

HIGHER EDUCATION ACROSS ASIA

An Overview of Issues and Strategies

November 2011

Extracts

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In any analysis of higher education issues across Asia, generalizations must be treated with great caution. The region includes the country with the largest population in the world (People's Republic of China [PRC]) along with a number of small ones (Lao People's Democratic Republic [Lao PDR], Mongolia). It includes some of the most affluent (Japan, Republic of Korea, Singapore) and some of the poorest economies (Cambodia, Lao PDR). It includes one of the fastest growing higher education systems (PRC) and two that are now downsizing (Japan, Republic of Korea). There are wide variations in the circumstances facing higher education in the region and important differences in the capacity of governments to respond to the challenges posed by the growth of higher education. In addition to caution, any analysis needs to operate from a systems perspective. Changing any one element of the higher education system of any country triggers a series of consequences on other parts of the system that require corresponding adjustments. Potential solutions cannot be evaluated in isolation, but only with attention to the ripple effect of their impact.

The geographic focus of the study was mainly Southeast Asia. However, the target countries also included selected countries in the South Asia and East Asia operational regions of ADB, as illustrated in Table 1. Reference economies are those that are generally regarded as having stronger higher education systems in the region and are included for purposes of comparison.

Table 1 Focus Countries for the Regional Study

Country Groupings	Salient Characteristics					
Target Countries						
Cambodia	Lower and low-middle income countries in which the higher education					
Lao PDR	systems are focused primarily on system expansion, increasing enrollments, and infrastructure development					
Mongolia	·					
Viet Nam						
Indonesia	Middle-income countries with well-established and growing higher education					
Malaysia	systems; now increasingly focused on quality improvement					
Philippines						
Sri Lanka						
Thailand						
India	Largest higher education systems in the world and fastest growing system in					
PRC	East Asia; higher education policies and practices are closely watched and influential across other higher education systems in the region					
Reference Economies						
Hong Kong, China	Small, high-income economies with mature, highly respected higher education					
Singapore	systems characterized by slow or stagnant growth					
Japan	Mature higher education systems of respected quality but now facing					
Korea, Republic of	declining student enrollments					

Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China.

Over the last 20 years, higher education systems across Asia have experienced sharply increased demand for access, fueled by growth in the number of school-age children in the population and by increasing school participation and progression rates.

While enrollments soared, government budgets for higher education did not. For the most part, universities lacked the financial resources to maintain quality while expanding to absorb a larger and increasingly more diverse student body.

As higher education systems across Asia look forward, they face four overarching challenges:

- maintaining and improving education *quality*, even in the face of serious financial constraints;
- increasing the *relevance* of curriculum and instruction at a time of rapid change in labor market needs;
- increasing and better utilizing the *financial resources* available to higher education; and
- balancing the continued expansion of access to higher education with greater attention to *equity* and to the need to raise quality.

Across many countries in Asia, low internal efficiency is currently the major constraint on the ability of universities to achieve the student, institutional, and national goals of higher education. Rapid expansion of enrollment in combination with budget constraints has resulted in high student/teacher ratios, eroding conditions of faculty employment, weakening of professional development of faculty, outdated management systems, and deferred maintenance of facilities. As these forces have converged, quality has suffered.

Findings of the ADB's regional study suggest that six strategies will be essential to raising quality:

- differentiating institutional missions within coordinated systems of higher education, and
- balancing resource allocations to support those goals;
- improving the recruitment of instructional staff;
- improving the capacity, motivation, and performance of instructional staff;
- improving faculty incentive and evaluation systems;
- creating a more positive institutional culture; and
- strengthening university-based research efforts consistent with institutional missions.

Improving Recruitment of Instructional Staff

Many Higher Educational Institutions (HEIs) have not been able to recruit fully qualified instructional staff fast enough to keep up with burgeoning enrollments, and many are now experiencing a shortage of qualified instructors. Universities have responded in three ways:

- Hiring their own graduates. A university hiring its own graduates fosters "inbreeding." It limits the infusion of new ideas and creativity that often come by hiring instructors whose preparation and experience occurred elsewhere. In [Asian] countries in which deference to seniors is deeply engrained in the culture, junior academics who studied under the senior staff are likely to hesitate to introduce alternative perspectives or to pursue new avenues of work (Lai and Lo 200
- Seeking faculty members from overseas. Hiring from overseas is expensive.
- Employing part-time academic staff, who may also work at other institutions. Instructors who are hired part-time have conflicting demands on their time and attention, and may do little to help build the university.

Ultimately, the solution lies in improving compensation and conditions of employment for instructors to a level at which universities can compete effectively with private sector options available to well-trained graduates, and upgrade those already in the institution who may have entered with inadequate professional and scholarly preparation.

Instructional staff across, e.g., Southeast Asia vary widely in academic qualifications and often have limited or no access to professional development opportunities. While some are well qualified, the majority of academic staff have very modest credentials (Altbach 2003). Many are young and have poor preparation as teachers and/or little hands-on practical work experience. Some are limited by lack of an international language.

While opportunities for academic staff to participate in formal professional development are emerging in Asian higher education, they are not yet fully developed

In most industrialized societies, academic staff earn salaries that enable them to enjoy middle-class standards of living. However, remuneration for full-time academic work in many countries in Asia is typically very low by international standards, inadequate by local standards, and insufficient for a middle-class life style (Altbach 2003). Salaries do vary across institutions and countries. To compensate for inadequate salaries, institutions often offer other compensations, such as housing supplements or extra pay for teaching additional courses.

With the exception of a few top-tier universities, academic salaries are typically not competitive relative to private sector opportunities (Chapman 2009). While instructors often receive other financial considerations, such as housing supplements, medical support, and car loans, these incentives are not enough to offset the low base salary (Lee 2003).

Creating a More Positive Institutional Culture

Academic freedom. Governments are providing HEIs more autonomy in exchange for greater accountability (Raza 2010). However, greater institutional autonomy does not necessarily mean more autonomy and academic freedom for individual academic staff. While specific conditions differ across countries and institutions, faculty members in Asia generally enjoy less autonomy and academic freedom than is customary in HEIs in Western countries.

Integrity. Corruption is a major problem within HEIs in Asia, evidenced by instances of plagiarism, falsification of data, and cheating on examinations (Altbach 2003, 2010; Welch 2007; Kapur and Crowley 2008). Reasons for the high level of corruption include weak or absent systems of peer review, minimal institutional monitoring of the work of academic staff, and incentives for research production that emphasize quantity over quality (*Economist*, July 24, 2010). Corruption and academic dishonesty seriously threaten educational quality and the international reputations of institutions where they occur.

Collegiality. This refers to opportunities for faculty members to feel that that they belong to a mutually respectful community of professionals who value each others' contributions and express concern for each others' well-being (Gappa et al. 2007). Gappa et al. argue it is an essential element in building a healthy and productive institutional culture. Collegiality is fostered when each instructor feels his or her work is recognized, they are valued, and they feel connected to the larger instructional staff with whom they work. When those conditions are absent, job satisfaction and morale suffer. The rapid growth of enrollments in some institutions has put considerable pressure on collegiality, reflected in the complaints of instructors that they are overworked, caught in top-down hierarchical work environments, and not always judged professionally on the basis of their merit.

Strengthening University-based Research

Economic and social development depends largely on innovation.

A 1% increase in the level of R&D typically leads to a 0.05%–0.15% increase in output (LaRocque 2007). Largely in response to such data, governments across Southeast Asia have ratcheted up their expectations regarding the research output of universities. In part this has occurred through institutional differentiation, in which special funding is channeled to top-tier universities to promote research.

The pressure on faculty to engage in research is widely felt throughout Asia, even in universities struggling with student enrollments and inadequate funding. Governments want the research to promote innovation, technical development, and productivity, which, in turn, will provide a return on their investment in higher education.

Excellence in research is expensive and requires specialized talent and facilities. Many HEIs in Asia are seriously lacking the necessary financial, structural, and human resources to achieve cutting-edge excellence in traditional forms of scholarly research.

Prior Preparation of Incoming University Students

Misalignments are caused when the secondary school curriculum of a country does not align with the entrance requirements of its colleges and universities and/or fails to adequately prepare students for the rigors of higher learning. Evidence of misalignment is reflected in complaints of university instructional staff that incoming students are ill-prepared to handle the demands of university work

Regardless of the cause, misalignment represents a waste of national resources.

A key issue is that across Asia admission to higher education has traditionally been heavily test based — typically some combination of secondary leaving exams, matriculation exams, and other entrance exams.

- In Viet Nam, beginning in the mid-1990s, the entrance examination system for higher education underwent a major change; universities no longer have their own entrance examinations.
- In Thailand, university admission has been modified to improve its transparency and fairness; admissions decisions are based on secondary school performance.
- In Indonesia, the government instituted the State University National Entrance Examination, which students can take upon passing their public school examination.
- The PRC has introduced reforms in the college entrance examination system and has gradually decentralized the admission process; top universities have been granted greater autonomy in student selection.
- Sri Lankan students have to take secondary leaving examinations ("A-levels"), which are then used by universities as a basis for admissions.

For the most part, the growing lack of student readiness can be remedied by closer collaboration between secondary schools and HEIs.

Employability of Graduates

A paradox of higher education particularly evident across Asia is that, even at a time when countries are producing a record number of graduates, employers complain of a shortage of qualified workers, and graduate unemployment continues to creep higher.

There is growing concern among employers that graduates' knowledge and skills are not consistently aligned with labor market needs. Indeed, whether countries have too few or too many graduates depends on what kind of graduates are being produced.

Imbalances across Fields of Study

Despite growing enrollments in higher education, several developing member countries (DMCs) are notably deficient in students in science and technology. In particular,

- Mongolia is short of graduates in science and technology and in service fields.
- Viet Nam has few graduates in the areas of health and welfare, humanities and arts, and service industries.
 - Cambodia has an unbalanced disciplinary structure, with 66% of students graduating in social science, business, or law.

A key reason for the need for more graduates in science and technology is that the highest proportion of university graduates is employed in technical and professional occupations. Fields related to science and technology are widely expected to lead the way to innovation, job creation, and economic development.

Graduate Unemployment

Evidence indicates that having a higher education continues to be a distinct advantage in securing employment. Across Southeast Asia, unemployment among graduates is lower than for non-graduates (Sakellariou 2010). Nonetheless, unemployment among university graduates is on the rise (Postiglione 2011, World Bank 2011).

Three factors fuel the rise of graduate unemployment.

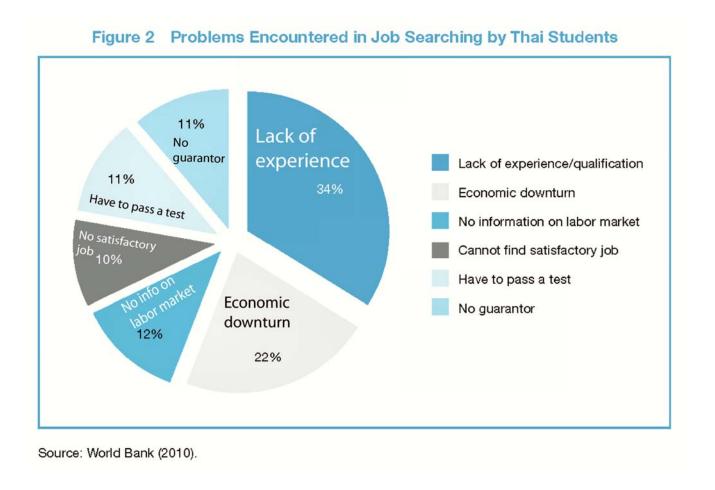
- First, as more students complete higher education, the relative advantage of having a university degree decreases. More graduates mean more competition for available jobs.
- Second, university curriculum and instructional practices have not always kept pace with changing employer demands as countries move toward more market-oriented economies. As business and industry face sharper competition in the marketplace, employers increasingly favor graduates who possess both up-do-date technical skills and the soft skills for the new workplace, which include analytic thinking, collaboration, and individual initiative as well as computer skills and fluency in international languages.
 - The experience of Thailand illustrates the point. Thailand's colleges and universities graduate about 250,000 students per year. Yet, Thai companies say that graduates lack the right skills for employment. A World Bank study noted that 80% of Thai firms experienced difficulty in filling job vacancies due to graduates who lacked basic and technical skills (Postiglione 2011).
 - o Similarly, by some accounts only 25% of Indian and
 - o 10% of Chinese engineering graduates have the skills required to work at their nominal skill level in an international company (Farrell et al. 2005). In the PRC, graduate unemployment in 2008 rose to 13% overall, 10% for graduates of top-tier universities, and 16% for graduates of vocational-technical colleges—high compared with the official national unemployment rate of 4%. (Mycos Research Institute 2010).
- Third, as labor markets become more regional and global in nature, employers' needs are changing. The forces of globalization have led to more regional labor markets in which

graduates of each country now compete with those of other countries for available jobs.

It is not only foreign companies that struggle to find skilled graduates. At a job fair in Beijing, local employers expressed concern about the quality of graduates. Domestic companies often indicate a mismatch between their needs and what graduates possess (Patton 2009).

"In countries like Thailand, Indonesia, and PRC, the percent of tertiary level graduates in the workforce is now about 20%, double from what it was 15 to 20 years ago. At the same time, employers fret that they are not getting the skilled workers they need to compete in a global economy. Investment climate assessments report that 20% of employers feel that skills availabilities are a major impediment to business, as much as, if not more than, meeting onerous regulations.

Many higher education graduates report having trouble getting jobs and some who get jobs are the first to lose them during economic downturns. Unemployment rates among tertiary graduates are as high as 10% in countries like Indonesia and the Philippines" (Jimenez 2010).



As needs and expectations of employers have changed, university curricula and instructional techniques often have not

Cost and Financing

Higher education is expensive. On average, low-income countries spend 34 times more on a student in higher education than they spend on a student in primary education, and 14 times more than on a student in secondary education.

The corresponding figures for high-income countries are 1.8 and 1.4 (Glewwe and Kremer 2005). While many countries across Southeast Asia are middle income, costs are still high.

Basically, government and university leaders have six choices:

- They can continue to underfund higher education and accept lower quality, though this poses a risk to national competitiveness that virtually all countries find unacceptable.
- They can find new sources of funding for higher education, either by shifting some of the costs of public higher education to students and their families or by allowing and encouraging the growth of private, fee-based HEIs.
- They can lower the cost of delivering instruction in ways that do not erode quality.
- They can cap rates of enrollment growth in public higher education at a level that allows for the delivery of quality education within available levels of funding.
- They can develop a differentiated higher education system by deliberately concentrating resources in top-tier institutions while allowing quality to be lowered among the others.
- They can undertake some combination of these strategies.

Internal privatization of public HEIs.

Increasingly, public universities have introduced a variety of income-generating programs. In some cases, this has taken the form of reserving a portion of student places for applicants who do not qualify for government scholarships but are willing to pay private tuition.

This essentially creates a privatized track within an otherwise public university.

In other cases, universities impose special fees on students enrolling in high-demand programs of study.

In Indonesia, some major public universities quadrupled the income that accrued from fees within a matter of years; it is now possible to pay double the amount to undertake an engineering degree at a top-tier public university in Indonesia than at a major private university (Welch 2006).

In Viet Nam, it is now common for public HEIs, or parts of them, to earn 40%-45% of their budgets from the collection of fees of various kinds.

An increasingly common strategy is to offer "extension," "diploma," or "executive" courses.

In 2008, the Office for National Education Standards and Quality Assessment (ONESQA) estimated that no more than 10 universities in Thailand, all public, were financially solid. The resulting resource squeeze led to public universities competing with private institutions for income, particularly by establishing fee-paying "executive" or "special" programs at "learning centers." Some public universities report that 60% of their income now derives from such strategies, with individual faculties reporting as much as 75%.

Quality is also problematic for these special courses, with much the same qualification being offered but with less demanding academic standards. Quality assurance of these private-within-public courses is sometimes unclear.

In India fee levels have remained low at central universities (a small proportion of the system), while state universities in states such as Haryana, Karnataka, Kerala, Punjab, Rajasthan, and Tamil Nadu are

charging substantial fees. Many such universities are now earning 50% of their annual income from fees, and some HEIs record even higher proportions (Agarwal 2010).

Rise of private higher education.

One of the most widely employed strategies across the region to slow enrollment growth in the public sector has been to allow and encourage the growth of private provision of higher education and subtly (or not so subtly) push students into these tuition-based options. These institutions absorb demand (Levy 2010) while, by charging tuition, they shift more of the cost to students and families. Across the region, most private universities serve the mass higher education market and tend to be relatively nonselective in their admissions (Altbach 2005, Dunrong 2007).

In Indonesia, Japan, Republic of Korea, and Philippines, private universities enroll the majority of students, in some cases up to 80% (Dunrong 2007).

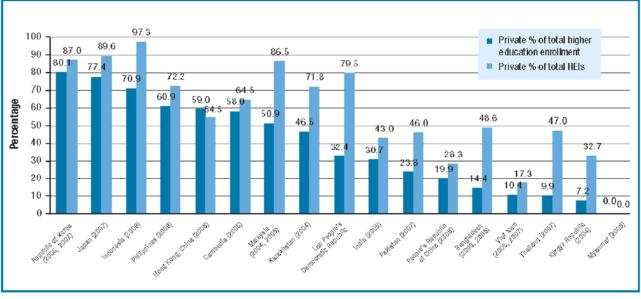
Over the past 5 years, private colleges and universities in Malaysia increased in number from about 100 to 690. Between 1998 and 2001, 46 new private institutions were founded in Mongolia: by 2004. Mongolia had a total of 129 private and 47 public colleges and universities (Sodnomtseren 2006). Indonesia has 83 public and 3,019 private HEIs (Nizam 2009).

Similarly, in the PRC, a combination of min ban (private) institutions and semiprivate offshoots of public universities are absorbing much of the new demand for access (Altbach 2009b); even though these institutions remain a relatively small part of total enrollments, private higher education has become a significant part of the overall system. About 43 million students attend private postsecondary institutions (Altbach 2009b).

100 Private % of total higher 89.6 87.0 86.5 education enrollment 90 79.5 80.1 Private % of total HEIs 80 70.9 70 60.9 59.0 60 50.9 48.6 47.0 46. 46.0 50 43.0

Figure 3 Private Enrollment and Institutional Share in Higher Education in Selected Asian Economies, 2002-2009

HEI = higher education institution.



Sources: For all economies except Indonesia, Myanmar, and Viet Nam, for number of institutions see PROPHE International Databases, available at http://www.albany.edu/dept/eaps/prophe/data/international.html. For Myanmar, see University Governance in Myanmar, the 16th SEAMEO RHIED Governing Board Meeting, available at http://www.rihed. seameo.org/ugseminar/PG_Myanm.pdf. For Indonesia, see Nizam (2009); data on total higher education enrollment includes only private and public higher education enrollments, excluding data from other types of HEIs under other ministries. For Viet Nam's number of institutions, see Huong (2008). The years reported here are the most recent available from the sources.

Table 2 Numbers and Types of Higher Education Institutions in Selected Asian Economies, 2007

	Public			Private			
Country	Degree	Nondegree	Subtotal	Degree	Nondegree	Subtotal	Total
PRC (2009)	-	-	1,983	-	-	334	2,317
India (2006)	245	4,097	4,493	80	13,400	13,480	17,973
Indonesia	-	-	81	-	-	2,431	2,512
Malaysia	18	40	58	22	519	541	599
Philippines	424	1,352	1,776	1,363	2,045	3,408	5,184
Thailand	66	-	66	54	401	455	521
Viet Nam	305	-	305	64	_	64	369

^{- =} data unavailable, PRC = People's Republic of China.

Note: The total for India includes aided, unaided, and deemed universities (deemed status is granted to high-performing universities; this status not only enables full autonomy in setting course work and syllabus, but also allows setting its own guidelines for admissions, fees, and teaching).

Sources: ADB 2008:45, Agarwal 2009: 91, ICHEFAP 2010, MOE 2010 (PRC).

Students from more modest financial backgrounds risk being excluded from private education, or limited to attending poor-quality private HEIs. Scholarships for poor students are one answer, but private HEIs are able to offer only a few, and budget pressures on public HEIs mean there are never enough. The search for alternatives has focused heavily on student loans and has resulted in considerable experimentation with student loan schemes across the region.

Student loans

Student loans are of two basic kinds: income-contingent and mortgage. The former, pioneered in Australian higher education more than 20 years ago, was developed to raise participation in higher education without penalizing the poor (B. Chapman 2008, ADB 2009). While the Australian scheme allows a discount to wealthy students who pay fees "up front," the basic principles of this form of student loan, versions of which have now been exported to a number of transitional and developing economies, levy a fee on each student for each year of study. In principle the fee can be a standard one, or varied by field, to take account of the greater costs of educating a student in medicine, for example, and the greater subsequent income earned by medical graduates, relative to, say, social workers or teachers (B. Chapman 2008).

A key element in income-contingent forms of student loans, however, as the name implies, is that individuals do not begin repaying the loan until after graduating and securing a job where the income falls above a designated threshold. When these conditions are met, the individual begins to repay the loan, commonly via paying slightly more income tax, until the debt is repaid. In the Australian form, while no interest is levied on the loan, the amount is adjusted each year, in line with prevailing inflation rates; this, however, is not an inherent principle of this form of loan. Individuals who fail to gain a job, or whose income does not rise above the threshold, are not liable for loan repayments. After a specified period, perhaps 20 years, the loan may be forgiven.

The alternative approach, the mortgage-type loan, has been adopted by many countries.

Asian experience with student loans.

The Asian experience with student loans has been mixed.

In Thailand, a loan scheme was introduced in the 1990s, but inadequate funding and a much higher than expected level of interest resulted in a decrease in the size of the individual loans offered to students from year to year. "A combination of minimal planning and weak control from the center, combined with overgenerous loan eligibility and repayment conditions, led to a substantial and unplanned growth in loan recipient numbers and unexpected, and unsustainable, funding obligations by the state" (Ziderman 2003: 65). At one point, allocations to the scheme reached 30 billion baht (about \$1 billion USD), 14% of the national education budget.

Moreover, while continuing recipients were assured of the same annual amount, contingent only on satisfactory academic results, new recipients had no such assurances; indeed, funding for new recipients fell by almost 50% from 2000 to 2001 (Ziderman 2003: 56). The picture was also very different for public students, of whom only 13% participated, and private, of whom almost 37% took out loans. Repayments in the early years of the scheme were somewhat chaotic, with more than a quarter not making a single repayment, while another quarter made payments considerably in excess of the due amounts, with some paying off the entire loan. The loan default rate reached 30%, which, however, upon further investigation, largely comprised those who either fell below the income threshold or reported no income (possibly because they were still studying).

Overly long repayment schedules (compounded by no allowance for inflation) and nominal interest rates, with significant grace periods, effectively constituted a substantial subsidy, estimated at over 80%, which, however, was less for women than men, presumably because of lower female incomes. However, data showed that only around one-third of poor students were in receipt of loans, while more than 90% of poor students dropped out due to financial reasons. A subsequent evaluation recommended better targeting, more training for officials implementing the loan scheme, and a revision of repayment conditions.

Several of the above limitations also apply in Indonesia, where only 3.3% of higher education students are from the lowest 20% of income groups, while 30.9% come from the highest quintile (Nizam 2006: 42–43). Once again, the national income contingent loan scheme charges moderate fees, which are recouped via the taxation system when the graduate enters the workforce and earns above a certain salary level (Schleicher 2006).

Loan schemes were introduced in the PRC as early as 1986, but with average amounts that proved too small, and conditions (such as having to repay the loan before graduation) that made them nonviable. Coverage was inadequate. From 1999, two schemes were established: one subsidized by the government, the other a more commercial operation. The Government Subsidized Student Loans Scheme, the larger of the two, was targeted at full-time students at public universities who were poor. Evaluation of financial need was undertaken by the student's HEI. The maximum amount of Rmb 6,000 was generally sufficient for tuition and fees, but not enough for living costs. By the end of 2001, around 30% of applicants had received loans; but this amounted to only 3.8% of students. By 2004, 830,000 students had taken loans. Some evidence showed that more non-needy than poor applicants qualified for the scheme, some with lower college entrance scores than needy students.

Significant shortcomings soon became evident. A short (4-year) repayment period imposed an impossible debt burden on students, amounting to at least 24% of annual income. What this meant was that, although targeted at poor students, effectively the only ones likely to be able to repay the loans over such a short period were the very ones who did not need loans in the first place (Sun and

Barrientos 2009: 202). Banks bore most of the default risks, which made them less likely to fulfil their quotas, since there were no formal guarantors, nor consideration of the applicant's credit history.

Corruption

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Most university staff throughout the region perform diligently under challenging conditions, including poor remuneration rates and limited resources. Others, however, perform less credibly. Across many parts of the region, the costs and financing of higher education are complicated by pervasive corruption (World Bank 2006: 259-290; ADB 2010: 213).

Autonomy

This is currently the most pressing and controversial issue in the higher education sector of most countries across the region. As the structure of higher education in most countries has become more diversified and complex, there is wide agreement that granting more autonomy to individual HEIs is necessary. Areas in which autonomy is granted often include

- academic freedom,
- budget or funding implications,
- quality assurance, and
- personnel management (OECD 2003).

Academic freedom

Cluster 1 consists of Malaysia and the public universities of Indonesia, which are referred to as public service institutions (PSIs) and government institutions (PGIs). The higher education sectors in these two countries share a highly centralized structure in which responsibility for tertiary education is vested in a national ministry—the Ministry of Higher Education (MOHE) in Malaysia and the Ministry of National Education (MONA) in Indonesia.

In Cluster 1 countries (Indonesia and Malaysia) there are no official government guidelines pertaining to academic freedom. However, university personnel traditionally have not been particularly concerned whether the issues discussed by academics within universities are inconvenient to external political groups or national authorities. Issues of academic freedom have seldom posed a serious issue in the universities. Higher education administrators in both countries, however, advise lecturers to remain professional in voicing their opinions to the public based solely on empirical data.

Cluster 2 countries comprise Philippines, Thailand, and the universities in Indonesia classified as SOLEs. In these settings, the central government has little or no involvement in managing HEIs. Rather, management rests with a board of trustees or regents at the institutional level.

In Cluster 2, SOLE (state-owned legal entity) HEIs in Indonesia and public HEIs in Thailand have considerable academic freedom. Unlike other types of HEIs in Indonesia, SOLE HEIs do not encounter interference from national bodies concerning the number of students to admit, course and program content, or cooperation with other universities or private sector organizations. In general, faculty members control decisions on curriculum development, subject matter, methods of instruction, and focus of faculty research.

Cluster 3 comprises Cambodia, Lao PDR, Mongolia, and Viet Nam, all of which have strict, top-down, state-controlled governance systems.

In Cluster 3 countries (Cambodia, Lao PDR, Mongolia, Viet Nam) the degree of autonomy granted by the government varies greatly. It ranges from newly established universities with considerable autonomy in Cambodia to universities subject to heavy government control in Mongolia. Most HEIs in Cambodia, Lao PDR, and Viet Nam claim to have academic freedom, in terms of free speech and academic curriculum decisions.

Quality assurance (QA)

In Indonesia, Malaysia, Philippines, and Thailand, QA has long been considered one of the main pillars of higher education development. However, the level of quality development among countries in this region is still quite diverse.

Countries in Cluster 1 are generally advanced in setting up clear guidelines for HEIs and systematic internal quality mechanisms. QA in Indonesia and Malaysia has been developed with the aim of creating a reference point for national qualifications (though it should be noted that a whole category of HEIs exists without accreditation).

Some countries in Cluster 2 (Philippines, Thailand, and the private universities of Indonesia) have monitoring mechanisms that duplicate accreditation processes.

Countries in Cluster 3 have only recently established formal QA agencies; the development of QA in these countries has lagged behind others in the region due to more centralized government control. Where changes are being introduced, they are due mostly to pressure from international funding agencies.

About half of the countries across Southeast Asia have national QA systems that either operate under the umbrella of the ministries of education or are independent but partly funded by the government. These include

- Cambodia (Accreditation Committee of Cambodia),
- Indonesia (Badan Akreditasi Nasional Perguruan Tinggi),
- Malaysia (Malaysian Qualifications Agency),
- Philippines (Agency of Chartered Colleges and Universities in the Philippines; Philippine Accrediting Association of Schools, Colleges and Universities),
- Thailand (Office for National Education Standards and Quality Assessment), and
- Viet Nam (Department of Education Testing and Accreditation).

Technology-based Instruction

Extending access through technology-based instruction. As noted earlier, Asia leads the way in using distance education as a means to extend access while controlling costs in higher education. Across the region, more than 70 universities now deliver instruction exclusively through distance education, some of which are listed in Table 4.

Table 4 Enrollment in Selected Asian Open Universities

Size	Location	Institution	Enrollment
Mega OUs	PRC	Central Radio and Television University [N]	2,663,500
	India	Indira Gandhi National Open University [N]	2,468,208
Above 500,000	Pakistan	Allam Iqubal Open University [N]	1,565,783
students	Indonesia	Universitas Terbuka Indonesia [N]	646, 647
Big OUs	PRC	Jiangsu Open University	157,088
		Guangdong Open University	158,271
100,000–499,000		Zhejiang Open University	139,974
students		Beijing Open University	110,084
		Sichuan Open University	102,917
		Hunan Open University	100,421
		Anhui Open University	100,277
	Republic of Korea	Korea National Open University	182,000
	India	Yashwantrao Chavan Maharashtra Open University	342,862
		Dr. B.R. Ambedkar Open University	176,048
	Thailand	Sukhothai Thammathirat Open University	400,000 (est.)
		Ramkhamkeng University	400,000 (est.)
	Bangladesh	Bangladesh Open University [N]	271,630

(continued)

Size	Location	Institution	Enrollment
Medium OUs	PRC	Henan Open University	96,144
		Shaanxi Open University	96,267
50,000-99,000		Hebei Open University	95,130
students		Shandong Open University	93,317
		Experimental Schools of the Open University of PRC	85,724
		Hubei Open University	79,477
		Fujian Open University	71,088
		Shanxi Open University	70,256
		Guangxi Open University	67,880
		Chongqing Open University	66,840
		Guizhou Open University	64,146
		Guangzhou Open University	62,247
		Jiangxi Open University	60,484
		Tianjin Open University	58,761
		Gansu Open University	57,794
		Liaoning Open University	52,052
	India	Vardhman Mahaveer Open University	94,102
		Nalanda Open University	60,714
		Madhya Pradesh Bhoj Open University	88,613
		Dr. Babasaheb Ambedkar Open University	74,389
		Karnataka State Open University	55,961
		Netaji Subhas Open University	90,350
		Uttar Pradesh Rajarshi Tandon Open University	76,293
	Viet Nam	Ho Chi Minh City Open University	65,000
		Hanoi Open University	67,000
Small OUs	Malaysia	Wawasan Open University	4,000
below 50,000	Hong Kong, China	Open University of Hong Kong	17,813
students	India	Pandit Sundarlal Sharma Open University	9,029
		Uttarakhand Open University	1,430
	Philippines	University of the Philippines Open University	2,834
	Sri Lanka	Sri Lanka Open University	27,000 (est.)

N = national, OU = open university, PRC = People's Republic of China.

Source: Dhanarajan (2011).

The South Korea's *Open University*, one of the oldest in Asia, has pioneered a number of innovations in instructional delivery and offers high-quality instruction.

Among the largest users of distance education are PRC and India.

In the PRC, the *Central Radio and Television University* headquartered in Beijing directly serves about 2.6 million active students and, indirectly, another 3.5 million through its network of provincial open universities. Its uses radio, television, and the Internet and has tutors in learning centers located around the country. India has at least nine state open universities and about 60 off-campus programs run by conventional universities, which together enroll about 3.3 million students, of whom 1 million are active, both as undergraduates and postgraduates.

In Indonesia the *Universitas Terbuka Indonesia* serves more than 645,000 students, most of whom are teachers enrolled in in-service training programs (Zuhairi 2010). Instruction is delivered via radio, television, Internet, and an extensive network of regional learning centers.

Viet Nam has two open universities, both established in 1993 through arrangements with the *Massachusetts Institute of Technology* and Rice University in the United States. The country also actively promotes an open courseware movement through which all public universities are encouraged to share digitized courseware for first-level courses.

Malaysia, a relative newcomer to distance education, has two major and four smaller open universities.

A national *Open University* was established in 1995 in the Philippines as a unit of the *University of the Philippines*. It targets mainly older entrants to tertiary education.

Sri Lanka has the smallest among the open universities in the region with about 27,000 students (Coomaraswamy 2010). Established in the 1970s, it is a mature system, although there are concerns over its reach and quality. Still, not all countries have moved in this direction.

Neither Cambodia nor Lao PDR have a formally structured distance education provision.

Effectiveness of technology-based instruction

While distance education has been attractive to policy makers, budget-conscious administrators, and learners looking for a more flexible learning environment, the success of this strategy has been mixed (Dhanarajan 1999, Gandhe 1999, Calder 2000). While open universities have helped meet the demand for higher education access, many suffer from insufficient funding, administrative inadequacies, instructors with limited pedagogical skills, and inefficient oversight of quality. As a result, learning outcomes have been a source of concern.

Having access to the Internet alone is not a guarantee that institutions can successfully offer their courses online. Such success depends on four factors:

- ownership of personal computers, extent of Internet connectivity, and cost of connectivity;
- sufficient personnel with skills in content development and the capacity to manage the online learning transactions;
- users' ability to learn through the Internet; and
- a culture that promotes, recognizes, respects, and rewards online teaching and learning initiatives.

Table 5 below reports a measure of a country's readiness for electronic communications and readiness for use of this technology for distance instruction.

Table 5 Asian e-Readiness Rankings and e-Learning Readiness Rankings

	e-Readir	ness Rankings	e-Learning Readiness Rankings		
Country	Score [out of 10]	Overall Ranking [out of 70 countries]	Score [out of 10]	Overall Ranking [out of 70 countries]	
Republic of Korea	8.34	15	8.24	5	
Malaysia	6.16	34	6.48	25	
Thailand	5.22	47	5.11	36	
India	4.96	54	4.56	45	
Philippines	4.90	55	4.80	43	
People's Republic of China	4.85	56	4.52	46	
Sri Lanka	4.35	60	3.75	59	
Viet Nam	4.03	65	3.32	57	
Indonesia	3.59	68	3.67	53	

Sources: Adapted from EIU (2003, 2008) as reported in Latchem and Jung (2009).

Table 6 Asian Internet Usage and Penetration Rates

Country	Population	Users in 2000	Users in 2008	Penetration Rate (% of population)	Growth Rate
Cambodia	14,241,640	6,000	70,000	0.5%	1,066.7%
PRC	1,330,044,605	22,500,000	253,000,000	19.0%	1,024.4%
India	1,147,995,898	5,000,000	60,000,000	5.2%	1,100.0%
Indonesia	237,512,355	2,000,000	25,000,000	10.5%	1,150.0%
Japan	127,288,419	47,080,000	94,000,000	73.8%	99.7%
Republic of Korea	49,232,089	19,040,000	34,820,000	70.7%	82.9%
Lao PDR	6,677,534	6,000	100,000	1.5%	1,566.7%
Malaysia	25,274,133	3,700,000	14,904,000	59.0%	302.8%
Philippines	92,681,453	2,000,000	14,000,000	15.1%	600.0%
Sri Lanka	21,128,773	121,500	771,700	3.7%	535.1%
Thailand	65,493,298	2,300,000	13,416,000	20.5%	483.3%
Viet Nam	86,116,559	200,000	20,159,615	23.4%	9,979.8%

Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China. Source: Adapted from EIU (2008) as reported in Latchem and Jung (2009).