

Higher Education in South-East Asia



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PREFACE

South-East Asian countries share many commonalities, yet their political, cultural, socio-economic and environmental conditions are also rich in diversity. Likewise, higher education in the region stems from different historical backgrounds and has undergone various kinds of challenges and various stages of development. The rapid expansion of student enrolment, the knowledge explosion, advances in information and communication technology, globalization, economic restructuring, and financial constraints have all contributed to higher education reforms in these countries and resulted in varied outcomes. Based on a sense of “unity in diversity,” many higher education policy makers and practitioners in the region believe that their higher education systems can benefit from closer cooperation and exchange of lessons learned.

To facilitate and enhance this process of sharing and learning, UNESCO Bangkok and SEAMEO RIHED carried out a joint research study and seminar on “A Situational Analysis of Higher Education Reforms in South-East Asian Countries” in 2005. This collaboration reflects UNESCO Bangkok’s commitment to support educational development in the region, and SEAMEO RIHED’s dedication to foster higher education cooperation and development among South-East Asian countries.

The research used case studies from eight countries (Cambodia, Indonesia, Lao PDR, Malaysia, Philippines, Singapore, Thailand and Viet Nam) to provide an in-depth analysis of their higher education systems. The respective national researchers addressed several issues, including higher education reform, access and diversification; governance and management of higher education institutions; faculty and academic programmes; research capacities; private higher education; the internationalization of higher education; accreditation and quality assurance; and challenges for the future.

These case studies were presented to policy makers, university administrators and faculty members at the seminar held in July 2005. Based on the discussion, feedback and recommendations from participants, the case studies were revised and are now available in this publication.

It is a pleasure for UNESCO Bangkok and SEAMEO RIHED to present and share these findings with you. We would also like to express our gratitude to the organizers, authors, participants and other collaborators for their hard work in producing this book, which we hope will be used by many others in their efforts to develop and improve higher education systems in this region and beyond.

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HIGHER EDUCATION IN SOUTH-EAST ASIA: AN OVERVIEW

Molly N. N. Lee

Stephen Healy

INTRODUCTION

South-East Asia is a region of vast developmental diversity, from wealthy Singapore to the much poorer Greater Mekong Sub-region countries. This continuum provides a great opportunity for analyses of many themes and issues, for lessons learned to be shared across borders and for mutual cooperation to enhance the presence of South-East Asia within the global community.

Higher education is one area where people aspire to advance themselves. In South-East Asia, it started from different historical backgrounds and has undergone various stages of development. Similar to the situation in other parts of the world, it has, and still is, facing numerous challenges, including increasing student enrolments, knowledge and information overload, economic restructuring and financial constraints. Amidst such challenges, and changes, there is general consensus within the South-East Asian higher education community that closer cooperation is beneficial and, indeed, necessary to produce highly qualified graduates who can contribute to sustainable development and increase their competitiveness throughout the world. For constructive and productive cooperation, policy makers and practitioners must be well-informed about higher education development and trends in other countries so that they can convert such information into useful policies and practices within the confines of their national needs and circumstances.

To provide such an opportunity, UNESCO Bangkok and the SEAMEO Regional Centre for Higher Education and Development coordinated a research study to conduct a situational analysis of higher education development in eight South-East Asian countries, namely Cambodia, Indonesia, Lao PDR, Malaysia, Philippines, Singapore, Thailand and Viet Nam. Both organizations hope that these country reports will create an informed basis for higher education dialogue and exchange among the countries and beyond the Asia-Pacific region, addressing issues and challenges in the following areas:

- Higher education reforms
- Access to higher education
- Diversification of higher education
- University governance and management
- Restructuring of faculties and academic progress
- Developing research capacities
- Change to the academic profession
- Roles and function of private higher education
- Internationalization of higher education
- Accreditation and quality assurance
- Challenges and future developments

The reports analyze the challenges facing higher education in the region, and reveal an interplay between global higher education trends and national (and regional) needs and developments. This overview highlights some of the more significant trends and explores how they are being responded to in each case.

An Overview of Higher Education in South-East Asia

The analyses in the case study countries illustrate that higher education is greatly influenced by the countries' historical past, nation-building efforts, and current global trends. The differences in the region are significant, but also deceiving. At a superficial level, they range from geographical size, economic wealth, political ideologies, and educational traditions. For example, Singapore is an island state compared to Indonesia, which has a huge population and large geographical area. Singapore, Malaysia and Thailand are newly industrialized countries, whereas Cambodia, Lao PDR and Viet Nam are countries in transition (e.g. from an agricultural economy to an industrialized economy). All the countries except Thailand have a colonial history, and their education systems are very much influenced by this colonial heritage.

Among the less-developed countries in the region, higher education systems are chronically under-funded and face escalating demand, under-qualified academic staff and poorly planned curricula, thus poorly taught students. Many of these systems are undergoing restructuring against a national, regional and global backdrop of higher education reforms in areas such as funding, resources, governance and curriculum development.

Despite the diversity in the region, the higher education systems in South-East Asia face similar problems and challenges. All these systems have budgets to balance, standards to maintain, faculties to satisfy, and social demands to meet. Furthermore, all countries are united by facing similar domestic challenges that are increasingly influenced, distorted and determined by developments at the global level. One of the key developments in this regard has been the increasing growth of transnational education and cross-border exchange, as documented below and in the country papers.

Massification of Higher Education

One of the key and recurring developments and trends in higher education reform is the need to increase the overall access for university-age students. "Massification of higher education" reflects the global trend of improving higher education opportunities for all, and transforming higher education systems from being elitist to ensuring mass participation across different social, income and geographical groups. These massification programmes seek to serve student/professional groups who may not have the educational opportunities to undertake initial or further study and professional development at higher levels.

All the case studies experience greater participation in higher education and all reveal increasing numbers of students in higher education. Some countries have achieved significant increases in participation rates, and have also tackled social exclusion agendas, e.g. Malaysia. However, further challenges exist in matching increased provision with quality and in balancing the interests of the different suppliers of higher education as the private sector plays an increasing role.

An ever escalating demand for higher education brought about by population growth is augmented by the democratization of secondary education and the growing affluence of many countries in the region. At the individual level, higher education is perceived as an avenue for social mobility. At the national level, it is seen as a key instrument for human capital development to sustain economic growth as well as being a means to restructure society and to promote national unity. In addition, many countries stress the importance of higher education institutions in maintaining the countries' national competitiveness in a globalized knowledge economy, e.g. Thailand, Singapore and Malaysia.

Table 1 illustrates the university participation rates across the countries in the region as measured by gross enrolment ratios. They show differences in develop-

ment and participation that can be broken down into three groups: those with ratios of 30 percent and above (Singapore, Thailand and Philippines), between 10-30 percent (Malaysia, Indonesia, Brunei and Viet Nam) and below 10 percent (Myanmar, Cambodia and Lao PDR).

Table 1: Expansion of higher education as measured by gross enrolment ratios (%)

Country	1965	1975	1985	1995	2000
Singapore	10	9	12	34	n.a.
Thailand	2	4	20	20	32
Philippines	19	18	38	30	30
Malaysia	2	3	6	11	23
Indonesia	3	2	7	11	n.a.
Brunei	n.a.	n.a.	n.a.	7	14
Viet Nam	n.a.	n.a.	n.a.	4	10
Myanmar	1	2	n.a.	6	8
Cambodia	n.a.	n.a.	n.a.	2	3
Lao PDR	n.a.	n.a.	n.a.	2	3

Diversification of Higher Education

The massive expansion of higher education as highlighted above has led to a higher education sector that is differentiated by the type and variety of higher education institutions. Various types of higher education institutions with their respective missions or purposes to cater to the different needs of the diverse groups of students have emerged. This diversification, whether by funding or programme, has been central to how countries in the region have been able to expand and respond (or not as the case may be) to social and economic demands for higher education.

At its most simple level, diversification can be defined between public and private sector providers. Many countries witness the rapid expansion of the private sector, while there are other levels of differentiation that include traditional teaching and research universities, virtual universities, polytechnics, technical institutes, open learning institutes, and community colleges. Not only are there different types of higher education institutions in terms of focus and provision, there are also different types of private sector higher education providers, including those run by for-profit corporations, non-profit organizations and religious bodies.

Open and distance learning universities and regional universities have been established in many countries to make higher education more accessible to people, especially working adults and those in remote rural areas. This process has been crucial in widening participation and access to higher education in all countries in the region. The papers on Indonesia and Thailand provide particular detail on these processes and experiences.

Most countries have public and private universities, while Viet Nam has semi-public universities and Malaysia has universities owned by public corporations. Malaysia has university colleges (with limited number of faculties) and Thailand has Rajabhat universities (which used to be teacher training colleges). Several countries have community colleges, but Viet Nam has people-founded universities and colleges. Quite a number of countries, e.g. Malaysia and Viet Nam, have branch campuses from foreign universities.

A trend towards increased transnational education has also been noted, with Malaysia identified as one of the most developed and experienced in the region. Many countries in the region remain importers of cross-border education from advanced countries like Australia, UK and USA, but increasingly there are intra-regional cross-border activities as shown by the Malaysian and Singaporean provider activities in Thailand and Viet Nam.

Internationalization of Higher Education

Over the course of the last ten years, mobility of students and academics around the world has become commonplace. Student flows among countries in the region and beyond continue to rise. There are increasing efforts to match student mobility with support programmes for students and academics from countries that will benefit from the educational and cultural experience of overseas study and professional development programmes.

Worldwide growth of transnational education and the increasing development of foreign branch campuses have also revealed a trend whereby the educational values associated with higher education in developed countries such as USA, UK and Australia can be exported to give access to a new generation of students who may not be able to afford or obtain the scholarships necessary for overseas study.

Transnational education can be defined as any teaching or learning activity in which the students are in a different country (the host country) to that in which

the institution providing the education is based (the home country). This situation requires that national boundaries be crossed by information about the education, and by staff and/or education materials (GATE 1997).

Many countries in this region, such as Malaysia, Thailand and Viet Nam, are importers of transnational education from Australia and UK. This trend is forecast to grow: for example, the UK alone expects the demand for UK-sourced transnational education in Malaysia and Singapore to grow from 67,000 students in 2003 to 271,000 by 2020 (British Council 2005).

In importing transnational education on the one hand, countries such as Malaysia, Thailand and Singapore have also become exporters on the other by providing educational services to students from neighbouring countries and in setting up institutions across borders.

All three countries have national objectives to become educational hubs in the region. This strategy is most developed in Malaysia and Singapore, where active government support and incentives have been given to overseas providers to set up branch campuses in their countries, e.g. Nottingham University in Malaysia and the University of New South Wales in Singapore.

Internationalization not only includes international student mobility, but also mobility of academic staff, educational programmes and institutions. The UNESCO Convention of Studies, Diplomas and Degrees in Higher Education in Asia and the Pacific formulated in 1984 anticipated this trend and the need for accompanying support and recognition measures. The Convention aims to promote greater cooperation to support the educational development for students, researchers, academics and professionals through the mutual recognition of studies, diploma and degrees in higher education in the Asia-Pacific region. At the heart of the Convention is the creation of conditions to facilitate greater and smoother mobility for educational and cultural exchange. To date, 20 countries have ratified the Convention, reflecting the growing commitment and trend for internationalization and cross-border exchange of students and academics to support economic, social and educational development.

A key trend related to internationalization has been international mobility of leading academics and students to support the future capacity and development of local host institutions. For example, Singapore is "cherry picking" some of the best students, the best professors, the best institutions with the aim of them staying on to develop and build the international reputations of their institutions.

Nevertheless, not all cross-border activities are for commercial purposes. International development aid from more developed countries has supported countries such as Lao PDR and Cambodia in student fellowship and academic staff development programmes as part of wider strategic initiatives to develop the capacity of the higher education systems. Clearly the General Agreement on the Trades of Services (GATS) will have a direct impact and influence on the higher education policies and developments in the region.

Marketization of Higher Education

The rapid expansion of higher education and the rising unit cost has caused tremendous financial strain on many governments. The result has been the urgent need to seek other sources of funding and to restructure their higher education systems. The restructuring of higher education in many countries has involved the privatization of higher education, corporatization of public universities, implementation of student fees and formation of strategic partnerships between the public and private sectors in the provision of higher education. This has also led to the establishment of foreign providers through transnational education either as a market response or via pro-active government policy measures.

The drive of market forces in higher education has also led to more entrepreneurial universities which are seeking additional and new sources of funding through either traditional and/or innovative services. Thus, increasingly universities are aiming to market their teaching, research and other knowledge-based services, together with maximizing the commercial value of their physical assets, setting up commercial enterprises of their own, or joint ventures with the business sector.

The development of private higher education has helped expand enrolments in many countries. Private higher education institutions in the Philippines and Indonesia outnumber public providers and have been absorbing the growing demands and expectations of higher education from society. While private provision has been a long tradition in these two countries, it is a relatively recent development in Malaysia, Singapore, Cambodia and Viet Nam.

In Indonesia, the objectives of private higher education institutions are related to the traditional public service role, i.e. to meet excess demand. In some countries, private higher education institutions not only meet excess demand, but can also raise standards, and some are positioned to serve the elite who can afford it, e.g. De La Salle University in the Philippines, Monash University in Malaysia, and RMIT

in Viet Nam. Private provision also fosters the opportunity to diversify curriculum and instruction, e.g. in Malaysia, the language of instruction in the private sector is English instead of Malay, or it may lead to foreign degrees instead of a local degree; in the Philippines there are sectarian providers in the private sector which may have strong religious influence as well.

The papers present a number of policy issues for governments, such as determining the role of the state in the provision of higher education, the relationship between private providers and governments, and issues linked to monitoring mechanisms, accreditation of courses and quality assurance. Several countries like Malaysia, Thailand, and Cambodia have passed private higher education institution acts to regulate the provision of private higher education in their countries.

Institutional Restructuring

The growing internationalization and commercialization of higher education has significant implications for how higher education institutions are organized. The forces behind the continued drive towards autonomy and accountability stem from several factors:

- As higher education systems expand, they become more bureaucratic and regulated to ensure consistency in the management of higher education systems in the process. They also become more complex, creating a variety of institutions with different missions and scattered in different geographical locations, making it increasingly difficult for central management. Thus, a more decentralized management is needed to cope with these challenges.
- In adopting a neo-liberal ideology, many governments are reducing their public and social expenditure, which has resulted in drastic budget cuts in state funding to universities. To overcome these budgetary constraints, universities need to seek alternative sources of funding, and they are being given freedom to generate their own revenues through engagements in different kinds of market-related activities.
- As universities find themselves operating in a more competitive and market-oriented environment, they need to be flexible and able to respond quickly to market signals and pressures. Therefore, many academic leaders have started searching for ways to make their institutions more entrepreneurial and autonomous.
- As many universities continue to grow and expand with limited resources, their stakeholders, including the state, are becoming progressively concerned

with the quality of education they provide. Thus, universities are increasingly subjected to external pressures to achieve greater accountability for their performances, and encouraged to develop systems for self-evaluation and assessment.

The country studies have demonstrated a broad array of approaches in the restructuring of higher education institutions, and their experiences serve to highlight areas for sharing lessons learned and collaboration on what is clearly a common and global issue.

Trading Autonomy for Accountability

The relationship between higher education institutions and the state is largely dependent on the issue of autonomy and accountability. The global experience has revealed that the state and higher education institutions are constantly engaged in redefining their interactions and relationships, with governments demanding more accountability and the higher education institutions insisting on more autonomy. A significant global trend is an increase in institutional autonomy in return for more accountability. This trend can be seen in the South-East Asian region with the corporatization of public universities in Malaysia and Singapore, the establishment of autonomous universities in Indonesia and Thailand, and the prevalence of charter universities in the Philippines. Institutional restructuring has led to many changes in university governance and management.

Assuring the quality of education provision is a fundamental aspect of gaining and maintaining the credibility of programmes, institutions and national systems of higher education worldwide. The same is true in South-East Asia, and quality assurance is one of the prime concerns. Indonesia, Philippines and Malaysia have already set up quality assurance mechanisms to monitor their higher education institutions, and Cambodia and Lao PDR are in the process of setting up their own quality assurance and accreditation bodies.

Academic Restructuring and Strengthening Research Capacities

To enhance the quality and relevance of their academic programmes and to ensure cost-effectiveness, many higher education institutions in the region have undergone academic restructuring that may involve the merging of departments and faculties (e.g. Universiti Kebangsaan Malaysia), the establishment of niche

areas in Singapore (which has set up ten specialized research institutes for life science and information technology), the introduction of credit systems in Viet Nam and Cambodia, or the establishment of new departments for interdisciplinary and multi-disciplinary studies in Thailand.

Many countries in this region do not have very conducive environments for research, and in some countries there is hardly any research activity as a result of heavy teaching loads, lack of research funds, and lack of qualified researchers. In many instances, the academics are so poorly paid that they have to take on a second job. However, in the more developed countries like Singapore, Malaysia and Thailand, there have been significant scientific research contributions in areas such as marine biology, forestry, tropical medicine and agricultural crops such as rubber, cocoa, oil palm and rice.

Examples of innovative approaches to strengthen research capacities in universities in this region include the move towards setting up research universities in Malaysia, the setting up of specialized research institutes in Singapore, and the introduction of competitive research grants in Indonesia.

Changing Academic Profession

The global and local trends in higher education highlighted above present a number of challenges for the academics in higher education institutions. The changing external and internal environment places new professional demand and context on these academics, as highlighted below:

- *Subjected to more rules and regulations:* The emphasis on accountability has required academics to be subject to tighter fiscal control, to increase productivity, and to be governed by more rules and regulations as well as rigorous assessment procedures.
- *Pressure to raise funds:* The development of the corporate culture into higher education institutions has required academics to behave like entrepreneurs and to market their expertise, services and research findings.
- *Limited academic freedom:* Academic freedom in some countries remains limited with restrictions on what can be researched and what the academic community can relay to the public.
- *Delinking from civil service:* In the past, academics in this region have had both tenure and civil service status, but with the restructuring of higher education, they are now (or in the process of being) delinked from the civil service, e.g. Thailand, Indonesia, and Singapore.

Each country has its own particular challenges, ranging from the more advanced systems in Singapore (where academics are increasingly imported), to Thailand (where a traditional civil service status is now being transformed), to Laos and Cambodia (where more academic development and training is required).

Future Developments and Challenges

Future trends in the development of higher education in South-East Asia and other parts of the world will become progressively similar. They will include continuing expansion, the need to seek different sources of funding, and the growing diversity of higher education institutions. More calls for institutional autonomy, financial diversification and quality control in higher education will be made, as will demands from different social groups for access. Greater pressure will be exerted for relevance and flexibility in curriculum development, and for adaptability to changes in the society as a whole and in the workplace, in particular.

Universities throughout the world, including those in South-East Asia, will no longer be the sole producer and disseminator of knowledge amid the emergence of multiple competitors such as corporate universities, research institutes, industrial laboratories, think tanks and various kinds of consultancies. Greater cross-border provision through transnational education expansion and the concentration of research expertise and funding will ensure that this area will continue to be of interest and concern to higher education providers and policy makers.

Universities have a role to play in promoting inclusive multiculturalism and universal values. This has become even more significant given the greater polarization of communities and religions around the region and the world. Student and academic mobility and exchange can serve to share a greater sense of cross-cultural understanding and tolerance.

South-East Asian higher education institutions, like their counterparts in other regions of the world, face multiple challenges. How well they redefine and reinvent themselves to suit the changing societal needs in the era of globalization is critical for their development and future. The country papers serve as a baseline for discussion and a shared understanding of issues in the region. This report will be useful in supporting greater cooperation and collective effort in tackling the challenges of making higher education more relevant and competitive within the global knowledge economy.

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CAMBODIA

Chealy Chet

OVERVIEW OF HIGHER EDUCATION DEVELOPMENTS

Background

Unlike many developing countries during the 1970s, Cambodia did not experience an increase in the quality and quantity of higher education but, rather, an unprecedented loss of human resources. Even before the advent of the Khmer Rouge, it is estimated that 500,000 people were killed and perhaps half of Cambodia's educational facilities were destroyed in the bombing and fighting between 1970-1975 (Duggan 1997).

Following 1980, Cambodia made some gains in primary education with assistance from the former Soviet bloc. Nevertheless, higher education benefited little from this effort, and the embargo against assistance to Cambodia by the United Nations from 1979-1989 prevented many other countries from giving direct assistance to Cambodia. Thus, the present weakness of the higher education system in Cambodia is the result initially of the genocide of 1975-1979, followed by the long-lasting civil war, conflicting political ideologies, social unrest, and uncoordinated economic reforms. Some efforts have been made by the Royal Government and citizens of Cambodia to re-develop the educational system, but a lack of human and financial resources has made it a hard journey back to parity with other countries in the region. This analysis presents the existing reality of higher education in Cambodia and, to some extent, explains the reasons that both created and now sustain this reality.

Higher Education Reform and Developments

The process of higher education reform in the 1990s saw the emergence of some key reports from major donors, such as UNESCO, the Asian Development Bank and the World Bank. All of these reports highlighted similar issues and challenges, namely the need for reform of academic programmes to meet social and market needs; the urgent need for faculty and staff development matched with pay increases for high-quality lecturers and staff; and the reform of financial and managerial structures in higher education institutions. *The National Higher Education Task Force*, supported by the World Bank, along with bilateral aid from the United

States and Australia, laid out the foundations for how to make some of these changes, but it was issued at a time of intense political confrontation in Cambodia, and relatively limited steps were taken to implement the recommendations of the report. Some of the recommendations remain valid whilst others are no longer meaningful.

Modern higher education in Cambodia is a relatively recent development (Chamnan and Ford 2004). The first modern university, the Royal University of Phnom Penh, was established in 1960. Until the mid-1990s, the state remained the only provider of higher education in the country under a tuition-free system. The situation began to change as a result of the shift towards a more market and skills-based economy. Charging fees to generate income in higher education institutions was first permitted in 1997. A significant number of private institutions have been established since then, and public institutions have also introduced fee-paying courses which have attracted students (O'Brien 2004).

The political platform of the third mandate of the Royal Government sets forth a common national vision and mission statement as well as embodying the will of the Government (Hun Sen 2004). To achieve this national vision, the Royal Government launched "The Rectangular Strategy" for growth, full employment, equity and efficiency in Cambodia. The Rectangular Strategy is exemplified through the visual representation of an integrated structure of interlocking rectangles, each signifying a development goal. Of particular note, rectangle four of the strategy focuses on capacity-building and human resource development where clearly there is an important role for higher education services¹.

The current pro-poor policy of the Royal Government has created a more favourable environment for the Cambodian labour force. Entrance into the World Trade Organization in 2004 has created expanding market opportunities, while private participation in the higher education sector aims to create skills and knowledge which will serve the changing labour market of the country. However, there is a risk of the private sector focusing on the short-term and neglecting the long-term needs of the country. There are many examples around the world where some professions needed for social and national development are neglected in order to serve what are often short-lived global market forces. Additionally, rapid expansion of higher education without sufficient quality assurance systems in place can lead

¹ Detail in address by Samdach Hun Sen, Prime Minister of the Royal Government of Cambodia on "Rectangular Strategy" for Growth, Employment, Equity and Efficiency in the first cabinet meeting of the third legislature of the national assembly at the Office of the Council of Ministers, Phnom Penh 16 July 2004.

to the creation of institutions of dubious quality weakening the whole system. Cambodia is currently exposed to both of these dangers.

The Royal Government's policy at the macro level has created a new development and management atmosphere for the higher education sector in Cambodia. Starting from a system with significant fragmentation in policy and programme coordination shortly after the collapse of Khmer Rouge regime in 1979, the Royal Government has put in place several regulatory reforms to direct the mushrooming growth of higher education toward a more manageable process which will better serve the needs of the nation. However, some donor agencies and higher education consultants are concerned that unplanned changes within the sector are producing more graduates than the economy can absorb and that graduate skills are not matched to the needs of the country (O'Brien 2004). The present reality is further complicated by a lack of clarity about who is directing reform and in what areas. As a result, inevitable misunderstandings occur among the various players in higher education, and universities get caught in the middle. It is hoped that this is a transition period and the new education law, due for passage in 2006, will clarify responsibilities.

The basic landscape for current Cambodian higher education is a mixture of three stages of higher education evolution, namely: institutional build-up, system integration, and reform and massification. This is a result of the economic policies driving the transition to a market economy, significant growth in the demand for higher education and ambiguities on higher education regulation and operations.

Access to Higher Education

A student's pathway to tertiary education in Cambodia is simple but rigid. The primary access route is by way of successful completion of Grade 12 in upper secondary school. The second route is the successful completion of an associate degree. These two routes have become the only pathways to tertiary education in the country. Without the certificate of Grade 12 or an associate degree, no one is permitted to enter tertiary education. Recognition of Prior Learning (RPL) is totally absent in Cambodian higher education. As a consequence, the Ministry of Education, Youth and Sport recognizes that by international standards, participation in higher education in Cambodia is low at 402 per 100,000 people. Further, there are significant urban/rural and gender disparities in current enrolment patterns. For example, 45 percent of students in public institutions come from Phnom Penh and around 40 percent come from the more urbanized provinces.

Even though statistics gathered by the Department of Higher Education show a number of remarkable achievements, the accuracy and reliability of the numbers related to student enrolment in the higher education system still need improvement. Estimates suggest that the total enrolment in academic year 2003-2004 was around 55,000 students. Yet, Sloper (2004) points out several factors that may help to explain or compound apparent statistical discrepancies in higher education enrolment.

1. A student may concurrently undertake two or more degrees full time. This is possible because the low quality of many programmes does not require the student to do much research or reading outside of class time, or undertake significant laboratory work in the case of science degrees. In 2004, the estimate of duplicate/parallel enrolments was between 9,000 and 11,000. To resolve this issue, the Ministry of Education, Youth and Sport is considering the establishment of a central admission unit as an affiliation of the Department of Higher Education. Expansion of quality assurance efforts will also improve the quality of the programmes, ensuring that higher education programmes can and do meet international standards for credits, assessment procedures and graduation requirements.
2. Some scholarship and fee-paying programmes are operated in parallel by public higher education institutions. One person who represents two enrolments may be both a scholarship and a fee-paying student. Most often, a student combines a fee-paying English language course and a free subject course, such as chemistry. It is worth mentioning here that some Cambodian public higher education institutions introduced fee-paying programmes as commercial arms to earn additional income. There is limited government support for public higher education institutions except for the very low government salaries, so for books, materials, add-on salaries as incentives for good teachers, reasonable office staff and capital and recurrent maintenance, the higher education institutions have to look elsewhere. Plans in 2005 included block grants for public higher education institutions which serve the public need by preparing teachers/medical workers, sociologists, psychologists, and others (Education Strategic Plan 2006-2010). This financial help will relieve some of the burden of cost recovery for the public schools and enable them to train and retain high quality staff.
3. All students are deemed to be full time including some senior officers of the Royal Government of Cambodia in full time employment who are enrolled in doctoral programmes.

4. One estimate is that about 20,000 higher education enrolments are in business management, computing and related studies. Programmes and subjects available in Cambodia are mainly demand-led and tend to focus on perceived earning capacity of the degree and are as a result narrow in subject provision.

HIGHER EDUCATION REFORMS AND REGULATIONS

Reform Efforts

In response to the economic and political shift which took place in the early 1990s, Cambodia has undertaken significant transformations in its tertiary education system, including changing the pattern of financing and governance, growing institutional differentiation, creating evaluation and accreditation mechanisms, curriculum reform, and technological innovations.

Finance is a very significant issue, especially for public institutions. As a result of the low salaries and no direct government support for non-salary items for higher education institutions, decisions have to be made between moving into full-cost sharing by students as recommended by Zhang (1997) or clarifying and increasing government subsidies. To make these decisions, leaders of institutions need to be well-prepared and capable in a number of areas. These include the ability to expand partnerships with domestic and international institutions, training and financial incentives for faculty, expanding fund-bearing research projects, convincing the Government of its needs and creating programmes that students will be willing to pay for. At present, there is no application process or public criteria for leadership posts in public institutions. Changing governance and finance may remedy some of these gaps and provide the incentives for the necessary leadership requirements for higher education institutions to be developed.

Accreditation is already changing the face of the institutions as they begin new foundation studies departments to take the first step towards accreditation. With the publishing of the standards paper from the Accreditation Committee of Cambodia, higher education institutions will have to begin a self-evaluation process. This presents an open door for the change and a chance to implement some of the future directions recommended by the various studies of the multilateral agencies in the 1990s.

Within the last decade, some higher education regulations have been passed and, when fully implemented, may prove to be instruments for effective and efficient development and management of the higher education sector in Cambodia. These regulations include:

- Royal Decree on Accreditation of Higher Education
- Sub-decree on University Establishment
- decision on a required programme of foundation study at all degree-granting higher education institutions
- decision on credit and credit transfer system
- draft of the new education law
- draft of the establishment of public higher education institutions as public administrative institutions

This sequence of regulatory reforms clearly attempts to move Cambodian higher education towards the level of quality needed by the new labour market, as well as bringing Cambodia into some parity with regional and international standards. This systemic regulation and improvement of quality is taking place at the same time as enormous institutional expansion and massification, with new universities being established in the capital and major regional centres. These developments make the enforcement of regulation both challenging and complex.

A new body that has emerged as a consequence of the recent reform is the Accreditation Council of Cambodia (ACC). The Ministry of Education, Youth and Sport in its draft educational law also advocates the establishment of a National Council for Education. If the law is passed, a new organizational body will establish the hierarchy of educational management at four levels, namely national, central (ministerial), provincial (including town and district), and local school levels.

Cambodia is attempting to integrate its education system and avoid further fragmentation through the above reforms. At present, higher education services in Cambodia are delivered by a number of government and private ministries and agencies with limited coordination at national policy level. Thus, a national law mandating coordination will serve to coordinate and bring the service into a coherent whole. This requires high-level political will and collaboration among the various actors in both the private and public sectors. This kind of collaboration has not been common in Cambodia in the recent past. A report prepared by Macpherson (1996) for the National Higher Education Task Force offered insights into how a National Higher Education Commission might work.

The Current Regulatory Picture

Under the current regulation, the Royal Government has distinguished a university from other types of higher education institutions based on the rule that a university is required to have the following minimum characteristics²:

1. Offering multi-disciplinary fields of study from bachelor degree onward, with several faculties
2. Offering a foundation study programme
3. Offering teaching and research activities using modern methodologies
4. Having sufficient teaching staff with competency and experience
5. Having adequate library, laboratory, materials and other facilities to carry out teaching-learning and research
6. Having space and classrooms compliant with pedagogical norms
7. Having three mandatory faculties, namely i) Arts, Humanities and Language; ii) Mathematics and Science; iii) Social Science, and at least 2 additional faculties

Although some steps toward system integration have begun, Cambodian higher education at a glance reveals it to be relatively fragmented. There are no less than nine government ministries and agencies providing higher education services in the country. These ministries and agencies are:

1. Ministry of Education, Youth and Sport
2. Ministry of Labour and Technical Vocational Education and Training
3. Ministry of Health
4. Ministry of Agriculture, Forestry and Fisheries
5. Ministry of Culture and Fine Arts
6. Ministry of Economy and Finance
7. Ministry of Religious Affairs
8. Ministry of National Defence
9. Office of the Council of Ministers

All the above-mentioned parent ministries and agencies offer various types of higher education services, starting from post-secondary education to doctoral programmes. Table 2 presents all parent ministries and the number of higher education institutions under their supervision, with more details being provided in Appendix 1.

² See for detail in Sub-decree No. 54, Criteria for Establishment of University, dated 13 June 2002.

Table 2: Distribution of higher education institutions by parent ministry and agency

Parent Ministry/Agency	No. of Institutions	
	Public	Private
Ministry of Education, Youth and Sport	7	30
Ministry of Labour and Technical Vocational Education and Training	4	0
Ministry of Health	1	0
Ministry of Agriculture, Forestry and Fishery	3	0
Ministry of Culture and Fine Arts	1	0
Ministry of Economy and Finance	1	0
Ministry of Religious Affairs	1	0
Ministry of National Defence	2	0
Office of the Council of Ministers	1	0
Total	21	30

It is also observed that there are two different but inter-related streams within the current system. The first stream is the academic stream, which is mainly under the guidance of the Ministry of Education, Youth and Sport. The other is the professional stream, which is under the leadership and responsibility of the newly established Ministry of Labour and Technical Vocational Education and Training. Operational scope, roles and functions of the two ministries need to be clarified due to the desire of the new Ministry of Labour and Technical Vocational Education and Training to provide higher education services.

The Ministry of Labour and Technical and Vocational Education and Training was established in 2004 as a major development response to the growing demand for a skilled labour force in Cambodia. This stream is more flexible and responsive to the demands of the labour market than the academic stream. Higher education institutions under this vocational stream are excluded from this study. Before the establishment of this ministry, technical and vocational education and training was a part of the assignment of the Ministry of Education, Youth and Sport. The growing role and scope of technical and vocational education and training in the Cambodian economy encouraged the Government to expand it into a separate ministry.

The recent regulatory reforms and the current status of higher education have created a new operational landscape for Cambodian higher education. From solely doing evaluation from a quantitative perspective, the focus is now looking at the

qualitative perspective. Cambodia needs to expand the higher education system, but it cannot afford to increase the number of low-quality and single-focus training schools which call themselves universities. Thus, the Ministry of Education, Youth and Sport, as well as the ACC, will look at quality assurance as the next step in higher education reform.

ISSUES IN HIGHER EDUCATION

Types of Institutions, Delivery Mode and Capacity

There are 51 higher education institutions in Cambodia. These institutions basically fall into three categories:

- The first category is the academy. These institutions are given an assignment to carry out research and fulfill a think tank role for the nation. There is only one academy in Cambodia, the Royal Academy of Cambodia (RAC), which is an affiliate of the Office of the Council of Ministers. Although the Academy was created for research, the RAC provides advanced degree programmes. The training available at the RAC aims to form qualified research teams of various specializations for the RAC itself. Training programmes range from master to doctoral degrees. To date, there has been no evaluation of this institution.
- The second category is university³. Twenty-six institutions operating in Cambodia at the time of this research are universities. Eight of them are government funded. The remaining 18 are privately funded. Five of the public universities are under the supervision of the Ministry of Education, Youth and Sport. Each of the remaining three universities is under three different government ministries: Ministry of Agriculture, Forestry and Fishery; Ministry of Health; and Ministry of Culture and Fine Arts. All of the private universities are under the supervision of the Ministry of Education, Youth and Sport (see Appendix 1).
- The last category is an institute or independent school. It mainly carries out training in a particular field but does not offer a wide range of research or training in multi-disciplinary subjects. Twenty-four higher education institutions in Cambodia are institutes or independent schools. Twelve are publicly funded while the other twelve are privately run and funded. The public institutions are under the supervision of six government ministries. Of these,

³ See earlier section for basic requirements to be a university.

four institutes are under the Ministry of Labour and Technical Vocational Education and Training; two are under the Ministry of Education, Youth and Sport; two under the Ministry of Agriculture, Forestry and Fishery; two under the Ministry of National Defence; one under the Ministry of Economy and Finance; and one under the Ministry of Religious Affairs. All the private ones are under the supervision of the Ministry of Education, Youth and Sport (see Appendix 1 for details).

With few exceptions, all types of higher education institutions in Cambodia provide traditional face-to-face delivery. All Cambodian higher education institutions are conventional, with either limited or no virtual learning services. Distance education is only an emerging concept and is not in practice in Cambodia, although a few institutions are beginning to explore the possibility of providing these educational services. However, the number of Cambodian students taking distance learning programmes offered by foreign providers is increasing rapidly because foreign advanced degrees are perceived to have greater value than those acquired domestically.

Changes in University Governance and Management

The quality of education and the effectiveness/efficiency of a higher education institution partly depend on its management mechanisms. An on-going argument concerning university governance and management in Cambodia revolves around the degree of autonomy possessed by each university. In recent years, a number of changes in university governance and management have been observed in Cambodia, some for the better and others not so useful. An example of a positive change is the decision by the Government to create public higher educational institutions as public administrative institutions giving them higher levels of autonomy. An example of a less positive change is the method of management and staff appointments – generally these appointments are made by the Government without open application, evaluation of competencies and input from the institution in question.

The Royal Government of Cambodia has progressively delegated management authority to university level starting from the granting of Public Administrative Institution (PAI) status to a few of the government-funded universities. In the academic year 2004-2005 there were three public funded universities enjoying PAI status:

1. Royal University of Fine Arts
2. University of Health Science
3. Royal University of Agriculture

With this status, a university has more authority to manage itself under the direction of a governing board rather than under direct supervision of a parent ministry.

Currently the Ministry of Education, Youth and Sport is preparing to grant PAI status to several universities under its supervision. This move is clearly a positive step towards greater autonomy at the institutional level. Universities to be granted PAI status in the near future are likely to be Royal University of Law and Economics and National University of Management. These institutions will then be required to select governing boards and make their own decisions regarding academic and financial matters, something quite new to Cambodian education.

Despite the positive moves towards a higher degree of freedom in administrative-related matters as described above, higher education institutions in Cambodia are mandated to carry out training and research only. Pich (1998) points out that, in general, degrees are conferred by institutions and approved and signed by the Ministry of Education, Youth and Sport⁴. At the time of writing, no university diploma in Cambodia is valid without the signature and stamp of its parent ministry. Delegation of authority to higher education institutions to confer degrees to their students without the signature from the ministry on the diplomas is still under debate in Cambodian higher education. The stamp of approval, which reflects and reinforces the hierarchical culture prevalent in Cambodia, has been hard to change.

Restructuring Programmes and Faculties

The Royal Government of Cambodia has been undertaking massive reform in education to better match educational programmes with labour market demand. With regard to higher education, one observes several changes as a result of programme restructuring. First is the introduction of Foundation Year Study as a significant step in academic programme reform of Cambodian higher education. Commencing from academic year 2005-2006, all undergraduate students have to take a foundation year programme. The programme attempts to give students a broad knowledge base of the four major fields of study, namely (i) art and humanity;

⁴ In cases where the Ministry of Education, Youth and Sport is the parent ministry.

(ii) mathematics and science; (iii) social science and (iv) foreign languages. According to unpublished data available from the ACC, almost all higher education institutions in the academic stream are willing and ready to offer the foundation studies programme to their first-year students as evidenced by the submission of the curriculum of Foundation Year Study for approval by the Committee. Almost all higher education institutions have complied with the law and the programmes began in September of 2005.

Second is the implementation of a credit and credit transfer system in the Cambodian higher education system. The previous year-based system has now been replaced by an academic credit system to facilitate student mobility amongst academic institutions and to help part-time students in accumulating credit units. Even though designing the regulations on credit and credit transfer has been completed, the lack of capacity and understanding of the concept amongst higher education institutes has slowed implementation. Supporting guidelines, training and coordination need to be developed, and schools need to collaborate closely for the credit transfer system to be effective and benefit the students.

Strengthening Research Capacities

Research is still in the dark ages for Cambodian higher education. The government budget allocated for research activities in public higher education institutions is generally non-existent. Research activities in some major universities such as the Royal University of Phnom Penh, the Royal University of Fine Arts, and the Royal University of Agriculture are possible only through assistance from foreign donors and partners, while they are practically absent in private higher education institutions. However, few private higher education institutions have diversified their services by providing consultancy in certain fields.

In general, research capacity has been an under-developed area in both private and public higher education institutions. This may be linked not only to the inadequacy of the budget, but also to the lack of supporting infrastructure such as copyright regulations, research facilities and laboratories of necessary size and scope. Chamnan and Ford (2004) also indicate that the poor research capacity and record may stem from deeper cultural traditions in Cambodia, including the historically hierarchical culture in which children are taught by rote and also taught not to question parents, teachers or any other authority figures. It is not “polite” to question others, and questioning is the essence of research at all levels. There is also a lack of stimulating reading materials for children in the Khmer language,

and libraries are only a relatively new addition to some urban and semi-urban schools.

Yet, despite the weakness of research at the university level, the Ministry of Education, Youth and Sport shows some desire to move ahead with research development by establishing two research departments: the Scientific Research Department and the Pedagogical Research Department, which are both coordinated at the ministerial level. Although these two departments have very limited scope and capacity, their existence shows significant recognition of the importance of stimulating research activity by Cambodian policy makers. However, achievement in doing research is still limited and needs much improvement. The same situation is found in other ministries that are responsible for tertiary education. Those that undertake research have it done at the ministerial level and with great assistance from foreign counterparts.

Role of Private Higher Education Institutions

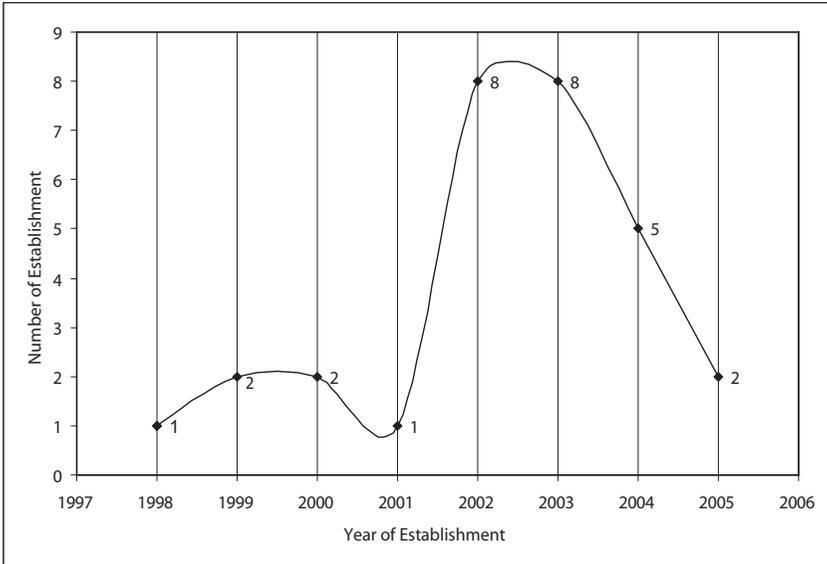
Norton University was inaugurated in 1997. Private higher education institutions were totally absent from Cambodia until the advent of a new government policy in favour of private participation in economic development, private higher education institutions have increased dramatically and are now the major providers of higher education in the country. Sloper (2004) indicates that in 2004 some 83 percent of total higher education enrolment is through private and fee-paying programmes.

Amongst the 51 higher education institutions in Cambodia, 21 are public and the remaining 30 are private. In addition to Norton University, some other early private investments in higher education include the Institute of Management Science in 1998 (formerly Washington DC Institute, Battambang); the Institute of Technology and Management; and the International Institute of Cambodia established in 1999.

The years 2002-2003 were booming for private investment in Cambodian higher education. Sixteen higher education institutions were established within these two years. Figure 1 illustrates the growth of private higher education institutions. The emergence of diverse private higher education institutions has presented the country with both threats and opportunities. In less than ten years of private higher education, the Cambodian higher education system now hosts various types of local and foreign providers as well as for-profit and non-profit providers. There are many weaknesses in this kind of rapid and uncontrolled expansion, and

one of the major weaknesses is the distribution of higher educational services within the country. Amongst all higher education institutions established by 2004, only one public university was located outside Phnom Penh, the capital city of Cambodia.

Figure 1: Distribution of private establishment by year



Quality Assurance

In March 2003, Royal Decree No. NS/RKT 03/03/129 visualizes on improvement of the quality of higher education through establishing the ACC. According to the Decree, it is mandatory that all higher education institutions, local and foreign, operating in Cambodia obtain accreditation status from the ACC in order to confer degrees. The official establishment of the ACC is a new feature in the landscape of Cambodian higher education. To assure the quality of higher education, Cambodia will practice institutional accreditation by looking at nine areas that are believed to be major quality indicators at institutional level. These aspects, commonly known in Cambodia as the quality standards, are:

1. Mission
2. Governing structure, management and planning
3. Academic programme

4. Teaching staff
5. Students and student services
6. Learning resources
7. Physical facilities
8. Financial management and planning
9. Dissemination of information

It is worth noting that ACC, the central player in guaranteeing quality assurance, is younger than most of the Cambodian higher education institutions. It is generally accepted that without greater commitment from all stakeholders, it will be hard for the embryonic ACC to carry out its mandatory duties in assuring and monitoring the quality of higher education throughout the country. Within the early years of its existence, the ACC gained both technical and financial support from the following foreign countries and international agencies:

1. India: National Assessment and Accreditation Council (NAAC)
2. Thailand: Commission on Higher Education and Office of National Education Standard and Quality Assurance (ONESQA)
3. Malaysia: Ministry of Higher Education, National Accreditation Board (LAN)
4. America: Fulbright Senior Specialist Programme
5. Asia Pacific Quality Network (APQN)
6. The World Bank
7. Japanese International Cooperation Agency (JICA)

INTERNATIONALIZATION OF HIGHER EDUCATION

Academic Mobility

As the world economy becomes globalized, Cambodian higher education also must begin to integrate itself into regional and global academic settings. Both public and private higher education institutions are improving themselves through partnerships with foreign counterparts. The mutual flow of Cambodian academic staff and partners in research and development is very clear. For example, Royal University of Phnom Penh, the largest and oldest higher education institution in the country, has academic partnerships and cooperation with 29 foreign universities and about 40 international organizations across the globe. It also has technical assistance in many departments that assists the University in developing new curricula and promoting new teaching methodologies. Academic staff exchange is not exclusively under the umbrella of formal agreements with these universi-

ties⁵, but also through connections made across the globe in the form of exchange scholars, project partnering, research sharing and conferences in the region and elsewhere.

However, hosting foreign students is one of the more under-developed areas in Cambodia's higher education sector. According to statistics given by the Ministry of Education, Youth and Sport, there were only 51 foreign students studying in Cambodia in 2003-2004. All of them are enrolled in Khmer language courses (Cambodian official language). The students were from Viet Nam, Lao PDR, Japan, Korea, and Italy.

International exchange of various kinds takes place in the Cambodian higher education sector. Student and staff exchange are the main types of cross-border higher education. However, some branch campuses of foreign providers and twinning programmes are beginning to be established with leading higher education institutions in academic cooperation with foreign universities include Royal University of Phnom Penh, Royal University of Law and Economics, National University of Management, and the Institute of Economics and Finance. It should be noted that foreign providers are subjected to the same accreditation regulations that apply to local institutions.

Recognition of Academic and Professional Qualifications

Cambodian higher education has strong mutual academic recognition with former socialist states. In 1988, the country signed a protocol with the government of the former Soviet Union concerning the recognition and equivalence of degrees, diplomas and certificates granted by institutions of both countries. Similar protocols of recognition and equivalence of degrees, diplomas, and certificates were signed in 1989 between the Government of Cambodia and the Governments of Lao PDR and Viet Nam. Cambodia is a signatory of the UNESCO Regional Convention on the Recognition of Studies, Diplomas and Degrees in Higher Education in Asia and the Pacific (SEAMEO RIHED 1998). Recent changes in Cambodian social, economic and political life demand that Cambodia be a part of larger organizations and adhere strictly to the laws governing these institutions, e.g. the World Trade Organization. Many laws are passed in Cambodia, but implementation and adherence are complex and challenging in a country where legal and judicial reform is constantly developing.

⁵ See for detail in Handbook 2002-2004 of the Royal University of Phnom Penh.

CHALLENGES AND PROSPECTS

Cambodian higher education, despite the tremendous amount of effort made by the nation, still needs further improvement to be known and recognized regionally and internationally. As mentioned earlier, Cambodian higher education has gone through different ideologies, including French, Russian, Vietnamese and most recently Western. It is hard for a young system to stand on its own with a national identity while human and financial resources remain insufficient.

The central debate here is whether the system can respond to the needs of students and society and also satisfy the dramatic changes in the labour market. Chamnan and Ford (2004) suggested a conceptual framework consisting of five institutional factors through which we can analyze the situation in Cambodia's higher education system, namely:

1. Clarity of goals
2. Sufficiency of understanding and acceptance of the needs for reform
3. The fact that teachers are products of the system in which they work and in which change is being made
4. The degree of professional engagement of teachers leading to knowledge and practices being taught
5. The degree of teacher effectiveness and adaptability

The imperative is to expand the higher education system. While the system itself is still fragmented and financially constrained, complications and challenges are likely to arise for Cambodia. The current policy is to encourage increased private sector participation to lessen the burden placed on the Government. It is hoped that with private sector participation, market forces can generate the expansion needed, as well as be more responsive to the demands of the economy. But evidence elsewhere has shown that market-driven higher education does not necessarily lead to higher standards of quality in education (Chamnan and Ford 2004). Thus, if private participation in higher education is the trend, more coordination at the policy and implementation levels is needed to ensure that the outcome is not just greater access to higher education, but also better higher education that allows Cambodia to take its rightful place among the emerging nations of South-East Asia.

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Appendix 1: Name, type of higher education institution and parent ministry

No.	Higher education institution	Type	Parent ministry/Agency
Academy			
1.	Royal Academy of Cambodia	Public	Office of the Council of Ministers
University			
1.	Angkor University	Private	Ministry of Education, Youth and Sport
2.	ASEAN University	Private	Ministry of Education, Youth and Sport
3.	Asia-Europe University	Private	Ministry of Education, Youth and Sport
4.	Built Bright University	Private	Ministry of Education, Youth and Sport
5.	Cambodian Mekong University	Private	Ministry of Education, Youth and Sport
6.	Cambodian University of Specialties	Private	Ministry of Education, Youth and Sport
7.	Chamroen University of Polytechnics	Private	Ministry of Education, Youth and Sport
8.	Human Resource University	Private	Ministry of Education, Youth and Sport
9.	ICS University	Private	Ministry of Education, Youth and Sport
10.	International University	Private	Ministry of Education, Youth and Sport
11.	Khemarak University	Private	Ministry of Education, Youth and Sport
12.	Moha Vedic University	Public	Ministry of Education, Youth and Sport
13.	National University of Management	Public	Ministry of Education, Youth and Sport
14.	Newton Thilay University	Private	Ministry of Education, Youth and Sport
15.	Norton University	Private	Ministry of Education, Youth and Sport
16.	Panhasatra University Cambodia	Private	Ministry of Education, Youth and Sport
17.	Royal University of Agriculture	Public	Ministry of Agriculture, Forestry and Fisheries
18.	Royal University of Fine Arts	Public	Ministry of Culture and Fine Arts
19.	Royal University of Law and Economics	Public	Ministry of Education, Youth and Sport
20.	Royal University of Phnom Penh	Public	Ministry of Education, Youth and Sport
21.	Svay Rieng University	Public	Ministry of Education, Youth and Sport
22.	University of Cambodia	Private	Ministry of Education, Youth and Sport
23.	University of Medicine	Public	Ministry of Health
24.	University of Technology Phnom Penh	Private	Ministry of Education, Youth and Sport
25.	Wan Lan University	Private	Ministry of Education, Youth and Sport
26.	Western University	Private	Ministry of Education, Youth and Sport

No.	Higher education institution	Type	Parent ministry/Agency
Institute/Independent School and Faculty (Alphabetically ordered)			
1.	Asia Pacific Institute	Private	Ministry of Education, Youth and Sport
2.	Buddhist Institute	Public	Ministry of Religious Affairs
3.	Cambodia Institute	Private	Ministry of Education, Youth and Sport
4.	Institute of Economics and Finance	Public	Ministry of Economy and Finance
5.	Institute of Medical Science	Public	Ministry of National Defence
6.	Institute of Technology and Management	Private	Ministry of Education, Youth and Sport
7.	Institute of Technology Cambodia	Public	Ministry of Education, Youth and Sport
8.	Inter-Ed Institute	Private	Ministry of Education, Youth and Sport
9.	International Institute of Cambodia	Private	Ministry of Education, Youth and Sport
10.	Krong Angkor Institute	Private	Ministry of Education, Youth and Sport
11.	Management and Economics Institute	Private	Ministry of Education, Youth and Sport
12.	Management Institute of Cambodia	Private	Ministry of Education, Youth and Sport
13.	Management Science Institute	Private	Ministry of Education, Youth and Sport
14.	Military School Tmat Pong	Public	Ministry of National Defence
15.	National Agricultural School Kampong Cham	Public	Ministry of Agriculture, Forestry and Fisheries
16.	National Agricultural School Phek Leap	Public	Ministry of Agriculture, Forestry and Fisheries
17.	National Institute of Business	Public	Ministry of Labor and Technical Vocational Education and Training
18.	National Institute of Education	Public	Ministry of Education, Youth and Sport
19.	National Polytechnic Institute	Public	Ministry of Labor and Technical Vocational Education and Training
20.	National Technical Training Institute	Public	Ministry of Labor and Technical Vocational Education and Training
21.	Pheah Kosamak Polytechnic Institute	Public	Ministry of Labor and Technical Vocational Education and Training
22.	SETEC Institute	Private	Ministry of Education, Youth and Sport
23.	SITC Institute	Private	Ministry of Education, Youth and Sport
24.	Vanda Institute	Private	Ministry of Education, Youth and Sport

INDONESIA

Nizam

THE NEED FOR HIGHER EDUCATION REFORMS

A Brief History

The history of the Indonesian higher education system started from the late 19th Century when the first institution of higher education was established by the Dutch colonial government as part of an ethnic policy to train indigenous doctors. Before the Second World War, there were only around 200 students enrolled in these universities, thus serving the elite segment of the society.

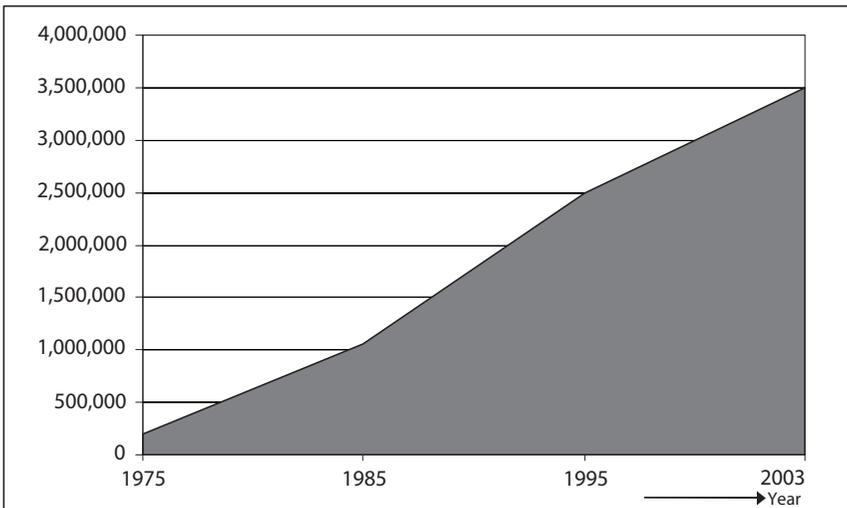
After independence in 1945, public and private universities were established as a reflection of the spirit of independence. Several professional schools (engineering and sciences in Bandung, agriculture in Bogor, and medicine in Surabaya) were consolidated under *Balai Perguruan Tinggi* in Jakarta. Just after independence, private universities were established as a manifestation of public participation. Among them were Universitas Islam Indonesia (1945) in Yogyakarta and Universitas Nasional (1949) in Jakarta. Driven by the blossoming spirit of nationalism, the first national public university, Universitas Gadjah Mada, was established in Yogyakarta in 1949 from a merger of private institutes. In 1950, Universitas Indonesia was established, followed by other universities outside Jakarta. Universitas Airlangga was established in Surabaya (1954), Universitas Hasanuddin in Makassar (1956), Bandung Institute Technology (1959), and Bogor Agricultural University (1963). During the 1950s, nine new universities and three teacher training colleges (IKIP) were established to serve the increasing demand for qualified school teachers. This history illustrates that private higher education institutes pre-date public institutions and that they were key to the development of Indonesia's higher education system since independence.

As a result of conflict with the former colonial government over the province of Irian Jaya (West Papua), many Dutch professors were sent home in the latter part of 1950s. To replace them, a large group of young university staff were sent to the United States to pursue advanced degrees. On returning home, these new professors initiated a reform process in the higher education system. Based on their learning experiences, they introduced a more structured study process to replace the continental European style of study.

In the 1960s, the political aspiration of having at least one public university in each province was achieved. No less than 23 new universities, institutes, and teacher training colleges were established during that period, which more or less covered the 26 provinces of Indonesia. The first education law (UU 15/1961) provided the basis for private participation in higher education, allowing the establishment of new private schools. If prior to independence universities were for the elite, the national constitution and a series of education laws (UU 15/1961, UU 30/1990, and UU 20/2003) shifted them towards providing education on a mass and populist scale.

During the period of high economic growth in Indonesia, fuelled by an oil-price boom during the late 1970s to the early 1980s, Indonesian higher education expanded rapidly. The system grew from serving just around 200,000 students in 1975 to 2.5 million students by 1995 (Figure 2). There are now more than 3.5 million students enrolled in more than 2,300 higher education institutions consisting of 86 public and some 2,200 private universities and institutes. The gross enrolment ratio has increased rapidly from just 2 percent in 1975 to more than 13 percent in 2004. The rapid expansion was driven by economic growth and the international trend towards mass participation in higher education.

Figure 2: Higher education expansion in Indonesia, 1975-2003



The National Context and Higher Education Reform

Most Indonesians still regard education as the only viable choice for vertical mobility in economic and social status. Unfortunately, the rapid growth in higher education capacity has not been accompanied by effective planning and funding mechanisms. The centralized system that was adopted over the past decades has created a system characterized by inefficiency and poor initiative (Moeliodihardjo, *et al.* 2000). Bureaucratic reliance on central authority has not enabled higher education institutions to respond to external changes or receive timely support. In addition, a public university as part of the public bureaucracy has no direct accountability to the public as it is accountable to its direct superior, i.e. a central government authority.

The lack of institutional autonomy has led to a poor relevance of course provision and slow institutional response to the needs of society. On the other hand, high public demand and limited supply have led to the growth of many for-profit private universities. However, the focus of this private sector supply has been on absorbing student demand and not on the quality of provision.

Reform was introduced under the higher education “new paradigm” in 1995. The new paradigm placed quality and relevance of higher education as the main priority and core of national higher education development. With the diverse socio-cultural context on the one hand and the forces of a globalized market on the other, it was realized that quality and relevance can only be achieved by providing autonomy through decentralizing authority coupled with fostering more direct accountability from institutions.

Indonesia’s university age participation rate is below 14 percent, thus demand is always much higher than supply. Calls for more accountability are emerging in both public and private universities. However, not many students openly demand quality; many just want to get a diploma as a ticket to enter the job market. This has caused the emergence of “diploma mills” where students can get degrees and diplomas in a short time without attending classes or taking examinations. Although the law and regulation regarding fake diplomas is clear, it is only recently that the law has been enforced. For example, in August 2005, police investigated many public figures for allegedly obtaining academic titles from a suspected illegal educational institute. Police have also arrested nine executives and staff members of a suspected institute (Jakarta Post 24 August 2005).

During the economic crisis, universities had to compete for public resources with other social sectors and issues, such as health, poverty alleviation, social security

and primary education. Clearly, if public funds continue to support higher education, higher education institutions should be more accountable and able to demonstrate their impact to stakeholders. Universities should be able to prove that they benefit the wider population, ensuring the effective use of public resources to enhance the nation's competitiveness. It is towards these ends that Indonesian university reform is directed (Nizam 2004).

International Context - Globalization and Inequity

In a world that is fast shifting towards a knowledge-based economy, the need to develop higher education has become an important component in a country's overall strategy for survival and competitiveness within the world economy. Inequalities associated with globalization are likely to increase in the coming decades as developing countries undergo the difficult transition towards a more competitive, transparent, and rule-based market system. One of the options available to help with addressing such inequalities is education. Unfortunately, the price of delivering good education to the less well-off is overwhelmingly high, and these inequalities are likely to persist into the future (Brodjonegoro 2002).

Higher education in Indonesia, as in other developing countries, is confronted with three immediate and pressing needs:

1. Improve its quality, relevance, equity, efficiency, and governance
2. Position higher education institutes properly to become an independent moral force to help drive democratization and socio-political reforms
3. Meet new challenges arising from the construction of knowledge economies, internationalization and ever-increasing competition

In an increasingly open and integrated world economy, "competitiveness" has become a central issue for both advanced and developing countries, with increasing recognition that the performance of higher education is of great significance for the competitiveness of nations (Porter 2002). The idea of increased local, regional and global competition is something that the higher education system has almost never had to contend with before. As society becomes increasingly knowledge-based, the greater the role of higher learning and research is in enhancing the cultural, social, economic and environmental aspects of sustainable development of individuals, communities and nations (UNESCO 1998). In other words, global competitiveness and local relevance will require an effective and functioning higher education system. Given some of the issues and challenges described above, higher education reform is necessary in Indonesia.

HIGHER EDUCATION REFORMS

The national reform programme aims to enable higher education to develop institutional credibility through restructuring both the national and university systems. The overall system needs to be more accountable to the public, demonstrating greater efficiency in its operations, high quality of teaching and relevance of its outputs. An adaptive and responsive system can only be achieved under an organization that is autonomous and accountable, two aspects that are the main foundation of the current higher education reform programme in Indonesia.

New Bodies and Structures for Higher Education

In 1994, the Directorate General of Higher Education (DGHE) introduced a new paradigm for higher education management based on quality, autonomy, accountability, accreditation, and evaluation. As part of this paradigm shift, the DGHE established the Board of Higher Education (DPT), with three Councils (Education, Research, and Development) and the National Accreditation Board for Higher Education (BAN-PT).

The DPT is responsible for providing strategic advice and acting as a “buffer” between DGHE and external funding bodies, as well as between DGHE and the beneficiaries (universities that obtain competitive grants). In line with the expansion plans, many (mostly private) institutions had applied for permits to open up new study programmes. Without any proper quality control system in place, it was very difficult for DGHE to control the quality of these programmes. As a result, the curricula of these new programmes were developed without standards. To address the problem, DGHE requested DPT to formulate a “national curriculum,” as well as to review proposals for new study programmes and research proposals through its Discipline-based Commissions (KDI). The role and function of DPT is currently under review (DGHE, 2003). The “national curriculum” is now abandoned altogether in favour of autonomy to support a more adaptive curriculum that is relevant to local needs. The BAN-PT is authorized to formulate and implement the accreditation of academic programmes of public and private institutions independently, although it established by the Government.

New Funding Schemes

The two key aspects that will bring institutional changes are a good regulatory

environment to encourage innovations in individual institutions, coupled with schemes to create financial incentives to steer institutions towards quality, efficiency, and equity goals (Salmi 2002). As a result, competitive funding was introduced first for research and then for academic programme development in the 1990s.

The University Research for Graduate Education (URGE) project was launched in 1995. It introduced a competitive funding process for research development. In 1996 the Government, supported by the World Bank, introduced for the first time tiered competitive funding for institutional development under the Development of Undergraduate Education (DUE) project. The project aimed at 17 of the least established public universities that had not received significant investment in the past 5 to 10 years. The project was implemented under a block-grant contract, where funds were allocated directly to the institution's special account, which meant bypassing many existing bureaucratic structures.

Following the experience of the DUE project, a competitive funding project for development of study programmes was introduced the following year. The Quality for Undergraduate Education (QUE) project was an open bidding process based on a proposal submitted by a study programme. Each grant was worth around US\$ 1.8 million and provided a five-year institutional development programme. The QUE funding was implemented between 1998 to 2004 under the support of the World Bank. The project provided open competition for both public and private universities where the merit of the proposal was the most important criterion for success. The highly competitive process attracted many applicants as shown in Table 3. This scheme has been regarded as one of the most important reforms in funding universities, making the institutions take ownership and be directly accountable for their operations.

Table 3: The Quality Undergraduate (QUE) funding project

	Pre-proposals submitted	Selected for full proposals	Selected for site visit	Funded
Batch 1 (1998)	317	45	25	16
Batch 2 (1999)	250	51	27	14
Batch 3 (2000)	249	61	26	16

Following the success of the QUE project, the Government allocated its funding to the universities based on this model, resulting in schemes such as semi-QUE, DUE-like, and Competitive Funding Programme (PHK), each targeted to meet different objectives. This model was also adopted by the Asian Development Bank in 2001 through the Technological and Professional Skills Development Project (TPSDP), the first ADB competitive funding scheme ever implemented anywhere in the region.

The scheme is oriented toward achieving certain targets as measured by performance indicators that have been identified and set by the grantees. This process is expected to improve the efficiency and productivity of government investments. It has also improved bottom-up planning, cost awareness and a sense of ownership amongst institutions. Brunner (1997) considers the competitive funding scheme as a “para market” mechanism to enhance competition among state-supported universities.

A New Legal Entity⁶

In 1999, a new government regulation (PP 61/1999) was introduced to lay down the path to transform state/public universities into autonomous universities called “state legal entity university” (*Universitas Badan Hukum Milik Negara, or BHMN*). To implement the new regulation, the Government requested the four most established universities (Universitas Indonesia, Universitas Gadjah Mada, Institut Teknologi Bandung, and Institut Pertanian Bogor) to submit proposals to transfer their status. Each piloted university prepared the proposal in 1999-2000 and subsequently, in December 2000, four new state legal entity universities were established under government regulations (PP 152, 153, 154, and 155/2000). As a legal entity, the university is separated from the government bureaucracy and becomes more accountable to the public and not the Ministry. On the other hand, university management has shifted towards a more corporate system.

Government funding for operational costs will be provided by a block grant based on performance and not line item budget. The Government will become a “purchaser of products” rather than “provider of resources,” creating a “para-market relationship” with the university. This was similar to reforms in Latin America. The investment budget and funds are provided through open competition.

⁶ In this paper, legal entity university is used interchangeably with autonomous university.

To implement autonomy effectively, a transformation in the management style of the institutions is necessary. As part of the University transition plans, it was planned that within ten years all staff who used to be civil servants would become university employees. However, after more than four years, the reform still lacks the accompanying legal and financial measures for it to be effectively embedded into the overall system (Susanto and Nizam 2004).

ACCESS TO HIGHER EDUCATION

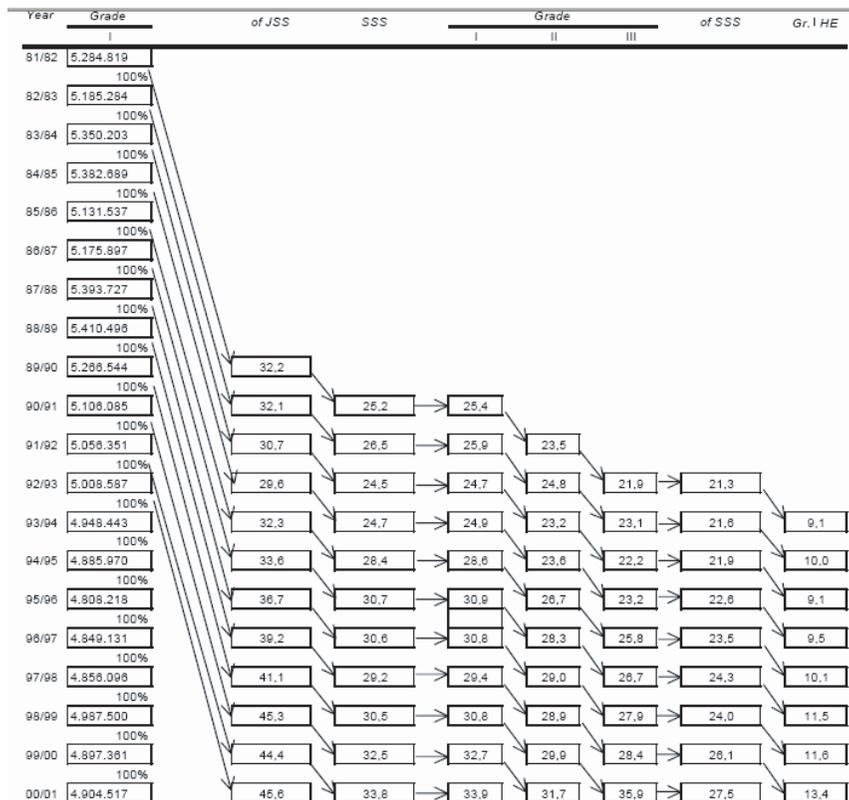
Every year, more than 450,000 high school graduates take the national public university entrance examination to compete for 75,000 seats in public universities. In addition, many public universities scout for and recruit potential students from the provinces, accounting for 10-20 percent of the total capacity. This leaves a shortfall of more than 360,000 high school graduates who can either apply to private universities or enter the job market with limited skills and formal education. Clearly, not many students from lower income families can afford the fees associated with private education.

As the knowledge economy becomes the driving force for wealth creation, access to higher education becomes an increasingly important challenge for developing countries. Limited government resources necessitate the participation of the private sector. However, in private universities, fees are set on a cost-recovery basis but these remain beyond the means of many poor families. Although the Government provides scholarships for poor families, access to higher education remains a complex issue and challenge.

The university entrance system is a highly competitive process; students who are admitted into public universities are those who score highest on the entrance examination. This often requires access to a quality high school education and extra tuition to prepare for the examination. Certainly, only students from middle to high income families can afford the extra tuition. Therefore, it is not surprising that well-to-do students in higher education institutions outnumber those from lower income groups. A recent national economic survey indicates that only 3.3 percent of students from the lowest 20 percent of income groups and only 4.8 percent from the next quintile enrol in universities, a striking contrast to the 30.9 percent from the highest income quintile. Such figures indicate the need for a regressive government subsidy on higher education and highlight an important equity anomaly (Triaswati and Roeslan 2003).

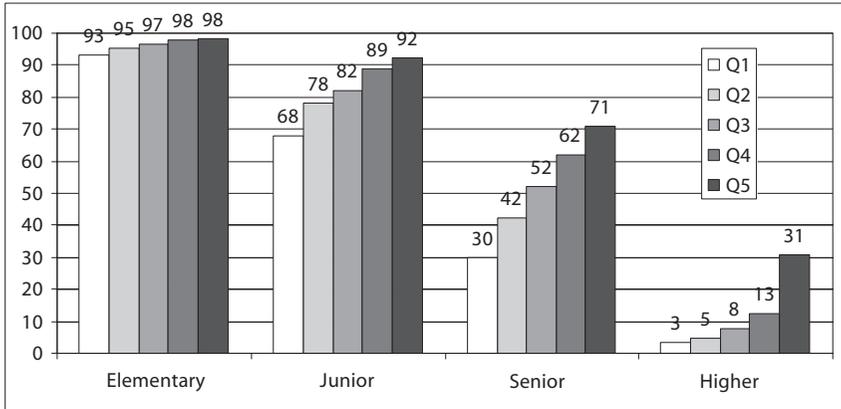
A more fundamental problem of access can be seen from the cohort of students that move from elementary to university, as illustrated in Figure 3. Out of 5.41 million students entering elementary education in 1989, only 39.2 percent (2.12 million) get through junior high school six years later. Out of that number only 1.59 million students (29.4 percent) continue on to high school, out of which 1.41 million (26.1 percent) complete their high school three years later. Finally, only 724,940 enter tertiary/higher education (13.4 percent) twelve years after they first enter elementary education. These figures imply that student access to higher education has been filtered out much earlier in the educational system. Less than 50 percent of elementary education pupils are able to move on to junior secondary education and only slightly above half of that are able to finish senior high school. The profiles of the unfortunate students who cannot access higher levels of education can be traced from the social economic census in 2001. The gross enrolment ratio for elementary, junior and senior high school across the five socio-

Figure 3: Flow of students from elementary to higher education



Source: MONE statistics, various years

Figure 4: Disparity of access to education



Level of Education	Q1	Q2	Q3	Q4	Q5	Average
Elementary	93.1	95.4	96.7	97.7	98.4	95.6
Junior	68.1	78.4	82.0	89.1	92.2	79.4
Senior	29.9	42.4	52.2	62.1	71.1	49.2
Higher	3.3	4.8	7.5	12.5	30.9	11.8

Source: Triaswati and Roeslan 2003

Q = quintiles of population by consumption group

Q1 = 20 percent population in the lowest consumption group

Q5 = 20 percent population in the highest consumption group

For elementary education, almost universal enrolment can be observed. However at the next level, the histogram is skewed with the poorest quintile starting to fall off the scale: most poor income families expect their children to enter the job market. This can be seen by further reductions in the proportion of senior high school students from the lowest quintile. Gender distribution is a relatively minor access issue in Indonesian higher education according to the statistics. The number of male and female students is almost balanced in diploma/polytechnic programmes (52 percent male and 48 percent female), with a slight bias toward male domination in undergraduate programme (58 percent male and 42 percent female) as seen in Table 4.

Table 4: Gender distribution by type of programme

Programme	Gender	Enrolment	%
Diploma/polytechnics	Male	104,642	52
	Female	98,467	48
	Subtotal	203,109	100
Undergraduate	Male	324,468	58
	Female	233,044	42
	Subtotal	557,512	100

Source: HE Statistics, 2002⁷

DIVERSIFICATION OF HIGHER EDUCATION

The effect of market differentiation arising from a shift from an agrarian to a more industrialized society on Indonesian higher education were (Nizam *et al.* 2003):

- a rapid increase in the number and different types of high education institutions
- a swift increase in enrolment
- a rapid growth of professional career and academic degree programmes offered

In 1975, the Directorate General of Higher Education (DGHE) introduced a national higher education system where the role of public and private institutions in providing higher education was fully recognized. During that year, a dual system of academic and professional/vocational study was introduced. The professional/vocational programmes range from one- to four-year diploma training, while the academic programmes are classified into four-year undergraduate degree programmes (strata-1 or S1), two-year post-graduate/masters programmes (strata-2 or S2), and three-year doctorate programmes (strata-3 or S3). Although the difference between professional and academic programmes is quite clear, any higher education institutions is still allowed to offer both programmes at the same time.

Higher education institutions are classified as either university, institute, polytechnic, academy or college according to the scope of programmes they offer. A higher education institution with many faculties covering comprehensive disciplines is classified as a university. An institute is a higher education institute with many faculties in a single field of study (such as agriculture), while a college is a single faculty institution. Academy and polytechnics are institutions offering a range of courses, some of them vocational or technical, at or below the bachelor's degree level.

⁷ <http://www.depdiknas.go.id/publikasi/brief/>, accessed in June 2005.

Between 1996 and 2001, various kinds of higher education institutions developed rapidly, with private institutions leading the expansion. Table 5 highlights the key role private institutions have played in providing greater participation in higher education. Over a five-year period, public university places actually fell by approximately 33,000 places, whilst places in the private sector rose by nearly 700,000 places.

Table 5: Development of higher education institutions, 1996 - 2001

Type of Institution	1996	2001
Public		
University	31	45
Institute	14	5
Polytechnics	-	25
Others	6	6
Total	51	81
Enrolment	878,138	845,110
Private		
University	262	322
Institute	44	43
Polytechnics	9	47
Academy	407	596
College	571	923
Total	1,293	1,931
Enrolment	1,448,775	2,114,060

Source: HE Statistics 2002

In the late 1970s, academic programmes changed significantly with the introduction of a credit system similar to the American system, rather than the continental European system that was previously implemented. As a result, a more structured degree programme system was introduced. The three-year diploma programme requires a student to take 110 to 120 credit units to graduate. A student has to take between 144 to 160 credit units to get an undergraduate (S1) degree and a minimum additional 46 credit units for a masters or S2 degree. A more systematic evaluation and grading system was also introduced in the late 1970s, with relative marks from A to E in a 5-scale marking system instead of the pass and fail system used previously.

The transition into a credit system took place over the course of a decade. Even though the credit system has been in place for almost two decades, in practice it

is unlike the liberal education in the USA. Students are restricted to take courses only within the study programme, in which they registered, leading to a single degree award. As a result of greater autonomy now in place, some universities have tried to implement a more liberal approach in the credit system. At Universitas Indonesia for instance, although still optional, students can take courses from many faculties. Similarly, at Universitas Gadjah Mada, a plan has been proposed to enable students to take many options in fulfilling the 146 credit units required for a degree.

Increases in the demand for higher education coupled with the geographical distribution of students in Indonesia led to the establishment of an open university, Universitas Terbuka (UT) in 1984 as the 45th state university based on a Presidential Decree. It is the only university that is recognized to deliver courses by distance learning. As in other countries, the main purpose of UT is to take the bulk of the burden of higher education massification by providing wider and equal opportunity of access for all people throughout Indonesia who otherwise would not be able to attend university.

More specifically, UT aims to provide higher education for high school graduates; adult education; and “in service training” to primary and secondary practicing school teachers. Theoretically, it is a cost effective means of delivering higher education to the masses across the archipelago. Currently, UT has four faculties: mathematics and sciences, economics, education, and social sciences with 49 study programmes ranging from diploma to masters catering to 353,000 enrolled students⁸. Table 6 provides some basic data relating to UT.

Table 6: Statistics of the Open University (Universitas Terbuka – UT)

Headcount enrolment	353,000
Course development	1,018
Study programme	49
Departments	15
Graduates	63,528
Regional centres	32
Academic staff	789
Administrative staff	680

Source: <http://www.ut.ac.id/inggris/fact.htm>

⁸ <http://www.ut.ac.id>, accessed June 2005.

During the period of strong economic growth between the late 1980s and mid-1990s, the increasing demand for higher education was answered by a proliferation of new universities and study programmes. However, it was realized that the supply of science and technology graduates was far below that of the social sciences and humanities. High unemployment of social science graduates and unmet market demand for science and technology graduates prompted the Government to boost the production of science and technology graduates by providing incentives for science and technology programmes and restricting the proliferation of social sciences programmes⁹. The results of this policy can be observed in Table 7, which shows the development of course offerings by public universities in terms of the number of study programmes and new intake of students from 1985 to 2000.

Table 7: Study programmes and new intake in public universities by fields of study

Field of Study	Indicator	1985	1990	1995	2000
Science & Technology	Study programmes	556	610	593	765
	New intake	25,547	32,786	30,424	4,2374
Social Sciences & Humanities	Study programmes	978	660	556	616
	New intake	45,744	41,283	31,734	31,166

Source: Sudiyarto and Basaruddin 2003

The rapid development of information and communications technology has enabled various modes of education delivery. The new National Education System Law No 20/2003 took advantage of this to include distance education. Although many universities have implemented distance learning and many initiatives have been developed, detailed regulation on the implementation of various delivery modes has yet to be developed.

ACCREDITATION AND QUALITY ASSURANCE

Accreditation is part of the external evaluation process to assess educational practice. It is conducted independently by a bona fide organization through a peer

⁹ Soehendro, B. (1995) *ibid*

review process. As mentioned earlier, accreditation was introduced in the Indonesian higher education system in 1994 by the establishment of the National Accreditation Board for Higher Education (*Badan Akreditasi Nasional Perguruan Tinggi*, BAN-PT) as the only accreditation body based on National Education Act No.2/1989 and Government Regulation on Higher Education No. 60/1999. The strategy taken by BAN-PT was to assess and accredit study programmes as the smallest unit where the quality of the academic programme is managed and at the same time reflect the diverse quality of practices. Under ministerial decree 188/U/1998, it was compulsory for any study programme within a public or private institution to be accredited by the BAN-PT.

The board is faced with an enormous task of assessing around 7,000 study programmes at the undergraduate level, some 2,750 diploma programmes, and 391 post-graduate programmes across the country. For undergraduate and diploma programmes, the accreditation given ranges from A (satisfactory) to D (unsatisfactory), while for post-graduate programmes there are three levels: U (excellent), B (good), and T (fair). By 2002, BAN-PT had accredited 6,777 programmes or around 60 percent of the more than 11,000 programmes to be assessed, consisting of 5,890 S1 programmes (84 percent), 385 S2 programmes (55 percent), 467 diploma programmes (18 percent), and 35 S3 programme (23 percent) (BAN-PT 2005). The majority (85 percent) of the undergraduate programmes fall in B and C categories. Results of the accreditation process indicate that the accreditation levels of public institutions is significantly better (15.73 percent accredited A) than private (5.26 percent accredited A), further demonstrating the role of public universities as quality leaders and private universities as expansion absorbers.

After more than ten years in operation, several lessons have been learned from the accreditation system:

1. Public and private institutions have been treated the same, proving that a single policy is viable.
2. Awareness on the need for continuously improving quality through self evaluation and accreditation is growing among institutions.
3. Public awareness on accreditation as part of public accountability and a measure of quality is also improving. The accreditation of BAN-PT for engineering and technology subjects was recognized by professional bodies in the APEC engineering meeting in 2001.

Some of the drawbacks of the system that need to be addressed are:

1. The large number and geographical distribution of study programmes that have to be assessed, thus rendering regular periodic assessment very difficult and costly to maintain.
2. The resources (peer reviewers) needed to assess the large number of study programmes is also difficult to provide.
3. The large amount of time needed to accomplish the task.
4. The accreditation might not reflect the competence of graduates of a study programme.

Alternative systems are now being developed by BAN-PT to overcome these difficulties and drawbacks. Some new approaches include the introduction of institutional accreditation instead of individual study programmes, and the development of accrediting bodies that are licensed by BAN-PT to conduct the accreditation.

In the late 1990s and early 2000, some of the more established universities such as Gadjah Mada University initiated internal quality assurance systems as part of good practice processes within the university. Quality assurance is internally driven and aimed at continuously improving academic standards. Regionally, there is an initiative by the ASEAN University Network (AUN) to promote the development of quality assurance systems as an instrument for maintaining, improving and enhancing teaching, research and the overall academic standards of higher education institutes in the region, especially for AUN member universities. The AUN Quality Assurance Alliance was established in 2000 to harmonize the educational systems and standards of universities in ASEAN countries. Regular workshops are conducted by the Alliance to discuss issues, promote good practices, and develop common platforms on quality assurance.

CHANGES IN UNIVERSITY GOVERNANCE AND MANAGEMENT

Autonomy and Governance

Public universities used to be part of the government bureaucracy where they were answerable to central authorities rather than to the public; whereas for private universities, the founding organization was very influential in directing university management and its primary concern was not quality, but profitability. As a result of increased autonomy, a public university is expected to be more responsible to its stakeholders. The highest body in an autonomous university is

the Board of Trustees who represent all stakeholders. According to government regulation PP61/1999, members of the Board of Trustees in an autonomous public university should consist of representatives from the Ministry of National Education (MoNE), local government, industry, society at large, alumni, the rector, academic staff, administrative staff and students appointed by the MoNE. For private universities, the Board comprises representatives from its founding organization, and other stakeholders appointed by its founding organization.

To transform a public university into an autonomous legal entity, detailed regulations over the management of the organization are proposed by the university to the Government and stated clearly in its constitution. The constitution includes regulations on the number and positions of management who have the authority to bind the entity into a legal agreement; election and appointment of key management positions; quorum and voting rights in a board meeting.

Once autonomy is granted, a state legal entity university is formed. As a legal entity, a university has its own assets, separated from government assets, with the following regulations: (Team for University Autonomy 1999):

1. Assets are all the previous state's asset that were separated for this purpose.
2. Ownership is not divisible into shares.
3. Initial capital is the value of state's asset already invested at the time of its establishment.
4. Initial capital is jointly assessed by the Ministry of National Education and Ministry of Finance, and approved by the Minister of Finance.
5. Additional capital comes from the state's asset separated for this purpose and should be regulated by separate government regulations.
6. Additional capital can also be internally invested through accumulation of surplus revenues.

With the transfer of ownership, the management of assets is fully under the responsibility of the university within its own budget. If not managed carefully and thoughtfully, those assets could become a liability to the university. The autonomy provided is, therefore, encouraging individual institutions to move towards greater innovation and efficiency, whilst increasing their direct accountability on management performance.

Funding and Financial Management

Reform measures on university funding introduced have included:

1. Cost-saving measures such as a freeze on staff recruitment
2. Cost-sharing measures where a university can set its own tuition fees but at the same time ensure equal access through cross-subsidies
3. Resource mobilizing strategies that include setting up programmes on a full cost-recovery basis, undertaking contract research, consultancies and other various income-generating activities
4. Efficiency enhancing measures such as changing resource allocation policies, emphasizing accountability, evaluation procedures for assessment of performance, etc. (Susanto and Nizam 2004)

Routine government funding will be shifted from the line-item budget into a budget envelope to increase efficiency and productivity. As a legal entity, the university can sign contracts or apply for loans from financial institutions. The annual budget and its revision (if any) is prepared by the rector and should be approved by the Board of Trustees before being implemented. Sound and standard financial management must be clearly stated in the constitution. Under the new system, the law supervising government financing will no longer govern financial management in public universities; instead, it will comply with the civil law. Internal and external audit by public auditors will be exercised in the new legal entity university.

Organization Structure

A typical organizational structure of a state legal entity university is shown in Figure 5. The Board of Trustees is the highest body representing the stakeholders, and has instrumental roles and responsibilities in the university such as the appointment of the rector and overseeing his/her performance, developing university bylaws and the overall strategic plan for the university. Government involvement in university management can only come through this Board. The Board members comprise the rector (non-voting member), representatives of the Government, employers, industries, private businesses, university staff, and the community at large. A government representative member on the Board has an equal vote with other Board members except in a rector election where the Government has 30 percent of the vote.

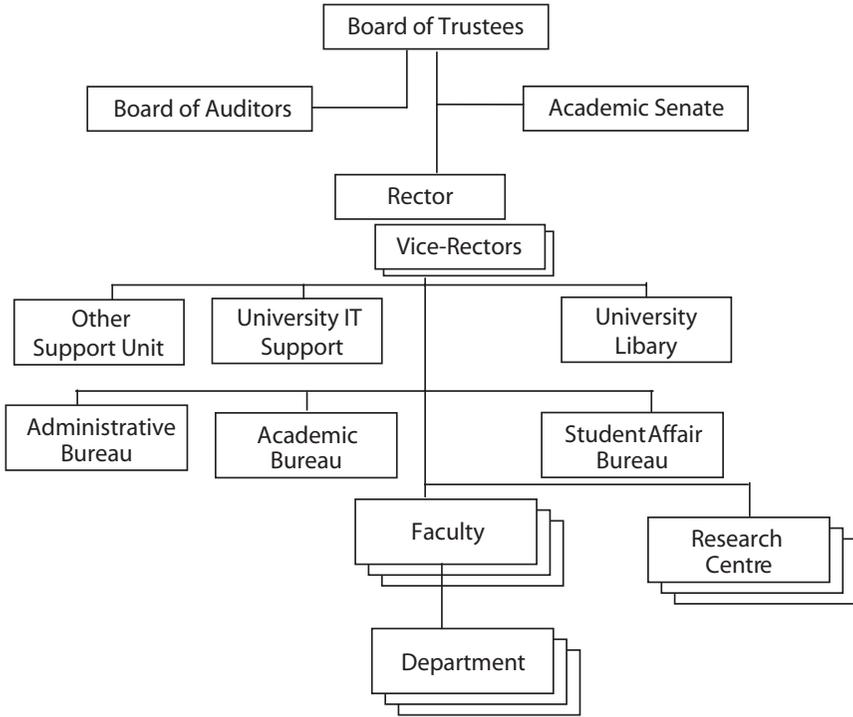
The composition of the Academic Senate membership was formerly made up of professors with automatic membership and representatives from each faculty. Under the new regulations associated with autonomy, the Academic Senate comprises only elected staff, including professors, as members reflecting a significant change in its composition. The Academic Senate, as the electoral college in appointing the university leadership, will now become more of a body representing various internal stakeholders within the university. It might also be possible to establish a search committee soliciting nominees for university leadership from outside the respective university.

Figure 5 details a typical organizational structure that is defined by the new regulations. However, realizing that each institution has a unique historical background, size and organizational culture, the exact structure of the university organization is left to each university to design. An aspect that should be considered in the development of organizational and decision-making structures is the spirit of democracy, participation, transparency, and public accountability. This new initiative is also aimed at promoting participatory planning and does not intend to transfer the authoritarian governance model from the central authority to university leadership. Most universities have experimented with new organizational structures to find the most effective and efficient model. Some have tried to adopt more corporate-like structures with the business unit as the most important component, while others have tried to implement measures to improve efficiency and productivity by centralizing all administration.

To mobilize funding resources, universities may develop ventures and enterprises in the form of services. There are at least three different services: non-commercial services (outreach, extension, humanitarian, etc.), commercial services (training, clinics, consultancy, etc.), and auxiliary enterprises (canteen, bookstore, dormitories, sport facilities, etc.) (UGM 2000). Universities can also develop new ways to generate funding support from local communities and stakeholders.

The quality assurance office is also an important new addition to the organizational structure of most state legal entity universities. Although it was not stipulated in the regulation, increased accountability necessitates a university to ensure that quality assurance is built into all aspect of its activities especially academic activity. In addition, to further ensure its accountability to the public, a university audit unit will work for and on behalf of the Board of Trustees. Its task is to audit both financial and academic activities of the university and report to the Board of Trustees which, in turn, reports to the Government and the public.

Figure 5: Typical organization structure of a legal entity university



Changing Academic Status

Under the new legal entity system, university staff who used to be civil servants will have to change their status to become university employees. However, the transition period is ten years and the legal infrastructure for the process is still being developed. In the interim period, the state legal entity universities are not allowed to recruit new staff under government civil service status. To replace the attrition rate of staff, a university can recruit new staff on a contract.

Staff enjoyed a number of academic freedoms under the old employment status where lifelong employment was guaranteed. Academic and administrative staff had less direct accountability to the university since their pay came directly from the state budget. The system also could not reward good performers effectively since the civil service remuneration system was used. Under such a situation, discipline was difficult, academic freedom was often misused, and the profession was characterized by absenteeism and low performance.

The new employment status of staff as university employees addresses the above problems. At the same time, it also provides an enabling framework for the university to better manage its staff. However, it is not surprising that the change in employment status has created a heated debate within the academic community. Many fear that the change in employment status will restrict academic freedom and create a more industrial approach in staff relations generating layoffs and deteriorating services. Outstanding issues that still need to be addressed are retirement benefits (which are currently under a national pension scheme) and assurances on budget allocations for staff salaries and career development.

Restructuring Study Programmes

The restructuring of faculties and programmes is now entirely left to the autonomous university to develop, and this takes place for a number of different reasons. For example, Institut Teknologi Bandung (ITB) has planned to reorganize and restructure its 5 faculties and 28 departments to improve overall efficiency. The merger of faculties has also been initiated by Bogor Agriculture University (IPB). On the other hand, the development of new study programmes and the urge to extend faculties is also taking place in other universities. Gadjah Mada University plans to bring together vocational training programmes that are currently under various faculties into a separate institute. With autonomy, there is also a swifter response to market demand. ITB for instance, which used to be a technical and engineering university, has opened up the School of Business and Management in response to market demand.

DEVELOPING RESEARCH CAPACITIES

Beyond the traditional missions of teaching, research, and service, the university is now expected to provide the intellectual capacity necessary to build and sustain the strength and prosperity of society. The relevance of research to the social and economic needs of the country is therefore one of the key issues posed by the public to the higher education sector. Universities need to produce or adapt new knowledge for prosperity and the benefit of local society. According to Bloom (2002), higher education can play a vital role in helping developing countries benefit from globalization. For developing countries that aspire to utilize global progress and development, higher education can be a fundamental tool in supporting such a process. Learning how to access ideas and technologies developed elsewhere and then put them into practice – skills that higher education

is uniquely well-suited to build – can enable developing countries to garner the benefits of globalization without the laborious and costly process of discovery (Bloom 2002). Therefore, the role of higher education in developing research capacity is critical, and its development relates to two main issues, namely, human resource and research capacity development.

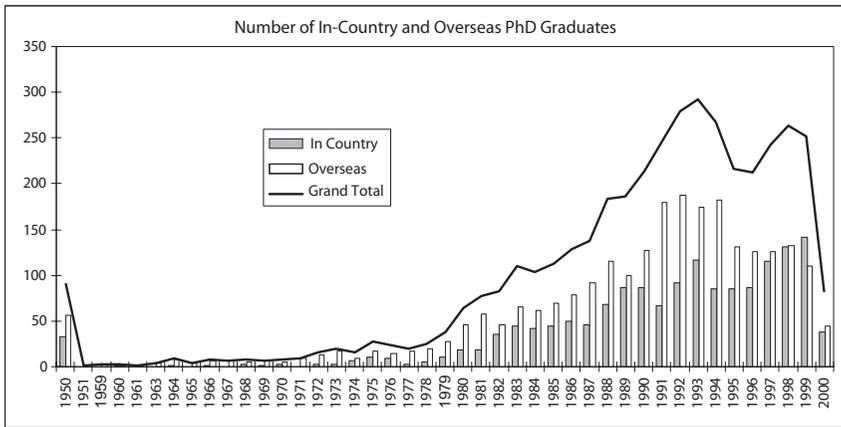
Human Resource Development

The need to develop research capacity was realized in the early 1980s. Through a development effort supported by the 9th World Bank education sector project, an extensive programme of human resource development took place at public universities in 1980s. Before the project, it was realized that most university staff did not have access to training beyond their first degree, while at the same time the long-term strategic development plan of the country was to shift the country's economy from an agricultural-based system toward a more industrial one. A programme for national higher education capacity development was needed to train staff beyond undergraduate level. In addition to developing human resources to increase research capacity, a parallel programme to improve in-country post-graduate programmes was put into place. As a result, during the 1980s, the number of university academics with second and third degrees from overseas was followed by an increasing number of public universities offering post-graduate programmes. The development of human resources to fill the need of in-country research and post-graduate training continued into the following decade. For example, within a five-year period from 1996 to 2000, the number of PhDs from overseas increased by 32 percent, while the number of master's degrees increased by 40 percent.

The rapid development of staff qualifications over the last ten years is a direct result of increased funding from the Government supported by donors. Most of the academics with PhD degrees obtained them from overseas universities, but the number of new in-country PhDs also steadily increased even exceeding those from overseas by 1998. This can be seen from Figure 6. However, the programme has resulted in a significant disparity of staff qualifications between the main population centre of Indonesia, Java island, and public universities outside of Java. Based on the *Directory of Doctors 2000* (Table 8), 75% of PhDs registered, worked in the four autonomous public universities in Java, Universitas Indonesia, Institut Pertanian Bogor, Institut Teknologi Bandung and Universitas Gadjah Mada. However, the difference should be looked at in perspective, since higher education institutions in Java serve more students (around 74 percent of the students) than outside

Java. Nationally, the average percentage of staff with PhDs to the total number of staff is slightly above 9 percent, whereas for staff with second degrees (master's and PhDs) the figure is around 40 percent.

Figure 6: Comparison between the number of new in-country and overseas PhD graduates



Source: Nizam *et al.* 2003

Table 8: Distribution of staff with PhD, 2000

Location	Private	Public	Autonomous	TOTAL
Java	333 (9%)	1,054 (28%)	1,420 (38%)	2,807 (75%)
Outside Java	47 (1%)	891 (24%)		938 (25%)
Total	380 (10%)	1,945 (52%)	1,420 (38%)	3,745 (100%)

Source: Directory of Doctors 2000

Research Capacity Development

Prior to the 1980s, most research was funded, conducted and controlled within a university or institute. Competitive research coordinated at the national level is only a relatively recent phenomena. In 1989, under the World Bank assisted 2nd Higher Education Development Project, the first competitive research grant was introduced for a limited number of fields of study and institutions. This has now been developed into the prestigious competitive research grant (*Hibah Bersaing* – HB) scheme initiated by DGHE in 1992 and the integrated priority research (*Riset Unggulan Terpadu* – RUT) scheme developed by the Ministry of Research and Technology (*Menristek*) in 1993. These research programmes and grants are strategically planned and competitively funded by the Government. Research grants from

Menristek are provided not only for higher education institutions but also for any research institutions. They are also aimed at improving university-industry cooperation. Collaboration with industries has been encouraged through the collaborative research grant, where the university partners with industry to solve their problems, whilst industry contributes matching funds.

In the early 1990s, government policies on research development followed a progressive manufacturing plan (Raillon 1990), which covered four stages of technological development from licensing to basic innovative research as follows:

1. Introduction of technology – (especially manufacturing)
2. Development of technology for producing goods
3. Development of new technology to develop new competitive products
4. Development of innovative technology through research in basic science and innovative technology

The strategy of DGHE in developing research was reflected in the strategy of the Directorate of Research and Public Service Development (DP2M) of DGHE. The development of research and public services is aimed at improving the quality and quantity of research by universities under the framework of the main mission of university to educate and nurture qualified and competent human resources. Therefore, synergy between research and public services with education is the main theme of higher education research development (Koswara 2002). Based on that mission, the directorate has focused on the following development strategies.

1. improving equity, through the following improvements:
 - nurturing of young researchers
 - improving the application of science and technology
 - developing student creativity
 - improving regional capacity
2. Improving research and public service quality and relevance through:
 - development of competitive selection mechanisms for research and public service funding, including the monitoring and dissemination of research results to the public
 - development of programmes and funding for long-term (multiple years) research and public services
 - development of programmes for applied science and technology to respond to the needs of small- to medium-scale businesses and enterprises
3. Improving efficiency through the development of management capacity and delegation of authority.

Research capacity has been developed through many projects funded by multi-lateral donors such as the World Bank and Asian Development Bank, as well as government funds. The development of research capacity can be classified as either institutional capacity or human resource development. Some of the more prominent research capacity development initiatives include the following:

1. Establishment of 16 inter-university centres at Universitas Indonesia (UI), Institut Pertanian Bogor (IPB), Institut Teknologi Bandung (ITB) and Universitas Gadjah Mada (UGM). These centres are aimed at laying down foundations for the development of advanced/graduate research in specific fields such as information technology, biotechnology, engineering, life sciences, economics, and social sciences. This project was supported by a World Bank loan.
2. Upgrading of the faculty of Agriculture, Economics, Engineering and Medicine at Hasanuddin University (UNHAS), University of North Sumatra (USU), University of Sriwijaya and Surabaya Institute of Technology (ITS). These projects were supported by ADB loans.
3. Development of marine science education in six universities: Pattimura University (UNPATTI), Ambon; Sam Ratulangi University (UNSRAT), Manado; Hasanuddin University (UNHAS), Ujung Pandang; Diponegoro University (UNDIP), Semarang; the Bogor Agricultural University (IPB), Bogor; and the University of Riau (UNRI), Pekanbaru.

In line with human capital development, funding for research has been provided through many competitive schemes aimed at different levels of research and objectives. Some of the more popular competitive research funding schemes include:

- Young Academic Research Grant, aimed at overseas returnees to continue their research in their own institution
- Basic Research Grant, aimed at developing scientific research that might not have a short-term/direct economic benefit but will eventually have long-term importance in advancing science and knowledge
- Women Studies, a grant established to improve the role of female participation in national research development
- Competitive Research Grant (*Hibah Bersaing*), one of the most prestigious and most competitive multi-year research schemes provided by DGHE with the objective to develop quality research and innovations in universities. Since its introduction in 1991, it has funded 1,321 research titles out of 11,011 proposals submitted

Involvement of students at all levels (S1, S2, and S3) in research funded by these grants is highly encouraged. Usually some final year undergraduate and graduate students, as well as PhD students, are involved in the research implementation. Selection mechanism through peer-reviews has been established since 1991.

Outside the DGHE, competitive research grants are also provided by the Ministry of Research and Technology through: *Riset Unggulan Terpadu* (Integrated Quality Research Grant), *Riset Unggulan Kemitraan* (Competitive Cooperative Research), *Riset Unggulan Terpadu Internasional* (International Competitive Research) and *RUSNAS* (National Strategic Research). In addition, there are many more applied and less structured research funds from other departments and government agencies.

Although the competitive research grant schemes have been able to maintain quality based on an objective peer review system, gaps have been revealed over the capacity and quality of institutions. The more prestigious grants have been dominated by the more established universities such as UGM, ITB and IPB. To overcome these problems, these universities have been excluded from some grant competition. In addition, the short-term competitive research grants also hinder a long-term, strategic research programme to flourish in universities. From 2006 onward, research funding for the more established universities will be given as a budget envelope. The university can then develop its research agenda and conduct its own internal selection.

Research Output and Outcomes

During the early stages of research development, there were no clear measurable research outputs and outcomes other than research reports and publications in scientific journals and/or seminar presentations. The lack of qualified scientific journals was an issue addressed by DGHE who proposed improving existing scientific journals in universities through a journal accreditation system.

Research indicators began to be developed with the ratification of "Trade Related Intellectual Property Rights (TRIPs)" in 2000, where a target of at least 10 percent of patents registered in the National Patent Office coming from Indonesian citizens was set. DGHE introduced the "Empowerment of Intellectual Property Rights in Higher Education Institutions" and set up a new programme to help researchers obtain patents for their research results. The impact of this programme has been very positive. Many patent applications have been registered by researchers. The rush for, and backlog of, patent applications clearly indicates that

the lack of patents in previous years was mostly due to the ignorance of the researchers. Scientific publications in peer-reviewed journals, patents filed and products developed are now among performance parameters of research grants.

The dissemination of research results to industry has also been addressed through many programmes developed by DGHE, such as the *Voucher* and *Usaha Jasa dan Industri* (UJI). The *Voucher* programme was introduced in 1993 as a collaborative work programme between university research and local industries or small business enterprises. It aims at promoting the role of a university in solving regional development issues and development of links between universities and their communities. The university provides the technology (such as food processing, packaging, dyeing process, metal works, etc.) to be applied by small business enterprises. When first introduced, it focused on the application of technology for regional development. At a later stage, broader aspects such as management and marketing were also addressed. The main target beneficiaries of the programme are productive groups such as small industries, cooperatives, and new entrepreneurs. Realizing that one-year collaborations might be too short, a multi-year voucher programme has recently been introduced to provide seed capital to initiate enterprises. The implementation of multi-year vouchers should involve local business enterprises and local government. It is expected that the seed money provided for small business enterprise development will start generating returns in the third year, which will also benefit the assisting universities.

Unlike the *Voucher* programme, the UJI programme aims at setting up a business unit in the university that could market research and development output through commercializing knowledge generated by the university. The revenue from this business unit would benefit the university. Thus, not only staff, technicians, and students will benefit from the programme, the job market created by the business unit is expected to benefit the society at large. Funding for the programme is shared between DGHE, the university and other sources, especially local private businesses.

The bottom line of these programmes is that universities and DGHE have been responding to the research needs of society fairly well. This is despite the programmes being responsive/reactive rather than anticipating future needs. The ultimate goal of the programmes has been to improve the relevance and role of the higher education in local communities through its *Tri Dharma Perguruan Tinggi* mission.

ROLES AND FUNCTION OF PRIVATE HIGHER EDUCATIONS

Private universities are not new in Indonesia, as they were established at the same time or even earlier than public universities. The first private university, the Universitas Islam Indonesia (UII) was established in 1945, four years before the establishment of the first public university (UGM). Both public and private higher education institutions were managed by DGHE under different directorates. However, the expansion of private institutions was most rapid in the early 1980s and fuelled by the following factors:

- Success of government policy in providing basic education a decade earlier
- Oil price boom in the late 1970s to early 1980s
- Emergence of the new middle class society
- Shifting of development policy toward industrialization

These developments fuelled the first rapid expansion of the higher education system. This expansion of demand for higher education could not have been absorbed by the existing public universities. Private universities were more responsive to the demand expansion although later on public universities were also offering extensions to existing programmes. Enrolments in private universities steadily increased around 6 percent annually between 1978 and 1985 and up to 9 percent annually between 1985 and 1995. In 1995, the number of students in 1,228 private universities was almost 2 million while it was about 436,000 in the 72 public universities. The rapid expansion of private universities can be seen from the proportion of private to public universities. However, it is fair to say that public universities are the quality leaders while private universities have taken the burden of the expansion as Table 9 illustrates.

Table 9: Distribution of students in public and private institutes

Component	Year				
	1999	2000	2001	2002	2003
Population 19-24 year old	24,459,300	24,280,300	24,568,400	24,738,600	24,901,100
Students enrolled	3,004,664	3,199,174	3,348,567	3,441,429	3,550,485
Public	710,924	795,000	846,110	897,510	937,510
Private	1,883,076	1,992,320	2,035,355	2,038,338	2,099,383
<i>Kedinasan</i>	58,216	56,470	54,776	53,133	51,539
Islamic university	352,448	355,384	412,326	452,448	462,053
Gross Enrolment Ratio (%)	12.28	13.18	13.63	13.91	14.26

There are 41 public universities conducting post-graduate programmes (23 of which also conduct PhD programmes), with 676 masters programme and 150 PhD programmes. As for private universities, there are 150 private universities offering 266 masters programmes and 13 offering PhDs in 24 programmes.

GLOBALIZATION AND GATS

Internationalization of Higher Education

Indonesia entered the era of the global market with the ratification of the World Trade Organization's establishment (Act No 7) in June 1994. The General Agreement on Trade in Services (GATS) defines four modes of supply or trade, i.e. cross-border supply, consumption abroad, commercial presence, and presence of natural persons. All these four modes can already be found in many countries including Indonesia.

Cross-border supply such as distance education and e-learning flourishes with the advance and penetration of the Internet. Consumption abroad has been practiced since the early development of universities in Indonesia to fill the advanced education and training needs for academic staff. With high demand for and limited supply of higher education in the country, education abroad has been the choice of many well-off families. In 2000, there were 17,431 Indonesian students studying in Australian universities, topping the list of overseas students in Australia. Their spending is estimated at around US \$410 million a year, which was larger than the total higher education sector budget in that year. It is estimated that around 100,000 students study abroad each year.

Even though the Government has not issued any permit for an overseas university to open a local programme, in reality there are already many overseas institutions operating in Indonesia. Many joint-degree programmes have mushroomed, especially with private universities. The presence of visiting scholars through international collaboration is also quite common in many universities.

In short, all four modes of supply have already existed in the country for some-time. However, it was not seen by the academic community as a problem. The National Education System Act No. 20/2003 has stipulated that only a accredited foreign university can open a programme and that it has to collaborate with a local university. In anticipation of the WTO ministerial meeting in December 2005 that took place in Hong Kong, the Ministry of Trade proposed the following regulations for foreign universities to deliver services in Indonesia:

1. Only a foreign accredited university can conduct programmes of study; unaccredited foreign institutions are not allowed
2. Its presence is limited to five major cities (Medan, Jakarta, Bandung, Bogor and Yogyakarta)
3. It has to collaborate with a local university, invest in infrastructure, and involve local staff in its operation
4. It also has to comply with national standards and regulations, including a mutual recognition agreement

Pros and Cons of GATS

The inclusion of education under GATS has raised concerns among academics. Education, particularly basic education, is always seen as a constitutional right. However, the higher education position is more open to debate. Many argue that private gain from higher education exceeds social gain therefore public funding would be economically inefficient and socially regressive. On the other hand, more recent findings show the positive effect of higher education investments on economic growth.

The inability of the Government to meet increasing domestic demands for higher education has been seen by GATS supporters as one of the justifications for inviting foreign providers. For GATS supporters, liberalization of educational trade is often seen as an inevitable consequence of globalization and that there will be a positive impact on higher education and hence the economy. Among the benefits of education liberalization are the:

1. Improvement of human resources with lower start up investments
2. Increased access to quality education
3. Improvements in access to global labour markets through Mutual Recognition Agreements (MRA)
4. Reduction of the costs of international education
5. Improvements in quality and standards of education
6. Improvements in efficiency and quality of national universities through competition
7. Development of the national economy through educational investment
8. Transfer of knowledge and technology

In the other camp, critics are worried that GATS will turn education into a trade commodity driven by economic and commercial motives. As a result, higher

education will lose its social and cultural role in nation-building and its position as a public good. Although GATS is described as a voluntary agreement where each country can decide which sectors they will agree to cover under GATS rules, the built-in progressive liberalization agenda means that with each round of negotiations there is further liberalization of the trade in services. This means more sectors are covered and more trade limitations are removed. Many educators also believe that one of the negative consequences of market-driven-for-profit education is that the number of 'diploma mills', 'canned degrees' and 'accreditation mills' will increase.

The "higher education market" in Indonesia is far from balanced, demand far exceeds the supply side. In addition, it is distorted due to poor information and public awareness on quality and relevance. Under such conditions, surrendering higher education to a market mechanism will widen the gap between the strong and the weak, the rich and the poor. Government intervention is needed to develop an enabling framework and legal infrastructure to protect the weak, otherwise unfair competition will result (Stiglitz 2002). The core disciplines inside of GATS do not give flexibility for governments to develop their own policies to ensure that the educational needs of their citizens can be met now and in the future because liberalization commitments under GATS are binding and extremely difficult to reverse. To these groups, internationalization of education based on cultural collaboration is much more acceptable where educational goals, and the voices and concerns of education stakeholders, take precedence over the drive for trade liberalization.

CHALLENGES AND FUTURE DEVELOPMENT

The higher education system has to deal with significant internal limitations and constraints to effectively contribute to the nation's competitiveness. Although higher education reform in Indonesia has taken place for almost ten years, many expected results still have not been achieved. There are many challenges to be tackled by the system. The new DGHE long-term strategy therefore emphasizes the nation's competitiveness, autonomy and decentralization, and the organizational health of universities.

The Government, represented by DGHE, has a responsibility to put in place an enabling legal as well as institutional framework and infrastructure to encourage institutions to be more innovative and responsive in improving the nation's competitiveness. Reform initiatives that have been responded to positively by the academic community need further government action. These relate to funding mechanisms, staff transfer, policies on government funding support, protection

of equal access, and policies on the internationalization of higher education. Considering the changes and improvements achieved so far, the new paradigm should be expanded further. However, without reforming the existing legal and institutional infrastructure, further substantive improvements are unlikely.

The current implementation of competitive funding has also almost reached its limits, in terms of substantive changes. Again, without a major reform in the existing legal infrastructure, further substantive changes and deeper penetration cannot be expected. Although the accreditation process has successfully imposed a minimum standard requirement, a more in-depth and qualitative evaluation is still needed to push more established institutions further up in the competitive funding scheme. BAN-PT's current role is ensuring that all higher education providers meet the minimum standard requirement, whereas a more rigorous evaluation scheme is still needed in linking performance with direct financial incentives.

The disparity in quality between institutions remains a key challenge. Capacity-building of weaker higher education institutions has to be continuously addressed. One solution could lie with partnerships and collaboration between weak and strong institutions, where the capacity of the weaker institutions could be improved by such alliances.

Access to higher education and improving equity between different social and geographical groups should be addressed by carefully targeting subsidies to poor families and innovatively developing funding support to encourage and ensure equal access for all citizens. It should also be emphasized that solving the problem of access needs to be initiated much earlier in the education system.

In a world economic system that is fast shifting towards a knowledge-intensive economy, the need to develop higher education is an important element for a country's survival. Universities need to produce or adapt new knowledge to ensure their relevance to the prosperity and well-being of society. Research is one of the essential roles for higher education to take, and it should be given more support to ensure that it is able to flourish and compete in the fierce global marketplace.

The impact and consequences of globalization and deregulation of the service sectors with respect to higher education need to be cautiously and carefully assessed. The high demand for higher education and the possible negative aspects of the "marketization" of higher education could be catastrophic and further alienate the poor. It might also destroy the very building blocks that have been laid down for decades in reforming and improving the Indonesian higher education system.

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LAO PDR*Khamphone Xay Som Phou***BACKGROUND TO HIGHER EDUCATION REFORMS**

Lao PDR higher education reforms governing both public and private higher education sectors date from 1995. The key stimuli for the reforms have been the Prime Minister's Decree establishing the National University of Laos (NUOL), the Prime Minister's Decree on Private Higher Education in 1995 (subsequently revised in 2000), and the Decree of the Higher Education Curriculum (National Standard) in 2001. The passing of these decrees reflected the importance placed on higher education for economic growth and development in Lao PDR. The new regulations highlight the role private higher education has to play in developing the overall higher education sector. It is important to note also that the reforms provide the necessary framework for the liberalization and privatization of higher education on the necessary scale to meet the social and economic needs of the country. This paper presents a general analysis of these higher education reforms and focuses on those relating to the growth and development of private higher education, as well as the wider issues and developments in public higher education provision.

Higher Education Developments in Lao PDR

In 1986, Lao PDR embarked upon a programme of structural reform known as the New Economic Mechanism (NEM). The main objective was to accelerate the transition from a centrally planned to a market-oriented economy. Since then, the Government has instituted various legal and administrative reforms to support overall development of the economy, as well as the education sector. The vision is that Laos will be elevated from its current state of being a least developed country by 2020. The aim is to achieve a moderate and stable rate of economic growth whilst developing human resources that provide appropriate skills and knowledge. In the education sector, the aim is to nurture people with good ideological thinking, ability and discipline, who will be capable of exploiting and mobilizing the modernization process in line with developments in other countries.

The efficiency and quality of education delivered in the country is at an early stage of development. As Laos further industrializes and utilizes more intermediate and advanced technology in all sectors, including agriculture, the quality of basic education will need to be raised from its current level. The application of more

advanced technology and the requirements of a more mobile and participatory society will require a population with good mathematic skills, capabilities in written communication, elementary science, reading comprehension and abilities to access and harness information technology. These requirements will create additional pressures for the provision of appropriate higher education as well as technical and vocational education.

Over the last few years, in response to the needs of the society and the national economic priorities, many higher education institutions have been established under different ministries. This has resulted in a steady increase in student participation in formal education. In the past, there were 37 small public post-secondary education institutions of which 10 were offering higher education. As a result, the higher education sector was characterized by many problems with these small fragmented institutions, such as poor-coordination and management as they fell under several ministries. Other problems endemic in the system included poor relevance of programmes; poor quality of education at the upper secondary level requiring preparatory programmes in post-secondary institutions; dilapidated facilities; under-qualified teaching staff; and the low external efficiency of the institutions.

The Prime Minister's Decree on the establishment of the National University in 1995 and 2000 began to address these issues by driving the amalgamation of ten higher education institutions under the structure of the National University of Laos (NUOL). The College of Law (under the Ministry of Justice) was also subsequently merged into the NUOL.

The Socio-economic Environment

Demographics

The 2002 National Census recorded a population of 5.52 million, with an annual population growth rate of 2.4 percent. The number of children under 15 years old accounted for 44 percent of the population, creating a very high economic dependency rate of 85 percent. Population density is low, with 19.4 persons per square kilometer. Fifteen percent of the population is located in relatively small towns with the overwhelming majority living in rural and mountainous areas. The population is diverse in terms of ethnicity and language. According to official classifications, there are 48 different ethnic subgroups divided according to topographic location into the three broader groups: the *Lao Loum (Lao-Tai)*, *Lao Theung (Mo-Kmer)* and *Lao Soung (Hmong-Yao and Tibeto-Burman)* representing

67 percent, 23 percent and 10 percent of the population respectively. The population's life expectancy of 51 years of age is one of the lowest in the world. Poverty is still a major concern although the situation has improved. The higher education student population in 2004 was 480 per 100,000 inhabitants.

Governance and Administration

Administratively, Lao PDR is divided into 18 provinces, including the Vientiane Prefecture and one special zone. Below this level there are 141 districts and 11,795 villages. The central administration consists of 14 ministries and ministry-equivalent committees. The public administration and management for the education sector in Laos consists of three levels:

1. At the central level, the Ministry of Education (MOE) determines policy guidelines, strategies, regulations and monitoring of education. It is responsible for the management of its higher education institutions, teacher training colleges, teacher training schools, technical and vocational schools which serve each region of the country, and non-formal education centres.
2. At the provincial level, the Provincial Education Service (PES) implements education policy, guidelines, programmes, and projects defined by the Ministry of Education within the province. It is responsible for the management of lower and upper secondary schools, both formal and non-formal, and vocational schools of the province.
3. At the district level, the District Education Bureau (DEB) implements and manages kindergartens and primary schools, both formal and non-formal, and literacy centres.

The Ministry of Education is responsible for overall policy direction and control of the quality of the education in both the public and private sectors. Primary and secondary education comes under the Department of General Education, while the Department of Higher, Technical and Vocational Education (HTVE) is responsible post-secondary education.

The financing of general education has been primarily the responsibility of the provinces and districts, which have their own revenue base and negotiate their budget directly with the Ministry of Finance (MOF). In the case of other ministries that run their own training institutes, the Ministry of Education has only to approve the curriculum while other ministries also negotiate their own training budgets with the Ministry of Finance.

Since the 1993 financial year, the Ministry of Education budget has been centralized with two subdivisions – one for the Ministry of Education directly and other delegated to the provinces. As part of the attempts to streamline government operations and improve efficiency, efforts are underway to bring all educational institutions under the supervision and budget of the Ministry of Education.

Economy

The NEM programme initiated in 1986 began a process of structural reform aimed at accelerating the transition from a centrally planned to a market-oriented economy. The result has been a series of legal and administrative reforms. The financing of the socio-economic development programme has been heavily dependent on foreign funds through loans, grants and private investment. Foreign loans and investment were about 20 percent of the GDP, while grants amounted to 12 percent. About 80 percent of public investment was funded by foreign capital inflows, due to the low level of domestic savings.

However, in 1998, weakening domestic reform and a lack of sound economic management combined to aggravate the adverse effects of the regional economic crisis on the Laos economy. Economic growth dropped to 4 percent in 1998 and by January 1999, the value of the Kip (the national currency) had fallen to less than 30 percent of its value in July 1997 with inflation rising to over 150 percent annually. A gradual but steady recovery from the crisis has since taken place with World Bank studies placing the GDP growth at 5 percent in 1999, 5.5 percent in 2000, 6 percent in 2001 and 6.5 percent in 2002.

National Policy for Educational Development

The development of quality, efficiency, access and equity in education takes place against a relatively difficult context of high population growth; ethnic, cultural and linguistic diversity; scattered habitats; economic and financial constraints and low institutional capacity. Against this context, the Government has adopted an education strategy that has focused on the following:

- Defining the role and function of education for the cause of national development
- Linking education with socio-economic goals and strategic tasks
- Encouraging the general population to achieve primary education level
- Upgrading the quality and efficiency of education

- Raising prestige of teachers and professors in the society
- Mandating contributions from the entire society towards education
- Enhancing the management of administrative committees toward educational objectives

An education policy was issued in 1991, one year after the World Conference on Education for All and within the framework of the third National Development Plan. As a result, the principal orientations of the policy were refined as follows:

- Strengthening the education system as the corner stone for a human resource development strategy focused on poverty alleviation and labour productivity
- Implementing the principle of compulsory primary education
- Promoting the operation of private schools
- Anticipating the development of education at all levels, with particular attention on ethnic minority areas and the disadvantages groups

These policies place great emphasis on improving the quality of education with a view to progressively raising standards to meet international standards, as well as increasing the relevance of education to family, social and economic life. In order to implement this policy, the Government, through the Ministry of Education, has undertaken all the necessary measures to increase the efficiency of education management in order to improve the quality and access to education. To improve skills, the Government has also focused on reforming vocational-technical and higher education. Conceptual and feasibility studies have served as the basis for establishing plans, programmes, and development projects to respond to the labour market needs. The Ministry of Education has established five development programmes to implement this policy, namely:

- General Education Programme
- Non-formal Education Programme
- Teacher Development Programme
- Vocational, Technical and Higher Education Programme
- Administration and Management Programme

Given the scope of this paper, only the last two programmes will be discussed in detail. Under the Vocational, Technical and Higher Education Programme, the objectives were to:

- rationalize vocational and technical education, and increase by 3.5 times

the enrolment in technical and vocational education (up to 19,000 by year 2004)

- rationalize higher education and establish a national university through the initial amalgamation of higher education institutions (up to the year 2000) followed by regional colleges (beyond the year 2000). The overall aim was to increase enrolment by 2.5 times to around 9,000 students by 2004

Under the administration and management programmes for all levels of education, the objectives were to:

- strengthen capacities in planning and management capacities
- establish basic tools in education management information systems and school mapping

ACCESS TO HIGHER EDUCATION

The overall reform programme aims to increase the number of students in the age cohort between 17 and 25 years of age pursuing higher education to 7 percent in 2005, and 10 percent in 2010. Thus, the Ministry of Education expects the number of places in higher education to be increased to at least 10,000 per annum by 2010.

At present, higher education in Laos comprises the following institutions:

1. National University of Laos (NUOL)
2. Souphanouvong University (SU)
3. Champasack University (CU)
4. Five teachers training colleges
5. Thirty one private higher institutions

Between 2000-2001 and 2004-2005, the overall enrolment in bachelor degree programmes increased from 22,650 to 44,289, and the overall enrolment in higher diploma programme increased from 7,233 to 19,940. In 2004, there were 1,524 graduates from foreign universities, of which 76 were PhD holders, and 339 master's degree holders. There are five teacher training colleges which train teachers for junior secondary schools. In 2004-2005, the total enrolment in these colleges was 5,569.

Although there has been rapid growth and change in higher education, in terms of access, some issues and challenges remain to be addressed.

- Disparities between provinces and districts still persist resulting in low representation of women and ethnic minority groups.
- Limitations on the overall capacity of the sector to meet increasing numbers of students. Thus, of the 37,496 upper secondary school leavers in 2004-2005, no more than 7,369 students could gain access to higher education. In addition, the expansion of private education has been low and unable to meet the excess demand.

Tables 10 to 16 reveal further detail on developments in enrolment and graduation among the different providers of higher education in Lao PDR. They reveal a sector in its early stages of development and the growing demands placed upon it in terms of converting enrolments into future graduates.

Table 10: Enrolment for academic years from 1996-1997 to 2004-2005 in NUOL

Academic Years	Total Number	Female		Increase	
		Number	%	Number	%
1996-1997	9,872	2,270	22.9		
1997-1998	11,250	2,976	26.4	1,378	13.9
1998-1999	12,896	3,663	28.4	1,646	14.6
1999-2000	14,570	4,345	29.8	1,674	12.9
2000-2001	15,372	4,626	30.1	802	5.5
2001-2002	17,820	5,442	31.1	2,448	15.9
2002-2003	18,366	6,215	33.8	546	3.05
2003-2004	20,230	6,582	32.5	1,864	10.1
2004-2005	22,984	7,396	32.1	2,754	13.6

Table 11: Student graduates from academic year 1996-1997 to 2003-2004

Academic Years	Bachelor Degree	Higher Diploma	Number	
			Total	Female
1996-1997	678		678	237
1997-1998	931	590	1,521	384
1998-1999	738	662	1,400	381
1999-2000	999	656	1,655	428
2000-2001	1,380	875	2,255	544
2001-2002	2,154	805	2,959	882
2002-2003	1,601	1,133	2,734	651
2003-2004	1,837	1,246	3,083	901
Total	10,327	5,967	16,294	4,508

Table 12: Student enrolment for academic years 1996-1997 to 2004-2005 in private colleges

Academic Years	Number*	Level		Number	
		Bachelor	Diploma	Total	Female
1996-1997	2		2,509	2,509	1,207
1997-1998	3		2,716	2,716	860
1998-1999	4		2,770	2,770	893
1999-2000	5		3,201	3,201	938
2000-2001	7		4,187	4,187	1,928
2001-2002	8	58	5,333	5,391	2,423
2002-2003	15	127	4,618	4,745	1,968
2003-2004	19	1,246	6,122	7,368	3,427
2004-2005	31	2,639	11,732	14,371	6,557

Note: Number* – number of institutions/colleges

Table 13: Student enrolment for academic years from 1996-1997 to 2004-2005 in teacher training colleges

Academic Years	Enrolment		Number	
	Bachelor	Diploma	Total	Female
1996-1997	-	11,082	1,082	397
1997-1998	-	1,251	1,251	499
1998-1999	-	1,652	1,652	674
1999-2000	-	2,406	2,406	1,056
2000-2001	-	3,046	3,046	1,354
2001-2002	-	3,801	3,801	1,715
2002-2003	-	4,403	4,403	2,020
2003-2004	-	4,310	4,310	2,031
2004-2005	-	5,569	5,569	2,825

Table 14: Student graduates for academic years from 1996-1997 to 2004-2005 in teacher training colleges

Academic Years	Enrolment		Number	
	Bachelor	Diploma	Total	Female
1996-1997	-	413	413	151
1997-1998	-	243	243	89
1998-1999	-	318	318	133
1999-2000	-	438	438	208
2000-2001	-	750	750	306
2001-2002	-	975	975	453
2002-2003	-	1,190	1,190	550
2003-2004	-	1,198	1,198	576
2004-2005	-	1,356	1,356	646

Table 15: Higher education students classified by institutions in charge, 2000 to 2005

Institutions	Academic Years				
	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005
National University of Laos	15,372	17,820	1,836	20,230	22,984
Souphanouvong University	none	none	none	550	1,230
Champasack University	none	none	395	845	1,530
Teacher Training Colleges	3,046	3,801	4,403	4,310	5,569
Private Colleges	4,187	5,391	4,745	7,368	14,371
Total	22,605	27,012	27,909	34,908	47,214

Table 16: Upper secondary school leavers, 2001-2005

Academic Years	Number of School Leavers		Enrolment in Higher Institutions	
	Total	Female	Total	Female
2000-2001	20,452	8,337	4,415	1,596
2001-2002	25,929	10,409	5,710	1,950
2002-2003	29,771	13,027	6,028	2,999
2003-2004	33,194	13,949	6,429	2,982
2004-2005	7,496	15,243	7,972	3,026

DIVERSIFICATION OF HIGHER EDUCATION

Diversification is a key challenge inside the higher education system, given the need to develop a range of economic and social services and skills in the modern economy envisioned by the Government. The focus has been upon developing and using a system of higher vocational diploma, bachelor's and master's degree programmes.

The Department of Higher, Technical and Vocational Education (HTVED) is responsible for management and coordination of the country's post-secondary sector, including overall supervision and monitoring. However, the Department lacks an adequate cohort of sufficiently trained staff to fulfil its role, which includes:

- determining policy
- establishing monitoring standard
- approving institutional curriculum

One of the key issues faced by HTVED is the absence of a coherent policy and administrative framework to integrate all higher education institutions across all their government affiliations. Thus, HTVED's powers on overall coordination of post-secondary education have been limited in the extent of achieving full progress on reforms. In addition to the administrative issues that impact on the HTVED's effectiveness, there are also financial issues concerning:

- low public expenditure on education and training compared with the average expenditures for education in developing countries: 3.6 percent of GDP versus 2.5 percent in Lao PDR (2005)
- the extremely high proportion of the government budgetary allocation is for salaries and student stipends, with resources for maintenance, renovation and infrastructure improvement, curricula and staff improvement, operational needs virtually nonexistent (except for external aid)
- little formal attention given to cost recovery initiatives

To address some of these issues, the Government plans to undertake policy interventions and investments focused on the following priorities:

- improving education sector management, with the Ministry of Education, through the HTVED, playing a greater role in coordination
- rationalizing the type and number of courses offered at training institutions
- improving the quality and relevance of the curriculum by supporting those relevant to the needs of the economy

- ensuring cost-effectiveness of the post-secondary education and training sector; and
- developing an integrated equity and merit-based systems to ensure access to post-secondary institutions for qualified individuals

The need for diversification to be built into the system of higher education is a key priority. As a result, the profiles of the higher vocational diploma, bachelor's and master's programmes have been officially redefined and detailed by the Ministry of Education under the decree in 17 July 2001. Areas such as the organization of teaching and learning, the use of a credit system, the duration of study, the structure of curriculum, the morality of the students and the evaluation of learning have been detailed as areas of re-articulation.

Specialist courses in English, architecture, economics and management have been encouraged to offer opportunities for graduates of upper secondary school to study at NUOL. Distance education has been introduced through the cooperation with some foreign partners for staff development in educational management and foreign language teaching in French and English. In addition, there is also cooperation with the Swedish International Development Cooperation Agency (SIDA) to develop a pilot teacher training centre using ICT. The project aims to upgrade the local teachers in the provinces.

One of the key supporting measures for reform and diversification has been the merger of higher education institutions to form the National University of Laos (NUOL) in 1995. This has enabled a number of innovations to take place, including the introduction of new admission policies, staff development programmes, curriculum reform, diversification of courses and the fostering of research and international cooperation.

Higher education has become one of the fastest growing parts of the education system. Currently, NUOL has two programmes and tracks of study: the new programmes of NUOL and the existing programmes of the previous faculties and institutions.

NUOL's study programmes comprise two years of foundation studies followed by three or more years of professional studies at specific faculties. The foundation studies are carried out at the School of Foundation Studies (SFS) whose objectives are as follows:

- Initiating students in the process of academic integration with the overall of the university system

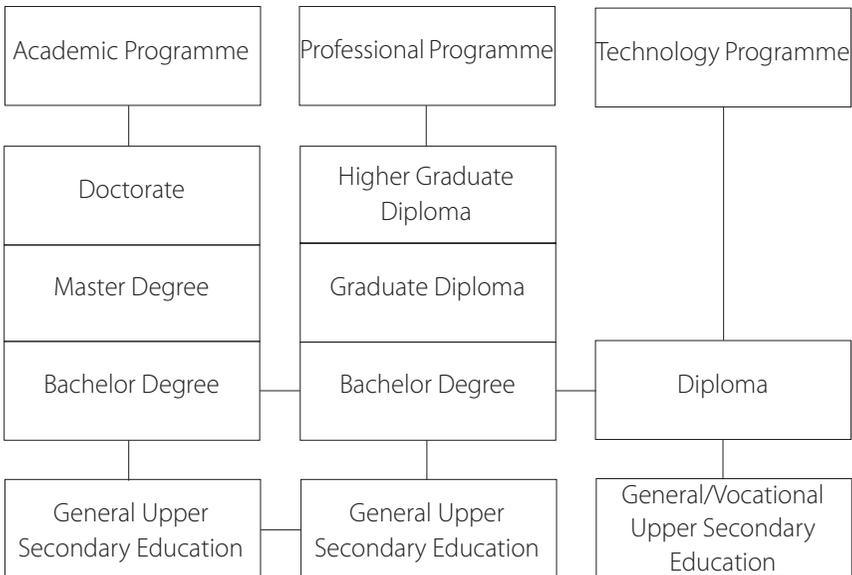
- Preparing students for their specialized studies at faculties
- Training students selected for overseas studies

Developments in foundation studies have been matched by parallel curriculum developments in the faculties. A wider variety of programmes have been increasingly made available building on previous provision. These developments fall into the following categories:

- Three-year higher diploma programmes for students who have completed upper secondary school
- Four- to six-year bachelor degree programmes depending on the nature of programmes for students who have completed upper secondary school

In addition to the above programmes, some of the institutions that have formed NUOL also offer a middle-level diploma (technician) of two to three years for students who have completed upper secondary school. The programmes of study available at the higher education level for Laos are detailed in Table 17.

Table 17: Programme levels available in higher education in Lao PDR



CHANGES IN UNIVERSITY GOVERNANCE AND MANAGEMENT

The following objectives have stimulated changes in university governance and management:

- The need to enhance the autonomy and accountability of universities in curriculum design, student recruitment, institutional structure, resource mobilization and cooperation activities.
- The need to diversify the funding resources to reduce the reliance on the state budget through contributions from society (mainly in the form of tuition fees), income-generating activities of higher education institutions and the donation of international organization and personnel.

In reference to the Prime Minister's Decree on Establishing the National University in 1995, a majority of higher-level administrative and academic decision-making functions remain within the jurisdiction of the Ministry of Education. In terms of relevance and management, the revised Decree in June 2000 stipulated the academic and administrative autonomy of the University. Thus, the Ministry of Education has delegated managerial functions to NUOL.

The Ministry of Education maintains its supervisory and coordinating roles over the NUOL in three important areas:

- policy and planning, including the approval of new policies, new faculties and new academic programmes
- institutional accreditation
- budgetary recommendations

The National University has autonomy in three main areas:

- establishment of new financial systems to allow NUOL to manage its own revenue under the supervision of the University Council
- selection and admission of students
- curriculum design and development

The aim is to give higher education institutions substantial autonomy in relation to academic design, development, and determining selection and admission: staff conditions of service including promotion and award of qualifications; and the nature of research activities. The University Council will be capable of taking policy decisions on these matters, based on advice from its Chief Executive, academic

staff, students and appropriate external authorities, including the Ministry of Education. In addition to university governance changes, the Ministry of Education's capability needs to be developed with respect to policy planning, institutional accreditation and overall budgetary control to ensure NUOL's accountability.

Future areas of development will include the relationships and processes for financial management. There is a pressing need to alleviate the burden on the Government in terms of budget allocation. The Ministry of Education will develop measures to reduce the number of scholarships within the quota system and will consider introducing a student loan scheme to help students to pay tuition fees and services. As such, both the Ministry of Education and the NUOL will have to develop a scheme to recover a greater share of the costs from those who can afford to pay.

RESTRUCTURING OF FACULTIES AND ACADEMIC PROGRAMMES

The basis for establishing NUOL was to rationalize higher education in Lao PDR and to carry out its tasks of capacity development in human resources more efficiently and effectively. The first academic year of NUOL was in October 1996. Ten faculties were established in the NUOL Decree (now 11 faculties). Of these, one became a faculty, some formed parts of faculties and one became a multi-faculty as these institutions consolidated. Table 18 details the faculties and how they were formed. Thereafter, two branches were established in Champasack (called Champasack University) and Luang Prabang (called Souphanouvong University).

Table 18: NUOL faculties and foundation studies

Faculties	Formed from	Ministries in charge
School of Foundation Studies	Preparatory School for overseas studies	Ministry of Education
Faculty of Sciences	Department of Mathematics, Physics, Biology and Chemistry of University of Pedagogy (IUP)	Ministry of Education
Faculty of Education	Department of Pedagogy and Psychology of IUP	Ministry of Education
Faculty of Social Sciences	Department of Foreign Language, History, Geography and Political Sciences of IUP	Ministry of Education
Faculty of Economics and Management	Newly established	
Faculty of Engineering and Architecture	National Polytechnic Institute	Ministry of Education
	Higher Technical College of Electronics and Electrics	Ministry of Communication
	School of Communication Vientiane	Transport, Post and Construction
Faculty of Agriculture	School of Irrigation Vientiane	Ministry of Agriculture and Forestry
	Nabong Agriculture College	Ministry of Agriculture and Forestry
Faculty of Forestry	Forestry College	Ministry of Agriculture and Forestry
Faculty of Medical Sciences	University of Health	Ministry of Health
Faculty of Law and Administration	School of Law and Administration	Ministry of Justice
Faculty of Letters	Newly established from Faculty of Social Sciences, Linguistics and Humanities	
Faculty of Architecture	Newly established from Faculty of Faculty of Engineering and Architecture	

Institutional Governance and Mission

The University Council is committed to assist NUOL in considering policy, appointment of key staff and designation academic title. It consists of the president, rector, vice-president, vice-rector for academic affairs, deans, directors of centres, and representatives of organizations, teaching staff, students, and public and private bodies.

The NUOL mission is to:

- Offer higher education courses to train adequately qualified human resources to be able to adapt themselves to the working environment
- Preserve and expand the arts, culture, custom and heritage of the nation
- Be a centre of education and research
- Deliver consultancy and services to the community

NUOL Structure and New Universities

NUOL is multi-campus structure within a 35 km radius of Vientiane. It consists of four main campuses and five attached campuses encompassing ten faculties. The central administration of NUOL is located at Dongdok campus which consists of the Rectorate Cabinet and seven Divisions. Apart from the administrative divisions and the faculties, NUOL has other organizations under its jurisdictions as follows:

- The School of Foundation Studies
- Teacher Training Centre
- The Central Library
- Agricultural Training Centre Veunekham

As a result of the number of students rapidly increasing nationwide, the Government decided in 2002 to open new universities in the South and North of Laos supported by NUOL. In 2002, Champasack University (CU) was set up in the South with four faculties namely: Faculty of Education, Faculty of Economic and Management, Faculty of Agriculture and Faculty of Engineering. The objective of the university was to contribute to the unification of the higher education sector in Lao PDR and to unify the students of the six southern provinces (Attapeua, Sekong, Saravane, Champasack, Savanakheth and Khammouane).

One year later, the Souphanouvong University (SU) was established in accordance with the Prime Minister's Decree in November 2003. SU officially held an inauguration ceremony on 5 November 2003. It opened with three faculties, namely: Faculty of Education, Faculty of Economics and Management and Faculty of Agriculture. Its objectives were to contribute the unification of the higher education sector in Lao PDR and to unify students of the eight northern provinces (Louangprabang, Sayaboury, Xiengkhouang, Phongsaly, Louangnamtha, Bokeo, Oudomxay and Houaphanh).

NUOL has responsibility for the academic monitoring of both CU and SU with respect to curriculum implementation and the professional development of teaching staff. The Ministry of Education supervises administrative and academic staff, and gives recommendations on common trends for university development. Through the provincial administrative authorities, the Government of Lao PDR provides the land, buildings, faculties and budget.

Human Resource Development

Personnel Management

NUOL organizes and manages its personnel activities in accordance with rules, regulations and directives issued by the Ministry of Education and the Government. It carries out the following personnel development functions:

- Organizing, depending on the funds available, to train its staff and upgrade their skills to enable them to effectively perform their duties and responsibilities
- Promoting research activities among staff, and provide necessary facilities and suitable working environments for these purposes
- Rewarding staff for meritorious services, in the form of medals or certificate of honour in different levels
- Providing welfare facilities to its staff in accordance with the regulations formulated by the university

Staff Development

The staff development programme at NUOL has created opportunities for academics to attend international conferences and to undertake overseas short- and long-term training amounting to roughly 150 persons per year. The forms and manner of training have included the following:

- On the job-training
- Short-term work attachments
- Short-term academic courses (Diploma, MSc) in country or overseas
- Long-term formal academic programme (MSc or PhD)

For the first two years, the staff training depended on foreign grants and scholarships. The staff development programme was implemented under an Asian Development Bank (ADB) loan. The programme enabled 143 staff of the central administration and faculties as well as the Department of Higher Education, Ministry of Education, to develop capacity through training. Since 2003, new developments and changes in the university have taken place relating to reorganization, new appointments, transfers and recommendations by consultants. The last phase of the programme was initiated in 2002 enabling 195 key staff to undertake study-visits, work attachment and short courses. Long-term training is limited to young staff, with approximately 30 teaching staff benefiting from this programme.

Curriculum Development

Curriculum development has proceeded on the basis of the need to establish a sound basic education complimented by the development of general skills, including critical, analytical and creative thinking, as well as communicative and project management skills. The majority of the programmes delivered by NUOL are five-year courses. The first two years are carried out in the School of Foundation Studies (SFS), with the following three years in one of the ten faculties with the following exceptions:

- Medicine: 2+5 years
- Dentistry: 2+4 years
- Architecture: 2+4.5 years
- English: 2+3.5 years

Courses are followed under a credit-based system. The standard five-year programme includes credits ranging from 170 to 190, while a six-year programme requires a range from 210 to 265. The credit value corresponds to the class contact hours, and varies according to the nature of the contact. For example, in the lecture mode, one credit is equal to 16 contact hours. In the case of laboratory work or seminars, one credit may be worth between 32 and 48 contact hours, and in the case of field work, the value of credits is between 48 and 96 hours.

The curriculum reform programme has proceeded smoothly, but a number of issues have emerged for further development. These relate to:

- The alignment of the SFS and faculty curricula
- The difficulties associated with implementing curricula notably in SFS where there are more than 3,000 students at present; the increase in student numbers has been more than anticipated and outpaced developments in faculty infrastructure and teaching staff development
- The fact that almost all teachers in SFS are not in the faculties; as a result, there is lack of ownership on student performance because students are not their own, and teaching is regarded as an imposition

DEVELOPING RESEARCH CAPACITIES

Research Development

Research is an important university function and was specifically detailed in the decree on establishing the National University. However, research activities have not, until recently, been noticeable in the institutions, and the overall status of research and development can be said to be in an embryonic stage of development. Private colleges do not currently undertake research. There is no promotion or incentive to encourage staff to undertake research activities, to seek outside funds, organize institutional exchanges of information, and to canvass for topics and funds to support university-based research activities. In addition, previously few staff had a higher degree. For many, research meant going abroad to study for such a degree. The obstacles can be summarized as:

- Time: Low salaries meant staff often had supplementary jobs. Time taken away from supplementing their incomes presented a high opportunity cost
- Inadequate qualifications: Limited qualifications meant that there was not the skills base or confidence to undertake research
- Shortage of funds and equipment
- Language problems: Poor command over major foreign languages hinders access and utilization of scientific publications

Over the last two years, this situation has changed. Staffs are now allowed to spend 10 percent of their working hours on research. Recently, many more staff have returned from abroad with master's or PhD degrees. Currently, there are more than 285 master's degree holders and 50 PhD holders out of an approximate total of 800 academic staff.

More teachers have now participated in research methods training in their field of study. There is much greater awareness of research among most faculty members. New criteria for academic promotion has increased awareness and most university staff agree that academic research should be a factor in promotion. This, in turn, has increased the incentive to do research. The institutional arrangements for promoting and managing research now exist in the form of a Research Development Committee (RDC) in the Academic Affairs Office.

NUOL's Research Policy

Despite shortages in qualified staff, NUOL has been able to carry out some research projects. Research has included pure, applied and contract research activities. For NUOL, the following objectives are at the heart of the overall research strategy:

- NUOL will encourage and support all academic staff to carry out research
- NUOL will permit competent staff to deliver consulting services in their field of expertise
- Academics will be allowed to devote 20-30 percent of their normal working time to their research
- Academics are allowed to use the facilities of their faculties for research under contract with outside bodies, in accordance with the regulations of the faculties

In addition, NUOL will establish a Committee for Research Development and Consultancy (CRDC). Its terms of references are as follows:

- Develop and implement research policy
- Recommend the allocations for University research fund
- Encourage applications for external research funds
- Supervise and make recommendation on all research and consultancy contracts
- Recommend and monitor links with external research institutions
- Review and make recommendations to the University Council on NUOL policy for research and consulting
- Receive and review annual reports on research and consultancy

THE CHANGING ACADEMIC PROFESSION

Significant changes and improvements are required to enable the higher education sector to achieve the national policy objectives. These include improvements in the structure and organization of teaching and management. Each of these areas requires redefining the academic profession for those currently in the sector. As part of the changes in the structure and organization of higher education, the following key activities are being planned:

- Establishment of a master's degree in economics and medicine
- Provision of more higher diploma programmes in different fields to meet labour market demands
- Establishment of multi-disciplinary colleges in the private sector

As part of the agenda for promoting innovations in teaching and learning, the following key activities are being planned:

- Upgrading the knowledge of the teachers/employees by using evening courses
- Promoting the articulation of bridging course programmes
- Promoting suitable credit transfer systems at the national level

As part of the agenda for promoting innovations in management, the following key activities are being planned:

- Decentralization: e.g. enhancing autonomy and accountability of universities in curriculum design, student recruitment, institutional structure, resource mobilization and in international cooperation activities
- Diversification: e.g. extending capacity beyond public institutions to establish new kinds of semi-private colleges

ROLES AND FUNCTIONS OF PRIVATE HIGHER EDUCATION

Private higher education has developed quickly since the Prime Minister's Decree on Private Education in August 1995. The decree has promoted investment in education and established a regulatory framework within the context of the national education system. From 1992 to 2000, there were 14 private colleges registered, and by 2005 there were 31 colleges (related to commerce, business, computing, technology and English language studies). This increased the number of students from 101 to 15,301, including 3,893 students pursuing bachelor's degrees.

The Prime Minister's Decree on Private Education defined the legal framework for the establishment and operation of private schools. It addressed some of the issues and concerns confronting private education by defining specific means of support and encouragement that private education could receive. The specific means of encouragement and support included the following:

- Teachers in government schools are allowed to work part-time in private schools, under conditions determined by the Ministry of Education.
- The Government permits the authorized person or juristic person to loan or rent the school's assets when possible.
- Private schools are exempt from business tax, income tax, land-use tax and customs duties for the import of necessary instructional materials.
- The Government supports and encourages private schools to have innovative forms of teaching and learning where possible.
- The Ministry of Education will provide in-service training and continuing education for teachers of private schools.
- The Ministry of Education is allowed to obtain aid from international organizations to grant to private schools.

INTERNATIONALIZATION OF HIGHER EDUCATION

International cooperation is a key activity in supporting and facilitating the development of higher education in terms of quantity and quality. The establishment of strong relationships with similar institutions in other countries has been promoted in order to enable the exchange of experience as well as staff and students. Staff development, teacher training and joint research and development programmes have resulted, facilitating the transfer of knowledge and exchange of the best practices.

Table 19 lists the various institutions that cooperate with NUOL and duration of the joint projects, thus showing how NUOL has developed an internationalization direction.

Table 19: Cooperation between NUOL and overseas institutions

Country	Universities/Institution	Duration
Australia	University of Technology Sydney(UTS)	5 years
	University of Sydney	5 years
	University of Canberra	5 years
Japan	Nagoya University of Commerce and Business	5 years
	Meiji University	5 years
	Tokyo University for Foreign studies	5 years
	Azusasekkei University	5 years
	Japan International Cooperation Agency	4 years
	Ritsumeikan University	
	Kobe University	
	Kyoto University	
France	University of Lyon 2	5 years
	Francophonie AUEPLF-UREF	5 years
	Metz University	5 years
	Montagne University Bordeaux 2	5 years
	University of Rouen	
	French Center Blaise Pascal	
South Korea	Dankook University Seoul	2 years
Viet Nam	Viet Nam University of Hanoi	5 years
	Hanoi National Commerce University	5 years
	Viet Nam National University of H.C.	5 years
	Cantho University	
	University of Forestry	
New Zealand	Auckland University	2 years
Thailand	Kasetsart University	5 years
	Ubon Ratchathani University	5 years
	King Mongkut Institute of Technology	5 years
	Mahasarakham University	
	Khon Kaen University	5 years
USA	City University	5 years
	Lao American Center	
	English Language Institute	
Belgium	Council of Institution Francophone Univ.	
	Gembloux University	
China	Yunnan University of Minorities	5 years
	Guangxi University of Minorities	5 years
Canada	University of Laval	
	Montreal University	
	Calgary University	
Germany	German Academic Exchange Service	1 year
Sweden	Government of Sweden	3 years

To attract international assistance, and gain international recognition, NUOL has focused on fostering relationships and substantial technical cooperation with overseas institutions. Over a period of five years, NUOL has signed Memorandums of Understanding (MOU) with more than 30 institutions. In addition, there is a small but growing trend for international students to come to NUOL as a result of these MOUs. These are documented in Table 20.

Table 20: International Students in the period of years 2000 to 2005

Nationality	Academic Years				
	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005
Vietnamese	12	29	51	77	173
Japanese	3	1	4	7	19
Korean	3	3	3	3	7
Chinese	2	1	9	0	20
British	0	0	1	4	1
Russian	0	0	2	1	2
American	0	0	1	0	0
Cambodian	6	2	2	2	27
Total	26	36	73	94	249

ACCREDITATION AND QUALITY ASSURANCE

Quality Assurance Developments

Enrolment increases in higher education have on the whole outpaced quality improvements in higher education. A formal accreditation and quality assurance process has been set up by the Ministry of Education to tackle this issue. The concept of quality embraces many factors, such as governance/management, teachers, students, teaching and learning programmes, research, financial resources, instructional materials and equipment including optimizing the use of information and communication technologies in the overall institutional environment. Quality assurance is crucial and requires a system for analysis and evaluation, self-evaluation and external review to achieve full transparency and accountability.

To enhance the quality of higher education, the Ministry of Education has undertaken the following measures:

- Improving the admission system to higher education by establishing an entry system based on three criteria: (i) equity and access to disadvantaged groups, (ii) academic performance, and (iii) financial need

- Increasing the number of programmes, in line with the Decree on the Profile of Curriculum issued in 2001, to meet the quality and relevance requirements of higher education
- Increasing the number of employer studies and career guidance services to improve the relevance of programmes to meet the requirements of employers, parents, students and the community and the labour market
- Improving teacher quality to upgrade the quality of higher education. Although student/teacher ratios have improved, there remains a high percentage of unqualified and under-qualified teachers as well as specific subject teacher shortages. The Decree relating to the Academic Degree of Teachers in higher education institutions was promulgated in July 2001 to raise the quality and quantity of the teachers

Pathways for System Delivery

Previously, higher education curriculum was rather narrow, designed specially for the needs of the concerned ministries. A system needs to be developed to enable academics to develop routes to support further study and progress from one level to another. Also of importance are the pathways between technical education and higher education and the need for flexible entry and exit to and from the system of higher education. In relation to this objective, a credit system has been used in NUOL. At present, the Ministry of Education and NUOL are taking action on the question of cross-sectoral curriculum coordination and integration, especially in technological and science-based professional education. It is necessary to make arrangements for a national qualification framework to facilitate credit transfer within the system and reduce wasteful duplication and barriers to student progression between programmes and institutions.

Self-accreditation - Quality Assurance at NUOL

Self-accreditation or quality assurance is a new and important matter for NUOL. To facilitate the smooth functioning of quality assurance activities, NUOL will need to develop and formalize a quality assurance system. A Quality Assurance Task Force has been set up which consists of representatives from each faculty. The Task Force will initiate action on developing the necessary quality assurance system. The main objectives for quality assurance at NUOL are:

- Support the mission of NUOL by ensuring the appropriate quality (or high quality future) of studies and services

- Enhance teaching and learning activities to reach high-quality standards step by step;
- Stimulate and enhance research, community services, and cultural and environmental preservation
- Facilitate and coordinate the continuous enhancement and implementation of study programmes in all faculties

CHALLENGES AND FUTURE DEVELOPMENT

A number of issues and challenges require national and institutional responses. These can be summarized as follows:

- **Capacity:** The number and type of institutions that can conduct relevant training and education programmes and supply an adequate number of trained graduates need to increase. Laos has only one higher education institution at the national level, namely NUOL, which is able to offer a comprehensive set of undergraduate and graduate degree programmes. This is clearly insufficient to fully develop the intellectual base of the country's human resources and help the Government to achieve the goals of the New Economic Mechanism.
- **Quality:** The present degree granting institutions, higher technical college and technical colleges do not meet acceptable regional quality standards. To solve this issue, a multi-dimensional framework of variables needs to be developed that addresses the following: non-instructional resources, instructional resources, instructional media resources, curriculum development, involvement of employers through programme advisory committees, health and safety standard development, and in setting instructor/administrator qualifications.
- **Efficiency:** The post-secondary education and training sector comprises a large number of relatively small institutions controlled by too many governing bodies. Most post-secondary education and training institutions are significantly over-staffed, as measured by both their very low student-staff ratio and by their very low instructional contract hours per week.
- **Effectiveness:** Reviews of the operational performance of the post-secondary education and training institutions need to take place. Presently, the majority of institutions find it difficult to achieve regional performance standards. Failure and drop-out rates are high, a large percentage of graduates from higher learning institutions do not seek employment that match their formal training and education, and administrator resources so that education and training outcomes are not achieved cost-effectively.

- **Equity:** The country's public post-secondary education and training system has significant difficulties in ensuring access across gender, ethnic minorities and disabled groups.
- **Management and Planning:** There is a lack of overall planning, management and monitoring within the post-secondary education and training sector. Although a 1993 government decree giving the Ministry of Education and specifically HTVED responsibility, further institutional changes will be required to enable them to effectively perform their roles.

A New Strategic Vision on Higher Education

The Government has developed a new strategic vision on higher education in Laos around three pillars:

1. Equitable access
2. Quality improvement
3. Planning and management

Table 21 highlights some of the objectives and strategies that the Government will develop to achieve the strategic vision and mission for higher education in Laos over the coming years.

Table 21: Objectives and strategies for higher education development

Objectives	Strategies
<p>Objective 1: Educate higher learning graduates, which are relevant to the market and socio-economic needs of the country</p>	<ul style="list-style-type: none"> • Establishment of placement and alumni tracer services • Revising and adapting the curriculum to respond to changes • Introducing guidance for helping students • Establish an information system on career and employment • Promote the linking of university, government and workplace • Provide greater diversity of course by conducting normal courses, short courses, provision of distance

Objectives	Strategies
<p>Objective 2: Provide opportunities of higher and lifelong learning for students by offering the flexible entry and exit points to and from the system of higher education</p>	<p>education and promoting private education provision</p> <ul style="list-style-type: none">• Affirmative action for the promotion of women and ethnic minority students• Extend the possibility of the National University to open and distance learning• Establish distance learning institutions by using new information and communicating technology• Establish a comprehensive regional college in two regions: Province Vientiane and Savannakhet• Introduce and promote multi-disciplinary study• Promote articulation and credit transfer between vocational, technical and higher education• Increase the fellowships for poor and needy students especially for future secondary teachers• Encourage private education to invest in higher education• Cooperate with higher institutions in other countries to deliver formal courses of study and distance learning• Introduce a student loan system for students who cannot afford the cost of higher education• Deliver on-line learning for some courses and programmes of study• Preserve the Lao culture and tradition through higher education
<p>Objective 3: Deliver social services</p>	<ul style="list-style-type: none">• Deliver special and short-term courses• Provide consultancy services• Conduct research activities• Provide credentials and certification of the qualification

Objectives	Strategies
<p>Objective 4: Improve the quality of higher education to meet international standards</p>	<ul style="list-style-type: none"> • Develop income-generating activities by promoting production in the higher institutions • Increase the quality of teachers by encouraging short-term and long-term staff development through pre-service and in-service training programmes • Improve the social and financial status of teachers by giving incentives • Improve the student admission system to be based on merit • Produce instructional materials and textbooks in Laotian language • Develop information technology driven education and provide opportunities for students to access the internet • Improve study programmes • Improve physical facilities, equipment, science laboratories and audio-visual equipment in faculties and colleges • Construct new buildings and renovate existing buildings • Establish a national regulatory framework for credit accreditation and quality assurance and internal quality assurance in each institution
<p>Objective 5: Strengthen research activities in applied research</p>	<ul style="list-style-type: none"> • Conduct research on higher education • Increase funds for research activities • Link research activities to motivate and promote teachers • Link research to income-generation activities and community services

Objectives	Strategies
Objective 6: Improve planning and management	<ul style="list-style-type: none">• Complete legislation, rules, norms and standard guidelines• Develop a strategic plan for higher education and for institutions of higher learning• Integration of Management Information Systems• Upgrade the capacity of personnel management levels• Allocate scholarships based on equity and merit• Strengthen the budget and finance capacity to promote cost-sharing and cost-recovery schemes• Promote the participation and involvement of society• Establish an endowment fund for promoting private sector participation
Objective 7: Promote international cooperation	<ul style="list-style-type: none">• Promote regional and international cooperation and networking in higher education• Encourage involvement in regional and international activities• Encourage students and staff exchange• Promote the mutual recognition of qualification and academic mobility• Develop joint research projects and activities• Improve international understanding and promote the culture of peace between countries• Promote academia, intellectual and moral solidarity within higher education institutions and the sharing of knowledge and expertise across borders

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MALAYSIA
Morshidi Sirat

INTRODUCTION

Global Forces Affecting Malaysian Higher Education

Since the 1990s, the context in which higher education functions is best described as ever changing. Within this context, and insofar as higher education is concerned, internationalization and globalization are the two key themes that feed into the debates and discourses (Enders 2004, p. 361). Arguably, this situation is a reflection of the many possibilities in providing and delivering higher education – a public and (increasingly becoming) private good – in the era of internationalization and globalization. Consequently, higher education across the world continues to undergo a process of marked differentiation, either horizontally with new providers entering the higher education system or vertically as institutional types proliferate (World Bank 2000, p. 48). However, the World Bank cautions that while the trends in globalization will offer numerous opportunities for the developing countries in the field of higher education, there are potential threats of which these countries need to be mindful.

It is generally acknowledged that the differences between globalization and internationalization are subtle, and there is considerable overlap between the two terms (Middlehurst 2002, p. 15). In this paper, the two terms refer to the specific situation and context of the delivery and provision of higher education. Specifically, and following Teichler (2004, p. 7), internationalization refers to a situation whereby there is an increase of border-crossing activities amidst national systems of higher education. This term is often used in relation to physical mobility, academic cooperation and academic knowledge transfer, as well as international education. In contrast to internationalization, globalization tends to assume that borders and national systems get blurred or even might disappear; often the term is associated with competition and market-steering, transnational education, and finally with commercial knowledge-transfer.

Within the context noted above, internationalization and globalization of higher education has an important implication for trade in education services. For instance, Knight (2002, p. 1) alludes to the idea that such a situation would necessarily demand trade liberalization thereby requiring dismantling of real and perceived barriers in the trade of higher education services. Furthermore, it

requires governmental intervention on visa restrictions, taxation policy (which often places foreign institutions at a disadvantage) and accreditation arrangements that provide privileges to domestic institutions.

From the above, it follows that globalization and the transnationalization of higher education is multi-faceted in nature. For instance; the *Futures Project*¹⁰ noted that several universal factors impact higher education in both developed and developing countries and these are summarized as follows. First, and admittedly the most important factor, is the movement from manufacturing- and service-based economies to knowledge-based economies. In this connection, the World Bank (2000, p. 9) study, which looks at higher education in developing countries, notes that the world economy is changing as knowledge supplants physical capital as the source of present (and future) wealth. In this context, it is argued further that as knowledge becomes more important, so does higher education.

The second major force transforming higher education as noted by the *Futures Project* relates to the greatly increased enrolments in most countries over the past four decades. Noticeably, while enrolments have leveled off in some countries, higher education infrastructures are still catching up elsewhere with an increased load of students seeking access.

A third source of pressure, which is increasingly felt in developing countries, comes from the new providers (for-profit educational institutions) created in response to the growing student demands for higher education. These institutions often view students as a profitable market and are exerting a new form of competitive pressure on the older, traditional, by-and-large public, institutions. It is argued that the rapid growth of what are called “for-profits” educational institutions has been paralleled by an explosive growth of private institutions all over the world. In many cases, these private schools are pulling both talent and resources away from existing institutions and for some reason are slow to be integrated into, or even acknowledged by, national education systems.

It is observed that in many countries, centralized government authorities have been gradually stepping back (retreat of the state) and letting the private higher education sector expand as they no longer have the resources nor the will to provide for new or expanded public institutions for the increased number of students (see Middlehurst and Woodfield 2004). The “autonomy” of these private

¹⁰ The Futures Project: Policy for Higher Education in a Changing World has produced many publications, working papers and reports pertaining to higher education in a changing world. See <http://www.futuresproject.org/news-publications.html>. Accessed 10 June 2005.

and for-profit institutions, however, varies significantly between countries, depending on the character of their main sponsors. This autonomy has to some extent given a wide leverage to for-profit higher educational establishments to try new and varied approaches to higher education provision and delivery, which led to quality and equity concerns.

Fourth, worldwide technological advances now hold the potential to profoundly alter the nature of provision and delivery and even trade in higher education, and already have in some cases. Transnational and borderless education is of great interest in this respect. Transnational and borderless education are terms that are being used to describe real or virtual movement of students, teachers, knowledge and academic programmes from one country to another (Knight 2002, p. 3). It is pertinent to note that, facilitated by advances in ICT, trade in higher education services has expanded to emerge as a billion-dollar industry involving recruitment of international students, establishment of university campuses abroad, franchised provision and online learning (Knight 2002, p. 2).

Malaysia is and continues to be impacted by the universal forces noted above, but local responses and the consequences may vary somewhat. The objectives of this study are, therefore, to present a situation analysis of higher education in Malaysia, focusing on what is unique and peculiar to Malaysia, while highlighting lessons learned since the democratization and massification of higher education in the late 1990s. While trade in education services is an important angle to pursue in this report, data limitations and definition problems have made this infeasible for now. However, comments and observations will be made based on current development and trends in this area. Realizing the importance of trade in education services in the current era, the Malaysian Government has taken appropriate steps to address data limitations and constraints.

HIGHER EDUCATION REFORMS IN MALAYSIA

A general analysis of higher education reforms in Malaysia, particularly those relating to the growth and development of private higher education, highlight the fact that the Government has acknowledged the important contribution of private higher education. However, the Government is also very concerned that in the absence of regulations, the system of higher education in Malaysia may drift into some new "market-oriented format" with serious consequences for quality and equity and that society will be losing some of the attributes of higher education that are essential to a free and effective society (see for instance Middlehurst and Woodfield 2004).

Education reforms governing both public and private higher education were tabled in 1996, namely the Education Act 1996, Private Higher Educational Act 1996, National Council on Higher Education Act 1996, National Accreditation Board Act 1996 and Universities and University Colleges (Amendment) Act 1996. The passing of these acts in parliament in 1996 was timely, as higher education was seen as vital to Malaysia's economic growth and an important component in turning Malaysia into a regional education hub. It is important to note also that reform provides the necessary regulatory framework for the liberalization and privatization of higher education on a larger scale to meet the social and economic needs of the country.

The higher education system in Malaysia is still in a state of flux, and new reforms are required to smoothen the running of the system and to address new developments and challenges (see for instance Shafie 2005). In this connection, it is increasingly being recognized that higher education is gradually becoming part of the growing service industry, and "the business objectives of efficiency and systematization" (Cremin 1970) were increasingly being applied to academic institutions in Malaysia. Interestingly, this is a situation observed worldwide (see Newman and Couturier 2001). It is imperative, therefore, that reform relating to the provision of resources and opportunities on the basis of equity and private-public partnership needs to be put in place to complement existing reforms on the development of quality, effectiveness, efficiency, academic freedom, institutional autonomy, public accountability, and good governance.

The Private Higher Educational Act 1996 was amended in 2003 in response to new challenges in the provision of private higher education¹¹. Specifically, the amended act provides for the establishment and upgrade of private universities, university colleges and branch campuses of foreign universities in Malaysia. Indeed, several private higher educational institutions were subsequently upgraded to university colleges.

Also in 1996, the Universities and University Colleges (Amendment) Act 1996 was passed to empower public higher educational institutions with greater administrative and financial autonomy. It is anticipated that with these levers, public higher educational institutions will be able to chart programmes and action plans necessary for the promotion of academic excellence and public-private partnerships or collaboration. In other words, this act seeks to corporatize the management and administration of public higher educational institutions so that these institutions would become not only efficient but accountable (see Lee 2004).

¹¹ For a detailed discussion on this see Morshidi (2004) and for development before 2004 see Lee (2002, 2004).

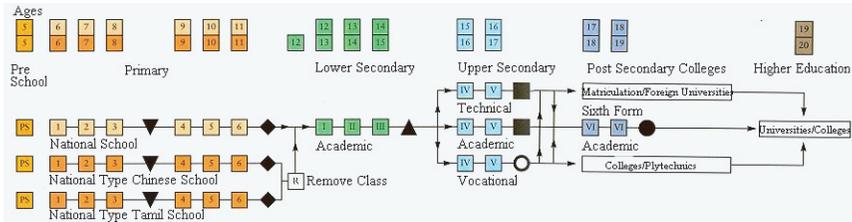
In view of the importance of higher education in of meeting the socio-economic objectives of Malaysia by 2020, the Ministry of Higher Education (MoHE) was established in March 2004. Prior to this, higher education matters were under the Ministry of Education through the Department of Higher Education, which was established in 1995. The MoHE is mandated to continuously improve standards so as to produce quality graduates to meet the needs for a skilled workforce, and to make Malaysia the regional and international hub of educational excellence. Apart from universities and university colleges, polytechnics and community colleges were also brought under the jurisdiction of the MoHE. The separation of the Malaysia Education Ministry into two separate ministries must be seen as an attempt to improve efficiency in the management of education in Malaysia.

In light of the global changes and challenges noted earlier, the MoHE established a working committee in late 2004 to look into higher education in Malaysia. This working committee was mandated to formulate a National Higher Education Policy. Lee (2002, p. 40) notes that educational reforms in Malaysia in the 1990s "have been very much influenced by global trends such as the democratization of education, the decentralization of the national education system, the privatization of higher education, the shift towards standardization and quality assurance." In 2005 and beyond, reforms and changes to higher education will continue to be put in place and this will likely be very much influenced and determined by the potential of trade in education services.

ACCESS TO HIGHER EDUCATION

The impact of higher education reform and liberalization as noted above in some sense signifies the Malaysian Government's deliberate attempt at the liberalization and massification of higher education. Diagram 1 indicates the possible pathways taken by a student from primary education to higher education in Malaysia, an indication of this massification process. Higher education is defined in the 1996 legislation on higher education, as courses that lead to degrees, higher degrees, and post-graduate diplomas (Middlehurst and Woodfield 2004, p. 8). In so far as private higher education is concerned, the authors note that there is also a range of non-traditional pathways towards the degree qualification in private colleges either through the Malaysian Public University Degree Franchised Programmes or External Professional and Semi-Professional Examinations.

Diagram 1: Pathways to higher education in Malaysia



Source: Malaysia-Japan Cultural & Educational Exchange Program (n.d)

Admittedly, access to higher education in Malaysia greatly depends on the financial contribution of the Government and the economic status of the students (Hassan 2002). During the Eighth Malaysia Plan period (2001-2005) public expenditure allocation for education and training amounted to MYR 40.2 billion¹², which is no less than one-fourth of the total development expenditure for the nation. But it is important to recognize that even in developed countries with relatively high rates of participation in education, access remains one of the most divisive issues and challenges in Malaysian higher education (Hassan 2002).

Table 22 indicates that enrolment in the public institutions has been increasing since 2000 when the new public university colleges were fully operational. Based on UNESCO’s estimates, the current tertiary education participation rate in Malaysia is around 24 percent (UNESCO 2002, cited in Middlehurst and Woodfield 2004, p. 18). This compares well with other developing countries at the same level of socio-economic development. As of 2002, about 25 percent of the 17-23 age cohorts were pursuing higher education, and in order to be at the level of developed countries the number of students in the age cohort 17+ to 23+ pursuing higher education has to be increased to 30 percent in 2005 and to 40 percent by 2010. Thus the MoHE expects the number of places in higher education to be increased to at least 1.05 million in 2010 (Hassan 2002).

It is important to note the increasingly acute “gender gap” in the enrolment of students in public universities in Malaysia. In 2001, the then Minister of Education revealed that the female to male ratio at public universities was 65:35. At the individual university level, the gender gap is more glaring. For instance, in Universiti Kebangsaan Malaysia (UKM), eight out of ten students are females. However, males still outnumber females at the post-graduate level¹³. In the private educational sector, there is no reliable gender gap figure.

¹² As of 12 September 2005, US\$ 1= Malaysian Ringgit (MYR) 3.8.

¹³ See *New Straits Times*, Kuala Lumpur, 25 May 2001.

The establishment of the National Higher Education Fund in 1996 aims specifically at democratizing higher education in Malaysia through financial assistance in the form of study loans to students enrolled in institutions of higher education. As of December 2004, there were 618,044 students who benefited from the study loans provided by the Fund (a total disbursement amounting to MYR 7.99 billion) (Shafie 2005). Thus, with the establishment of this Fund, the question of access and affordability should in theory become a non-issue¹⁴. In this connection, Prime Minister Abdullah Ahmad Badawi's (2004) remarks that "the greatest challenge for Malaysian education no longer lies in improving access, but to dramatically enhancing the quality of our education system." While this is true, generally the Malaysian Government is still committed to increasing access to higher education and this is clearly stated in the Seventh and Eighth Malaysia Plans (Middlehurst and Woodfield 2004, p. 18). Presumably the Ninth Malaysia Plan, which is under preparation, will continue the focus on improving access to higher education. This issue of access to higher education will continue to be met through various policy directions, such as increasing access to existing public institutions, expanding access through diversification of the sources of supply through establishing a range of private institutions, and developing new and increasingly important delivery methods such as open, distance and lifelong learning.

Table 22: Enrolment in public higher educational institutions, 2000-2005

	2000		2003		2005	
	No	%	No	%	No	%
First Degree						
Arts	81,914	48.0	96,452	43.4	103,846	42.5
Science	49,575	29.0	66,237	29.8	71,897	29.4
Technical	39,305	23.0	59,611	26.8	68,784	28.1
<i>Total</i>	<i>170,974</i>	<i>100.0</i>	<i>222,300</i>	<i>100.0</i>	<i>224,527</i>	<i>100.0</i>
Diploma						
Arts	39,872	43.2	49,628	40.5	55,961	37.8
Science	17,024	18.4	20,617	16.8	22,945	15.5
Technical	35,412	38.4	52,300	42.7	69,119	46.7
<i>Total</i>	<i>92,308</i>	<i>100.0</i>	<i>122,545</i>	<i>100.0</i>	<i>148,025</i>	<i>100.0</i>
Certificate						
Arts	6,325	22.5	13,244	23.6	21,434	24.1
Science	1,008	3.5	1,579	2.8	2,110	2.4
Technical	20,821	74.0	41,282	73.6	65,304	73.5
<i>Total</i>	<i>28,154</i>	<i>100.0</i>	<i>56,105</i>	<i>100.0</i>	<i>88,848</i>	<i>100.0</i>

Source: Malaysia 2003 (Eighth Malaysia Plan Mid Term Review 2001-2003)

¹⁴ The Fund is currently questionable due to a rather low rate of repayment among loan recipients. Of a total of MYR 7.99 billion disbursed to students, loan repayment rates as of February 2005 amounted to only MYR 93 million or 22.2 percent of the disbursed amount. The Fund is now taking various steps to recover loans, including publishing the names of loan defaulters in local newspapers.

At this juncture, the important role of the private higher educational institutions in increasing access to higher education must be acknowledged. Table 23, for instance, indicates the ever-increasing enrolment in the private sector between 1998 and 2005. It is noteworthy that, as of 2005, out of a total tertiary enrolment of 804,201 about 40 percent are to be found in the private educational sector. The private sector efforts in providing places complement the public sector initiatives. The role and functions of the private sector will be examined in some detail later in this paper.

Table 23: Enrolment in private higher educational institutions, 1998-2005

	1998		2000		2005	
	No	%	No	%	No	%
Technical	38,066	22.6	40,848	15.1	53,472	16.6
Science	39,684	23.6	95,847	35.4	81,575	25.3
Arts	90,739	53.8	134,078	49.5	187,844	58.1
<i>Total</i>	<i>168,489</i>	<i>100.0</i>	<i>270,904</i>	<i>100.0</i>	<i>322,891</i>	<i>100.0</i>

Source: Ministry of Higher Education Malaysia 2005

DIVERSIFICATION OF HIGHER EDUCATION

Since the liberalization and massification of higher education in 1996, the delivery and provision of higher education in Malaysia has experienced significant changes in terms of numbers and diversity (mode), particularly in the private sector (see for instance Lee 2004; Morshidi 2004). Currently, there are 16 public higher educational institutions funded by the Malaysian Government, and one university (the International Islamic University) incorporated under the Companies Act, but normally included in the public sector list of institutions. It is noteworthy that eight new public institutions of higher education were established since 1996, a direct consequence of the increasing demand for places and for skilled human resources. More telling is the fact that five of these eight new public higher educational institutions were established in the last five years, and they are mandated to offer undergraduate courses in the technical and technology fields. The capacity of all the sixteen public institutions of higher education increased substantially from 170,974 in 2000 to 244,527 in 2005 (Malaysia 2003). In addition, the Government has also established community colleges, polytechnics and teacher training colleges to meet the demands for semi-skilled and skilled workers. As of end of 2004, there were 34 community colleges in operation, 13 polytechnics and 27 teachers training colleges providing places for students pursuing diploma and certificate qualification.

Insofar as the private providers are concerned, there are currently eleven Malaysian private universities, five branches of foreign universities and six university colleges specializing in courses relating to business, applied science, IT, engineering and medical disciplines. Once again, all these private higher educational institutions were established in the last ten years. The following providers are playing a very important role in providing places for higher education:

1. Public institutions of higher education (public universities and public university colleges)
2. Private institutions of higher education (private universities, private university college, overseas branch campuses, virtual/e-university, Open University, private colleges and IT academies)

Ahmad Mahzan and Noran Faridah (1999, see Morshidi 2004) identified five categories of private higher educational institutions according to their funding sources, namely:

1. Large corporations or organizations closely linked to the Government, for example, Universiti Teknologi Petronas (owned by the National Oil Corporation, Petronas), the National Electricity Corporation's Universiti Tenaga Nasional, Malaysia Telecommunication's Multimedia University, and Kolej IKRAM (formerly Public Works Department Training Institute)
2. Those established by large public listed companies such as Sunway College of the Sungai Wang Group
3. Those established by political parties of the *Barisan Nasional* Government, for example, Malaysian Indian Congress's Technical and Further Education (TAFE) College Seremban, and the Asian Institute of Science and Technology; Malaysian Chinese Association's Kolej Tunku Abdul Rahman, and Universiti Tunku Abdul Rahman; and United Malay National Organisation's Universiti Tun Abdul Razak
4. Independent or self-funded private colleges such as Binary, Cenfad and Systematic
5. Local branches of foreign universities (for example, Monash University Sunway Campus, Curtin University of Technology Sarawak, Swinburne University of Sarawak, University of Nottingham Malaysia in Kuala Lumpur, and FTMS-De Monfort University Campus)

The increasing demands for higher education in Malaysia have also resulted in a varied range of course and degree offerings through both the traditional and non-traditional pathways. The traditional pathway will normally take the post-secondary

students to both public and private institutions of higher education, overseas branch campuses, technical and vocational institutes. Non-traditional pathways towards degree qualification is usually organized in various forms namely, Malaysian or foreign universities franchised programmes, external professional and semi-professional examinations, lifelong learning, and the transnational education pathways. The later refers to degree programmes offered by branches of foreign universities in Malaysia.

CHANGES IN UNIVERSITY GOVERNANCE/MANAGEMENT

A key argument in recent years has been the argument in favour of more autonomy for the universities¹⁵. By university autonomy we mean the university's power to govern and make decision on its on affairs without external interference (Chiang 2004, p. 191). It is often argued that university autonomy can be enhanced and protected through diversifying university funding bases (Chiang 2004, p189). Interestingly, this kind of argument is based on an assumption that there is a linear relationship between funding and autonomy, i.e. the greater the funding, the greater the autonomy (Chiang 2004, p. 190), which may not be true. Admittedly, such an assumption was to be the main impetus for corporatizing public universities in Malaysia in the late 1990s.

Much has been written and said about the corporatization of public universities in Malaysia (see Lee 2004). Put simply, corporatization is a process of making a state body into an independent commercial company (Bostock 1999). The very assumption of the corporatization of universities is based on several premises according to Bostock. First, the universities are assumed to be very similar to large business organizations and therefore being capable of being run as businesses. Second, universities are expected to raise a much greater proportion of their own revenue, enter into business enterprises, acquire and hold investment portfolios, encourage partnerships with private business firms, compete with other universities in the production and marketing of courses to students who are now seen as customers, and generally engage with the market for higher education. Third, the corporate university has the predominating characteristics of being an institution that pursues technical excellence and as one that follows a supplier/customer model of the basic educational relationship.

¹⁵ The Second AUNP Round Table Meeting on "Institutional Autonomy in Higher Education" was held in Barcelona, Spain, 13-15 January 2005 specifically to discuss university autonomy.

Bostock notes that some of the obvious consequences of corporatization that have received much acclaim are greater access to higher education for all and especially for disadvantaged groups, greater responsiveness to demands for more “relevant” courses and greater involvement of universities with the communities that surround them; in other words a demolishing of the “ivory tower”. Sadly, as observed by Bostock, the preponderance on “technical excellence” has resulted in the decline of the classical disciplines which can be seen occurring on a global scale.

Another important aspect of corporatizing universities may come in the shape of better administration styles or governance. The term “governance” in this study, and to some extent in the context of the corporatization of public universities in Malaysia, refers to several important elements. According to Middlehurst and Woodfield (2004, p. 59), these could easily be referred to as the formal and informal arrangements that allow higher education institutions to make decisions and take actions. The term also includes external governance, which refers to relations between individual institutions and their supervisors, and internal governance, which refers to lines of authority within institutions. Admittedly, governance overlaps considerably with management; the latter is seen as the implementation and execution of policies.

It was envisaged that through corporatization, public universities would be “freed from the shackles of government bureaucratic regulation provision and would be run like a business corporation” (Lee 2004, p. 66). It was anticipated that corporatized universities would be successful in their business ventures, raising endowments, setting up companies, acquiring and holding investments. It is argued that through corporatization, in the medium to longer term, the burden on government in terms of funding should be progressively reduced. But this was not to be the case: in many public universities, government allocation for operating activities has increased in percentage terms. For instance, the 2003 public operation expenditure amounted well in excess of MYR 4 billion and the development expenditure amounted to more than MYR 7 billion during the Eighth Malaysia Plan, 2001-2005. It is for this reason that public universities in Malaysia are not free from the “shackles of bureaucratic regulation”. Others may argue that the Government is not willing to “free” these public universities for they are in reality an important instrument for the restructuring of the Malaysian society.

Government’s stronghold on these public universities can be illustrated very clearly. For example, while the public universities can determine the fees for post-graduate courses (and this is one of the main other sources of income for these institutions,

especially the older ones), undergraduate students' fees must follow strictly the guidelines laid out by the MoHE. Noticeably, revenue for operating activities arising from students' fees has continued to decrease while income from consultancy, contract research, sale of expert services and other market-related activities has become an important source of revenue for many public universities. But, the proportion is still small. Lee (2004) has illustrated this fact very clearly in the case of Universiti Sains Malaysia.

Since these public universities are still being funded publicly, it is accepted that they have to toe treasury's budgetary guidelines and regulations. Notably, however, there is some delegation of powers for certain financial matters, in particular procedures relating to the calling and issuance of tender for the purchase of services, equipment and infrastructure development. Even then, the public universities are answerable to the Auditor General, just like any other government agencies. Nonetheless, corporatization of public universities has allowed these institutions to set up their respective companies to generate other sources of income while holding on to their core business. There is always an element of a "safety net" for these corporatized institutions, and this comes in the form of public sector assistance in times of great difficulty.

At this juncture, therefore, it is more important to examine the impact of corporatization on the effectiveness of university administration and management, rather than dwell on the question of the autonomy of public universities in terms of funding and spending. As public universities in Malaysia continue to be financially dependent on the Government and the universities' emolument structure is still (and most probably will be) under the jurisdiction of the Public Service Department¹⁶, many public universities have improved their performance through the restructuring and reorganization of the management set-up. Admittedly, therefore, corporatization has resulted in greater accountability from public higher educational institutions and this has become very important in view of the increasing scrutiny of these institutions by the Government and the public. All corporatized universities have undertaken steps to improve their institutional management internally, and the MoHE has under its new organizational structure established a section to handle matters pertaining to the governance of public higher educational institutions. Interestingly therefore, many of the consequences of the corporatization of public universities in Malaysia are seen in "changes to the style and outcomes of university administration" (see Bostock 1999). It is anticipated that "in the corporate university, administrators are expected to behave as

¹⁶ An emolument structure independent of the Public Service Department was originally envisaged in the corporatization plan for public universities; however, this was not implemented.

would the executives in any other large commercial enterprise except that the stakeholders are now the whole of society" (Bostock 1999). Lee (2004, p. 69) has attested to the fact that corporate managerialism is becoming increasingly evident in corporatized universities in Malaysia. The new styles would involve "acceptable level of force in achieving organizational aims," occasionally bordering to "robust even cut-throat style" (see Bostock 1999).

University autonomy in Malaysia should be "contextually and politically-defined" (see for instance Neave 1988, cited in Chiang 2004, p. 190) since the Malaysian higher education system is under close state control (in the case of the public universities) and strict supervision, as is the case with the private sector. In the case of the public universities, government's trust in how they run their affairs can have a more direct effect on the extent of university autonomy than funding (see Chiang 2004, p. 190). Interestingly, while Malaysian public universities are empowered, the room they have to exercise their powers may be rather restricted in many cases because government continues to have a stronghold in the running of the universities (Chiang 2004, p. 190; see also Lee 2004, p. 71).

Another thorny issue relates to accountability of the public universities. Accountability imposes a requirement to periodically explain actions, successes and failures transparently (IBRD 2000, p. 61). The corporatization of public universities in Malaysia must be seen in the context of "agreed rights and responsibilities" with buffer mechanisms determining the appropriate balance between autonomy and accountability (see IBRD 2000, pp. 61-62). For instance, the National Council on Higher Education acts as the buffer between the universities and the MoHE, and the Board of Directors of each public university acts as a buffer between the universities and the external bodies to which the institutions are accountable. In the Malaysian context, accountability is being viewed as a solution to the problem of declining standards and quality (see for instance Bostock 1999). Nonetheless, it is important to be reminded that while superficially appearing to be a good thing, accountability has, in practice, the undesirable effect of reducing responsibility (Bostock 1999).

RESTRUCTURING OF FACULTIES AND ACADEMIC PROGRAMMES

An excellent example of the restructuring of faculties and academic programmes in the Malaysian public universities context is the case of UKM¹⁷. In 1999, four science

¹⁷ Based on an interview with the Prof. Datuk Abdul Samad Hadi, Deputy Vice Chancellor, Academic Affairs, UKM, 1 July 2002. See also Muhammad Yahya and Imran Ho Abdullah 2004.

faculties were merged into a single Faculty of Science and Technology. In the following year, three social science-based faculties were merged into a single Faculty of Social Science and Humanities. It is expedient to argue that the restructuring exercise was undertaken as a direct response to two major issues: the challenges of globalization of higher education and the need for good governance and management within public universities (see Muhammad and Imran 2004). UKM's responses to these issues and challenges were crystallized and articulated in the need to innovate and create relevant multi-disciplinary programmes that are sensitive to the current and future needs of both students and employers. A second articulation of these issues and challenges was in the optimization of resources such as laboratories and equipment and, in particular, the human component of the university system. This could also be viewed as a direct response to corporatization. It is generally argued that when new programmes are introduced, they utilize or, more accurately, optimize existing resources. In UKM, curriculum reforms follow faculty restructuring. It is also important to note that curriculum reforms were very much influenced by the need to create relevant programmes, which would ultimately result in employable (quality) graduates. The UKM case has been touted as an exemplary case for other public universities. In fact, many public higher educational institutions in Malaysia have embarked on curriculum review (although some were rather limited in scope and depth) as a result of unemployment of graduates and glaring employment mismatch problems (see Morshidi *et al.* 2003; Morshidi *et al.* 2004). These reviews involved the introduction of courses on students' skills and competencies or, in the case of some universities, the primary concern is with the enhancement of these courses. In many cases, these responses are merely cosmetic in character, while leaving the curricula intact. Admittedly, changing the curriculum is a time-consuming exercise for the public universities, which in essence is contrary to the spirit of the corporatization of universities: corporatization should speed-up administrative procedures but, in the case of academic matters, this is not the case.

As of 2004, the 17 public higher educational institutions in Malaysia (including the International Islamic University) have a total of 173 faculties or schools offering 634 academic programmes at the undergraduate level. The number of faculties ranges from 22 in Universiti Sains Malaysia (USM) and three in Kolej Universiti Sans dan Teknologi Malaysia (KUSTEM) and Kolej Universiti Teknologi Tun Hussein Onn (KUiTTHO) (Table 24). While USM has 22 faculties/schools offering only 50 academic programmes, UKM has only 14 faculties but offering 80 programmes. Evidently, the restructuring exercise at UKM has effectively reduced the number of faculties, but not the number of academic programmes. Interestingly, 150 new academic programmes were being evaluated by the MoHE in 2005 (Shafie 2005).

Restructuring of faculties/schools obviously stemmed from external pressure, but was internally driven and managed. Good governance could be seen as playing an important role in the need for a complete restructuring exercise. Needless to say, this exercise was undertaken, in the case of UKM, amidst objections from the academic staff.

Table 24: Faculties and academic programmes at the undergraduate level in public higher educational institutions, 2004

Institutions	Faculties	Academic Programmes
Universiti Malaya	16	44
Universiti Sains Malaysia	22	50
Universiti Kebangsaan Malaysia	14	80
Universiti Putra Malaysia	15	72
Universiti Teknologi Malaysia	10	68
Universiti Utara Malaysia	13	25
Universiti Malaysia Sarawak	8	32
Universiti Malaysia Sabah	18	58
Universiti Pendidikan Sultan Idris	6	18
Universiti Teknologi MARA	20	86
International Islamic Universiti Malaysia	6	27
Kolej Universiti Islam Malaysia	4	4
Kolej Universiti Sains dan Teknologi Malaysia	3	19
Kolej Universiti Teknologi Tun Hussein Onn	3	20
Kolej Universiti Teknikal Kebangsaan Malaysia	4	14
Kolej Universiti Kejuruteraan dan Teknikal Malaysia	5	7
Kolej Universiti Kejuruteraan Utara Malaysia	6	10
<i>Total</i>	<i>173</i>	<i>634</i>

Source: Ministry of Higher Education Malaysia 2005

DEVELOPING RESEARCH CAPACITIES

A survey by the Malaysian Science and Technology Information Centre (MASTIC) showed 254 organizations involved in research and development activities in 2002 (Table 25), out of which 80 percent were in the private sector, primarily within the

manufacturing industries. Seventeen, or 6.7 percent, of the respondents were institutions of higher learning involved in 3,537 projects, or 44.5 percent of a total of 7,940 projects.

Research is one of the core businesses of all public universities and some private universities in Malaysia. Some of the public university colleges have also begun to be seriously involved in research, although they are not normally expected to do so. Private colleges and university colleges, however, do not normally undertake research. Four among the 16 public institutions, namely Universiti Sains Malaysia (USM), Universiti Putra Malaysia (UPM), Universiti Malaya (UM) and Universiti Kebangsaan Malaysia (UKM), have identified themselves as research-intensive universities through some internal assessment mechanisms. Interestingly, the ability to attract government research grants, in particular the Intensification of Research in Priority Areas (IRPA) grant, was generally acknowledged as some indication of the research capability of respective universities. MYR 667 million was disbursed under the IRPA grant in 2004 and a large proportion goes to the top four research-intensive universities plus Universiti Teknologi Malaysia (UTM) (Table 26). The next logical step is for these research-intensive universities to transform themselves into fully-pledged research universities.

The Third Outline Perspective Plan (OPP3) presented in parliament in April 2001 advocated for the establishment of Research Universities (RU) in Malaysia based on the view that universities function not just to produce graduates for the workforce, but should also generate intellectual capital, new knowledge and innovative technology (Lee 2005). The Government and presumably the Working Committee on Research Universities were of the opinion that RUs are a natural evolution in the overall education system and are vital for the nation's growth in a knowledge-based economy. It is argued that RUs are also where new ideas are explored, innovative methods are tried out, and the best intellectual initiatives are discovered to expand the frontiers of knowledge. In line with this, existing premier universities that already have strong research cultures and excellent track records in research activities would be elevated to research universities. Thus, the move towards establishing research universities in Malaysia was given a further boost with the submission of a working paper by a MoHE-appointed working committee.

Based on the experiences of universities in the developed world, it is argued that a very effective approach in establishing a research university is through structural change at the institutional level (Lee 2005, p. 21). With institutional support, the well-tested route of setting up research groups or research centres as a prelude to elevation to research university status was subsequently adopted.

Table 25 provides detail about the research capacity of Malaysia's higher educational institutions. Of a total of 24,937 research and development personnel, 50.3 percent are based in institutions of higher learning. More telling is the fact that out of a total of 17,790 researchers, 59.2 percent are in the universities and only 18.8 percent in the private industry. However, it is important to note that while a substantial number of research personnel are to be found in the higher educational institutions, the private sector fared much better in terms of full-time equivalent (FTE). Admittedly, researchers in higher educational institutions are also teaching staff and they do not undertake research on a full-time basis. This accounts for the lower FTE of 3,186.95 in higher educational institutions even though there are 10,527 researchers. In comparison, the private sector has 3,349 researchers but the FTE is 2,767.10. Based on the FTE, higher educational institutions have a lower research capacity compared with the private sector. The former is heavily dependent on the Government for support research and development grants, primarily through IRPA (see Table 26) and to some extent MoHE funds. Out of a total of MYR 2,500.6 million spent on research and development, the private industry's portion was 65.3 percent (mostly private industry funds) and the higher educational institutions account for only 14.4 percent (mostly government grant) (see Table 25). Obviously, higher research capacity is being translated into higher grant allocation for private industry.

Research and development activities in Malaysia are particularly strong in areas such as engineering sciences, information, computer and communication technologies, and applied sciences and technologies, with a major concentration in terms of expenditure in applied research rather than fundamental research. In this connection, but viewed from a different context, the MoHE contended that public universities in Malaysia should avoid a "hypermarket" image, offering and duplicating courses. Subsequently, the MoHE has determined that all public universities in Malaysia will now have to specialize in specific areas of research and post-graduate work to reduce duplication and to use financial resources more efficiently (*The Star* 25 April 2005). The MoHE has indicated that each university will then develop centres of excellence within their areas of specialization.

Table 25: Survey of research and development in Malaysia, 2004

ORGANIZATIONS WITH RESEARCH AND DEVELOPMENT	
Government Agencies and Research Institutions (GRI)	39 agencies or institutes
Institutions of Higher Learning (IHL)	17 institutes
Private Sector (with R&D)	198 companies
Total	254 organizations
INSTITUTES OF HIGHER LEARNING (IHL)	
Expenditure	
Total Expenditure	MYR 360.4 million
Current Expenditure	MYR 209.8 million
Labour Cost	MYR 109.2 million
Operating Cost	MYR 100.6 million
Capital Expenditure	MYR 150.7 million
Human Resources	
Total Number of Research Personnel (Headcount)	12,538
Number of Research Personnel (FTE)	3,811.89
Number of Researchers (Headcount)	10,527
Number of Researchers (FTE)	3,186.95
Number of support staff (Headcount)	2,011
PRIVATE SECTOR	
Expenditure	
Total Expenditure	MYR 1,633.1 million
Current Expenditure	MYR 932.7 million
Labour Cost	MYR 248.9 million
Operating Cost	MYR 683.8 million
Capital Expenditure	MYR 700.3 million
Human Resources	
Total Number of Research Personnel (Headcount)	5,177
Number of Research Personnel (FTE)	4,266.70
Number of Researchers (Headcount)	3,349
Number of Researchers (FTE)	2,767.10
Number of support staff (headcount)	1,828

FTE: Full-time equivalent

* As of 12 September 2004, US\$ 1=MYR 3.80

Table 26: Public higher educational institutions: research grant from Intensification of Research in Priority Areas (IRPA), 2004

Institutions	Allocation (MYR)
Universiti of Malaya	106,348,952
Universiti Sains Malaysia	81,105,845
Universiti Kebangsaan Malaysia	151,734,290
Universiti Putra Malaysia	167,007,637
Universiti Teknologi Malaysia	119,694,845
International Islamic University of Malaysia	4,707,180
Universiti Utara Malaysia	2,914,728
Universiti Malaysia Sarawak	5,054,732
Universiti Malaysia Sabah	5,971,642
Universiti Pendidikan Sultan Idris	595,764
Universiti Teknologi MARA	10,217,616
Kolej Universiti Sains and Teknologi Malaysia	5,817,810
Kolej Universiti Teknologi Tun Hussein Onn	786,750
Kolej Universiti Teknikal Kebangsaan Malaysia	3,081,000
Kolej Universiti Kejuruteraan Utara Malaysia	2,760,240
<i>Total</i>	<i>667,023,267</i>

Source: Ministry of Higher Education Malaysia 2005

CHANGING ACADEMIC PROFESSION

According to Altbach (2002, p. 1), the academic profession worldwide is united by its commitment to teaching and the creation and transmission of knowledge. Lee (2002b, p. 160) has also alluded to the notion that in Malaysia the "bureaucratic culture has strongly influenced the daily lives of the academics." Furthermore, the corporatization of universities has to some extent introduced the "financial aspects" of the corporate world to the academe (see Newman and Couturier 2001). In the case of Malaysia, a central focus of debates in so far as changing academic profession is concerned revolves around issues such as "academic freedom," "truth" and "justice." In this context, academic freedom is understood to be "the right of scholars to pursue their research, to teach, and to publish without control or restraint from the institutions that employ them" (The Columbia Encyclopaedia, cited in Middlehurst and Woodfield, 2004, p. 60). Rightly, it is argued that without academic freedom "universities are unable to fulfil one of their prime functions: to be a catalyst and sanctuary of new ideas, including those that may be unpopular" (Middlehurst and Woodfield 2004, p. 60). While accepting the need for academic freedom in public higher educational institutions (and in the private sector to

some extent), it has been the Malaysian Government's stance that "academic freedom has limits and requires accountability" (see for instance Middlehurst and Woodfield 2004, p. 60).

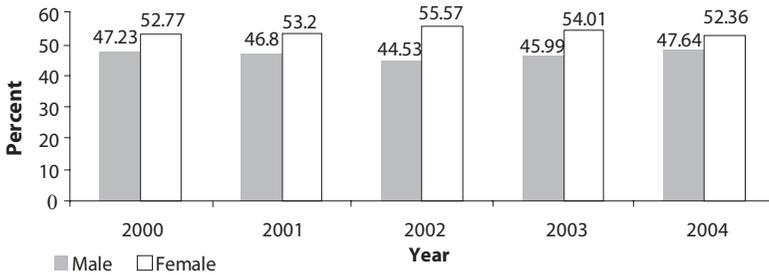
Wan Abdul Manan's¹⁸ notion of academic freedom in the Malaysian context refers to the "freedom of members of the academic community individually or collectively, to pursue the development and transmission of knowledge, through research, study, discussion, documentation, production, creation, teaching, lecturing and writing." It is in this context that he subsequently concluded that "academic freedom in Malaysia is presently limited and poses a challenge to the academic community which practices a culture of silence" (Wan Abdul Manan 1994, p. 83). This situation is largely attributable to the implementation of the University and University Colleges Act, 1971 (Wan Abdul Manan 1994, p. 86). This act was amended in 1975, but there were insignificant changes to "academic freedom." The introduction of *Discipline of Staff Rules 1979*, according to Wan Abdul Manan, further curtailed academic freedom in Malaysia in addition to what was already outlined in the University and University Colleges Act. While academics in Malaysia know that they are ultimately accountable for what they write or say, they are never completely aware of what is permitted or not permitted (see Albatch 2001). Faced with this predicament, many academicians would normally instil in themselves "self-censorship" (see Albatch 2001).

The working and service conditions for academic staff in the public and private higher educational institutions differ greatly. Academic staffs in public educational institutions are governed by government regulations and administrative circulars. Individual educational institutions determine the service and working conditions of academic staff in the private sector, but these must be set within the framework of Malaysia's labour laws and market forces.

It is refreshing to note the gender balance among academic staff in higher educational institutions in Malaysia. From Figure 7, a slightly higher proportion of academic staff in the public sector is female. In contrast, in the private sector, the male-female split is biased towards males (Figure 8) and this pattern of gender breakdown has been maintained since 2001.

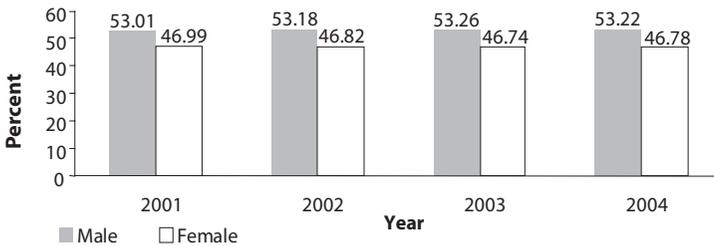
¹⁸ Wan Abdul Manan is the President of USM's Academic and Administrative Staff Association.

Figure 7: Academic Staff in Public Higher Educational Institutions:
By Gender 2000-2004



Source: Ministry of Higher Education, 2005

Figure 8: Academic Staff in Private Higher Educational Institutions:
By Gender 2001-2004



Source: Ministry of Higher Education, 2005

Private institutions were also the main source for professional and semi-professional programmes, for example, the Malaysia Institute of Certified Public Accountants (MICPA), Association of Chartered Certified Accountants in UK (ACCA), and Chartered Institute of Management Accountants (CIMA) (see Lee 2002a, 2004; Ong and Chong 2004). In the 1990s, the private higher educational institutions were actively involved in providing the 3+0 local degree programmes in partnership with foreign institutions and helping the Government reduce currency outflow in the process. In view of this, the MoHE has identified private higher educational institutions as an important agent for the internationalization of Malaysian higher education in 2000s (see Shafie 2005).

Notably, unlike the public higher educational institutions, the private sector has shown great flexibility and dynamism in response to the changing educational situation both locally and globally. They have been helped by being less bound by government and bureaucratic regulations and procedures. The larger well-funded private institutions tend to have innovative curriculum, better facilities and greater leverage with the Government and regulatory authorities.

Prior to 1996, the roles of the private higher educational institutions, in particular the for-profit institutions, were primarily determined by the shareholders and their bottom-line. According to Hawthorne, “for-profit institutions provide education to make money, while traditional colleges and universities accept money to provide an education” (cited in Morey 2004, p. 143). In other words, the private education sector is commercially driven, recognizing the private benefits of higher education as opposed to the public higher educational institutions, which provide higher education as a public good. Evidently before 1996, academic procedures and entanglement were almost non-existent in the private sector. But since then, the development and further growth of these private institutions were highly dependent on government policies, regulations and direction. Regulations and procedures were introduced primarily in response to the potential of the private sector as the main exporter of education services, and with this the issue of quality comes in. It is therefore important to note that the role and functions of the private higher educational institutions should be viewed in the context of the internationalization and export of education services.

While the public higher educational institutions were funded government, the private sector is faced with severe financial constraints, which seriously limit its ability to provide quality higher education. The failure of the private sector to provide quality higher education could hinder the Government’s strategic objective of making Malaysia an international and regional education hub. For this reason, it is imperative that government extend funding in the form of incentives to the private sector. In the medium and longer term, Malaysia needs a diverse system of funding for higher education and this would ideally comprise a combination of public and private financing (see IBRD 2000). Ideally, some institutions look for funding from a single source, while others seek a combination of public and private financing. This diverse funding mechanism is the key to enhancing the quality of private higher education in light of their role in the democratization and internationalization of higher education in Malaysia (see Morshidi 2004).

INTERNATIONALIZATION OF HIGHER EDUCATION AND TRADE IN EDUCATIONAL SERVICES

Ideally, internationalization can best be defined as the totality of substantial changes in the context and inner life of higher education relative to an increasing frequency of border-crossing activities amidst a persistence of national system, even though some signs of ‘de-nationalization’ might be observed (Teichler 2004, pp. 22-23). In the case of Malaysia, internationalization in universities effectively

meant memorandums of understanding often with the scope of student exchanges, staff exchanges and collaborative research.

An important element of this internationalization process is that the Malaysian Government has allowed local public higher educational institutions to recruit international academic staff and allocate places in the non-competitive undergraduate academic programmes to international students. However, in the case of the International Islamic University (IIU), recruitment of academic staff and enrolment of international students is very liberal because that institution was established under the Companies Act and not the University and University College Act. This special and unique character of IIU¹⁹ within the public higher education system allows the recruitment of foreign academic staff and the admission of international students at the undergraduate level. Of a total of 5,237 international students in public higher educational institutions, 31.26 percent are in IIU (Table 27). Similarly, 38.36 percent of a total of 798 foreign academic staff are serving at IIU. USM is also actively recruiting foreign academic staff, and this is in tandem with its internationalization effort. The new university colleges are not able to attract international students for the moment because they do not offer post-graduate courses, which are normally allowed to be conducted in the English language.

However, the latest statistics as of January 2005 indicate a slow down in the number of international students coming to study in Malaysia. According to the MoHE website (see <http://www.MoHE.gov.my>), the total number of international students in all categories of educational establishments was 40,686 in 2004, with the target figure for that year being 50,000. Of this total, 63.7 percent was with the private higher education sector and 36.3 percent in public higher education institutions. It is worthy to note that the number of international students in the public higher education sector has increased slightly between 2003 and 2004, when the overall figure for the country as a whole indicated a decline.

The number of international students in Malaysia is of some significance to the national economy, especially if viewed as an export of higher education services. It is reported that international students contributed an estimated MYR 480 million in foreign exchange earnings in 2001. International students tend to be concentrated in private higher educational institutions, of which the IIU is the

¹⁹ The IIU aims at becoming a leading international centre of educational excellence with Islamic studies as its thrust and foundation. Specifically IIU will revitalize the intellectual dynamism of Islamic studies and the Muslim *Ummah* (community); integrate Islamic knowledge and values in all academic disciplines and educational activities; seek to restore a leading role of the Muslim *Ummah* in all branches of knowledge; contribute to the improvement and upgrading of the qualities of human life and civilization.

major destination, rather than in their public counterparts. This is because courses are conducted in English and Arabic. In part, this trend is also due to governmental restriction on the proportion of international students (to no more than 5 percent of the total student population) in each public university.

The top ten private educational institutions with a high proportion of international students are listed in Table 28. They account for no less than 70 percent of the total international student enrolment in Malaysia.

Table 27: International students and academic staff in public higher educational institutions, 2003/2004

Public Higher Educational Institutions	Students		Staff	
	No	%	No	%
Universiti Malaya	679	12.96	60	7.52
Universiti Sains Malaysia	615		164	20.55
Universiti Kebangsaan Malaysia	859	11.74	18	2.26
Universiti Putra Malaysia	860	16.40	64	8.02
Universiti Teknologi Malaysia	237	16.41	9	1.12
Universiti Utara Malaysia	277	4.52	10	1.25
International Islamic University	1,637	5.28	306	38.36
Universiti Malaysia Sarawak	10	31.26	42	5.26
Universiti Malaysia Sabah	9	0.20	40	5.01
Universiti Pendidikan Sultan Idris	35	0.17	4	0.50
Universiti Teknologi MARA	-	0.67	33	4.13
Kolej Universiti Islam Malaysia	6	-	9	1.12
Kolej Universiti Sains dan Teknologi Malaysia	15	0.11	7	0.88
Kolej Universiti Teknologi Tun Hussein Onn	-	0.28	15	1.88
Kolej Universiti Teknikal Kebangsaan Malaysia	-	-	12	1.50
Kolej Universiti Kejuruteraan dan Teknikal Malaysia	-	-	-	-
Kolej Universiti Kejuruteraan Utara Malaysia	-	-	5	0.63
<i>Total</i>	<i>5,239</i>	<i>100.00</i>	<i>798</i>	<i>100.00</i>

Source: Ministry of Higher Education Malaysia 2005

Table 28: Top ten private colleges with international students, 2001

Private Colleges	No	%
INTI College	1,126	13.28
ELS Language Centre	1,042	12.29
Sunway College	1,041	12.28
Kolej Damansara Utama	1,000	11.79
Nilai College	818	9.65
Stamford College	777	9.16
LICT	746	8.80
Language House	698	8.23
Pusat Pembelajaran New Horizon	486	5.73
HELP Institute	434	5.11
<i>Total</i>	<i>8,480</i>	<i>100.00</i>

Source: PWC Consulting 2003

The number of international students in Malaysia has been increasing between 1996 and 2003 with the liberalization of education. Overall, the market in Malaysia experienced a 36.8 percent year-on-year growth between 1997 and 2000. It is reported that although the number of international students in Malaysia has fallen in 2001 from the previous year, the number continues to increase within leading educational institutions both in the private and public sectors (PWC Consulting 2003, p. 14).

Several trends are discernible in so far as international students in Malaysia are concerned. First, the primary markets for international students are China and South-East Asia (in particular Indonesia). Second, the origins of international students in the public higher educational institutions are more diverse (from no less than 12 countries including Africa, Australia, Canada, Europe, the Middle East, and USA) than in the private higher educational institutions, where the number of countries of origin is 18, but mostly from South-East Asia and China. Third, the number of international students in the public higher educational institutions is dispersed compared to the private higher educational institutions, which may be an indication of the marketing approaches of the latter. Fourth, the preferred fields of study for international students include business, information technology, arts, and to a lesser extent engineering. It is also reported that a large number of international students are pursuing arts courses (specifically English language) at the certificate and diploma levels. This group comprises mainly students from China and Indonesia. Medicine and science, however, do not feature strongly with international students in Malaysia (PWC Consulting 2003).

Higher education in Malaysia is regarded as a potential foreign income earner through the internationalization of "world-class programmes." Malaysia is now working on the implication of GATS on higher education, particularly in the context of the Third Industrial Master Plan now currently being formulated. The MoHE has established a Committee of Competitiveness and Marketing of Higher Education recently to chart a road map, formulate strategies and programmes to accelerate the competitiveness of Malaysia's higher education sector globally. To step up the export of education services, local higher educational institutions of "world-class" standards are encouraged to establish branch campuses overseas.

It is noteworthy that Malaysia has been a traditional importer of educational services via all modes of supply of education services based on GATS categories, namely of cross-border supply (Mode 1), consumption abroad (Mode 2), commercial presence (Mode 3), and movements of natural persons (Mode 4). From Malaysia's perspective, Mode 3 is both costly and risky, as it involves the outflow of currency and students who may never return (Ong and Chong 2004). Arguably, the "brain drain," as well as the sheer expense of travel and tuition, is a high price to pay for a developing economy such as Malaysia. Thus, private educational institutions involved in the importation of educational services are primarily concerned with "import substitutions" aimed at helping the Government curb the outflow of currency. Cross-border supply of higher educational programmes typically takes the form of twinning degree programmes, 3+0 programmes, professional programmes and recently through distance learning (Ong and Chong 2004).

Currently, however, Malaysia is actively seeking to develop the export potential of its education services via the same modes of supply, particularly in Mode 2. The targets identified are China, Indonesia, Viet Nam and the Middle East (PWC Consulting 2003). It was reported that some 50,000 international students are expected to further their studies in Malaysia's universities and colleges in 2005, with a projected revenue of MYR 1.5 billion (New Straits Times 2002)²⁰. Interestingly, GATS Modes 1 and 3 present a viable alternative to Mode 2, which is evidenced by transnational education programmes. This growing phenomenon in Malaysia and many other South-East Asian countries is defined by UNESCO-CEPES (European Centre for Higher Education) as:

²⁰ It was noted earlier that the actual figure for 2004 is 40,686.

All types of higher education study programmes or sets of courses of study, or educational services (including those of distance education) in which the learners are located in a country different from the one where the awarding institution is based. Such programmes may belong to the education system of a State different from the State in which it operates, or may operate independently of any national education system²¹.

The establishment of foreign university campuses in Malaysia has contributed significantly to the Government's objective of accelerating the export of educational services. Ong and Chong (2004) reported that at the invitation of the Malaysian Government, reputable universities from Australia and the UK have established full-fledged branch campuses in Malaysia. These campuses have attracted international students in pursuit of quality education at competitive prices. A major contributing factor is that the living cost in Malaysia is much cheaper than in the developed countries where the main campuses are located. Currently, there are branch campuses of the University of Nottingham, Monash University, Curtin University, FTMS-DeMonfort University. This development augurs well for the MoHE's target of 95,000 international students in Malaysia by 2010 (Shafie 2005). However, the development of the private higher education sector and the subsequent role of higher education as an important foreign exchange earner is very much at the mercy of rigid government regulations, which sometimes function as stumbling blocks (Ong and Chong 2004).

Mode 3, commercial presence overseas, is not a viable proposition for many private higher educational institutions, even though the Government is clearly encouraging the private sector to explore this opportunity (Shafie 2005). The private sector believes that with inadequate funding to expand, costly programme accreditation and quality control, plus fluctuating student enrolment, this mode is a very risky (Ong and Chong 2004). Nonetheless, some private colleges, for example INTI College, Informatics, and APIIT, have undertaken some initiatives to establish themselves overseas, in particular in the South-East Asian region.

Ong and Chong (2004) reported that although some private higher educational institutions do employ Mode 4, i.e. movement of natural persons, no sufficient data have been published to support this assertion.

²¹ See http://transnationaled.blogspot.com/archives/2003_05_25_transnationaled_archive.html. Accessed 12 June 2005.

ACCREDITATION AND QUALITY ASSURANCE

“Total Quality Management practices such as benchmarking and Quality Audit are now prevalent, and there has been a shift from the idea of collegial self-governance to one based on the principles of corporate managerialism directed at market objectives” (Lee 2000a, cited in Middlehurst and Woodfield 2000, p. 19). Towards this end, a formal accreditation and quality assurance process has been set up by the Government since 1996. The National Accreditation Board, which was established with the passing of the *Lembaga Akreditasi Negara (LAN) Act, 1996* (Act 556), was tasked to oversee/regulate the private higher educational institutions. The Quality Assurance Division (QAD) of the MoHE was established in December 2001, and it is responsible for promoting public confidence in the quality of provision and standards of awards in public universities and university colleges. The quality assurance drive in higher education in Malaysia must be considered in relation first to making higher education a profitable export industry, and second, establishing Malaysia as an international and regional centre of excellence in education (see for instance Middlehurst and Woodfield 2000, p. 19).

The LAN provides an effective and efficient quality monitoring service of course studies conducted by the private sector through the following functions:

1. Formulate policies on the standard and quality control of courses of study, certificates, diplomas and degrees.
2. Set, monitor, review and oversee the standard and quality of courses of study, and for accreditation of certificates, diplomas and degrees.
3. Determine the level of achievement for the national language and the compulsory subjects specified in the Private Higher Educational Institutions Act 1996 as a prerequisite to the award of certificates, diplomas and degrees.
4. Advise and make recommendations to the Minister for the approval of courses of study to be conducted by private higher educational institutions with regard to the suitability of arrangements in relation to the educational facilities relevant to the courses of study; and the standard and quality assurance of the courses of study.

In March 2002 the Quality Assurance Code of Practice was compiled by the QAD as a guide for public institutions of higher learning in implementing their respective quality assurance practices. As with many other quality assurance documentations, this Code of Practice provides guidelines on good practices and the essential requirements for continuous improvements in nine areas (referred to as Quality Areas) as follows:

1. Vision, mission and objectives
2. Design of the educational programme
3. Student assessment
4. Students
5. Academic staff
6. Educational resources
7. Programmes evaluation
8. Leadership and governance
9. Continuous improvement

Auditing exercises will normally be conducted at two levels, namely, internally and by an external panel of experts appointed by the Quality Assurance Division of the MoHE. The National Council on Higher Education has envisaged that a single set of quality standards (for both public and private educational institutions) will be established to accredit certificates, diplomas and degrees awarded by Malaysian educational institutions. Subsequently, a Malaysian Qualification Framework (MQF) was formulated and, with this as a basis, the Malaysian Government will work towards establishing mutual recognition agreements with trading partners under GATS. In addition, the MoHE is embarking on a rating system for all Malaysian higher educational institutions and this should complement the other quality assurance efforts.

CHALLENGES AND FUTURE DEVELOPMENT

It has been argued that the demand for higher education, especially professional courses and non-traditional delivery modes, is increasing in most countries primarily due to the growth of the knowledge economy, movement to lifelong learning and changing demographics. It is also argued that while demand is growing, the capacity of the public sector to satisfy the demand is being challenged due to budget limitations, the changing role of government, and increased emphasis on market economy and privatization (Knight 2002). All of the above apply to the current higher education situation in Malaysia. However, while attempting to deal with future challenges and development, the Malaysian Government has to engage in “fire fighting” with respect to immediate problems like rising graduate unemployment, declining quality of graduates (in relation to current needs of the private industry), and inappropriate curriculum (see Ambigapathy and Aniswal 2005; Morshidi *et al.* 2003, 2004; NEAC 2003). The private sector has argued that public universities are responsible for the number of unemployed graduates. The perception is that the private sector is performing

better in terms of the employability of graduates, but there is currently no data to prove this assumption.

Increasingly, Malaysian public universities are being assessed in terms of the employability of their undergraduates and, in this respect, the Government has emphasized that employability must be viewed in the context of global job market and not just limited to Malaysia. It is inevitable that the rapidly changing employment situation for graduates and for society, at large, will have major implications for how Malaysian universities conduct their business henceforth.

Another challenge for the Government is with respect to the funding necessary to serve both private and public interests. It has been argued that while public institutions are funded by government, the same is not true for the private sector. The traditional justification is that the private educational sector is well-endowed because they have many sources of funding. The current argument among the private sector players is that not all private operators are well-funded. Thus they have been asking for some direct public funding, rather than just incentives, which are inappropriate for their operations.

On the broader level, the various national plans, in particular the Seventh and the Eighth Malaysia Plans, have detailed four main challenges with respect to higher education:

1. Increasing access to higher education and maintaining standards
2. Developing the links between higher education and national economic development
3. Improving the quality of indigenous higher education provision
4. Linking higher education with national culture and identity

Since Malaysia has been successful in increasing access to higher education, the next emphasis is ensuring quality and standards of higher education. Recently, the Minister of Higher Education has elaborated on the future direction for higher education in Malaysia, which reflects the issues discussed at UNESCO's *Conference on Higher Education (WCHE)* in Paris, June 2003. These issues in charting future directions for higher education, which were subsequently adopted by Malaysia, include the internationalization of higher education, the implications of GATS and trade in education services, and the move towards a "World Area for Higher Education" (which is interpreted as regional co-operation in higher education). Lately, lifelong learning has attracted government attention, and a National Policy on Lifelong Learning was formulated, which has become the foundation for future developments in Malaysia's education system.

The development of, and future directions for, higher education in Malaysia reflect concerns at the global level. Realizing the important contribution of education services to the national economy, the Government is seeking to turn Malaysia into a regional and international hub and centre of excellence in education. The Minister of Higher Education has outlined the following as major challenges for Malaysia:

1. Capacity-building through increasing access to higher education²²
2. Development of quality human capital²³
3. Application of ICT²⁴
4. Enhancing teaching and learning²⁵
5. Emphasis on quality assurance, through the rating of all institutions of higher education²⁶ and the introduction of the Malaysia Quality Framework (MQF)²⁷
6. Empowering the National Accreditation Board to appoint international panel of assessors to improve the quality and standards of courses offered by the private sector²⁸
7. Emphasis on research, development and commercialization²⁹

²² The MoHE has set the following targets by 2010: 1.6 million university places, a ratio of two diploma/certificate students for every one undergraduate.

²³ The MoHE anticipates that by 2010 there will be a need for 27,000 academic staff and towards this end 20,000 academic staff with trained to the PhD level.

²⁴ A policy of one laptop computer per undergraduate student was introduced recently but its implementation is rather slow in view of the cost implication.

²⁵ Various courses on communications skills, ICT and entrepreneurship will be introduced to ensure excellent teaching and learning.

²⁶ A working committee directed by the Quality Assurance Division of the MoHE is currently working on the rating framework for all institutions of higher education in Malaysia, using the system as adopted in the UK, Australia and New Zealand as point of references.

²⁷ The MQF was presented at the meeting of the National Council on Higher Education in January 2005. The framework is being refined prior to being adopted as a basis for mutual recognition agreements with trading partners (in the context of GATS).

²⁸ A "one-stop" agency will be established to speed-up the process of accreditation of academic programmes, a major sore point among private educational institutions.

²⁹ A target of 90,000 post-graduate students has been set by 2010 and these would provide universities and other Government research institutions (to be located within university campuses) the much needed research and development human resources and support.

8. Enhancing fundamental research³⁰
9. Establishment of centres of excellence with a view to establishing research universities³¹
10. Increasing the momentum towards internationalization through the admission of foreign students in the private higher educational institutions (undergraduate studies) and public universities (post-graduate studies)³²
11. Acculturation of lifelong learning in line with the national policy on lifelong learning with public universities as the major catalyst and the community colleges as the hub³³
12. Enhancing the mechanism for financing higher education such as in centives for the private sector
13. Encouraging private sector involvement in the provision of higher education through public-private partnership
14. Emphasizing good governance in the running and management of public higher educational institutions, and in so far as the private higher educational institutions is concerned they are encouraged to merge voluntarily (and incentives will be extended)

A committee established by the Minister of Higher Education to look into higher education and subsequently make appropriate policy recommendations in Malaysian higher education will undoubtedly be influenced by the 14 major

³⁰ MYR 200 million has been requested under the Ninth Malaysia Plan, 2006-2010 for this purpose.

³¹ The working committee on Research Universities has prepared its report for the consideration of the MoHE.

³² The MoHE's target of 95,000 international students enrolled in the private educational institutions by 2010 would undoubtedly require greater Government support in terms of marketing, promotion, and more importantly funding. Currently, there are no less than 516 private educational institutions (many of which are very small and operating rather inefficiently). The Government has extended some incentives to private operators if they merged on a voluntary basis. The policy of allowing the public higher educational sector to enrol international students in the non-competitive fields (not more than 5 percent of the total undergraduate student population of each university) will be continued. In view of the language of instruction in the public sector, many universities have not been able to meet this quota.

³³ Lifelong learning was adopted by the Government in the Eighth Malaysian Plan period (2000-2005). Subsequently, the MoHE has prepared a substantial document on the plan of action for the implementation of lifelong learning, which comprises formal, informal and non-formal modes of learning. Formal learning refers to a structured and systematic learning provided by educational or training institutes. At the end of the learning process a certificate will be awarded. Informal learning is generally acquired through daily learning activities in the social, family or work environment situation. Learning is unstructured and without any certification. Non-formal learning refers to structured self-learning activities offered by educational or training institutes. As in the informal learning mode, there will be no certification. The implementation of lifelong learning in Malaysia necessarily involves various ministries and Government agencies. A National Council on Lifelong Learning was established recently with the Prime Minister as its chairman to steer the planning and implementation of lifelong learning in Malaysia.

challenges facing Malaysia noted above. In addition, the National Higher Education Research Institute based at USM was recently commissioned by MoHE to prepare working papers on several important areas of higher education in Malaysia – namely, enhancing research in public higher educational institutions; the determination of niche areas for public higher educational institutions; restructuring of private higher educational institutions; the competitiveness of universities in Asia and its implications for Malaysian universities; and the competitiveness of graduates from Malaysian universities *vis-à-vis* Malaysians graduating from foreign universities.

All of the above-mentioned developments indicate that Malaysia is on the right track insofar as higher education is concerned. In the final analysis and in the context of future developments, it is important for government to be mindful of the impact of trade liberalization on higher education. It should begin to take steps to maximize the benefits and minimize the threats to what is an already well-developed and quality higher education system in Malaysia. It is important for government to realize that Malaysia is not the only country in the business of internationalizing its education. In recent years, many countries have encouraged the growth of private educational institutions, and particularly important in this respect are the efforts taken by Singapore, Oman, China, Hong Kong, and Thailand.

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THE PHILIPPINES

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BACKGROUND

Higher Education Reforms

In the Philippines, the most important higher education structural reforms took place in the 1990s and were completed during the incumbency of President Joseph Estrada (1998-2001) in what can be described as the 'balkanization' of the Education Ministry. At the time, the Ministry had grown into an entity out of all proportion to its original objectives and was almost impossible to govern because of its many units, leaving important tasks and implementation plans neglected, especially in higher education and technical education. Surveys and in-depth studies of the system in 1969, commissioned by a World Bank loan, made recommendations on rationalizing the system and making it more manageable. Steps were undertaken to begin a process of dismantling the system, which did not come to full fruition until Joint Resolution Number 2 dated August 14, 1990 sponsored by then Senator Edgardo Angara and Representative Carlos Padilla. As a result, the following actions were taken:

1. Culture and the arts were devolved into a separate unit called the National Commission for Culture and the Arts (Republic Act 7356s, 1992).
2. National sport and sport competitions were devolved to the Philippine Sports Commission (Executive Order 81s, 1999) which left only physical education under the responsibility of the Department of Education.
3. The task of higher education was vested in a commission called the Commission on Higher Education (Republic Act 7722, May 18, 1994) under five commissioners headed by a chair.
4. Higher vocational and technical skills education was devolved into the Technical Education and Skills Development Authority (Republic Act 7796, August 25, 1994).

The division of the Department of Education into regions (now 17) was an attempt to devolve the tasks of central government and to empower local government departments headed by regional directors. The aim was to enable the national Department to dedicate its time to quality control, innovation, and broad policy. As part of this process, budgets were devolved to each regional office. With these changes, the Department became free to focus on the tasks of

basic education across 17 regions with regional directors assisting the Department Secretary.

The restructuring process and programme have now been in place for six years. Some of the new units have grown better than the others as a result of financial support, quality of staff, and clarity of purpose. The most favourably affected area was basic education. Vocational and technical education has not seen full success because the Technical Education and Skills Development Authority has concentrated its efforts mostly on the qualifications necessary for different technical professions, rather than planning for new vocational and technical institutions.

As early as the first year of implementation, heads of departments resolved to meet regularly to work out possible conflicts which could arise and to assure smooth coordination. Unfortunately, these meetings did not become regular or institutionalized, and consequently coordination among the different units is still not in place. In the meantime, the overall situation is that vocational and technical education, while receiving attention in the 1970s, has not developed into the full polytechnic system as originally intended. In short, there remains as much emphasis now as in the past on academic rather than technical programmes.

Access to Higher Education

Tables 29 and 30 detail student enrolments by region, programme level and gender; Table 29 shows that 65 percent of students (see Commission on Higher Education 2004) in higher education in the Philippines attend private higher education institutions at their own expense or their families' resources, while 30.7 percent attend state colleges and universities and a small percentage (3.6 percent) attend courses whose institutional character is neither private nor public. In theory, higher education is accessible to all in the Philippines if they meet admission criteria and are able to meet tuition and living costs. Admission requirements remain dependent on individual universities and colleges.

The provision of financial support and subsidies is a key characteristic and issue in the public and private higher education system. Thirty-five percent of the 2.5 million students in the public system received a subsidy which enables them to access higher education. The effect of this subsidy is to allow public education tuition fees to be 2.5 percent of the fees in the private sector. Given the large number of students in the private sector, there is clearly a need to address such a significant imbalance.

Republic Act 7687 dated March 2, 1994, facilitated an annual intake each year for 3,500 students pursuing college degrees. (This had a specific effect of increasing science undergraduates, thereby reflecting a national priority.) In addition, the Department of Science and Technology, depending on annual state allocations, funds graduate fellowships in different sciences each year. Other fellowship programmes beyond the first degree are offered by programmes and institutions such as De La Salle Science Foundation, *Natividad Galang-Fajardo* Foundation, Fund for Assistance to Private Education, Intel (Philippines), and the Department of Science and Technology. Likewise, individual companies and groups of companies have their own in-house programmes for personnel and the wider public who apply for these scholarships.

In the past ten years, these scholarship programmes have multiplied, making college studies feasible for able students who are willing to work for these grants. Individual institutions also offer their own scholarship programmes to attract the best and the brightest. For example, high school valedictorians and salutatorians are often automatically awarded these places and the Bank of the Philippine Islands selects science scholars each year. These scholars are supported (provided they perform according to expectations) all the way from undergraduate to graduate studies.

Table 29: Enrolment by region and institutional type, 2003–2004

Region	Public						Private						Total Enrolment	
	SUCs	LUCs	CSIs	OGSs	SSs	Total	%	PS	PN	Total	%	Total	%	
I	39,978	3,689	-	-	-	43,667	1.80	17,800	64,065	81,865	3.37	125,532	5.16	
II	33,326	749	400	13	-	34,488	1.42	25,786	26,968	52,754	2.17	87,242	3.59	
II	69,561	1,698	-	48	-	71,307	2.93	29,650	69,240	98,890	4.07	170,197	7.00	
IVA	79,131	7,364	-	-	998	87,493	3.60	35,311	100,054	135,365	5.57	222,858	9.17	
IVB	31,203	-	-	-	-	31,203	1.28	6,735	6,260	12,995	0.53	44,198	1.82	
V	43,611	5,567	-	-	-	49,178	2.02	21,309	38,370	59,679	2.45	108,857	4.48	
VI	64,647	6,326	-	-	-	70,973	2.92	50,220	69,801	120,021	4.94	190,994	7.86	
VII	39,772	1,271	-	-	-	41,043	1.69	43,755	109,403	153,158	6.30	194,201	7.99	
VIII	55,344	216	-	604	-	56,164	2.31	9,139	23,944	33,083	1.36	89,247	3.67	
IX	27,264	-	161	-	-	27,425	1.13	14,542	32,286	46,828	1.93	74,253	3.05	
X	31,048	2,168	-	-	-	33,216	1.37	24,420	50,601	75,021	3.09	108,237	4.45	
XI	13,823	-	-	-	-	13,823	0.57	30,065	56,971	87,036	3.58	100,859	4.15	
XII	22,331	-	-	741	-	23,072	0.95	26,940	26,253	53,193	2.19	76,265	3.14	
XIII	131,112	51,183	-	935	45	183,275	7.54	128,631	358,332	486,963	20.03	670,238	27.57	
Natl Capital Region	22,550	-	-	-	-	22,550	0.93	22,059	39,503	61,562	2.53	84,112	3.46	
Cordillera	27,088	-	-	3,091	-	30,179	1.24	2,179	10,724	12,903	0.53	43,082	1.77	
Caraga	14,480	-	-	-	-	14,480	0.60	8,032	18,494	26,526	1.09	41,006	1.69	
Total	746,269	80,231	561	5,432	1,043	833,536	34.28	496,573	1,101,269	1,597,842	65.72	2,431,378	100.00	
% of total sector	30.69	3.30	0.02	0.22	0.04	34.28	20.42	45.29	65.72					

SUCs: State Universities and Colleges LUCs: Local Universities and Colleges CSIs: CHED-Supervised Institutions
 OGSs: Other Government Schools SSs: Special Higher Education Institutions PS: Private Sectorial PN: Private Non-sectorial

Table 30: Enrolment by programme level and gender (public and private), 2003-2004

Programme Level	Male		Female		Total	
	Number	%	Number	%	Number	%
Pre-Baccalaureate	113,021	4.65	129,002	5.31	242,023	9.95
Baccalaureate	940,893	38.70	1,146,494	47.15	2,087,387	85.85
Post-Baccalaureate	687	0.03	1,442	0.06	2,129	0.09
Master	31,117	1.28	58,266	2.40	89,383	3.68
Doctoral	3,887	0.16	6,569	0.27	10,456	0.43
<i>Total</i>	<i>1,089,605</i>	<i>44.82</i>	<i>1,341,773</i>	<i>55.19</i>	<i>2,431,378</i>	<i>100.00</i>

Diversification of Higher Education

In 1969, the study of the Presidential Commission to Survey Philippine Education (PCSPE 1970) showed that there was a mismatch between the country's needs and higher education graduates (see Table 31). There was an oversupply of business courses graduates and teacher education graduates, and not enough graduates in vocational and higher technical education. Certain specialized fields in the physical and biological sciences also had few students and lacked facilities for study beyond the undergraduate level. Moreover, higher engineering training was not available in the country and business courses needed a greater entrepreneurial orientation. In general, mathematics and the pure sciences had few enrollees and the programmes were not available throughout the country, resulting in a shortage of specialists in these fields to supply the teaching needs of the country.

As a result, structural reforms were put in place to create a polytechnic system, providing more advanced courses in certain new fields of engineering and information technology (IT). Many of the new sciences, including molecular biology, genetics, and biotechnology, were yet to be offered since there was not sufficient expertise in the country. Diversification was needed in both the basic and applied sciences as well as in the different emerging needs of technology in advanced courses for vocational and technical skills.

The aim was to initiate a system built around the French model of polytechnics. Unfortunately, this was not realized because the creation of some institutions for more advanced technical training for teachers led to the setting up of standards

Table 31: Graduates by discipline group (public and private), 2003-2004

Discipline Group	Number	%
Agricultural, Forestry, Fisheries, Veterinary Medicine	15,006	3.70
Architectural and Town Planning	2,651	0.65
Business Administration and related fields	111,480	27.48
Education and Teacher Training	80,749	19.80
Engineering and Technology	55,569	13.70
Fine and Applied Arts	1,585	0.39
General	3,688	0.91
Home Economics	1,269	0.31
Humanities	5,244	1.29
Law and Jurisprudence	2,631	0.65
Mass Communication and Documentation	5,185	1.28
Mathematics and Computer Science	36,579	9.02
Medical and allied fields	33,547	8.27
Natural Science	4,866	1.20
Religion and Theology	1,213	0.30
Service Trades	2,647	0.65
Social and Behavioural Science	15,485	3.82
Trade, Craft and Industrial	407	0.10
Other disciplines	25,915	6.39
<i>Total</i>	<i>405,716</i>	<i>100.00</i>

Note: Based on the retrieved data from 1,382 higher education institutes

for different technical pathways. State colleges and universities insisted on maintaining their engineering schools, and these expanded into full colleges and universities under the State Colleges and Universities (SCU) system. The result was more institutions offering first degree courses in engineering and some engineering technological fields, but not advanced vocational courses.

More than thirty years after the World Bank survey, basic weaknesses in the tertiary system remain. Vocational and technical studies remain poorly developed in relation to higher developed academic engineering. In addition, academic faculty have not been trained for teaching needs of these specialties and little research has been undertaken because of the associated expenses. Thus, diversification has not been fully realized.

Where diversification has taken place, it has been via overseas programmes from foreign universities. The opening of foreign university branches in the Philippines has helped diversify provision, albeit this happened amidst ambiguities over their status and quality since they have been exempt from the supervision from the Commission on Higher Education.

Some Philippine higher education institutes have started “joint” programmes with foreign universities and colleges to offer study abroad components. For example, De La Salle University has a joint guidance programme with St. John’s College in Kuala Lumpur; Ateneo de Manila University has a joint business programme with Regis University in Denver, Colorado. There was also a cooperation programme between La Salle School for the Arts in Singapore and De La Salle University-College of Saint Benilde.

ROLES AND FUNCTIONS OF PRIVATE HIGHER EDUCATION

The role and function of academics vary greatly depending on whether they are in the public or private sector. In well-established state universities such as the University of the Philippines, with its various campuses and long culture and tradition for research productivity, much is expected of the senior professors. Thus, they have established an international reputation for themselves in the agricultural sciences, animal sciences, medicine, marine sciences, and in the pure arts and sciences. These professors dominate annual scientific competitions and have the best record of national and international publications.

Over the past decade, the research and academic gap between older and newer universities has begun to close. Older private universities have provided greater competition to the University of the Philippines in fields such as natural products chemistry, pharmacy, and nutrition; such as the University of Santo Tomas, Philippine Women’s University, Centro Escolar University.

In addition, the newer universities are now also beginning to hold their own in certain fields. The newer universities making a mark are the Ateneo de Manila University, De La Salle University, Mapua Institute of Technology, San Carlos University, Saint Louis University, Silliman University. In medicine and in engineering, because of the expensive equipment required, there is little research activity of an experimental nature, but in other fields that do not demand as much equipment, the universities are now beginning to develop significant records of achievement. In addition, there is much creative work underway in the humanities, social

sciences and theoretical sciences. In the agricultural and related sciences, the state colleges and universities still take the lead.

Research funding consists of grants for additional technical manpower, supplies, and equipment in the pure science and in the engineering fields. In the social sciences, research funding is usually provided by allowing the social scientist to do research instead of teaching for several terms. The grant will cover the services of a research assistant and field worker for survey, as well as computer services. In the humanities, research grants are given for preliminary field work, library research, time off from regular teaching duties, research assistants, and typists.

Private educational institutions currently carry the heavier burden of educating almost two thirds of the higher education age bracket with no burden on government. The widespread growth of these institutions began after World War II during the period of independence from the United States. One good effect of the proliferation of private providers was that non-traditional courses needed by the country included advanced information technology courses for business and technical applications, bioengineering, and molecular biology. Likewise, there was also increased provision of short courses for professionals to update their knowledge and skills.

The technical and vocational sector remains poorly developed despite the impact the private sector providers have made in increasing diversification and participation in higher education as well as research development. There are few institutions that offer advanced courses at vocational levels and advanced courses on technical training. These are often in-house training programmes organized by individual companies for their staff.

INTERNATIONALIZATION OF HIGHER EDUCATION

Until recently, the Philippine experiences in internationalization have always been focused around faculty being educated abroad. This tradition continues even as study abroad has become more difficult and fellowships/grants to the United States have fallen along with a rise in the cost of schooling. In recent years, "sandwich" courses have become increasingly common and involve some courses taken abroad, including research internships or placements, to give the candidate exposure to different learning methodologies and environments.

At present, there are a number of joint programmes between cooperating universities that lead to a joint degree in a related field, usually a social science field. In general, these have been difficult to arrange because of logistics and expense. There are now some international programmes organized by certain Philippine universities that make contact with universities in Europe and Japan where a foreign stint abroad of six months is built into the programme. Credit for studies in the Philippines and in Japan, for example, is given as part of the transcript of credits of the individual for degree work.

The biggest drawback to these highly desirable programmes is the unevenness of economic standards between the participating countries and the difficulty of providing subsidies for the Philippine counterpart. The costs associated with travel, standard of living and tuition are quite different for both countries with the foreign partners demanding much more in terms of funding for the Filipino foreign scholar. This provides a major constraint and disincentive even for those institutions which would like to expand such programmes.

A number of forms and mechanisms for international student and faculty exchange exist. However, they are still low in proportion to the number of institutions which would internationally profit from such an exchange. Moreover, they are short-lived because their continuation depends on grants from funding agencies that have to spread their help to as many deserving institutions as possible.

Where internalization has had a substantial impact has been in domestic and international curriculum integration. Such programmes have included the study of language, culture, history, social structure, politics, and economy. This has been developed in only a few universities, for example: Asian studies at the University of the Philippines, South-East Asian studies at Centro Escolar University, American studies at Mirriam College and De La Salle University, Japanese studies at Ateneo de Manila University and De La Salle University; and European studies at the University of the Philippines, and Chinese studies at the Ateneo de Manila University. There are currently no programmes for Hispanic or Latin American studies.

Table 32 shows the number of foreign students (many of whom are Koreans and Chinese) who study in the Philippines. At present, agreements and exchanges exist with a number of countries but on an institution-by-institution basis. Many Philippine universities have arrangements of this type with many institutions abroad, especially in Japan and China, as well as expanding arrangements with European counterparts.

Table 32: Number of foreign students per academic year in the Philippines

Academic Year	Number
1994-1995	4,791
1995-1996	5,284
1996-1997	4,864
1997-1998	4,419
1998-1999	3,516
1999-2000	2,602
2000-2001	2,323

ACCREDITATION AND QUALITY CONSIDERATIONS

One very promising development in higher education over the past ten years has been the acceptance of accreditation as an instrument for quality control and enhancement, and its growing and widespread use. This has taken more time in the public sector than the private sector because state institutions did not readily accept the notion of accreditation as a means of quality control.

The University of the Philippines considers itself self-sufficient and has not submitted to any form of outside accreditation. However, the private sector, especially the private Catholic schools, organized in 1957 the Philippine Accrediting Association of Schools, Colleges and Universities (PAASCU); they were followed by their Protestant counterpart, the Association of Christian Colleges and Universities-Accrediting Agency, Inc. (ACSC-AAI), and the private non-sectarian institutions, which organized themselves into the Philippine Association of Colleges and Universities Commission on Accreditation (PACUCOA). Under the auspices of the Fund for Assistance to Private Education (a privately established foundation with an initial government grant), these have now amalgamated into the Federation of Accrediting Agencies of the Philippines (FAAP). The Fund for Assistance to Private Education (FAPE) gives special incentives to schools that are accredited (up to Level III), and there is now a cache attached to institutions which have attained Level III accreditation in their programmes. Moreover, to qualify for university status, the programmes of the college must have attained Level III accreditation.

- Level I accreditation gives applicant status for schools that have undergone a preliminary survey and are certified by FAAP as capable of acquiring accredited status within two years.

- Level II accredited institutions receive full administrative deregulation and partial curricular autonomy, including priority in funding assistance and subsidies for faculty development.
- Level III accreditation gives full curriculum deregulation including the opportunity to offer distance education programmes. In addition, incentives are accessible relating to school grants and study programmes.
- Level IV accredited institutions are eligible for grants and autonomy from government supervision and control. Level IV accreditation is reserved for academic programmes considered to be comparable in quality to those of internationally renowned universities.

Since 1998-1999, the Commission on Higher Education has granted private college and university programmes up to Level III accreditation by the national accrediting bodies, with some granted Level IV accreditation. Level IV institutions enjoy a greater autonomy in planning their academic programmes. However, this level and its assessment process have been questioned by some Level III institutions and are now under review.

It should be emphasized that accreditation is a separate process from recognition. A college applying for a new programme undergoes a different process and submits a feasibility study in the area it is supposed to offer. It furthermore has to demonstrate that it has the resources, manpower and equipment to install the new programme. At the end of this process, the course is given recognition and allowed to continue. Further classification will be under accrediting agencies. If the programme is given recognition by the Commission on Higher Education, a permit is given for operations to begin. Each year thereafter the programme is monitored.

The Commission on Higher Education, likewise, grants autonomy and deregulated status to selected private higher education institutions in recognition of their contributions to the growth and development of tertiary education in the country and in the Asia-Pacific region. These are listed in Tables 33 and 34.

Table 33: Private higher education institutions granted autonomy by the Commission on Higher Education

Institutions	
1.	Adventist University of the Philippines
2.	Angeles University Foundation
3.	Asian Institute of Management
4.	Ateneo de Davao University
5.	Ateneo de Manila University
6.	Ateneo de Zamboanga University
7.	Ateneo Graduate School of Business
8.	Baliuag University
9.	Cebu Institute of Medicine
10.	Central Philippine University
11.	Centro Escolar University
12.	College of the Holy Spirit
13.	De La Salle University
14.	Holy Angel University
15.	Holy Name University
16.	John B. Lacson Colleges Foundation – Molo
17.	Mapua Institute of Technology
18.	Miriam College Foundation
19.	Notre Dame of Dadiangas College
20.	Notre Dame of Marbel University
21.	Philippine Christian University
22.	San Beda College
23.	Saint Joseph's College of Quezon City
24.	Saint Louis University
25.	Saint Mary's College
26.	St. Mary's University
27.	Saint Paul College of Dumaguete
28.	Saint Paul College of Manila
29.	Saint Paul College of Quezon City
30.	Saint Paul University
31.	St. Scholastica's College
32.	Silliman University
33.	University of La Salle
34.	University of San Agustin
35.	University of San Carlos

Table 33: Private higher education institutions granted autonomy by the Commission on Higher Education (*continued*)

Institutions	
36.	University of San Jose-Recoletos
37.	University of Saint La Salle
38.	University of Santo Tomas
39.	University of St. Louis
40.	University of the Immaculate Conception
41.	Xavier University

Private higher education institutions with autonomous status enjoy certain benefits (see Commission on Higher Education, Memo No. 32s, 2001), including:

1. Exemption from the issuance of Special Orders (individual letter of recognition for each graduate)
2. Exemption from monitoring and evaluation activities of the Commission on Higher Education but they have to submit data as part of the data gathering activity of the Commission on Higher Education for its Management Information System
3. Entitlement to grants or subsidies and other financial incentives/assistance from the Commission on Higher Education whenever funds are available
4. Privilege to determine and prescribe their curricula programmes to achieve global competence
5. Privilege to offer a new course/programme at the undergraduate/graduate level(s) without securing permit/authority from the Commission on Higher Education but they must inform the Commission on Higher Education Regional Office concerned of the new course/programme to be offered
6. Privilege to establish branches or satellite campuses without the prior approval of the Commission on Higher Education, but with information provided to the Commission on Higher Education Regional Office where the new branch/campus is to be located
7. Privilege to offer extension classes and distance education courses/programmes to expand access to higher education, and to establish affiliation with recognized foreign higher education institution(s) in pursuit of international standards of education
8. Authority to grant *honoris causa* degrees to those deserving, per pertinent provisions of existing Commission on Higher Education issuance on conferment of honorary degrees

Table 34: Private higher education institutions granted deregulated status by the Commission on Higher Education

Institutions	
1.	Adamson University
2.	Adventist Universities of the Philippines
3.	Angeles University Foundation
4.	Aquinas University of Legazpi
5.	Assumption College
6.	Ateneo de Naga University
7.	Baguio Colleges Foundation
8.	College of the Holy Spirit
9.	Far Eastern University
10.	Holy Angel University
11.	Jose Rizal University
12.	Manuel S. Enverga University Foundation
13.	Mapua Institute of Technology
14.	Notre Dame University
15.	Saint Paul College of Iloilo
16.	San Pedro College
17.	Universidad de Sta. Isabel
18.	University of Baguio
19.	University of Negros Occidental-Recoletos
20.	University of San Agustin
21.	University of the East-Ramon Magsaysay Memorial Medical Center
22.	University of the Immaculate Conception

The benefits granted to autonomous private higher education institutions are also given to institutions with deregulated status, except they have to secure a permit/authority from the Commission on Higher Education on opening a new course/programme (Commission on Higher Education 2001).

UNIVERSITY GOVERNANCE

The changes in the structure of higher education means responsibilities have demanded and required different governing structures. The two key changes have been the creation of the Department of Education (which retains its old structure

without higher education) and the Commission on Higher Education, which is more developmental rather than regulatory in its role. The Commission has five full-time members (under a Chairman) who hold 6-year appointments that do not need Senate confirmation. The Department of Education is considered as a cabinet-level department. The following are the other related commissions: National Commission for Culture and the Arts, Philippine Sports Commission, Technical Education and Skills Development Authority.

For some decisions, the commission sits *en bloc*; for others, specific areas are placed under the responsibility of one commissioner. The state colleges and universities are overseen by a commissioner who chairs about 20 state colleges and universities each.

A relatively recent phenomenon has been the creation of colleges and universities supported by local funds, usually by affluent cities and municipalities as a result of Republic Act 7160, also known as the Local Government Code of 1991. Through these institutions, high school graduates from poor families can earn a short-term certificate, 2-year associate degree, or a 4-year college degree for a minimal fee or free tuition. These institutions receive their annual appropriation not from Congress, but from local government units. These are more or less dependent on the local government authority, although a Commission on Higher Education commissioner sits *ex officio* as Chairman of the Board of local institutions. Presently, there are 46 locally funded colleges and universities. These are to be distinguished from individually chartered state colleges and universities established by law after the American land grant institutional model. They receive their appropriation from Congress each year and their subsidy through the Commission on Higher Education. Aside from the support from the local government, these institutions are also receiving support from financial, commercial, and business establishments in their respective local government units. Through these industry partnerships, the graduates of local colleges and universities can easily find employment after graduation.

Thus, the Philippine higher education system can be said to have three institutional tiers:

1. State chartered institutions that are semi-autonomous
2. Commission on Higher Education supervised institutions that are private or established by the old Bureau of Higher Education under the Department of Education
3. Local colleges and universities (which are in "no man's land" insofar as integration into the system is concerned)

RESTRUCTURING OF FACULTIES AND ACADEMIC PROGRAMMES

The Commission on Higher Education has allowed individual departments and programmes to be merged into larger units with the programme requirements for majors and degree courses kept intact. Hence, there is allowance for departments to merge and for new courses or combinations of courses to be offered without too many administrative obstacles.

New majors must be applied for directly with the Commission on Higher Education in Manila, which brings in a team of experts from different colleges and universities. They are the basis of a Technical Panel and give their recommendations for the initial curriculum (i.e. the first IT major courses) and in new fields such as molecular biology, biotechnology, and similar new specialties. The same goes for new programmes at master's and doctoral levels. The technical panels work pro bono and are invited by the Commission on Higher Education to serve on different committees not only to make suggestions, but also to evaluate existing programmes and to make revisions where necessary.

As of 2003-2004 (see Table 35), there were about 113,716 teachers serving Philippine tertiary education. The ratio between men and women in the profession is 44:56. Out of the total number of teachers in higher education, 65,514 are baccalaureate degree holders, 34,330 have masters and 10,526 have doctorates. Some 4,399 have not been classified in the Commission on Higher Education scheme (Commission on Higher Education 2004).

DEVELOPING RESEARCH CAPACITIES

The policy for higher education research in the Philippines emphasizes the importance and need for research to be done by colleges and universities, especially graduate schools and research institutes. In the last study on research funding done as a whole, it was found that research in the Philippines, annually, is much less than the recommended 1 percent of GNP by UNESCO (Gonzalez 1993). As of 2002, it was 0.14 percent (Department of Science and Technology 2002).

International funding agencies subsidize specific types of research directly to the research teams of institutes and departments at reputable universities in the country. In addition, individual faculty members or teams of faculty members can apply for research funds from local or foreign sources to conduct their research.

Foundations in the country now provide small research grants on a case-by-case basis and applications for these grants may be obtained from their respective offices. The Association of Foundations retains a national clearinghouse of grant making foundations in the country but their capability to make large grants for advanced research is quite limited.

The most active university-established research foundations are those affiliated with research-oriented universities: Asian Institute of Management Research Foundation, different foundations at University of Philippines, De La Salle University, Padre Faura Foundation (for business and management), the research foundation at the Ateneo de Manila University. The National Research Council of the Philippines as well as the National Academy of Science and Technology, both under the auspices of the Department of Science and Technology, make grants for relatively major research projects for members of the organizations and award prizes each year for outstanding research.

The Philippine Social Science Council (in the 1980s) offered summer graduate programmes to train a generation of researchers in the social sciences, but these were discontinued when the funding ran out. The National Academy of Science and Technology and the National Science and Technology Agency continue to fund fellowships for science and mathematics at the graduate level but not research at the post-doctoral level except with aid from cooperating international agencies such as the Australian Agency for International Development (AusAID), the Japan Society for the Promotion of Science (JSPS), and the European Union. Research activity has been characterized by many individual initiatives. What is needed is a coordinating body with enough funding and clout that will recruit talented faculty from all universities, independently of institutional affiliation, to work on projects under a common roof instead of the scattered efforts present right now. Clearly, a unified national agency for research is needed.

Table 35: Highest educational qualifications and gender of faculty staff (public and private), 2003-2004

Region	Not Classified		Baccalaureate		Master's		Doctoral		All Qualifications						
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Total				
	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total				
I	-	-	1,685	1,884	3,569	685	1,063	1,748	286	406	692	2,656	3,353	6,009	
II	-	-	1,032	1,060	2,092	674	899	1,573	220	348	568	1,926	2,307	4,233	
III	41	78	2,735	3,162	5,897	1,257	1,921	3,178	380	483	863	4,413	5,644	10,057	
IVA	85	93	2,826	3,636	6,462	1,334	1,959	3,293	613	712	1,325	4,858	6,400	11,258	
IVB	4	3	362	587	871	1,458	191	311	502	35	94	817	1,244	2,061	
V	-	-	1,974	2,023	3,997	808	1,245	2,053	248	542	790	3,030	3,810	6,840	
VI	-	-	2,439	3,416	5,855	1,001	1,549	2,550	194	326	520	3,634	5,291	8,925	
VII	-	-	2,132	2,159	4,291	1,125	1,501	2,626	259	470	729	3,516	4,130	7,646	
VIII	-	-	1,207	1,595	2,802	442	722	1,164	176	249	425	1,825	2,566	4,391	
IX	-	-	1,346	1,504	2,850	365	515	880	70	117	187	1,781	2,136	3,917	
X	-	-	1,211	1,496	2,707	624	969	1,593	203	281	484	2,038	2,746	4,784	
XI	-	-	1,072	1,730	2,802	700	923	1,623	102	134	236	1,874	2,787	4,661	
XII	-	-	794	864	1,658	336	482	818	67	75	142	1,197	1,421	2,618	
National Capital Region	1,500	1,541	3,306	7,353	8,023	15,376	3,776	4,763	8,539	1,367	1,510	2,877	13,996	15,837	29,833
Cordillera	0	-	3	938	968	1,906	366	685	1,051	136	212	348	1,440	1,865	3,305
Autonomous Region of Muslim Mindanao	1	-	1	206	270	476	185	167	352	48	33	81	440	470	910
Caraga	-	-	577	739	1,316	308	479	787	48	117	165	933	1,335	2,268	
Total	1,631	1,715	4,399	30,114	35,400	65,514	14,177	20,153	34,330	4,452	6,074	10,526	50,374	63,342	113,716

Note: Based on the retrieved data from 1,703 higher education institutes (public higher education institutes includes satellite campuses)

THE CHANGING ACADEMIC PROFESSION

Even though there have been changes in the profession, academic workers have not seen a substantive modification in their profession as yet. Where there have been changes, these have been in the field of information technology, where the division of labour has flourished. In information technology, there is now room in the profession for full-time knowledge workers who spend their time working on new teaching programmes for students on specific jobs according to the requirements of a particular company with an information technology problem. This could take the form of either updating a programme or creating an entirely new programme, or teaching a new programme.

The changing academic profession has responded to new approaches to teaching and learning. Students now work on projects rather than short-term assignments, and there is a heavy use of on-the-job training. Thus, traditional classroom teaching is slowly being displaced by other means of delivery. Moreover, rather than formal instruction using small or medium size classes, there is the use of small teams with assistants working on a common problem. As a result, the nature of the teaching cohort and the arrangement for classes has changed with the use of more teaching assistants, junior instructors, and team leaders working on projects as opposed to formal lectures or blocks of students attending a lecture on a single topic. The same goes for the physical sciences and natural sciences of chemistry and physics; advanced engineering students work in laboratories as members of teams under a senior assistant and the laboratory professor and, in effect, become collaborators with professors working on a major research project.

Changes have not only been confirmed to the teaching cohort. Graduate students now join a team with different areas of expertise and are placed within these areas to become members of a research team from the beginning of their studies. Under this setup, the traditional ranking of faculties into associate and assistant professor and different grades of instructors tends to disappear in favour of differentiated teams comprising different degrees of expertise working together under a senior professor in charge of a laboratory.

With this setup, a written thesis might not be required as much as joint publications for international acceptance where papers published make up for the equivalent of a doctoral thesis and satisfy the requirements of the dissertation. The junior professor then moves from laboratory to laboratory according to growing needs and the possibilities of placement in advanced laboratories until reaching a stage when he/she can direct dissertations and qualify for professorship.

CONCLUSION

The Philippine higher education system is one of the oldest in the region. Its history dates back to the University of Santo Tomas, which was established in 1611. The State-supported University of the Philippines was established in 1908. In fact, the number of universities and colleges in the country is above what is needed – the system has over 1,700 tertiary-level colleges and universities taking care of 2.4 million students.

However, there is insufficient variety to cater to the demands for diverse and advanced fields of study. At the graduate level, there are insufficient research-oriented courses. There are also insufficient offerings that address the need for advanced vocational and technological fields as well as for advanced fields in science and in engineering. There is still a mismatch between skills and the knowledge base of graduates with the needs of the country. There are also continuing problems within the system, such as ambiguity with regard to the language of instruction and the overall balance between quantity and quality.

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SINGAPORE

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BACKGROUND

The two most important features of Singapore's higher education are the overriding importance of economic relevance and the dominant state presence in decision-making and planning. By the early 1980s, Singapore had entered the ranks of the newly industrialized countries. The Government launched its technological revolution in 1979, which involved restructuring the economy to focus on high-technology, skill-intensive manufacturing, and service sector activities. Higher education enrolments were increased to meet the anticipated rise in new manpower demands. Several government economic reports published since the mid-1980s have stressed the crucial role of higher education institutions in maintaining Singapore's international competitiveness in the global economy in the face of increasingly acute competition from other countries, which offer lower wages and often equivalent skill levels.

Sustained economic growth over the past four decades has also meant increasing social demand for access to higher education. During the 1960s and 1970s, the Government consistently adopted a cautious attitude toward expanding higher education enrolments, citing among other reasons the negative social consequences of graduate unemployment and the devaluation of university degrees. However, from the mid-1980s on, the Government has had to provide increased opportunities in response to the growing social demand, as well as to the needs of economic growth. The latest enrolment figures are 21 percent and 40 percent for universities and polytechnics, respectively, with a target of 25 percent for universities to be achieved by the year 2010.

OVERVIEW AND HISTORICAL PERSPECTIVES

Universities and Polytechnics

In 1823 Sir Stamford Raffles, who had earlier succeeded in securing Singapore as a British trading post, proposed the establishment of a native college. Raffles intended that the college should offer instruction in Chinese, Siamese, Malay, and other local languages and subjects such as history for the sons of neighbouring rulers and merchants. He also envisaged that the college would provide facilities

for research into the history, societies, and economies of neighbouring countries (Chelliah 1947). Unfortunately, Raffles' enthusiasm was not shared by other colonial administrators, and the idea failed to materialize.

It was not until 1905 that the colonial government opened a medical college in response to a petition from local community leaders. In 1920, the college, which served Singapore and Malaya, was named the King Edward VII College of Medicine. Further pressure from the local Straits Chinese British Association, as well as the threat of an American-sponsored tertiary college, spurred the Government into making plans to open a institution of higher education (Turnbull, 1989). The newly formed institution was to be named Raffles College, which began admitting students in 1928. Most of its graduates went into secondary school teaching or into junior civil service posts.

The immediate post-World War II years were marked by the acceleration of civil service localization, as well as initial moves toward self-government. As a result of the Carr-Saunders Commission's recommendations, the King Edward VII College of Medicine and Raffles College merged to form the degree-granting University of Malaya in 1949. The university served the needs of Singapore, Malaya, and the Borneo Territories for the next ten years. Two autonomous divisions of the university, one in Singapore and the other in Kuala Lumpur, were established in 1959. Subsequently, two separate national universities were formed, and the University of Singapore came into being in 1962.

A key factor in all the above developments in higher education was that they catered only to students from schools that taught through the English medium. The British colonial authorities displayed a lack of interest in Chinese-language education, and there was a history of antagonism between the Government and the Chinese community regarding education, dating back to the early decades of the twentieth century (Wilson 1978). In response to declining standards and enrolments in Chinese-medium schools, prominent local Chinese merchants proposed establishing a community-funded Chinese-language university as early as 1950. Nanyang University was originally registered as a company in 1953, and was officially opened in 1956 with the help of substantial donations from the Chinese community. It had three colleges; a College of Arts, a College of Science, and a College of Commerce. The university faced many difficulties from its inception, including left-wing student agitation, problems in recruiting quality academic staff, and low academic standards (Wilson 1978). The Government granted Nanyang University statutory status in 1959, but did not formally recognize Nanyang University degrees until 1968.

By the early 1970s, Nanyang University's future was under threat, not only because of falling standards and difficulties with staff recruitment and retention, but also due to the shrinking pool of Chinese-language secondary school students. The situation was aggravated by the increasing number of students who had opted for the English-medium University of Singapore or for foreign universities from 1960 on (Lee 1978). In 1980, the Nanyang University Council unanimously accepted the Prime Minister's proposal to merge the two universities to form the English-medium National University of Singapore (NUS). The Prime Minister's proposal was, in turn, based on the recommendations of British academic, Sir Frederick Dainton in favour of developing a single, strong, comprehensive university. The NUS now has undergraduate and post-graduate courses in seven faculties (arts and social sciences, business, dentistry, engineering, law, medicine, and science), three schools (computing, design and environment, and public policy) and a music conservatory. Nanyang University's demise effectively signaled the death knell to Chinese-language higher education in Singapore and established the supremacy of English-language education.

After the formation of NUS, in 1981 the English-medium Nanyang Technological Institute (NTI) was set up on the Nanyang University campus. The Government intended to develop this institute into a technological university in 1992. The NTI initially offered engineering degree courses and its graduates received NUS degrees. In 1991, the Government decided on the basis of yet another Dainton report to convert NTI into a second comprehensive university, the Nanyang Technological University (NTU). With the benefit of hindsight, it was now clear that the earlier Dainton report in 1979 had seriously underestimated the social and economic demand for higher education. Besides engineering courses, NTU offers degrees in accountancy, art, design and media, biological sciences, business, communications studies, humanities and social sciences, and physical and mathematical sciences. The Institute of Education (with its origins in the Teachers' Training College established in 1950) and the College of Physical Education (established in 1984), both teacher training institutions, were also merged to form the National Institute of Education, an autonomous division of NTU, in 1991. This institute is the main teacher training institution in Singapore and offers diploma, undergraduate, and post-graduate programmes.

The Singapore Management University (SMU) was officially incorporated as a private company by an Act of Parliament in early 2000. Its establishment marked an interesting development in Singapore higher education because it was officially private, while at the same time receiving substantial government funding. It was modelled after the Wharton School at the University of Pennsylvania with

both its presidents up to that point having come on attachment from Wharton. This dependence on Wharton was aimed at establishing quality benchmarks for the university to enable it to compete effectively with the two older universities. It currently offers English-language degree programmes in business management, accounting, economics, information systems, and social sciences, and is considered one of three mainstream universities alongside NUS and NTU. Right from its inception, it marked itself apart from the other two universities by instituting additional admission criteria in the form of the SAT I reasoning test and personal interviews.

In early 2005, the Government approved the request of the Singapore Institute of Management (SIM) to be a fully private university that will award its own degrees beginning with the 2006 cohort of students. The SIM was established in 1964 by a group of senior management executives from various fields in the private and public sectors to provide management training. It offers doctoral, master's, and bachelor's degree programmes in various fields such as finance, management, information technology, mass communications, accountancy, early childhood studies, education and training, and health sciences, as well as diploma and certificate courses in management and preschool teaching. The degree courses are run in conjunction with various universities in Britain, Australia, and the United States. The SIM has also been administering an Open University since early 1994, offering part-time bachelor's degree programmes awarded by the Open University of the United Kingdom in English, humanities, mathematics, economics, business, psychology, and information technology. The new SIM University will focus on serving the needs of working professionals and non-traditional adult learners. It will consist of four schools – arts and social sciences, business, science and technology, and human development and social services.

There are currently five polytechnics, Singapore Polytechnic, Ngee Ann Polytechnic, Temasek Polytechnic, the Nanyang Polytechnic, and the Republic Polytechnic that form the lower tier in the binary system of higher education in Singapore. They offer diplomas in a variety of fields such as business studies, engineering, health sciences, and information technology to students who have completed four or five years of secondary school.

Up until the late 1980s, enrolment rates in higher education were relatively low by the standards of industrialized nations. For instance, in 1980 only 5 percent of each birth cohort was enrolled in local university undergraduate programmes, while an additional 8 percent were enrolled in full-time polytechnic diploma courses. Since then, as a result of rapid government expansion of enrolments and

the creation of new institutions, these figures have grown dramatically. In the early 1990s, the Government announced its targets for the year 2000 of 20 percent and 40 percent of each birth cohort to be enrolled in university and polytechnic courses, respectively. Having met these targets successfully, it announced in 2000 that it planned to further increase the percentage of each birth cohort enrolled in local universities to 25 percent by the year 2010.

Other Higher Education Institutions

A number of privately funded institutions exist outside the mainstream and cater to the ever-increasing social demand for higher education qualifications. This demand is largely driven by the continuing strong links between educational attainment and work income (Leow 2001b, pp. 99-100). There are various sources of demand. Some of these are: working adults with degrees who want post-graduate degrees; working adults with degrees who want another bachelor's degree in a different field from their original degree; working adults without degrees (but who may have polytechnic diplomas) who wish to acquire degrees; young school-leavers who may not have been able to gain admission into highly competitive local universities; young school-leavers who may wish to select a course of study that is not currently available in local universities. This demand is largely met by statutory boards, professional groups, and private for-profit commercial schools offering numerous diploma, undergraduate, and post-graduate programmes. These programmes are predominantly in business, administration, and information technology, with most of the awarding institutions being in Britain, Australia, and the United States. These institutions have had to search for alternative sources of funding in the face of government funding cuts, and have sought to tap the lucrative overseas student market. They are able to offer students part-time programmes that offer substantial cost-savings compared to full-time onsite study in the home country institutions. The Singapore government estimates that enrolment figures in these diploma and degree programmes were 33,200 and 36,700 respectively, in 2001 (Anonymous 2002a, p. 18).

There are two fine arts colleges, the Nanyang Academy of Fine Arts and the LaSalle-Singapore Airlines College of the Arts, both of which offer diploma courses as well as bachelor's degree programmes conducted jointly with foreign universities in Britain and Australia. In 1999, as a result of a government-commissioned study that was published the previous year, these two colleges were granted government funding on a par with local polytechnics, while continuing as private institutions.

THE ROLE OF GOVERNMENT IN HIGHER EDUCATION

The NUS, NTU and the five polytechnics are under the direct charge of the Ministry of Education, which in 1992 established a University Grants Commission to advise the Minister on the allocation of funds and resources for the universities. The main control mechanisms are finance and the appointment of senior academic and administrative staff. In addition, all the constitutions of the various institutions, including SMU, are prescribed by parliamentary acts. For instance, when introducing the second reading of the SMU Bill in Parliament, the Education Minister said:

SMU will be structured as a private company...This gives SMU as much operational autonomy as possible to innovate and to pursue excellence. At the higher level, SMU's activities will be governed by the SMU Bill. This is necessary because of the wider national role played by SMU, and the fact that SMU will receive significant public funding. The SMU Bill will therefore provide the necessary mechanisms for the Government to guide SMU's strategic development in the public interest, and safeguard the use of public funds. (C. H. Teo 2000, p. 10)

Government clearly plays a dominant interventionist role in controlling and directing major policy decisions concerning higher education institutions. Its role is consistent with its preference for state-directed economic and social development (Cheung 2002). Part of this influence comes in the form of heavy financial subsidies for recurrent expenditure, 100 percent of development expenditure, and the bulk of research funding. The high state subsidies mean that students' tuition fees account for less than 30 percent of overall recurrent expenditure. Given the pivotal role the higher education institutions play in human resources development, which has in turn been identified as the cornerstone of national economic survival, it is perhaps understandable to some extent that government is unwilling to completely divest itself of any influence over these institutions.

In 2000, a Ministry of Education committee recommended that NUS and NTU be given greater operational autonomy within key government-determined policy parameters (Ministry of Education, 2000). A subsequent report published by the Education Ministry five years later recommended yet more autonomy to these two universities as well as to SMU (Ministry of Education, 2005). It suggested that the two publicly-funded universities be corporatized as not-for-profit companies, in order that the governing councils and management might take on greater responsibility for key decisions. The report highlighted the need for changes to

the size, selection criteria, and composition of university councils, as well as the need to strengthen relationships with “stakeholders” such as faculty, students, and alumni. This would also allow universities to seek alternative sources of funding as they tried to differentiate themselves from each other. Research funding would now be performance-driven and focus on quality rather than on quantity.

A key element in this latest report was the suggested institution of an enhanced accountability framework comprising three components: a policy agreement between each university and the Education Ministry; a performance agreement between each agreement and the Education Ministry; and an Education Ministry Quality Assurance Framework for Universities. Along with a Research Quality Review Panel to audit each university’s research quality once every five years, these three components represent more evidence of the mainstream universities needing to operate within government-determined policy guidelines.

With regard to diplomas and degrees offered by private commercial schools, the Ministry of Education has so far not been in favour of taking on an accrediting role. Its current role is limited to requiring these schools to fulfil minimal registration requirements in terms of space, facilities, teacher qualifications, and proof that the diplomas and degrees are granted by bona fide overseas universities. It prefers instead to let such programmes be subject to market forces (Parliamentary Debates, 74, 2002, Col. 1965). This stand has come under increasing criticism in the light of several incidents involving for-profit commercial schools getting into financial trouble or renegeing on promises made to students about programmes on offer (see for instance, Chua 2005; Pereira 2005). In response to these complaints, and to an Economic Review Committee recommendation in 2002 that a quality assurance mechanism be put in place (Ministry of Trade and Industry 2002), the Economic Development Board has introduced several schemes to protect students. One of these requires private schools to obtain a seal of approval from the Consumers Association of Singapore before they can recruit foreign students. Another scheme encourages private operators to apply for the Singapore Quality Class for Private Educational Organisations award as a mark of excellent management practices and standards. Yet another scheme involves the setting up of an Education Services Accreditation Council by the Ministry of Trade and Industry (Davie 2004).

HIGHER EDUCATION AND ECONOMIC DEVELOPMENT

The first phase of Singapore’s industrialization programme, which was launched in 1960, involved the policy of import substitution. After independence in 1965,

this policy was replaced by one based on export-oriented and labour-intensive industrialization. A major restructuring programme was launched in 1979, involving an emphasis on skill and technology-intensive industries, with a focus on research and development (R&D). The economic recession of 1985-1986 led the Government to form an economic committee to chart new directions for future economic growth. The committee's report outlined various strategies to attain its goal of Singapore becoming a developed nation by the 1990s. Among these was the need to upgrade the education level of the population. The committee also recommended that universities and polytechnics increase their annual intake, at both the undergraduate and post-graduate levels in the former case. In addition, heavy emphasis was placed on the development of competence in selected technologies: information technology, biotechnology, robotics and artificial intelligence, microelectronics, laser technology and optics, and communications technology (Ministry of Trade and Industry 1986).

In the early 1990s, more economic reports were launched, including The National Technology Plan 1991 and The Strategic Economic Plan (Ministry of Trade and Industry 1991; National Science and Technology Board 1991). The former plan was drawn up by the newly established National Science and Technology Board (NSTB, now known as A*STAR, or the Agency for Science, Technology and Research), which was formed to enhance Singapore's international competitiveness in science and technology. The NSTB stressed the need to improve research and development capability to match that of the other newly industrialized countries, and that of the United States and Europe. The list of selected technologies identified in the 1986 Economic Committee report was expanded to include food and agrotechnology, manufacturing technology, materials technology, and medical sciences. The NSTB also stressed the role of the universities in expanding the pool of research and development personnel. The Strategic Economic Plan outlined the Government's goal for Singapore to have the same per capita GNP as the United States by the year 2030. Several recurrent themes were stressed: the need to upgrade the education levels of the population and to nurture a pool of skilled personnel in key technologies, along with the importance of developing innovative and creative skills.

As part of the drive to promote research and development, NUS and NTU have established over ten specialized research institutes, which are funded by A*STAR. These include the Bioinformatics Institute, the Genome Institute of Singapore, the Institute of High Performance Computing, the Institute of Microelectronics, the Singapore Institute of Manufacturing Technology, and the Institute of Molecular and Cell Biology. Both NUS and NTU have strengthened their links with industry

by establishing industrial liaison networks to promote technology transfer, offer consultancy and training services, and embark on joint commercial projects.

Toward the end of the twentieth century, government concern with ensuring Singapore's continued economic relevance continued unabated. Despite rapid expansion of university enrolments since the mid-1980s, there were nagging doubts being expressed publicly about whether students in universities and schools were being sufficiently equipped with the necessary skills to survive in the global economy. It was becoming clear that teachers in secondary schools were becoming increasingly skilled at preparing their students for the General Certificate of Education Advanced Level examination through the use of techniques such as the repeated practice of previous years' examination questions, providing students with ready-made answers to questions, predicting questions in forthcoming examinations, and the judicious selection of subjects and topics (Nirmala & Mathi 1996). These techniques, which were employed by out-of-school private tutors, were probably partly responsible for improving schools' examination results. Furthermore, it is likely that the practice since 1992 of encouraging inter-school competition by publicly ranking all junior colleges (offering pre-university courses) and secondary schools on the basis of students' results in public examinations accelerated the use of such techniques.

University lecturers were voicing concern about the dearth of analytical and critical thinking skills among undergraduates (Nirmala 1995). The then Prime Minister Goh announced and identified in 1996 that employers had, in a 1995 survey conducted by the Education Ministry, indicated their dissatisfaction with recent university graduates' creative and innovative thinking skills, as well as their ability to think across subject boundaries, exercise initiative, and work independently (Goh 1997). Goh further announced plans by the Education Ministry to review school curricula and assessment systems in order to foster creative and critical thinking skills.

These plans were formally announced in 1997 in the form of the Thinking Schools, Learning Nation policy initiative. The initiative included a reduction in curricular content from primary to pre-university levels to allow more time to be devoted to thinking skills and processes, and the broadening of assessments to incorporate inter-disciplinary projects. A whole list of benefits, such as creative, critical, analytical and flexible thinking, the exercising of initiative, communication skills, problem solving, co-operative team work, and research skills were attributed to project work. In 1998 the Deputy Prime Minister announced the formation of a committee to review the university admission system (Tan 1998a). He said he had set up the

committee as a direct result of concern over the relevance of Singapore's universities to global economic needs that had been expressed by a government-commissioned International Academic Advisory Panel the previous year. He recommended that the committee study university admission practices in other countries to draw lessons for Singapore, while bearing in mind three fundamental principles:

1. Maintenance of high academic standards and rigorous selection criteria to reward hard work and academic performance
2. Maintenance of reasonable competence in English and the 'ethnic language' of students
3. Gradual implementation of the new university admission system to allow teachers and students adequate time to adapt to the new requirements; he also stressed the need for a system that was both fair and transparent (Tan 1998b)

The 12-member committee was chaired by the Deputy Vice-Chancellor of the NUS and consisted of representatives from NUS, NTU and SMU, the Ministry of Education, the Trade and Industry Ministry, junior colleges, and the private sector. The committee visited universities, government bodies, testing agencies, and high schools in Japan, Sweden, Israel, the United Kingdom, and the United States to study admission practices. In addition, it met selected groups of principals, teachers, parents, students, university staff, and employers.

Its draft report was made public in January 1999 and discussed in Parliament in March 1999 before finally being published in July that year (Shih 1999). The report was premised on the assumption that university education had to equip students with the skills deemed necessary for national economic survival in a knowledge economy. The specific skills mentioned were "curiosity, creativity, enterprise, leadership, teamwork and perseverance" (p. 4). Next, the university admission system had to be viewed as a means of sending clear signals to students about the desirability of these personal attributes. Thirdly, the admission criteria had to be consistent with the Thinking Schools, Learning Nation initiative being undertaken in primary schools, secondary schools, and junior colleges.

The committee claimed that although the General Certificate of Education Advanced Level examination was a meritocratic admission criterion, a broader definition of the term "merit" was required in view of the needs of a knowledge economy. Also, using more than one criterion might reduce the stress involved in taking a single high-stakes examination. The report proposed having separate admission criteria for each of the following four categories:

1. A-level graduates, constituting around 75 percent of the annual undergraduate intake into NUS and NTU
2. polytechnic graduates (making up about 10 percent of undergraduate enrolment)
3. mature applicants (those aged 25 years or above, and with at least four years of working experience, who constitute 1.5 percent of the full-time undergraduate enrolment)
4. international students (who will eventually constitute 20 percent of undergraduate enrolment, in accordance with the Government's plans to attract talented foreigners to study in Singapore)

The committee devoted most of its attention to A-level graduates in its report since it felt they would continue to make up the bulk of undergraduates in the foreseeable future. A key recommendation was that the A-level examination be supplemented by the SAT I reasoning test, project work, and participation in co-curricular activities. The SAT I test was one of the most well-established and internationally recognized reasoning tests and would assess analytical thinking skills. The committee claimed that no formal preparation was needed and that coaching and repeated test practice would not add much to a student's score. The committee recommended that the SAT I be instituted as an admission criterion beginning in 2003.

Project work was praised as fostering curiosity, creativity, resourcefulness, teamwork, and interpersonal skills. However, much more time was needed for the Education Ministry to attend to issues of fairness (that is, whether students completed the project work unassisted and without engaging in plagiarism) and comparability across schools, project work would only be phased in from 2004. Also praised was participation in co-curricular activities, which provided a measure of such qualities as "leadership, teamwork, passion and compassion" (p. 36). Participation in these activities would from 2003 onwards constitute up to a maximum of 5 percent in bonus admission points.

In addition to these four criteria, the committee's report recommended that individual university faculties continue to use personal interviews or aptitude tests. Interviews would also be useful in making decisions in cases where applicants fell marginally short of admission in terms of the four main criteria. Flexibility was also suggested in the cases of students who proved outstanding in selected areas such as sports or the arts.

The reform proposals were endorsed by a government-commissioned International Academic Advisory Panel that had been established in 1997 to advise local

universities on how to attain world-class status. While applauding the move away from sole reliance on A-level examination scores, the panel sounded a cautionary note as well. It warned of the possibility of project work and co-curricular activities being engaged in for reasons far removed from the original, laudable educational objectives (International Academic Advisory Panel 1999). Predictably, the committee's proposals were accepted by the Government.

Public response to the proposals centred around the inclusion of the SAT I test and project work. Many of these concerns and reservations also found their way into parliamentary discussions. First among the concerns was that examination-smart Singapore students would simply view the SAT I test as one more type of examination to pass, and would bring into play the existing strategies – intensive coaching and repeated practice in answering questions – that they had been using so successfully in the A-level examinations. Secondly, there were concerns over students being subjected to yet more stress because of the imposition of the SAT I test. Thirdly, the cultural relevance of the SAT I test was placed under scrutiny. Finally, questions were asked about the administration of project work in such a way that students undertook it independently and without unfair assistance.

The Education Minister responded to these various concerns by claiming that the introduction of the SAT I test would provide students with an incentive to begin reading widely from a younger age. Only several weeks of preparation were needed for the test, as further practice would not affect scores dramatically. What was important, he asserted, was sending signals to students that would affect their motivation, attitude, and behaviour. The new admission system would also provide the flexibility to admit students who might not have been admitted on the basis on their A-level examination results alone.

Although the new admission criteria had been scheduled to come into effect in 2003, the SMU had from its inception in 2000 begun requiring prospective students to submit not only their General Certificate of Education Advanced Level examination results, but also their SAT I test scores and a personal essay. Students who were shortlisted on the basis of these three criteria would then need to attend an admission interview. The decision was explained by the SMU president as a move to offer a "top American business-school approach" to Singapore students and to compete with NUS and NTU (Nirmala 1999).

Even before the new criteria came into force, a review committee formed by the Education Ministry recommended in 2002 that the Advanced Level examinations be revamped to include greater emphasis on reasoning skills and to incorporate

greater breadth of subject coverage. It recommended too that local universities revise their admissions criteria in line with these changes. Another recommendation was that each university might wish to devise their own distinctive admissions systems (Ministry of Education 2002).

NUS and NTU announced in 2003, barely a month after the new admission criteria had come into effect, that they would once again review their admission criteria in response to the Education Ministry's 2002 report (Davie 2003). This latest round of frenetic education reform efforts in search of a winning formula led to the revision of the university admission system yet again in 2004. This time, the changes were to take immediate effect, instead of providing students, parents and schools with lead time to react to the changes. Not only were NUS and NTU allowed to make separate offers of admission to prospective students, the SAT I test was removed as a mandatory admission criterion. The previous official insistence on the validity of the SAT I as a measure of thinking skills was replaced with recognition of impending revisions to the SAT I in the United States and the revision of the General Certificate of Education Advanced Level examination curricula to incorporate greater thinking skills components. Furthermore, NUS and NTU were allowed to admit up to 10 percent of their annual intake using their independently devised criteria. Individual faculties within the universities were allowed greater latitude in determining special admission criteria.

Before this round of changes could take root, another announcement was made in March 2005 that co-curricular activities would no longer be awarded bonus points for university admission from 2007 onwards. Such participation would instead be considered qualitatively rather than quantitatively through a scoring system that had been instituted in junior colleges in the year 2000. This announcement represented a tacit acknowledgement that some students were adopting a cold and calculated approach to participation in co-curricular activities, rather than engaging in them out of genuine motivation and passion.

A major theme that has emerged so far is the single-minded gearing of higher education, under firm government direction, toward economic development goals and targets. For instance, the Government has stated unequivocally on various occasions that university education cannot be divorced from economic goals (Parliamentary Debates, 50, 1988, Col. 1114). The universities and polytechnics have been assigned clearly demarcated roles. The universities are to serve four main objectives:

1. Provide top-level professionals, managers, planners, and researchers
2. Raise the intellectual tone of society

3. Act as a benchmark in maintaining high standards of education in Singapore
4. Create wealth (Parliamentary Debates, 55, 1990, Col. 986; 74, 2002, Col. 1933)

The polytechnics serve to provide mid-level technologists, supervisors, and managers (Parliamentary Debates, 55, 1990, Col. 986). The Singapore Government has also not been in favour of following the examples of the United Kingdom, Australia, and Hong Kong in upgrading the polytechnics and allowing them to become degree-granting institutions.

The concern with economic relevance extends beyond monitoring enrolments and course offerings to regulating access to certain fields of study. For instance, from 1979 on, a quota was placed on the percentage of top-scoring university entrants who could be admitted to medicine and dentistry courses in NUS, on the grounds that a more even spread of talent was needed in the various disciplines (Parliamentary Debates, 38, 1979, Cols. 763-766). Replying to criticism that this quota denied some students the right to freely pursue their career ambitions, a government spokesman said: "The Government subsidizes the cost of training in the universities not to satisfy personal ambitions but to meet the nation's economic and social needs" (The Straits Times, May 21, 1991). Another method used to influence the choice in fields of study is the offering of both local and overseas scholarships in fields identified as priority areas in national economic and social policy.

INTERNATIONALIZATION OF HIGHER EDUCATION

A major prong of the national economic development strategy outlined in the Strategic Economic Plan is a policy of internationalization, to use "global resources, global technology and global talent" (p. 59). As part of this plan, Singapore is to develop into an international centre of learning. At the macro-level, international panels of prominent academics from prestigious Japanese, United States, and European universities have been invited several times during the 1990s and the first decade of the twenty-first century to advise the Ministry of Education on higher education curriculum and development policy and strategy. In addition, various local review committees have visited overseas institutions as part of their fact-finding missions before publishing their policy recommendations.

At the institutional level, the universities and polytechnics have steadily increased their research staff and student exchange links with overseas institutions of higher

learning. Although the universities and polytechnics were originally modelled on British institutions, there has been growing influence from the North American academic model. Both NUS and NTU have introduced a modular system for undergraduate courses, and have abandoned the British nomenclature system for academic job titles in favour of the North American nomenclature. All the polytechnics have adopted a modular academic system. In 1996, the then Prime Minister announced the Government's intention to turn Singapore into the "Boston of the East," with Harvard University and the Massachusetts Institute of Technology serving as role models for NUS and NTU to develop into world-class institutions (CT Goh 1996). These role models appear to have been replaced subsequently by the University of California. Further inroads were made by the North American model of higher education when SMU was established along the lines of the Wharton Business School.

After the Prime Minister's announcement about turning Singapore into the Boston of the East, the state-run Economic Development Board was put in charge of attracting ten prestigious foreign universities to set up branch campuses in Singapore by the year 2008 so as to turn Singapore into an international education centre. The board has announced that it aims to surpass this target (Nirmala 2001). The universities that have already established campuses or will be doing so include Johns Hopkins University, University of Chicago, INSEAD, Georgia Institute of Technology, Technische Universiteit Eindhoven, and Shanghai Jiao Tong University. The University of New South Wales in Australia will be establishing a comprehensive campus in Singapore in the year 2007, and the University of Warwick is currently engaged in negotiations to do the same.

Yet another Economic Review Committee report was released in 2002. This report highlighted the potential of developing Singapore into an international education hub (a theme raised earlier by the then Prime Minister in 1996) to contribute to the national gross domestic product. It suggested having three tiers of universities. The first of these would consist of world-class universities operating branch campuses in Singapore, offering primarily post-graduate degrees, and carrying out research and development. The second would consist of NUS, NTU, and SMU. The third would consist of private universities, either local or foreign in origin. The setting up of this third category of universities would help attract the bulk of foreign full-fee-paying students (Ministry of Trade and Industry 2002).

Staff flows

Besides increasing institutional linkages, the flow of teaching and research personnel into and out of Singapore has grown tremendously, in particular since the 1990s. Many local teaching staff have been sponsored for post-graduate studies at overseas universities, especially in North America, while others are involved in academic staff exchange programmes. At the same time, large numbers of foreign-born teachers and researchers from all over the world have been recruited for local higher education institutions. Two important sources of teachers and researchers that have emerged over the past decade are India and the People's Republic of China. Many of these individuals have obtained their doctoral degrees at North American universities. The use of the English language as the medium of instruction at all higher education institutions, as well as relatively higher salaries and generous government support for research funding, has provided Singapore with a distinct advantage in staff recruitment compared to many countries in East Asia. The Government is also fairly liberal in granting talented teachers and researchers permanent residence in Singapore.

The Government has recognized that it is not possible to completely localize staff recruitment because of a shortage of qualified individuals, due in part to the absence of an indigenous research and development tradition, and the relative lack of interest among many local undergraduates in an research and development career (C. B. Goh, 1998a; 1998b). The increase in foreign-born staff at higher education institutions has been part of a similar trend with other professional jobs in the rest of the economy. Although the Government has claimed on numerous occasions that these individuals, referred to as "foreign talents," are indispensable for Singapore's economic growth, there has been persistent criticism of this policy of aggressive recruitment on several grounds (Low 2002). One concern is that they take jobs away from qualified Singaporeans. Furthermore, such foreign-born individuals are readily granted permanent residence status, leading to the perception that they are receiving the economic and social benefits enjoyed by Singapore citizens without having to fulfil national service obligations.

Student flows

Two-way student flows represent another form of growing regionalization and internationalization. The official target for foreign undergraduate enrolments in local universities is 20 percent. So important is this target that the Singapore Tourism Board website now actively promotes Singapore as an educational hub. A main

recruitment target source of these students is the People's Republic of China. Not only are Singapore government scholarships being awarded at the undergraduate level to students from China, recruitment teams from prestigious Singapore secondary schools (which have also set a 20 percent foreign student enrolment target) are visiting large urban centres in China to recruit students to study at their schools on full scholarships. The hope is that these students will grow to like Singapore and will eventually continue their studies at undergraduate level.

As with recruitment of foreign staff, concerns have been raised among parliamentarians and members of the public that foreign students may be depriving Singaporeans of university places, and that taxpayers have to subsidize their fees. The Government has stated that local students will be awarded first priority for admission. In addition, foreign students have to satisfy more stringent entry requirements than local students (Parliamentary Debates, 45, 1985, Cols. 1444-1446; 58, 1991, Cols. 46, 63).

The rationale for admitting foreign students is characteristically pragmatic. First, all foreign students have to sign a bond to live and work in Singapore for at least three years upon graduation, thus adding to the limited talent pool. Admitting these students, thus, represents a prime investment, since Singapore is able to tap into their talent without having had to pay for their prior education. In addition, Singapore needs to compete aggressively to capture a bigger slice of the estimated US\$2.2 trillion world education market (Ministry of Trade and Industry 2002). Next, local students have the opportunity to interact with students from other societies while learning more about different cultures, which is a recognized necessity in the global economy. This interaction will not only contribute toward a better-rounded university education, but will also help local students in their future job-related contacts with foreigners. Lastly, when foreigners return to their home countries, there will eventually be a network of students globally and especially regionally occupying key positions in the public and private sectors (Parliamentary Debates, 45, 1985, Col. 1447; 50, 1988, Cols. 1103-1104; 58, 1991, Cols. 63-64).

In addition to the inflow of foreign students, the number of Singaporean students studying at foreign higher education institutions has steadily increased in the past few decades. This number excludes those who are pursuing part-time degree programmes offered by various local commercial schools in conjunction with foreign higher education institutions. The most popular destinations for Singapore students heading overseas are the United States, Australia, United Kingdom, and Canada. Yet, it should be noted that no authoritative figures are available on how

many Singaporeans are studying outside of the country. A key point to note is that government annually sends top-scoring school leavers to prestigious foreign universities, largely in Europe and the United States, for undergraduate programmes. It is anticipated that these students will assume key administrative positions in the civil service on their return. The former Prime Minister has explained in characteristically pragmatic terms the advantages of top students studying in a top university in the United States or the United Kingdom: "You have the opportunity to network, to build up friendships and lifelong relationships with their best, their future political and corporate leaders" (*Straits Times Weekly Edition*, August 20, 1994). Another form of local student flows out of Singapore has been the sending of local undergraduates overseas on short work stints and study exchange programmes.

ACCESS AND EQUITY ISSUES

Access to higher education was relatively restricted and selective until the mid-1980s (Table 36). This policy of restricted access existed even while social demand for higher education, especially at the university level, was steadily increasing. As a result, many students turned to overseas institutions to continue their studies. The growing number of external degree programmes conducted by various institutions and commercial schools is testimony to this demand. This demand continues unabated even as government has significantly democratized access and expanded enrolments in local universities over the last twenty years. Much of the demand for external degrees and overseas study is attributable to the fact that local universities give priority in admissions to students who have General Certificate of Education Advanced Level qualifications over polytechnic graduates. Thus, while government authorities have assured school leavers that polytechnic diplomas afford them a viable route to university entry, the transition rate to local universities for advanced level students far surpasses those of polytechnic graduates. This has happened despite recent moves to increase the intake of polytechnic graduates (see for instance, Davie 2005).

Table 36: Higher education enrolments, 1960-2000

Year	Universities		Polytechnics		Teacher Education		Total	
	M	F	M	F	M	F	M	F
1960	3,502	(23.0)	2,342	(2.3)	2,327	(51.7)	8,171	(25.2)
1965	4,996	(28.1)	3,208	(9.9)	5,603	(58.0)	13,807	(36.0)
1970	6,990	(34.8)	4,692	(8.1)	2,001	(69.5)	13,683	(30.7)
1975	8,540	(44.1)	9,276	(18.8)	685	(79.4)	18,501	(32.7)
1980	9,078	(44.2)	11,105	(22.5)	2,328	(84.9)	22,511	(37.7)
1985	17,071	(46.6)	21,610	(27.4)	1,232	(78.2)	39,913	(37.2)
1990	24,341	(46.7)	29,550	(34.8)	1,781	(75.7)	55,672	(41.3)
1995	28,529	(48.8)	41,002	(44.3)	1,341	(74.3)	70,872	(46.7)
2000	35,816	(49.6)	52,033	(46.6)	3,072	(73.1)	90,921	(48.7)

Sources: Department of Statistics, 1983, p. 238; Department of Statistics, 1993, pp. 301-302; Ministry of Education, 2002, p. 43.

Notes: Figures in parentheses denote the percentage of females. University enrolments refer to undergraduate students.

There are several reasons for the high social demand for higher education, especially university degrees. First, continued economic growth in the post-independence period (except during the 1985-1986 economic recession and the economic downturn between 1999 and 2004) has meant a steady demand for university and polytechnic graduates in the workforce. Another key reason, mentioned earlier in this chapter, is the strong link between higher education qualifications with high-income employment and socio-economic mobility. A third reason is the rapid expansion of primary and secondary enrolments, as well as increased pass rates in primary and secondary school examinations, which have resulted in an increased pool of candidates meeting the minimum entry qualifications for higher education.

Gender

Female participation rates at all higher education institutions have increased over the past four decades (see Table 36). The increase in female enrolments has been so great that females dominate certain faculties and courses, such as the arts and social sciences faculty in NUS, the teacher education courses in the National Institute of Education, and the accountancy, business studies, design, and health sciences courses in the polytechnics. However, females still remain under-represented in other courses like medicine and engineering.

Gender imbalances in certain fields have been the subject of government concern. In the case of the NUS medical faculty, the proportion of female students was kept at about one-third for about twenty-five years beginning in 1979 as a result of a deliberate government policy. The Health Minister justified the decision on the grounds that not only was the attrition rate for women doctors very high, they were also very choosy about hospital postings and were “clock-watchers” (Parliamentary Debates, 38, 1979, Cols. 766-767). He described the high attrition rate as “a considerable loss in investment,” clear evidence yet again of the constant use of economic language in discussions of higher education.

The validity of these claims was repeatedly challenged for over two decades. Only recently did the Health Ministry indicate that it would revisit the quota, the main impetus being an overall review of medical services by an Economic Review Committee. The committee recommended that Singapore increase the number of medical researchers in order to become a regional biomedical centre. The implication is that this kind of work will afford women more opportunities to work regular hours and that the quota may, therefore, be unnecessary (Liang 2002). The chairman of the government parliamentary Committee for Community Development and Sports pointed out that the quota was contrary to the United Nations Convention on the Elimination of All Forms of Discrimination Against Women, which Singapore ratified in 1995. Furthermore, the policy was incongruent with the Government’s claim that Singapore society is meritocratic (Teo 2002). The discriminatory quota was finally lifted in 2003.

Another issue that has aroused official concern is the rapid feminization of the teaching profession since the 1960s. Two official reasons cited for the concern are that women are less ambitious and, therefore, less willing to apply for senior positions, and that boys need male role models. However, repeated government advertising campaigns to recruit more male teachers and to achieve a more balanced gender ratio have had little success to date.

Ethnicity

Both government and community leaders have expressed increasing concern since the 1980s over the problem of minority educational achievement. Most of the focus has been on the two numerically largest communities, Malays and Indians, who form 14 percent and 8 percent, respectively, of the total population of 3.5 million. The 2000 population census showed evidence of minority underrepresentation in higher education enrolments. The ethnic breakdown of local

students in local universities was as follows: 92.4 percent Chinese, 2.7 percent Malay, and 4.3 percent Indian. These figures represented deterioration in minority representation compared to the 1990 population census figures (Lau, 1993, pp. 168-169). In 2000, Chinese students comprised 84.0 percent of the local students in the polytechnics, Malays 10.0 percent, and Indians 5.2 percent (Leow, 2001a, pp. 34-36). These figures show an improvement in minority representation over the corresponding 1990 figures (Lau, 1993, pp. 168-169).

Malay university and polytechnic graduates continue to be grossly under-represented in all fields of study, constituting 2.1 percent in 2000 (1.8 percent in 1990) of all university graduates and 5.9 percent (3.3 percent in 1990) of all polytechnic diploma-holders in the 2000 population census. It is noticeable that Malays' proportional representation at polytechnics has improved far more rapidly over the past decade than at the universities. The advances made by female Malays have also outstripped those of Malay males, with the result that Malay female holders of university degrees now outnumber their male counterparts. Indian representation in the population of polytechnic graduates is still small (3.6 percent). The corresponding figure for university graduates (10.1 percent) is much better than that of the Malays, due to the inclusion of Indian nationals who hold professional degrees and who have adopted Singapore permanent residence. They have consequently been included in the population census figures in the same category as Singapore citizens (Leow 2001a, pp. 66, 70).

The Government has explicitly rejected the use of affirmative action initiatives and admission quotas along the lines of those in neighbouring Malaysia as a means of redressing these long-standing ethnic disparities in educational attainment. Instead, since the early 1980s, it has encouraged the formation of several ethnically based organizations with financial and infrastructural assistance. These groups have the specific mission of improving socio-economic conditions and educational achievement. The bulk of their efforts involve tuition classes for primary and secondary school students, the provision of financial aid, family counselling and referral services, and parent outreach programmes. These various initiatives over the past twenty years or so have been slow to bear fruit in terms of improved representation, especially at the university level. It is likely that the problems of minority under-representation are deeply rooted in various structural and socio-economic factors and will take much longer to address.

CONCLUSION

Higher education in Singapore has undergone rapid expansion and structural reorganization in the past four decades. Throughout this period, a prime concern has been the relentless gearing of higher education towards meeting economic needs. This has been manifested in several areas such as curricular changes, enrolment policies, and research priorities. Even the move in 1999 to upgrade two fine arts colleges to polytechnic status was motivated by the desire to let Singapore “compete in the next century as a creative nation with additional sets of skills and capabilities” (Creative Singapore, 1998, p. 38). The most recent trend in this respect involves marketing Singapore as a regional higher education centre.

Another inescapable feature of Singapore’s higher education is the dominant interventionist government role in directing a frenetically orchestrated flurry of higher education policy initiatives toward prescribed social and economic goals. It is perhaps understandable that in a newly independent nation lacking in natural resources, the Government has been loath to leave higher education entirely in the hands of private enterprise. The Singapore case illustrates that a heavy state presence in higher education need not necessarily impede the successful functioning of higher education. It has led to swift responses to perceived changes in national and wider international economic competitiveness.

After a period of relatively selective access to higher education, there are now plans to enrol 25 percent of each birth cohort in local universities and an additional 40 percent in local polytechnics by the year 2010. These plans have been formulated in response to economic needs as well as increasing social demand for higher education qualifications, especially university degrees. In addition, greater opportunities are now available for mature students to obtain these qualifications.

Singapore’s higher education system holds several key lessons for other countries within and outside of Asia that are concerned with problems of quality and quantity in higher education. Government has been quick to identify potential niches for Singapore within the wider global economy and then to marshal resources within the higher education system toward the filling of these niches. Next, the higher education system continues to be generously funded and resourced, at a time when many higher education institutions worldwide have suffered years of financial stringency. This point is testimony to the resolute belief that the money spent represents a prime national investment. Another useful lesson concerns the active encouragement of staff and student flows into and out of Singapore. The Government has prudently recognized the value of fostering international links to keep

Singapore up-to-date with the latest developments in teaching, research, and technology. At the same time, the almost exclusive use of the English language has facilitated the fostering of such links.

What are the trends and challenges that await Singapore higher education at the beginning of the twenty-first century? In some respects, the prospects are extremely bright. The entire system is internationally well regarded in terms of academic standards and overall efficiency. The major funding problems plaguing many other systems are noticeably absent, and plans for further expansion have been announced. A few major trends and challenges can be highlighted.

It is clear that the perennial, almost obsessive, concern with economic relevance will continue. Course curricula, enrolment patterns, and research and development will be monitored closely to ensure that they are consistent with government-perceived social and economic needs. There appears no end in sight to the regular pace of reviews and reports urging reform. However, it appears increasingly difficult for these reviews and reports to keep track of, and accurately predict, areas of need amid the rapidly changing nature of the global economy. For example, in the early 1990s, the Government claimed that there were too many doctors in Singapore and announced limits on local medical undergraduate enrolments and on the number of foreign medical degrees that it recognizes. Less than a decade later, it backtracked on both these decisions in the wake of doctor shortages in public-sector hospitals. Another example is seen in the dot.com boom and the subsequent unemployment of numerous computing graduates after the dot.com crash.

Another policy trend that appears likely to persist is that of internationalization. However, the Singapore higher education system will face increasing competition from other countries keen to cash in on the growing international demand for higher education. Policymakers will be hard pressed to position Singapore universities competitively *vis-à-vis* more established universities in the West. Perhaps one advantage that can be capitalized upon is its relatively low living and tuition costs. Another might be the lure of top-name degrees awarded by the Singapore branch campuses of prestigious foreign universities.

Despite official ambitions and heavy funding of higher education, the quest for world-class stature and a creative, innovative university culture will not be easily attained. The reforms currently underway in the primary schools, secondary schools, and junior colleges to foster creativity and innovation are eight years old and have yet to result in demonstrable changes in well-entrenched modes of

teaching and learning. Teachers, students, and parents have become too comfortable with the proven success of repetitive drills, even involving so-called “higher-order thinking” questions, in attaining examination success for change to come easily and readily. This last point is manifested in the NUS proposal in 2002 to establish its own mathematics and science specialist secondary school. Its deputy president was quoted in the press as saying, “Why don’t we try and see if we can produce a different breed of students who don’t expect to be spoon-fed with notes but, with the right guidance from teachers, go and discover and explore things on their own?” (Anonymous 2002b).

In the same vein, it is unrealistic to expect local universities to attain the same degree of worldwide renown and stature of an institution such as Harvard University. Some academics have suggested instead that the NUS model itself after the University of California at Berkeley. It has also been suggested that Singapore consider the state of California’s university model, with two parallel university systems offering a diversity of programmes for different groups of students. It is rather doubtful to what extent Singapore will ever be in a position to attract enough world-class teachers and researchers on anything like the scale of more prestigious universities. The fact remains that in several senses, the advances in information technology notwithstanding, Singapore still remains on the periphery of the international academic world. It is, therefore, unlikely, that a substantial number of top-notch researchers would contemplate giving up their posts in North America and Europe for long-term careers in Singapore.

At the same time, as the Government attempts to make higher education internationally competitive, there is a need to meet increasing social demands for higher education qualifications. The Government has committed itself, as part of its efforts to foster a lifelong learning society, to providing greater opportunities for working adults to acquire such qualifications. The burgeoning demand raises questions of quality and competition (Anonymous 2002c). Only recently has a central accreditation agency been established to guide prospective students and help them assess the claims and promises of international recruitment agents and sales staff in private commercial schools.

More worrying is the prospect that it will be some time before the Malay and Indian ethnic minorities overcome their long-standing problems in educational attainment. Over twenty years of government assistance to ethnically based self-help groups have yet to yield results in terms of proportional ethnic representation in higher education institutions. The Government is ever mindful of the potential impact of ethnic disparities on wider social integration.

What will be interesting to watch is the tension between the Government's desire to be in overall charge of higher education development and planning, on the one hand, and trends that militate against the effectiveness of government controls, on the other. One such trend is the increasing tendency among a growing middle class to demand a say in official policy instead of being passive recipients of policy determined by a few individuals. Another trend is the growing affluence that allows individuals to bypass government enrolment quotas and suggestions on career choices. Already there is a small percentage of government scholarship awardees who have chosen to repay their scholarship liabilities and pursue their preferred study or work choices instead of returning to Singapore to serve in the civil service. Official labelling of these individuals as "lacking a sense of moral obligation" and public "naming and shaming" of these individuals have so far proved futile. The fact that these individuals could well have afforded to pursue their studies without the scholarships points to the fact that they might have applied for the scholarships for the added personal prestige, rather than because of genuine financial need.

It is ultimately questionable to what extent heavy government intervention is consistent with its concurrent quest for greater creativity and innovation. For instance, the president of the Singapore Management University has said, "We can provide an environment that will help people develop their capability, but the ability to use that capability depends not just on them but on those who are in the older generation being willing to free up the society." (A. Teo 2003, p. 3) One wonders how the Singapore Government will be able to attract a critical mass of members of the "creative class" (Florida 2002) necessary for Singapore universities and polytechnics to make that critical breakthrough into the ranks of world-class institutions.

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THAILAND

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INTRODUCTION

The roles, structures and responsibilities of public and private higher education institutions in Thailand have changed dramatically in response to demands for increased quality and student participation. Major reforms are related to government organization, quality assurance, institutional autonomy, and admission systems.

A key part of the overall Thai education reform programme was a new integrated Ministry of Education, merging the Ministry of Education, the Office of the National Education Commission (ONEC), and the Ministry of University Affairs. This was formed with the passage of the National Education Act B.E. 2542 (1999) and the related Amendments in B.E. 2545 (2002) in July 2003. The new Ministry of Education is empowered to promote and oversee all levels and types of education, including higher education; mobilize resources for education; promote and coordinate affairs related to religion, art, culture and sport for education; and monitor and evaluate education policies and programmes. Through this merger, the revamped Ministry of Education aims to achieve greater coherence and unity in educational policies, plans and standards for implementation of all levels of education. In addition, it would be able to facilitate better coordination and articulation between basic and higher education. The new Ministry comprises four main commissions: the National Education Council, the Commission on Basic Education, the Commission on Vocational Education, and the Commission on Higher Education.

The National Education Act lies at the heart of all reform programmes in Thailand. With respect to higher education, it stipulates the implementation of a quality assurance system to ensure improvement of educational quality and standards at all levels with processes for both internal and external quality assurance. The education institutions, themselves, are responsible for establishing such a system. Internal quality assurance is integrated into the regular administrative processes. This requires preparation of annual reports to be submitted to parent organizations and agencies, and to be shared with the public as a component of the external quality assurance requirements.

An Office for National Education Standards and Quality Assessment (ONESQA) was established as a public organization, responsible for developing criteria and

methods of external evaluation, and evaluating educational achievements to assess the quality of institutions. All educational institutions are subject to external quality evaluation at least once every five years. The results of the evaluation are submitted to the relevant agencies and made available to the general public.

The newly formed Commission on Higher Education (CHE) has the authority to manage and promote higher education on the basis of academic freedom and excellence, namely:

1. Formulate policy recommendations, development plans, standards, and coordinate international cooperation in higher education
2. Mobilize resources
3. Coordinate and promote the development of human resources and capacity of all students
4. Recommend the establishment, dissolution, amalgamation, upgrading, and elimination of higher education institutions and community colleges
5. Monitor, inspect, and evaluate outcomes of higher education management
6. Compile data and information on higher education
7. Act as the Secretariat to the Commission on Higher Education Board

ACCESS TO HIGHER EDUCATION

The transition rate of students from upper secondary education to higher education (excluding new entrants in open universities) rose from 75.9 percent in 1999 to 80.8 percent in 2003. Student enrolment in higher education institutions, including those in open universities, rose from 1,643,447 in 1999 to 1,928,608 students in 2003 as shown in Table 37. It is forecast that a higher percentage of secondary school students will seek higher education studies as a result of the provision of 12 years of free basic education, stipulated in the Constitution and the National Education Act.

Table 37: Student enrolment in higher education institutions, 1999-2003

Level of Education	1999	2000	2001	2002	2003
Certificate	2,864	2,615	2,324	2,138	4,139
Diploma	455,080	470,002	462,187	439,363	400,071
Undergraduate	1,099,219	1,232,215	1,294,561	1,371,058	1,396,242
Master	83,936	89,818	108,055	108,774	120,116
Doctorate	2,348	3,190	5,080	5,120	8,040
<i>Total</i>	<i>1,643,447</i>	<i>1,797,840</i>	<i>1,872,207</i>	<i>1,926,453</i>	<i>1,928,608</i>

Source: Office of the Education Council

There are two principle ways in which students are admitted to higher education institutions: direct admission and the central university admission. Direct admission provides more opportunities for students in provinces and remote rural areas, including talented students from these areas. Central university admission places greater emphasis on the joint entrance examination and treats every applicant in the same way, but gives more weight to student achievements at upper secondary school. The two systems allow higher education institutions more flexibility in accepting students. In 2003, 28,476 students were able to enter universities through direct admission, while 34,999 students were admitted to universities through central university admission (Kanchana 2005).

Direct Admission System

The direct admission system consists of two components:

Quota System

Each university sets up a quota to give opportunities to students from the provinces to be able to study at higher education institutions. For example, regional universities such as Chiang Mai University, Khon Kaen University, and Prince of Songkla University have a quota of approximately 50-60 percent set aside for new entrants from their respective regions. Under this system, secondary school graduates in each region have a chance to be admitted to regional universities in competition with students from that region only.

Admission Based on Special Projects

Some universities set up special mechanisms to provide opportunities for special groups. For example, since 1981 Chulalongkorn University has accepted students on a special case basis through particular projects such as its rural student project to provide opportunities for rural students to study at higher education institution; its arts project for students, specially who are gifted in the creative and performing arts; and its sports project for those especially gifted in athletics.

Central University Admission System

This system provides for a pooled admission of students. The CHE supervises applications, organizes national entrance examinations, and screens students based on their examination results. The students can apply to up to four faculties or fields of study in up to four institutions of higher education. The components for the central admission system in 2005 are:

1. 10 percent for academic performance from the upper secondary level or equivalent (Grade Point Average = 5 percent and Percentile Rank = 5 percent)
2. 90 percent for entrance examination results, the weight given to core and specialized subjects depending on each institution
3. Results of the interviews and physical examination, with no weight for this component

In 2005, 110,990 applicants sat for the joint entrance examination for 80 public and private higher education institutions. The examination was conducted by the CHE. The number of successful students was 73,127. From 2006, over reliance on the entrance examination will be reduced because indications are that the system forces students to focus on exam preparation rather than on normal course work. One key problem has been that schools prioritize exam preparation over the development of students' thinking, and both their analytical and communication skills. In 2006, the criteria will comprise four factors and weightings:

1. 10 percent on GPA (grade point average in Upper Secondary Education)
2. 20 percent on GPA (grade point average in core subjects)
3. 35-70 percent on O-NET (Ordinary National Education Test)
4. 0-35 percent on A-NET (Advanced National Education Test) or specific subjects or aptitude tests in not more than three subjects as required in any specific field

The weight of the GPA is due to increase 10 percent each year. Thus, a student's GPA will contribute 30 percent and 40 percent in 2007 and 2008, respectively, as shown in Table 38.

Table 38: Components of the central university admission in 2006-2008

Components	Weight (%)		
	2006	2007	2008
GPAX	10	10	10
GPA	20	30	40
O-NET	35-70		
A-NET	0-35	60	50

Source: The Commission on Higher Education

The rationale behind the increased weight for GPA is driven by three factors:

1. The need to encourage teachers and students to pay more attention to the new basic education curriculum (introduced in 2001) from which the first group of students will enter university education in the academic year 2006
2. The growing need to avoid the high expense of tutorial schools to prepare students for examinations, the existence of which favours those of higher income groups
3. The new system is also a response to the need for new teaching and learning pedagogies emphasizing greater student-centred learning under Thailand's educational reform

The National Institute for Educational Testing Services was established in 2005 as a public organization responsible for managing the development of testing services in Thailand. Its functions include evaluation and assessment of standards, personnel development and national and international cooperation in educational testing. This Institute will be responsible for conducting the Ordinary National Education Test (O-NET) and the Advanced National Education Test (A-NET).

DIVERSIFICATION OF HIGHER EDUCATION

A number of access routes into higher education are available to students. These include limited admission public universities, open universities, autonomous universities, Rajabhat Universities, Rajamangala Universities of Technology,

Pathumwan Institute of Technology, community colleges, or private higher education institutions. These types of higher education institutions fall under CHE and have their own unique characteristics, which are detailed below.

Public Universities

As of August 2005, there are 25 public universities, and these can be subdivided into three groups.

Limited Admission Public Universities

Chulalongkorn University, the first university in Thailand, was established in 1917 by the amalgamation of the School of Civil Servants, the Royal Medicine College, and the Engineering School. One year after the revolution of 1932, which resulted in a constitutional monarchy, the University of Moral and Political Sciences was founded (later renamed Thammasat University in 1952). In the early 1940s, the Government established three more universities to serve the needs of government agencies: Kasetsart University, specializing in agriculture; Silpakorn University, specializing in the fine arts; and Mahidol University, specializing in medicine. Under a policy of decentralizing universities to other regions outside the capital city of Bangkok, government authorities established Chiang Mai University in the Northern region in 1960, Khon Kaen University in the Northeastern region in 1962, and the Prince of Songkla University in the Southern region in 1965. In 1966, the Thai Government established the National Institute of Development Administration (NIDA) to offer graduate programmes related to national development.

The newest and 25th public university is Princess of Narathiwat University. The University was established on February 2005 by merging together four institutions of higher learning in Narathiwat Province: namely, Narathiwat Technical College, Narathiwat Agricultural and Technical College, Tak Bai Vocational College, and Baromarajonni College of Nursing Narathiwat. The Princess of Narathiwat University is a government department like other traditional public universities. It aims to provide diversified study programmes and to upgrade lower-level and degree-level education by delivering technical education and diploma programmes. The establishment of this university is intended to be instrumental in solving local problems and campaigning for peaceful coexistence in the Southern region. The curricula are multi-disciplinary and its mission is to produce qualified graduates fit for employment. An International Islamic College will be established as an impor-

tant part of the university. The Islamic College will integrate Islamic norms, virtues, and principles into its curricula (Pot Pourri 2004).

The current government policy on establishing new universities is based on the rationalization and merging of existing colleges with subsequent upgrading to university status, such as the Princess of Narathiwat University and the Nakorn Panom University, which will be established in the near future.

Open Admission Universities

There are two open universities: Ramkhamhaeng University (founded in 1971) and Sukhothai Thammathirat Open University (founded in 1978). Unlike other public universities, students need not take any examinations to enter these universities providing they meet entry requirements.

Sukhothai Thammathirat Open University (STOU) offers only distance education. It employs a system which enables students to study by themselves without having to use conventional classrooms. Instruction is provided through the use of integrated media comprising textbooks, workbooks, cassette tapes, video tapes, reading materials, radio and television programmes, tutorials, computer-assisted learning, and e-learning. STOU has an established network of Regional Distance Education Centres in each region of the country and also 80 Provincial Study Centres in educational institutions nationwide to provide academic services to its students and the general public. Academic services include library and educational media services, tutorials, examinations, academic and career counselling service, and university news and information services. The Regional Distance Education Centres also use mobile units to cover their service areas. The University arranges examinations at one or more locations in every province to provide students with economic and convenient examination services. Examinations are arranged twice each semester and include the regular examination and a make-up examination. The University sends examination results to students approximately 30-45 days after the examination by mail, or students can obtain examination results through the University website and automated telephone information service (<http://www.stou.ac.th/Eng/DLS/Services.asp>).

Ramkhamhaeng University offers both classroom education on-campus and distance learning. The University established an E-learning Centre in 2001 to integrate ICT into its overall mission. An example of this is the "Cyber Classroom" in which students can learn online (<http://www.ru.ac.th/page/index-1.htm>).

Autonomous Universities

There are four autonomous public universities. Suranaree University of Technology was the first public autonomous university established in 1990 in Nakhon Ratchasima Province in the Northeastern region. The second is Walailuk University, founded in 1992 in Nakhon Si Thammarat Province in the Southern region. The other two are Mae Fah Luang University and King Mongkut's University of Technology Thonburi. Mae Fah Luang University was founded in 1998 in Chiang Rai Province in the Northern region. King Mongkut's University of Technology Thonburi which is situated in Bangkok Metropolis was upgraded to become an autonomous university in 1998.

Autonomous universities are different from other traditional public universities in that they have more freedom in academic matters, personnel administration, and financial and asset administration. They are under the supervision of Minister of Education, but not under the CHE. The autonomous universities still receive governmental financial support in the form of block grants.

Other Public Universities

Five other types of public universities are described below. Three of them, namely Rajabhat Universities, Rajamangala Universities of Technology, and Pathumwan Institute of Technology have been central to the rapid expansion of university education in Thailand over the last couple of years.

Rajabhat Universities

Rajabhat Universities were upgraded from Rajabhat Institutes to university status in June 2004. There are 41 Rajabhat Universities as of May 2005. Rajabhat Universities are degree granting institutions that focus on local development and communities. Their mission is to promote and enhance academic and higher vocational teaching and learning, undertake research, produce and promote teachers' qualification and standards, and provide other academic and learning services for their communities.

Since Rajabhat Universities were developed from teacher colleges, each of them has a strong history of offering bachelor's degree programmes in teacher education. As a result of the upgrading, each is now in the process of diversifying

programmes of study to move towards becoming comprehensive universities and developing more graduate programmes to serve their local communities. Some are now even offering doctoral programmes as well as international programmes.

Rajamangala Universities of Technology

Rajamangala Universities of Technology were upgraded to university status and were previously Rajamangala Institutes of Technology. The Rajamangala Institutes of Technology were first established under the name of 'Institutes of Technology and Vocational Education' in 1975 by a combination of different vocational colleges. The former 40 campuses and 16 faculties of Rajamangala Institute of Technology have been merged into nine Rajamangala Universities of Technology. Rajamangala Universities of Technology emphasize the development of graduates in science and technology.

Pathumwan Institute of Technology

The Pathumwan Institute of Technology was upgraded from the Pathumwan Technical College in 1998. It is a degree-granting institution offering bachelor's degree programmes in various areas of engineering.

Community Colleges

As of August 2005, 17 community colleges have been established to expand learning opportunities for local people that improve their quality of life and develop the economic and social potential of communities. They offer four programmes as shown below:

1. Diploma or two-year curricula of academic and vocational streams that transfer to degree education or for vocational occupations
2. Vocational Certificate and Higher Vocational Certificate which emphasizes knowledge and skills in particular vocations
3. Short courses for vocational improvement and quality of life development
4. Curricula or courses to increase or augment basic education

The curricula offered include the following areas of study: agro-industry, management, health sciences, tourism, and computer and information technology. Methods

of education offered include formal, non-formal, and informal education. The emphasis is on the flexibility of entry, schedules, location, instruction and graduation periods. Community colleges serve various types of students, such as secondary education graduates, nine-year compulsory education graduates, workers who are already in employment, retired workers, illiterate persons and other sections of the community seeking skills development.

Autonomous Buddhist Universities

There are two autonomous Buddhist Universities: Mahachulalongkorn Rajavidyalaya University and Mahamakut Buddhist University. Mahachulalongkorn Rajavidyalaya University is an ecclesiastical university founded by His Majesty King Chulalongkorn (Rama V) for the study of Tripitaka and higher subjects for monks, novices, and the general population. The aim of the University is to develop desirable characteristics, such as faithful practice, curiosity, spiritual and intellectual leadership, resourcefulness, faith and loyalty in Buddhism, commitment to working toward the general social benefit and the capacity to develop one's own virtue and morality. The University offers bachelor's, master's, and doctoral degree programmes (<http://www.mcu.ac.th>).

Private Higher Education Institutions

The Private College Act of 1969 allowed for the establishment of private colleges. This Act was later revised three times as the Private Higher Education Institution Act in 1979, 1992 and 2003. Private higher education institutions are private degree granting institutions, offering higher academic and vocational education, research, and other academic services to the public, besides preserving national arts and culture. As of August 2005, there are 59 private higher education institutions of which 30 have university status, and 29 college status.

Increasing Participation in Higher Education

The number of new enrolments, total enrolments, and graduates from each type of higher education institution under the supervision of the CHE are shown in Tables 39, 40, and 41.

Table 39: New enrolments in higher education institutions, 2003

Institution	Level					Total
	Lower than Bachelor	Bachelor	Graduate Diploma	Master	Doctorate	
<i>Public</i>	35,111	390,197	2,653	39,623	2,072	469,656
Limited Admission Universities	997	75,695	1,388	26,345	1,738	106,163
Open Universities	5,489	131,547	52	9,138	210	146,436
Autonomous Universities	0	6,662	66	1,425	124	8,277
Rajabhat Universities	11,024	147,671	1,147	2,715	0	162,557
Rajamangala Universities	17,601	28,622	0	0	0	46,223
<i>Private</i>	0	85,564	0	3,933	19	89,516
<i>Total</i>	35,111	475,761	2,653	43,556	2,091	559,172

Source: The Commission on Higher Education

Note: The table does not include new enrolments in Pathumwan Institute of Technology, community colleges, autonomous Buddhist universities, and other higher education institutions under other ministries.

Table 40: Total enrolments in higher education institutions, 2003

Institution	Level					Total
	Lower than Bachelor	Bachelor	Graduate Diploma	Master	Doctorate	
<i>Public</i>	79,639	1,389,641	4,958	115,413	7,608	1,597,259
Limited Admission Universities	1,976	236,403	2,916	88,362	6,303	335,960
Open Universities	9,566	629,078	63	13,037	820	652,564
Autonomous Universities	0	19,217	141	4,588	485	24,431
Rajabhat Universities	32,883	440,153	1,833	9,426	0	484,295
Rajamangala Universities	35,214	64,790	5	0	0	100,009
<i>Private</i>	0	242,052	0	11,450	103	253,605
<i>Total</i>	79,639	1,631,693	4,958	126,863	7,711	1,850,864

Source: The Commission on Higher Education

Note: This table does not include total enrolment in Pathumwan Institute of Technology, community colleges, autonomous Buddhist universities, and other higher education institutions under other ministries.

Table 41: Number of graduates in higher education institutions, 2002

Institution	Level					Total
	Lower than Bachelor	Bachelor	Graduate Diploma	Master	Doctorate	
<i>Public</i>	38,856	212,251	12,306	25,810	723	289,946
Limited Admission Universities	891	46,201	5,521	23,529	697	76,839
Open Universities	5,318	37,879	0	285	0	43,482
Autonomous Universities	0	3,182	55	966	26	4,229
Rajabhat Universities	15,546	109,992	6,716	1,030	0	133,284
Rajamangala Universities	17,101	14,997	14	0	0	32,112
<i>Private</i>	0	45,960	0	3,792	12	49,764
<i>Total</i>	38,856	258,211	12,306	29,602	735	339,710

Source: The Commission on Higher Education

Note: This table does not include graduates from Pathumwan Institute of Technology, community college, autonomous Buddhist universities, and other higher education institutions under other ministries.

THE CHANGES IN UNIVERSITY GOVERNANCE AND MANAGEMENT

An autonomous university has the status of a government agency that is neither within the government bureaucracy nor a state enterprise. It becomes a legal entity under state supervision after approval by the Minister of Education. The University Council can formulate rules and regulations for personnel administration, as well as stipulating staff welfare and benefits. With respect to budgeting and assets, the Government provides a block grant sufficient to guarantee the quality of education the university delivers. This block grant is considered as the university's own income. An autonomous university needs to stipulate its own budget systems, accounting, finance, and asset management. The State Audit Office will audit the accounts and follow up on the budget expenditure. The autonomous university does not need to transmit its income to the Ministry of Finance. In cases where income generated is not sufficient to sustain the university's operations and funds cannot be procured from other sources, the Government will allocate additional funds from the national budget. The university has the right to manage, maintain, and benefit from state property owned by the institu-

tion. Income generated for such operations will be considered as the university's own. Aside from the state allocated budgets, the income generated from other various sources will be utilized to strengthen its academic capacity and overall quality of provision.

As of August 2005, there are four autonomous public universities (not including the two Buddhist universities). The government and public universities are committed to a process of autonomy with plans for the transition of all universities over the coming years. In 2006, five public universities will become autonomous universities – Burapha University, Khon Kaen University, Chiang Mai University, Mahasarakham University, and Thaksin University. In 2007, nine public universities become autonomous – Chulalongkorn University, Kasetsart University, King Mongkut's Institute of Technology Ladkrabang, King Mongkut's Institute of Technology North Bangkok, Mahidol University, Ramkhamhaeng University, Silpakorn University, Srinakharinwirot University, and Ubon Ratchathani University. The other universities, namely Thammasat University, Maejo University, Naresuan University, Prince of Songkla University, and National Institute of Development Administration and Sukhothai Thammathirat Open University will become autonomous in subsequent years.

Government has continued to deregulate and delegate powers in other areas, most notably by giving more autonomy to University Councils. University Councils now have the authority to design new curricula and set up their own systems for teaching staff and employees, and the flexibility in managing assets, to name a few examples. Each public traditional university can also set up autonomous units within the university.

The basic rationale for giving universities more autonomy is to enhance their productivity and responsiveness to national and local needs. The changes also provide more performance-related rewards eliminating the system of lifelong employment. Also, the Government appears to anticipate that greater autonomy will eventually reduce the financial burden on state to support public higher education.

Accountability is gaining importance and is directly related to greater transparency in management and administration. This relates to financial management, the recruitment and promotion of university staff, admission of students, and the utilization of resources. There is now a greater emphasis on a free flow of communication among administrators, staff and students, as well as other stakeholders such as related agencies, parents, business and local communities, at large.

RESTRUCTURING OF FACULTIES AND ACADEMIC PROGRAMMES

The Government has emphasized the policy of using information technology in education instruction and lifelong learning. Also encouraged are interdisciplinary approaches and the development of a broad-based liberal education. The aim is to give all students a basic understanding of a wide range of fields, as well as increase opportunities to take various courses that are of interest to them.

As part of the reform process, there has been a tendency to merge various departments within a faculty and establish new departments. For example, 11 departments of the Faculty of Education, Chulalongkorn University, have been merged into four new departments. The reasons behind the merging of departments stem from the changes in emphasis on teacher education and the benefits of cross-curricula learning allowing for the utilization of research from a wider range of areas. There is also a government policy push to reduce bureaucratic and administrative staff. The merging exercise provides the new departments the opportunity to pool available resources and achieve greater operating efficiencies. Another example is the merging of seven departments within the Faculty of Associated Medical Sciences at Chiang Mai University into four departments. The reasons for merging are to integrate the teaching of students, facilitate cooperation towards shared academic excellence, integrate research, share resources, and improve efficiency of the overall faculty management and administration.

A key restructuring initiative for enhanced teaching and learning is the Thailand Cyber University. This is an ongoing project under the Office of Information Technology Administration for Educational Development, CHE. It aims to:

1. Assist all the higher education institutions to deliver distance learning via the internet
2. Ensure that all online courses are of a high quality and meet government standards
3. Promote the sharing of teaching resources and human resources.

The Cyber University will introduce a credit exchange mechanism among higher education institutions. One of the key aims is to conduct research and development in the use of information technology to deliver online learning using a Learning Management System (LMS), which can benefit and stimulate cooperation between universities (Commission on Higher Education 2005c). This innovative project will have an impact on new methods of instruction for higher education academic programmes, as well as pool the best available expertise in e-learning for all higher education providers.

DEVELOPING RESEARCH CAPACITIES

Many universities claim to be research universities, such as Chulalongkorn University, Thammasat University, Mahidol University, Kasetsart University, Srinakharinwirot University, and the National Institute of Development Administration, which gives as much priority to research as to teaching. Of great concern to research agendas is the educational budget, which was US\$5.38 billion in 2000 and increased to US\$6.13 billion in 2004. However, when considered as a percentage of GDP and national budget, this allocation has actually been decreasing. The 2000, educational budget at 4.3 percent of GDP has decreased to 4.0 percent in 2004. In 2000, the budget was 25.7 percent of the national budget, but it decreased slightly to 24.4 percent in 2004.

Research funds within the educational budget are limited. In fiscal year 2005, the allocation for higher education institutions under CHE totaled US\$1,103 million. However, the research budget was only 6.19 percent of the budget as shown in Table 42. Higher education institutions, especially universities, need to seek further research funds from alternative sources such as other government agencies, public research funding agencies, international organizations, and the private sector. For example, Chulalongkorn University obtained a research budget of US\$17 million from outside sources in 2005, nearly three times its CHE allocation.

In 2005, the Thai Government established research priority areas for research and development to create new bodies of knowledge and innovation to stimulate technology transfer. The Government is also seeking to encourage the private sector to set up research and development funds to improve the competitiveness of the private sector. On this matter, higher education faculty staff can play an important role and this is being actively encouraged.

Table 42: Government research budget allocated to Commission on Higher Education, public universities and institutes, and public autonomous universities, 2005

Institution	Higher Education (US\$)*	Research Budget (US\$)	%
Commission on Higher Education	121,705,605	21,658,537	17.80
Chulalongkorn University	103,104,498	5,977,278	5.80
Kasetsart University	57,359,707	11,146,198	19.43
Khon Kaen University	56,554,222	3,266,539	5.78
Chiang Mai University	62,973,337	2,142,832	3.40
Thaksin University	13,357,620	73,171	0.55
Thammasat University	39,200,200	1,431,459	3.65
Naresuan University	25,559,283	626,098	2.45
Burapha University	12,880,963	1,701,049	13.21
Maharakham University	16,405,244	583,254	3.56
Mahidol University	132,435,129	7,052,207	5.33
Maejo University	13,390,317	723,466	5.40
Ramkhamhaeng University	21,514,305	515,980	2.40
Srinakharinwirot University	28,585,773	531,883	1.86
Silpakorn University	21,469,278	1,013,183	4.72
Prince of Songkla University	51,886,583	1,029,656	1.98
Sukhothai Thammathirat Open University	11,830,868	199,702	1.69
Ubon Ratchathani University	9,195,932	324,700	3.53
KMIT Ladkrabang	18,453,444	472,612	2.56
KMIT North Bangkok	15,816,278	225,480	1.43
National Institute of Development Administration (NIDA)	6,264,834	331,700	5.29
Rajamangala Institute of Technology	86,788,120	4,585,488	5.28
Suranaree University of Technology	15,434,988	878,437	5.69
Walailak University	10,116,734	114,934	1.14
KMUT Thonburi	15,249,300	1,248,678	8.19
Mae Fah Luang University	8,011,610	30,712	0.38
Mahachulalongkorn Rajavidyalaya University	11,970,051	338,983	2.83
Mahamakut Buddhist University	4,840,878	97,463	2.01
Rajabhat Universities (41 Universities)	111,107,290	**	
<i>Total</i>	<i>1,103,462,390</i>	<i>68,321,678</i>	<i>6.19</i>

Sources: Commission on Higher Education; KMIT Ladkrabang = King Mongkut's Institute of Technology Ladkrabang; KMIT North Bangkok = King Mongkut's Institute of Technology North Bangkok; KMUT Thonburi = King Mongkut's University of Technology Thonburi

Note: * US\$1 = Baht 41

** Research budget of 41 Rajabhat Universities amounted US\$292,683 was included in research budget of the Commission on Higher Education

THE CHANGING NATURE OF THE ACADEMIC PROFESSION

As a result of growing competition among higher education institutions, teaching staff are increasingly required to work harder to fulfil at least the minimum standards set by the authorities. Also with internal and external quality assurance systems, teaching staff need to be increasingly aware of their roles and accomplishments.

At present, CHE has issued Curriculum Standards for Higher Education at various levels. With this new set of standards, the number of required teaching staff increased from three to five for each curriculum item. For example, the curriculum standard for a bachelor's degree is at least five teaching staff; of these, two of them need to have at least a master's degree or equivalent, or have an academic rank of at least assistant professor in that area of study or related areas. The curriculum standard for a master's degree is at least five teaching staff, Out of the five, three need to have a doctoral degree or equivalent, or at least an academic rank of associate professor in that area of study or in related areas. For the curriculum standard of doctorate degrees, the requirement is at least five teaching staff, of whom three need to have a doctoral degree or equivalent, or at least have an academic title of professor in that area of study or related areas. These new standards, issued in 2005, will contribute to stricter academic staff requirements for each field of study, thus placing greater pressure on higher education institutions to attract qualified teaching staff to meet these new standards. The new curriculum standards also specify that various levels of higher education need to have quality assurances relating to curriculum administration; resources for instruction and research; support and advice for students; and the requirements of the labour market, society and/or employers.

Another change introduced in 2004 saw the extension of the retirement age of university civil service officers (teaching staff) from 60 to 65 years. However, this is not automatic for every teaching staff; only persons who obtain the academic titles of associate professor and professor with good health can apply for work until the age of 65 years. This has given higher education institutions more flexibility in retaining and obtaining qualified teaching staff and utilizing the rich experience of existing teaching staff to the maximum benefit of the institutions. In Thailand's traditional education system, most faculty members enjoyed life-long employment. This system neither promoted nor encouraged academic productivity, while low salaries contributed to a brain drain to the private sector and a commensurate excessive moonlighting. Under the newly reformed system, greater institutional autonomy combined with fixed-term contracts will enhance incentives for greater academic productivity and efficiency, as well as the overall quality of higher education.

ROLES AND FUNCTIONS OF PRIVATE HIGHER EDUCATION

Private universities and colleges have contributed greatly to the expansion of Thai higher education. To meet the excess demand for higher education, private higher education institutions have expanded rapidly to a total of 59 institutions compared with 25 public selective universities. They have grown rapidly as a result of being able to respond more quickly to trends and demands in the labour market. A large part of their efficiency can be attributed to their more flexible management and administration structure.

The roles and functions of private higher education are quite similar to public universities. According to the most recent Private Higher Education Institution Act 2003, private higher education institutions are institutions for study and research. They provide education, promote academic and advanced professional studies, teach, conduct research, render academic services to society, and preserve arts and national culture. Private higher education institutions consist of three types, namely: universities, institutes and colleges.

The establishment of a private higher education institution requires a license from the Minister of Education, based on the advice of the Board of the Higher Education Commission. Internal systems of organization and administration will be in accordance with the rules and regulations of the University Council. The National Education Act B.E. 2542 (1999) and the amendments in guiding the law for the Private Higher Education Institution Act 2003 specified that the administration and management of education by the private sector will enjoy independence with the state being responsible for overseeing, monitoring, and assessing educational quality and standards. Private educational institutions will follow the same rules for assessment of educational quality and standards as those for public educational institutions. Private institutions providing education at the degree level will be allowed to function with autonomy; develop their own system of administration and management; and have more academic freedom. They will be supervised by their own council in accordance with the Private Higher Education Institution Act 2003, which has given autonomy and flexibility to private higher education institutions. It specified the power and duties of the private University Council for formulating policies and monitoring general activities of its institution, as detailed next page:

Powers and Duties of Private University Council

1. To approve development plans of the private higher education institution.
2. To issue rules and regulations for the administration of the private higher education institution.
3. To allocate funds into various types and issue regulations for the expenditure of those funds.
4. To approve financial plans, balance sheets, and annual budgets of various types of funds.
5. To approve the transfer of one type of funds to other type.
6. To approve the amendments of curriculum and open additional curriculum in accordance with the criteria as prescribed by the Board of the Higher Education Commission.
7. To approve the admission of students and to confer certificates, diplomas, degrees, or higher diplomas for graduates.
8. To approve academic cooperation or joint cooperation with other academic institutions or other persons in accordance with the regulations as prescribed by the Board of the Higher Education Commission
9. To support the private higher education institution to participate in educational management in recruiting domestic and overseas human resources to share their experience, knowledge, skills and intelligence to enhance the quality of graduates.
10. To consider the proposal of their opinions to be presented to His Majesty to appoint or remove professors or special professors.
11. To appoint and remove the rector, honorary professors, and full-time faculty members.
12. To approve the appointment and removal of vice rector or those in an equivalent position.
13. To approve the appointment and removal of associate professors, special associate professors, assistant professors, and special assistant professors.
14. To promote and support education or give scholarship to those with disabilities and persons with special skills.

15. To formulate regulations on personnel administration of private higher education institution with regard to job description, salary scale, wages, compensation, welfare, other fringe benefits, discipline, employment criteria, and termination of the employment of executives, faculties, assistant lecturers, and staff.
16. To develop the potential of faculties, personnel, and quality of graduates to respond to the needs of the country.
17. To promote education, research, training of faculties and personnel to respond to the needs of the community to enhance its economic development.
18. To promote and support the production of graduates to respond to the needs of entrepreneurs and give academic cooperation between companies and private higher education institutions.
19. To provide a quality assurance system in the private higher education institution through the participation of students in their evaluation of university quality in accordance with the regulations of the private higher education institution.

There are many similarities between public and private universities. However, in some aspects, such as obtaining a license, there are significant differences. The Private Higher Education Institution Act will apply to all private higher education institutions, whereas each public university will have its own act.

Among the 59 private higher education institutions, two institutions have received support from institutions abroad. They are Webster University Thailand and St Theresa Inti College. Webster University Thailand was established in 1997, but did not begin its operation until 1999. The University is the first accredited U.S. institution in Thailand and offers undergraduate programmes in business administration, management, international business, information technology, psychology, international relations, public relations, advertising and marketing communications, and media communications. The University also offers master's programmes in business administration, international relations, international business, and media communications. It has over 250 students from more than 30 nations. The University is a recognized, accredited, private university under Thai law.

St Theresa Inti College is a partnership between two international education institutions in the region, namely St Theresa Technology of Business Administration School, Thailand and the Inti Group of Colleges, Malaysia. The College was established in 2000 under the auspices of the CHE to provide international education and become an education hub in the Asia-Pacific region.

INTERNATIONALIZATION OF HIGHER EDUCATION

In an era of globalization, the internationalization of higher education has emerged as a major trend. One of the ambitions of the Thai higher education policy is for Thailand to become a centre and hub for international education in South-East Asia. The CHE and the National Statistical Office conducted a survey on enrolment of international students in Thai higher education institutions in 2003 and found that there were 4,170 international students enrolled in 49 Thai higher education institutions. The top five institutions with the largest body of international students are detailed in Table 43. The most popular fields of study among international students are business administration, vedic science, information technology, international business, and business English. With regard to the nationalities of the international student body in Thailand, most of them are from China (PRC) (Table 43).

Out of a total number of 4,170 international students, 2,567 are male and 1,603 are female. Most of the international students are studying at the undergraduate level (2,742 students). The rest are studying at master's (933 students), diploma (265 students), doctoral (99 students) and graduate diploma (131) levels. Most of the international students are self-funded (2,816), followed by donor agency scholarship recipients (446), exchange students (303), Thai scholarship recipients (297) and private sector scholarship recipients (109).

Table 43: Number of international students by institution

Institutions	Number	%
Assumption University	2,046	49.0
Webster University	238	5.7
Thammasat University	201	4.8
Chulalongkorn University	188	4.5
Mahidol University	184	4.4

Table 44: Number of international students by nationality

Nationality	Number	%
China (PRC)	1,186	28.4
Myanmar	359	8.6
India	329	7.9
Vietnam	304	7.3
Lao PDR	226	5.4

Higher Education in South-East Asia

There has been a long tradition for Thai students and academics to undertake studies and professional development overseas. Government scholarships have been a key source of this outflow of students and academics. Statistics from the Civil Service Commission reveal that as of April 2005, there were 3,499 students on government scholarships. A majority of them study in the USA (1,126 students), United Kingdom (573 students), France (312 students), Japan (266 students), Germany (242 students), Australia (201 students), and People's Republic of China (118 students). In addition, there were also 1,101 officials on study leave and 1,360 officials on training programmes in 2005, as shown in Table 45. The latest data from the Institute of International Education indicates that Thailand ranks number nine among all countries with respect to the number of students who study in the USA (Open Doors 2004).

Table 45: Students studying abroad and in Thailand under the supervision of the Civil Service Commission (CSC), Thailand as of April 1, 2005

No	Countries	Government Scholarship											Official on Leave			Other	Total	%	
		KING	CSC	MFA	MOAC	MOST	MOPH	HEC	ORIC	RD	NEPO	ODOS	IPST	Total	Study				Training
1	Usa	52	185	21	8	386	58	223	8	1	4	-	180	1,126	218	374	93	1,811	28.89
2	Uk	4	139	37	1	138	9	195	10	1	-	-	39	573	129	62	298	1,062	16.94
3	Japan	-	79	7	-	15	-	43	-	-	-	121	1	266	143	313	-	722	11.52
4	Australia	-	45	3	-	29	9	108	3	-	-	-	4	201	118	135	7	461	7.35
5	France	1	78	16	-	8	-	24	-	-	-	182	3	312	69	42	1	424	6.76
6	Germany	-	50	6	-	40	-	53	-	-	-	81	12	242	76	38	-	356	5.68
7	Thailand	-	51	1	-	1	-	-	-	-	-	191	-	244	-	-	-	244	3.89
8	China	-	14	1	-	-	-	7	-	-	-	96	-	118	27	71	-	216	3.45
9	Netherlands	-	5	1	-	1	-	7	-	-	-	80	-	94	27	10	-	131	2.09
10	Canada	-	19	1	-	5	4	11	-	-	-	-	3	43	15	33	-	91	1.45
11	India	-	1	-	-	-	-	-	-	-	-	18	-	19	31	38	-	88	1.40
12	Italy	-	6	1	-	-	-	-	-	-	-	69	-	76	3	5	-	84	1.34
13	New Zealand	-	12	-	-	1	1	18	-	-	-	-	-	32	13	28	-	73	1.16
14	Malaysia	-	-	-	-	-	-	3	-	-	-	6	-	9	42	21	-	72	1.15
15	Austria	-	1	1	-	-	-	13	-	-	-	18	-	33	11	6	-	50	0.80
16	Philippines	-	-	-	-	-	-	1	-	-	-	-	-	1	31	16	-	48	0.77
17	Sweden	-	2	-	-	1	-	8	-	-	-	3	-	14	11	18	-	43	0.69
18	Singapore	-	2	-	-	-	-	-	-	-	-	-	-	2	6	31	-	39	0.62
19	Switzerland	-	3	2	-	-	-	1	-	-	-	25	-	31	3	4	-	38	0.61
20	Denmark	-	-	-	-	2	-	4	-	-	-	6	-	12	4	15	-	31	0.49
21	Korea, South	-	1	-	-	-	-	2	-	-	-	-	-	3	7	21	-	31	0.49
22	Taiwan	-	-	-	-	-	-	-	-	-	-	-	-	-	12	17	-	29	0.46

Table 45: Students studying abroad and in Thailand under the supervision of the Civil Service Commission (CSC), Thailand as of April 1, 2005 (continued)

No	Countries	Government Scholarship											Official on Leave		Other	Total	%		
		KING	CSC	MFA	MOAC	MOST	MOPH	HEC	ORIC	RD	NEPO	ODOS	IPST	Total				Study	Training
23	Spain	-	2	3	-	-	-	-	-	-	-	14	-	19	2	4	-	25	0.40
24	Russia	-	2	2	-	-	-	1	-	-	-	10	-	15	1	-	-	16	0.26
25	Brunei	-	-	-	-	-	-	1	-	-	-	-	-	1	1	11	-	13	0.21
26	Vietnam	-	-	-	-	-	-	2	-	-	-	-	-	2	1	9	-	12	0.19
27	Indonesia	-	-	-	-	-	-	-	-	-	-	-	-	-	1	7	-	8	0.13
28	Israel	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	8	0.13
29	Portugal	-	-	-	-	-	-	2	-	-	-	-	-	2	2	2	-	6	0.10
30	Belgium	-	2	1	-	-	-	-	-	-	-	-	-	3	-	2	-	5	0.08
31	Laos	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	5	0.08
32	Egypt	-	-	2	-	-	-	-	-	-	-	1	-	3	-	1	-	4	0.06
33	Finland	-	-	-	-	-	-	1	-	-	-	-	-	1	-	2	-	3	0.05
34	Nepal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	3	0.05
35	Norway	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	3	0.05
36	Czech	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	2	0.03
37	Ireland	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	2	0.03
38	South Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	2	0.03
39	Cambodia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	0.02
40	Hongkong	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	0.02
41	Hungary	-	1	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	0.02
42	Malta	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	0.02
43	Pakistan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	0.02
44	Poland	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	1	0.02
45	Sri Lanka	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	0.02
<i>Total</i>		57	700	106	9	627	81	729	21	2	4	921	242	3,499	1,010	1,360	399	6,268	100.00

Source: Educational and Training Abroad Service, Office of the Civil Service Commission, Thailand

KING: King's Scholarship Students

CSC: Government Scholarship Students

MFA: Students under Ministry of Foreign Affairs Scheme

MOAC: Students under Ministry of Agriculture and Cooperatives Scheme

MOST: Students under Ministry of Science and Technology Scheme

MOPH: Students under Ministry of Public Health Scheme

HEC: Students under the Office of the Higher Education Commission

ORIC: Students under the Office of Rajabhat Institutes Council Scheme or Rajabhat University Scheme

RD: Students under the Revenue Department Scheme

NEPO: Students under the National Energy Policy Office Scheme

ODOS: The One District One Scholarship

IPST: Students Winning Scholarship of the Institute of Promoting for Teaching Science and Technology

Liberalization of Trade in Services

Thailand has been active in the global trade liberalization process through the various regional and international organizations, such as the Association of South-East Asian Nations (ASEAN), ASEAN Free Trade Area (AFTA), Asia-Europe Meeting (ASEM), Asia Pacific Economic Cooperation (APEC), and World Trade Organisation (WTO). Thailand is now in the process of developing free trade arrangements and closer economic cooperation with various countries across the world.

The General Agreement on Trade in Services (GATS) is one of the trade agreements administered and enforced by WTO. The mandate of GATS is the liberalization of trade in services and the gradual phasing out of government barriers to international competition in the services sector, which includes education services. Since GATS is a multilateral framework agreement, it involves a slower process than the Free Trade Area (FTA) agreement, which is only a bilateral approach.

Thailand concluded an FTA negotiation with Australia at the end of 2004 and began implementing the agreement on January 1, 2005. Thailand-Australia Free Trade Agreement (TAFTA) is the first bilateral free trade agreement between Thailand and a partner of mutual interest. TAFTA specifies that higher education institutions operated by Australians in Thailand must specialize in science and technology (covering life sciences, biotechnology, and nanotechnology) and must be situated outside Bangkok and metropolitan areas. At least half of the members of the University Council must be Thai nationals. Thailand is not bound for cross-border supply since the e-learning accreditation mechanism has not yet been put in place. Australian investors/services suppliers can have equity participation of up to 60 percent in some services, including education.

Thai secondary and higher education services could operate in Australia in all modes of supply except commercial presence under TAFTA. Other education services covering tuition in Thai cuisine, Thai language and Thai traditional massage could also operate in all modes of supply. The only exception in this category is English language tuition, which cannot be operated commercially.

Australians are permitted to work in Thailand in all sectors except 39 professional fields designated in the Annex attached to the Royal Decree Prescribing Works Relating to Occupation and Professional in Which an Alien is Prohibited to Engage B. E. 2522 (1979). As for Thailand, Thai nationals are permitted to enter Australia and work as executives, managers, and experts without labour market testing.

Trade in education services has become more liberalized as Thailand has embarked upon developing FTAs with a number of partners. It has bought about both opportunities and threats. In the case of TAFTA, Thailand will benefit from the operation of higher education institutions by Australia in the area of science and technology. However, to respond well to the challenges brought about by the liberalization of trade in education services, Thai higher education institutions need to upgrade the quality of their instruction to meet international standards so as to remain competitive with the higher education institutions operated by international bodies in Thailand (<http://www.inter.mua.go.th>). However, as of August 2005, no higher education institution has been established under TAFTA.

ACCREDITATION AND QUALITY ASSURANCE

Based on the standards set by the Committee for the Development of the Assessment System of Higher Education Quality and in line with the missions of higher education institutions, the system, criteria and methods for internal quality assurance of higher education institutions have been developed. There are nine aspects relating to internal quality assurance of higher education institutions:

1. Philosophy, mission, objectives and implementation plan
2. Teaching-learning provision
3. Student development activities
4. Research
5. Academic services to the community
6. Preservation of arts and culture
7. Administration and management
8. Finance and budgeting
9. Higher education quality assurance systems and mechanisms

External quality assurance is under the Office for National Education Standards and Quality Assessment (ONESQA). It performs the following functions:

1. Development of the external assessment system
2. Development of standards and criteria for external assessment
3. Certification of external assessors
4. Issuing Certification of standards
5. Development and training of external assessors
6. Submission of annual reports on the assessment of educational quality and standards to the Council of Ministers, the Minister and the agencies concerned
7. Dissemination of the reports to the agencies involved and to the public

ONESQA conducts external quality assessment at basic education and higher education levels in line with relevant educational standards and focuses on the assessment of educational institutions according to:

1. Educational achievement (output/outcome)
2. Input/process
3. Efficiency in administration and leadership

Educational standards for external quality assessment at the higher education level include:

1. Graduate quality
2. Teaching and learning
3. Academic supports
4. Research and innovation
5. Academic services
6. Preservation of arts and culture
7. Management and administration
8. Internal quality assurance systems

ONESQA bases its functioning on the principle of amicable assessment (*kalayanamit*). External assessment is aimed at quality and highest efficiency. It is conducted in a spirit of care and concern, based on professional ethics for the enhancement of educational quality and standards. The assessment of all educational institutions are carried out with the objectives of identifying strengths and weaknesses, and proposing useful recommendations for further improvement of quality and standards of educational institutions.

As of June 2005, ONESQA has carried out an assessment of 93 percent of the 227 higher education institutions in the first round of external quality assessments. This is highlighted in Table 46. It is expected to complete the assessment of all educational institutions by the end of 2005. While the first round of external quality assessment (1999-2005) emphasized institutional self-assessment, the second round (2006-2010) will be on meeting quality assurance standards.

Table 46: Number of Institutions and percentages of external quality assessment by level of education as of June 1, 2005

	Basic Education	Vocational Education	Higher Education
No of Institutions for Assessment	36,381	760	227
% of the Assessment	98%	100%	93%

Source: Office for National Education Standards and Quality Assessment

CHALLENGES AND FUTURE DEVELOPMENT

Over the coming years, a number of key issues and challenges can be identified for higher education development in Thailand.

Quality of Education

The quality of education delivered by various higher education institutions will be a key challenge. Academic excellence and the quality of education are key goals, but there are many factors that hinder the quality of education, including the rapid expansion of the various types of higher education institutions, reduced level and growth of government budgets, and over-reliance on fee-paying students. Accreditation and quality assurance mechanisms will be the key tools for improving and maintaining the quality of education inside the expanding system.

Global Standards and Local Relevance

In the present era of globalization and its emphasis on knowledge-based economies, higher education institutions must aim to meet global standards. However, local relevance is also an important issue. Nearly all universities are trying to become comprehensive universities by offering more fields of study. The emphasis is similar across institutions. They are also trying to develop cooperative agreements with other prestigious universities abroad. However, this focus has led to many criticisms over the poor local relevance and contributions that institutions are making to communities. Thus, more learning programmes and research activities that have local relevance should be encouraged. However, it needs to be recognized that higher education institutions such as regional universities and Rajabhat Universities, to some extent, have been contributing programmes of local relevance, and that it is important that this does not get lost in the global focus.

Equal Opportunity of Access to Higher Education Institutions

The move of higher education from elite to mass participation, together with the concept of lifelong learning and advancements in technology, will involve increasing numbers of students participating in higher education. However, there remains an equal opportunity issue for students from poorer families. Government policy and higher education institutions should facilitate greater access for these groups. Government tries to emphasize greater use of GPA at secondary school, but it needs to improve basic education, especially at the secondary school level to ensure the same standard and quality of education is delivered throughout the nation. Higher education institutions need to provide more direct admission places for socio-economically disadvantaged students, and there should be more scholarships for these students to study within the country and abroad.

University Autonomy

University autonomy is a major issue for Thai higher education. As of August 2005, there are only four autonomous universities. The other 21 public universities are still traditional universities. Princess of Narathiwat University, which is the newest public university established in 2005, was set up as a traditional university under the civil service system. It is a government department and has to follow the same rules and regulations as other public universities. Autonomous universities in Thailand have had limited success for a number reasons. One key issue has been the new employment contract system, with which Thais are not familiar. In addition, autonomous universities are often located in rather remote areas and, thus, it is more difficult to recruit qualified teaching staff, particularly since such institutions now offer less security under the new contract system (as opposed to life tenure under the civil service). With respect to the case of King Mongkut's University of Technology Thonburi, the first and only public university to date to make the transition, the most significant improvement has been the restructuring of governance and management processes and systems.

Increasing Importance of the Demand for Higher Education

There has been criticism that there is too great an emphasis on the supply side of higher education, especially the budget system, and that this does not encourage quality improvements through market competition, nor encourage the concept of student-centred learning. The Income Contingent Loans (ICL) fund is designed

as a mechanism to change from the existing supply-side focus to greater demand-side budgeting. This will increase students' cost-sharing in higher education and stimulate the production of graduates in the areas that most suit the country's economic and social needs. The Council of Ministers approved the ICL fund in principle in April, 2004, through which government will advance tuition fees to students in each higher education institution. Students will repay their loans after they find employment and can pay for them.

More Competitiveness among Higher Education Institutions

The increased emphasis on the demand side of higher education places greater pressure on institutions to compete. Higher education institutions will need to improve their management efficiency and effectiveness and especially the quality of education they offer to stay viable and relevant in a new landscape of higher education services.

Networking of Higher Education Institutions

Networking will play an increasingly important role. Sharing resources – whether in the form of academic staff, facilities and other co-operation – will be essential. Public universities should assist other types of higher education institutions that have just been established or become universities, as well as promote collaboration amongst existing providers in order to improve the delivery of teaching, learning, and overall competitiveness.

CONCLUSION

The overall education reform programme currently taking place in Thailand has significant implications for higher education, leaving it in a current state of flux. A major trend has been an increase in university autonomy and the continued expansion of private higher education. Thailand's strategy and policies keep it deeply committed to improving both the efficiency and equity of its higher education system. Over the coming years, Thailand will face more challenges to its competitiveness as an increasingly knowledge-based world economic system places both greater pressures and opportunities on the economy and society. The continued reform and development of the higher education sector and its relative success will be central to the overall development of the country.

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VIET NAM

Ngô Doan Dai

HIGHER EDUCATION REFORMS

At present the Vietnamese higher education system consists of 227 institutions, serving its population of 80 million people. Among these institutions, there are 109 universities (*truong dai hoc*) and 118 junior colleges (*truong cao dang*). Higher education training programmes are divided into *cao dang* (junior college), *dai hoc* (bachelor's), *thac si* (master's), and *tien si* (doctoral). The duration of junior college programmes is 2 to 3 years, bachelor's degrees 4 to 6 years, master's degrees 1 to 2 years and doctoral degrees 2 to 3 years (for master's degree holders). Higher education reforms in Viet Nam in the period of renovation ("*doi moi*") started in 1987 following the Sixth Congress of the Viet Nam Communist Party.

Merging Administrative Bodies and Transferring Responsibility

Prior to 1987, three agencies were in charge of education in Viet Nam, namely:

1. Ministry of Education
2. Ministry of Higher and Secondary Technical Education
3. General Department for Vocational Training

In 1987, the General Department for Vocational Training and the Ministry of Higher and Secondary Technical Education merged to form the Ministry of Higher, Technical and Vocational Education. In 1990, the Ministry of Education and the Ministry of Higher, Technical and Vocational Education merged into a single ministry, namely, the Ministry of Education and Training (MOET). The MOET has since assumed the responsibility for the integrated system of national education, which includes all levels from pre-school to post-graduate programmes. In April 1998, in order to consolidate resources, vocational and technical education was transferred from MOET's responsibility to the Ministry of Labour, War Invalids and Social Affairs by a Prime Minister's decree.

The MOET is directly responsible for the management of all universities and colleges, with the exception of the two national universities on which more will be said later. The direct management of MOET involves the allocation of state funds for institutional budgets, personnel management and other functions.

Although MOET wields significant power over higher education, many specialized institutions are supervised by other ministries and government agencies. For example, universities of medicine and pharmacy are under the Ministry of Health; art schools and conservatories are under the Ministry of Culture and Information. Provincial colleges are controlled and administered by provincial authorities. With respect to academic matters, all higher education institutions are under the control of MOET and its specialized departments.

Introducing the Model of Multi-disciplinary Higher Education Institutions

Until 1993 there were only small colleges and some comprehensive universities in Viet Nam. All of them followed the former Soviet model of higher education. They were single-field, mono-disciplinary institutions. Almost all of them had very limited scope. This situation was the reason why there were many difficulties in the development of basic infrastructure and the teaching staff in the higher education institutions. It also hindered improvements in the quality of higher education and specialized training. The single-field model of higher education institutions limited the organization of education and training on a wide scale, as well as limiting the capacity to link research with public service.

In response to the pressing need to strengthen the higher education system and to improve research capacity, the Vietnamese Government conducted a fundamental reorganization of the higher education institutional structure and systems. The first measure was the consolidation of the relatively large number of small, specialized institutions into several pivotal national universities.

The rationale behind national universities was to enhance the overall quality of training and research, and to make effective use of resources in order to meet the requirements of the transition towards a market economy. They are high quality, multi-field, multi-disciplinary centres for undergraduate and graduate education, research, and the general application of science and technology. They are entrusted with the task of producing qualified human resources for the industrialization and modernization of the country.

The first national university to be established was the Viet Nam National University in Hanoi (VNU-H). It was founded on December 10, 1993, through the amalgamation of some leading mono-disciplinary higher education institutions in Hanoi, namely, Hanoi University, Hanoi Teachers' Training College No.1, and Hanoi Foreign Language Teachers' Training College. Initially, these institutions were reorganized

to form five constituent colleges: College of General Education, College of Natural Sciences, College of Social Sciences and Humanities, Teachers' Training College, and College of Foreign Languages.

The second national university, the Viet Nam National University in Ho Chi Minh City (VNU-HCM), was established on January 27, 1995, by merging nine tertiary institutions: University of Ho Chi Minh City, University of Technology, Teachers' Training College, University of Economics, the College of Finance, College of Law, the College of Architecture, College of Agro-Forestry, and Technical Teachers' Training College. These institutions were reorganized into eight colleges: College of General Education, College of Natural Sciences, College of Social Sciences and Humanities, Teachers' Training College, Technical College, College of Economics, College of Agro-Forestry, and College of Law.

The process of developing national universities was stabilized after the Government's decision to reorganize the two national universities in 2001. At present, VNU-H has ten constituent institutions as follows:

- Four colleges (College of Natural Sciences, College of Social Sciences and Humanities, College of Foreign Languages, and College of Technology)
- Three faculties (Faculty of Economics, Faculty of Law, and Faculty of Education)
- One institute (Institute of Information Technology)
- Three schools (School of Business, School of Graduate Studies, and an International School)

VNU-HCM comprises:

- Three colleges (College of Technology, College of Natural Sciences, and College of Social Sciences and Humanities)
- One school (International school)
- One institute (Institute of Environment and Natural Resources)
- One faculty (Faculty of Economics)

By the same process of amalgamation, three other mono-disciplinary higher education institutions were established into regional universities in 1994, namely, Thainguyen University, Hue University, and Danang University. Thainguyen University, located in Thainguyen, Northern Viet Nam, was established from four colleges (Vietbac Teachers' College, Bac Thai College of Agriculture No. 3, Thainguyen College of Industry, Bac Thai College of Medicine), and Bac Thai Secondary Technical School for Mechanical and Electrical Workers. This new university has five separate

colleges and numerous research centres. It is responsible for providing higher education for students in all provinces north of Hanoi.

Hue University is located in Hue, Central Viet Nam. This university was created from the amalgamation of the following institutions: Hue Teachers' Training College, Hue University of Agriculture No. 2, Hue University of Medicine, and Hue College of Fine Arts. At present, it has six colleges (College of Sciences, College of Economics, College of Arts, College of Agriculture and Forestry, College of Education, and College of Medicine).

Danang University is in Danang, another city in central Viet Nam. It was established by amalgamating two institutions (Danang University of Technology, and Danang College for Teachers of Foreign Languages), one college (Danang Teachers' Training College), and Nguyen Van Troi Secondary Technical School for Technical Workers. The university maintains its emphasis on training in technical fields.

The model of developing multi-disciplinary universities has also extended to some teacher training colleges. For example, the Prime Minister allowed Vinh Teacher's Training College to be upgraded into Vinh University (2001) and Quynhon Teachers' Training College into Quynhon University in 2003.

Development in Non-public Funded Institutions (Semi-public, People-founded and Private Higher Education Institutions)

One of the measures for expanding higher education to meet the demands of learning is the opening of the non-public sector to alternatively funded higher education providers. The Vietnamese Government has put in place legislation and a regulatory framework for the development of a non-public higher education system that includes three main types of institutions: semi-public, people-founded, and private.

Semi-public higher education institutions are facilities built, managed, and operated by the state in cooperation with economic sectors, social organizations, and individuals. Semi-public higher education institutions can be established in two ways: co-operation between the state (ministries and ministry-level agencies, as well as provincial and municipal authorities) and organizations or individuals who invest capital to build infrastructure and to recruit managers/faculty, and by converting public higher education institutions into semi-public ones.

All economic and social organizations and public higher education institutions have the right to propose a semi-public higher education institution. Semi-public institutions are provided with state funding for infrastructure development. All operating costs are covered by student fees.

People-founded higher education institutions are established by social, socio-professional and economic organizations. As with semi-public institutions, full cost recovery comes from tuition fees. Private higher education institutions are owned and managed by private individuals. The establishment of private higher education institutions is decided by the Prime Minister on the basis of proposals to MOET, which is the authority that licenses private higher education institutions.

The first non-public university in Viet Nam was established in 1988. It began under the name "Thanglong People-founded Centre of Higher Education." After six years of experimentation, MOET upgraded the Centre's status to that of a university and it was renamed Thanglong University in 1994. At present, Thanglong University has three faculties providing undergraduate programmes: Faculty of Mathematics and Information, Faculty of Management, and Faculty of Foreign Languages. In the academic year 2004-2005, the University enrolled more than 4,000 students. After the establishment of Thanglong University, other non-public higher education institutions were founded with government permission. The Government promulgated a series of regulations relating to non-public higher education institutions: private (1993), semi-public (1994), and people-founded (2000).

According to the Law on Education, public, semi-public, people-founded, and private education institutions are under the management of state education agencies. The state creates the conditions to help public institutions play a key role in the national education system. Almost all non-public institutions tend to provide undergraduate programmes that do not require much investment in equipment, and programmes that are in demand by society such as foreign languages, business administration and informatics. This is a result of national funding constraints and shortages in staff, facilities and specialist equipment such as laboratories.

Although regulations on private higher education institutions were issued in 1993, so far only one private institution had been established, mainly due to two reasons: the general public is not used to the idea of private education yet, and some aspects in the regulations are not clear and concrete enough to reassure those people who want to establish such an institution.

In 2004, the Prime Minister issued two documents (No. 231/CP-KG and No. 1269/CP-KG) to encourage the establishment of private higher education institutions on a pilot basis. Most recently, in January 2005, the Prime Minister issued regulations on the organization and activities of private higher education institutions. The first private higher education institution, Ductri Private Junior College, was established in Danang City (Central Viet Nam) by the decision of the Minister of Education and Training in March 2005. Recently, the Prime Minister approved the setting up of Hungyen Private University in the Red River Delta Zone. The expectation is that in the coming years a large number of private higher education institutions will be established in Viet Nam.

Under "The Project of Network of Higher Education Institutions for the Period of 2001-2010" proposed by MOET and approved by Prime Minister in April 2000, the Government planned to increase non-public higher education to 30 percent of the total sector by the year 2010. Though the number of non-public higher education institutions is growing rapidly, there are signs that these institutions are still weak if compared with public institutions (Sloper and Can 1999; Hoang 2004). Some of the key reasons for the weaknesses include:

- Students of non-public institutions are selected via a national higher education examination organized by MOET for all institutions throughout the country. The selected scores of students of non-public institutions are much lower than those students entering public universities. They are mainly children of middle or upper-middle class families who can afford the high tuition fees.
- The infrastructure, equipment, libraries of non-public institutions compare poorly with those of public institutions because of their low budget, relying mostly on tuition fees at around US\$200 per student per year, not to mention the burden of paying dividends which are higher than bank interest rates to share holders.
- Permanent faculty members of non-public institutions are mainly recruited right after their graduation from higher education institutions. Where there are professors, they are usually retired ones who are no longer interested in doing research, and guest professors from public universities who just come to teach, but not to contribute to research. The latter situation hinders scientific research at non-public institutions and explains why these institutions cannot offer any graduate programmes.

Improving National Higher Education Entrance Examinations

Higher education entrance examinations in Viet Nam have always been highly competitive and place great pressure on students and their parents, as well as on the teaching staff of universities and colleges. Since 1987, MOET has been trying to find ways and means to reduce this pressure and to improve the effectiveness of entrance examinations. In 1987, it published a series of higher education entrance examination items covering all subjects such as mathematics, physics, chemistry, biology, literature, history, geography and foreign languages. The series is aimed at providing universities and colleges a means to assist students to prepare for their entrance examinations, specifically in helping those from poor or remote areas. Unfortunately, they fostered rote learning because they allowed students to anticipate examination sets. This stifled critical thinking and creativity, leading to general criticism of the publication of the series. As a result, these tests were abolished in 1997.

At present, MOET has divided the entrance examinations into four groups according to the fields of study on offer:

- Group A tests knowledge of mathematics, physics and chemistry (for students of engineering, computer science, natural sciences)
- Group B tests knowledge of mathematics, chemistry and biology (for students of natural sciences, agriculture and medicine)
- Group C tests knowledge of literature, history and geography (for students of social sciences and humanities)
- Group D tests knowledge of literature, mathematics and foreign language (for students of foreign languages, foreign trade, international relations)

In 2002, MOET started applying a solution called “three things in common” for all universities and colleges: common use of examination items, common organization of examination and common use of examination results. Until 2002, universities and colleges set their own entrance examinations. The change resulted in MOET taking responsibility and establishing an examination board to create a common national higher education entrance examination for all universities and colleges throughout the country. In reality, MOET directs all higher education institutions to organize three national entrance examinations at the beginning of July: the first for group A, the second for groups B, C, D and the third one for junior colleges. This solution is called “joint organization of examination.”

To reduce the number of pupils and their parents rushing to Hanoi and Ho Chi Minh City (where most universities and colleges are situated) and to minimize people's expenses on days of entrance examinations, MOET organizes three inter-university boards of examination: two in Central Viet Nam (at Vinh University and Quynhon University) and one in Southern Viet Nam (at Cantho University). Shared use of the test scores means that candidates can use their examination results to apply for admission to different higher education institutions instead of just one as in the past. Although MOET has been trying to implement the "three things in common" policy since 2002, three years later in 2005 the policy remains ineffective. The Vietnamese Government is still seeking better ways to organize its higher education entrance examinations.

As a result of the enormous number of candidates undertaking national entrance examinations, marking papers is a hard and time-consuming task for university faculty. This causes inaccuracy and unfairness in selection. To overcome this, MOET plans to use objective tests in national higher education entrance examinations, starting with three subjects (physics, chemistry, biology) in 2007, and three more subjects (mathematics, history, geography) in 2008.

Renovating Training Processes

Curriculum development

For a long time, higher education institutions in Viet Nam used the Soviet model of curriculum inside a centrally planned economy. The main feature of this curriculum was its narrow specialization. In the past, some higher education institutions tried to reform their curricula. However, the results were limited because academic staff did not have much knowledge in curriculum design and development. Since 1992, MOET's higher education department, together with universities and colleges, has explored new ways and means to reform university curricula. In 1993, MOET promulgated regulations on the structure and volume of knowledge in higher education curricula, resulting in the following outcomes:

1. The ratio between general education knowledge and professional education knowledge in a 4-year undergraduate programme must be 4/6
2. The minimum amount of core knowledge depends on different fields of specialization
3. Knowledge of a major must include a minimum number of 45 learning units

4. Knowledge of a minor need not be in the curriculum, but if it is included in the curriculum then it must have at least 25 learning units
5. For professions in the basic sciences and pedagogy, part of the knowledge of the major or minor may be placed in the general education knowledge block
6. A learning unit represents 15 hours of lectures, or 30-45 hours of practical work, or 45-90 hours of field work, or 45-60 hours of preparing paper or thesis. A 4-year programme will normally require a total of 210 learning units, a 5-year programme would require 270 learning units and a 6-year programme would require 320 learning units

According to MOET, higher education institutions should provide education and training relevant to the needs of society and the demands of the economy. Therefore, the content of academic and professional programmes must be prepared with input from both the university and industry. Based on this underlying assumption, MOET devolves curriculum management as follows:

1. MOET directly designs and manages the content of Marxist-Leninist courses, national defence, and physical education
2. Higher education institutions manage general education courses, together with core and required courses within the curriculum
3. Faculties or departments design and manage elective courses

At present, curriculum development in higher education is an important policy issue for the Government. In September 2004, the Government issued guidelines that gave key higher education institutions the task of designing "*advanced curriculum*" with funds being provided for selected programmes.

The credit system

In 1993-1994, MOET directed the University of Technology in Ho Chi Minh City to develop a learning unit system. This was followed by the following institutions announcing that they were applying the academic credit system: Thanglong University, Dalat University, Cantho University, Hanoi University of Civil Engineering, Nha-trang University of Fishery, and University of Agriculture No.1. Under the regulations on curriculum promulgated by MOET, each undergraduate programme must consist of 210 learning units, including 90 units of general education and 120 units of professional education, with each course containing a number of learning units. There are two kinds of courses, compulsory and electives.

The purpose of implementing a “learning unit system” was two-fold: providing greater flexibility in study and easier transfer between institutions. However, this system has not fully realized its initial intentions. Students of the same intake still have to take the same courses every academic year. Thus, a class of students enters a programme together and stays together throughout the entire degree programme, following the same curriculum. This together with the following factors has stifled change:

1. Most courses (subjects) in the curriculum are compulsory
2. Each week is filled up with required courses (subjects); students have little to no elective courses from which to choose
3. Although some institutions offer electives, they do not have enough staff to teach the electives
4. Institutions do not have technical staff to organize classes according to registration of students
5. The infrastructure cannot provide enough classrooms for all the registered students

At present, Viet Nam continues to study the academic credit system used in developed countries and is seeking ways of adopting a system that will suit its local context. MOET is planning to set up regulations to provide training and guidelines for local universities to adopt an academic credit system. The aim is for at least 20 institutions to adopt and operate this credit system by 2006, with all universities and colleges in Viet Nam undertaking a credit system by 2020.

New legislation for education to be developed

Prior to 1998, the responsibility of higher education institutions and their relationship with the state was decided by the individual regulations promulgated on a case-by-case basis. This mode of decision-making gave institutions the leeway to interpret decisions according to their interests, created uncertainties and made institutions unwilling to act. As there was no formal stipulation of decision-making responsibilities between institutions and the central Government, the latter could theoretically intervene in any area it considered to be important.

In December 1998, the Viet Nam National Assembly adopted the Law on Education. Within the Law, “higher education” is defined as providing either associate degrees (3-year junior college programmes) or bachelor degrees (4–6 year college and university programmes, depending on fields of specialization). “Post-graduate education” is defined as master’s and doctoral degree programmes.

The passing of the Law on Education by the National Assembly in 1998 marked a new milestone in the development of Viet Nam's education. Over the subsequent implementation period, it has become clear that many stipulations are inappropriate in the current context. In May 2005, the Viet Nam National Assembly approved amendments which enabled greater autonomy in degree-awarding institutions, as well as implementing a broader concept of higher education and a more integrated higher education system.

Financing higher education

Despite a difficult economic period in recent years, the proportion of expenditure on education and training from the state budget has been increased from 11.63 percent in 2000 to 11.89 percent in 2001 and 12.3 percent in 2003 (*General Statistics Office; <http://www.gso.gov.vn>*). Table 47 illustrates the increases in education financing between 2001 and 2003.

Table 47: Public expenditure on education and training (US\$ millions)

Year	2001	2002	2003
Expenditure on capital construction	149.3	190.3	202.5
Regular expenditure on education and training	800.5	1,070.0	1,178.0
Expenditure on curricula and goals education and training	37.9	44.9	61.3
<i>Total</i>	<i>987.7</i>	<i>1,305.2</i>	<i>1,441.8</i>
Of Which			
Projects for education	26.2	31.3	45.8
Projects for vocational training	5.6	6.9	8.2
Projects for secondary technical training	1.2	1.5	1.8
Projects for higher education	4.7	5.0	5.3

Source: General Statistics Office; <http://www.gso.gov.vn>

The socialization of education

There has been a shift from relying solely on the state budget for the provision of higher education to multiple sources of funding. Recently, a large loan from the World Bank estimated at US\$104 million (US\$21.06 million from the Vietnamese

Government and universities) has been provided to support quality improvements in higher education.

In 1987, MOET allowed higher education institutions to admit fee-paying students in excess of the centrally planned quota for which scholarship support was available. The number of fee-paying students grew quickly compared with the number of students sponsored by the state. In the 1987-1988 academic year, there were 133,136 students attending higher education institutions, 91,182 of whom were regular students (all with scholarships) with 41,954 part-time students. There were no fee-paying students among the regular students that year. However, the number of tuition-paying students among regular student groups grew four times larger than the number of scholarship students in the 1998-1999 academic year (Student finance and accessibility: www.gse.buffalo.edu/org/inthigheredfinance/region_asiaVietnam.pdf).

Encouraging entrepreneurial activities by institutions to raise additional non-Government revenues

In 1989, MOET allowed universities and colleges to establish scientific research-production units. By 1990, there were 111 units for scientific research and social services. Thirteen of these units were under MOET, with a further 98 units belonging to 23 universities and colleges (Dang Ba Lam 1997, p.367). In 1998, the Law on Education officially allowed higher education institutions to conduct activities on scientific service, technology transfer, production and business in specialized areas appropriate to the human resource development needs of Viet Nam. Also in 1998, the Prime Minister promulgated a decree permitting the establishment of state enterprises in some public higher education institutions as a pilot-scheme. Under this decree, business companies have been established in some of the bigger universities, such as the two national universities in Hanoi and Ho Chi Minh City, as well as the Hanoi University of Technology.

ACCESS TO HIGHER EDUCATION

Widening access to higher education has been a priority focus of higher education reforms in Viet Nam. A number of new policies have been implemented, which are detailed below.

Regulations on Admission

Access to higher education for young people from rural, remote and mountainous areas and children of privileged families has increased by about 70 percent annually. Increased access and participation has been achieved by:

1. Stipulating different admission scores for four categories of national higher education institution entrance examination into candidates from big cities, suburbs and towns, rural, and mountainous areas. From the first to the fourth category, the selected scores for each are a half mark lower in each category.
2. Giving children of war martyrs or veterans and ethnic minorities who belong to the privileged groups priority in admission. The selected scores for them are one mark lower than the scores for other children.
3. Creating a special policy for ethnic minority children from remote mountainous areas: they can be admitted into affirmative action classes in some higher education institutions without taking entrance examinations. During the period of 1999-2004, a total of 4,284 ethnic minority children benefited from this policy.

The Location of Higher Education Institutions

In 2001, the Prime Minister approved the “Master Plan for a Network of Higher Education Institutions for 2001-2010” proposed by the MOET. This serves as a basis for the establishment and development of public and non-public higher education institutions in the Northwestern Zone, Central Zone and Mekong Delta Zone. The establishment of these institutions represents some of the key steps taken in overcoming geographical differences in access to higher education for Vietnamese youth.

Table 48: Newly established higher education institutions in three zones

Year	Northwestern Zone	Central Zone	Mekong Delta Zone
1997		Hongduc University	
1999			Angiang University
2000			Kuulong People-founded University
2001			
2003	North-Western University		Dongthap Pedagogic College
2005		Ductri Private Junior College in Danang City	Taydo People-founded University in Cantho City Tiengiang University

The Introduction of a Student Loan Programme

To help poor students get the chance to learn in higher education institutions, the student loan programme was started in 1994. The Industrial and Commercial Bank (Incombank) has been running this programme. As a pilot programme, it first covered four universities in Hanoi: Agricultural University, Hanoi University of Technology, National Economics University, and Pedagogic University. In 1995-1996, the loan programme was extended to 20 universities.

In 1997, the Vietnamese Government approved the student loan programme. In 1998, the Prime Minister established a credit fund with a low interest rate (50 per cent of ordinary interest rate) for higher education students. The maximum time for a loan period is 15 years. During the study period, students do not have to return the principal sum or pay any interest. According to this decision, the capital allocated for this credit fund was VND 100 billion, with VND 30 billion from the state and the rest from commercial banks, loans from state banks and endowments, and donations from domestic and foreign organizations, as well as from individuals. In 2002, this credit fund gave loans to students in excess of VND 4.6 billion (<http://www.edu.net.vn; 14/7/2004>). According to a report of this student credit fund, 41,534 among 126,789 eligible students took out loans from the fund against a total number of 471,562 students nationwide (<http://www.edu.net.vn;14/7/2004>). Clearly, the establishment of the fund has helped provide greater learning opportunities for poor students.

The Upgrade of Higher Education Institutions

As part of the reform process, the Government upgraded some of the better local junior colleges to 4-year colleges and local secondary technical schools to 3-year junior colleges. In recent years, many more secondary technical schools were upgraded to the status of junior colleges. For example, the Secondary School of Finance and Accountancy III became the Junior College of Finance and Accountancy, the Secondary School of Chemicals became Junior College of Chemicals, the School of Social-Labour Cadre became the Junior College of Social-Labour Cadre, Haihung Secondary Pedagogic School became Hungyen Pedagogic Junior College, and the Central School of Foreign Economy became the Junior College of Foreign Economy.

Expanding “In-Service” Higher Education

As a result of the great demand for higher education, in-service education has also developed extensively. Under the current system, in-service students are sometimes incorrectly referred to as “part-time.” These students undertake an abbreviated course while being employed. For the most part, these students are civil servants sponsored by their Government offices. They are studying to upgrade their skills and to prepare for more difficult or more responsible positions upon completion of their training programmes. Until recently, this was strictly an employer-nomination scheme, but wider groups such as unemployed youths choose this mode of education because admission is easier than the traditional path, while courses undertaken in this mode are usually focused on more practical areas of study. Students who complete a degree this way get a certificate endorsed with the term “tai chuc” (in-service), which thus sets them apart from their counterparts who complete a course through the usual channel.

Overall Impact on Increasing Access to Higher Education

As a result of these various policies, the number of students entering higher education has increased dramatically.

Table 49: Student enrolment at tertiary institutions by year and programme level

Year	Associate and Bachelor's	Master's	Doctoral
1998-1999	759,635	10,100	2,900
1999-2000	844,592	10,200	2,829
2000-2001	875,592	14,817	2,480
2001-2002	923,176	18,616	2,798
2002-2003	960,692	23,841	3,313
2003-2004	1,032,440	28,970	4,061

Source: MOET's Finance-Planning Department (System of Documents on Policies and Strategies for Development of Education in Viet Nam; Publishing House “Society-Labor”, 2005, p. 505)

The importance of income as a function related to access to higher education is clearly more influential in the non-public sector, where capacity to pay tuition fees is an important condition for entry. The three economic zones with the same size of population show a significant correlation of non-public higher education enrolments with income levels. The Central Zone with the lowest GDP per capita (VND 1,621,000 in 2004) has only one non-public higher education institution with 5,003 students in 2003. The North Zone, with a per capital GDP (VND 1,960,000) that is 1.2 times higher than the Central Zone's, has five non-public higher education institutions with 59,591 students in 2003. The South Zone, with the highest GDP per capita (VND 3,459,000) at 2.1 times that of the Central Zone, has 11 non-public higher education institutions with 67,033 students in 2003 (Student finance and accessibility: http://www.gse.buffalo.edu.org/inthigheredfinance/region_asiaViet Nam.pdf).

DIVERSIFICATION OF HIGHER EDUCATION

In the summer of 1987, at the "National Meeting of Rectors of Universities and Colleges," the importance of higher education in meeting economic interests was accepted universally. There was also consensus on the need to meet the diverse demands of people in higher education. This consensus created conditions for the diversification of higher education.

As mentioned above, in 1993-1995 a series of multi-disciplinary universities was established, including two national universities and three regional ones. These developments were one of a number of reform developments that widened access to higher education through the diversification of higher education provision in Viet Nam. However, the most significant developments in the diversification of provision occurred in 1993 when two open universities were established. One of them was in Hanoi and the other was in Ho Chi Minh City. The two universities act as coordinators for the development of local in-service training centres into an open learning network, using information and communication technology for educational purposes. Students in these two universities attend face-to-face courses with part of the programme delivered via distance learning. Specialized colleges usually train students in one field of study or a limited number of fields of study such as technology, agriculture, water conservancy, trade, banking, finance and accountancy. They are mostly based in Hanoi, although a few of them are found in other provinces. Examples included College of Forestry in Hatay, Maritime College in Haiphong, Thaibinh Medical College and Vinh Teachers' Training College in Nghean, Quynhon Teachers' Training College in Binhdin.

Community-founded colleges are schools sponsored by social organizations. They operate on the principle of self-management in financial matters and facilities. The school management board decides on school fees and salaries for teachers (most of them are lecturers and professors from public schools). At present there are nine community-founded colleges: two in the North, one in Central Zone and six in Southern provinces.

Pre-college schools enrol senior secondary school graduates of ethnic minorities, peasant families from remote areas, and beneficiaries of social policies. The 1-year foundation study course enables them to gain admission into higher education institutions. There are now three schools of this kind: one in Phutho (Northern Province), one in Nhatrang (a Central Zone city) and one in Ho Chi Minh City.

The centre or unit of higher education is a kind of incomplete college set up by the head of a branch, province or city, or the rector of a college. At present there are two such centres (one of the banking branch and one of Ho Chi Minh City), and three units (College of Communications, College of Foreign Trade and College of Culture) (Pham Minh Hac, 1998, p. 58).

Branch management schools are those whose task is to train cadres for the respective branch only. For instance, the education management school was intended to train heads and deputy heads of education bureaus as well as directors and deputy directors of secondary schools. The creation of these schools is decided by the minister in charge of the corresponding branch.

There are now 99 junior colleges, 64 of them are teacher training colleges and the rest are institutions for training workers in different fields. Most of these schools are located in provinces and cities. Only a few of them are under the central authority. There are three schools for the training of kindergarten and infant school teachers and two schools for the training of sportsmen and gymnasts.

Since 1994, MOET has allowed the establishment of centres for distance learning in some higher education institutions. At present, there are nine universities and colleges that provide distance learning programmes: Hue University, Danang University, VNU-HCM, Hanoi Pedagogic University, Hanoi University of Technology, Dalat University, VNU-H's College of Foreign Languages, and Binhduong People-Founded College. At the local level, there are continuing education centres that form the basic units of the distance education system. These centres are in charge of providing education and training to meet the diversified learning needs of those who want to raise their intellectual level and develop their capacity/knowledge

in order to get a job or change their profession. The distance education centres must operate in accordance with the regulation of MOET. The main task of provincial distance education centres is to establish and maintain links with universities, colleges and secondary vocational schools, as well as with experts in different fields, in order to organize undergraduate and secondary vocational training.

CHANGES IN UNIVERSITY GOVERNANCE AND MANAGEMENT

The Special Position of National Universities

The two national universities, though nominally under MOET, operate independently and as separate entities. They hold a special position in the higher education system, operating according to a special regulation promulgated by the Prime Minister. National universities report directly to the Prime Minister and have substantial autonomy in the organization of personnel, training programmes, scientific research and technological development, planning-finance, international relations and other fields. Presidents and vice-presidents of the national universities are appointed by the Prime Minister, while all rectors of other higher education institutions are appointed by the Minister of Education and Training. Presidents of national universities are entrusted by the Minister of Education and Training to award doctoral degrees, while presidents of regional multi-disciplinary universities do not have this authority. National universities are entitled to work directly with ministries, ministerial-level organizations, Governmental bodies, and relevant people's committees of central cities and provinces.

Decentralization of Management

For higher education institutions that are directly under MOET there are two types of decentralization: vertical and horizontal decentralization (Higher Education in Viet Nam 2004, p. 4). Horizontal decentralization refers to the functional departments responsible for education and training in the central Government. Although MOET plays a pre-eminent role, many institutions fall under other line ministries and Government agencies. For example, medical universities and the Hanoi School of Public Health fall under the Ministry of Health, while the Ministry of Culture and Information manages Hanoi University of Culture and fine art universities. Vertical decentralization refers to the different levels of Government responsible for education. In higher education, with the exception of universities, provincial Governments also play a role in running educational institutions, which can be as

large as those run by the central Government. In the past, the lack of a formal legal management system led to extreme dependency on MOET, which resulted in the inability of each institution to meet local community needs. The ability to provide vocational training appropriate with the demands of the market economy remains one of the most pressing issues under discussion in the overall reform of higher education.

At present, MOET is trying to share power and responsibility with local education authorities in undertaking long-term education programmes in local areas. The newly established public local 4-year universities now fall under the Provincial People's Committees. For example, Hongduc University in Central Viet Nam reports directly to the People's Committee of Thanhhoa Province, while the People's Committee of Angiang Province manages Angiang University in the Mekong Delta Zone. The central Government hopes that such decentralization will help improve the quality of higher education.

MOET also intends to give regional multi-disciplinary universities more autonomy over financing, training, research, organization and other matters. These universities will obtain the right to confer their own degrees, and their presidents will be entrusted to award doctoral degrees rather than vesting authority with the Minister of Education and Training. In 2005, MOET decided to allow five universities and colleges to completely control their own budgets as a pilot scheme. They are National Economics University, Foreign Trade University, Hanoi University of Foreign Studies, Hanoi Open University, and Ho Chi Minh City University of Economics. University and college managing boards will prepare their own budget plans and implement them with only a supervisory role played by MOET.

Autonomy and Accountability of Higher Education Institutions

In Viet Nam, MOET wields significant power over education and handles a number of tasks including ("Higher Education in Viet Nam" 2004, p. 4):

1. Promulgation of regulations affecting curriculum
2. Drafting and publishing of text books
3. Enrolment and student management
4. Academic assessment procedures and degree awarding
5. Infrastructure and facility maintenance
6. Staffing and personnel in education
7. Developing future education plans
8. Providing proposals to the Government for the regulation of education matters

Besides these tasks, MOET usually conducts the operational activities of universities and colleges. This limits the autonomy and initiative of colleges and universities, especially in activities funded by state budget (Dao and Ngo 2004, p. 30). Strongly criticized by the public, and aware of the low effectiveness of this style of management, MOET is trying to overcome this weakness.

Along with the term “autonomy,” the term “accountability” has been broadly used in higher education in Viet Nam for a number of years. Regrettably, this term is mistakenly interpreted in Vietnamese as “*tu chiu trach nhiem*” (self-responsibility). This phrase leads to a misunderstanding that universities and colleges should be absolutely free in organizing their activities and that they should be accountable to themselves only and not to any body, organization or agency. The concept “to let universities and college be accountable to themselves,” stipulated in many official management documents has a negative impact on the quality of state management in higher education institutions. In recent years, this has led to a number of violations with regard to regulations in some higher education institutions (Ngo 2004, p. 24).

For example, Dongdo University committed a gross violation of admission regulations in 2001. The institution was given an admission quota of 1,500 students by MOET. The managing board of the university expanded the number of admitted students to 4,175. In doing so they violated regulations on marking candidates’ entrance papers and turning many bad grades into good grades. Later, when the fact was disclosed, three members of the managing board of the university, including the Rector, Vice-Rector, and Head of the Academic Affairs Department, were charged with violating the education law and given suspended sentences.

RESTRUCTURING OF FACULTIES AND ACADEMIC PROGRAMMES

Restructuring of Faculties

VNU-H and VHU-HCM were created out of originally mono-disciplinary institutions to form multi-disciplinary universities. These were detailed earlier in this study. Restructuring inside of these and other institutions has been an ongoing process. For example, the Faculty of Technology, a unit of VNU-H, was recently upgraded and renamed as a College of Technology. The Faculty of Economics of VNU-H is now in the same process of upgrading and will be renamed the College of Economics. Similar changes have happened in regional multi-disciplinary

universities. For example, in 2004, the Government decided to establish the College of Economics and Business Administration in Thainguyen University, and the College of Foreign Languages in Hue University through the same process of upgrading corresponding units within those universities.

Initially, there were colleges of general education in the two national universities. Due to the poor performance and out-dated nature of these colleges, the Government decided to abolish them in 1998. In addition, the teacher training colleges were separated from the two national universities. The prevailing argument was that teachers' training higher education institutions have their own characteristics and the system of teacher training in colleges needed specific ways to be consolidated and developed.

The Introduction of Interdisciplinary Undergraduate and Graduate Programmes

To respond to the needs of the new labour market and demands of society under a market economy, many universities and colleges have provided new interdisciplinary undergraduate and graduate programmes. For example, VNU-H started to offer programmes in environmental science, technical physics, international studies, Oriental studies, and finance-banking in recent years. Many new specializations can be found in areas such as rural construction, rural industry, South-East Asian studies in Ho Chi Minh City Open University; hospital management in Hungvuong People-founded University; Vietnamese, culture and tourism guidance in Hongbang People-founded University.

The Broad-based Liberal Education Approach

Broad-based liberal education has been introduced into higher education since the "*doi moi*" (renovation) period. It is reflected in the curriculum block for general education knowledge which was introduced after 1986. The general education knowledge block includes six unit areas: social sciences, humanities, natural sciences and mathematics, foreign languages, national defence education and physical education. These units help students to: develop a broad vision, develop a sound world view and outlook on life, acquire knowledge of the natural world, society and human beings, master scientific mode of thinking, and develop their political maturity.

The curriculum also provides opportunities for students to gain sound professional knowledge, as well as skills for lifelong learning so that they are better equipped to change professions if required in the rapidly changing economic environment. However, after analyzing the general education curriculum, some scholars are of the opinion that the courses are inadequate in helping students to acquire the following abilities:

1. Communication skills
2. Team work
3. Problem solving
4. Examining issues in totality and to balance this with the benefits of community and individuals
5. Creative thinking
6. Lifelong learning

As a result, additional courses in these areas have been suggested to train students in cognitive and social skills (Pham 1998).

High Quality Training Programmes and Programmes for Talented Students in National and Key Universities

Honours programmes are organized to train cadres for high-tech and key socio-economic branches. The aims of these programmes are to identify and train talented students by providing good learning conditions to achieve high standards equivalent to those found in more advanced countries in the region. These programmes are offered in VNU-H, VNU-HCM, Hanoi University of Technology, the University of Engineering, and Danang University. These talented student programmes have multiplied in recent years, and in 2003 programmes offered by VNU-HCM recruited 40 talented students for specialization in technique of manufacturing, 70 for specialization in information technology, 60 for specialization in math-informatics and physics, and 60 for specialization in literature, history, Oriental studies, English and geography (www.edu.net.vn; 14 July 2004).

DEVELOPING RESEARCH CAPACITIES

National state-funded research responsibilities are formally assigned as follows:

1. State research institutes undertake research in fundamental sciences and technologies that have been classified as priorities by organs such as the State Committee for Science and Technology.
2. Research institutes are responsible to particular ministries to undertake research and development activities often with an emphasis on application.
3. Higher education institutions undertake limited fundamental research and development activities, where it occurs it is usually according to their fields of study and expertise and increasingly under contract to other organizations (Sloper and Le 1995, p. 146).

To promote science and technology, the Viet Nam National Assembly adopted the Law on Sciences and Technology in June 2000, which stipulates the tasks of higher education institutions in scientific research and technology development as follows:

1. Higher education institutions are given the task of research and technology development; combining training with research and production; and research and technology services in accordance with this Law, the Law on Education and other legal stipulations; and
2. Higher education institutions are entrusted to conduct fundamental research, to implement key state priority projects for research and technology development and to undertake research in education.

In the 2003-2004 academic year, there were 39,985 academic staff employed in higher education, and of these, 2.95 percent held doctoral degrees. Each successful doctoral graduate has undertaken some systematic research and many have the capacity to pursue further research if the opportunity and resources are available. Most academics with doctorates are found in the large public universities where research institutes and equivalent units are located.

National research programmes are implemented in the two national universities and other key universities such as Hanoi University of Technology, National Economic University, and Hanoi Pedagogic University. The system of research institutes and centres in these universities plays a prominent role in research on important fields in national development strategies and, therefore, makes an active contribution to the scientific and technological development of the country. For example, VNU-Hanoi is the implementing institution for two national programmes at present, namely, Fundamental Research on Natural Sciences, and Environmental Protection and Natural Disaster Prevention.

The budget for research activities in VNU-H comprises about 22 percent of the university's budget, of which the state contributes 17 percent and international funding makes up 4 percent. The state contribution has increased gradually: in 2004, VNU-H received VND 36.1 billion (approximately US\$ 2.28 million) for research and technology activities. In 2005, the figure was VND 39.4 billion (approximately US\$ 2.49 million). In the same year, VNU-H scientists were responsible for 11 national-level research projects. Each public university and college spends annually about VND 200-500 million (approximately US\$ 12,658-31,645) for student research in recognition of the importance in investing in research.

THE CHANGING ACADEMIC PROFESSION

Recent changes in the higher education system have positively affected the working conditions of academicians. Increases in the state education budget and policies allowing higher education institutions to generate revenue have improved infrastructure in higher education institutions. Teaching staff now work in decent classrooms, meeting rooms, conference halls and well-equipped laboratories. The admission of fee-paying students in public universities while giving academic staff the freedom to teach in non-public universities and colleges has enabled academics from public universities to supplement their incomes.

Student enrolments in some areas of specialization such as geology, agriculture, forestry and the Russian language have decreased drastically, resulting in the retraining of many lecturers who were originally specialized in these areas. The majority of Russian-language teachers had to upgrade their English and, besides teaching Russian, they are required to teach English in in-service programmes or to teach staff in the English language centres that have mushroomed almost everywhere in the country.

However, there have been some negative developments. The rapid growth of student enrolment in many of the higher education institutions has led to a significant increase of teaching loads. Consequently, many lecturers have no time to update their knowledge and professional skills or to carry out any form of research, thus affecting the quality of their work. In addition, the focus on earning more income has resulted in some unscrupulous activities with regard to examination script marking, which has led to disciplinary actions against the guilty parties.

ROLES AND FUNCTIONS OF NON-PUBLIC HIGHER EDUCATION

The increasing expansion of upper-secondary education has put great pressure on Viet Nam's higher education system. The number of upper-secondary students has more than doubled from 1,019,500 in 1996 to 2,589,600 in 2004. Each year more than 1 million upper-secondary graduates sit for the national higher education entrance examinations. There are only places for 120,000-140,000 students. In 2004, the number of candidates was 888,479, while the quota for admission country-wide was only 139,813. In 2005, the number of students who sat for national higher education entrance examination was 1,537,252, of which 1,120,209 (73 percent) applied for admission to universities and 4-year colleges, while the quota of admission for all higher education institutions reached only 230,500. Therefore, non-public higher education institutes have an important role in meeting demand and alleviating funding pressures on the Government. These institutions have also created jobs for thousands of faculty members and support staff.

At present, Viet Nam has 24 non-public higher education institutions, which consist of 17 people-founded and six semi-public institutions and junior colleges, and one newly established private junior college. In the 2003-2004 academic year, these institutions enrolled 137,122 students nationwide, accounting for 13.28 percent of the total student number of 1,032,440. These figures reflect the role non-public institutions play in meeting the needs of society and the economy.

Table 50: Student enrolment of different kinds of higher education institutions

Institutions	Academic Year				
	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004
Junior Colleges	173,912	186,723	210,863	215,544	231,107
Public	161,793	171,922	192,466	194,856	205,639
Non-public	12,119	14,801	18,397	20,688	25,468
Universities	719,842	731,505	763,256	805,123	801,333
Public	624,423	642,041	680,663	713,955	689,679
Non-public	95,419	89,464	82,593	91,168	111,654

Though the number of non-public higher education institutions is growing rapidly, many are plagued by poor management, poor teaching and inadequate facilities. Due to shortages of academic staff, facilities, equipment and laboratories, non-public higher education institutions are not allowed to offer programmes in many areas of specialization such as law, architecture, journalism, and medicine.

Since the establishment of the first non-public university in 1993, only two provisional regulations (one for semi-public and the other for people-founded higher education institutions) have been issued by MOET. The lack of a regulative framework and management weaknesses hinder governmental agencies in effectively supervising non-public higher education institutions. Some non-public university administrators have taken advantage of this gap and run their universities without clear transparency and accountability (Student finance and accessibility; www.gse.buffalo.edu/org).

INTERNATIONALIZATION OF HIGHER EDUCATION

The internationalization of higher education in Viet Nam has increased with the establishment of foreign education programmes run either entirely by foreign universities or through cooperation with local institutions. This sector received a large boost in 2000 with the enactment of Decree No. 06/2000/ND-CP, which provided incentives for foreign investment in several areas, including education and training (Kelly 2000). The first university with 100 percent foreign investment was Royal Melbourne Institute of Technology (RMIT) International University Viet Nam. This university has two campuses: one in Ho Chi Minh City (opened in 2001) and the other one in Hanoi (opened in 2004). The university offers undergraduate and graduate programmes in education, business, computer science, information technology, multimedia and engineering. The third campus is now being developed in an urban area of South Saigon with loans totalling US\$20 million.

Besides RMIT, a number of foreign institutions have also entered into joint programmes with Vietnamese institutions, many of which involve a study abroad component, and are called "sandwich programmes." Examples of this kind of programmes include University of Hawaii MBA programme in partnership with VNU-H's School of Business; Troy State University undergraduate degree in collaboration with VNU-H's Faculty of Economics; Washington State University MBA programme with National Economics University; and University of Houston, Clear Lake undergraduate degree with Hanoi University of Technology. Among the "sandwich" programmes, the most highly appreciated by MOET are those conducted by VNU-H's College of Science in collaboration with the University of Greifswald (Germany), Hanoi University of Technology with University of Technology in Sydney (Australia), and University of Civil Engineering with Liege University (Belgium).

According to a report by the Institute of International Education, there are very few scholarships available to study overseas. Each year, there are only around 10

scholarships to study in Canada, 70 in the UK, 200 in France, 150 in Australia, 70 short-term and 10 long-term scholarships in Thailand, 60 scholarships in Japan, 25 US Fulbright Fellowships and 50 Viet Nam Education Foundation (VEF) Fellowships in the US available for master's degree students. A significant number of students receive scholarships and other types of awards directly from universities, non-governmental organizations, foundations or corporations. The Vietnamese Government, through MOET, has also approved on an annual basis approximately 400 scholarships for state workers to study abroad to improve their skills. On top of all these scholarship holders, many Vietnamese students are studying abroad through their own finances.

ACCREDITATION AND QUALITY ASSURANCE

Prior to 1999, there were no reliable and valid mechanisms in Viet Nam for evaluating and monitoring the quality of higher education. In 1999, the Centre for Education Quality Assurance and Research Development of VNU-H was given the task to conduct state-level research on accreditation in higher education. In March 2002, *Research on Setting Up the Batteries of Criteria to Use in the Accreditation of Vietnamese Higher Education Institutions* was published. The result of the research has been a list of criteria for evaluating the conditions required to assure the quality of training in a higher education institution. In total, there are 26 criteria in 8 areas of activities for one higher education institution. The State Scientific Committee approved the result of the research and requested government authorities to use it for accrediting purposes. In the same year, MOET established an Office of Accreditation responsible for all matters of accreditation. In 2003, MOET upgraded the Office of Accreditation to the General Department of Assessment and Accreditation (GDAA). In December 2004, the Minister of Education and Training promulgated the Provisional Regulations on Accreditation of Higher Education Institutions. Under these regulations, ten standards for accreditation of higher education institutions were set up and a three-stage process of accreditation involving institution self-evaluation, external evaluation and approval was specified.

Most recently, MOET decided to choose ten universities for accreditation on a pilot basis. This pilot-scheme is expected to take place in the next year or two. In March 2005, GDAA organized a workshop on self-evaluation for experts from these universities, and they are now in the process of self-evaluation.

CHALLENGES AND FUTURE DEVELOPMENT

The higher education system in Viet Nam still faces tremendous challenges despite recent developments. Firstly, whilst investments in higher education by government and society have gradually increased over the years, these investments have focused mainly on quantitative expansion at the expense of qualitative improvements. The infrastructure of universities and colleges remains obsolete and backward. The annual budget for education has only reached 3 percent of GDP, while it is 4.2 percent in Philippines, 5.4 percent in Thailand, and 6.7 percent in Malaysia. In 1995, figures were 5.3 percent for the USA, 5.5 percent for the UK, and 7.3 percent for Canada. Given its GDP level and large population, Viet Nam's absolute investment figure in education remains very low, its average training cost for one student is 100 times lower than other countries in the world.

Compared with standards in universities and colleges in the region, there is still a big gap between the teaching staff of Vietnamese higher education institutions and other universities and colleges in terms of quality, quantity, and qualifications. In 2003, of the 32,205 teaching staff, only 41.6 percent had master's degrees, 17.8 percent had doctoral degrees, and 5.1 percent were professors or associate professors. The average student/teacher ratio is 27/1. Exceptionally, the ratio at some public universities and colleges is as high as 100/1. A large proportion of highly qualified lecturers who were trained in the former Soviet Union or Eastern Europe do not have the opportunities to improve their qualifications or update their knowledge. For many years, universities and colleges have been unable to send their young staff overseas for further training, which lead to poorly qualified and trained teaching staff, particularly in scientific and technical fields.

The reform of teaching methodology is very urgent in universities and colleges where rote learning and traditional teaching methods remain commonplace. The level of "educational socialization" in Viet Nam is still slow. Universities and colleges rely mainly and passively on state budgets. The rapid integration of Viet Nam into the world economy has created a greater need for universities to adapt and be more relevant to local and national economic needs.

Furthermore, the current centralized and inflexible system of management limits autonomy and incentives for universities and colleges. In July 2005, MOET submitted a proposal for the "Renovation of Vietnamese higher education" to the Government in which the following objectives were put forward:

1. Regulate the structure of levels and system of higher education institutions so that it is appropriate to the socio-economic development of the country and current global trends.
2. Set up a flexible and inter-related training process that renovates learning objectives, content, and teaching methods.
3. Develop teaching staff so that they are politically steadfast with good morals, professional conscience, high professionalism, and advanced, modern style of teaching.
4. Strengthen research and application activities that aim at improving training quality, directly solve problems raised from the realities of socio-economic development and enhancing the income for institutions.
5. Renovate financial mechanism in higher education in order to diversify resources and enhance effectiveness of investments.
6. Re-orientate higher education management by enhancing autonomy and accountability of higher education institutions and their competitiveness.
7. Enhance competitive capacity of Vietnamese higher education through international integration.

In this proposal, some specific targets for development of higher education in Viet Nam up to 2010 were detailed as follows:

1. Some leading universities should meet regional and international standards.
2. The number of students per 10,000 inhabitants should be raised from 118 in 2000-2001 academic year to 200 in 2010, and 450 in 2020.
3. Training programmes should be divided into two groups: "*application-professional*" and "*development-research*". Eighty percent of the student body should follow the "*application-professional*" programmes, and 20 percent for "*development-research*".
4. Forty percent of faculty members should hold master's degree, and 25 percent should hold PhD degrees.
5. The student/teacher ratio should be 20/1 for the entire higher education system; 15/1 for programmes in natural sciences, technique and technology; and 25/1 for programmes in economics, social sciences and humanities.
6. Key universities should have research institutes or scientific research-technology enterprises; revenue from research, technology transfer, production, and service should reach 15 percent of total income.
7. By 2010, the agreements on degree recognition should be signed with regional countries, followed by agreements globally.
8. By 2010, the accreditation system in higher education should be completed and operating.

CONCLUSION

Higher education reforms in Viet Nam are faced with many challenges stemming from the changing socio-economic environment in the country and the world. To date, there have been successes as well as failures. However, progress is visible and the achievements have been impressive during the renovation period. With great enthusiasm in the nation and effective international assistance from donor countries, it is hoped that Viet Nam's higher education system will develop to meet the changing needs of the nation in its aim to be economically integrated into the global economy.

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Higher education in South-East Asia has undergone various stages of development. It has, and still is, facing numerous challenges, including increased student enrolments, knowledge and information overload, economic restructuring and financial constraints. To overcome these challenges closer cooperation throughout the region is essential, with an emphasis on producing highly qualified graduates who can contribute to sustainable development, and on increasing their competitiveness throughout the world.

UNESCO Bangkok and the Southeast Asian Ministers of Education Organization (SEAMEO) Regional Centre for Higher Education and Development coordinated a research study to conduct a situational analysis of higher education development in eight South-East Asian countries: Cambodia, Indonesia, Lao PDR, Malaysia, Philippines, Singapore, Thailand and Viet Nam. Both organizations hope that these analyses will create an informed basis for higher education dialogue and exchange among the countries involved and beyond the Asia-Pacific region.



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