ADB Asian Development Bank

HIGHER EDUCATION ACROSS ASIA
An Overview of Issues and Strategies

HIGHER EDUCATION IN DYNAMIC ASIA

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Asian Development Bank

Note:
In this report, "$" refers to US dollars.

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Contents

Abbreviations

ADB	Asian Development Bank
CHED	Commission on Higher Education, Philippines
DMC	developing member country
HEI	higher education institution
ICT	information and communication technology
Lao PDR	Lao People's Democratic Republic
MOE	Ministry of Education, Lao PDR
MOHE	Ministry of Higher Education, Malaysia
MONE	Ministry of National Education, Indonesia
OECD	Organisation for Economic Co-operation and Development
ONESQA	Office for National Education Standards and Quality Assessment, Thailand
OU	open university
PGI	public university, Indonesia
PRC	People's Republic of China
PSG	policies, standards, and guidelines
PSI	public service institution
QA	quality assurance
R&D	research and development
SOLE	state-owned legal entity
TVET	technical and vocational education and training

Foreword

Quality education is essential for creating a sustainable human resource base upon which to build a country's development. Asia is experiencing a growing need for skilled managers and professionals in a variety of fields. Investing in higher education will help developing Asian countries build high-income economies, with the innovation, knowledge, and technology needed to thrive in an interconnected, competitive world.

ADB has accumulated significant experience in providing support for improving education systems in its developing member countries. In response to the growing needs of these countries, ADB is boosting its support for higher education. The changing landscape of higher education requires new thinking and updated practices. Questions central to the issue include: What are the strategic and operational priorities for higher education in the region? How should support be targeted to achieve a high, sustainable impact? How can ADB best assist its developing member countries to substantially raise the quality of and expand access to higher education within a reasonable, yet ambitious, timeframe?

To provide insights into the kinds of changes demanded in higher education, ADB financed a major regional study drawing on the views of subject experts, higher education leaders, regional stakeholders, and participants of an international conference on higher education in Asia.

Higher Education in Dynamic Asia is the result of this study. I am confident that it will provide valuable input into the process of higher education reform across Asia. It will also provide critical input into ADB's work in assisting the region to develop the full potential of its people.

Bindu N. Lohani
Vice-President (Knowledge Management and Sustainable Development)
Asian Development Bank

Preface

As economies in the Asian region have grown larger and more complex, they have also become more integrated through economic and social exchange. Higher education is seen to have an ever more important role in human resource development and the movement of people, students, and the workforce in the region. The Asian Development Bank's (ADB) developing member countries (DMCs) are increasing investment in higher education to support social and economic development and growth.

The question is how governments can improve higher education through adequate policies and regulations, and how they can position their economies for further development. Higher education must also become more diversified, more inclusive and equitable in terms of access, and financially sustainable through cost sharing and partnerships, including partnerships with the private sector.

While demand for expanded higher education systems is increasing, so is concern about the quality and relevance of the education provided. Countries must carefully review higher education priorities to better serve the needs of labor markets and support progress toward knowledge-based economies.
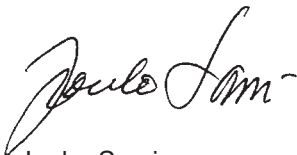
The rationale for cost-sharing in higher education is strong: costs per student are much higher in comparison with lower levels of education. Arguments that enrollments will increase and equity will improve if higher education is free generally do not hold up in the face of evidence and international comparisons. Given public resource constraints, allocating more public funds to the expansion of higher education at the expense of basic and secondary education would be counterproductive. Moreover, there is substantial evidence that an increasing number of students (or their families) in many developing countries are willing and able to share the costs of good-quality higher education.

ADB's DMCs seek evidence-based advice and operational support for their efforts in critical development areas in higher education, such as policy, regulation and governance, quality assurance, cost-sharing and financing mechanisms, and partnerships with the private sector. These dimensions are interconnected in ways that depend on countries' stage of economic development and strategic priorities in higher education. As DMCs progress up the economic ladder toward becoming knowledge economies, labor markets become increasingly cross-national, and economic integration among countries makes borders less meaningful. Governments and higher education institutions increasingly pursue regional cooperation and cross-border collaboration and partnerships in higher education in order to harmonize higher education qualifications and support labor mobility.

The international nature of labor markets, scientific research, and student flows requires higher education administrators to consider a wider set of issues in planning and institutional management. The growth of the private sector in higher education is relatively new in many countries in the region but is already reshaping how education leaders think about governance, financing, and quality assurance. The widespread and growing use of technology is reshaping how university teaching and learning occur. While holding promise as a means of extending access, technology use is raising new questions about faculty roles, student assessment, and instructional quality. Education leaders increasingly recognize that "one-size-fits-all" approaches to strengthening higher education are doomed to failure. At the same time, education leaders will continue to face resource constraints.

This publication, *Higher Education Across Asia: An Overview of Issues and Strategies,* emanates from the regional technical assistance on Higher Education in Dynamic Asia. While David W. Chapman served as the lead author, the publication draws on study material prepared by Ann E. Austin, Nopraenue S. Dhirathiti, Gajaraj Dhanarajan, Prachayani Praphamontripong, Gerard Postiglione, and Anthony R. Welch. Imelda Marquez provided administrative support. Stephen J. Banta provided editorial advice and inputs. Dorothy Geronimo coordinated typesetting and publication. Many thanks to all for their contributions.

This publication provides an overview of issues facing higher education in the region. Many of these issues will be explored in greater detail in future publications. A list of future titles appears in the end of this volume.

Jouko Sarvi
Practice Leader (Education Sector)
Regional and Sustainable Development Department
Asian Development Bank

Executive Summary

Higher education systems across much of Asia have made extraordinary gains in expanding access, diversifying curricula, and experimenting with new instructional delivery systems. At the same time, this success has created new challenges brought about by explosive enrollment growth; shortages of qualified instructional staff; a need to improve instructional quality; and, in many cases, severe financial constraints. These issues are interwoven, and their solutions are interdependent.

Higher education systems across Asia face four overarching challenges: (a) maintaining and improving education *quality*, even in the face of serious financial constraints; (b) improving the *relevance* of curriculum and instruction at a time of rapid change in labor market needs; (c) increasing and better utilizing the *financial resources* available to higher education; and (d) balancing the continued expansion of access to higher education with greater attention to *equity* and to the need to raise quality.

The regional study financed by the Asian Development Bank (ADB) suggests a set of actions that universities, governments, and development organizations might undertake to help address these needs. Among other things, the study posits that the continued development of higher education depends heavily on enhanced capacity of university leaders and instructional staff; more effective national and institutional-level policies; and greater attention to partnerships, including those with the private sector, to improve quality and ensure sustainable financing of higher education.

ADB and other development partners have an important role to play in supporting national and regional efforts to strengthen higher education systems. They can convene individuals and organizations to address issues that span borders; they can provide data and models of effective practice drawn from regional and larger international experience; and they can highlight strategic and operational perspectives during dialogue with governments and higher education leaders.

This publication provides an overview of issues of higher education development in developing Asia. Part 1 summarizes the case for government and external support of higher education. Part 2 provides an overview of the factors that have shaped the current situation of higher education and explores options available to governments and higher education systems seeking to strengthen those systems. Part 3 offers recommendations for how development partners such as ADB, a multilateral regional development bank, might best support the continued development of higher education. The recommendations focus on strategic and operational priorities, particularly for strengthening internal and external efficiency, improving cost efficiency and sustainable financing, improving administration and governance, promoting greater access and equity, strengthening private higher education, and promoting regional cooperation and cross-border collaboration in higher education.

Introduction

Higher education across much of Asia is a remarkable success story. It enjoys a high level of government support. Leaders understand that higher education is an important ingredient in the economic and social development of their countries. They recognize that the globalization of markets, the interdependency of international financial systems, the expanded role of technology, and high-speed communications have created an enormous need for highly skilled technical, professional, and managerial leaders. They understand that modern economies cannot be managed by only primary and secondary school graduates (Shaw et al., in press). Evidence of this support is quite tangible: Enrollments have grown, participation in higher education has diversified, new universities have been created, and universities are experimenting with new forms of instructional delivery.

At the same time, higher education across the region faces a set of interwoven challenges. Many higher education institutions (HEIs) in Asia are coping with explosive enrollment growth; shortages of qualified instructional staff; widespread concern over instructional quality; and, in many cases, severe financial constraints. These issues are interwoven, and their solutions are interdependent. Efforts to address any one problem need to be undertaken with attention to the larger constellation of issues.

Recognizing the important role that higher education plays in economic and social development, countries in the region are increasing investments in the development of higher education. A central issue is what investments are most likely to be effective in strengthening higher education systems and how development partners such as the Asian Development Bank (ADB) can support countries and HEIs in their efforts. These study reports on *Higher Education in Dynamic Asia* focus on these issues. They draw on a major regional study and technical assistance project on higher education financed by ADB.

This publication provides an overview of the issues facing higher education in developing Asia. It identifies issues, suggests priorities among those key issues, and offers recommendations for targeting support for higher education development.

Part 1 summarizes the case for government and external support of higher education. The argument centers around the role that higher education can play in national development. Part 2 provides an overview of the factors that have shaped the current situation of higher education and explores options available to governments and higher education systems seeking to strengthen those systems. Part 3 offers recommendations for how development partners such as ADB, a multilateral regional development bank, might best support the continued development of higher education across Asia.

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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 Lao PDR Mongolia Viet Nam	Lower and low-middle income countries in which the higher education systems are focused primarily on system expansion, increasing enrollments, and infrastructure development
Indonesia Malaysia Philippines Sri Lanka Thailand	Middle-income countries with well-established and growing higher education systems; now increasingly focused on quality improvement
India PRC	Largest higher education systems in the world and fastest growing system in 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 Singapore	Small, high-income economies with mature, highly respected higher education systems characterized by slow or stagnant growth
Japan Korea, Republic of	Mature higher education systems of respected quality but now facing declining student enrollments

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

PART 1
Why Invest in Higher Education?

The case for higher education in developing countries, while seemingly straightforward, has traditionally been contentious (World Bank 2000). Some development specialists argue that investment in basic education yields higher returns than money spent at higher levels, making higher education a luxury that developing countries cannot afford. However, that argument is increasingly challenged on the grounds that national economic development requires a more balanced education system (Heynemann 2006). As the developing member countries (DMCs) of ADB increasingly strive to become knowledge economies, labor markets are increasingly cross-national, and economic integration among countries makes borders less meaningful, a strong higher education system is increasingly a necessity. Modern economies cannot be managed by only primary and secondary school graduates; countries increasingly require personnel with advanced technological, administrative, and managerial skills (Shaw et al., in press). As the World Bank (2000) has argued, the issue is not primary and secondary education versus higher education but, rather, achieving the right mix among the three levels.

Evidence shows consistently and over time that countries that invest heavily in education and skills benefit economically and socially from that choice. The Organisation for Economic Co-operation and Development (OECD) experience is relevant to countries across Asia, as most are or will soon be middle-income countries. In OECD countries, every dollar invested in attaining high-skill qualifications results in getting even more money back through economic growth. This investment provides tangible benefits to all of society, not just to the individuals who benefit from the greater educational opportunities. Countries that give individuals one additional year of education can boost productivity and raise economic output by 3%–6% over time (LaRocque 2007). Meanwhile, people without basic qualifications face a significantly higher, and growing, risk of unemployment and poverty. However, research also indicates that it is not the increased financing, *per se*, that increases educational outcomes, but how that money is used. The nature of policy and structural reforms in the education sector is more important than the amount of financing. Hanushek and Woessmann (2007) found that student learning depends more on the quality of education than the number of years of schooling.

At the same time, benefits to the individual are significant. Across OECD countries, the earnings differential between workers with secondary and tertiary education ranged from about 25% to 119%. Moreover, that differential was growing by an average of 1% per year between 1997 and 2003 in 18 of the 22 OECD countries, and those benefits to individuals have continued to grow. The difference in the amount of money that someone with tertiary education (i.e., college level or higher) can expect to earn compared with the amount someone with only secondary education (i.e., schooling that finishes at age 16–18) will receive grew on average by one percentage point per year between 1997 and 2003 in 18 of the 22 OECD countries with available data (Schleicher 2006).

While the contribution of higher education to economic development is generally accepted, the mechanisms through which those benefits are achieved are less well understood. This study posits that higher education contributes to national development in three principal ways:

- **Higher education institutions prepare the primary and secondary teachers, who shape the dimensions and quality of the overall education system of a country**. Low-quality primary and secondary education leads to enormous inefficiencies in higher education, as incoming students lack necessary prior preparation for postsecondary study (Hanushek and Woessmann 2007). This creates a vicious cycle, as poorly prepared entering students combine in many institutions with low-quality instruction to yield poorly prepared graduates. When some then return to primary and secondary schools as teachers, the cycle is perpetuated. One way to break that cycle is to raise the quality of postsecondary preparation that future teachers receive. Those individuals need solid content preparation in the subjects they will teach, preparation in modern pedagogical techniques, and training in the use of technology for instruction. To the extent that schools receive better prepared teachers, and to the extent that those teachers have the support they need to implement their new abilities once they are in the schools, future secondary graduates will be better equipped for either direct entry to the labor market or higher education (ADB 2008).

- **HEIs train the high-level technical and administrative personnel needed in government, business, and industry**. International finance, business management, and national governance increasingly depend on automation, high-speed communication, and complex information flows, which all require high levels of administrative sophistication, technical proficiency, and analytic capacity. Secondary education alone cannot provide the managerial and technical leadership needed in modern business, industry, and government.

- **HEIs operate as incubators of the innovation and creative thinking needed for an economically competitive society**. Economic and social development increasingly depend on innovation. Universities have a potentially important role in driving innovation and development in DMCs. They can do so both through their role in carrying out research and development and by training workers for the knowledge economy (LaRocque 2007).

The ability of higher education systems to accomplish these ends depends, to a considerable extent, on how the systems are designed, financed, and managed; on how well equipped the instructional staff are to meet the changing demands being placed upon them; and on how good at planning and how realistic governments are in the demands they place on their universities.

PART 2
Higher Education Across Asia: Issues and Strategies

The situation now facing higher education systems across Asia has emerged, in large part, from a convergence of demographic trends, public preferences, policy decisions, and external economic circumstances over the last 20 years. While country contexts vary, there has been remarkable similarity across the region in the issues that higher education systems now confront and the main strategies governments are using to address those issues. As the analysis will show, many current challenges are the product of past successes. Most notably, success in expanding access has triggered a series of problems in servicing the increased demand. Figure 1, discussed below, summarizes the flow of the pressures that have led many governments and higher education systems to the dilemmas and choices they now face.

Convergence of Pressures Facing Higher Education

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

Figure 1   Flow of Pressures on Higher Education Across Asia
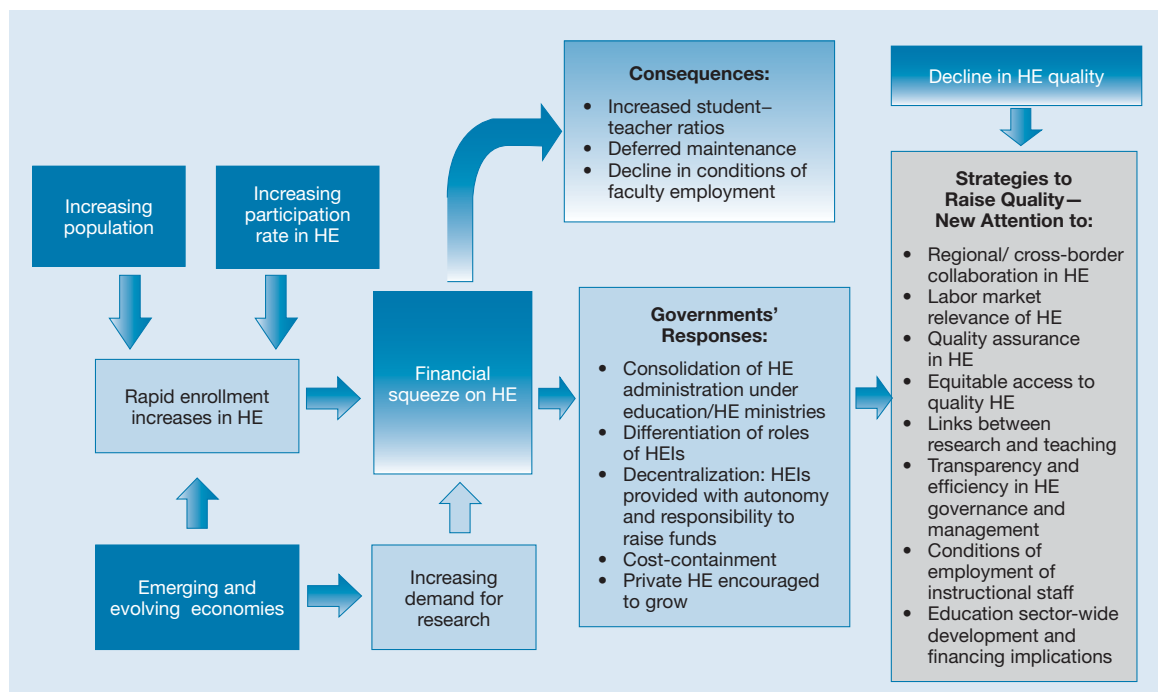
HE = higher education, HEI = higher education institution.

population and by increasing school participation and progression rates. In large measure, the increased participation rate reflects the success of the Education for All movement, which emphasizes wider access to basic education. There are more school-age children, more of them are going to school, more of them are completing secondary school, and more of them wish to continue to higher levels of education.

As this enrollment bubble has worked its way through the education system, governments and HEIs have come under intense pressure from students and families to provide greater access to progressively higher levels of education. This demand has been accentuated by the economic growth across the region that has resulted in an expanding middle class able to afford postsecondary options for their children. Much of the story of higher education across Asia centers on how countries have responded to the heightened demand for access and the financial challenges of coping with larger numbers of students.

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. Rapid expansion also put pressure on administrative and governance systems. Government policies, faculty recruitment and personnel systems, quality assurance procedures, and financial formulas that worked fine when higher education systems were small proved inadequate and ineffective in guiding this pace of growth. A further issue during this same period was the rising expectation, largely from governments, that universities would play a more prominent role in research that would contribute to national economic development and international prestige. The push for research led to a channeling of funds that might otherwise have gone to improving university administration and instruction.

In responding to these pressures, governments generally employed a combination of strategies intended to improve system and institutional management; lower (or at least contain) public expenditures for higher education; and, at the same time, develop new sources of funding for higher education.

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.

Few would disagree with this formulation. Government and higher education leaders largely agree on the nature of the problems facing higher education. They agree less about the effectiveness of possible solutions.

In analyzing possible solutions, the reports from ADB's regional study on Higher Education in Dynamic Asia draw on a five-part framework offered by Pigozzi and Cieutat (1988) and subsequently used in needs assessments of education systems conducted by a number of international organizations for education systems in low- and middle-income countries. This approach analyzes higher education issues in terms of *internal efficiency, external efficiency,*

cost and financing, administration and governance, and *access and equity*, described below. These five sets of issues form the basis of the analysis presented in the remainder of this chapter. The following discussion is a sampling of issues; not all important issues are addressed here. Fuller discussions of each set of issues will be provided in subsequent study reports. A list of upcoming titles in the series is presented at the end of this publication.

Internal Efficiency

A system or an institution is internally efficient to the extent that it optimally allocates and uses available resources for improving the quality and increasing the quantity of education. In short, internal efficiency is concerned with the extent that inputs are connected to outputs. Qualitative internal inefficiencies, when they exist, are reflected in low student attainment, weak preparation and effectiveness of instructional staff and administrators, inadequate or inappropriate content and presentation of curricula, and low availability and utility of instructional materials and resources. Quantitative inefficiencies, when they exist, can be manifest in low completion rates, high student/teacher ratios, and overstretched physical facilities.

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.

A central recommendation of this regional study is that, as countries move forward, improving instructional quality should be given the highest priority. Strategies for instruction improvement may differ by country context, but the priority is cross-cutting. Implementation of this recommendation may require painful choices among competing goals. Among other things, governments and higher education systems need to better balance the expansion of access with attention to quality improvement. This may involve reducing the rates of system expansion for a period of time in order to ensure that educational quality catches up with wider opportunity. Without those actions, the larger investment in higher education will be wasted.

Findings of this 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.

Differentiating Institutional Missions
As higher education systems grew, governments and educators needed a way to make sense of a burgeoning system. They needed a plan for how to balance the often competing demands for greater access, more research, cost containment, and prestige. The growth needed to be managed. One approach to at least partly resolving this conflict was through a differentiated

system. The general pattern was to treat some universities as special, push responsibility for the rest of public higher education to lower levels of the system (the provinces), and seek a way to outsource at least part of the responsibility (and cost) to the private sector. The result has been that most higher education systems follow a differentiated model.

A differentiated system typically includes (a) flagship/research-oriented institutions (top-tier universities); (b) teaching-oriented institutions that may give some attention to applied, locally relevant research (second-tier universities); and (c) a wider set of postsecondary institutions that offer a wider range of vocational, technical, and academic programs and tend to be of lower quality (third tier). These last schools play an important role as "demand-absorbing" institutions but tend to get little government funding. Many private universities are found in this third tier. In such a differentiated approach, each institution focuses on a mission appropriate for its resources and context. When an HEI is clear about its mission, it can focus its resources toward achieving its specific goals with a high level of quality.

While the benefits of institutional differentiation are widely recognized, two factors work against sustaining strong differentiated national systems. First, "mission creep" erodes system differentiation and focus: Second-tier universities adopt terminology and programs that position them to be viewed as top-tier universities; third-tier schools seek to be seen as regional teaching universities. Such mission creep undermines the focus of an institution on fulfilling the mission for which it is best suited and, in doing so, diminishes the overall power of a national system of higher education. Second is the tendency for governments to direct major resource allocation to those universities that are more heavily oriented to research at the expense of those that are teaching oriented. Research universities are fed; teaching institutions are starved. If national goals are to be met for preparing a body of well-educated citizens, prepared for employment in an internationally competitive economy, the allocation of national resources to HEIs must be carefully balanced across a differentiated system.

Even with this differentiation, universities across Asia face an array of conflicting expectations. They are expected to provide higher education for more students and more diverse students, to prepare students for employment in both local and international labor markets, to develop internationally competitive research programs, to contribute to local and national economic development, to attract new sources of revenue, and to increase quality overall (Chapman 2009). In the face of such conflicting pressures, universities need to clarify their mission and sharpen their priorities to ensure that those resources they do have are optimally deployed.

Improving Recruitment of Instructional Staff

Many 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; seeking faculty members from overseas; and employing part-time academic staff, who may also work at other institutions. Each approach has advantages, but each has liabilities. 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 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 2007). Hiring from overseas is expensive. 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. At the same time, universities need to undertake actions to upgrade those personnel already in the institution who may have entered with inadequate professional and scholarly preparation.

Improving Performance of Instructional Staff

Many factors must work together if instructional quality is to improve. Ultimately, however, individual instructors are the gatekeepers of what happens in the classroom. Academic staff are the greatest resource of any university. They carry out the mission of the institution and largely determine its quality. HEIs need academic staff with solid content knowledge; effective teaching and communication skills; and, if knowledge creation is part of the mission, some level of research competence. Yet, the rapid expansion of higher education in Asia has resulted in a great shortage of qualified academics, a development that seriously threatens quality. 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, a problem when university systems are seeking to prepare graduates to work effectively within internationally oriented work settings.

If university staff are to engage in high-quality teaching and research, they need opportunities to encounter new ideas, to learn new strategies for engaging students in the learning process, and to interact with colleagues who offer different perspectives. They need to be challenged, stimulated, and encouraged. The opportunity for professional growth is an "essential element" in a supportive and productive academic environment (Gappa et al. 2007).

While opportunities for academic staff to participate in formal professional development are emerging in Asian higher education, they are not yet fully developed. Some universities require new faculty members to take an initial induction course to orient them to their teaching responsibilities. Individual faculty members may apply for scholarships or fellowships offered by their university or government. Overall, however, these opportunities do not provide systematic and comprehensive professional development opportunities on the scale needed to address the needs of academic staff across countries in the region.

Even when programs are available, instructional staff face several barriers to participating in professional development opportunities (ADB Workshop 2010). First, faculty members are overburdened with their teaching responsibilities and have little time to participate in training sessions. Second, taking time from one's work to participate in professional development means less income earned through teaching hours. Third, HEIs have little discretionary money to spend on professional development opportunities.

One way to support faculty learning is to establish campus-based teaching and learning centers staffed with professionals who are knowledgeable about effective ways to organize and deliver faculty professional development. Such centers become a locus for designing and providing local professional development workshops and for creating an environment of support for faculty learning by connecting individuals with others committed to similar professional growth.

Improving Faculty Incentive and Evaluation Systems

More professional development is a solution only if lack of professional development is the underlying problem. In some cases, a central constraint on academic staff performance is not just lack of capability, but a work environment that fails to reward instructors for good work. Often this is due to lack of incentives or ineffective allocations of those incentives that are available. Study findings suggest that among the most important actions governments and HEIs can take to improve education quality are improving faculty incentive systems, evaluation procedures, and conditions of employment.

If academic staff members are to engage fully in work that best supports the mission and goals of the institution, they must believe that there are sufficient incentives and rewards to make it worthwhile to do the work. Closely related in importance to having attractive incentives is that the university should have a fair and transparent evaluation system for allocating those incentives. Fair, consistent, and transparent evaluation systems enable staff to understand the relationship between work performance and rewards. The lack of a fair evaluation system undermines quality and accountability.

Incentives include both those that are extrinsic, such as salaries, fringes, and material benefits, and those that are intrinsic, such as respect, satisfaction, and security. 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). Inadequate faculty compensation has immense implications for institutional quality. The compensation for academic work is insufficient and noncompetitive in most countries unless universities allow academic staff to take on outside employment. Yet that arrangement results in little time for faculty office hours, interaction with students, or time for teaching preparation and program development.

The impact of inadequate extrinsic remuneration on institutional quality is considerable. As discussed elsewhere, many faculty members take on extra work to supplement their incomes, teaching evening courses, consulting, or moonlighting at other institutions. With added work to make ends meet, they have less time to prepare for class, meet with students, focus on research productivity, or participate in professional development. Some choose to leave academe, and for those who stay, morale is at risk (Altbach 2003, Chapman 2009, ADB Workshop 2010). All told, inadequate compensation undermines quality (Welch 2007, 2011).

Nonmonetary incentives must also be taken into account when assessing the reward system in higher education. Academic staff in Asia report considerable intrinsic reward and personal satisfaction from helping students learn (ADB Workshop 2010). Some appreciate the recognition they receive in their communities. Job security is an incentive for those in countries such as Cambodia, Lao PDR, Malaysia, and Viet Nam, where public university staff are government employees.

Adequate extrinsic rewards are necessary to ensure that employees choose to stay in their positions. If salaries and extrinsic rewards fall too low, and if other options are available, employees may choose to leave their jobs. Thus, the long-term picture for attracting and retaining academic staff in Asia requires finding ways to provide salaries that allow reasonable standards of living. However, extrinsic rewards, while necessary, are not sufficient for ensuring that a university has a vibrant, engaged faculty; intrinsic rewards are also necessary to capture faculty commitment, motivation, and dedication. At the heart of an effective reward structure is evidence of a culture of respect for the faculty (Gappa et al. 2007). When extrinsic rewards are very low, HEIs would be wise to find creative ways to convey deep respect and regard for faculty members and to strengthen the intrinsic rewards associated with their work.

Creating a More Positive Institutional Culture

The cultural norms and values within HEIs are invisible but powerful. *Academic freedom, integrity,* and *collegiality* are three of the most important cultural norms that characterize effective HEIs. Limitations on academic freedom and autonomy constitute a barrier to excellence in HEIs in a number of countries in Asia. In regard to integrity, violations occur too frequently in Asian universities. In the academic world, quality is intimately linked with integrity, honesty, and merit. Too much is at stake for universities in Asia to avoid tackling instances of dishonesty head on. Creating greater appreciation for collegial relationships based on mutual appreciation of talent and ability, rather than solely on hierarchy and "connections," would also enhance the quality of academic work and the integrity with which it is done.

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 increasingly depend on innovation. Governments know this. The links among innovation, technological change, and economic growth are well established. Research and development (R&D) provides an important contribution to output and overall productivity growth. OECD experience indicates that innovation and technological changes are among the most important factors affecting the economic performance of countries and are thought to make a significant contribution to economic growth (LaRocque 2007). 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. Additionally, they seek the international prestige associated with world-class research. Such hope has some grounding, but is often overstated. Evidence indicates that university-based research done in high-income countries does contribute to economic development. However, in middle-income and low-income countries, that is less often true. The lower quality of university-based research results in less impact (La Rocque 2007; Chapman 2008; World Bank 2009; Welch 2010a, 2010b, 2011). To the extent that this occurs, it raises a question about the opportunity cost of channeling funds into university-based research rather than using those funds to raise instructional quality across the wider higher education system.

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. While a few universities have succeeded in becoming internationally recognized centers of research excellence, the gains that most would have to make to achieve the level necessary for international recognition are formidable and unrealistic. This regional study calls for differentiation of university roles and balanced development of the overall higher education system within each country.

Overall, governments want research; institutions push their faculty to do it; and some academic staff offer up research products to achieve promotion. Success in these efforts to encourage university-based research must overcome five obstacles: First, the meaning and quality of what is called research varies. In some academic settings, "doing research" means reading; perusing the Internet; synthesizing books or articles into a summary paper; or, sometimes, studying for a master's degree (ADB Workshop 2010). Second, systems for ensuring rigor are not well developed. Peer review for grants is not a large part of the culture (Levin 2010). When governments allocate money for research, decisions are often made based on seniority rather than merit. Similarly, a number of institutions sponsor internal journals to provide avenues for their staff to publish their research, often with little attention to the quality of what gets published relative to international standards.

Third, many developing countries in the region have a shortage of qualified researchers, a reflection, in turn, of the modest number of graduate students studying science and technology

across the region (Chapman 2008, Salmi 2009). Fourth is the lack of a vibrant and strong research culture in most universities. Many academic staff have little intrinsic interest or motivation to do research, especially since most have not participated in doctoral education, which is the typical period of socialization to a research orientation (Austin and McDaniels 2006, Austin 2010). Finally, research is impeded by the lack of adequate research infrastructure (research facilities, laboratories, libraries) at many universities (Chealy 2006) and university-industry relationships that might support research collaborations are often nonexistent or weak (Lee et al. 2009).

External Efficiency

External efficiency concerns the alignment and relevance of the education that students receive to their subsequent work or study options. Two aspects of external efficiency are of particular relevance to higher education leaders:

- the extent that the knowledge and skills of secondary school graduates who seek further education are aligned with the entrance requirements of HEIs, and
- the extent that the knowledge and skills of higher education graduates are aligned with the demands of the workplace.

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 and in the need for the transition programs some universities have to provide to incoming students to help them develop missing knowledge and skills they will need for academic success at the university level. Misalignments can be traced to variations in secondary school conditions, teacher qualifications, student abilities, and student misperceptions about the requirements for university admission.

Often the crux of the problem is the inadequate and, in some cases, rapidly decreasing student readiness for higher education due to low quality instruction at the secondary level. In other cases, students lack adequate college counselling at the secondary level because their secondary school teachers and counselors do not understand what postsecondary options are available for secondary school graduates (e.g., vocational, technical, university) and may not themselves understand what is expected of university-bound students once they enter higher education. The gap between the expectations of school teachers and college professors can be significant. If few parents, teachers, counselors, and school administrators have knowledge of university admissions requirements, students are less liable to receive accurate information. Regardless of the cause, misalignment represents a waste of national resources.

Governments understand this. Many are now involved in reevaluating and revising their university admissions procedures. 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. With only a few exceptions, countries in the region still rely more heavily on entrance examinations as the basis of university admissions than do other countries. A recommendation of this regional study is that countries need to consider diversifying entrance criteria to higher education, but, as illustrated by the examples

that follow, many countries have already started this process. Regionwide, university admission requirements are coming under review.

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. Government units responsible for secondary and postsecondary levels of education need to cooperate in improving the alignment between secondary school exit and university entrance requirements. And, secondary teachers and school counselors need a better understanding of the knowledge and skill levels that universities require of their secondary school graduates who are continuing their education.

Some misalignment is likely to continue. For example, efforts to improve equity in university admissions may result in the admission of students without strong prior academic preparation. These underprepared students may need remedial help once they arrive to help them succeed. Nonetheless, the importance of ensuring access for students from underserved communities may warrant the expenditure for such remediation. Most students, however, should be able to make the school-to-college transition armed with the skills and knowledge they need to be successful in postsecondary education.

Employability of Graduates

External efficiency of higher education is indicated when students are being prepared for fields in which there is clear demand and when the skills and knowledge of graduates align well with the workplace needs of employers. Low external efficiency is indicated by rising unemployment rates and by employer dissatisfaction with newly hired graduates. Evidence suggests that both issues—fields of study and relevance of preparation—need attention across Asia.

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 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.

In some countries the rise of private higher education has contributed to low external efficiency. Faced with tight finances, private universities have emphasized lower cost programs, such as business and education, at the expense of higher cost programs in science, technology, and engineering. As students are pushed into private higher education options, they are inadvertently also pushed to lower cost and less science-based options. However, this is not always the case. In some instances, employers express a *preference* for graduates of private HEIs, because they believe those graduates are better aligned to the labor market.

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 nongraduates (Sakellariou 2010). Nonetheless, unemployment among university graduates is on the rise (Postiglione 2011, World Bank 2011). Within that general trend is considerable variation among countries. Cambodia, Thailand, and Viet Nam continue to have the lowest unemployment rates; the highest graduate unemployment rates continue to be in Indonesia and Philippines.

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). Similarly, by some accounts only 25% of Indian and 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%. Moreover, the 2009 national employment report noted a general deficiency in applied analytical ability and managerial skill among college and university graduates (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. At the same time, advising systems in both the secondary schools and universities are weak. Students have

difficulty accessing timely information on workforce needs and the career ladders that lead to the positions to which they may aspire.

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).

One aspect of the changing needs of the workplace is the increasing emphasis on technical skills among employees as evidenced by the value now being assigned to technical and vocational education and training (TVET). While, in most countries, compensation is higher for workers with graduate degrees, in some countries TVET graduates are now commanding higher salaries. For example, in Mongolia workers with higher TVET qualifications earn more (on average) than university graduates, particularly in agricultural and professional occupations (Di Gropello and Sakellariou 2010). Thus, in some cases, TVET graduates have lower unemployment rates than university graduates. This is most probably attributed to the relevant skills they can provide in the labor market.

Graduates often lack information about jobs until they graduate and may not understand what they are equipped to do after graduation. Thai graduates in 2008 reported difficulties encountered in their search for employment (Figure 2). A recent examination of the state of the Asian labor market for graduates of higher education reveals some troubling trends: "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

Figure 2   Problems Encountered in Job Searching by Thai Students
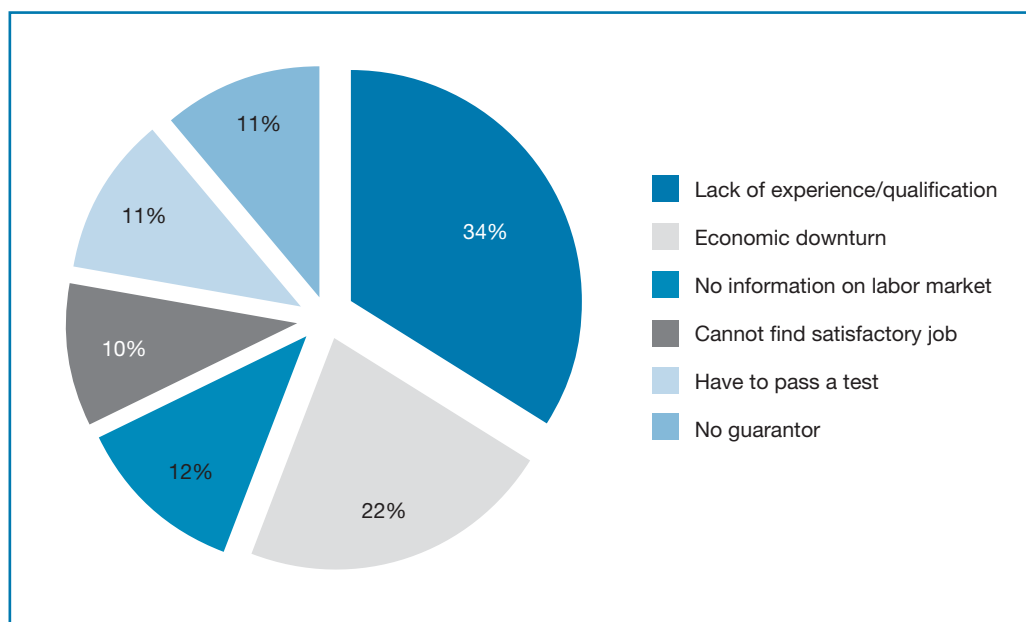
Source: World Bank (2010).

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).

Strategies for Improving External Efficiency

Among the factors contributing to low external efficiency is the fact that graduates do not have sufficient information about the labor market. Graduates often have unrealistic expectations about the job market and the level at which their training will allow them to enter. Improving external efficiency will require improving the career information available to students with respect to the availability of employment in different sectors of the economy, the job requirements of different jobs, and the career ladders that typify the careers that they wish to pursue.

A second factor in improving external efficiency is that, as needs and expectations of employers have changed, university curricula and instructional techniques often have not. At present, a number of universities are conducting tracer studies of recent graduates to assess the relevance of their university training as a basis for revising curricula and instructional methods. Governments and higher education leaders need to encourage and support this effort.

Cost and Financing

Cost refers to the resources needed to deliver higher education; financing refers to the source of those resources. Until recently, most governments in the region paid most or all of the cost of students attending higher education. But 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.

The explosive growth in enrollments over the last decade put enormous pressure on governments to absorb these costs. Enrollments grew faster than available funds to pay for the expansion. To handle these costs, many governments and universities cut corners. They tried to reduce operating costs by allowing student/teacher ratios to increase, allowing the real value of instructional salaries to fall, deferring maintenance, recruiting less qualified (and less expensive) instructors, and starving libraries and laboratories of funding. Quality suffered.

For the most part, government and education leaders know this. The problem and the factors that have created it are well understood. What is less clear are the most viable solutions. There is widespread interest in finding the funds needed to reverse the erosion of quality caused by past underfunding. But accomplishing that reversal requires both new sources of funding and greater efficiency in the use of existing funds. The central question is: What actions would be both effective in solving the financial problem facing higher education and politically acceptable within national environments in which many other strong forces compete for these same funds?

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.

Each strategy offers advantages and incurs costs.

Finding New Sources of Funding

The most widely used strategy is to encourage the growth of fee-based higher education, both by introducing new fees in public universities and by encouraging the growth of private, fee-based HEIs. Both approaches are attempts to shift some of the costs of public higher education to students and their families.

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. For example, 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.

A third and increasingly common strategy is to offer "extension," "diploma," or "executive" courses. These programs typically target part-time students and often have lower entry criteria than regular courses. Courses are often taught by staff from the parent institution on a supplemental or overload basis, for which they can earn additional compensation. While this represents a way of increasing income for underpaid instructional staff, a common concern is that their supplemental teaching diverts the attention of instructional staff away from their regular teaching and research responsibilities. 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. For example, among the rising numbers of complaints to Malaysia's National Consumer Complaints Centre in 2009 were a significant number focused on courses offered by "subsidiaries" of public universities, termed "executive" courses. Calls for more regulation hit an obstacle: Most of the courses offered by commercial arms of public universities, particularly the executive diplomas, do not fall within the Malaysian Qualifications Framework.

Similarly, in Thailand, public universities responded to declining state support by raising income from other sources by 450%. There is now intense competition among public sector HEIs to

offer "executive" programs, of sometimes dubious quality, for substantial fees. 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%.

A similar trend is seen in India. While fee levels have remained low at central universities, (a small proportion of the system), 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).

Across much of East and Southeast Asia, private higher education is the fastest-growing segment of postsecondary education (Altbach 2009a, 2009b). For example, 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).

Figure 3 and Table 2 reveal the huge variation in the proportion of public and private provision of higher education in selected Asian economies in the 2000s. While the numbers of institutions have increased, the balance of enrollment between public and private differs substantially among countries. In Viet Nam, private students now comprise 10.4% of total enrollments; in the PRC, private higher education accounted for 19.9% of total enrollments by 2008. In both cases, this represents a major departure for socialist systems, in which higher education had previously been entirely public (Zeng and Wang 2007, Welch 2010b). Currently, more than 50% of higher education in India is delivered by private institutions, mostly unaided (Kaul 2006).

Consequences of shifting costs to students and families. The shift of more higher education costs to students and families, termed "cost sharing," has raised a new set of issues, most notably the impact of cost sharing on equity of access. As students are expected to pay more for their higher education, those from more modest financial backgrounds risk being excluded

or being limited to attending poor-quality private HEIs. Students who cannot afford university tuition need to have access to funds. 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.

Figure 3   Private Enrollment and Institutional Share in Higher Education in Selected Asian Economies, 2002–2009
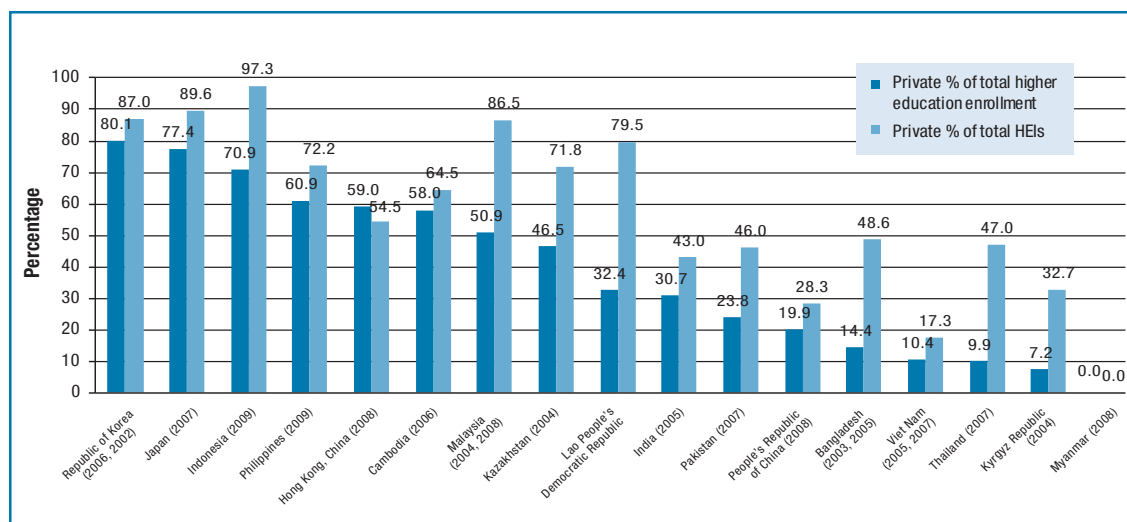
HEI = higher education institution.
Sources: For all economies except Indonesia, Myanmar, and Viet Nam, for number of institutions see PROPHE International Databases, available at http://www.albany.edu/dept/eaps/prophe/data/international.html. For Myanmar, see University Governance in Myanmar, the 16th 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

Country	Public			Private			
	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).

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. In this approach, the borrower pays off all the principal and interest of the loan over a specified loan period. Interest rates may be tied to commercial bank rates, the consumer price index, or some other measure. A grace period may be invoked, before payment begins, during which the interest rate is set at zero, or is low, so that graduates may postpone the first payment, pending securing a job. If an individual has difficulty with completing repayments during the specified term of the loan, the term may be extended. According to different versions of this scheme, loans may be repaid by monthly, quarterly, or annual installments. Repayments can also be graduated, with lower instalments at the beginning of the loan period, and higher payments later (Ziderman 2004).

Each type of loan has its advantages, disadvantages, proponents, and critics. A disadvantage of mortgage-type schemes is that it can be difficult to assess the income of the family to determine eligibility, especially in developing countries, where the informal sector of the economy is larger. Additionally, these loans are often insensitive to future income. In mortgage-type loans repayments may be high during the early part of the loan repayment period when a graduate's income may still be low. This may lead to defaults, which can then affect the individual's credit rating more generally. Finally, graduates who fail to get a job are still liable for the loan, which may also lead to significant default rates, especially during difficult economic times.

While income-contingent loans need no test of income at the beginning, and the problems of default are largely avoided, since repayments do not begin until the individual gains employment and reaches a specified income threshold, a robust and efficient taxation system is needed so that deductions can be made automatically. Equally, income that is not declared (cash payments, etc.) is not assessable. This can be a particular problem in developing countries, where taxation systems are not always mature, or robust, and much income is not waged (B. Chapman 2008: 98, ADB 2009). There is some evidence that having significant levels of debt due to student loans may increase the probability of not declaring income (ADB 2009). Lastly, if the individual completes his or her study and then moves abroad, it may be difficult to

collect the repayments (although in some cases, efforts have been made to conclude bilateral agreements to ensure continuity of repayments even when overseas).

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, 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 Rmb6,000 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. The equity criterion was weakened, both because banks tended to discriminate against those they judged less likely to repay (poor students), and additionally since poorer local governments (which were responsible for providing the scheme's interest rate subsidy) were less able to support the scheme.

The second scheme, the General Commercial Student Loans Scheme, operated by commercial banks and rural credit cooperatives, was open to students attending private as well as public HEIs, and included parents or guardians as guarantors. Again, however, this effectively limited the reach of the scheme to students from at least middle-class families, rather than needy students (Ziderman 2004). Subsequent versions allowed longer terms (either 6 or 10 years), with an interest rate of 6.12% imposed only after graduation, and grace periods of up to 24 months (Shen 2010: 49). By 2002, the first institution (Xian Communications University) was suspended from being able to apply for loans because of a default rate of 50%. Other institutions followed, and by 2003–2004, average default rates were almost 20%. In 2004, the PRC government and universities established a Risk Compensation Fund, and in 2006, the Ministry of Education formalized financial arrangements among the government, universities, and banks (Sun and Barrientos 2009: 202).

Overall, then, regional experience with student loans has been mixed. Cross-cutting problems have been difficulty in determining family income (as a basis for determining loan eligibility) (Shen 2010: 46–47), weak capacity to target the loans to students with the greatest need, and tracking graduates following graduation to ensure repayment.

Corruption. 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). When university admissions, grades, graduation, and subsequent employment opportunities can be influenced by bribes and favoritism, the link between merit and benefits is broken. Similarly, when corruption exists in dispersion and utilization of research funds, and in the promotion process of instructional staff, it constrains transparent career advancement, and quality is compromised (Altbach 2009b).

Lower Cost Strategies for Delivering Instruction
A widely advocated strategy for lowering the unit cost of instruction and reaching locations otherwise underserved has been distance education (Peters 2004, Baggaley and Belawati 2009). Currently 7 of the world's 11 largest open universities (together serving 6 million active students) are located in the region (Baggaley and Belawati 2009, Latcham and Jung 2009). Additionally, there are a large and growing number of dual-mode providers—universities that offer courses in both on- and off-campus modes (Dhanarajan 2006).

Administration and Governance

These concern the capacity to manage the higher education system and individual HEIs. Of particular concern are the managerial and analytical capabilities of administrators at both the system and institutional levels. Of particular importance is their ability to assess needs and to design, analyze, manage, and evaluate education programs. Administration and supervision also involve specifying responsibilities and distributing them from the central to the local level, and providing necessary support for appropriate program monitoring and redesign (when necessary).

Most countries across Asia share the same major goals for their higher education systems—upgrade and sustain the quality of education, promote equity and access, and improve the efficiency of higher education. Though every country claims to be undertaking higher education reforms aimed at achieving these ends, considerable variation in the higher education governance model still exists across the region. The variations tend to center on differences in level of government control, funding arrangements, and personnel and civil service systems. These variations are due mainly to the differences in physical, economic, and social infrastructure; political inclination; and the extent to which higher education is positioned in national development objectives.

Trends

Three particularly noteworthy trends are reshaping the administration and governance of higher education across the region. These are the move to consolidate national oversight of higher education; increasing decentralization of responsibility and authority from central to institutional-level administrators; and, as a result, increased autonomy of campus level administrators in the management of higher education.

Consolidation. A common pattern across DMCs was that responsibility for higher education, particularly specialized postsecondary education and training, was distributed across multiple ministries (e.g., nursing colleges under the direction of the ministry of health instead of the ministry of higher education). This led to inconsistent policies and practices across postsecondary institutions and fostered turf conflicts that impeded governments' efforts to develop and apply coherent policies and assure quality. Governments' response was generally to consolidate responsibility for HEIs in central and/or provincial ministries of education or higher education. This pattern of consolidation is well illustrated by events in the PRC over 50 years (1953–2003). In 1953, 31 of 41 (76%) centrally controlled HEIs were under the direct authority of ministries other than education; by 2003, only 73 of 111 (66%) were (Chapman 2009).

Decentralization. Faced with tight finances, some governments offered greater administrative autonomy in return for colleges and universities covering more of their own costs. Major decentralization initiatives occurred in PRC, Indonesia, Malaysia, Mongolia, and Thailand. While generally welcomed by the institutions, decentralization often carries a cost. During times of rapid transition, not all components of a higher education system embrace reform at the same rate, and not all participants agree on the shape of the new structure toward which they are moving (Chapman and Austin 2002, Weidman and Bat-Erdene 2002). When university administrators tried to exercise their new authority, they were sometimes challenged by opponents who believed the administrators' actions overstepped their mandate.

Institutional autonomy. Given the considerable variation in governance systems across Southeast Asia, grouping countries into three clusters based on the extent of administrative autonomy at the institutional level offers a useful framework for analyzing differences in the administration and governance of higher education systems (Table 3).

Table 3   Level of Institutional Autonomy in Key Aspects of Governance, by Cluster

Institutional Autonomy Dimension	Cluster 1		Cluster 2			Cluster 3			
	Indonesia (Public)	Malaysia	Indonesia (SOLE HEIs)	Philippines	Thailand	Cambodia	Lao PDR	Mongolia	Viet Nam
Set Academic Structure and Course Content	**	**	***	***	***	***	**	**	**
Decision on Student Numbers	***	*	***	***	***	***	**	n/a	*
Set Salaries	*	*	**	**	***	**	n/a	n/a	*
Set Tuition Fees	*	*	***	***	***	**	**	***	*
Reliance on Government Funding	*	*	***	**	***	**	**	*	*
Staff Employment and Dismissal	*	**	*	*	**	**	**	n/a	**
Principal-Agent Problem	*	***	***	***	***	***	***	n/a	***
Career Paths of University Administrators	**	**	**	***	***	***	***	n/a	***

* = limited autonomy, ** = semiautonomy, *** = full autonomy.
HEI = higher education institution, Lao PDR = Lao People's Democratic Republic, n/a = not applicable, SOLE = state-owned legal entity.
Source: Dhirathiti (2011).

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. However, in both countries, the higher education sector has evolved into a dual system of public and private universities in which private universities outnumber public. In Malaysia, with 86 public and more than 400 private HEIs, public universities account for less than 20% of the total number of universities. In Indonesia, with 83 public and nearly 3,000 private institutions, the private/public ratio is even more lopsided. In both countries, private higher education serves as the engine of access, while public higher education is viewed as the government's engine for steering the country toward excellence and development.

Despite the new budgeting system, strict government control over HEIs' funding arrangements remains a key problem of higher education governance in both Malaysia and Indonesia. Academic staff in public HEIs are mostly government officials. Consequently, their compensation structure follows the government's compensation system. Some efforts have been made to create more flexibility in faculty salary scales by separating educators from other government officials. In particular, Indonesia is experimenting with converting staff at state-owned legal entity (SOLE) universities from tenured civil servants to contract-based university employees and giving them exemptions from the uniform civil service regulations.

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. While adhering to some national regulations pertaining to budgeting and personnel, these boards have the responsibility and authority to generate and allocate funds.

Within this cluster, Thai HEIs appears to have the greatest flexibility and least national control. In most Thai HEIs, the university council is the highest level of academic authority. Some university councils are very strong and have been the main engine leading change in HEIs and the higher education sector as a whole. HEIs in the Philippines have comparatively less flexibility, in part because they rely on the government for about 70% of their funding. Still, Philippine universities have strong boards of regents that operate as the key governing agents.

Cluster 3 comprises Cambodia, Lao PDR, Mongolia, and Viet Nam, all of which have strict, top-down, state-controlled governance systems. Strict government control is still the spine of the "system" within these countries. Recent reforms have started to introduce more flexibility, but only on a limited basis. Unlike in Cluster 1, where the clear tension is between the HEIs' need for autonomy and the government's reticence to grant it, both HEIs and national governments in Cluster 3 are gradually working together towards step-by-step reform. But their transformation into a freer governance structure lags behind countries in Cluster 2.

Cross-Cutting Issues in Administration and Governance

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. While autonomy exists to different degrees in different contexts, areas in which autonomy is granted often include (i) academic freedom, (ii) budget or funding implications, (iii) quality assurance, and (iv) personnel management (OECD 2003).

However, autonomy is not a formulaic set of policies for successful higher education management. It is not only about asking what flexibility HEIs wish to obtain from government, but also about what flexibility government is willing to give. Both may require revision to national laws regulating public funding mechanisms and personnel management. The difference between the desire of HEI administrators to exercise their own authority and judgment, and the willingness of the government to relinquish that control can be a source of tension, especially when each group defines "autonomy" in a different way. Even though most governments claim they have prepared a coherent infrastructure to support the implementation of new policies granting HEIs more autonomy, differences in definitions of autonomy vary among clusters.

While Cambodia, Mongolia, and Viet Nam still have a tradition of parent ministries overseeing the management and funding of their respective HEIs, the Lao PDR merged 10 colleges and universities into one major national university, transferred oversight of this new university to the Ministry of Education (MOE) rather than the various ministries that had overseen the previously separate institutions, and granted the new university a limited degree of autonomy. University administrators can now determine student enrollment targets and set fees. However, MOE still oversees overall governance of other public HEIs in the Lao PDR.

The higher education system in Viet Nam has also changed considerably, moving from a Soviet-style model, which located instruction in universities and research in separate research institutes, to a more integrated, comprehensive higher education system. Stricter government control of higher education still prevails in Mongolia; governance of public HEIs rests with a steering committee, appointed by the Ministry of Education, Culture and Science (Battsengel and Amarsaikhan 2010); the central government controls HEIs through the steering committees. Cambodia seems to be the only country that has successfully advanced toward introducing more autonomy to some of its public HEIs.

Some countries have created special categories of HEIs and given these institutions a higher degree of autonomy. In most cases, these special categories are for research universities. Malaysia, Thailand, and Viet Nam have adopted this approach. For example, in Malaysia, four research universities (Universiti Malaya, Universiti Sains Malaysia, Universiti Kebangsaan Malaysia, and Universiti Putra Malaysia) are designated as top-tier HEIs. One of them, Universiti Sains Malaysia, was selected as the "apex" university and given full autonomy. Encouraging these top universities to compete for the "apex" status promotes competition so that HEIs will push themselves to excel in research, recruit competent academicians, and establish a competitive student admission system. The same policy initiative to strengthen research universities via granting a higher degree of autonomy may also be seen in Thailand, where the 13 autonomous HEIs are mostly research universities.

However, HEIs in heavily bureaucratic countries find it difficult to create differentiated tiers in which top-tier institutions are given special status. In countries in which the tier approach is used, the designation process has become a point of controversy for HEIs excluded from top-tier status. Those HEIs not selected tend to question the selection criteria and believe that full autonomy should not be reserved only for top research universities but applied to all HEIs throughout the nation.

Academic freedom. 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.

With respect to academic freedom within institutions, the administrators in Indonesia and Malaysia claim that their universities have many systems in place to ensure that academic freedom is exercised within the institution. Many decisions regarding tenure, dismissal, promotion, and student education processes and activities are to be made based on the

consensus of the faculties. Nonetheless, these decisions must be presented to an appropriate and relevant university committee, such as the university senate, for approval. However, in the case of Malaysia and PGIs in Indonesia, new content and degree programs must be approved by MOHE or MONE, respectively, as a way to promote quality assurance (QA). Premier courses such as dentistry, pharmacy, and medicine in Malaysia also need to gain approval from MOHE on course content. Therefore, governments still have a say on the academic content to some extent in countries within Cluster 1.

In comparison with those in Malaysia, academics in Indonesian public HEIs enjoy more freedom to improve university performance through extra channels such as departmental meetings, degree program coordination meetings, and faculty meetings. However, these freedoms in Indonesia come with increasing responsibilities. With additional freedom in setting up and implementing new university policies and academic content, HEIs also have higher commitment to respond to all criticism from the community and the public.

In Cluster 2, SOLE 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.

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.

Financing. How higher education is funded plays a large part in shaping how institutions are managed. Two issues dominate: (i) Who pays? and (ii) Who decides how available funds are to be spent? Across the region, government is still the major source of funds. For example, in Malaysia government funding accounts for 90% of total HEI income. Nonetheless, as discussed earlier, in virtually all countries HEIs are increasingly expected to generate more of their own income. These issues are addressed elsewhere in this publication.

Who decides how available funds are to be spent is more directly an administration and governance issue. Compared with HEIs in other countries, universities in Cluster 2 countries, especially Indonesia and Thailand, have greater financial freedom. In Indonesia, for example, HEIs with SOLE status can allocate and utilize their public-source funds without approval from the Ministry of Finance. The exception is the Philippines, where HEIs still rely mainly on government for funding, and government still plays a significant role in how those funds are then spent.

In Cluster 3 countries (Cambodia, Lao PDR, Mongolia, Viet Nam) university-level administrators can play a limited role in financial decisions affecting their institutions. In Mongolia, flexibility in determining tuition fees is offered to all HEIs. In Lao PDR and Viet Nam, public HEIs have some flexibility in determining the tuition fees, but within a range determined by the education ministry. In Cambodia, university funding comes from (i) a central government budget allocation intended to cover salaries of full-time staff, and (ii) tuition fees. Public HEIs have some flexibility in determining tuition fees and designing personnel compensation.

Quality assurance. 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). QA systems vary in design, but several have proven to be effective in establishing quality standards and in ensuring that these standards are met.

In the Philippines, for example, the Commission on Higher Education (CHED) constantly updates policies, standards, and guidelines (PSGs) of curricular programs in various disciplines. HEIs are compelled to use the PSGs as minimum standards when offering degree programs. The compliance of HEIs with the PSGs is monitored by the regional offices of CHED and by CHED technical panels and technical committees, the groups of experts in the academic community and industry who advise the Commission on these matters (SEAMEO RIHED 2010). It is generally agreed by many HEIs, and also by countries that have mature QA systems such as Indonesia, Malaysia, and Thailand, that QA should be internally driven, should be institutionalized within each country's standard procedures, and could also involve external parties.

Personnel management. University hiring practices and conditions of employment differ by country. A particularly controversial issue across the region is whether instructional staff are civil servants or private employees of the university. At the individual level, the tradeoff is straightforward: being a government official means a guarantee of lifetime employment, retirement benefits, and the prestige of being a government employee. The downside is low compensation, which may not be sufficient to attract top-level instructional staff. Working as a direct employee of the university, on the other hand, offers a higher rate of compensation. In general, this option may be more enticing to young academics, for whom retirement seems a long way off. Nonetheless, evidence suggests that converting from government to university employees does not guarantee a better workload or conditions of employment.

Whether instructors are employees of the government or the university also has important consequences at the institutional level, as it affects the efficacy of campus-level administrators in personnel management. For example, in Indonesia instructional staff at PGIs are recruited and promoted by decision of the government. The university has no flexibility in designing its personnel structure. In PSIs, university administrators have some autonomy in determining

personnel policies. However, in neither type of HEI (PGI or PSI) are university personnel allowed to have dual employment (e.g., hold second jobs). In Malaysia, universities are given some flexibility in designing their personnel structure, but all academic and support staff in public universities are considered civil servants. As such, lecturers are not allowed to accept any employment from other sources or to perform teaching, research, or service activities for other academic institutions or private companies without approval of their dean and vice chancellor.

Career paths of university administrators. Career paths of university administrators in most countries in the region are linear in that top administrators are selected from within the university community. In Indonesia and Philippines, the career path for university administrators is nonlinear: a person outside the university can be appointed as university president as long as he or she meets the requirements. Administrator selection in Thailand follows a mixed pattern. Some universities select from within their own university, while a majority of universities may also select from outside candidates.

Access and Equity

Access concerns the proportion of the target population reached by the education system. *Equity* concerns the extent to which these opportunities are made available to all segments of the population, without restriction to factors beyond an individual's control such as gender, socioeconomic status, or rural–urban location. Expanded access is arguably the major accomplishment of higher education systems across Asia over the last 30 years. But while access has expanded, equity has not.

Widely successful strategies for increasing access, such as the promotion of private higher education, have created conditions that have worked against equity. The push to channel new students into private, tuition-charging higher education options has resulted in much of the expanded opportunity for access going to students from more affluent backgrounds. Typically, private HEIs are given the freedom to set their own tuition fees. Particularly those that are respected often have high fees, out of reach for students with few resources. In Indonesia, for example, the per capita income in poorer regions, where private institutions tend to be located, is about one-tenth of the per capita income in Jakarta. While at public HEIs, tuition fees range from about $116 to $1,160, at private institutions the tuition fees can be as high as $10,168 (ICHEFAP 2010). Such inequities lead some observers to worry that poor students will have access only to poor quality private HEIs (UNESCO 2008: 6), most likely in the nonselective demand-absorbing subsector, where tuition fees and academic selectivity are minimal. In contrast, access to high-quality private universities can be limited to wealthy students, as those HEIs tend to be expensive due to a cost-recovery operation (World Bank 2009). This is often the case in semi-elite universities.

Two of the most important strategies for extending access to higher education have been the growth of private higher education and the use of technology-based distance education to deliver instruction.

Extending Access through the Growth of Private Higher Education
Private HEIs contribute, to some extent, to the increased access of the overall higher education systems (Levy 2009, 2010). In Asia, the private higher education sector is heterogeneous. Various kinds of private HEIs offer different access channels to different student clienteles: better access (semi-elite/serious demand-absorbing); different access (religious/cultural-oriented); and massive access (demand-absorbing) (Pachuashvili 2006, Levy 2010). Asian private HEIs

are thought of as the caterers for increasing market and social demands for higher education qualifications. Beyond the traditional high school graduate cohorts, private HEIs serve a variety of nontraditional student populations, including

- working adults with degrees who seek further graduate education,
- working adults with degrees who seek an additional bachelor's degree in a different field from their existing degree,
- working adults without degrees who want a degree,
- high school graduates who could not gain admission into public universities or highly competitive semi-elite private universities, and
- young school-leavers who want something different from traditional programs offered in regular public HEIs.

Within the region, policies and practices to promote equitable access via private higher education vary. For the overall higher education sector, different policy mechanisms have been implemented in admissions regulations to increase particular access for rural, remote, mountainous areas, and ethnic minority students (World Bank 2009). In Thailand and Viet Nam, for example, students from poor regional areas who attend private HEIs are eligible for official student loan programs. In Singapore, the government provides financial and infrastructural aids to the establishment of private ethnic organizations to support more higher education access (Tan 2006).

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 Above 500,000 students	PRC	Central Radio and Television University [N]	2,663,500
	India	Indira Gandhi National Open University [N]	2,468,208
	Pakistan	Allam Iqubal Open University [N]	1,565,783
	Indonesia	Universitas Terbuka Indonesia [N]	646, 647
Big OUs 100,000–499,000 students	PRC	Jiangsu Open University	157,088
		Guangdong Open University	158,271
		Zhejiang Open University	139,974
		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

Table 4 *continued*

Size	Location	Institution	Enrollment
Medium OUs 50,000–99,000 students	PRC	Henan Open University	96,144
		Shaanxi Open University	96,267
		Hebei Open University	95,130
		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 below 50,000 students	Malaysia	Wawasan Open University	4,000
	Hong Kong, China	Open University of Hong Kong	17,813
	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).

A brief overview of country efforts illustrates the breadth and reach of distance education initiatives. The Republic of 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.

Countries differ on these dimensions, as illustrated in Table 5, which 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

Country	e-Readiness Rankings		e-Learning Readiness Rankings	
	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).

A review of more than 300 studies on the effectiveness of distance education concluded that teaching and studying at a distance, especially using interactive telecommunications media, can be as effective as conventional classroom instruction when effectiveness is measured in terms of amount learned, attitudes of students and teachers, and cost-effectiveness (Moore and Thompson 1990). Similar findings are reported in research by Tucker (2001) and by Lim (2002), both of whom found no significant differences in learning outcomes between face-to-face and distance instruction.

Still, the use of information and communications technology (ICT) to deliver learning has not been without problems. These center on access to and reliability of technologies; efficiencies and effectiveness of administrative arrangements; and the real cost of producing a graduate, given the high rates of attrition and noncompletion. Critics question the quality of learners, the "dumbing" down of curricula, "commercialization" of education, the validity of assessment systems, and the failure of universities to provide an adequate support system for distance learners. Some critics suggest that, while distance learning and open universities offer significant possibilities for addressing the rising demand for higher education, some programs are compromising quality in exchange for income.

Of the many weaknesses attributed to distance education across Asia, five tend to be most crucial. First, distance education suffers from policy ambiguities and budgetary uncertainties. With the exception of India, Republic of Korea, and Malaysia, most Asian governments have not yet formulated clear policies that accord equal status or funding to distance education (Dhanarajan 2011). Second, a lack of skilled instructional designers is reflected in learning materials that fail to meet the highest levels of pedagogical standards to support self-learners. Third, weak ICT infrastructure and limited learner access to online technologies (i.e., penetration rate) limit the reach of distance education in some countries (Table 6). Internet penetration rates vary considerably across Asia, from below 10% in Cambodia, India, Indonesia, Lao PDR, and

Sri Lanka to as high as 59% in Malaysia and more than 70% in Japan and Republic of Korea (2008 figures) (Latchem and Jung 2009). Fourth, ineffective leadership, political interference, and corruption have been a challenge in some countries. Finally, political disruption, such as the civil war in Sri Lanka, has been an impediment to orderly progress in some countries.

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).

PART 3
How to Support the Continuing Development of Higher Education in Asia

While government and higher education leaders in each country face the challenge of how to cope with pressures in higher education development within the particular context of their own countries, development partners such as ADB seek effective ways to best support country-level efforts. Governments will continue to seek financial support for infrastructure development in higher education to accommodate expanding enrollments. However, the greatest needs facing higher education in many countries in Asia are less capital intensive. The continued development of higher education depends heavily on enhanced capacity of university leaders and instructional staff; more effective national and institutional-level policies; and greater attention to partnerships, including with the private sector, to improve quality and ensure sustainable financing of higher education. The question is: How can international development organizations such as ADB most effectively support the development of higher education in the region?

The findings of this regional study point to several suggestions concerning priorities and specific activities in support of those priorities. In the following, recommendations are summarized in key development areas. More detailed elaboration on each of these will be presented in subsequent, specific publications. A list of these upcoming works is included in the end of this overview.

Strengthening Internal Efficiency

Improving the internal efficiency of HEIs in Asia will require the continuing commitment and efforts of government leaders, institutional leaders, and academic staff. Quick interventions are unlikely to have much impact, since HEIs are complex and often resistant to change. A wiser approach, likely to have more impact, will view HEIs as systems in which substantive, long-lasting change requires using multiple strategic approaches. Five specific priorities for strengthening the internal efficiency of HEIs are identified, along with recommendations for institutional actions and support to be provided through project operations.

Recommendation 1: Improve instructional quality by enhancing the capacity of academic staff

Rationale. For some years, the strategic emphasis in higher education in Asia has been on enrollment growth more than on the quality of the academic staff as teachers. After focusing on expanding access, the priority should now be on ensuring the quality of instruction. Internal efficiency is achieved not only through ensuring access; internal efficiency also depends on

quality instruction for those who have access. Teachers must be prepared to meet changing student learning needs. Furthermore, enhanced instructional quality leads to greater instructional efficiency and improved student learning. More students can be educated more effectively and efficiently if teaching quality is strong. Additionally, when academic staff members are better prepared, they experience a greater sense of professionalization, and their responsibilities are more intrinsically rewarding, which will enhance institutional commitment.

Recommended actions. Establish campus-based professional development centers staffed with professionals who are knowledgeable about effective ways to organize and deliver faculty professional development. Provide instructional staff with opportunities to learn proven teaching methods that foster active and engaged learning. Recommended topics include (a) curriculum planning and course design based on intended learning outcomes, (b) strategies for linking teaching methods and student learning assessment methods to intended learning goals, (c) strategies that foster active learning, and (d) strategies that prepare students to engage in new forms of learning. Campus professional development centers should help academic staff enhance their research skills, as well as their knowledge about labor market opportunities for students in their fields.

Recommended support through project operations. Work with national and institutional leaders to develop *national meetings focused on strategies for improving instructional effectiveness and quality*, and designed to develop national networks to support faculty professional development. A national network could develop materials to support institution-level faculty development and could convene institutional faculty development specialists regularly to develop their capacity for providing support to academic staff.

Projects could also help establish *subregional hubs* with a core of permanent staff, charged with developing resources and staff for campus-level faculty development. Additionally, projects could sponsor *institutional exchange visits*. Specifically, funding could be provided for visits of institutional representatives to countries with mature faculty development programs to assess strategies likely to be effective in their home environments. Funding might also bring experts in effective teaching strategies as short-term resources to national meetings and to institutions in Asia. Finally, projects could support *regional and national conferences designed for academic staff in specific disciplinary groups* to discuss and design effective discipline-specific teaching strategies.

Recommendation 2: Continue to focus and differentiate institutional missions within coordinated systems of higher education, and balance resource allocations to support those goals

Rationale. Countries are strategic when they treat HEIs (public and private; top-, second-, and third-tier institutions) as part of an overall system that is designed to meet an array of national needs. When an HEI is clear about its mission, it can focus its resources toward achieving its specific goals at a high level of quality. A differentiated higher education system enables multiple national needs to be addressed.

Recommended actions. Clarify institutional missions in light of analysis of national needs and available resources. Ensure that all institutional decisions serve the institution's designated mission.

Recommended support through project operations. To help achieve these ends, projects could support *meetings of national leaders* from Asia and elsewhere to focus on options and trade-offs in differentiated higher education systems as well as models and strategies for creating such national systems. Fruitful topics might include the establishment of specific criteria for quality assessment appropriate for institutions with particular missions, and systems for linking national quality assessment processes to resource allocation formulas. In particular, leaders from similar institutional types would benefit from workshops designed to highlight strategies for enhancing and assessing quality relative to specific institutional missions. For example, leaders in institutions focused on undergraduate teaching in local settings could benefit from discussions with leaders of community colleges in other countries regarding how quality is defined and evaluated within such settings.

Recommendation 3: Develop university-based research efforts consistent with individual institutional missions

Rationale. Research productivity is the currency of international prestige in higher education. Yet, particularly in resource-stretched environments, institutional research efforts should match specific institutional missions. In countries with higher education systems comprised of institutions with differentiated missions, institutions may take different approaches to research (e.g., cutting-edge research, teaching-focused inquiry, applied research).

Recommended actions. Examine how research fits with specific institutional missions. Encourage and reward research activities specifically aligned with institutional missions.

Recommended support through project operations. Projects could assist by facilitating *cross-institutional discussion* of diverse approaches to research and inquiry. Examples of possible interactions are (a) visits by higher education leaders in Asia to HEIs where faculty are doing applied, engaged, and community-based research and inquiry projects on teaching and learning; (b) visits to HEIs in Asia by international higher education professionals to discuss ways to encourage, support, and assess various forms of research; and (c) subregional workshops on strategies for promoting and preparing faculty members to participate in applied, community-based engaged scholarship or in the scholarship of teaching and learning.

Projects could also assist by sponsoring (or cosponsoring with regional organizations) *professional research training programs* designed to strengthen the research skills of individual researchers. Examples are (a) subregional institutes for intensive short-term skill development in a range of research methodologies; (b) development of cross-national research groups, led by experienced researchers and focused on thematically organized research topics of relevance to the region; and (c) matched mentoring opportunities to link less experienced and highly experienced researchers.

Similarly, projects could sponsor *training workshops for institutional research office leaders*. Institutional research offices should be prepared to conduct studies of direct relevance to the quality of work occurring within institutions, such as factors contributing to student retention, prevalent student learning strategies, students' perceptions of barriers to their learning, and long-term career paths of graduates.

Recommendation 4: Improve faculty incentive and evaluation systems

Rationale. If academic staff members are to engage fully in work that best supports the missions and goals of the institution, they must be clear about what those goals are, have the

abilities and skills to do the work expected, and believe that there are sufficient incentives and rewards to make it worthwhile to do the work. Fair and transparent evaluation systems are closely related to effective incentive and reward systems.

Recommended actions. Institutional leaders should (a) articulate institutional goals and priorities and the expectations for the role of academic staff in advancing these priorities; (b) provide professional development that ensures staff have the skills and abilities to meet expectations; and (c) develop evaluation systems based on fair, consistent, and transparent assessment of performance and linked with valued incentives.

Recommended support through project operations. Projects could support *studies on faculty motivation* in the Asian context. There is a need for studies that explore the relationships among institutional expectations, faculty perceptions of self-efficacy (sense of one's ability to do what is asked), and incentives within HEIs in Asia. Since there are constraints on financial remuneration, discussion about the kinds of intrinsic rewards that enhance staff satisfaction and motivation could provide practical ideas, and research on motivation could contribute to the design of more effective reward structures. Along with that, projects could encourage and support subregional *training sessions on evaluation processes*. One strategy would be to join with regional associations to sponsor subregional training sessions focused on strategies for creating effective evaluation systems. Finally, projects could support subregional or country-wide *forums on improving the quality of academic work*. Such forums could encourage HEIs to better align expectations, incentives, and evaluation.

Recommendation 5: Strengthen the quality of private higher education
Rationale. Private higher education is expanding, but quality is often a concern. Faculty are often less qualified, with many teaching part-time while maintaining other employment. Given the financial pressures associated with expansion and the tendency of these institutions to attract students with weaker academic preparation (than those admitted to public institutions), private colleges and universities will need assistance in ensuring appropriate levels of quality.

Recommended actions. In addition to the recommended institutional actions already offered (Recommendations 1–4), cultivating cross-institutional collaborative linkages would be a strategic action.

Recommended support through project operations. Projects could sponsor an *interinstitutional teaming program*. This might involve support to private institutions interested in teaming arrangements with international institutional partners. Such arrangements, involving cross-institutional visits and collaborative projects, might focus on institutional management, strategies for the improvement of teaching and learning, faculty development programming, innovative research approaches, and effective incentive systems. Additionally, projects could sponsor subregional *conferences on quality assurance* that could explore dimensions of QA and implementation of QA criteria and programs in the context of private colleges and universities.

Strengthening External Efficiency of Higher Education

Most countries across Asia have experienced rapid enrollment growth in higher education. This rapid expansion can improve prospects for economic development and quality of life for the populations of these countries. However, there are indications, especially among second- and third-tier HEIs, that external efficiency could be weakening. External efficiency concerns the

alignment and relevance of the higher education that students receive to their subsequent work or study options, as well as to the value of research output as higher education expands. Two aspects of external efficiency are of particular relevance to higher education leaders: the extent that the knowledge and skills of secondary school graduates who seek further education are aligned with the entrance requirements of HEIs, and the extent to which the knowledge and skills of higher education graduates are aligned with the demands of the workplace. A third aspect of external efficiency concerns the value of university research for national and regional development. As research costs rise, policy frameworks are needed to foster partnerships, attract and make efficient use of research funds, and solve practical problems of creating new products and services.

Recommendation 1: Improve the readiness of secondary school graduates for higher learning

Rationale. More entrants to college and university mean that more and better preparation is needed. In some countries, it means making the school curriculum align more closely with entrance examinations to universities. In other countries, it concerns readiness in specific subjects like science and mathematics. In all countries, it refers to improving the readiness of students, including those from underrepresented communities. School heads, local education departments, admissions office personnel, and academics from colleges and universities can strengthen measures to improve student readiness.

Recommended action. Assist governments, secondary schools, and higher education institutions in determining deficiencies in prior preparation of entering university students.

Recommended support through project operations. Projects can provide technical assistance for the *design and implementation of academic support services* at the secondary school level, including skill and information workshops by university academic staff and dual-enrollment (secondary and postsecondary) courses. In addition, projects can sponsor participation of government and university leaders in related in-country, subregional, and regional *knowledge-sharing events*.

Recommendation 2: Better align university curricula and instruction with labor market needs

Rationale. Families in all countries are making greater investments in higher education and have rising expectations about students' employment opportunities after graduation. Some countries are beginning to experience rising unemployment, while others face the same risk as their economies change and grow. This alignment can be improved without assaulting the central role of higher education. Overlap in institutional missions and duplication in instructional programs can be minimized. Letting market forces determine the range of subjects studied in higher education can go only so far in improving external efficiency. Some countries are in desperate need of graduates in science and technology fields, even as most private colleges prefer to offer business, social science, and education courses to keep their costs down. Countries can improve their external efficiency by increasing the amount of emphasis on soft skills in higher learning, including cross-disciplinary perspectives, critical thinking, and collaborative problem solving—skills demanded by the changing workplace.

Recommended action. Assist universities in pursuing proactively experimental initiatives aimed at improving responsiveness to labor market needs.

Recommended support through project operations. Projects can assist universities in *experimenting with units or centers* that (a) draw staff from inside and outside the university; and (b) are more directly focused on newly emerging industries such as software production, energy, and environmental protection and green economies. Universities would give such centers more autonomy than other academic units but would permit them to solicit additional funding on their own. While, as special centers, they could select their own students and charge a higher tuition fee, their success would be determined to a greater extent by providing students with internships in specific industries that align with the knowledge and skills offered by their academic courses. Projects can provide technical assistance in the design of these approaches and sponsor participation of government and university leaders in related in-country, subregional, and regional knowledge-sharing events.

Recommendation 3: Improve public-private and cross-border research partnerships

Rationale. Recent research has shown that a major driver of research productivity is cross-border collaboration. As collaboration and partnerships grow, there is a need for coordination and consultation among various partnership programs. Each public-private partnership with commerce or industry, or across borders emphasizes a different aspect of capacity development in research. Individual efforts need to add up to a coherent regional capacity development strategy that raises the quality of research output.

Recommended action. Assist countries to improve their policy frameworks in ways that allow and encourage high-quality research partnerships between the universities and private sector commerce and industry.

Recommended support through project operations. Projects can provide technical assistance for *improving legal frameworks* and for *design of research approaches* that facilitate collaboration and can help second- and third-tier HEIs take a leading role in applying research to practical problems that confront the local communities they serve. Projects can provide support to help utilize advances in ICT that can increase the efficiency of research productivity by *linking remote universities* to their national counterparts and to other universities across national borders. In addition, projects can support cross-border collaboration aimed at facilitating *regional centers of research excellence* that effectively enhance regional capacity and productivity.

Improving Cost Efficiency and Sustainable Financing of Higher Education

Higher education is expensive. Finding the resources to fund the rapid expansion of university enrollments over the last decade has put considerable pressure on both governments and HEIs. In efforts to handle these costs, many governments and universities have cut corners. They have tried to reduce operating costs by allowing student/teacher ratios to increase, allowing the real value of instructional salaries to fall, deferring maintenance, recruiting less qualified (and less expensive) instructors, and starving libraries and laboratories of funding. Quality has suffered. For the most part, government and education leaders know this; the problem and the factors that have created it are well understood. What is less clear are the most viable solutions. There is widespread interest in finding the funds needed to reverse the erosion of quality caused by past underfunding. But accomplishing that reversal requires both new sources of funding and greater efficiency in the use of existing funds.

Basically, government and university leaders have six choices: (a) 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. (b) 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 higher education. (c) They can lower the cost of delivering instruction in ways that do not erode quality. (d) 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. (e) They can develop a differentiated higher education system by deliberately concentrating resources in top-tier institutions, while allowing quality to be lowered in the others. (f) They can undertake some combination of these strategies. Each strategy offers advantages and incurs costs.

Recommendation 1: Encourage governments and higher education institutions to more fully implement quality assurance measures

Rationale. The growth of higher education has often outstripped the capacity of regulatory agencies (whether ministries or national boards) to control quality in the higher education sector (and particularly with respect to private colleges and universities). But limited capacity is only part of the problem. Officials charged with QA have, at times, themselves become part of the problem. Hence, it becomes important to link QA programs to transparency training.

Recommended actions. Assist in the professional development of officials charged with implementing QA in higher education, and integrate anticorruption training into professional development programs.

Recommended support through project operations. Include in project operations support to a series of regional and subregional workshops, and in-country professional development programs *linking training in QA procedures with training in anticorruption measures*. Where possible, undertake these project operations in collaboration with regional QA agencies.

Recommendation 2: Assist countries to assess the economic and social returns associated with different strategies for distributing support to higher education institutions

Rationale. Considerable efforts and resources are being devoted to fostering top-tier, world-class universities. Allocation of disproportionate resources to these top universities may inhibit the development of other important aspects of the higher education system. More clarity is needed concerning the returns to national economic and social development of concentrating higher education resources in top-tier universities.

Recommended actions. Assist governments and higher education leaders in assessing the trade-offs associated with developing "world-class" universities. Give particular attention to how such a strategy affects the growth and capacity of the wider higher education system.

Recommended support through project operations. Projects can sponsor *case studies* aimed at assessing the returns to national development of concentrating investment in top-tier universities versus the returns achieved through more balanced investment across the range of HEIs. In these aspects, projects also can support participation in regional and cross-border knowledge-sharing and capacity development events in *higher education planning*.

Recommendation 3: Improve the quality of institutional data, and the range of institutions from which they are collected

Rationale. Institutional performance is often linked to accreditation and resource considerations, but this strategy works only if the quality and comprehensiveness of institutional data are solid. But, as research has demonstrated, in some countries, entire categories of HEIs remain outside existing accreditation processes. In increasing numbers of public HEIs, "diploma," "executive," or "extension" programs generate significant income, which however, is not always fully or transparently accounted for.

Recommended action. Assist relevant ministries and/or agencies in widening the scope and reliability of accreditation procedures, including of "diploma," "executive," and "extension" programs, and associated issues of quality and transparency.

Recommended support through project operations. Projects should help strengthen the capacity of ministries and agencies in the *design and implementation of accreditation* in higher education. Projects can provide technical support and finance in-country workshops, participation in regional events, and study visits in this topic area.

Recommendation 4: Map student flows, and associated financial returns, more systematically within the region

Rationale. As the gap continues to widen between spiraling enrollment growth in regional higher education, and the capacity or willingness of the state to support such growth, both systems and institutions are increasing their efforts to recruit more fee-paying international students. But as research shows, we know too little about the regional dimensions of this phenomenon, how it affects the financing of higher education, associated transparency issues, and QA.

Recommended action. Assist governments and HEIs in assessing comprehensively student flows and associated financial flows.

Recommended support through project operations. Projects should help develop capacity for *measuring the extent of intraregional and extraregional student flows*, and associated financial flows. This will be useful in assessing the extent and impact of this growing, but too-little-understood, regional phenomenon. A targeted series of case studies, and associated capacity development workshops financed through projects at the national and institutional levels, could contribute most to advancing understanding of this complex phenomenon.

Recommendation 5: Enhance the effectiveness of equity measures by improving the evidence on which decisions are based

Rationale. The regional experience with student loans and other finance-linked equity measures has been mixed. Student loans often go to those who need them least, while leaving the needy bereft of support. Scholarships, always scarce, are not always awarded to those who would benefit from them most. This is partly because the evidence about applicants' income, upon which to make informed, accurate decisions, is often inadequate.

Recommended action. Assist governments and HEIs in improving procedures and data for strengthening equitable provision of higher education.

Recommended support through project operations. Operations can include pilot projects, working with national tax offices, banks, and social security agencies, to improve the quality and comprehensiveness of strategies for *assessing family financial need* and procedures for *targeting the provision of financial assistance*. Pilot projects might focus initially on industries wherein there is more confidence about income data. Lessons learned could lead to *training programs* for banks (which in some cases dispense and manage student loans), and ministry and institutional officials charged with implementing loans and scholarships.

Improving Administration and Governance in Higher Education

Recommendation 1: Assist governments and higher education institutions in sharing effective policies and practices that support the transition towards more autonomy

Rationale. Across the region, public HEIs are gaining increased financial, administrative, and curricular autonomy. The transition to greater autonomy often necessitates new policies, procedures, and practices, both in how government works with universities and in how universities manage their own affairs. While the degree of autonomy and the pace of the transition differ across countries, there is widespread interest among government officials, institutional administrators, and instructional staff in designing policies, monitoring their implementation, and evaluating their appropriateness. One way of helping both government and universities in this transition is to ensure that they have access to information, models, case studies, and expertise that can inform their thinking.

Recommended actions. Foster dialogue about different governance systems, and strengthen the capacity of both governments and HEIs to improve policy and practice for governance and administration in higher education.

Recommended support through project operations. Projects can help compile, disseminate and update *examples of effective practices* both for government and institutions, particularly with respect to resource and personnel management, and transformation processes. In these aspects, projects can sponsor participation of government officers and university leaders in national, subregional, and regional events aimed at sharing effective regional and international practices in these aspects.

Recommendation 2: Establish a regional database on effective practices in higher education governance

Rationale. Analysis of and case studies on higher education governance are not always easy for government and university-based practitioners to identify and retrieve. A considerable portion of potentially relevant material is found in project reports and institution self-studies with limited circulation, what some have described as "fugitive literature." Additionally some of the material that is available, while of high quality, may not be written at a level or in a style that is easily accessible to practitioners. One way of supporting the move toward greater autonomy is to make relevant resource materials easier to retrieve and easier to understand. At the same time, there is a need for an ongoing effort to capture new regional experience through targeted evaluations and case studies. Overall, the greater autonomy and accountability may take time to achieve as countries take different paths towards the transformation.

Recommended action. A more sustainable approach to help countries in the region to transform and cope with the impact of increasing institutional autonomy is to create a regional hub for information and resource sharing on governance and administration.

Recommended support through project operations. Projects can help the move toward greater autonomy by supporting countries to establish *national databases*. These would consist of details on types of HEIs; necessary legal amendments; steps to be taken at the institutional level; lessons learned from the transition; and information on key stakeholders and national, regional, and international experts in related fields (such as financial management, legal arrangements, and staff development).

Project support can be provided to establish a *regional hub* for information and resource sharing on governance and administration in higher education. The regional hub would support the establishment of and draw on the national level databases. Projects could support *existing regional networks in higher education development* to contribute to the regional hub and benefit from its implementation.

Promoting Greater Access and Equity in Higher Education

Expanded access is arguably the major accomplishment of higher education systems across Asia over the last 30 years. However, while access has expanded, equity has not. Moreover, the rapid expansion in access has put downward pressure on higher education quality in many countries. While continuing to expand access to higher education, governments recognize that they need to give increased attention to improving instructional quality. The challenge for both governments and HEIs over the coming decade is to better balance continued expansion of access with more effective means of ensuring equity and renewed attention to raising quality. Among the more important strategies for extending access to higher education have been the growth of private higher education, the use technology-based distance and online education to deliver instruction, and efforts to improve the quality and operations of second- and third-tier colleges and universities.

Recommendation 1: Find a more effective balance between continued expansion of access and renewed attention to improving instructional quality

Rationale. Expanding access to higher education continues to be a priority in many countries in Asia. However, that access is largely wasted if the quality of the subsequent education is low. Raising instructional quality is an important means of protecting the value of access to higher education.

Recommended action. Promote professionalism and instructional effectiveness of instructional staff.

Recommended support through project operations. Projects should support the creation and operation of university-based *faculty development initiatives*. These programs would focus on helping instructional staff improve their course design, pedagogical practice, and student assessment activities. One potentially useful strategy for support would be through *regional and subregional workshops* aimed at disseminating content and methods that could be used by these university-based centers.

Recommendation 2: Extend access in ways that promote better equity

Rationale. As noted earlier, while access has expanded, equity often has not. Universities are encouraged to ensure greater equity in the continued expansion of higher education access. To that end, universities are encouraged to develop an affirmative action policy for particular groups whose prior educational disadvantage is clearly identified. In some countries, the

need is for assistance in crafting the policy itself. However, in many countries, the challenge is to strengthen the implementation of policies that are already in place to ensure that higher education is inclusive, and to undertake programs that will help ensure that those who enter institutions through such policies are able to succeed. Only when patterns of student admission and allocation are thoroughly understood can policies and procedures be adjusted toward more inclusive admissions and financial support.

Recommended actions. Assist universities and governments in establishing comprehensive data on the patterns of admission and allocation of scholarships and loans by subgroups. Assist in improving policies for inclusive higher education and corresponding operational plans.

Recommended support through project operations. Projects should provide technical assistance and capacity development support for *analysis of patterns in the allocation of higher education admissions and financial support*, and for policy design and operational implementation in these aspects. In this topic area, projects can support in-country activities as well as participation of university and government personnel in subregional and regional events.

Recommendation 3: Support the development, use, and evaluation of information and communications technology in the delivery of university instruction
Rationale. ICT, particularly the use of online instruction, can be a strategy for expanding access to higher education at reasonably low cost. While there is enormous potential in using the Internet and the World Wide Web to spread higher learning, unreliable connectivity and low bandwidth, cost of appliances and connections, lack of skills to use these tools, and concerns about quality place a limit on the strategy. Some of these concerns can be mitigated through improving systematic instructional design, instructor training in the delivery of ICT-based instruction, and rigorous evaluation of student learning.

Recommended action. Help develop knowledge and skills of university instructional staff in online instructional design, delivery, and evaluation of ICT-based courses.

Recommended support through project operations. Projects should support in-country and subregional and regional training programs aimed at preparing university instructional staff in systematic online instructional *design, delivery, and evaluation of ICT-based courses*. The support can be provided directly and also jointly with regional organizations devoted to improving ICT use in higher education.

Recommendation 4: Support government and university efforts to develop funding models that support wider access to high-quality higher education
Rationale. Cost is a major constraint to wider access, both for potential students and for universities. Efforts to further expand participation will require additional resources that many countries are unable or unwilling to commit to this cause. Many countries have undertaken more aggressive forms of cost sharing on the part of students and families. Universities have undertaken cost-cutting measures that have sometimes had a negative effect on equity and quality. Governments and universities need better understanding of funding models that might allow wider access without sacrificing quality.

Recommended action. Assist in building knowledge and skills in the design and implementation of funding models that promote wider access to and greater quality of higher education.

Recommended support through project operations. Governments and universities must find their own answers to these questions. However, projects can help these efforts through the provision of technical assistance to support the needed in-country design work and through sponsoring participation of government and university personnel in subregional and regional workshops aimed at *sharing effective policies and practices* in this topic area.

Strengthening Private Higher Education

Recommendation 1: Support the development of national policies and regulations regarding the effective operation of private higher education institutions

Rationale. The growth and diversification of private higher education across Asia have yielded a variety of private universities that differ in mission and function. However, a large number of these institutions are relatively small, for-profit, and often of low quality. Given the importance of these colleges and universities in absorbing demand for access to higher education while also reducing the cost to government for higher education, it is important that they be successful. A key to this success is raising instructional quality and relevance of the education offered in private colleges and universities.

Recommended action. Assist the development of private higher education through actions to improve educational quality.

Recommended support through project operations. The action can be accomplished, at least in part, in project operations by sponsoring in-country, subregional, and regional workshops focused on *practical strategies for raising quality*. Relevant activities can include workshops on professional development of instructional staff, strategies for fund-raising, marketing, and the conduct of tracer studies of graduates to gain data needed to improve curricular relevance.

Recommendation 2: Support universities and national higher education systems in their efforts to strengthen quality assurance and accreditation procedures for private higher education institutions

Rationale. The rapid growth of private higher education in many countries has often led to downward pressure on instructional quality. Many countries across the region face problems of limited capacity and limited resources to regulate, monitor, and ensure the quality of private colleges and universities. Similarly, some countries still need to clarify and differentiate what indicators of quality should be used for different types of HEIs.

Recommended actions. Assist governments and universities in identifying and evaluating strategies for quality enhancement. Particularly, develop a resource center and database on effective practices in QA and accreditation that explicitly address the needs of private HEIs in the region.

Recommended support through project operations. Support will need to recognize that (a) governments' and institutions' approaches to QA are affected by political as well as by technical considerations, and (b) a number of regional organizations already offer assistance to governments and universities concerning issues of QA. Projects should be designed to *work with these organizations* to define a role that is supportive rather than duplicative and that expands opportunities for sharing of cross-border experience and perspectives.

The contents of the resource center could be developed through regional workshops designed around case studies of effective practices in the region, reviews of the wider international literature, and a roster of experts well qualified to provide assistance to colleges and universities seeking such help. This information can be disseminated through a series of *regional and subregional workshops*. For example, one set of workshops might examine the value of differentiated quality standards, rather than using a one-size-fits-all approach to quality. While it may be appropriate to use research productivity as an indicator of quality for top-tier universities, such indicators may not be appropriate for private teaching-oriented institutions. For those institutions, job placement of graduates and graduates' subsequent success in their work might be more suitable.

Recommendation 3: Assist governments and private higher education institutions in exploring alternative funding models for private higher education

Rationale. Private higher education faces issues of revenue generation and cost containment that, while similar, also differ somewhat from the issues facing public universities. For example, private university leaders are often caught between the need to invest in quality improvement versus ensuring a return on investment to owners and shareholders.

Recommended action. Assist government and institution-level leaders in exploring the options available to private colleges and universities for financing, expenditure tracking, and cost control.

Recommended support through project operations. Of particular value would be projects that help finance and implement workshops that offer opportunity for cross-border *sharing of strategies, policies, and procedures* that private colleges and universities have found to be effective in revenue generation and cost containment while ensuring quality. In addition, project operations can assist in strengthening private higher education by establishing a *repository of information* on policies, procedures, and experience related to financing and cost management in private higher education. Initially, projects could support a series of analytic papers and case studies aimed at capturing ideas and practices in individual developing countries in the region that could then be shared through a series of regional workshops. These workshops would have the dual purpose of disseminating the information from these analytic studies and creating a network of relationships among those involved in the operation of private higher education across the region. Project operations can further support the network to evolve to partnership models (as an initial stage for Recommendation 4).

Recommendation 4: Help create a system that brokers international partnership opportunities for private colleges and universities

Rationale. Cross-border collaboration in higher education is one way to infuse new ideas and introduce models of effective practices. As the majority of private HEIs are small and local in their reach, they often lack the knowledge base, networks, or experience necessary to form cross-border partnerships.

Recommended actions. Assist in identifying appropriate partners and helping institutions develop relevant partnership models and programs of collaboration.

Recommended support through project operations. Provide support to the development of a *repository of information* on institutions interested in entering into university twinning (or other types of) partnerships, the financial implications of the various partnership models, ways of designing partnership activities, and strategies for assessing the value of existing university

partnerships. These can be disseminated through a paper series, by online webinars, and as a component of regional workshops sponsored by projects.

Promoting Regional Cooperation and Cross-Border Collaboration in Higher Education

Regional and cross-border collaboration in higher education is an expanding trend. An increasing numbers of countries, particularly across Asia, are initiating and participating in regional cooperation and cross-border collaborations as a strategy for strengthening their higher education systems. In the past, these collaborations were most frequently structured as partnerships between Asian universities and universities in the United States, Europe, or Australia. That pattern is changing. Not only has the participation of universities across Southeast and East Asia in regional cooperation and cross-border collaboration grown dramatically over the last 10 years, but an increasing number of collaborations are among universities within the Asia and Pacific region. Thus, the dimensions of South-South cooperation are strengthening in higher education in the region.

Often these collaborations work to the advantage of each partner, but not always. As both the popularity of collaboration and the range of purposes, activities, and mechanisms being pursued through these partnerships have expanded, so too have the complexities. New models of collaboration, the expanding scale of use, changes in government regulations, and shifting economic circumstances converge to raise new issues for higher education leaders seeking to reap the benefits of regional cooperation and cross-border partnerships.

Recommendation 1: Provide a clearinghouse of information on models of regional cooperation and cross-border collaboration, and on regional experience with these models

Rationale. A substantial number of cross-border collaborations are already under way among HEIs in the region. Often, however, the experience gained from these activities is not captured in a form that can be easily shared. Higher education leaders have indicated their keen interest in being able to access such information.

Recommended action. Assist with sharing lessons and case studies of regional cooperation and cross-border programs in the region.

Recommended support through project operations. Projects can support HEIs experienced in collaboration to prepare case studies and share their experience with particular emphasis on *distilling lessons that could guide other universities* that are planning to pursue regional cooperation and cross-border collaboration partnerships.

The information and case study materials could be used for *national level capacity development activities* and also as reference material for regional workshops targeted at (a) universities assessing the feasibility and beginning to plan regional and cross-border collaborations for their own campuses, and (b) government officials involved in policy development and national oversight of collaborative arrangements among universities.

Recommendation 2: Develop and provide information and planning tools for use by university personnel in identifying appropriate collaboration partners

Rationale. Higher education leaders in the region are optimistic about the value of regional cooperation and cross-border collaboration but also have a concern about identifying and

linking up with international partner universities of high quality and integrity. They worry that the growth of collaboration programs could lead to exploitation of local universities in their countries. Asian university leaders are often aware of top international universities but may not be as familiar with high-quality but lesser known HEIs.

Recommended actions. Assist in sharing information on potential partner universities and help broker collaborative partnerships.

Recommended support through project operations. Projects could sponsor the development of *planning frameworks and other suitable tools* that universities in the region can use to assess (a) the potential and appropriateness of possible international partners, and (b) their own readiness to enter into an international collaboration partnership arrangement. Such an effort can help broaden the range of colleges and universities that leaders of universities in the region consider as appropriate partners, and vice versa.

Recommendation 3: Develop and provide information and planning tools for use by government personnel responsible for national oversight of regional cooperation and cross-border collaboration among higher education institutions

Rationale. An important dimension in designing effective regional cooperation and cross-border collaboration partnerships is the legal and regulatory frameworks that support such collaborations. Different legal and regulatory provisions across countries affect the operation and growth of international collaborative efforts. To this end, government officials need information on the legal and regulatory frameworks that have proven effective in supporting collaborative partnerships.

Recommended action. Assist countries in developing instruments and standards that support the design and implementation of collaboration activities across borders.

Recommended support through project operations. First, projects could provide technical assistance and sponsor activities for developing *qualification frameworks, credit descriptors, QA instruments, and minimum quality standards* in ways that would promote the flow of students and academic programs, and the implementation other collaboration activities across borders. Second, projects could sponsor activities that assist countries in *regulating cross-border supply of education* using electronic transmission. This could be achieved through the framing of appropriate legislation related to the recognition of degrees awarded through e-learning. Third, projects could sponsor *regional and cross-border meetings and symposia* that provide a mechanism through which countries can learn from each others' experience in these aspects.

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Higher Education in Dynamic Asia: Study Reports

The reports from the Asian Development Bank's regional study on Higher Education in Dynamic Asia provide an analysis of the issues facing higher education across Asia; suggest priorities among these issues; and offer detailed recommendations for the role that governments, higher education leaders, and other stakeholders and partners such as ADB could play in strengthening higher education systems and institutions in the region. Anticipated subsequent titles include the following:

Improving Instructional Quality: Focus on Faculty Development (2011)
This publication provides an analysis of key factors that can help strengthen the internal efficiency of higher education institutions in Asia. It focuses on differentiating institutional missions, improving the quality of teaching, creating a more positive institutional culture, and strengthening university-based research.

Counting the Cost: Financing Asian Higher Education for Inclusive Growth (2012)
The publication focuses on critical issues of financing higher education in Asia, including alternative funding sources; privatization of public higher education institutions, and financial consequences of the rise of private higher education; student loans; and lower cost strategies for delivering instruction. It provides evidence that a key priority to strengthen higher education finance is via effective implementation of quality assurance.

Regional Cooperation and Cross-Border Collaboration in Higher Education in Asia: Ensuring that Everyone Wins (2012)
An increasing number of countries across Asia are participating in regional cooperation and cross-border collaborations as a strategy for strengthening their higher education systems. Often collaboration works to the advantage of each partner, but not always. The publication analyzes the popularity of these collaborations and the range of purposes, and activities. As the collaboration mechanisms have expanded, so too have the complexities. Shifting economic circumstances converge to raise new issues for higher education leaders seeking to reap the benefits of regional cooperation and cross-border partnerships.

Improving Transitions: From School to University to Workplace (2012)
The publication explores the critical issues of alignment and relevance among schools, universities, and the labor market in Asia. It argues that incoming university students must be prepared, and thus school curricula need to align with university entrance examinations. Meanwhile, university curricula ought to correspond with market demands to increase the employability of graduates with the right skill sets for the workplace.

Private Higher Education Across Asia: Expanding Access, Searching for Quality (2012)
The publication focuses on the growth of private higher education in Asia. It provides a comprehensive analysis of the various types of private higher education institutions and their functions, and pursues timely perspectives, including implications for policy, quality assurance, and accreditation.

Access Without Equity? Finding a Better Balance in Higher Education in Asia (2012)
Although expanded access is the major accomplishment of higher education systems in Asia, equitable provision of higher education is a challenge. The publication focuses on improving access to higher education for students from marginalized groups, and on mainstreaming access and equity in national and institutional policies and strategies. In addition, it analyzes the expansion of higher education access and equity via the growth of private higher education and effective technology-based instruction.

Administration and Governance of Higher Education in Asia: Patterns and Implications (2012)
The publication discusses the types and functions of various administration and governance systems of higher education in Asia. It particularly focuses on issues of institutional autonomy, and implications for financing, quality assurance, and personnel management.

Higher Education Across Asia
An Overview of Issues and Strategies

Higher education (HE) is seen to have an ever more important role in human resource development and the movement of people, students, and the workforce in the region. The Asian Development Bank's developing member countries are increasing investment in HE to support social and economic development and growth. This publication discusses the issues and strategies for HE in Asia and why there is a need to invest in this subsector. It provides an overview on how governments, together with HE institutions and stakeholders, can improve HE through adequate policies and regulations, and how they can position their economies for further development.

About the Asian Development Bank

ADB's vision is an Asia and Pacific region free of poverty. Its mission is to help its developing member countries reduce poverty and improve the quality of life of their people. Despite the region's many successes, it remains home to two-thirds of the world's poor: 1.8 billion people who live on less than $2 a day, with 903 million struggling on less than $1.25 a day. ADB is committed to reducing poverty through inclusive economic growth, environmentally sustainable growth, and regional integration.

Based in Manila, ADB is owned by 67 members, including 48 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.

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