces. There is some, but little, use of competitive research funding for universities. Private institutions do not have access to any public funding.

Emerging
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4. Quality Assurance

The mechanism for quality assurance for the universities has been established and is overseen by the Higher Education Commission. Universities have both program and institutional quality standards. Affiliated colleges, on the other hand, lack a dedicated quality assurance system and are only marginally overseen by universities.

Emerging
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5. Tertiary Education Management Information System (TEMIS)

No national or regional management information system is established for universities in the country, but the Higher Education Commission collects data from universities on some student and faculty and research, development, and innovation indicators. Some provinces do collect limited data for their tertiary-level colleges through HEMIS. This policy dimension is evaluated for the tertiary education subsectors of universities and affiliated colleges.

Latent
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6. Access and Equity

The government has several financial aid programs to promote access and equity, but they are mostly geared toward university students and are too small in size and number to make a real dent in the magnitude of the problem faced by Pakistan.

Emerging
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7. Relevance of Tertiary Education for Social and Economic Needs

Although there are concerns about the relevance of tertiary education, the government has made substantial efforts to improve the relevance of curriculum and foster research, development, and innovation.

Emerging
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Introduction

SABER–Tertiary Education (SABER-TE) is a diagnostic tool to assess how education systems perform and to identify priorities for reforms at the national level. It is part of the World Bank’s Systems Approach for Better Education Results (SABER), which aims to benchmark education systems at the country level.

SABER-TE focuses on seven dimensions of tertiary education policy (see box 1). The general idea is that a strong policy environment is a prerequisite to better-performing tertiary education institutions, including universities, colleges, and technical and vocational institutes. The diagnostic tool aims to help countries assess best practices and to diagnose which policies need urgent attention. For some policy areas, countries are scored on specific “policy levers” to help make concrete recommendations for improvement.

Each of the seven policy dimensions can contribute to the outcomes of tertiary education systems, although they work together in a holistic way. By manner of illustration, a strategic plan without an effective governance structure is just a collection of ideas that will not be implemented; a well-designed governance structure without a strategic plan is a meaningless bureaucracy.

The World Bank has identified best practices in each of these dimensions in a review of the world’s most effective tertiary education systems (World Bank 2016a). The best practice indicators used for scoring are made available in the appendix of this report. Countries are scored and then benchmarked on these policy dimensions with four different scores:

1. **Latent:** this topic has received too little attention
2. **Emerging:** there are some instances of good practice
3. **Established:** there is systemic good practice and
4. **Advanced:** the country follows international best practice and is an example for others.

SABER uses an extensive questionnaire to collect data on the policy environment for tertiary education. The questionnaire is populated through an analysis of the most recent versions of relevant legislation, policy documents, and reports on the sector. The SABER team also carried out fieldwork in Pakistan between September 19 and 29, 2017, with visits to several universities, government agencies, and other stakeholders. After data collection is complete, the policy dimensions are scored on a rubric (see appendix 1 for a full overview of the rubric). Both the answers to the questionnaire and the rubric scores are available from the SABER website (<http://saber.worldbank.org>).

This report proceeds as follows. First, we describe the context of the tertiary education system in Pakistan. We then proceed with scoring the seven policy dimensions with descriptions, followed by a conclusion with a few general observations and recommendations about tertiary education in Pakistan.

Box 1. Seven policy dimensions of successful tertiary education systems (World Bank 2016)

1. A clear and evidence-based strategy for tertiary education
2. Modern governance of systems and institutions
3. Financing that promotes performance and innovation
4. Independent quality assurance
5. A robust Tertiary Education Management Information System (TEMIS)
6. Access and equity to ensure social mobility
7. Relevance to the country’s social and economic needs

Context

Pakistan's tertiary education system stands to play an important role in its economic development. Pakistan is the sixth most populous country in the world with a total population of 193 million people, as of 2016 (World Bank 2016b). It has a gross per capita income of \$1,510, which puts it at the lower rung of the lower-middle-income countries. With its new Vision 2025, Pakistan has set a goal to join the ranks of upper-middle-income countries by 2025. To accomplish this goal, Pakistan will need to harness the potential of its human capital. It will need a well-established tertiary education system that is at par with international standards and can produce an innovative and skilled workforce to boost its economic growth. The government of Pakistan (GoP) acknowledges this fact and has decided to increase its investment in tertiary education from 0.55 percent of its gross domestic product (GDP) to 1.4 percent by 2025. This hike in investment will support the government's goal to increase tertiary education enrollment from the current 9.9 percent to 12 percent of the eligible age cohort (17 to 23 years old) (Mahmood 2016, vi). This translates to an increase of approximately 4.4 million students enrolled over the next 10 years (HEC n.d.a, 22). Overall, this ambitious increase will require a massive supply and enable Pakistan to catch up to its South Asian neighbors in terms of student enrollment in tertiary education.

After decades of neglect, Pakistan's tertiary education sector has seen a revival. The government of Pakistan revamped its University Grants Commission (UGC) to establish the Higher Education Commission (HEC), an autonomous regulatory body, in 2002 to steer the sector in the right direction. The newly established HEC was given more funding and autonomy as compared to UGC. Under HEC, many initiatives were introduced to update the system to international standards, instill a culture of research, and improve quality. As its first actions, HEC closed low-quality programs and controlled the mushrooming of substandard higher education institutions (World Bank 2017a, 33). Despite making considerable headway toward addressing the challenges facing the higher education system in Pakistan, much still remains to be accomplished, especially in the multilayered governance of the sector. For the purposes of this report, HEC refers to the federal Higher Education Commission unless otherwise specified.

The 18th Constitutional Amendment (2010) has created confusion among the federal and provincial regulators of the tertiary education sector in Pakistan. The 18th Amendment (also called the Devolution Amendment) devolved education to the provinces but did not specifically prescribe the status of higher education. HEC maintains that the Supreme Court in 2011 issued a ruling stating that the status of HEC stays unaltered unless changes are made in the Higher Education Commission Ordinance (2002) (Khwaja n.d., 14). On the other hand, the provinces argue that the 18th Amendment clearly makes education a provincial matter, so they have a right to regulate it according to their needs.

The interpretation of the 18th Amendment has varied among provinces. Two provinces, Punjab and Sindh, have established their own higher education commissions, the Punjab Higher Education Commission and the Sindh Higher Education Commission, while the other two provinces have not. Both provincial HECs are still in the stages of defining and establishing themselves. The provincial HECs are taking up some responsibilities such as recognizing universities using HEC's criteria and teacher training, mostly for affiliated college teachers. This creates a duplication of functions between the provincial and the federal levels. One of the implications is an increased level of red tape for the—already bureaucratic—system. For example, universities in Punjab need to obtain a No Objection Certificate (NoC) to start a new program. This is in addition to the NoC and clearance required from the federal HEC. The extra level of bureaucracy is leading to inefficiencies in the system and increased risks of political interference and corruption. Additionally, both the Punjab HEC and federal HEC have noted instances where universities recognized by

one regulatory body are not recognized by the other, even though both bodies are using the same guidelines. This situation has negatively impacted the autonomy of the universities and created confusion and frustration among the universities as well as the broader public.

A subcommittee of the Council of Common Interests (CCI) has been established to resolve confusion between the federal and the provincial roles in tertiary education. The CCI is a constitutional body with a mandate to resolve any interprovincial or province-federal issues including education (Khwaja n.d., 18). The CCI has met several times to discuss the matter but has not arrived at a decision. In the absence of a clear ruling on devolution of higher education, the federal HEC continues to fulfill its mandate with its broad range of activities (World Bank 2017a, 73).

The GoP has ambitious plans for expanding its tertiary education system over the next eight years. Approximately 2.96 million students are enrolled in the tertiary education system, including universities, degree-awarding institutions (DAIs), distance learning, external students, and affiliated colleges. According to HEC Vision 2025, enrollment in universities has steadily increased from 276,000 students in 2001–02 to 1.29 million in 2014–15. The government plans to continue this positive growth trend and increase the enrollment of students at universities and external students to 5 million by 2025 (HEC n.d.a, 10). To support this expansion agenda, HEC plans to grow the number of universities to 300 and establish 2,400 new affiliated colleges by year 2025 (HEC n.d.a, 24).

Table 1. Number of Institutions and Students by Subsector 2015–2016^a

	Public	Private	Total	Students (millions)
Universities (universities/DAIs/distance learning)	99	76	175	1.57 ^b
Affiliated degree colleges	1,975	2,000	3,975	0.71 ^c
External students				0.68
Total	2,074	2,076	4,150	2.96

Source: HEC Vision 2025, 2014–15, provincial development statistics.

a. There are discrepancies in the data on affiliated colleges, but based on interviews with the stakeholders, the data presented in this table seem to be close to reality.

b. The enrollment number for universities is projected based on past trends. According to HEC Vision 2025, the actual number of enrollment in universities in 2012–13 was 1.14 million students.

c. The enrollment number for affiliated colleges is from 2015–16 from HEC Vision 2025, but the number of colleges is from the 2016–17 qualifications register.

As is evident from table 1, the tertiary education system in Pakistan comprises two main subsectors: universities and affiliated colleges. Each of the subsectors is governed by different regulations and faces different challenges, especially around governance and quality assurance. Both subsectors comprise public and private institutions. Currently, public universities hold a slightly larger share of the sector, and HEC predicts that this will continue to be the case (HEC n.d.a, 23).

The university subsector consists of universities and degree-awarding institutes (DAIs). The DAIs are almost like universities, although they have fewer departments. According to the Guidelines for Establishment of a New University or an Institution of Higher Education: “any degree awarding institutions of higher education having four or more departments will be eligible for title of a university. Any institution having less than four departments will be eligible for grant of charter as a degree awarding institute” (HEC

n.d.b, 7).

Both universities and DAIs are governed by same regulations under the jurisdiction of HEC and will be referred to as universities in this report. Universities offer Bachelor's, Master's, MPhil, and Ph.D. degrees and can be broadly divided into general and professional universities. General universities offer general education degrees in subjects such as the arts, sciences, business, and information technology, whereas professional tertiary education institutions offer degrees in professional studies such as medical, law, engineering, and agriculture. As of 2015–16, 99 public and 76 private universities were found across the country with an enrollment of approximately 2.25 million students. This number includes the distance and external students (HEC n.d.a, 22). HEC, the regulatory body for both public and private universities, is an autonomous institution created by the Higher Education Commission Ordinance of 2002 (Government of Pakistan 2002b) and is responsible for degree recognition, financing, and quality assurance of universities.

Affiliated colleges provide an accessible lower-cost alternative to universities. On average the fees for a public college range from PKR 350 to PKR 900 for two-year degree programs and increase to PKR 1,100 to PKR 1,400 for four-year degree programs, whereas fees for a public university can range from PKR 14,500 to PKR 56,200 (with significant variations) depending on the type of programs. Affiliated colleges cater to students from lower income families because they charge lower fees. Colleges are also present in rural areas, and so they are more accessible to women, who may not be able to leave their family homes. Affiliated colleges are teaching-focused, and most offer Bachelor's degrees, although a few offer Masters' degrees as well. Most affiliated colleges are still operating under the old system of two-year Bachelor's degrees, but a few have upgraded to the four-year semester system. Affiliated colleges house upper secondary grades (11 and 12) alongside tertiary-level programs that serve as a transition between the two. As table 1 shows, 3,975 affiliated colleges serve roughly 0.7 million students. This number includes general tertiary-level as well as professional-level (medical, law, engineering, etc.) colleges. Private colleges are not included in this number except for Punjab because of the unavailability of data from other provinces. HEC has reported the number of affiliated colleges to be 3,463, out of which 1,634 are in the public sector and 1,829 in the private sector (Ali n.d., 51). The discrepancy between the number of colleges between provincial statistics and HEC might be because HEC does not differentiate between upper-secondary-level colleges and tertiary-level and double counts the colleges affiliated with more than one university.

Affiliated colleges are under dual management control. For administrative matters, they are under the control of their respective provincial higher education departments, whereas for academic matters they are under the authority of their affiliating universities. Affiliated colleges are funded by the provincial governments, but their tertiary-level degrees are awarded by the affiliating universities. Some in the academic community have argued that affiliated colleges are damaging the reputation of affiliating universities, because colleges generally offer lower quality education than universities but graduates receive the same degree (Shaikh 2017). According to HEC guidelines, only public universities can affiliate colleges. In practice, some confusion surrounds this, because one private university, Hamdard University, seems to affiliate at least one college (Ali n.d., 14).

Huge variation is seen in the number of colleges that universities affiliate. For example, according to HEC data, Punjab University is the largest with 631 affiliated colleges, followed by the University of Sargodha with 463 affiliated colleges. As compared to this, Lahore College for Women University has only three affiliated colleges, and Abdul Wali Khan University has 10 affiliated colleges (HEC n.d.c).

Both universities and affiliated colleges also offer tertiary-level technical and vocational education and

training (TVET) degrees. These include degrees in technology and commerce such as Bachelor of Technology (BTech) and Master of Technology (MTech) in different technological subjects as well as Bachelor of Commerce (BCom) and Master of Commerce (MCom). Mostly, these degrees are offered at engineering universities and affiliated colleges and fall under their regulatory and management systems. All tertiary-level technology and commerce degrees follow HEC's prescribed curriculum and are accredited by HEC's accreditation councils. The vocational education covers various types of trade-oriented programs, none of which are at the tertiary level.

A small number of government colleges of technology and institutes also offer tertiary-level technology and commerce degrees. Per TVET data, 18 such institutions are found across Pakistan with a total enrollment of 2,880 in tertiary-level technology and commerce programs (NAVTTTC, 2017). The government colleges of technology are funded by Provincial Technical Education and Vocational Training Authorities, but they do not regulate the tertiary-level technology and commerce programs. Tertiary-level technology degrees are part of the analysis of this report under the universities and affiliated colleges subsector because they are governed by the same regulatory systems except for financing mechanism. An analysis of financing mechanisms of government colleges of technology and institutes is not included in this report.

Within this context, the report will discuss the scores of the seven policy dimensions in detail, starting with the strategy for tertiary education. Wherever relevant, the report will describe each subsector separately to highlight the policy, regulatory, and programmatic differences. Tertiary-level TVET (National Qualifications Framework levels 5, 6, and 7) is included in this report as part of the college sector, because it falls under the same regulatory framework.

Policy Dimension 1: Strategy for Tertiary Education

Overall score: Established ●●●○

Summary: *The Higher Education Commission has recently published the Vision 2025, which sets out an ambitious strategic plan for the sector. This vision was created with feedback from relevant stakeholders and is inclusive of all the tertiary education subsectors in the country but uses limited references to relevant and publicly available research.*

We review the efficiency of the strategy for tertiary education by asking three questions. First, does the country have a fully developed strategic plan for its tertiary education sector? Second, was the strategic plan created with the involvement of relevant stakeholders? and Third, is it grounded in relevant and publicly available evidence?

Existence of Strategic Plan

The HEC Vision 2025 is aligned with the overall strategy for the country's development called "GOP Vision 2025: One Vision One Nation." In addition, Pakistan has the National Education Policy 2009, which also addresses the elements of the tertiary education system. At the regional level, the provinces have developed their own education sector plans, mostly focusing on early childhood to higher secondary education, except for the Balochistan Education Sector Plan 2013–18, which outlines plans to improve its affiliated colleges in addition to pretertiary-level education (Government of Balochistan 2013, 80).

HEC's strategic plan envisions upgrading the tertiary education system of Pakistan to a differentiated three-tier system. It is described as

A three-tiered differentiated system of publicly and privately supported tertiary education with a judicious blend of comprehensive universities, special purpose Advanced Studies Centers and Institutes focusing on and catering to the intellectual and professional needs of society, and mass collegiate education will be the strategic vision driving HEC policies. (HEC n.d.a, 15)

In this system, Tier I universities will focus on research and be the highest seats of learning. Tier II universities will be the teaching universities, and Tier III institutions will be collegiate-level institutions. One of the main goals of Tier III institutions will be to provide education opportunities at the doorsteps of the learners (HEC n.d.a, 7).

The strategic plan also includes an agenda to build on HEC's progress of increasing access to higher education and improving quality. Some of the other goals included are updating and aligning the curriculum with the labor market, establishing innovative financing methods, and introducing a transparent financial management system. The time described to fully implement this plan is nine years (2016–25). It lists responsible implementing parties and evaluation criteria but does not mention follow-up activities (HEC n.d.a, 48–68).

The government has already started to put its vision into action. For example, the vision document proposes creating a Skills University in each federating unit to affiliate community colleges and expand technical and vocational education (HEC n.d.a, 30). According to interviews with stakeholders, one such Skills University has already been established (in partnership with Tianjin University in China) in Punjab and plans to start classes in January 2018, and others are underway.

Inclusion of Key Stakeholders

The Vision 2025 was drafted after an intensive consultation process with main stakeholders in the tertiary education sector. The process of drafting the vision was started in 2015 and included a day-long consultative session with pertinent scholars and policy makers (HEC n.d.a, 5). According to the Blended Learning for Teacher Education in Asia and Europe's website (n.d.), the consultative conference on HEC Vision 2025 included academics, policy makers, business, and industry leaders. The draft of Vision 2025 was put on HEC's website for feedback from wider audiences. It is not clear to what extent such feedback was incorporated.

Evidence Base of the Strategy

The vision makes use of basic data held at HEC, including data on faculty, enrollment, and budgetary matters. Some original research was used to inform the strategic plan. This research was conducted as part of the World Bank's Tertiary Education Support Project (TESP) and produced technical papers on key thematic areas including excellence in leadership and governance, strengthening systems of research innovation and development (RDI), and technology-embedded programming (HEC n.d.a, 5).

Although the original research was used to inform the strategy in Vision 2025, it appears that other sources such as studies being conducted in the system or needs being identified were not referenced. It also does not reference any academic literature, either from Pakistan or from the wider research on the topic. Only a few suggestions in the vision are made to improve the evidence-based research for future policies.

Policy Dimension 2: Governance of System and Institutions

Overall score: Established ●●●○

Lever	Policy Lever 1: Steering the System	Policy Lever 2: Institutional autonomy	Policy Lever 3: Promoting good institutional governance
Lever score	Established ●●●○	Established ●●●○	Emerging ●●○○
Public universities	—	Established ●●●○	—
Private universities	—	Advanced ●●●●	—
Public affiliated colleges	—	Latent ●○○○	—
Private affiliated colleges	—	Established ●●●○	—

Summary: Several laws and regulations govern both university and affiliated college subsectors. Universities are significantly more autonomous than affiliated colleges. This is especially true for public affiliated colleges, which are tightly regulated by their respective provincial governments. The difference in autonomy between public and private affiliated colleges is more pronounced than the difference between public and private universities. This is explained further under the institutional autonomy section. Some provisions in the regulatory framework cover improving transparent, horizontal, and meritocratic human resource practices and horizontal governance practices, but they mostly apply to the universities subsector and do not cover affiliated colleges. While no overall anticorruption policy is related to tertiary education, HEC has developed an antiplagiarism policy to curb plagiarism, which outlines clear consequences for offenders. HEC has developed standard operating procedures for transparency in awards of development, recurring, and research grants and financial aid systems for meritorious and need-based students. The HEC monitoring and evaluation system is designed to ascertain the implementation of standards of practice.

This dimension analyzes the effectiveness of the governance system by asking three questions: (1) Is there a comprehensive regulatory framework for steering the system? (2) How much institutional autonomy is afforded to tertiary education institutions? And (3) Are there policies in place to promote good institutional governance practices?

2.1 Policy Lever: Steering the System

Established ●●●○

There are three main questions about the regulatory framework. First, is there an effective regulatory framework? Second, does the regulatory framework have adequate provisions to regulate the market entry and operation of public and private tertiary education institutions? Third, are there mechanisms in place to combat academic malpractice and corruption?

Presence of an Effective Regulatory Framework

Several laws and regulations govern the tertiary education system in Pakistan. At the federal level, there is the Higher Education Commission Ordinance of 2002, which established the national regulatory body for higher education (HEC) with jurisdiction over all of Pakistan. As a result of the passage of the 18th

Amendment in 2010, Punjab and Sindh have passed their own laws to create the Punjab Higher Education Commission and Sindh Higher Education Commission with the Punjab Higher Education Commission Act of 2014 (Act I of 2015) and the Sindh Higher Education Commission Act of 2013, respectively. Each university is governed by its own charter under either the federal or provincial government depending on where the university is situated. Affiliating universities have limited provisions in their charters pertaining to the academic management of affiliated colleges. University charters are slightly different in each province. For example, Khyber Pakhtunkhwa (KPK) has introduced an umbrella legislation for universities called the Khyber Pakhtunkhwa Act of 2012. The act has been amended several times. At the provincial level, bills and regulations oversee the registration of private colleges.

The provisions for distance and online education are subject to the general regulatory system for tertiary education in the country. The two distance and online universities in Pakistan are the Allama Iqbal Open University and the Virtual University. The universities are regulated by their own charters: the Allama Iqbal Open University Act of 1974 and the Virtual University Ordinance of 2002.

Regulation Regarding the Market Entry and Operation of Public and Private Tertiary Education Institutions

Regulatory frameworks regulate the entry of institutions in all subsectors of tertiary education in Pakistan. HEC has outlined the legal requirements to establish a public or a private university in “Guidelines for the Establishment of a New University or Institution of Higher Education.” This document outlines the cabinet-approved criteria for establishment of new public or private universities. After clearing the feasibility report and physical inspections, HEC grants an NoC and recommends the university to be issued a charter from either the federal or the provincial government (Quality Assurance Agency n.d., 2–4). Since the passage of the 18th Amendment, universities in Punjab must obtain an NoC from the federal as well as the provincial government to open their doors. The entry of affiliated colleges is entirely regulated by the provincial higher education departments. Both private universities and affiliated colleges have to be registered under the relevant laws as either trusts, foundations, or societies before they can start offering degrees. Private colleges located in the federal area must register with the federal HEC (HEC, n.d.e, 1).

The universities subsector is monitored through formal accreditation and quality assurance procedures, but the regulations for monitoring quality of the affiliated college subsector are vague. The colleges operate under the dual control of provincial governments and their affiliating universities, and neither party has shown an active interest in establishing clear quality criteria. This will be explained in further detail in the quality assurance dimension under the affiliated colleges section.

Combating Academic Malpractice and Corruption

No specific policy is in place to deal with corruption in tertiary education, but the federal Higher Education Commission has signed a memorandum of understanding with the National Accountability Bureau (NAB) to create awareness about corruption among young people. NAB, Pakistan’s anticorruption body, has established character-building societies in institutes of higher education. NAB was established in 1999 to detect, investigate, and prosecute cases involving corruption relating but not limited to misuse and abuse of power and misuse of property. In the past, NAB has dealt with cases of financial and other corruption in the tertiary education sector.

HEC has established an antiplagiarism policy, which is listed on its website. The plagiarism policy specially deals with research and published work and applies to all students, teachers, and staff of institutions and organizations engaged in research and publications (HEC n.d.d, 4). The policy outlines a detailed definition of plagiarism and prescribes major, moderate, and minor penalties for staff and students depending on the nature of violation (HEC n.d.d, 8–11). HEC takes plagiarism seriously, and plagiarism cases are dealt

with by the Quality Assurance Department. There have been instances where the plagiarism policy was used to curtail plagiarism and the names of faculty guilty of plagiarism were listed on HEC's website as blacklisted faculty. However, there have been reports that universities are not complying with the antiplagiarism policy. According to one of the reports by *The Express Tribune*, HEC's quality assurance personnel have expressed concerns and taken action at the 11 universities that have not taken remedial action against their faculty involved in plagiarism (*Express Tribune* 2016).

Several reports have also detailed cheating on high-stakes exams such as professional licensing exams. According to one report, Sindh University postponed its Bachelor of Law (LLB) examinations for students from its affiliated law colleges after receiving as many as 460 cheating complaints (Ali 2017). There are regional- and institutional-level policies against cheating, but cheating is still a widespread problem in universities, especially in high-stakes exams. Implementation of these policies is weak, and cheating cases are dealt with at the institutional level. There are more instances of cheating on the secondary and higher secondary level exams because these exams determine students' admission into higher education institutions. Helping students cheat on these exams has become a business where answer sheets to exam questions are distributed during the exam in the presence of examiners, and sometimes examiners are also involved in helping students cheat (Dawn 2013).

2.2 Policy Lever: Institutional Autonomy

Established ●●●○

This report will discuss separately the autonomy of public universities, private universities, public colleges, and private colleges. Generally, universities have much more autonomy than affiliated colleges and differences exist, but wide differences are seen between the public and private sector.

Autonomy in various aspects of management and academics is essential for tertiary education institutions to fulfill their missions. Here we review the institutional autonomy of tertiary education institutions on four different aspects: (1) academic autonomy, (2) staffing autonomy, (3) governance autonomy, and (4) financial autonomy.

Public Universities

Established ●●●○

Academic Autonomy

Public universities have substantial academic autonomy, although with some important limits. They do not have complete autonomy to design their curriculum. The curriculum for tertiary-level education is designed by the HEC's National Curriculum Review Committee (NCRC). In the case of professional degrees, such as medicine and law, accreditation councils are also involved in designing curricula (Khwaja n.d., 23). HEC has currently 129 NCRCs for disciplines taught at the undergraduate and master's levels to ensure uniform quality standards for these programs. University faculties have the freedom to modify the standard curricula for up to 10 percent of the content. At the advanced graduate levels, the universities have autonomy to design and offer programs by the university academic statutory bodies in compliance with HEC quality standards.

Public universities have autonomy to start and cancel programs but need approval by HEC to start doctoral-level programs. The autonomy to start and cancel programs is listed in the model Federal Universities Ordinance of 2002 (Government of Pakistan 2002a), and most universities' charters have statements similar to "to establish teaching departments, schools, colleges, faculties, institutes, museums

and other centers of learning for the development of teaching and research and to make such arrangements for their maintenance, management and administration as it may prescribe.”

Public universities have autonomy to embed internships in their curriculum. According to interviews with the stakeholders, there is some room for flexibility in the curriculum, and well-established universities tend to deviate from the prescribed curriculum more than less-established younger institutes.

Further, universities have autonomy to grant degrees, diplomas, and certificates and conduct research on their areas of interest. However, HEC does centrally incentivize research in certain priority areas (e.g., water resources, food security, and the energy sector) through grants (Khwaja n.d., 76).

Staffing Autonomy

Public universities enjoy substantial staffing autonomy and have the authority to hire, promote, and fire academic staff, although this autonomy could still be expanded. After publicly announcing a vacancy, shortlisted candidates are interviewed by a selection board. Two international subject experts are consulted for the associate professor and professor positions (Khwaja n.d., 25). Even though universities have the autonomy to hire faculty, the senates of public and private universities have one representative from the government and one from HEC (HEC n.d.b, 42). HEC has representation on search committees for faculty appointments.

It was stated during interviews with stakeholders that the presence of the government representatives is only to ensure compliance with the rules, but such presence does carry a risk of influencing the hiring decision. Sometimes political pressure can also play a role in the hiring and promotion of academic and nonacademic staff. Academic staff are either hired on a Tenure Track System (TTS) or on the Pakistan Civil Services Basic Pay Scale (BPS). Both TTS and BPS have set salary levels for different career grades (World Bank 2017a, 24). The staff hired for the TTS positions have to be endorsed by HEC. Universities have the autonomy to hire, fire, and promote nonacademic staff, set their salaries, and create academic positions.

Governance Autonomy

Governance autonomy is limited for public universities, as these do not have the autonomy to appoint their leadership. Vice-Chancellors of public universities are selected by forming a search committee, but the final decision is still made by the provincial governments or the federal government (in the case of universities that are located in the federal area). The selection process is marred by political influence (World Bank 2017a, 79).

The removal process for university leadership is prescribed in universities’ individual charter. In practice, these charters follow the Federal Universities Ordinance 2002, which prescribes that the Chancellor has the authority to remove the Vice-Chancellor. In most cases, the Chancellor of a university is the governor of the province where the university is located (Khwaja n.d., 29).

The political and bureaucratic influence on the appointment practices of university leadership has been challenged in the courts in Pakistan. For example, the practices of appointing retired professors as Vice-Chancellors has been common throughout the country. This issue came up as a result of the appointment of Lahore University of Life Sciences’ Vice-Chancellor in 2012. The person appointed to the position was a retired professor and did not hold a Ph.D. This appointment was challenged in Punjab High Court and then in the Supreme Court of Pakistan. Both courts acknowledged the presence of political interference in university leadership appointment procedures and ordered the government of Punjab to codify laws and procedures for appointment of university leadership (Khan 2012).

The process for appointing a Vice-Chancellor is prescribed by HEC. Public universities do not have the autonomy to change the procedure of selecting the Vice-Chancellor. They also cannot change their mission.

The autonomy to include public and private stakeholders as part a university's leadership structures depends on the individual university's charter. The Federal Universities Ordinance of 2002 describes guidelines for the number and kinds of internal and external stakeholders to include in a university's governing bodies.

Financial Autonomy

Public universities have substantial financial autonomy. They can borrow and invest money, own and sell land and other assets, and deliver contractual services to diversify their income. Universities also have the autonomy to set their tuition fees, but the fee cannot increase more than 10 percent at a time.

Private Universities **Advanced ●●●●**

Private universities exercise the same level of autonomy in academic and financial matters as their public counterparts, but they are more autonomous than public universities when it comes to governance and staffing. These similarities and differences are explained below.

Academic Autonomy

Public and private universities are similar in the level of academic autonomy that they can exercise. Both must follow curricula designed by NCRC, but they can freely embed internships and practical trainings in their curriculum, set their own admission criteria, and grant degrees, certificates, and diplomas.

Staffing Autonomy

Private universities are more autonomous in some aspects of staffing as compared to public universities. Like public universities, they can hire, promote, and fire academic and nonacademic staff. Even for private universities, there is a risk that autonomy is compromised due to the presence of government and HEC representatives in private universities' governing and selection bodies. The two main differences between public and private universities are that private universities can set salaries for their academic and nonacademic staff and offer tenure track positions without getting HEC's endorsement for their candidates.

Governance Autonomy

Private universities differ the most from public universities in their governance autonomy. Private universities have the autonomy to elect and terminate their leadership. Yet there is still a risk of this autonomy being compromised due to the presence of government and HEC representatives on their governing bodies. The presence of government representatives on the statutory bodies of private university depends on their charters. The HEC regulatory and monitoring functions require private universities to have an HEC representative on governing bodies in areas such as curriculum and facilities and ensure compliance with HEC rules and criteria. According to *Pakistan Tertiary Education Sector Assessment: Private Higher Education Institutions*, HEC wishes to appoint members of statutory bodies to monitor private sector institutions. The report further highlights that HEC nominees are active members of the statutory bodies and are considered a bridge between private institutions and the regulatory body (Mahmood 2016, 98).

Financing Autonomy

Private universities do not receive public funds other than competitive research and research support grants. They exercise complete financial autonomy and are able to set their own tuition fees, borrow and invest money, own and sell land and buildings, and offer contractual services to supplement their income.

Public Affiliated Colleges

Latent ●○○○

Public affiliated colleges do not enjoy any institutional autonomy. They are under the authority of provincial departments of education for administrative matters and the affiliating universities for academic matters. Provincial departments of higher education are responsible for financing and human resources, while the affiliating universities are responsible for curricula and examinations (World Bank 2017b, 30).

Academic Autonomy

Public affiliated colleges do not have academic autonomy. They must follow their affiliating universities' lead on matters relating to curriculum. In most cases, the affiliating universities hand down a curriculum that is prepared by HEC and their academic statutory bodies to their affiliated colleges. The affiliated colleges also do not have the autonomy to introduce or cancel degree programs. Affiliation to colleges is granted on a programmatic basis, hence they can offer only programs offered by their affiliating universities. To introduce new programs, an affiliated college would need permission from its affiliating institution (HEC, n.d.e, 1–2).

Colleges do not have the autonomy to determine their academic structures, design their admission procedures, or grant degrees to their graduates. Affiliating universities grant degrees to students of their affiliated colleges after conducting examinations. Affiliating universities set basic admission criteria for their affiliated colleges, and colleges risk losing affiliation if they do not follow these admission criteria (World Bank 2017b, 16). However, affiliated colleges can add more stringent requirements to the basic admission criteria set by affiliating universities. Although affiliated colleges are not involved in much research activity, they do have the autonomy to conduct research on topics of their interest.

Staffing Autonomy

Public affiliated colleges do not have staffing autonomy. They cannot hire, promote, or fire academic staff or set their salaries. Hiring is done through the Public Service Commission of Pakistan, and the staff is paid based on Basic Pay Scale.¹ The hiring process for public colleges is very bureaucratic and can take up to six to eight months to fill a vacant position (World Bank 2017b, 14). The promotion and termination decision for staff are made by the government, but affiliated colleges can hire and fire contractual staff (World Bank 2017b, 36). According to interviews with the stakeholders, public affiliated colleges cannot hire, promote, or fire nonacademic staff or set their salaries. They also cannot create new academic or nonacademic positions.

Governance Autonomy

Public affiliated colleges are not autonomous in their governance matters. They do not have governing bodies and are headed by a principal who is appointed by the provincial government (or federal in the case of federal colleges). Public colleges cannot terminate their principals or change the process of

¹ S. M. Awan, *Affiliated Colleges, Performance, Value of the Affiliation Mechanism* (2016), p. 42.

appointing their leaders. The decision of firing a principal also lies with the federal or provincial government. The principal does not have much policy-making power because the policy guidelines are established by the provinces (Awan 2016, 58).

Financial Autonomy

Public affiliated colleges lack any financial autonomy. They are not able to set their tuition fees, which are set by the provincial government, and all the fees collected by the affiliated colleges must be returned to the government. Students also pay examination fees, which are set by affiliating universities and passed on to them by the colleges (World Bank 2017b, 36). It was mentioned in interviews with stakeholders that public colleges cannot accumulate reserves and carry over surplus state funding. It was further stated that since affiliated colleges get very limited amounts of funds for prescribed items, they are never left with surplus funding. Public colleges do not have autonomy to borrow money, invest in assets, own or sell property, or deliver contractual services.

Private Affiliated Colleges Established ●●●○

Private affiliated colleges are much more autonomous as compared to the public affiliated colleges. Since they do not receive any funds from the government they have more freedom to make decisions regarding their institutional autonomy.

Academic Autonomy

Private affiliated colleges do not have academic autonomy. As with public affiliating colleges, private colleges also use the affiliating university's prescribed curricula, which are prepared by the NCRC. Since affiliation is granted on a programmatic basis, private colleges cannot introduce new programs or cancel existing ones at will. The admission standards are set by the affiliating university and the colleges have to follow them, but they can add more stringent requirements to these standards. The number of seats for programs at an affiliated college are also determined by the affiliating university. Colleges are not very research-oriented institutions, but they do have autonomy to conduct research on the topic of their interest. Private colleges also do not have the autonomy to grant degrees, certificates, or diplomas.

Staffing Autonomy

Private affiliated colleges have staffing autonomy. They have the authority to hire, promote, and fire their academic staff, but there have been reports of political pressure on recruitment.² Private colleges have their own salary scale for teachers. In most cases their teacher salaries are lower than public college salary packages (World Bank 2017b, 11). According to interviews with stakeholders, private colleges do not have tenure track positions. On the contrary, most private college teaching staff is hired on a part-time basis (World Bank 2017b, 21). Private colleges are also autonomous in hiring, promoting, and firing nonacademic staff and creating academic and nonacademic positions.

Governance Autonomy

Private affiliated colleges have substantial governance autonomy. They are required to have governing bodies as part of the affiliation criteria, but in reality, most of these governance councils are inactive and are established only to fulfil the criteria for establishment of the college. Private colleges are headed either

² Ibid.

by their owners or by a principal (Awan 2016, 58). Stakeholders confirm that most private group colleges³ do have boards of directors or governing councils that are responsible for making administrative or policy decisions on behalf of the college. The principals of private colleges are selected either by their owners or by the board of directors. Private colleges are autonomous in terminating their principal, changing the process of appointing their leadership, and selecting internal and external stakeholders to their governing bodies. However, private colleges cannot change their mission.

Financial Autonomy

Private affiliated colleges are completely autonomous in their financial matters. They can set their own fees but cannot increase their fees more than 10 percent at a time. There is no fee limit, and the fee is set according to whatever the market can bear. Private affiliate colleges also have the autonomy to borrow money, invest in assets, own and sell land, and offer contractual services.

2.3 Policy Lever: Promoting Good Institutional Governance **Emerging ●●○○**

The promotion of good institutional governance is reviewed through three questions: (1) Does the regulatory framework incentivize the promotion of transparent governance practices at the institutional level? (2) Does the regulatory framework support transparent and meritocratic human resource services? and (3) Are horizontal governance practices at the institutional level incentivized by the regulatory framework?

Promotion of Transparent Institutional Practices at Governance Level

The regulatory framework has some provisions to improve transparent governance practices of tertiary education institutions. Having an internal audit system is prescribed by the charters of most universities, and it was one of the targets of Medium Term Development Framework–Higher Education (MTDF-HE) II to require an independent external audit of all HEC-funded institutions. Additionally, having an independent audit system is also part of the institutional evaluation process (Quality Assurance Agency n.d., 39). MTDF-HE II also mandates public universities to publish the meeting minutes and decisions of key university bodies on their websites and provide them to HEC and stakeholders upon request. HEC Vision 2025 also mentions that all universities receiving recurrent and development grants from HEC will be required to have an internal audit system and will be provided support to set it up. During the survey conducted by the Grant Thornton Consulting Group for HEC, it was observed that most institutions either did not have the internal or external audit mechanism set up or were in the process of establishing these systems (Grant Thornton Consulting Group 2016, 17). HEC also requires universities to have a conflict of interest policy as part of the institutional performance evaluation and has made efforts to prescribe a transparent process for hiring university leadership through search committees. These regulatory provisions apply to public universities, and encourage private universities to adapt them, but leave affiliated colleges out of the equation. Provisions to promote transparent governance are part of the quality assurance mechanism for universities. The Institutional Performance Evaluation Process Manual for Eleven Standards includes criteria for transparent fiscal practices such as regular reviews of institutional fund and grant activities and student participation in matters that concern them (Quality Assurance Agency n.d., 22).

³ Private group colleges are part of a franchise operated and managed through a central head office that is responsible for uniform policies for all colleges under the franchise.

Promotion of Transparent Human Resource Practices

The regulatory framework includes provisions for promotion of transparent human resource practices at the institutional level. These provisions include mandated public calls for recruitment and transparent and publicly available criteria for hiring and firing employees. HEC has outlined the criteria for new hires and the promotion of faculty, and it is part of institutional evaluation to show adherence to the respective criteria for faculty appointment, termination, promotion, supervision, tenure, and evaluation (HEC 2017a).

The regulatory framework also includes provisions to promote meritocratic human resource practices. These provisions include academic staff being hired on meritocratic criteria and evaluated for their teaching and research performance (based on their function at the institution), promoted on the basis of performance and not seniority, and rewarded for teaching/research performance. HEC has clearly outlined meritocratic criteria on their website for different levels of promotion for university faculty. The TTS also describes the qualification of faculty at each level (HEC 2008, 7–9). Furthermore, having well-established criteria for the evaluation of faculty members and other staff is part of the institutional evaluation for universities (Quality Assurance Agency n.d., 29). As far as the evaluation of research performance is considered, it is included only as part of TTS. In the tenure track statutes under “Scholarship, Research and Other Creative Work,” a faculty’s research performance is assessed by any published material in terms of its content, journals in which it is published, or other auspices or its public presentation and reception (6). Also, criteria exist pertaining to number of publications (e.g., 10 publications for appointment as an associate professor) for appointment of faculty at different TTS levels (8). TTS also rewards performance of faculty where performance-based pay is a part of the salary structure, including an annual increment based on the pay scale and honorarium. The TTS pay scale is based on baseline salary plus a maximum of four advance increments. Advance increments are additions to the base salary. These advance increments are awarded based on the following:

- i. quality and number of HEC recognized International refereed journal publications, conference presentations and publications and reports.
- ii. Number of Ph.D. and MS theses supervised.
- iii. Funding record: Amount of funding received from sources other than one’s own institution.
- iv. Market factors. (HEC 2008, 19)

Most of these provisions such as promotion based on performance, evaluation of research, and rewards for teaching and research are part of TTS and do not apply to private universities or the affiliated colleges subsector.

Promotion of Horizontal Governance Practices

The regulatory framework includes some provisions for encouraging tertiary education institutions to adopt horizontal governance practices. These include mandated inclusion of tertiary education stakeholders in governing bodies, mandated term limits, and a mandated democratic election process for the leadership of tertiary education institutions. Syndicate and academic councils include internal stakeholders from the university, while the senate includes external stakeholders as well. The *Guidelines for Establishment of a New University or an Institute of Higher Education* list the number and type of stakeholders to be included in the senate of a public or a private higher education institution.

The types of stakeholders to be included in the senate are “four persons from society at large being persons of distinction in the field of administration, management, education, one person from amongst the alumni of the University, two persons from the academic community of the country, other than an

employee of the University, at the level of professor or principal of a college, [and] four University Teachers” (HEC n.d.b, 13).

The provisions do not specify the inclusion of students. The terms of university leadership positions are prescribed in the model Federal Universities Ordinance 2002 and are prescribed in individual university charters. These provisions to promote horizontal governance practices apply to universities but do not cover the affiliated college subsector.

Policy Dimension 3: Financing

Overall score: Emerging ●●○○

Universities	Established ●●●○
Affiliated colleges	Latent ●○○○

Summary: Both universities and colleges have a stable funding mechanism, but it is not transparent in the case of affiliated colleges. Universities get part of their funding through a funding formula that includes performance funding, whereas affiliated colleges are allotted funds based on their budgets and historic allocations. In Pakistan, only public sector higher education institutions receive funds from the government, and this is true for both universities and affiliated colleges. HEC-recognized private sector universities can apply for some public competitive research and research support grants, but this is not the case for affiliated colleges. This policy dimension is evaluated for the tertiary education subsectors of universities and affiliated colleges. Private institutions have not been scored in detail since they do not receive public funding.

Financing mechanisms are reviewed by asking three questions: (1) Does the country have a stable and transparent process of budget allocation? (2) Is there a publicly available funding formula that includes performance-based funding, and can public and private higher education institutions negotiate some performance targets with stakeholders? and (3) Is there at least one competitive line of funding, available to higher education institutions to promote innovation or other national priorities?

Universities

Established ●●●○

Stable and Transparent Budget Allocation Process

All public universities get a majority of their funding from the federal government through the HEC. The funding process is stable, and universities can anticipate the amount of funds with a fair degree of confidence. Both federal and provincial governments provide funding to the tertiary education sector, but the federal government is the larger contributor. Sixty percent of the public spending on tertiary education in Pakistan comes from the federal government (World Bank 2017a, 59). A major portion of federal funding for higher education goes to universities, with the exception of a few scholarship schemes open to college students.

Funds are allocated to universities for development and recurrent expenditures. The recurrent funds are made up of HEC’s national programs and direct grants to public universities (World Bank 2017a, 62). Direct grants to universities are disbursed using a funding formula.

Infrastructure and equipment are funded through the development budget. Development funding is not

as stable as the recurrent funding because of inconsistencies between the budget that HEC submits and what the government allocates to HEC. To access these funds, universities prepare a business plan with measurable development performance targets (HEC n.d.f, 2). According to stakeholders, universities are required to keep HEC and the GoP planning commission informed about the progress of implementation of development grants through a four-step process. Some public universities have developed their own long-term strategic plans that require funding from GoP or other donors. They also must update HEC regularly about the progress of implementing these plans.

Even though most of the development budget for universities comes from the federal government, universities can get small grants (about 1 percent) from provincial governments (World Bank 2017a, 65). The development fund for universities in KPK is estimated to be around 7 percent of its higher education spending (Government of KPK n.d., 25). According to stakeholder interviews, universities in Punjab can apply for small development grants for infrastructure from the Punjab Higher Education Commission (PHEC), but the development funds from HEC and PHEC cannot be pooled together for the same project.

Publicly Available Funding Formula

HEC uses a funding formula for distributing recurrent grants to universities. The four general principals of transparency, fairness, facilitation, and predictability behind the funding formula are listed on HEC's website, but further details on the funding formula are not accessible to the general public. The funding formula is based on three parts: base grants, need grants, and performance grants. The weight of each component is shown in table 2.

Table 2. HEC's Recurring Grant Funding Formula

Component	Weight
Base grant	65%
Need grant	20
Performance grant	15

The base grant is calculated based on the level of education and the group of disciplines. For example, based on this formula a Ph.D. engineering student is weighted nine times higher than a Bachelor of Arts student. The need grant considers parameters such as impact of the development projects, implementation of new initiatives, and need-based grants to students based on remoteness of the location (disadvantaged regions).

Performance funding is based on research and quality indicators allocating almost half of the weight to the presence of Ph.D. faculty. The breakdown of performance grants is shown in table 3.

Table 3. Components of Performance Funding

Component	Weight
Ph.D. faculty	8%
Research publication output	2
Competitive grants obtained	2
Quality Enhancement Cells report	1
Compliance with HEC policies	1
Evaluation by professional bodies	1

Source: HEC, n.d.g, 3–5.

Performance funding is allocated on the criteria listed above and not on mutually agreed upon performance targets. The performance-based funding formula does not allocate any weight to criteria such as student graduation and retention rates, postgraduate employment rates, and participation of students from target populations.

Competitive Funding

As part of HEC's National Program, competitive research grants are available to universities. The size of the competitive grants pool is small. For example, for the fiscal year 2016–17 it had a budget of PKR 4.9 billion. The National Research Program and the University Industry Technology Support Program (UITSP) are examples of HEC's National Program. This program is discussed in dimension 7 on Relevance of Tertiary Education for Economic and Social Needs. Some of the competitive grants are available to eligible private sector universities. HEC has produced a list of 29 private universities that are eligible for public research funding (Ali n.d., 4).

In addition, the 29 HEC-approved private universities can receive support for the Pakistan Education and Research Network (PERN) and an online (digital) library, which gives access to journal articles and e-books. PERN connects universities and research institutions through high-speed internet with international databases to facilitate research and knowledge sharing. (Ali n.d., 97).

Affiliated Colleges

Latent ●○○○

Stable and Transparent Budget Allocation Process

Public affiliated colleges are funded by the provincial governments, and the funds flow through the provinces' higher education departments. Private affiliated colleges do not receive any funds from the government. The funding process is fairly stable but not transparent. Colleges can predict the amount of funds with a fair degree of accuracy since the funding mechanism to a large extent is based on the budget prepared by colleges and historical allocations (World Bank 2017b, 28). Colleges prepare their own line-item budget and send it to their provincial higher education departments for approval.

Publicly Available Funding Formula

There is no clear funding formula; instead funds are disbursed based on historic allocation. Most of the budget is allocated to recurrent expenses such as salaries, utility bills, and administrative costs. Colleges also receive a small amount of development funds for infrastructure improvement and upgrading of facilities (World Bank 2017b, 28).

Competitive Funding

Colleges do not have access to performance-based funding or competitive grants and do not set performance targets.

Policy Dimension 4: Quality Assurance

Overall score: Emerging ●●○○

Universities	Established ●●●○
Affiliated colleges	Latent ●○○○

Summary: *The mechanism for quality assurance for the universities subsector has been established and is overseen by the federal HEC. Universities have both program and institutional quality standards. Affiliated colleges, on the other hand, lack a dedicated quality assurance system. Affiliating universities have some responsibility in ensuring quality in their affiliated colleges, but it is usually overlooked. This is further explained in the section on universities and colleges.*

The quality assurance system in both subsectors is analyzed using four questions: (1) Is there an independent quality assurance agency in the country, and is it effective in enforcing its standards? (2) Has it developed institutional and program quality standards? (3) Are there incentives for higher education institutions to establish management information systems? and (4) Are there any consequences for institutions that do not comply with evaluation or accreditation criteria?

Universities Established ●●●○

Presence of an Independent Quality Assurance Agency

Quality assurance is one of the key priority areas for HEC. Soon after its inception, HEC created the National Quality Assurance Committee to envisage the quality assurance mechanism for universities (Qureshi 2016, 11). The primary objective of the National Quality Assurance Committee is to “serve as an advisory body on all aspects of quality in higher education and oversee the Quality Assurance Program of HEC” (HEC n.d.h, 18).

Pakistan has a complex mechanism of quality assurance with multiple actors at different levels of the system. HEC is the main independent quality assurance regulator and works with other affiliated and independent entities to ensure the quality of the universities subsector. This quality assurance mechanism includes four main actors, which are discussed in detail below.

Quality Assurance Department (QAD): QAD operates under HEC. One of its main functions is to develop and coordinate the quality assurance system and execute it with the help of the Quality Assurance Agency (QAA). It is also responsible for providing technical support and expertise to QAA and shares responsibilities for implementing HEC’s quality assurance programs (HEC n.d.h, 23). QAD also oversees TTS implementation and handles claims against plagiarism.

Quality Assurance Agency (QAA) and HEC’s Accreditation Councils: QAA was established by HEC under clause 10(e) of the Higher Education Commission Ordinance of 2002. It has representation from the government, universities, private sector, and researchers (Government of Pakistan 2002b).

One of QAA’s main functions is to monitor the implementation of quality standards of higher education institutions by supporting existing accreditation councils and setting up new ones. These accreditation councils are referred to as HEC accreditation councils in this report. The purpose of HEC accreditation councils is to accredit programs that do not fall under the jurisdiction of the GoP accreditation councils. HEC’s accreditation councils rank programs into four categories—W, X, Y, and Z—with W being the best

and Z being the worst rank. QAA is responsible for support, establishment, and operation of Quality Enhancement Cells (QECs), which are established at the institutional level to implement the internal quality assurance system. These QECs are discussed in more detail below.

Government of Pakistan Accreditation Councils: GoP has established accreditation councils with the mandate to accredit relevant professional degree programs such as medical, dental, law, engineering, and nursing. There are nine GoP accreditation councils, and their jurisdiction is limited to their respective programs.

These councils are established under their own respective acts and have clear autonomous legal authority. They strictly enforce various aspects of quality assurance such as accreditation, curriculum, number of seats, and admissions criteria for their respective programs. All programs under the jurisdiction of these councils need to be accredited periodically. These councils also register professionals of occupations falling under their domain (Qureshi 2016, 49). Without the registration with their respective accreditation council, graduates cannot work for the government. The five HEC accreditation councils together with the nine GoP accreditation councils still do not cover all of the tertiary-level programs in the country. For this reason, HEC has plans to establish 15 new accreditation councils by year 2025 (HEC n.d.a, 26).

Quality Enhancement Cells (QECs): QECs are vehicles for the internal quality assurance mechanism and a way to make higher education institutions responsible for improving the quality of their programs. According to *Handbook of Quality Assurance: For Higher Education in Pakistan*, most universities (both public and private) have working quality assurance cells, with more in the process of being established. QECs coordinate all internal quality assurance activities and collaborate with QAA. The QEC supports its institution's departments to conduct periodic self-assessment using HEC's Self-Assessment Manual and produce self-assessment reports. The head of the QEC works directly under the Vice-Chancellor of the university (Rauf 2006, 21). QAA plays an important role in supporting QECs and building their capacity to conduct internal quality assurance at their institutions. Both public and private universities are required to establish QECs. According to interviews with the stakeholders, private universities are also mandated in their agreement with HEC to have a system for quality assurance. In case of serious violations or noncompliance, HEC can publicly blacklist a university and not recognize degrees awarded by the blacklisted institution.

Since its inception, HEC has pushed a framework for internal and external quality assurance of universities. The establishment of QAA was a great step forward in this effort. While QAA has done a commendable job in setting up and supporting QECs and accreditation councils, work remains to be done. Programs and disciplines are still seen for which accreditations councils do not exist, and QAA needs enough manpower to implement its agenda. QAA and QAD are short staffed and face a big backlog of requests pertaining to TTS, plagiarism cases, NoCs, and implementation of HEC guidelines. QECs at the institutional level are also facing similar problems because they lack financial and human resources. While some QECs are well staffed, others do not have a head or have a part-time head, some have only part-time staff, while some give quality assurance duties as additional tasks to their regular faculty and staff (Qureshi 2016, 47).

Institutional and Program Quality Standards

QAA and the accreditation councils use consistent procedures to evaluate and accredit institutions. HEC has developed a set of 11 standards called the "Institutional Performance Evaluations Standards" for institutional evaluation as part of the external quality assurance mechanism (Quality Assurance Agency n.d., 5). These standards focus on inputs and processes. HEC has also developed self-assessment standards for universities, which are mostly based on inputs and processes, with one of the standards measuring

output (Rauf 2006, 3). Additionally, each accreditation council (from both HEC and GoP) has its own accreditation standards.

Incentives to Establish a Management Information System

While no management information system is established at the regional or national level, universities are asked to collect data on various faculty, student, and facilities-related indicators as part of their quality assurance exercise. Universities include data such as student enrollment, student-faculty ratio, number of applications versus students enrolled, number of full-time, part-time, and contractual faculty, financial aid provided to students using institutional funds, and alumni and employer satisfaction feedback as part of their university portfolio report. The university portfolio report is part of a university's institutional performance evaluation.

Consequences for Noncompliance with the Evaluation/Accreditation Criteria

There are consequences for programs and institutions that do not comply with the evaluation or accreditation criteria set by HEC or the GoP accreditation councils. Institutions that do not comply with the accreditation standards are listed on HEC's website as unrecognized institutions (Qureshi 2016, 50). To date, HEC has established five accreditation councils for various disciplines. (HEC n.d.i, 14). In the case of the GoP accreditation councils, noncompliant programs are not recognized, and their graduates are not registered with the councils. Without the recognition from their respective accreditation councils, graduates cannot practice their profession in Pakistan.

Affiliated Colleges

Latent ●○○○

Presence of an Independent Quality Assurance Agency

No quality assurance mechanism is dedicated to affiliated colleges. Affiliated colleges are operating under a dual management system. Affiliating universities manage the academic aspect, while provinces have the administrative control of affiliated colleges in their jurisdiction. Quality assurance of tertiary education in Pakistan is under the control of HEC, which does not have jurisdiction over affiliated colleges except through affiliating universities. The provinces have also not taken charge of quality assurance of their affiliated colleges. Because of this situation, quality assurance of affiliated colleges has been a neglected area for a long time (World Bank 2017b, 57).

Much variation surrounds how affiliated colleges are monitored by the affiliating universities. Affiliating universities have affiliation committees that are responsible for conducting evaluation visits to already affiliated colleges and colleges applying for affiliation. In most cases affiliation committees are used only for processing affiliation application and rarely visit their affiliated colleges after granting affiliation. The affiliated colleges are also not covered under the QECs of affiliating universities (Qureshi 2016, 60).

HEC has introduced a few initiatives to improve the quality of affiliated colleges through affiliating universities. It developed "Affiliation Criteria/Guidelines for Universities/Institutions of Higher Education in Public Sector," which describes the criteria that universities need to fulfill to affiliate colleges. According to these guidelines, a public university needs to make provision for affiliating colleges in their charters, and the affiliating institution needs to ensure that the affiliated institution is meeting HEC's quality criteria (HEC n.d.e, 1–2). It further adds that the formal agreement between an affiliating institution and an affiliated institution needs to include provisions for a quality control mechanism: "The agreement should clearly spell out the provisions for quality control mechanism including monitoring, assessment

procedures and review and visitation” (HEC n.d.e, 7).

As part of the TESP project, HEC has developed Minimum Quality Standards for affiliating universities to conduct quality assurance at affiliated colleges. These nine standards are mostly used for granting affiliation (Qureshi 2016, 58). During stakeholder interviews, it was confirmed that the quality assurance of affiliated colleges is up to the purview of the affiliating universities, and in many cases affiliating universities do not monitor whether minimum quality standards are being met at their affiliated colleges.

As affiliated colleges do not have an independent quality assurance agency, we have not reviewed the questions about quality standards, incentives, and consequences.

Policy Dimension 5: Tertiary Education Management Information System (TEMIS)

Overall score: Latent ●○○○

Universities	Latent ●○○○
Affiliated colleges	Latent ●○○○

Summary: No national or regional management information system is established for universities in the country, but HEC collects some data on student, faculty, and RDI indicators. A tertiary education management information system is a tool used to collect and organize data for the assessing and guiding performance of a country's tertiary education system. When used efficiently, TEMIS can provide quality data and statistics to inform tertiary education policies, budgetary allocations, and evidence-based plans and strategies (Luena 2012, 6). Nevertheless, some provinces collect limited data for their tertiary-level colleges. This policy dimension is evaluated for the tertiary education subsectors of universities and affiliated colleges.

This dimension asks two questions regarding TEMIS: (1) Is there a management information system at either a national or regional scale to collect tertiary-level data on students, faculty, and research development and innovation? and (2) Are these data used for system evaluation and reform?

Universities

Latent ●○○○

Presence of a Management Information System

As mentioned above, no national or regional-level TEMIS exists for universities in Pakistan. According to stakeholder interviews, some universities are using their own management information systems at the institutional level to collect data on different indicators on their student body, courses, and faculty.

HEC collects data on some student, faculty, and RDI indicators using Excel worksheets. These include student enrollment per degree level and program, faculty-to-student ratios, tuition fees per degree program, faculty qualifications, faculty salaries, and research papers produced per institution, to name a few. HEC has included plans in its Vision 2025 to have fully functional higher education management information systems (HEMISs) at 50 universities in the next five years (HEC n.d.a, 47). HEMISs were one of the interventions planned to strengthen governance, management, and accountability of the higher education sector in Pakistan during TESP (World Bank 2010, 4). Campus Management Solutions, a subset of a fully functional HEMIS, was one of the intermediate results indicators for TESP and was successfully implemented in eight universities. Despite of this success, most universities lack a fully functional HEMIS, which contributes to inadequate strategic planning management and monitoring at both national and institutional levels (World Bank 2011, 7).

Use of TEMIS Data for System Evaluation and Reform

As there is no national- or regional-level TEMIS for universities in Pakistan, data cannot be used systematically for policy-making purposes.

Affiliated Colleges

Latent ●○○○

Presence of a Management Information System

Some provincial higher education departments have set up higher education management systems, but available data are limited for degree colleges (colleges with tertiary-level education). For example, KPK and Balochistan have management information systems, the Higher Education Management Information System (HEMIS) of KPK and the Balochistan Management Information System (BEMIS), with active websites.

Use of TEMIS Data for System Evaluation and Reform

Limited data are available on tertiary-level affiliated colleges in some provinces, but the data are not used to inform policy decisions. KPK's HEMIS collects gender and location data on student enrollment in degree colleges. It also collects data on the ratio of staff with Master's and Ph.D. degrees, but the data are not desegregated by the education level of colleges. No data on RDI indicators are collected. KPK's HEMIS published a statistical report in December 2016 titled the "Statistical Report of all Colleges of Khyber Pakhtunkhwa." BEMIS data are not accessible through its website, but Balochistan Education Management Information System (BEMIS) pro-forma (questionnaire) shows that data are collected on student enrollment by level of education and program specialization, number of faculty, and their terminal degrees. Data are desegregated by gender but not by geographical location (Education Department of Balochistan n.d.).

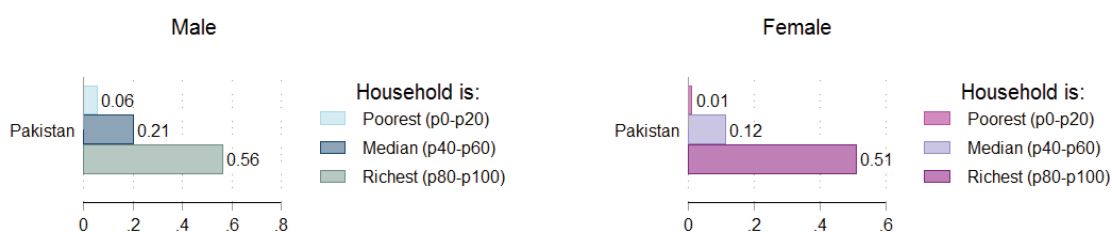
Policy Dimension 6: Access and Equity

Overall score: Emerging ●●○○

Summary: There are several financial aid programs to achieve access and equity goals, but most of them are geared toward university-bound students. Currently no national-level entrance exam is in place for universities or colleges, but HEC is in the process of developing this service for students free of charge. Some established higher education institutions and professional programs require students to take entrance examinations. Most institutions use their own criteria to grant admission to students. No incentives exist for tertiary education institutions to offer outreach programs to students from disadvantaged backgrounds, nor established mechanisms to allow student transfers between similar or different types of institutions.

Students from lower socioeconomic backgrounds and geographically remote areas do not have equitable access to tertiary education in Pakistan. As seen in figure 1, the population from the poorest households have very limited access to tertiary education, and this number drops even further for women.

Figure 1. Probability of Accessing Tertiary Education by Wealth Status

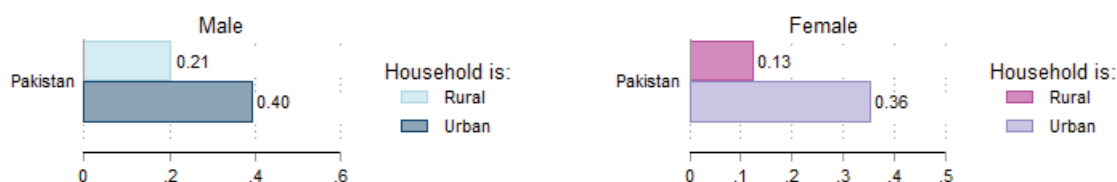


Source: Demographic and health surveys 2012–13.

Note: The numbers in figures 1 and 2 represent weighted proportions of the population who have either completed higher education or are currently enrolled. Restricted to respondents 20 to 24 years old.

As shown in figure 2, a big gap is also seen in tertiary education participation between urban and rural areas. This difference is even more pronounced for women. The weighted proportion for participation for women from rural areas is 0.13 as compared to 0.36 for women from urban areas. These figures show that poor women from rural areas are the most disadvantaged for accessing tertiary education.

Figure 2. Probability of Accessing Tertiary Education by Geographical Location



Source: Demographic and Health Surveys 2012–13.

Note: The numbers in figures 1 and 2 represent weighted proportions of the population who have either completed higher education or are currently enrolled. Restricted to respondents 20 to 24 years old.

In this section access and equity is analyzed using five questions: (1) Are there any public financial aid

programs or financial cost-sharing mechanisms for students from disadvantaged backgrounds for access, equity, and retention goals? (2) Are admission procedures transparent and accessible? (3) Are there any incentives for tertiary education institutions to offer outreach programs? (4) Are any antidiscrimination and antiharassment policies in existence tailored to the tertiary education system? and (5) Are there any mechanisms for student transfer between similar or different types of tertiary education institutions (TEIs) to promote social mobility?

Financial Aid Programs and Financial Cost-Sharing Mechanisms

Several financial aid programs are offered by federal and provincial governments to help disadvantaged students access higher education. Many such initiatives are tailored toward students from a low socioeconomic status and ethnic minorities. HEC offers various need-based scholarships, with some of them having additional regional quota requirements. The quota-based scholarships are established to address the regional disparity and are awarded to poor students from far-flung areas (Huma 2016, 5). One such program is the HEC's need-based scholarship awarded to financially needy students (HEC 2017b). Need-based scholarships are embedded in the annual recurrent grants to universities. For 2016–17, HEC provided 20,159 need-based scholarships. These scholarships are awarded to students of selected public sector universities enrolled in four-year undergraduate degree programs and cover tuition fees, lodging, transportation, books, and other academic costs. To be eligible, students must gain admission into the selected universities and show financial need. Students receive additional PKR 6,000 stipends to contribute toward their living expenses. The Prime Minister's Fee Reimbursement Program is another program that benefits financially needy students from less developed districts. The recipients of this program get their fees reimbursed for Master's and Ph.D.-level degrees. Examples of such initiatives at the provincial level are the Chief Minister's Education Endowment Fund Scholarship Programme in KPK and the Endowment Fund Scholarship in Sindh.

The Chief Minister's Education Endowment Fund is awarded by the KPK's Higher Education, Archives, and Library's Department to students from KPK on a need and merit basis. This scholarship like most others is limited in scope because it covers specific subjects in selected universities. The Endowment Fund scholarship is offered by the government of Sindh's Minority Affairs Department to students of ethnic minorities to pursue higher education (Minority Affairs Department 2017). HEC scholarships are targeted toward university students, whereas some provincial-level scholarships are offered to both university and affiliated college students. There are considerably fewer scholarship opportunities for tertiary-level affiliated college students as compared to university students. One of the reasons given for this discrepancy is that the public affiliated colleges' fees are already heavily subsidized by the government, and they are so nominal that most students can easily afford them.

In addition to need-based scholarships, a small student loan program is also processed by the State Bank of Pakistan to students with financial need. This scheme was launched in 2002 and provides interest-free loans to students pursuing scientific, technical, and professional degrees at the undergraduate, Master's, MPhil, and Ph.D. levels in public institutions in Pakistan. In 2015–16, this program issued PKR 174.923 million in student loans to 1,044 students (National Bank of Pakistan n.d.a, 1). The loan program is tailored to the needs of the students in that it has a grace period of six months after starting employment or one year if it takes the recipient longer to find work. Similar to the scholarship programs, the student loan covers specific degree programs at approved universities and colleges. Even though the loan program is open to both university and college students, it is skewed in favor of university students since only two affiliated colleges were on the list of approved institutions for the 2015–16 academic year (National Bank of Pakistan n.d.b).

Although the financial aid programs are helpful for students from disadvantaged backgrounds, often the targeted students are unable to fulfill the merit criteria (Huma 2016, 5). Also, the available financial aid programs are a drop in the bucket for the massive challenge Pakistan is facing in terms of access and equity in tertiary education. No systematic mechanism is in place for assessing financial need for the scholarships as well as the student loan programs. In the case of government employees, the financial need is assessed based on pay slips (The Punjab Educational Endowment Fund website). In other cases, family income is verified using utility bills, attested testimonies of colleagues, or home visits. No effective mechanisms are in place to monitor the effectiveness of the student loan program.

Transparent and Accessible Admission Procedures

The admission process to gain access to tertiary education is somewhat transparent. Most colleges and universities use students' grades in the final year of secondary education to determine admissions. For professional programs such as medicine and law, the admission standards are established by their accreditation councils, but for general education, universities can decide their own admission criteria. No competitive national examinations are in place for gaining entry into general tertiary education institutions, but HEC has partnered with the British Council to develop such a system.

Institutions must follow general HEC guidelines but set their own admission criteria. Some of the more established universities use entrance exams, while others use a mix of entrance exam and final year secondary grades to select students for their programs. The dates, location, and curriculum for the exams are made available on institutions' websites in advance. However, most college students pursuing the two-year degree programs face hurdles in navigating the admissions system for graduate programs. The two-year undergraduate degree programs offered at many colleges and some smaller universities run on the annual system as compared to the semester system of the four-year degree programs.

Because of the coexistence of the annual system and the semester system, the timings for the release of the results and admissions are out of sync with one another, causing problems for students on the annual system who are applying to semester-based graduate programs. It was reported during stakeholder interviews that some universities deliberately delay the release of their results to lock their students out of applying for graduate programs at other universities. Additionally, there are quota systems for admissions in tertiary education institutions with geographical domiciles having allotted seats in public institutions. Political influence has also been noted to affect admissions at many levels of the tertiary education system in Pakistan, while some universities also manage to resist such attempts.

The system also makes provisions for special needs students to gain access to the tertiary education institutions. HEC has a disability policy that is in line with the Government Rules and Disability Act 2014. This act installs admission quotas for disabled students at all levels of education. Higher education institutions are asked to process such applications through their disability committees and provide disabled students exemption from admissions tests, relaxation in age limits, fee concessions, and appropriate modes of examination, among other services as required by the student (HEC 2017c). According to interviews with the stakeholders, while these policies apply to colleges, smaller universities and colleges do not have adequate financial means to implement them, and no follow-up system is established to check implementation at the institutional level.

Incentives for Offering Outreach Programs

No incentives are in place for tertiary education institutions to offer outreach programs. There are no outreach programs such as information and consultation, foundation building, or mentorship programs to help students from disadvantaged backgrounds to successfully access the tertiary education system.

Although affiliated colleges are not established as outreach programs, this subsector is considered as a bridge between secondary and tertiary education since it houses both upper-secondary and tertiary-level programs. The government is planning to expand access to tertiary education by establishing more colleges. This presents a great opportunity to create outreach programs in colleges so that the students can access these services at their doorsteps.

Antidiscrimination and Antiharassment Policies

Pakistan does not have a specific policy on antidiscrimination, but it does have antiharassment legislation called the Protection Against the Harassment of Women at the Workplace Act of 2010. In line with this act, HEC has come up with its own Policy Guidelines Against the Sexual Harassment in Institutions of Higher Education. In some cases, the act has been used successfully to fire faculty members for sexually harassing their students, but unfortunately this is not the norm. Many universities still have not adopted HEC's policy guidelines against sexual harassment where such cases go unnoticed (Yousaf and Schmiede 2016, 9). At the systems level, affiliated colleges do not have any specific antiharassment or antidiscrimination policies.

Mechanisms for Student Transfers

In Pakistan, no mechanisms are established to facilitate student transfers between similar or different types of tertiary education institutions. This matter is left to the discretion of the individual institution. As a first step to achieve uniformity at the tertiary level, HEC approved the National Qualifications Framework for Higher Education in Pakistan in 2016. The framework covers all HEC-chartered public and private higher education institutions (HEC 2017d). The document focuses on implementing the semester-based higher education programs and increasing transnational mobility of students. Once the National Qualifications Framework is implemented and all higher education programs are converted to the semester system, it will become easier to create pathways across the same as well as different types of tertiary education institutions.

Policy Dimension 7: Relevance of Tertiary Education for Social and Economic Needs

Overall score: Emerging ●●○○

Policy Lever 1: Labor Market Relevance	Policy Lever 2: Promoting Research Development and Innovation	Policy Lever 3: Social and Environmental Relevance
Emerging ●●○○	Established ●●●○	Emerging ●●○○

Summary: Pakistan has some programs to make tertiary education relevant to social and economic needs. HEC has taken steps to align its curriculum with the labor market. For Research Development and Innovation (RDI) activities, there is support through research grants, centers of excellence, and sponsoring doctoral candidates. For social and environmental relevance, some universities and colleges offer environmental-focused degree programs, but not much has been done to improve the social relevance of the tertiary education system.

The relevance of tertiary education for social and economic needs is examined using three questions: (1) Does the system promote education that is relevant for the labor market? (2) Does it support research and development activities? and (3) Does the system actively contribute to social and cultural development?

7.1 Policy Lever: Labor Market Relevance

Emerging ●●○○

Labor market relevance of the tertiary education system is reviewed using three aspects of the question Are policies and programs in place to increase the relevance of the tertiary education to the labor market? We assess (1) initiatives to measure labor market outcomes, (2) programs to support internships and practical trainings, and (3) initiatives to increase the labor market relevance of the curriculum.

Initiatives to Measure Labor Market Outcomes

Pakistan has a few initiatives in place to measure the labor market outcomes for tertiary education graduates. As part of the self-assessment exercise, QAA asks universities to conduct employer surveys every two years to determine the performance of their graduates. This initiative does not include affiliated colleges (Rauf 2006, 11). However, some well-established colleges conduct their own alumni surveys.

Programs to Support Internships and Practical Trainings

The National Curriculum Review Committees and accreditation councils for professional programs require students to complete internships and practical trainings, but they are not supervised and assessed by faculty. According to interviews with the stakeholders, some universities and colleges arrange their own internship programs, but these initiatives are not incentivized by the government. On the institutional level, some universities such as Qaid-e-Azam University and Fatima Jinnah Women's University mandate students on certain programs such as the BBA (Bachelor of Business Administration) and MBA (Master of Business Administration) to do internships and will not award degrees until students fulfill this requirement.

Initiatives to Increase Labor Market Relevance of the Curriculum

HEC has made great efforts through its NCRC to ensure that the tertiary-level curriculum is relevant to the labor market. NCRC reviews the curriculum of any given subject every three years to capture the latest

developments in the field. However, this does not happen in practice, and some subject curricula might not be reviewed for up to five years. The review is done in collaboration with universities and other stakeholders. To ensure the labor market relevance of the curriculum, two members from the industry and one senior member from a research and development organization are selected to serve on NCRC (HEC n.d.j, 4).

7.2 Policy Lever: Promoting Research, Development, and Innovation Established ●●●○

The status of promoting research, development, and innovation is determined by asking two questions: (1) Are there system- or sector-wide policies in place to promote RDI? and (2) Are there any financial incentives or specific programs to encourage RDI activities?

System- or Sector-Wide Policies to Promote RDI

GoP realizes the role of research, development, and innovation in fulfilling its goals to become an upper-middle-income country and has made research and innovation one of its priorities. HEC was created in 2002 with the goal to promote higher education, research, and development in Pakistan (HEC n.d.k, 8). GoP's focus on research and innovation is evident in its new higher education strategic document HEC Vision 2025, where it is stated that "we will build a worldwide education and research network of universities which will allow institutions to initiate research through government and private sector focused support enabling them to build international partnership programs" (HEC n.d.a, 35).

Incentives and Programs to Encourage RDI

HEC supports RDI through providing doctoral training and career development, establishing centers of excellence, and incentivizing policy relevant research. HEC has various programs to build research capacity by supporting doctoral studies by faculty as well as nonfaculty citizens. It awards full or partial financial support to candidates perusing Ph.D. programs in Pakistan and abroad through initiatives such as the Overseas Scholarship for MS/MPhil Leading to PhD, the Overseas Scholarship Aghaz-e-Haqooq-e-Balochishtan Project, and the Partial Support Program (HEC 2017e). HEC has also announced the Faculty Development Programme and Overseas Scholarships to fulfill one of its goals to increase the share of Ph.D. faculty to 40 percent by 2025. The majority of the Master's and Ph.D. scholarships programs have geographic and subject specifications, and most of them can be availed by public and approved private university students.

The government has several programs to support research activity in the country. One such program is the National Research Program, through which competitive grants are available to public and eligible private universities to submit research proposals under HEC's proposed research domains. The University Industry Technology Support Program (UITSP) is another HEC program with funding awarded on a competitive basis to public sector universities and DAIs for promising industrial research projects (HEC 2016). In addition, 2 percent of the performance-based funding for public universities goes toward research programs and publications (HEC n.d.g, 6). Although these are encouraging initiatives, they are open only to researchers attached to a university or DAI, and fewer grants are available to private sector institutes.

HEC supports research activities by helping universities to establish Offices of Research, Innovation, and Commercialization (ORICs). The aim of ORICs is to organize a university's research activities and strengthen academia and industry linkages. HEC is encouraging universities to establish ORICs by providing increased financial assistance for overhead cost per research project submitted to the National

Research Program for Universities.⁴According to Vision 2025, all 30 Tier I universities and 100 Tier II universities will have functional ORICs to facilitate and commercialize research (HEC n.d.a, 68). HEC also is planning to revise its policy to provide incentives to universities to establish ORICs.

7.3 Policy Lever: Social and Environmental Relevance

Latent ●○○○

To assess social and environmental relevance of the tertiary education system in the country, we asked whether there are policies and programs to support (1) social and cultural development and (2) environmental protection.

Policies and Programs to Support Social and Cultural Development

The role of tertiary education in the social and cultural development of Pakistan has been discussed in several policy documents. In the National Education Policy 2009 document, it is stated that universities should recognize the importance of social sciences in transmitting civic and cultural values to the populace and conduct research focused on these areas (Ministry of Education 2009, 59). The HEC Vision 2025 also reiterates the need to focus on social and cultural studies to cultivate national cohesion and cultural identity (HEC n.d.a, 4). It proposes increased resources to support social sciences programs at Tier I and Tier II universities (HEC n.d.a, 13). Although mention is made of recognizing the importance of social sciences in policy documents, no specific programs are in place to enhance the role of tertiary education in the social and cultural development of the country.

Programs and Policies to Support Environmental Protection

Higher education institutions in Pakistan lack the support to play a significant role in environmental protection and sustainability. Currently, a few universities and colleges are offering Bachelor's and Master's level programs in environmental engineering, but they do not receive any financial incentives from the government for this initiative. On the upside, the HEC Vision 2025 declares environment and climate change as a high priority area of development, and the government has planned to expand degree offerings in this area (HEC n.d.a, 76).

⁴ HEC, SOPs for Offices of Research, Innovation and Commercialization (ORICs), p. 2.

Conclusion and Recommendations

Pakistan has a complex tertiary education system with different subsectors under different regulators and different sets of regulations. The universities subsector is managed at the federal level, whereas the affiliated colleges subsector is managed by the provincial governments. Not much coordination takes place between the two levels of governance. In fact, the situation has been made worst after passage of the 18th Amendment, when Punjab and Sindh created their own provincial HECs to take control of their universities subsector. This has created confusion over roles and responsibilities between the center and the provinces and within the universities subsector. The duplication of functions of federal and provincial HECs has created more red tape and increased risks of corruption for universities. To maintain the pace of progress started by HEC after its inception, it is important for the provinces and the federal authorities to clarify their roles and responsibilities and work in tandem with each other.

The rest of this section provides recommendations for each of the seven policy dimensions.

Strategy for Tertiary Education

The HEC has outlined an ambitious strategy in its HEC Vision 2025 document. The strategic plan includes actions to improve all subsectors. It is built on objectives and programs to achieve these objects, relevant timelines, responsible actors, and evaluation criteria. The plan also includes major stakeholders such as academics, policy makers, and industry leaders. These components make the strategic plan action focused and relevant to the people it is intended to serve. As it stands, HEC Vision 2025 would benefit from referencing relevant and publicly available research to define its objectives and programs. Although some original research was conducted during the TESP project to inform HEC Vision 2025, research-based evidence needs to become a more systematic part of the policy-making process.

Governance

The two tertiary education subsectors in the country are under two different levels of administrations. Although universities mostly operate under HEC, the affiliated colleges have been devolved to their provinces. This has created inconsistencies in the system, especially in terms of institutional autonomy between different subsectors. Public and private universities and private colleges have a considerable level of autonomy, but the public colleges have none. Public affiliated colleges do not have any academic, staffing, governance, or financial autonomy, which creates difficulties in their day-to-day operations. For example, it can take up to eight months to fill a vacant teacher position at an affiliated college, and many colleges struggle with this issue. Given the autonomy to hire their own teachers, affiliated colleges will be able to fill their teaching positions quickly because of lack of bureaucracy. It will be beneficial to reduce the differences in institutional autonomy between different subsectors and allow colleges more autonomy while increasing accountability. This would have to be considered carefully, keeping in mind the capacity needed at the college level to become more autonomous.

For the universities subsector, the procedure for electing leadership needs attention. Currently, the Vice-Chancellors and other key leaders of public universities are chosen by either the provincial or federal government depending on the location of the universities. The search for eligible Vice-Chancellor candidates is conducted through search committees, which is a step in the right direction, but the process is still marred by political influence. The Vice-Chancellor and key leaders of a public university are appointed by the Chancellor, who in most cases is the governor of the province. Conflicts have arisen between different appointing authorities over appointment of Vice-Chancellors, which has caused delays in appointments. To curtail the political influence on the appointment of Vice-Chancellors and other

leaders of universities, a clear and transparent process should be designed and implemented at the federal and provincial levels.

Financing

Inconsistencies exist in financing mechanisms between the two main subsectors of the tertiary education system in Pakistan. HEC disburses recurrent funds to universities based on a funding formula that includes performance funding. Criteria for performance funding are heavily based on research production and compliance with HEC policies. HEC needs to expand its funding formula to capture indicators that are student centered and will help universities improve their performance. Such indicators include student graduation rates, student retention rates, postemployment graduation rates, quantitative and qualitative measures of student participation from disadvantaged groups, and other measures specifically related to a university's mission. The performance funding could be linked to performance targets, and universities should be able to negotiate their performance targets.

Although both universities and affiliated colleges have a stable funding mechanism, it is not very transparent, and no funding formula is in place for colleges. Both universities and affiliated colleges should make their funding mechanisms easily accessible to public. Provincial governments should consider introducing a funding formula to disburse their funds to public affiliated colleges, which can be a simple funding formula that captures the needs of this subsector. Affiliated colleges also do not get any performance-based funding. Introduction of this mode of funding could improve the overall quality of affiliated colleges if performance is connected to relevant indicators such as student graduation, student retention, postgraduate employment rates, and other specific criteria related to the college's mission.

Quality Assurance

HEC has made great progress in establishing and strengthening the quality assurance mechanism for universities. It can improve quality assurance mechanism for universities by establishing the planned accreditation councils to cover all tertiary education programs in the country. To establish a high-quality tertiary education system, it is pertinent that all programs in the sector adhere to established quality standards. To unify the quality assurance mechanism, it would be beneficial to establish an autonomous umbrella agency to oversee and coordinate between all the different quality assurance agencies operating in Pakistan. QAA should include the voices of students in quality assurance mechanisms and establish a code of ethics.

As mentioned earlier in the report, affiliated colleges lack a dedicated quality assurance structure and are loosely monitored by the affiliating universities. The government plans to increase access to tertiary education by significantly increasing the number of affiliated colleges. According to Vision 2025, the enrollment in affiliated colleges is projected to increase by 42 percent by 2025 (HEC n.d.a, 22) In the light of new expansion plans, it has become even more important to focus on improving the quality of this neglected subsector because it will be educating a significant number of Pakistanis. HEC can play a role in quality assurance of affiliated colleges through affiliating universities. It can do this by equipping QECs to conduct quality assurance of affiliated colleges and enforcing implementation of Minimum Quality Standards for affiliated colleges by affiliating universities.

Tertiary Education Management Information System (TEMIS)

A Higher Education Management Information System (HEMIS) is critical for the tertiary education system in Pakistan. In addition to expansion of the tertiary education system, HEC plans to establish HEMIS at 50 universities over the next five years (HEC n.d.a, 23). This is a step in the right direction since valid and reliable data are pertinent to policy planning and increasing the efficiency of the system. Universities do

not have a regional or a national TEMIS, and affiliated colleges do have it, but there is lack of valid and reliable data. Some provinces have a HEMIS, but they either do not include tertiary-level colleges or lump them together with secondary-level colleges, thus clouding the data. As a result, data from different sources do not match. Hence, it is critical to establish a HEMIS to collect data on all types of tertiary education subsectors (including universities and affiliated colleges) for efficient policy planning and development.

Access and Equity

Currently, some financial aid programs are available from HEC and provincial governments, but most of them are targeted toward university students. These programs do address low-income students from hard-to-access areas, but there is a lack of focused financial aid for women. According to HEC Vision 2025, the Prime Minister's Fee Waiver Program and the Laptop scheme will be extended until 2025, and a student loan program will be introduced (HEC n.d.a, 69). Although these are encouraging initiatives, it is important to open more of these avenues to college students and to women. These programs also need to be bolstered with outreach and support initiatives for disadvantaged students at the high school level so they can get the support they need to access financial aid programs. Tertiary education institutions need to be incentivized to offer outreach programs through either quality assurance mechanisms, funding schemes, or including the presence of such programs in performance funding. Access and equity can also be improved by establishing a mechanism for student transfer between tertiary education institutions. This will give students with two-year Bachelor's degrees and two-year associate degrees a chance to transfer to universities to improve their credentials. Implementation of the National Qualifications Framework will be the first step toward establishing pathways for student transfers between tertiary education institutions.

To make tertiary education institutions more accessible to minorities and women, it is critical to have an effective antidiscrimination and antiharassment policy in place. We did not find evidence of an antidiscrimination policy. Although there is an antiharassment policy that applies to tertiary education institutions, it has not been adopted by smaller less established institutions. It is recommended that an antidiscrimination policy be formulated and implemented. Tertiary education institutions can be incentivized by HEC and provincial tertiary education regulatory bodies to improve implementation.

The Relevance of Tertiary Education for Social and Economic Needs

HEC has a few initiatives to improve the relevance of tertiary education to the labor market. One such initiative is to include experts from the industry and private sector on curriculum review committees. Inclusion of industry experts is useful in bridging the gap between the industry and the classroom. The effectiveness of this initiative can be increased by encouraging tertiary education institutions to include practical trainings and internships in all their programs. This will not only give students a chance to use their skills in the work environment and but will also improve the industry relevance of the curriculum. Currently the professional programs have internships mandated by their NCRCs and accreditation councils, but these internships are not supervised or assessed by faculty. To make these internships effective, it is important to put a formal system of supervision and assessment in place so that the students can get their full benefit.

Although HEC supports universities to undertake RDI activities, there is not much activity seen to encourage tertiary education's role in social and cultural development. However, Vision 2025 does include plans to support research related to social development issues, which is a positive sign. HEC and the provincial higher education regulatory authorities can further encourage higher education institutions to build bridges with communities by nurturing and supporting cultural assets and collaborating with cultural

and social organizations.

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Acronyms

BEMIS	Balochistan Management Information System
BPS	Basic Pay Scale (Pakistan Civil Services)
CCI	Council of Common Interests
DAI	Degree-Awarding Institute
GDP	Gross Domestic Product
GoP	Government of Pakistan
HEC	Higher Education Commission
HEMIS	Higher Education Management Information System
KPK	Khyber Pakhtunkhwa
MTDF-HE	Medium Term Development Framework—Higher Education
NAB	National Accountability Bureau
NCRC	National Curriculum Review Committee
NoC	No Objection Certificate
ORIC	Office of Research, Innovation, and Commercialization
PERN	Pakistan Education and Research Network
PHEC	Punjab Higher Education Commission
QAA	Quality Assurance Agency
QAD	Quality Assurance Department
QEC	Quality Enhancement Cell
RDI	Research Innovation and Development
TESP	Tertiary Education Support Project
TTS	Tenure Track System
TVET	Technical and Vocational Education and Training
UGC	University Grants Commission
UITSP	University Industry Technology Support Program

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Appendix – Best Practice Indicators used in SABER-Tertiary Education

1. Strategy for Tertiary Education			
1.1	1.2	1.3	
The country/state has a fully developed strategy plan for tertiary education that serves as a guide for steering the system.	The creation of the tertiary education strategic plan is relevant and representative, and includes input from key stakeholders and considers key policy levers.	The tertiary education strategic plan is grounded in clear and systemic references to relevant and publicly available evidence.	
2. Governance of Systems and Institutions			
2.1	2.2	2.3	2.4
The country has a comprehensive tertiary education law used for steering the system towards optimal performance that covers all types of TEI.	The regulatory framework includes provisions to adequately regulate the market entry and operation of public and private tertiary education providers.	The country has a comprehensive set of policies and practices that combat academic malpractice and corruption.	The regulatory framework for TEIs supports their academic autonomy.
2.5	2.6	2.7	2.8
The regulatory framework for TEIs supports their staffing autonomy.	The regulatory framework for public TEIs supports their governance autonomy.	The regulatory framework for TEIs supports their financial autonomy.	The regulatory framework incentivizes the promotion of transparent governance practices at the level of TEIs.
2.9	2.10		
The regulatory framework incentivizes the promotion of transparent and meritocratic human resource practices at the level of TEIs.	The regulatory framework incentivizes the promotion of horizontal governance practices at the level of TEIs.		
3. Financing			
3.1	3.2	3.3	3.4

Public funds are allocated to public TEIs through a stable and transparent process and using a block grant budget system.	There is a publicly known or accessible formula used to allocate public funds to public TEIs, which specifies the amounts disbursed as fixed and variable funding.	Performance-based funding is used as part of the funding allocation mechanism for public TEIs.	Public TEIs are able to negotiate at least some performance targets with stakeholders, such as the government or tertiary education agencies (TEAs).
3.5	3.6		
Private TEIs are able to negotiate at least some performance targets with stakeholders, such as the government or TEAs.	There is at least one competitive line of funding accessible to TEIs aimed at promoting innovation or to address national priorities.		
4. Quality Assurance			
4.1	4.2	4.3	4.4
There is at least one functional and effective institutional accreditation agency (IAA) or quality assurance agency (QAA) that oversees the quality of all TEIs in the country.	The IAA(s) or QAA(s) functions as an independent body.	The IAA(s) or QAA(s) has/have developed Institutional Quality Standards (IQSs) or Program Quality Standards (PQS) to apply in its/their evaluations.	The IAA(s) or QAA(s) provides incentives for TEIs to create Management Information Systems (MIS) through IQSs or PQSs.
4.5			
There are practical consequences for programs/TEIs that do not meet the evaluation/accreditation standards.			
5. Tertiary Education Management Information System (TEMIS)			
4.1	4.2	4.3	4.4

There is at least one national or regional TEMIS in operation.	The TEMIS collects student level data.	The TEMIS collects data on institutional RDI indicators.	The TEMIS collects data on faculty related indicators.
4.5			
The TEMIS is used extensively for system evaluation and reform.			
6. Access and Equity			
6.1	6.2	6.3	6.4
There are public programs in place to provide financial aid to students from disadvantaged backgrounds with the goal of advancing equity goals in access and retention.	The financial cost-sharing mechanisms available effectively serve the needs of targeted beneficiaries.	The country ensures that minimum and transparent standards are met in order to gain access to TEIs and that all eligible students are granted access to selection procedures.	The regulatory framework encourages the creation and offering of outreach programs at TEIs.
6.5	6.6		
Anti-discrimination and anti-harassment legislation applicable to tertiary education is available and enforced in the country.	The tertiary education system has an enabling governance structure that facilitates social mobility through student transfer across institutions.		
7. Relevance for Social and Economic Needs			
7.1	7.2	7.3	7.4
There are surveys to measure labor market outcomes for TEI graduates.	There are programs in place to support internships and practical training.	There are programs in place to increase the labor market relevance of TEI curriculum.	There is a policy mandate accompanied by financial incentives to strengthen development focused RDI activity in tertiary education.
7.5	7.6		
There is a policy mandate accompanied by financial incentives to strengthen the role of	There is a policy mandate accompanied by financial		

<p>tertiary education in fostering social and cultural development.</p>	<p>incentives to strengthen the role of tertiary education in fostering environmental protection and sustainability.</p>		
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The **Systems Approach for Better Education Results (SABER)** initiative collects data on the policies and institutions of education systems around the world and benchmarks them against practices associated with student learning. SABER aims to give all parties with a stake in educational results—from students, administrators, teachers, and parents to policy makers and business people—an accessible, detailed, objective snapshot of how well the policies of their country’s education system are oriented toward ensuring that all children and youth learn.

This report focuses specifically on policies in the **Tertiary Education** sector. It analyzes tertiary education on seven policy dimensions: (1) Strategy for tertiary education, (2) governance of the sector, (3) the use of innovative financing, (4) quality assurance, (5) presence of tertiary education management information system (TEMIS), (6) access and equity to promote social mobility, and (7) relevance of tertiary education for social and economic needs.

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