ADB

Technical Assistance Consultant's Report

Project Number: 47177
October 2014

Republic of the Union of Myanmar: Support for Post-Primary Education Development
(Cofinanced by the Government of Australia)

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For the Ministry of Education

Asian Development Bank

Myanmar Comprehensive Education Sector Review (CESR)

Phase 2: In-depth Analysis

Technical Annex on the
Higher Education Subsector

31st March 2014
(reformatted/edited 16th October 2014)

FOREWORD

This report was prepared as part of the In-depth Analysis (Phase 2) of Myanmar's Comprehensive Education Sector Review (CESR), which is led by the Union of Myanmar Ministry of Education (MOE), coordinating inputs from other government agencies and support from an array of development partners. Under the umbrella of the CESR, the preparation of this report was principally funded under Asian Development Bank (ADB) technical assistance TA 8385-MYA: Support for Post-Primary Education Development, co-financed by ADB and the Government of Australia (represented by Australian Aid).

Serving as a Technical Annex for CESR Phase 2, the report presents an analysis of Myanmar's higher education sub-sector, based on data collected through surveys and site visits to higher education institutions (HEIs), various available data and information from government sources, and discussions with other development partners. The report also builds on analysis and policy dialogue during Phase 1 (Rapid Assessment) of the CESR—including findings from the CESR Phase 1 Technical Annex on the Higher Education Subsector[1]—and many of the recommendations therein have been developed further as recommendations in this report.

This report draws heavily on a background Information and data analysis on higher education and the IHLCS (2009-10) prepared during CESR Phases 1 and 2. It also reflects inputs from members of the ADB's staff team for Myanmar (particularly Chris Spohr with secondary inputs from Yasushi Hirosato). Preparation and implementation of surveys, data analysis and site visits have been ably assisted by Khin Than Nwe Soe and May Yimon Aung.

While the report was principally authored by (and reflects the views of) consultant Nigel Billany, it reflects a collaborative effort involving inputs from the CESR Team—including in particular Daw Tin Tin Shu, Daw Ohnmar Thein, Dr Aye Aye Myint, Dr Tin Maung Oo, and Dr Thet Lwin.

Finally, the report benefited from dialogue with counterparts from Australian Aid, JICA, UNESCO and UNICEF (which is supporting overall CESR coordination).

Disclaimer:

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[1] See http://www.adb.org/projects/documents/cesr-p1-rapid-assessment-annex-higher-education-subsector-tacr .

TABLE OF CONTENTS

Contents

ACKNOWLEDGEMENT

ABBREVIATIONS

ADB	Asian Development Bank
APQN	Asia-Pacific Quality Network
AQAN	ASEAN Quality Assurance Network
AUN	ASEAN Universities' Network
AY	Academic Year (in HE, December to October)
CCA	Child-Centred Approach
CESR	Comprehensive Education Sector Review
CFS	Child-Friendly School
CPD	Continuous Professional Development
DP	Development Partner
EAS	External Assessment System (QA external evaluation component)
EFA	Education for All
EMIS	Education Management Information System
EQA	External Quality Assurance
ESDP	Education Sector Development Plan
ETSWG	Education Thematic Sector Working Groups
FY	Financial Year (sometimes "fiscal")
HE	Higher Education
HEI	Higher Education Institution
IAS	Internal Assessment System (QA self-evaluation component)
ICT	Information and Communications Technology
IQA	Internal Quality Assurance
JESWG	Joint Education Sector Working Group
MBE	Myanmar Board of Examinations
MDG	Millennium Development Goal
MoBA	Ministry of Border Affairs
MoD	Ministry of Defence
MoE	Ministry of Education
MoH	Ministry of Health
MoRA	Ministry of Religious Affairs
MoST	Ministry of Science & Technology
NAP	National Action Plan
NGO	Non-Governmental Organization
NQF	National Qualifications Framework
QA	Quality Assurance
TA	Technical Assistance
ToR	Terms of Reference

DEFINITIONS AND TERMINOLOGY USED IN THE REPORT

National Standards (In Myanmar the terminology does not exist, the word curriculum covers this)	General and specific knowledge, skills and value standards of children and students.
Curricula and (syllabi).	Teaching plan, describing content and objectives for subjects.
Curriculum standards	Statements of knowledge, skills, understanding and learning expected at each grade level. These standards are established during the process of curriculum development and are found in the teaching and learning plans produced for each subject at each grade level.
Education and pedagogy standards shall include	1) General and special knowledge, skills and value standards of children and 2) Standards of knowledge, skills and values for a profession of a teacher and pre-school teacher and their further professional development 3) Competence standards for a managing director of an institution or principal, education inspector and educational advisor; 4) Textbooks and teaching tools and materials for quality standards.
Achievement standards	Specified percentages of students expected to achieve an acceptable level of performance in each course of studies. Achievement standards will reflect reasonable expectations pertinent to specific groups of schools and students. All measurements of achievement standards will be related directly to the outcomes and goals stated in the curricula and associated frameworks.
Assessment standards	Criteria adopted for measuring student performance relative to curriculum standards.
Test	An instrument used in assessment usually administered at the end of some period of learning (e.g. end of a textbook chapter, end of the month or semester, etc.) to gauge students' knowledge, skills and/or ability. Tests are developed and conducted by schools as part of school-based assessment.
Summative assessment	Assessment that gauges what students have learned over time. Summative assessment is related to the broader learning goals that can be achieved over a period of time. Sometimes called "assessment of learning" (AoL), summative assessment results should be reported to parents (and to relevant Government institutions).
Student assessment	A process by which students are evaluated on their knowledge, skills and/or ability.
School-based assessment	Assessment which is developed within the school and is conducted by teachers on an ongoing basis. Tasks that are often included in school-based assessment are assignments, research, presentations, reports, quizzes, and practical activities. This form of assessment provides an opportunity to measure skills and other aspects of performance that cannot be determined by

	examinations alone.
Portfolio	A collection of student work that demonstrates student progress over time. It is a common method of recording continuous assessment. Portfolios provide teachers, parents, administrators, and prospective employers with evidence of student abilities.
Formative assessment	Assessment used to inform learning and teaching. Since formative assessment refers to the process of learning, it is also called "assessment for learning" (AfL) and is part of the teaching and learning cycle.
External assessment	Examinations set by institutions external to a school and summative in nature. Examples of external assessment include MoE examinations, PISA and other international tests.
Examination	An instrument developed outside of the school and used to conduct summative assessment of students at the end of the semester or as designated. Examples of an exam include MoE examinations, PISA and other international tests.

A.   INTRODUCTION

1.   The Myanmar Comprehensive Education Sector Review (CESR) is the first attempt to systematize educational development on a sector-wide basis since the early 1990s. Under direction of the Ministry of Education (MOE), in consultation with other ministries, and with support from various international development partners, its purpose is to develop policies, legislation and plans for the education sector that utilize accurate and up-to-date information, that reflect the hopes and aspirations of the people of Myanmar, and that meet the development needs of the country.

2.   The CESR has three phases: (i) the Rapid Assessment phase which emphasized identifying urgent priorities and reform issues as well as providing information about knowledge gaps; (ii) the In-depth sector analysis phase that is broader in scope, adopts a participatory approach, and incorporates more focused investigations and capacity building; and (iii) the Planning and Costing phase, which will see the development of strategic and costed education sector plans. A complementary process termed the Education Promotion Implementation Committee (EPIC) has been established under the aegis of the President's Office to focus on issues that should and could be implemented in the immediate term.

3.   "After 50 years of relative isolation and neglect, the higher education (HE) subsector in Myanmar is in need of substantial renovation and re-investment. Not merely in buildings and equipment, much needed though that is, but also in capacity-building of teaching and administrative staff; of teaching and research quality"[2.] Data from the surveys and site visits carried out in Phase 2 tend to corroborate the Phase 1 comparisons with ASEAN neighbours on investment in education, research output, knowledge economy indices, and enrolment ratios, etc. and underscore the need for a major re-commitment to higher education. Myanmar's increasing interactions with the regional and global economies, its moves towards greater industrial output and its potential as a major tourism destination mean that reform of the HE sector becomes ever more acute. The need for analysts and managers and other highly-skilled professionals and personnel throughout the public and private sectors is increasing. Myanmar has a stated goal of approaching 'ASEAN standards' as a proximate goal for higher education and the recommendations below are made with these goals and needs as the key influencing factors.

4.   Under the CESR process, views of major stakeholders are being elicited through discussions, surveys and site visits to HEIs around the country. Data and opinions have so far been received from Rectors, Principals and Heads of Department, and are incorporated herein. The views of other stakeholders such as students, parents, potential employers etc., are still being sought, and will inform Phase 3 of the CESR process. Some degree of community consultation and stakeholder analysis is also carried out by the EPIC team as a precursor to the development of the policy statements which are expanded below (paras. 78 – 81).

5.   A recommendation from CESR Phase 1 was to prepare a matrix of inputs into higher education. Such a matrix should be prepared during Phase 3 and should consider types of interventions and levels of funding, both historically (e.g. ongoing or completed within the last 5 years) and planned. This would provide an overview of resource availability and would serve to identify areas where external support would be needed to meet the existing and future challenges of HE reform.

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[2] Summary, CESR Phase 1 Report

6.   This CESR Phase 2 Report has been developed from the foundational analysis undertaken through the Rapid Assessment together with the findings of surveys and site visits undertaken during Phase 2. The intention of this report is not to re-review the sub-sector analysis, but to examine more deeply those elements which are in need of reform, and to ensure that reform proposals and recommendations are evidence-based. Thus general parts of the sector-wide review are taken directly from the Phase 1 report and revised according to more up-to-date or accurate data

7.   This report identifies key elements of a policy framework and priorities for HE that need to be addressed in the forthcoming Education Sector Plan and is intended to be read as a supplementary technical annex to provide background and justification for the recommendations made in the Education Sector Report which is being developed in the Burman language and forms the main output of the CESR Phase 2 process.

8.   The higher education subsector in Myanmar is defined as including the 168 higher education institutions (HEIs) listed in ANNEX 1. There are, however, some issues with definition of an HEI. The institutions listed are far from homogeneous; while most have degree-conferring status, there are some that are quite restricted in terms of the number and size of degree-level programs conducted. In addition, many HEIs managed by the Ministry of Science and Technology (MoST) are also technical and vocational education and training (TVET) providers. The line of demarcation between higher education and TVET programs at these institutions is not always entirely clear. Similarly, Teacher Education Colleges confer certificates and diplomas, but do not award degrees.

2. Overview of the Higher Education Subsector

9.   **National Setting.** The Union of Myanmar, a British colony until 1948 and known as the Union of Burma until 1989, has a population of about 62 million. By 2020, its population will be 66 million, but the rate of population growth is slowing.[3] 26.6% of its population is under the age of 15 years[4], a feature with significant implications for future demand for educational provision.[5] Its urban population now comprises one-third (33.7%) of the total and is increasing. Its economy remains heavily reliant on agriculture, which generates 36% of the Gross Domestic Product (GDP) and accounts for 60-70% of all employment, but infrastructure investment and the export of natural resources are gaining in economic significance. There has been strong recent growth in the services sector, which now accounts for about 37.6% of GDP. Economic growth over recent years has been strong – in 2010 it was an impressive 10.4%.[6] GDP reached an estimated level of US$51.9 billion in 2012, and GDP per capita, while still low, has increased sharply – up from US$351 in 2008 to US$857 in 2012. Thailand, India and People's Republic of China (PRC) are the top three export markets, while Thailand, the PRC and Singapore are the top three sources of imports. Economic sanctions imposed by the West are now progressively being lifted. Given ongoing openness and continuing political stability, strong economic growth seems likely to continue, with demand increasing in service sector areas such as tourism, banking / finance, and education. Manufacturing will also be an important growth sector for

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[3] In 2011, growth rate was only 1.3%. ADB. 2012. Key Indicators for Asia and the Pacific 2012. Myanmar. See http://www.adb.org/sites/default/files/ki/2012/pdf/MYA.pdf

[4] UN data, Country Profile, Myanmar. http://data.un.org/CountryProfile.aspx?crName=MYANMAR

[5] Welch, A. (2011) Higher Education in South East Asia. Blurring Borders, Changing Balance. London, Routledge. p. 11.

[6] Footnote 1

the economy, but possibly not for the longer term, when the demands of a modernizing and expanding economy necessitate a vibrant and expanding services sector.[7]

10.   Myanmar's Human Development Index (HDI) remains low in comparison with those of its Southeast Asian neighbours. Income distribution remains unequal, with significant disparities evident between rural and urban incomes, and geographically. A Gender Inequality Index (GEI) of 100 is higher than neighbouring ASEAN member states. Rates of poverty declined from 32.1% in 2005 to 25.6% in 2010, but these figures do properly reflect the extent of the poverty gaps between rural and urban populations, ethnic groups, and combinations thereof. The UNDP's Human Development Report for 2011 showed over 23% of the population suffering multidimensional poverty, 13.4% of the population as being vulnerable to poverty, and 9.4% of the population as being vulnerable to extreme poverty.[8] HDI scores, though up from 0.30 in 1990 to 0.48 in 2011, remain the lowest for Southeast Asia. Myanmar's global HDI rank is currently 149, of a total country count of 187.[9] These circumstances impact directly on educational participation and progression.

11.   Transparency remains a major constraint on development and equity, with Myanmar listed among the countries with the lowest ratings on the Transparency International scale, with a rating of 180 among all listed countries, and an overall score of 1.5.[10] Myanmar's rating compares poorly with key SE Asian neighbours. President U Thein Sein has also acknowledged the problem openly, calling on state officials to end corrupt practices, including bribery.[11]

12.   A distinctive feature of Myanmar is its ethnic diversity. It is widely reported that there are as many as 135 distinct ethnic groups in Myanmar. Of these, the majority Burman (sometimes also 'Bamar') account for 68% of the population and they are found mainly in the seven lowland regions of Ayeyarwaddy, Bago, Magway, Mandalay, Sagaing, Tanintharyi and Yangon. Other significant ethnic nationalities include the Shan (9%), Karen (7%), Rakhine (4%), Chinese (3%), Indian (2%) and Mon (2%): they live mainly in the seven upland states of Chin, Kachin, Kayah, Kayin, Mon, Rakhine and Shan. Burman dominance has been an ongoing source of political tension in Myanmar, the consequences of which have been seen in intermittent periods of civil conflict. Current and potential initiatives to ease these ethnic tensions have an important effect on equity of access to higher education. Provision of free education for ethnic minorities (up to PhD level) has long been practiced with the aim of training a cadre of teachers and government officials and who can better identify with local populations and provide services in local languages. However, with the exception of teaching qualifications, such free higher education is open only to males. More recent decentralization initiatives are intended eventually to devolve elements of decision-making power to regions and states. If such initiatives in the education sector come to fruition, the enrolment and success rates may increase in general education and create pressure for more places in HEIs.

13.   **Higher Education Context.** During the 1950s and 1960s, Burma (now Myanmar) was reputed to have an advanced education system by the standards of the time. Its two universities, one in Rangoon (now Yangon) and the other in Mandalay, enjoyed reputations for being among the best in the East Asian region. Since then, Myanmar's education system has fallen into disrepair, largely but

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[7] For a more detailed account of the state of economic and social development of Myanmar, see ADB (2012) Myanmar 2012-14. Interim Country Partnership Strategy. See http://www.adb.org/sites/default/files/icps-mya- 2012-2014.pdf

[8] UNDP (2012) Human Development Index 2011.

[9] ADB (2012) The Greater Mekong Region at 20. Progress and Prospects. Manila. p. 2.

[10] Source: Corruption Perceptions Index, 2011. http://www.transparency.org/cpi2011/results/

[11] Myanmar President Office (2012) 'President U Thein Sein delivers an Address at the Meeting on Reform to Improve Management and Administrative Capacity of the Government'. See http://www.president- office.gov.mm/en/briefing-room/speeches-and-remarks/2012/12/26/id-1320_11

not entirely because of an ongoing lack of public funds. Its higher education system has suffered the effects of low levels of budget resources over a prolonged period of time. In addition, there has been strong State intervention in the higher education system due to universities and technical institutes, particularly in the larger cities, being perceived as sources of political opposition.[12] Only during the past few years has public funding of the education system shown any sign of significant improvement. In 2012-13, the proportion of the Union budget allocated to education is planned to rise to 10.1% (up from 6.1% in FY2010/11 and 6.9% in FY2011/12), equating to around 1.6% of GDP (up from 0.7% in FY2010/11 and 2011/12). For comparison, the total percentage of education/GDP (including household spending) is anticipated to be 2.6% in FY2012/13. For FY2013/14, the education proportion of the Union budget is estimated to grow to 14.1% or 2.1% of GDP.[13] During this same period household spending on education has more than halved: in FY2009/10, 67.2% of education spending was by households, compared with an estimated proportion of 31.3% in FY2013/14.

14.   For higher education, the total budget for 2013/14 is 366 billion kyats (c. US$373 million): for HEIs which fall directly under MoE, the percentage increase in funding is a huge 458% (from 38 billion kyats in 2011/12 to 173 billion in 2013/14). The growth in capital expenditure for the same period is a massive 1,440%, reflecting government inputs into building new universities and renovating/extending the capacity of old ones. However, even with this growth, funding levels fall well short of regional benchmarks – in Viet Nam, for example, the proportion of the State budget allocated to education in 2008 was 5.3%, and in Malaysia in 2009, it was 6.3%. Moreover, it should be noted that the planned increase for FY 2014/15 is relatively small (XX billion kyats, a ZZ% increase). Since FY2010/11, Union capital expenditure on education has been increasing relative to recurrent expenditure: 93.6% recurrent against 6.4% capital expenditure in FY 2010/11 to a ratio of 67.4% : 32.6% in FY2013/14.

15.   Student dropout is a major issue for the education system. Only 40% of young people remain in school to complete Year 9,[14] and only 77% of children progress from the primary to the secondary stages of schooling – compared with 92% for Indonesia and 99% for the Philippines.[15] The gross enrolment ratio for secondary education is about 56%, which compares poorly with Indonesia and Viet Nam, both at 77%.[16] As discussed further below, only about 11% of young people succeed in reaching higher education. It is considered that cost is serious barrier to access at all levels of education; the IHLCS data indicate that almost 30% of households state unaffordable cost as a main reason for children never attending school, and a further 25% indicate economic factors having a similar effect (related to opportunity costs of education).

16.   The quality of teaching and learning is a major issue. In general, it is quite poor, with rote learning being common at nearly all levels. The majority of learning spaces at HEIs appear to have a fixed teachers' dais at the front of the classroom, thus maintaining the teacher/lecturer as the focus of attention and discouraging discussion and group work. Resources for learning are also completely inadequate – books, journals, computers and IT access are either severely constricted or not available at all, particularly in rural areas. For example, the availability of computers at one visited University of Computer Science was five students per computer terminal. The textbooks available are mostly out-dated. Teacher-student ratios are high by international standards.[17] Salaries for teachers in schools

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[12] Science (2012) Raising Up a Fallen Ivory Tower. 30 November. See www.sciencemag.org
[13] Data from early draft of Public Expenditure Review Report. Although the data is not yet published and citable, it agrees closely with previously obtained workshop data and also with ADB (2012) Initial Assessment of Post Primary Education in Myanmar. Manila
[14] UNESCO Institute for Statistics (UIS), Fig 18, p. 39.
[15] Ibid., Table 3, p. 100.
[16] Ibid., Table 6, p. 115.
[17] Ibid., Table 7, p. 119.

and for lecturers in universities and colleges, the large majority of whom are female[18], are unattractive (See Table and discussion below).

17. An understanding of the history of Myanmar's higher education system is important as a basis for appreciating the present situation. In 1878, Rangoon College was established as an affiliated college of the University of Calcutta. In 1904, it became Government College, and in 1920, it became University College. In 1920, it and a Baptist-affiliated college, Judson College, were amalgamated to form Rangoon University. Mandalay College was added in 1925; a Teachers Training College and a Medical College were added in 1930; and an Agriculture College in Mandalay was added in 1938. In 1949, the year after national independence, the Government re-established Rangoon University by turning its relatively autonomous colleges into faculties of the University. In 1959, the University of Mandalay was established as a separate university, with its own system of affiliated colleges. A significant turning point occurred in 1963 when, following a military coup the previous year and the adoption of General Ne Win's Burmese Way to Socialism, Rangoon and Mandalay Universities were placed directly under State control. In 1964, they had their professional faculties in education, economics, medicine, etc., removed and given independent degree-conferring status as profession-specific technical institutes. Rangoon and Mandalay Universities were left to deliver programs in the liberal arts, science and law. A University Education Law of 1973 further codified the situation: universities were defined as comprising either arts and science universities (Rangoon University and Mandalay University) or technical institutes developed from the former profession-specific faculties of Rangoon and Mandalay Universities. Universities and technical institutes were given permission to confer degrees, and were placed under management by the MoE, but with the State reserving the right to permit other ministries to establish universities.

18. Other significant developments since then include the following. In 1976, the MoE initiated a university correspondence program as a financially self-reliant initiative – this program subsequently provided the basis for the National Centre for Human Resource Development (NCHRD), established in 1998. In 1982, English was re-introduced as the medium of instruction in universities – having been replaced in 1962 by Burman. In 1981, Rangoon University became Yangon University, following a change in the official name of the city of Rangoon. During the late 1980s and the 1990s, universities were closed for extended periods following student protests against the military leadership of the country – in Yangon for example, universities were closed for 10 of the 12 years from 1988 to 2000. During the late 1990s, against a backdrop of official concern about student protests, the Government approved the establishment of a large number of new HEIs belonging to a wide range of ministries. These new institutions were often located well away from large urban centres, thus making it less likely that students might engage in significant political protest. The Government also removed the right of Yangon and Mandalay Universities to offer undergraduate programs. This decision was reversed in 2012, and both Yangon and Mandalay Universities began honours undergraduate courses for about 180 students each in AY 2012/13. For AY 2013/14, 1,000 undergraduates have been enrolled at Yangon University for ordinary degrees.

19. Notwithstanding widespread popular enthusiasm for rebuilding the higher education system, many challenges remain. As with the education system in general, resources for teaching and learning, including books, libraries and specialized teaching spaces such as laboratories are limited and are often either outdated or obsolete, though new common laboratory blocks have recently been constructed at some HEIs, and these have been equipped with research-quality equipment. It has been difficult to maintain newer infrastructure and equipment, such as spectrometers and electron

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[18] A distinctive feature of the system is its high reliance on females as teachers – for example, over 80% of upper secondary teachers are female, which is quite likely the highest such proportion in the world.

microscopes.[19] The World Bank's most recent Knowledge Economy Index (KEI) ranked Myanmar almost last of 145 countries surveyed.[20]

20.   Graduate unemployment, under-employment and migration, often associated with a mismatch between degree programs and the demands of a modernizing labour market, are further signs of a poorly aligned higher education system.[21] Research is an optional extra, rather than an expectation.[22] A further constraint is the legacy of a command and control system of centralized administration at the ministry and institutional level. The legacy has contributed to a culture of obeisance to higher authority. According to the British Council: "The Burmese tertiary education system is underdeveloped and inefficient. Legislation regarding quality and standards, as well as investment in education is lacking. After graduation, many students have problems finding jobs in part due to the lack of qualification, even within Burma."[23]

21.   Current plans include the redevelopment of a small number of higher education institutions into centres of excellence, and there is talk that an as-yet-unnamed United States philanthropist may support the redevelopment of Yangon University. A high-level committee has been established with a view to the revitalization of YU. In addition to the re-admission of undergraduates to YU, Yangon Technological University and Mandalay Technological University have re-admitted undergraduates.

22.   **Structure, Governance and Management**. The structure of the higher education subsector remains largely as prescribed by the University Education Law of 1973, but the number of HEIs has increased markedly since 1973 and the nature of the institutions now comprising the subsector has become more complex. Whereas in 1974, the MoE was solely responsible for all universities and institutes, by 2012 there were 13 ministry-level bodies with management responsibilities. The MoE remains the dominant ministry – its 66 HEIs account for 77% of all higher education enrolments, though it commands only 47% of the combined recurrent and capital budget for HE[24]. The MoST manages 61 universities, technological institutes and computer universities, accounting for 18% of all higher education enrolments, and two other important ministries, the Ministry of Health (MoH) and the Ministry of Defence (MoD), manage 15 and 5 HEIs, respectively. Nearly all HEIs, other than the liberal arts and science universities and colleges, are highly specialised, whether in economics, teacher education, foreign languages, engineering, computer studies, maritime studies, defence, agriculture, forestry, medicine, nursing, veterinary science, fine arts, or some other field.

23.   The University Education Law of 1973, which provides the legislative foundation for the higher education system, established a centralised framework of governance within which a range of matters traditionally decided by universities themselves became matters for decision by either a Universities Central Council (UCC) or a Council of University Academic Boards (CUAB). Responsibilities assigned to the UCC were: (a) to provide the guiding principles for higher education; (b) to make recommendations to the Government for the establishment of new universities, colleges and institutes; (c) to determine degrees, diplomas and certificates that universities may confer; (d) to set enrolment quotas commensurate with staffing provisions; (e) to identify and prescribe research projects that are beneficial to the country; (f) to prescribe academic staff qualification requirements; and (g) to

[19] Science (2012) p. 1141.

[20] World Bank (2012) Knowledge Economy Index (KEI) 2012 Rankings. See http://siteresources.worldbank.org/INTUNIKAM/Resources/2012.pdf The KEI is a composite index, based on the following pillars of the knowledge economy: economic incentive and institutional regime (EIR); innovation and technological adaptation; education and training; information and communications technologies (ICT) infrastructure.

[21] University World News (2012) Degrees 'not worth the paper they're written on'. 19 August 2012.

[22] Examples were given of a medical HEI in which there was no funding available for research: "Any research projects must be financed by students themselves, from their own salaries."

[23] British Council (2012) Education Overview. Burma. London.

[24] Data provided from Australian Aid PER workshops, August 2013

supervise institutional management bodies. The Minister for Education was given responsibility for chairing this Council, which was to be comprised of deputy ministers from a wide range of ministries, directors-general of various government departments, rectors of universities, principals of colleges and institutes, and various other appointees representing political and community interests. In 2012, the Council had a membership of 42 persons.

24.   The Law determined that a subsidiary body, the CUAB, also chaired by the Minister for Education, and with much the same membership as the UCC, should assume responsibility for university standards, the qualifications framework and the student selection system. The CUAB was also expected to: (a) review and supervise systems of instruction in universities; (b) prescribe rules and regulations for the conduct of university examinations; (c) determine the academic qualifications required by members of academic staff for different levels of appointment; (d) coordinate research activities and functions across the university system; and (e) examine and make recommendations on university advancement projects submitted by individual universities. In 2012, this Council had a membership of 55 persons.

25.   The two Councils met on successive days in March 2012. It is not evident that they have a regular schedule of meetings. Reports suggest that the previous occasion on which they met was in 2007.

26.   In April 2011, a National Education Committee (NEC) (formerly the Myanmar Education Committee, established in 1991) was formed, with responsibility for national coordination of the education system, including the higher education subsector. The Minister for Education chairs the NEC, the membership of which includes the deputy ministers of each of the ministries and agencies responsible for administering education institutions. Its main functions are to: (a) advise on the development of legislation; (b) coordinate the adoption of national policies; (c) provide guidance on the implementation of training programs, and coordinate the review and amendment of training programs; (d) guide cooperation with international development agencies and educational organizations in implementing training programs; (e) coordinate the implementation of Myanmar's 30-year Long-term Education Development Plan; and (f) develop policies for the purposes of raising the quality of training programs to international standards. The Committee held its first meeting in March 2012.

27.   The University Education Law of 1973 prescribed that universities and institutes should have their own management and academic committee. The management committee was to be chaired by the rector and was required to include two members nominated by the relevant line-management ministry, two members of the UCC, three faculty members and the institution's registrar. Its duties were to: (a) transact financial business; (b) prescribe and enforce student discipline requirements; (c) perform business related to the campus; (d) supervise the sporting, physical education and cultural activities of the students; (e) manage facilities for the health of university students and employees; (f) manage business connected with hostels; and (g) select students, other than those in their first year of studies, for stipends or free tuition. The academic committee, also chaired by the rector, was to include the deans of faculties, the professors, the heads of departments, external experts in particular subject areas, the principals of any affiliated institutes or colleges, and the university registrar (as secretary). Its duties were to: (a) recommend on teaching subjects for the university; (b) review the syllabus for training programs and recommend them for approval by the CUAB; (c) hold examinations and announce results; (d) award degrees, diplomas, certificates and prizes; (e) examine and prescribe university textbooks; and (f) make recommendations, in consultation with the teaching staff, for the introduction of postgraduate courses.

28.   The University Education Law of 1973 explicitly deprived HEIs of financial autonomy. As with other State instrumentalities, they were required to have their budget estimates approved by the State, to deposit all receipts of funds in prescribed State accounts, and to ensure that all expenditures were consistent with State-approved norms.

29.   Within the different ministries responsible for HEIs, different types of administrative structures have evolved. In the MoE, for instance, there are two Departments of Higher Education, one for Upper Myanmar and one for Lower Myanmar, each having separate responsibility for administering and coordinating the work of a total of 46 of the 66 HEIs managed by the MoE. These institutions include 38 arts and science universities, colleges and degree colleges, together with various institutes of education, economics, languages and journalism. Another department within the MoE, the Department of Educational Planning and Training (DEPT), has responsibility for administering 19 Education Colleges and 2 Institutes of Education.

30.   **Academic Staff and Students**. In 2012, there were 10,960 members of academic staff.[25] Of these, 783 (7%) were professors and another 767 (7%) were associate professors. All personnel employed by HEIs are civil servants and, as such, are subject to State regulations regarding their appointment, promotion, termination of service, remuneration, disciplinary action, leave and privileges, and so on. Responsibility for appointing rectors rests with the Government. Rectors usually have responsibility for the appointment of academic and administrative staff members. Members of academic staff are, in principle, subject to transfer from institution to institution every two years for the purposes of rotating them between HEIs across the country. However, this rotation is not automatic and one lecturer informed the team that he had been in the same institution for 22 years. It is important to note that the implications of such a rotation policy are significant, and, from an academic point of view, entirely negative. Such a policy can hinder the development of a solid academic foundation, prevent the formation of research networks and disrupt faculty-based teamwork. For a policy of academic autonomy to be successful, 'hiring and firing' should be in the hands of the individual institutions.

31.   In the Myanmar government personnel system, initial academic appointment levels are based on the qualification of the candidate. Following this, a mainly geriocratic system prevails, whereby duration of appointment (seniority) is the main criterion for securing promotions. In 2012, a remarkably large proportion (82.6%) of all members of academic staff was female. The gender information of heads od department responding to the survey was not collected directly, but, of the 572 heads of department who declared their gender, 446 (78%) were female, indicating that gender does not play a major role in promotion, at least to the level of head of department. No figures were collected for Rectors and Principals.

32.   Students who matriculate from secondary school may apply for admission to enter a HEI. Students coming directly from school (first-time passers) are considered for regular programs, while those who completed the matriculation process in previous years are considered only for distance education programs. This distinction is important in terms of its implications. Only about one-third of all students sitting the matriculation examination (known also as the basic education high school examination) achieve a pass grade, and those repeating the examination are excluded from admission to regular programs at HEIs. Marks obtained in the matriculation examination determine admission to higher education, and applicants with the best marks are the most able to access more highly preferred higher education courses. A form of positive discrimination is practised for male students completing the matriculation examination – their pass level is set slightly below the pass level expected for girls, thereby providing boys with better opportunity to obtain a pass grade. Nonetheless, girls still generally out-perform boys, and are more likely to proceed to higher education studies: the average enrolment in HEIs in AY 2012/13 was 60.2% female to 39.9% male for undergraduates and

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[25] Caution must routinely be exercised when reporting and interpreting numerical data about staff and student numbers in Myanmar. There are numerous instances of contradictory sets of figures. Some collections refer to the MoE only, while others refer to the whole of the higher education subsector.

70.4% female to 29.6% male for graduate programmes.[26]. For some higher education programs, additional gender-based ratios may apply to admissions, and for training programs managed by the MoD there are additional selection tests.

33.   The matriculation examination allows for students to complete one of seven combinations of six subjects each. The subjects include Myanmar Language, English and Mathematics, which are compulsory across all seven combinations, and Physics, Chemistry, History, Economics, Zoology, Geography and Optional Myanmar Language. The most popular options are those involving Mathematics, Physics and Chemistry. Access to many preferred profession-specific higher education courses requires this combination of subjects to have been successfully completed in the matriculation examination.

34.   In AY 2012/13, 475,879 higher education students were enrolled in MoE-administered HEIs in Myanmar.[27] Most (291,355, 61.2%) were enrolled as distance education students, taking arts and science. The reasons for the size of the enrolment numbers, which have increased dramatically during recent years, in these DE programmes include affordability, convenience and failure to have been admitted to regular programs through low or fail scores at the matriculation exam. Graduates from these programs have more limited employment opportunities, however. They may not, for example, be able to access sought-after positions as State employees. Table 1 shows the enrolments for Yangon University of Distance Education (YUDE) in AY 2013/14.

Table 1: Total enrolments at YUDE in AY 2012/13

Subject	Total enrolments AY2012/13 (age range 22-67 years)	Year 1	Year 2	Year 3	Year 4
All subjects	157,475	59,242	48,907	46,449	2,877
Business Management	1,151	579	310	262	0
Public Policy	4	4	0	0	0
Certificate & Diploma courses	2,043	n/a	n/a	n/a	n/a
On-line Law Diploma	162	162	0	0	0

Source: YUDE presentation during site visit October 2013

35.   The absolute numbers of enrolments at non-MoE HEIs is not known for certain: the Phase 1 report estimated about 23% of total HE enrolments as being non-MoE, which would translate to a total of 142,000 students. Data for 2011/12 shows 102,000 students enrolled at non-MoE HEIs, excluding Ministry of Defence and Ministry of Religious Affairs, for which data was unavailable. In addition, approximately 11,000 students are enrolled in Teacher Education Colleges under MoE-DTEP and are therefore not included in the data for MoE-DHEL and DHEU. However, it seems unlikely that 29,000 students could be enrolled at the 5 MoD and 1 MoRA HEIs, so the estimates of 23% of total students under non-MoE ministries are probably high. See ANNEX 5.

36.   Of 186,668 students enrolled in MoE-administered regular programmes, in 2011/12, 174,771 were undergraduates (93.6%). The average enrolment of regular students across all MoE HEIs was

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[26] The average enrolment in HEIs in AY 2012/13 was 60.2% female to 39.9% male for undergraduates and 70.4% Data received from the survey of HEI Heads of Departments carried out in November 2013 (940 department responses for undergrad. and 652 responses for graduate programmes)
[27] This figure does not include enrolments from 4 of the MOE HEIs for which data was unavailable.

only 1,145 students, but there are marked variations in enrolment numbers between HEIs, with some HEIs having very few higher education students enrolled in regular programmes. In 2011/12, the lecturer-to-student ratio was estimated to be 1:43 in MoE institutions, 1:74 in MoST institutions, and 1:31 across the higher education system as a whole. HEIs in more remote parts of the country generally have better lecturer-to-student ratios – these institutions are also often under management by ministries other than the MoE or the MoST.

37.   In 2012, eight universities were permitted to award doctorates (Yangon University, Mandalay University, Yangon Institute of Economics, Yangon Institute of Education, Mawlamyine University, Monywar Institute of Economics, Meikhtila Institute of Economics, and Yangon University of Foreign Languages). About 2,000 candidates were enrolled in PhD programs across these eight institutions – but this figure may not be entirely reliable: possibly as many as 50% of these candidates were enrolled at the University of Yangon.

38.   A striking feature of the higher education subsector in Myanmar is the extent of the gender imbalance – in AY2012/13, 60.2% of all HE undergraduate students, 70.4% of all graduate students and 82.6% of all academic staff members were female. However, it is interesting to note that at age 20-21 years, the percentages of females and males enrolled in higher education are nearly identical (7.9%), while the gender gap actually reverses at higher ages: 22-23 year-old males are approximately 1.0 percentage points more likely to be enrolled in higher education (6.0% male versus 5.0% female). This may be a reflection that, at this age, girls, who tend to perform better on the matriculation exam and who tend to be more "on track" (i.e. at the expected age for the enrolment year) may be graduating in higher numbers.[28]

39.   The reasons for this situation have not been systematically investigated, and there may also be other social factors at play here (e.g. marriage). Contributing factors are that boys are more able to find employment at an earlier age than girls, and that girls are more likely to pursue a career as a teacher, and hence must continue their studies at a HEI. Cultural traditions may play a role. There are some indications that the gender gap would probably be greater if it were not for the fact that cut-off points in the matriculation exam (the sole arbiter of acceptance to a HEI) are set lower for boys, and some HEIs are attended exclusively, or mainly, by males – only males can attend Ministry of Defence universities and colleges and Ministry of Border Affairs Degree Colleges, and boys are much more likely to undertake studies in universities and colleges specialising in the delivery of programmes in forestry and engineering.

Table 2: Percentage of different age groups "on-track" in HE/TVET enrolments

Age group	All	Urban	Rural	Poor
*Age 15 HE/TVET**	*0.8%*	*0.8%*	*0.8%*	*<0.8%*
Age 16 HE/TVET	6.2%	15.2%	3.3%	1.3%
Age 17 HE/TVET**	12%	21%	8%	3%
Age 18 HE& TVET	15.4%	35.1%	9.9%	3.8%

Source: DRAFT Phase 2 SES Supplementary Appendix on IHLCS analysis (2013)
At age 15, these HE/TVET students are actually ahead of their age group.
*** Approximations*

40.   According to analyses of data from the Integrated Household Living Conditions Survey (IHLCS, 2009-10) in Myanmar, the net enrolment rate of young people aged 18 in higher education was 13.5% (with a further 1.9% enrolled in both HE and TVET), but with some marked disparities

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[28] Data from Draft Phase 2 SES Supplementary Appendix on IHLCS analysis (2013)

between different groups of young people (see Table 2). Among urban households, 35.1% of 18-year-olds were enrolled in HE or HE/TVET, compared with 9.9% for rural households, and 3.8% for poor rural households. Table 2 shows the percentage of an age group which is on-track in terms of progress through the education system (i.e. enrolled in Grade 1 at 5 years of age, no repetition of grades, first time pass on the matriculation exam). Thus 0.8% of 15-year-olds show as being ahead of the system because they are enrolled in HE/TVET (though this may be due more to statistical noise and timing of the IHLCS, which measured age in November/December of the survey year). The data for 16-year-olds, who would be expected to be in the first year of HE/TVET studies if they were on-track show similar disparities between different groups. Clearly, the reform process will require a great deal of effort into achieving equity of access between the genders and between urban/rural and other socio-economic divides.

41.   Similar disparities appear in the results of the matriculation exam which all pupils take at the end of the 11th grade. In gender terms, girls in AY2011/12 accounted for 55.3% of exam takers, and 58.5% of exam passers. Despite the lowered thresholds for boys' enrolments into HE, the results of the exam translate directly into higher enrolments for girls as a result of the existing selection process, in which the subject taken at HE level depends entirely on the matriculation exam score, and is further mediated by the geographical location of the applicant's home. Issues such as aptitude or motivation for a particular field are not taken into account – the highest scorers go to study at the profession-based HEIs (e.g. medicine), lower scores generally lead to arts and science HEIs, and the lowest scorers do not enter full-time HE studies. The large number of students attending the Distance Education Universities is mainly made up of those who did not pass the matriculation exam at the first sitting.

42.   **Finance.** Indications from the analyses of the IHCLS are a household expenditure level of 138,000 Kyats per HE student[29]. This is somewhat lower than the expenditure for high school pupils (at 167,000 kyats), but is still the second highest level for education sub-sectors. As mentioned above (see paras. 13 & 14), high direct and indirect costs are certainly a constraint on access to higher education. More data on this is expected from the HE Student Survey, which is under preparation and which will feed into the third phase of the CESR.

43.   The level of resourcing at non-MoE HEIs is high compared to MoE HEIs, and varies considerably. According to estimates provided by participants in a Public Expenditure Review workshop, total funding for the non-MoE HEIs amounted to 53% of the total HE budget for 2013/14, whereas the total non-MoE enrolments account for only about 20-25% of students. Some of the broad differences can be explained by the fact that non-MoE HEI costs often include boarding costs as well as stipends for students. For example, HEIs under Ministry of Border Affairs subsidize all study costs and pay stipends to cover 'everything from clothing to textbooks'. Ministry of Defence students receive a salary as members of the armed forces while studying, but these costs are not reflected here. Ministries with only a single HEI tend to provide higher levels of funding, though this is not always the case. Internationally, funding is often linked to total student population as well as student:lecturer ratio to determine per capita funding levels. However, in Myanmar, while national development priorities seem to be taken into account in deciding funding levels, the processes are not clear.

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[29] SES Draft Phase 2 Technical Annex

Table 3: Comparison of averaged per capita recurrent expenditure at HEIs, by line ministry (using AY2011/12 enrolment data and FY2013/14 budget estimates, all in US$).

All figures in US$	Average per capita recurrent expenditure[30]	Highest per capita recurrent expenditure	Lowest per capita recurrent expenditure
non-MoE HEIs	464	8 245*	300
MoST HEIs	235	n/a	n/a
MoE-DHEL	278	984	108
MoE-DHEU	187	1 062	50
Yangon UDE	7	-	-
Mandalay UDE	4	-	-
All HEIs (non-UDE)	313	-	-
All HEIs including UDE	160		

Source: Data from participants in a Public Expenditure Review Workshop held in Nay Pyi Taw in August 2013. Calculations by author.

* Note 1. This figure (for an HEI with only 109 students) seems very high: it has not been verified. The next highest ($4,111 for an HEI with 537 students) has been verified as correct.

44.   In terms of capital budget for FY2013/14, the 93 non-MoE HEIs (for which we have budget data) will receive approximately US$143 million against US$121 million for the 48 HEIs under DHEL and DHEU with wide variation between individual institutions. Further analysis of budgeting and financing practices and decision-making processes would be a priority.

45.   The public budget for higher education is predominantly (78.3% in 2011/12) allocated to recurrent expenditure, on salaries, though there are indications that, at least in MoST, more funds are being made available to non-salary recurrent expenditures: in FY2012/13 MoST paid 8.24 billion kyats in HEI salaries, against a budget for FY2013/14 of 14.1 billion kyats. This would give a salary:non-salary ratio of about 60:40. Even so, salaries for university and college lecturers are widely considered to be inadequate in that they are not sufficient to enable one parent to support a family – hence, together with cultural factors, the reluctance of many males to seek to become lecturers. There are also few financial incentives to support quality teaching in universities, and funds for the maintenance and improvement of buildings are extremely limited. Student tuition fee levels are quite low, compared with the needs of the system. In 2009-10, the unit cost for 'regular' university students was estimated to be 112,636 kyats (US$131.97) per annum[31], and in the FY2013/14 budget this sum will be in the order of 280,000 to 300,000 kyats (about US$ 300; see Table 3 above). By standards across the Southeast Asian region, these levels are still very low. In contrast to the estimated costs per student, average undergraduate fee levels for 56 institutions which gave clear information were 14,676 kyats per student per year (varying from 1,000 kyats per year to 337,000 kyats per year: 20/90 respondents said they do not collect fees at all). Use of the funds varies according to the line ministry regulations – some require all fees to be remitted to the Treasury, some require 90% to be remitted. In any case, because the fees are effectively collected on behalf of the central government, the level of fees does not, in most cases, affect the level of funding of the institution. Funds for research are effectively absent (see below, para. 47).

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[30] The per capita figures are based on enrolment figures for AY2011/12 matched with budget figures for FY2013/14, so should not be taken as absolutes. However, with the exception, perhaps, of Yangon and Mandalay Universities, total enrolments are not expected to change much between 2011 and 2013. The figures are intended as comparative data to show the wide differences in funding levels.

[31] JICA (2012) Data Collection Survey on Education Sector in Myanmar. Draft Interim Report, Footnote 30, Table 2.5.

46. The MoE and certain other ministries (but not the MoST) permit HEIs to generate additional fee income through the provision of HRD programs. These programs are delivered through the NCHRD and the institutions concerned may keep the income they earn to supplement staff salaries. Approximately 195 training programs (mainly certificate-level, but also programs up master-degree level) were delivered through HRD Centres in 2012, compared with a total of 215 regular academic programs offered at first-degree, Honours, diploma, master's degree and doctoral levels through universities and colleges. HRD programs do not (except at master's level) require any admission examinations. It should be noted that degrees awarded under the HRD system are generally not recognised by government recruiters as being equivalent to degrees awarded for traditional, full-time study. It is not known whether the private sector recruiters share this opinion. No data has been collated as to how much income is generated by the HRD system, or how, or for what purposes it is disbursed.

47. **Research.** After decades of neglect, a culture of research needs to be rebuilt. An increasing role of higher education in urban Asia will be to drive innovation and technological development[32] (ADB 2011): "As the number of Asian colleges and universities expands, so will their role in producing new knowledge for scientific and technological innovation." Scientific and technological innovation can play a leading role in addressing major challenges in developing countries, and the BRIIC[33] nations are all investing in HE and in research and environmental technologies. The benefits of encouraging research are manifold: for example, HE students benefit from the transmission of research from their teachers; faculty members stay up-to-date with their fields; researchers have more opportunities to network internationally and collaborate with other top researchers domestically and around the world. In many HE systems, the amount and quality of research (often measured in terms of publications), is a common measure in decisions on tenure and promotion of academic staff. Top researchers become associated with leading universities, because that is where the most research funding (from both government and private sources) is often available. However, not all universities can maintain a high research profile. In Myanmar, the benefits of research are only weakly exploited at only a handful of universities.

48. Results from the HE surveys also paint a rather dismal picture of the role of research: less than 50% of academic staff at more than 90% of HEIs are involved in research that results in the publication of papers or reports, and no staff are involved in research at 5.75% of respondent HEIs. On the other hand, over 70% of respondent rectors/principals would like to see more of their staff involved in research. The reasons for this disconnect are not so clear, but research capacity is seen as one of the three main institutional strengths at only 8% of respondent HEIs, and is considered one of the three main institutional weaknesses at 11%. In addition, it seems that research is seen as relatively low priority. Less than 5% of respondents view improved research capacity as one of the three most important issues which need to be addressed before the institution could operate autonomously. Similarly, only 7% see private sector involvement as a main necessity for autonomous operation. This implies either that heads of HEIs do not understand the role that research and collaboration should play in higher education, or, perhaps more likely, other weaknesses of HEIs are seen as being more critical (teacher and staff development 52%, financial support 46%, better recruitment and retention of staff 36%, less external control 32%, improved facilities and infrastructure 28%).

49. The following table charts innovation indices in SE Asia, showing the output and growth of both papers and citations in Myanmar since 2000, relative to the performance of neighbouring ASEAN member states. The data can be seen as reflecting the effects of prolonged isolation, in that the quantitative total of papers and citations is very low in relation to neighbouring ASEAN countries. At

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[32] ADB (Asian Development Bank). (2011a). Asia 2050: Realizing the Asian Century. Manila: ADB.

[33] BRIIC = **B**razil, **R**ussia, **I**ndia, **I**ndonesia, and People's Republic of **C**hina.

the same time, however, there are more hopeful signs, notably that the proportional increase of papers and citations (2000 to 2010 and 2000 to 2005, respectively) is substantial. Equally, the data regarding the quality of research, as reflected in the final two columns of Table 4, is broadly comparable with neighbouring ASEAN countries. Lastly, of the few proposals submitted, success at EU SEA grant applications is substantially higher than the average.[34] Effectively, the data in Table 4 show that, though relatively little research is carried out, it is well received and deemed to be citable by the international academic community (however, this high frequency of citations may also be due to the present dearth of information on and from Myanmar). The problem is at least as much quantitative as qualitative.

Table 4: Papers and Citations, by Country, 2000-2011

Country	No. of Papers 2000-2011	% Increase 2000-2011	Nos. of Citations 2000-2011	% Increase 2000-2005	Citations per Paper, 2000-2011	Impact Relative to World
Myanmar	425	272.22	3,644	176.10	8.57	0.76
Indonesia	8,240	255.16	68,081	-12.37	8.26	0.73
Malaysia	31,814	878.20	139,890	16.60	4.40	0.39
Philippines	7,130	240.10	65,355	-5.55	9.17	0.81
Thailand	38,500	463.99	307,161	201.88	7.98	0.70
Viet Nam	5,207	421.43	31,959	137.03	6.14	0.65

(Thomson Reuters InCites), Welch 2013. Note: since they take time to accumulate, citations were measured for 2000-2005.

50.   Research and higher education are key indicators of a country's competitiveness[35]. Myanmar has been included for the first time in the 2013-14 Global Competitiveness Index (GCI), achieving an overall ranking of 139 out of 148 countries. Coming behind Timor Leste (at 138) and Pakistan (at 133), Myanmar ranks lowest of the ASEAN countries. It will be crucial to improve this ranking: the government's Framework for Economic and Social Reform closely mirrors the 12 pillars of the GCI, and so the GCI will be a useful tool to monitor progress. The pillars most closely related to research and HE, are the 'efficiency enhancers' of *Higher Education and Training* (Pillar 5, Myanmar rank 139/148) and *Technological Readiness* (Pillar 9, Myanmar rank 148/148), and the 'innovation and sophistication factor' of *Innovation* (Pillar 12, Myanmar rank 143/148). Under the criteria for *Higher Education and Training*, Myanmar ranks quite highly for *Gross Tertiary Education Enrolment* at 103/148, but only 140/148 for *Availability of Research and Training Services* and 146/148 for *Extent of Staff Training. Technological Readiness* is more a measure of access to technology such as number of mobile phone subscriptions, internet bandwidth and access, etc., but it also includes criteria on the absorption of latest technologies at the company level, which can be assumed to reflect at least partly the technical capacity of the human resources in the companies. Under *Innovation*, Myanmar ranks 129/148 for Availability of Scientists and Engineers, but achieves only 147th place for *University-Industry Collaboration in Research and Development*. These rankings reflect a dire need for Myanmar HEIs to be afforded greater opportunity to achieve their rightful position as drivers of research and innovation.

51.   Research projects are individually approved at an institutional level, and noted by the relevant ministry. Interviews suggested that research students are expected to pay for their research projects

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[34] European Commission. SEA EU. Country Profile. MM – Myanmar (Third Countries group). http://www.sea-eu.net/attach/MM_Country_Profiles_20120727.pdf
[35] The Global Competitiveness Report 20113-2014. World Economic Forum

'out of their own pocket'. To a very large extent, research projects have been confined to areas of science and technology, but this situation is changing as international collaboration allows for the opening up of research projects in non-science areas. A significant constraint on research in scientific and technological fields is limited infrastructure. Both the MoE and the EPIC processes have indicated a desire for long-term plans, particularly in terms of applied research, perhaps through establishment of HEIs specialising in research, and through support to collaborative research with international research centres and organisations. Centres of research excellence are being established within a small number of universities but recent reports suggest that these centres may be given an independent status as HEIs (or research institutes?), rather than being required to augment the research culture of the universities with which they are presently associated. These reports seem to conflict with proposals to consolidate universities within separate states and regions. For a consolidation process to be effective, it should be founded on the principle of using the strengths of institutions to be brought together for mutual benefit. If institutions are first 'hollowed out', the resulting consolidated institution may end up being weaker than the individual institutions were.

52.   In terms of research, most universities in Myanmar actually face the same kinds of problems as second-tier and third-tier universities in other countries: many of their academic staff have not earned research doctorates; research facilities are more modest by comparison, and the government invests much less (if anything at all) in their research budgets. However, experience in the region has shown that the communities served by these HEIs could greatly benefit from research that addresses local or specific problems in agriculture, urban development, energy use, transport infrastructure, product development, etc.[36]

2.   Scope of Work

53.   The focal area of this report is the entire higher education sub-sector. The sub-sector analysis in section 1 above draws heavily on the Phase 1 report, and has been updated and revised to reflect the latest data made available from various sources and collected through the site visits and surveys. In the time available, it has been possible to visit only a limited number of HEIs and no visits have been made to any line ministries. As part of the Phase 3 work, such visits will be essential in order to understand the budgeting and fiduciary processes at work in HE.

54.   Under the CESR process, views of major stakeholders are being elicited through surveys and site visits to HEIs around the country. Data and opinions have so far been received from Rectors, Principals and Heads of Department, and are incorporated herein. The views of other stakeholders such as students, parents, potential employers etc., are still being sought, and will inform Phase 3 of the CESR process. Community consultation and stakeholder analysis is also being carried out by the Education Promotion Implementation Committee (EPIC) team, and this work has been a precursor to the development of the policy statements which are expanded below (paras. 99 – 115).

55.   Data from the surveys and site visits carried out in Phase 2 tend to corroborate the Phase 1 comparisons with ASEAN neighbours on investment in education, research output, knowledge economy indices, and enrolment ratios, etc. and underscore the need for a major re-commitment to higher education. Myanmar's increasing interactions with the regional and global economies, its moves towards greater industrial output and its potential as a major tourism destination mean that reform of the HE sector becomes ever more acute. The need for analysts and managers and other highly-skilled professionals and personnel throughout the public and private sectors is increasing. Myanmar has a stated goal of approaching 'ASEAN standards' as a proximate goal for higher education and the recommendations below are made with these goals and needs as the key influencing factors.

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[36] Asian Development Bank (ADB) (2012) Improving Transitions From School to University to Workplace. Manila: ADB

56.   This CESR Phase 2 Report (In-depth analysis of HE status, policies and reform agenda) has been developed from the foundational analysis undertaken through the Rapid Assessment together with the findings of surveys and site visits undertaken during Phase 2. It identifies key elements of a policy framework and priorities for HE that need to be addressed in the forthcoming Education Sector Plan, as well as some model systems that could be applied to the Myanmar context. The report will provide an analysis of the issues and provide alternative strategies to achieve the goals of a renewed HE sector. The term HE sector, rather than HE sub-sector, is used here to denote the entire range of educational and other issues that must be considered. Whereas other sections of this report consider separately various aspects of educational delivery (curriculum; textbooks; learner assessment processes; language of instruction; management; etc.) as related to general education, all relevant HE issues will be considered in this section.

3.   Planning framework

57.   The CESR process is guided by several documents, starting from the Union Constitution which determines education to be a national level policy target. The Guidance of the Head of State (the '10 Points Education Policy') from early 2011 refers to these documents:
- The Long-Term (30-year) National Action Plan on Education (2001-2031), which is divided into six 5-year medium term plans with goals that include the national response to the Millennium Development Goals (MDGs)
- 20-year National Education Development Long-Term Plan (FY 2011/12 to 2030/31)
- EFA National Action Plan (2003-2015) (EFA-NAP) and Myanmar EFA Goals
- The Framework of Rural Development and Poverty Alleviation Plan (2011-2015).

58.   The 30-Year Long-Term Education Development Plan that commenced in 2000/01 provides the main planning framework for the higher education subsector. The Plan entails implementation of 36 action programs, across six priority areas. The priority areas are: human resource development, the utilisation of technology, the expansion of research, the development of lifelong learning, the promotion of quality, and the preservation of national identity and national values. However, the more recent Framework for Economic and Social Reform published in December 2012 is not completely in harmony with the 30-year plan. A new Education Law and Higher Education Law are under preparation, and will almost certainly require harmonization of various policy documents in the near future. The latest information available on the new Education Law is that it will comprise a set of basic education policies as follows (policy specific to HE is in bold):

(A) To have an international standard education system that the nation can rely on for its long term development plan.
(B) To be an education system that values all ethnic groups' languages, traditions and customs.
(C) To create an inclusive education system that gives opportunities for people who do not otherwise have a chance to study, thus creating equal learning opportunities.
(D) To have an education system that allows children who are at the right age to attend schools, and to create a learning environment to develop their skills and leadership, to respect other's rights, values and the natural environment.
(E) To implement free compulsory basic education and to develop it further by stage to stage.
(F) To have a modernized education system that nurtures/ produce human resources who are able to think comprehensively, possess good ethics/morals and help in the nation building process at all education levels.

(G) **Universities should be autonomous and should be independent on their own. The university entrance examination system should be based upon a person's qualification and desire.**

(H) To give importance to freedom of belief (religion), human rights and a person's dignity. School Institutions should be free from any influence of religious groups and political parties.

(I) To support sports in order to nurture healthy and strong human resources.

(J) To encourage the private sector to collaborate closely with all levels of education.

(K) All citizens should work together for the development of the nation's education.

(L) The general public should participate together in activities for up-grading of education.

(M) To use communication and information technology effectively in teaching, learning, research and management activities.

(N) To implement a quality assurance programme to standardize all levels of education.

(O) Centralized administrative system will be reduced depending on staffs' performance in quality, morals/ethics and decision-making abilities.

59.   Although the provenance is not absolutely certain, it appears that the HE portion of the new Education Law (Chapter 6) will contain the following articles:

[that the purpose of Higher Education is]:

33. To nurture/produce internationally standard professionals, technicians, specialists for nation building in accordance with the human resources needs of the country.

34. To implement an international standard curriculum for regional states' and divisions' developmental needs.

35. Distance Education needs to be upgraded by using international standard technology. (assumed to mean the use of online education, ICT and blended learning methodologies)

36. Private Universities/Colleges are allowed to be established in accordance with the law.

37. Universities:

> - Research activities should be developed. When transferring research findings, it should be done accordingly so that it supports the expansion of knowledge that is generally available to the public.

> - There is freedom to cooperate with international and domestic universities, and organizations that carry out educational activities and research.

> - Universities should have a learning system that allows them to learn through an exchange or transfer system. (study credits system?).

> - Social organizations may be established so that there is room for extra-curricular activities.

> - To build good infrastructure and physical education environment in order to fulfill the standards of a University.

60.   In September 2012, a National Development Plan for higher education identified 13 specific priorities for the higher education subsector: (a) to reorganise and extend the number of faculties in MoE universities; (b) to develop a QA system; (c) to reform the current university admission system; (d) to develop TVET courses for delivery as human resource development (HRD) programs offered by universities; (e) to improve the quality of administrative officials, teachers and laboratory technicians; (f) to improve the quality of students; (g) to develop a law for private higher education; (h) to promote the quality of education up to an international level; (i) to create a vibrant academic community at

universities; (j) to expand networks between Myanmar and international universities; (k) to upgrade English language teaching; (l) to improve the instruction of international relations, law and economics; and (m) to encourage exceptional talent by providing scholarships across the arts and sciences. The vision underpinning these priorities was of a higher education system comparable with higher education systems in other Association of Southeast Asian Nation (ASEAN) countries.

61.   Planning for the higher education subsector is supported by a series of annual seminars for rectors and equivalent-level persons. Over the years, these seminars have addressed many topics, including the "relevancy and responsiveness of existing courses, redesigning of course structure, reform of the assessment system, introduction of faculty development programmes, harnessing of information and communication technologies (ICT) in higher education, enhancement of cooperation with foreign institutions, creation of an alternative delivery modality for higher education, and the introduction of new programmes to promote human resources development".[37] The seminars have focused particularly on implementing the 30-Year Long-term Education Development Plan in the context of the higher education subsector. In May 2012, for example, the annual seminar addressed action programs from the Plan relating to issues of student quality, teacher quality, applied research, international collaboration, scholarship programs and administrative systems. The annual seminar in May 2012 also addressed the development of a feasible QA system to enable HEIs to meet international standards.

62.   As the foundation for planning the reform of the HE system, all of Myanmar's HEIs and line ministries must look beyond their own walls and programmes to understand the broader roles they must play in helping Myanmar to achieve its place in the global, knowledge-based society. The relevant authorities must find ways in which to encourage and support the HEIs to meet the challenges and to raise the overall quality of higher education in the country.

63.   Without a doubt, the higher education (HE) sector will be linked with the degree to which Myanmar develops over the coming decades. A weak HE sector will be a hindrance to development, but a strong HE sector can help to provide the momentum for economic growth and social development (Varghese, 2009). In Europe, the role of HE has gradually changed from being a reactive source of qualified personnel for the labour market to a major driving force for today's knowledge-based societies. The strength of the sector in Myanmar will depend on both the individual institutions and the way in which they are funded and administered at a central level. Strengthening the existing HE sector will require broad reforms: changes in the relations between HEIs and their line ministries as well as changes in the relations between the individual HEIs and changes in the way the HEIs relate to the commercial sector; changes in the way that universities and their students are financed; new ways of working with partners; improvements in quality assurance; more rigorous processes of strategic planning and budgeting; greater efficiencies in use of resources.

64.   Already, proposals for consolidation of HEIs under a number of national and state institutions have been presented to the Union Hluttaw. However, the basis for such recommendations is not completely clear, and will present the reform process with major issues that will need to be reconciled. The issue of consolidation seems to have taken priority at an administrative level within the government, whereas the HEIs themselves see autonomy as a solution to many of the problems that they face. In theory it would be possible to combine a process of consolidation with greater autonomy – basically, by designing more autonomous academic, governance, organisational, financing and management systems to be applied to a new amalgamated HEI which would incorporate the staff and facilities of several existing institutions. The legal basis for such a process would be relatively simple as the sites and facilities of all public HEIs are presently under government ownership, and such a

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[37] Dept. of Higher Education (Lower Myanmar) (2012) Panorama of Myanmar Higher Education. Yangon. p. 3.

new amalgamated HEI could be established under a new decree with articles of association that reflect autonomous status. This all could be done quite easily on paper, but, in practice, such an approach would require the staff and administrators of the HEIs to undertake an enormously ambitious reform programme which would have simply too many facets to manage with the existing levels of skills and experience in most HEIs. Therefore, should government decide to move forward with the plans for consolidation, any timetable for autonomy must be set to long-term, and the focus will need to be shifted away from the policy proposals from EPIC (see below in paras. 99 onwards).

4. Research methodology

65.   Secondary data was obtained from various reports collected and prepared during Phase 1 of the CESR process, and these are referenced as appropriate in the text (a full list of reference materials is provided). There is presently no comprehensive, systematized collection and collation of data on education in Myanmar, and, as a result, much of the data differs according to the source. This constraint was identified in the Phase I reports, and the data therefore should be considered as showing trends or indications. Within the time available for Phase 2 of CESR, an attempt has been made to collect primary data through site visits to a selection of institutions and through several surveys. Two of those surveys have been completed and one is ongoing.

2.1   Site visits

66.   Eleven site visits were made to universities in three Regions (Yangon, Mandalay and Ayeyarwaddy) and one State (Shan) as well as to two Teacher Education Colleges between October and December 2013. The universities are under the supervision of five line ministries/departments (Ministry of Education, DHE Upper and DHE Lower Myanmar, Ministry of Science & Technology; Dept. of Advanced Science and Technology; Ministry of Health). At each site the team had the opportunity for extended discussions, usually with the Rector/Principal or deputy plus Heads of Department, as well as visits to classrooms, libraries, laboratories, language labs, etc. This provided a first-hand view of the types and quantities of teaching and learning equipment and other resources available, usually with an opportunity to discuss with department staff and sometimes students. As under-graduate students were on-site only during the visits in December, most of the ongoing work was graduate level. However, some HEIs displayed project work carried out by undergraduate students, showing quite a high level of ingenuity and skills.

67.   Details of the Phase I site visits to Ye Zin Agricultural University (Ministry of Agriculture) and Myanmar Maritime University (Ministry of Transport) were also available to the team as two of the team members had also attended those visits. In addition, detailed discussions were held with senior staff from other HEIs under different ministries (including Defence and Border Affairs) during attendance at conferences and consultative meetings. Overall, the site visits and discussions represent quite a broad view of the real situation in HEIs. A report on site visits is attached at Annex 3.

2.1   Surveys

68.   The work plan for Phase 2 identified a number of studies and surveys that will be required as the basis for evidence-based planning (see Appendix 6). Three of these surveys were prioritized and

two were carried out in November 2013: (i) Survey of Heads of Department (HoD) of HEIs (see ANNEX 4), and Survey of Rectors and Principals (see ANNEX 5). A third survey of Students is still under preparation (see ANNEX 6) and will be sent out in February 2014. Although the results will not contribute directly to this report, it is anticipated that they will inform the Phase 3 planning process.

69.   All three questionnaires were prepared in English and contain both questions to be answered using Likert scales and open-ended questions. The Rectors' survey was translated into Myanmar, but a number of issues were raised about terminology. It was therefore decided to send both the Rector and HoD questionnaires in English. Respondents were given two weeks to respond, though responses continued to arrive up to six weeks after the deadline.

70.   No sampling was performed as the survey population is relatively small. Both questionnaires were sent to all 168 HEIs with a covering letter from CESR. Ninety responses (55% response rate) to the Rectors' survey were received, and the data entered by the Research Assistants and cleaned by the national research officer using simple coding procedures. Coding of the open-ended questions continues.

71.   There are approximately 3,000 HoDs at the 168 HEIs in Myanmar (average 18 departments per HEI), so HEI Rectors were requested to copy and distribute the Survey of Heads of Department to their own staff and to collate and return the completed forms. A total of 1,178 responses were received (an almost 40% response rate). However, although the request was for individual responses, it is clear that some of the responses to the questions soliciting opinions have been prepared institution-wise or in groups. Data on enrolments, however, seems to have been provided by department. Coding of the open-ended responses continues.

5.   Building the foundations

72.   In order to function effectively in the increasingly global socio-economic environment, the Myanmar HE system must be based on three pillars. These same three pillars form the foundation for HE systems throughout the world (World Bank, ADB, etc.), and experience has shown that, in order to achieve a knowledge-based society, all three must be linked to form a stable platform for the delivery of higher levels of education.

73.   **Pillar 1** is an appropriate framework for governance of the Higher Education system. It has two levels – system governance and institutional governance. System governance relates to the overall governance of the Higher Education System in terms of applying current education legislation, and should encompass the setting of the national vision for Higher Education, which forms the basis for policies and legislation. Institutional governance relates to the degree of autonomy of individual institutions and the way they are governed and managed (e.g. Fielden, 2008). Currently, Myanmar HEIs are administered by 12 line ministries (sometimes a figure of 13 is quoted here), and there is evidence of little standardization of approaches to strategic planning, budgeting or quality assurance systems. The report considers the types of changes that would be needed to the existing administration in order to strengthen the research capacities of the HEIs, to improve equitable access to HE, and to ensure that graduates from the HE system are fully prepared to meet the challenges of the world of work. It is highly encouraging that the Government has already begun to develop policies that will support a new framework of governance. These policies and their consequences are examined in detail below.

74.   **Pillar 2** is a sustainable financing strategy for Higher Education. As a strategy, it must consider financing from three different standpoints: levels and modalities of government funding, opportunities for self-financing by the institutions, and opportunities for cost-recovery from users. A baseline is established for government spending in the HE sector, and several scenarios are presented to show the fiscal consequences of various enrolment strategies. As with governance issues, the relevant authorities have already shown an openness to reforming the HE financing policies.

75.   **Pillar 3** is a robust quality assurance (QA) system. Although there numerous variations and models, most of Myanmar's ASEAN neighbours have adopted a QA system for HE that is divided into the application of institutional-related standards and the application of programme-related assessment. Institutional assessment is often seen as an external assessment process, though it is usually the role of the institution itself to establish quality assurance and assessment systems based on the requirements of the external assessment and that underpin that process. Programme assessment is a process usually carried out by the institution itself, but is based on guidelines and procedures developed in consultation with a national QA body. Presently Myanmar HEIs carry out internal QA procedures to greater or lesser degrees, and three universities (Yangon University, Institute of Economics (Yangon) and Mandalay University) have already joined the ASEAN Universities Network (AUN), and have begun training staff in application of the AUN QA process. The report will examine the need for and benefits of standardized systems that will promote greater integration with ASEAN and other countries (ASEAN, 2009).

76.   It must be emphasized here that a robust QA system which is agreed upon by both administration and institutions can help to drive the education reform process. The development of the QA system and tools helps to define the goals for the entire HE sub-sector. Indeed, though the processes and objectives of QA will necessarily differ at different stages of the education system, the principles of QA can be applied throughout all levels of education, and help to guide the establishment of medium-term and long-term goals. A standard QA system is one of the foundations of a strong accreditation system and is also closely linked with the development of a national qualifications framework (NQF). For these reasons, it is highly recommended that a national QA body be established without delay as a key part of the reform process (see Recommendations under Section C).

77.   Any **reform process** for the HE sector must consider the effects of change on each of the three pillars, and on the links between them. However, the three pillars cannot be studied in isolation. The HE system must operate within the context of its environment – political, social, economic, legislative etc. – and any strategies to develop or strengthen the system must be considered in these terms as well. The present work plan considers the issues under three thematic headings: access and equity, quality and relevance, and management and efficiency.

78.   **Policies, Vision and Mission for Higher Education.** Government has issued a draft list of HE Policies[38] as well as stated Vision, Mission and Targets for HE as part of the EPIC process. These statements are presented below together with some brief commentary. In addition, this report groups the 24 draft HE policies into 13 policies related to Quality and Relevance of Higher Education, 6 related to Access and Equity, and 5 related to Management and Efficiency of Higher Education. Further discussion and expansion of these policy directions are discussed below. The basis for the policy proposals is aligned with the 30-Year Long-Term Education Development Plan (2001-31), which provides the main planning framework for the higher education subsector. The Plan has six priority

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[38] Higher Education Policies Draft; The Outcomes of the Higher Education Working Groups. Paper presented to joint meeting of Government and Development Partners at Nay Pyi Taw on 16th December 2013.

areas: human resource development; utilisation of technology; expansion of research; development of lifelong learning; promotion of quality; and the preservation of national identity and national values. With the exception of the last area, all are reflected to some extent in the 24 policy statements. Preservation of national identity and national values should, in any case, be seen as cross-cutting all the policy statements.

79.   The Vision of Higher Education as expressed by the EPIC working groups is *[phrases italicized in square brackets have been edited by the present author]*:

> "1. To provide every citizen with *[opportunity for access to]* lifelong learning and *[to]* nurture highly qualified brilliant intelligentsia of international standard."
> "2. To promote universities to be a supporting business hub that can implement the knowledge-based economic system".
> "3. To enable *[access]* to higher education for every qualified citizen."

80.   The three statements actually express some of the goals of HE rather than a real vision for the HE system: they do not provide a sufficiently broad vision. For example, Statement 1 seems to imply the provision by HEIs of continuing education programs, and would be better phrased as the goal of providing opportunities for access. Similarly, Statement 2 would be better expressed as the goal of HE supporting industry and businesses as well the nation as a whole. Statement 3 implies that everyone who passes the matriculation exam should be provided with a place at university, which is not an attainable or necessarily desirable goal. A more suitable Vision for Myanmar Higher Education could be:

> *HE in Myanmar will contribute to developing individuals by encouraging innovation in learning and outstanding teaching, by creating a culture of excellence throughout the HE system, and by expanding greater access and affordability for students. The HE system will promote scholarship and ground-breaking research, and will seek to meet the Nation's existing and future development challenges through increased levels of collaboration between national institutions, and through partnerships with other institutions and organizations in the pursuit of academic excellence, new discoveries and economic development. All participants in the HE sector will collaborate in building personal and academic partnerships to further these common goals.*

81.   Such an overall vision for Higher Education will then be supported by a set of defined goals in line with the policies expressed below. The expression of a Vision and Goals for the system would be more in line with current thinking on the foundations for strategic planning (e.g. Johnson et al. 2011, 2008; Mulgan 2010; Grant 2008; De Wit & Meyer 2004; Barron 2003; Beer et al. 2003). On the basis of systemic vision and goals, each HE institution should express its own institutional vision, mission and goals supported by an expression of the institutional values that will govern their achievement (a model HEI vision, mission, values and goals is presented in Annex 10).

82.   **Goals of the Myanmar Higher Education System**: Generally, and in contrast to institutions, systems do not require a stated mission; instead a set of generic system goals for HE should include the following (which include and expand on the ideas already expressed in the EPIC presentation):

- To make higher education more responsive to the needs of the country by providing the skills needed for national socio-economic development.
- To increase access to higher education by promotion of private participation in education.
- To promote international collaboration as part of the overall goal of improving the quality of teaching, learning and research.
- To promote the level of education to the ASEAN level.

- To upgrade the universities in Myanmar to be internationally recognized as seats of higher learning and research.
- To offer degrees, diplomas and certificates which are recognised by international universities and academic institutions, as well as by international certification authorities.
- *To promote universities to be a supporting business hub that can implement the knowledge-based economic system.*
- To nurture graduates who have necessary expertise, knowledge and skills for practical application in workplaces.

83.   A complete set of **HE Policies** will be needed to fulfil the Vision and achieve the stated Goals. An initial set of policy statements has been prepared by the EPIC team, and these are further refined and detailed below. The key goal for the entire sector reform will be improvement of systemic quality. All of the policy developments outlined below are therefore presented with this key goal in mind.

84.   The policy statements and the comments provided above should be viewed as the starting point for the reform process. However, it is critical to understand that they are only the starting point. The identified primary issues are based on lessons learning from instituting similar policies in other regional and international settings. Once each policy statement has been approved, the next step is to establish specific policy goals and timelines for achieving them. For example, policies intended to improve access and equity of opportunity must be defined as goals to be achieved and must be related to demographic aspects such as population growth at region/state level and national level, general education progression rates, etc.: what percentage of school-leavers should have an opportunity to access HE in 2015, 2020, 2030? what are the implications of the proposed 6+3+3 format for general education? what impact will quality and progression improvements at the secondary level have on demand for enrolment to HE? what proportion of the general population should have access to HRD or other distance education courses? what should be the expected graduation rates for undergraduates? … In many cases, the policy goals should be set at the institutional level, but clear guidelines must be provided to the HEIs on both how to define goals and why this is essential to institutional development.

85.   At least some HEIs have received training in strategic planning, and have begun to prepare institutional strategies and development plans. However, the few plans that have been reviewed by the CESR HE team are very general and do not specify either the detailed goals or the criteria to be used to assess achievement; nor do they generally specify the timelines for implementing the strategies or the anticipated deadlines for achieving specific goals.. Although collection and collation of data has begun, there remain a great many areas where baseline data must still be defined as the foundation for setting of policy goals.

86.   Initial strengthening of institutional leadership and planning capacity will be critical to success of the policies proposed above (e.g. Pearce & Robinson 2011; Mulgan 2010; Hooijberg et al. 2007; Yukl & Lepsinger 2004, Senge 1996). The setting of specific policy goals and possible implementation modes in collaboration with both HEIs and the relevant ministries will enable the costing process to proceed in Phase 3 of the CESR.

B.   ACCESS AND EQUITY

RECOMMENDATIONS:

Short to medium term
- Collect and analyse data on relative public and household spending on higher education.
- Capacity building for student support staff that covers the whole range of services, including pastoral services, study mentoring, remedial teaching and careers guidance.
- Ensure that qualifications and degrees awarded by the UDEs/Open University are fully comparable to and acceptable as those gained from full-time HEIs.
- Ensure that the special role and operations of OUs/UDEs are taken into consideration in the new QA system.
- Map opportunities to merge distance education models into full-time courses.
- Initiate discussions with tax revenue authority and social welfare ministries and organisations to develop the architecture to support a possible student loan scheme.
- Re-examine the function and modalities of the matriculation exam / school-leaving exam.
- Develop a comprehensive Myanmar Qualifications Framework.

Long-term
- Investigate the options for establishing a community college system linked to an OU and/or regional HEIs.
- Draft sound legislation (prior to opening private HE market) to ensure that quality standards are set at least as high as the public HEIs, that staff are mainly full-time, and that fees are reasonable. Legislation should include caps on profit levels that can be paid out to shareholders.
- Campuses built far from urban centres should be prioritized for provision of hostel accommodation: levels of subsidization must be considered as part of overall costs of higher education.

87.   **Access and Equity** consider all issues related to the opportunities for participating in HE; how many study places are available in the system, what kinds of programs are available, what are the entrance requirements and procedures, etc. Equity considers issues which may prevent or discourage a particular societal group from participating, and how to alleviate them. For example, do the direct or opportunity costs of participating in a higher education programme prevent the children of poor families from studying? As well as being culturally diverse, Myanmar society shows broad differences between urban and rural populations, particularly in economic terms (see Table 2 above; IHCLS 2012), which constrain the participation and progress of significant numbers of its young people. This is not restricted only to the higher education sector, but is apparent from early stages of schooling, and is reflected in the distribution of matriculation examination scores (data received from DHEL, MOE). In an era emphasising education for sustainable development social inclusion and inclusive education, these constraints must be addressed as a priority.

88.   The funding of higher education is a critical factor in all discussion of access and equity: Myanmar has increased overall spending on HE by 79% between FY 2012/13 and the budget for FY 2013/14, but private (household) expenditure on HE remains proportionately high. The IHCLS puts per capita household spending on HE at 138,000 kyats: if all full-time and distance education undergraduate and graduate students and recurrent budget are taken into account, the government per capita contribution would be about 153,000 kyats or 53.1% (see Table 2). If only full-time undergraduate and graduate numbers and recurrent budget are taken into account, the government per capita contribution would be 288,000 kyats or 67.6%. Given the stated weaknesses in the data on which these figures are based, further data is needed on relative public and household spending on higher education.

89.   At present there are broad differences between the funding levels of different HEIs. For example, per capita recurrent expenditure for FY2013/14 at Ye Zin Agricultural University is budgeted 17 times higher than the average for 28 Technological Universities[39]. Total budgeted per capita expenditure for Mandalay University of Distance Education (MUDE) is $161 compared to about $7 for Yangon UDE: while the main difference is that the MUDE capital budget is almost 8 times higher than that of YUDE capital budget, per capita recurrent expenditure is 75% higher for YUDE. Capital expenditure on HEIs under MOE totals 46% of HE capital expenditure for 2013/14, in contrast to the roughly 77% of all full-time enrolments in HE[40]: Recurrent expenditure is proposed at a level of 51% for the 23% non-MOE students. Even within MOE (Lower Myanmar), there is wide variation, with the lowest per capita recurrent budget at only 28% of the highest ($944 to $267). Staffing costs per student vary by a factor of 12 between different institutions under MOST. While part of the difference can be explained by different ratios of undergraduate and graduate students in different HEIs, the mechanisms for planning and budgeting within and between different line ministries are not always clear.

90.   The Phase 1 report called for attention to several issues in regard to access and equity: development of an index of minimum quality; establishment of threshold teacher:student ratios; minimum proportions of academic staff with higher level qualifications; provision of facilities such as libraries, laboratories and access to IT networks; development of the architecture to support possible student loans schemes. These continue to be priority areas, as reflected in the Higher Education Policies Draft[41], and the report assesses various options for increasing physical access, and equity in access/opportunity, to Higher Education.

1.   Physical Access

91.   Each institution should be surveyed to provide a detailed inventory of the resources already available and to identify specific areas for investment in facilities and equipment. To reflect real needs, such surveys should be carried out at the institutional level and then summarised at state and region al levels. As well as considering physical resources, the data to be collected should include types and numbers of institutions, as well as gazetted establishment versus actual staffing levels and issues of excess capacity, especially at newer HEIs.

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[39] NB, these values are not strictly comparable as the figures for FY2013/14 are budget allocations and the student data is actual for AY2011/12. However, the comparisons are illustrative of the financing situation in HE.
[40] See para. 33 for details on the percentages of MoE and non-MoE students-
[41] Higher Education Policies Draft; The Outcomes of the Higher Education Working Groups. Paper presented to joint meeting of Government and Development Partners at Nay Pyi Taw on 16th December 2013.

2.   Socio-Economic Profile of Students

92.   The results of an ongoing student survey will be combined with census and other relevant data to provide an analysis of demographic trends, enrolment by type of HEI, etc.

3.   Targeted Support

93.   The role of the Matriculation examination is a critical for the entire education sector. Its role as (effectively) the sole arbiter of transition to HE should be re-examined as the evidence indicates that it is a driver of inequality of access. According to estimates based on the IHCLS data, the share of 16-year-olds who are on track and pass the exam and enter higher education is only 5.8% of those who enter Grade 1 (see Table 2 above). The data suggests that, "even among children reaching grade 11 on-track (who are likely to be the stronger students), matriculation exam passage and transition rates to higher education in the subsequent year are considerably lower. This likely reflects a combination of financial cost barriers to higher education as well as higher failure rates among rural and poor students on the matriculation exam, though available data on matriculation exam do not allow this to be directly verified."[42] Estimates of pass rates for entrants to Grade 11 shows that 35% pass the matriculation exam on the first try. However, for children from urban households, this first time pass rate is roughly 40% versus 31% for rural children and just above 21% for those from poor households, which supports the suggestion that the matriculation exam exacerbates inequity of access to HE.

94.   Furthermore, the evidence shows that girls perform better at the matriculation exam creating an imbalance for "on-track" boys and girls: girls in AY2011/12 accounted for 55.3% of exam takers, and 58.5% of exam passers. Thus, a form of positive discrimination is practised for male students completing the matriculation examination – their pass level is set slightly below the pass level expected for girls, thereby providing boys with better opportunity to obtain a pass grade. Despite the lowered thresholds for boys' enrolments into HE, the results of the exam translate directly into higher enrolments for girls as a result of the existing selection process, in which the subject taken at HE level depends entirely on the matriculation exam score, and is further mediated by the geographical location of the applicant's home. Issues such as aptitude or motivation for a particular field are not taken into account – the highest scorers go to study at the profession-based HEIs (e.g. medicine), lower scores generally lead to arts and science HEIs, and the lowest scorers do not enter full-time HE studies. The large number of students attending the Distance Education Universities is mainly made up of those who did not pass the matriculation exam at the first sitting.

95.   Proposals are being made that HEIs should manage their own admission processes, perhaps using their own entrance exams in addition to or in place of the matriculation exam as well as interviews. Generally, Rectors support this principle (91% of respondents to Rector's survey), and those who object to it seem do so on the basis that the time between matriculation exam results and start of the academic year is too short to allow for such a process. In response to this, it should be noted that Teacher Education Colleges already use an interview system as part of the admissions process to examine suitability and motivation of candidates. It is noted that only 53% of Rectors believe that entrance to HEIs should be strictly meritocratic (i.e. based on the matriculation exam score), and 69% support the principle of using admission procedures to provide more opportunities for

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[42] C. Spohr IHCLS Supplementary Appendix, p. 17

young people from socio-economically disadvantaged backgrounds to enter HEIs. It is recommended that the role of the matriculation exam needs to be examined from the standpoint of its usefulness as a school-leaving exam as well as its role in the admissions processes for HEIs. Those processes should be redesigned on the basis of decisions on the fate of the matriculation exam.

96.   There is broad support among Rector's for allowing students to select the institution at which they wish to study (78%), and 91% agree or strongly agree with allowing students to select the courses they wish to take. Similarly, there is broad support for some kind of financial assistance to help students pay for their studies: 72% of rectors would like to see higher tuition fees being paid by undergraduate students; 62% of Rectors support the idea of a student loan scheme available to all students, and 89% support provision of grants to students from disadvantaged backgrounds.

97.   Issues related to the affordability of higher education will become more acute as pressure for places increases as a result of higher secondary level enrolments. They will include the issue of supplementing access to HE by involving private HE providers. In para. 106 below this is mentioned in connection with policy recommendation B4, and an example is given of "not-for-profit" HEIs, a private sector model widely used in the USA. It must be emphasized that any schemes which require increased levels of individual/household spending, even when supported by a loan scheme, may have unforeseen consequences. Recently, the US Department of Education had to take action regarding the repayment of loans by for graduates of "gainful employment programs", which are offered at both private sector HEIs and community colleges. It had been discovered that, although students at private sector colleges represent only 13% of the higher education population, they comprise 31% of student loan recipients. Furthermore, half of all defaults on student loans are by such private sector students, who are encouraged to take on high levels of debt with the promise of immediate and lucrative employment at the end of courses.

98.   The student survey and analysis will consider issues related to direct support for access and progression in HEIs. This will include different modalities for study/research scholarships, study loans and other forms of support to undergraduate and graduate students.

99.   Six main policies related to **Access and Equity** have been proposed by the EPIC team. These are presented below and supplemented with comments in line with current regional and international HE systems. For each policy statement, a primary issue is identified as an initial priority action that would be needed to initiate or safeguard the implementation of the respective policy.

B1. Open University Policy

B1.1 University of Distance Education will be upgraded into Open University. B1.2 Infrastructure of divisional headquarters of the University of Distance Education will be upgraded.	100. The UDEs presently play a crucial role in both increasing general access to HE as well as helping to promote equity of access (Average gender distribution in UDEs in 2013 is 54.24% female and 45.76% male, compared to about 63% female and 37% male in full-time HEIs). 101. Support for distance education is strong also within the institutions mainly providing full-time tuition: 80.72% of Rectors' survey respondents feel that HEIs in Myanmar should provide more training programs that will lead to a degree for part-time students. However, this implies that they do not necessarily see distance education as a role only for an Open University, but that each university should have the option to design and implement distance education programmes. 102. The benefits of DE can be seen from both the individual's point of view (a route into HE for those who do not pass the matriculation exam first

time; opportunity to be employed while studying, etc.) and from the government's point of view (cost-effectiveness, providing equitable access to HE, etc.). Institutionally, the support of full-time education with distance education practices has also been shown to create cost savings through more efficient use of existing facilities ("capital-for-capital" substitution) or more effective use of staff ("labour-for-labour" substitution). Due to the low staff cost levels, another common efficiency - "capital-for-labour" substitution (replacing labour with technology) – is unlikely to be relevant in the current Myanmar context.

103.   Internationally, distance education at HE levels has been shown to bring many benefits, including introducing first-generation students (i.e. from families where no predecessors have attended an HEI) to HE (Priebe et al. 2008; Drolet 2005), lowering costs and broadening access (e.g. Meyer, 2008). Zuhairi et al. (2008) state that "Based on the egalitarian values, in which all citizens have equal access, equity, equality of opportunity and participation in education, distance education has reached different groups of people in Indonesia, irrespective of commitments, geographical locations, social and economic status, gender, ethnicity, age and other constraints. Distance education system enhances the government capacity to provide accessible educational system at different levels, improved equity and increased participation in education."

104.   The concept of upgrading divisional centres to Community Colleges linked either to an Open university or to regional universities (or both) should be investigated as a means to diversify access to life-long learning, and as a route to a degree-level qualification.

Primary issue: ensure that qualifications and degrees awarded by the UDEs/Open University are fully comparable to and acceptable as those gained from full-time HEIs.

B2. Vibrant University Atmosphere Policy

Vibrant university atmosphere will be created by establishing infrastructure in cooperation with development partners or by encouraging Public-Private Partnership (PPP) and Build-Operate-Transfer (BOT).

105.   While PPP models are found in the delivery of HE, the BOT model seems to be an unlikely basis for investment in the education sector. This policy should be linked with B4 to provide an overall policy direction for the promotion and development of private higher education.

Primary issue: See B4.

B4. Private University Policy

Private universities and foreign universities that are

106.   A model widely used in the USA, for example, is "not-for-profit" HEIs. The basic principal is that ownership is through a Board of Trustees

	and that all profits from operations are re-invested into the institution and not paid as dividends to shareholders. Whatever corporate model is applied, regulations should be in place to prevent the mistakes suffered by other Asian countries. For example, most faculty should be full-time employees of the HEI, and not public sector teachers trying to supplement their income. Minimum standards should be set and monitored for facilities and equipment, including laboratories and other requirements for practical work. The encouragement of private sector involvement in the delivery of HE must be carefully planned so as to avoid pitfalls experienced elsewhere in the world (see also para. 97).
in line with the National Education Law will be allowed.	**Primary issue:** Sound legislation prior to opening this market is crucial to ensure that quality standards are set at least as high as the public HEIs, that staff is mainly full-time, and that fees are reasonable. Legislation should include caps on profit levels that can be paid out to shareholders.

B3. Proportionate Development of Region and State Policy

The courses that will provide the development of regions and states will be conducted and accessibility will be created.	107. The policy on academic autonomy (A3) and the policy on curriculum development (C6) should both support this proportionate development policy by permitting HEIs to develop programmes and courses that are specific to the region or State. Decentralised selection and admission procedures must be monitored carefully to ensure that no groups are blocked from higher education due to their social, religious or economic background. Similar opportunities must be provided for access to both regional/state HEIs as well as to the national 'flagship' institutions. Development of a Myanmar Qualifications Framework is a key stepping stone to achieving this policy
	Primary issue: Support to HE development (especially outside of Yangon and Mandalay) must be based on the principles of equity of opportunity and equity of qualifications, and requires a comprehensive Myanmar Qualifications Framework.

B5. Student Support Policy

B5.1 Students who are in line with the policy will be provided hostels.	108. The principle of support to students must be based on equity of access and opportunity. The key decision should be the extent to which provision of hostel accommodation is subsidized from the national, regional/state or institutional budgets. This policy links closely with B6 and should be based on student needs.
	Primary issue: Campuses built far from urban centres should be prioritized for provision of hostel accommodation: levels of subsidization must be considered as part of overall costs of higher education.
B5.2 Student Service Centres at universities will provide suggestions, counsels and supports to Students.	109. Effective counselling and mentoring, together with pastoral support and guidance has been shown to reduce drop-outs and improve overall graduation rates, especially for students with a disadvantaged background. In Myanmar, this will include support to encourage more boys to enrol and complete degree courses.
	110. 81.18% of Rectors' survey respondents are of the opinion that HEIs in Myanmar should do more to increase the extent to which the population

of higher education students is socially and culturally representative of the population of Myanmar – a sound basis for strengthening equity of access.

Primary issue: Capacity building for student support staff that covers the whole range of services, including pastoral services, study mentoring, remedial teaching and careers guidance, is a priority

B6. Scholarship and Stipend Policy

B6.1 The respective universities will provide scholarships, stipends and research fellowship grants.	111. National policies aimed at increasing access and improving equity must initially be funded from government, though individual HEIs should eventually have the opportunity to provide specific types of scholarships and research fellowship grants. An analysis of the 2010 IHLCS data shows a pattern of unequal access: "the highest income quintile are over three times more likely to attain a tertiary education as those from the lowest income quintile"[43]. Funding sources and levels must therefore be defined for different types of financial assistance that will contribute to removing access constraints. 112. Present **stipend levels** seem to be very low (Ky300 per month is quoted in the Phase 1 report), but little data is available on subsidization costs of hostel accommodation or other living expenses across the whole HE sector. The planned Student survey should provide details on this and other financing issues. 113. Present undergraduate **fee levels** are relatively low (average Ky17,890 per year and range Ky960 to Ky100,000 for the 54 full-time HEIs which collect fees and responded to this question). It is not presently known to what degree these fee levels contribute to total real costs. From the survey, 76.74% of Rectors feel that fees should be charged, and 70.93% feel the levels could be higher than at present. 50.0% believe that fees should not reflect the full cost of the studies. **Primary issue:** The priority will be to collect data from students, families, HEIs and relevant ministries as the basis for funding decisions.
B6.2 Policy on financial assistance for HE studies to be developed.	114. Different student funding modalities must be examined in the light of direct and opportunity costs and the overall affordability of higher education. Student loan schemes have been developed in several ASEAN countries and provide valuable lessons and insights into the benefits and pitfalls of such schemes. Options include government subsidized and/or guaranteed loans provided from private financing institutions, micro-credit-based schemes. Robust eligibility criteria and management systems are key requirements to ensure that funds from loan schemes (or other financing schemes) reach the people who really need them. The introduction of financing schemes, whether on a public or private sector basis must be carefully planned so as to avoid pitfalls experienced

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[43] World Bank. 2012. Knowledge Economy Index (KEI) 2012 Rankings. At http://siteresources.worldbank.org/INTUNIKAM/Resources/2012.pdf. Figure 4, p. 9, shows that less than 10 per cent of the lowest income quintile have tertiary education, relative to just under 30 per cent for the highest quintile.

elsewhere in the world (see also para. 97).

115.   88.37% of Rectors' survey respondents support the establishment of a student financial grants scheme that provides financial support for the payment of student tuition fees by particular categories of students (e.g. students from poor families). 62.79% of respondents support the establishment of some form of student loan scheme.

Primary issue: A priority will be to initiate discussions with taxation agencies and social welfare ministries and organisations, to develop the architecture to support a possible student loan scheme.

C.   QUALITY AND RELEVANCE
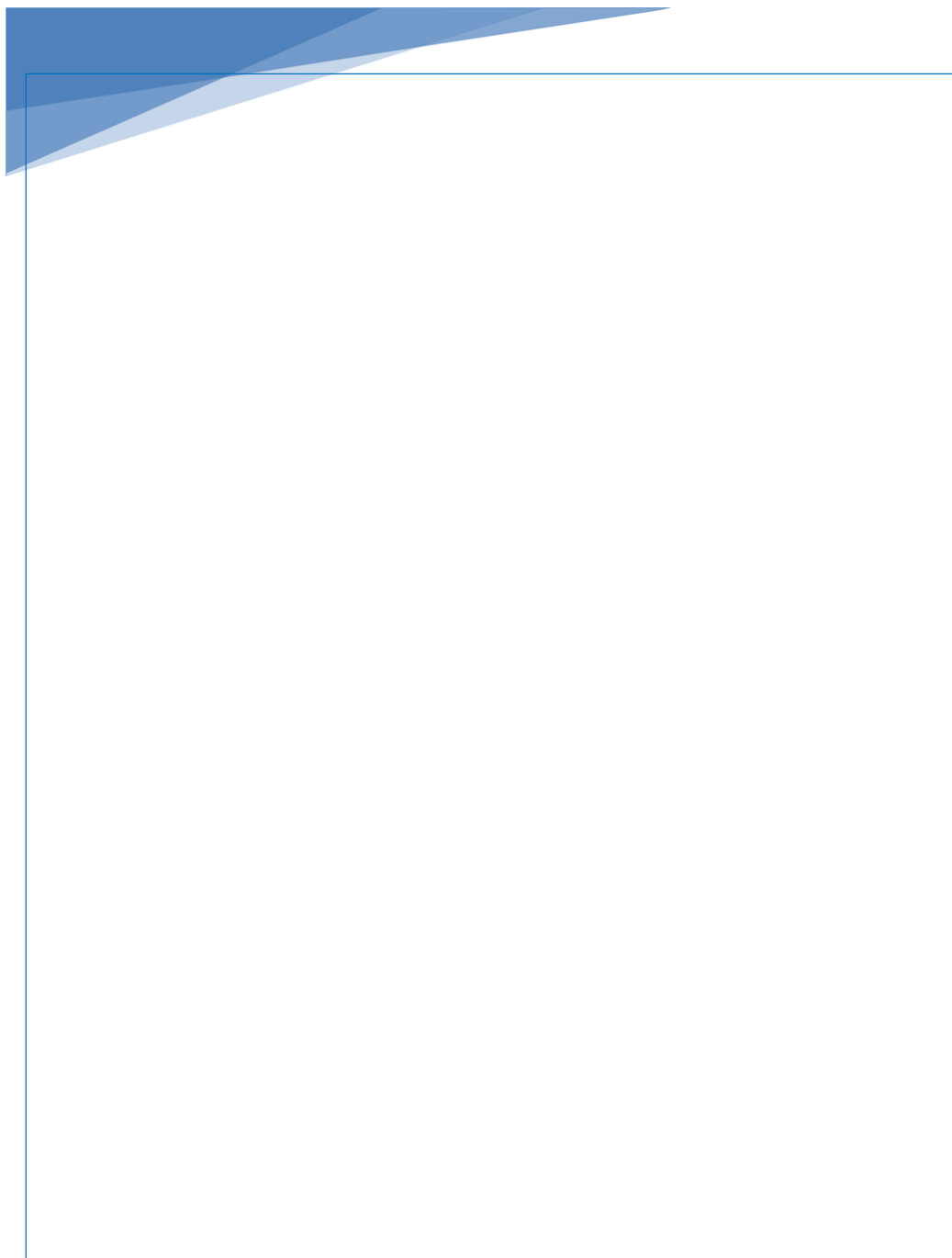
116.   **Quality and Relevance** consider the educational quality of the programs offered by HEIs and whether the contents of the programs and qualifications they provide are relevant to the needs of the graduate – will they prepare the graduate to enter the world of work? will they be relevant to what employers are seeking? etc. The report addresses issues related to the quality of HE outputs, such as

academic achievement and relevance, and assesses options to improve the quality and relevance of Higher Education in terms of student aspirations, national needs and labour markets. Issues related to comparison of different types of qualifications, both domestic and foreign, are also addressed in line with the establishment of a Myanmar Qualifications Framework that could be integrated with the planned ASEAN Qualifications Framework (although this is presently focused more on trades qualifications and is linked to movement of skilled labour within the Asia-Pacific region). There are strong links between the relevance of HE programs and the efficiency of their delivery, sustainability of their financing, and overall HE system effectiveness. Such issues of efficiency and effectiveness are considered below in relation to management (see para. 14).

117.   The Phase 1 Basic Education report proposed upgrading the Myanmar Board of Examinations (MBE) to a national quality assurance body that would set the national quality assurance framework; design and administer matriculation exams and other standardised tests, as well as state scholar selection exams; and develop quality assessment tools to assess learning at critical grades. It also proposed that MBE should systematically administer High School Leaving Exams at Basic Education schools, and allow those who pass those exams to be recognised and to continue to TVET courses, and that HEIs should administer their own entrance exams. The key issue here is that a national quality assurance body for education does need to be established in order to guide the development of QA on a system-wide basis rather than having separate bodies for different education levels.

118.   Additional inputs on the issues of quality and relevance will be found elsewhere in the CESR Phase 2 Report as well as in the Technical Annexes. For example, the Policy, Legislation, Management Component in Phase 2 aims to help define the legal and institutional frameworks for education policy and management, while providing an overarching umbrella for policy development in sub-sectors. All of these inputs should be combined to construct a coherent, efficient and effective development process for the entire education sector.

1.   Quality

119.   The majority of Rectors/Principals of HEIs are satisfied with the teaching quality at their institutions (86.4%), though none of the respondents were 'very satisfied', and 13.6% did not know whether their students were satisfied or not with teaching quality. Despite this optimistic view, 32% of the same respondents identified the quality of teaching staff as one of the three main institutional weaknesses. This apparent dichotomy is almost certainly due to different perceptions of 'quality'. The open-ended responses tend to confirm that the teaching staff is presently deemed by Rectors/Principals and Heads of Department to be of high calibre in terms of motivation, teamwork, interest, etc., but are generally inhibited by lack of experience (especially international), poor availability of teaching and learning tools, equipment and financial resources. Over 91% of HoDs see the opportunity for collaborative research as an important part of teaching, even though such opportunities are available to fewer than 50% of staff. The apparently high morale and readiness of academic staff is a highly promising foundation for HE reform, and a key focus of the future reforms should be on providing teachers with the tools and knowledge they seek.

120.   Related issues will be addressed in the proposed institutional surveys, which will consider all types of facilities, including types and usage of library services, internet, access to academic journals, class sizes, assessment systems, curriculum, syllabi, textbooks and other instructional materials, appropriateness of existing laboratories / workshops, etc.

2. Quantitative and Qualitative Analysis of Output

121.   A further area for survey and analysis relates to system outputs. This should include student throughput and graduation flow rates as well as a deeper analysis of research projects and associated publications, as well as comparisons of costs and outputs across different academic fields.

3. Internal Efficiency

122.   Related to the qualitative and quantitative analyses of outputs, more information is needed about the internal efficiencies of the HE system and institutions.

3.1   Undergraduate

123.   Student flows through the system appear to be quite efficient, with over 90% of students finishing their degrees within the allotted time (Table 5). Even at the two universities of Distance Education, the in-time completion is over 70%, which would negate the oft-heard claim that distance education degrees are not as high quality because the students take longer to do the degree. Further data and analysis is required to understand the rates of and reasons for failure, repetition and drop-out.

Table 5: Average in-time completion rates for undergraduate (Bachelor) degrees

HEIs	No. of institutions*	AY 2010/11	Range	AY 2011/12	Range
MoE Lower Myanmar	19	92.98%	85.53-98.24%	91.76%	76.94-96.78%
YUDE	1	71.52%		70.35%	
MoE Upper Myanmar	22	97.09%	87.25-99.48%	97.66%	85.79-99.00%
MUDE	1	70.53%		73.20%	

* indicates number of institutions for which data is available
Source: Basic data from DHEL; calculations by author

3.2   Graduate

124.   There is presently only scant data on graduate student flows through the system (Table 6). Further data and analysis is required on course length, planned/actual time to completion etc. to understand the rates of and reasons for failure, repetition and drop-out.

Table 6: In-time completion rates for postgraduate degrees

HEIs	No. of institutions*	AY 2010/11	Range	AY 2011/12	Range
Lower Myanmar	2	91.11%	82.22-100%	97.83%	95.65-100%
Upper Myanmar	no data				

indicates number of institutions for which data is available
Source: Basic data from DHEL; calculations by author

4. Quality Assurance and Accreditation System

125.   QA in higher education can be defined as systematic management and assessment procedures to monitor performance of higher education institutions.[44] The overall direction of education quality assurance in Myanmar must be developed as a mechanism to raise educational quality level nationwide and to allow Myanmar academic awards to be recognized by regional and international standards. However, the ultimate goal of the QA system must focus on improving the graduates' qualifications and strengthening the country's competitiveness.

126.   In line with expressed desires of the Myanmar government to align its higher education policies with those of its ASEAN neighbours, the following recommendations and justifications are based on the systems developed by and for regional QA bodies such as AQAN, AUN, APQN. A simple strategy for a QA system that is linked to accreditation of HEIs and to a national qualifications framework could be:

Figure 1: A strategy for QA

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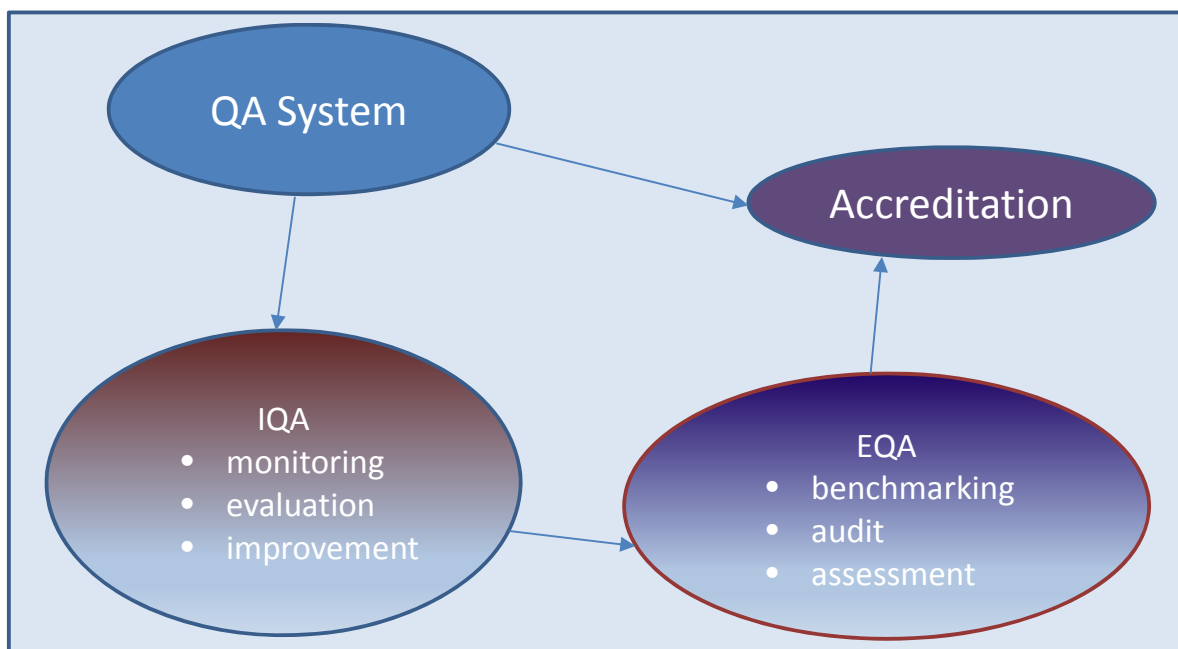
[44] UNESCO (2003) Regional Report of Asia and the Pacific.

4.1 Internal Quality Assurance for HE

127.   Generally, internal assessment procedures are based on a set of areas or themes, each of which has specific indicators and criteria for assessing them. Table 7 below covers the main themes and indicators that could be applied to the initial national QA system for HE in Myanmar. This is further expanded to include assessment criteria in ANNEX 7.

Table 7: Model of Areas and Indicators for internal quality assurance

I. Governance and management
1.1 Organizational structure
1.2 Strategic plan
1.3 Autonomy of governance
1.4 Institutional effectiveness
1.5 Delegation of powers
1.6 Documentation (legal instruments)
1.7 Modernization of administration
II. Human resources
2.1 policies on (staff) recruitment based on prioritized positions
2.2 Staff recruitment and placement plans
2.3 Regulations and procedures on recruitment practices
2.4 Adequacy, qualification and competence of staff
2.5 Policies on awards/recognition, incentives, promotion
2.6 Staff development policies and plans
2.7 Sound selection practices (e.g. putting the right staff into the right position)
2.8 Welfare schemes
2.9 Grievance redressal (work conflict resolutions)
2.10 database/profile systems of HRs
III. (Learning) infrastructure, facilities and resources
3.1 Location, size and geographical land (of universities/institutions)
3.2 Buildings
3.3 Resources
3.4 Effectiveness of management, utilization, and maintenance (of facilities/resources)
3.5 Health services, sports and physical education
3.6 Community use of institutional facilities
3.7 Commercial use of institutional facilities
3.8 Ownership
3.9 Security systems
IV. Financial management
4.1 Funding sources
4.2 Ownership of resources/properties
4.3 Sustainability of funding
4.4 Resource mobilization
4.5 Resource allocation
4.6 Liquidity
4.7 Accountability
4.8 Budget for academic and developmental plans
4.9 Unit cost of education
4.10 Strategic asset management
4.11 Matching of receipts and expenditures

4.12 Auditing of incomes-expenditures on an annual basis

V. Student profile and support services
5.1 Admission procedures
5.2 Student profiles
5.3 Drop-out and success rates
5.4 Student achievement
5.5 Graduate earnings
5.6 Progression to employment and further studies, including placement rate of graduates
5.7   Personal and academic counselling
5.8 Participation of (teaching) staff, parents and community association in advising students
5.9 (Informal and formal) mechanisms for student feedback, complaints and academic appeals against teachers and staff
5.10 Merit based scholarships, other scholarships and fellowships
5.11 Student representation
5.12 Recreational activities for students
5.13 Alumni association and alumni profile
5.14 Employer satisfaction with graduates
5.15 Academic/technical cooperation

VI. Curricular/programme aspects
6.1 Conformity to adopted national programme/curriculum standards
6.2 Program context corresponds to goals and objectives of human resource development
6.3 Relevance to socio-economic development plans/human resource development plans
6.4 Relevance to the national (cultural, religious, ...) context
6.5 Improvements of programme in response to actual growth/changes in national, regional and global economies
6.6 Programme options
6.7 Feedback mechanism on programme quality from students, employers and teachers
6.8 Interaction with employers, society and concerned sectors (both public and private)
6.9 Programme integration into regional and international systems
6.10 Integration and remedial teaching of subjects

VII. Teaching-learning and evaluation
7.1 Teaching improvements
7.2 Use of new media and methods
7.3 Co-curricular activities for skill and competence development
7.4 Projects and other avenues of learning in order to enable self-development/study (attitudes)
7.5 Linkage with institutions, industries and commerce for teaching
7.6 Linkages for field training
7.7 Monitoring student progress
7.8 Continuous internal assessment
7.9 Use of external examiners
7.10 Remedial and enrichment programs

VIII. Research, consultancy and extension
8.1 Institutional support for research
8.2 Staff active in research
8.3 Research students by field of study
8.4 Ratios of research expenditure and income
8.5 Code of ethics on conducting research
8.6 Staff supported by external research grants
8.7 Existing research equipment
8.8 Usefulness of research results for education

8.9 Interdisciplinary research
8.10 Student involvement in faculty research
8.11 Research quality: citation of publications, references, patents and permissions (number of published articles, journals, research papers, citations)
8.12 Benefits of consultancy to industry and the public
8.13 Identification of qualifications of advisors
8.14 Community-oriented activities

4.2 External Quality Assurance and Accreditation

128.   External procedures for quality assurance are more often linked to accreditation processes, the granting of degree-awarding powers or licensing of private HEIs. ANNEX 8 gives an example of the minimum standards and indicators that could be used for accreditation or approval of HEIs.

5. Credit Systems and Student Assessment Methods

5.1 Credit system and Recognition of awards

129.   Student assessment systems seem to vary between HEIs under different line ministries, and the various systems should be identified and analysed to permit an understanding of how students progress through each course and programme, how progression is affected by testing and continuous assessment sytems, how credits are defined, credit requirements for awards, etc.

5.2 Student Assessment Methods

130.   Student assessment systems should also be analysed across each academic field to consider the different needs for theory and practical (e.g. laboratory and field) work, oral and written presentations, dissertations, theses, etc.

6. Use of ICT

6.1 Extent and effectiveness of ICT

131.   ICT should be considered from the viewpoint of its usage and application in higher education: i.e how is it used in teaching / learning, delivery of instruction, blended learning? what are the existing options for UDE, Open University, and Virtual University applications? Similarly, a survey of ICT preparedness should consider needs for expansion and/or updating of hardware, software licensing, cost implications of expansion, as well as sustainability and affordability of any investments in ICT.

6.2   Relevance of ICT

132.   The provision of IC technology is not an end in itself. It must also be considered in terms of its relevance to the teaching and learning processes as well as to its broader role in the labour market for which graduates are being trained. While programmes and degrees in computing sciences are necessary within the field of ICT, we must also consider, for the vast majority of graduates, how the ability to use hardware and software may be linked to job opportunities at home and abroad, as well as considering other societal needs for access to and understanding of the benefits and drawbacks of ICT.

6.3   Mission and Vision for ICT in Higher Education

133.   Each university should be equipped with a modern computer lab to be used for student courses and teacher training practice. Additionally an open learning space to be designated in the library or other such building whereby the university community can engage freely with the tools provided over the network (digital library, video conferencing, VoIP, internet, etc.).

134.   Install the national higher education ICT network to link the ministries and the campuses. As well as providing opportunities for video-conferencing and remote lecturing and seminars, the network is intended to support research activities through: (i) providing a platform for researchers to discuss and share ideas on proposed, ongoing and completed research programmes; (ii) allowing the on-line use of research tools and instruments (e.g. through Limesurvey); (iv) providing a platform for the publication of on-line academic journals.

135.   Installation of connectivity between ministries and universities through fibre optic connectivity to create academic pricing for internet. Development of a National Research Education Network (NREN) between project universities, and later to connect to neighbouring NRENs (Vinaren in Vietnam, Thainet in Thailand) and international networks through TIEN4, one of the largest international NREN collaborations.

136.   Development, establishment and use of a University Management System (UMS) which will be a web-based organizational and MIS system to help the universities better manage administrative, teacher and student functions (registration, statistics, management, etc.). With potentially hundreds of teaching/learning spaces (classrooms) available at a university it is of upmost importance that administrators, teachers and students are kept up to date with room availability and assignments so that they may schedule regular classes and utilize available space (shared among faculties) for other teaching/learning activities as they arise. Timetabling and scheduling features could be built into the UMS as an integrated web-based module. Otherwise the features could be developed as stand-alone web-based applications utilizing open source solutions which are already available and adapted to meet local needs (language, menu items, etc.).

137.   The long term goal of establishing online distance courses is to promote the capacity to reach a greater number of students who are unable to attend classes at the physical campus. The modern trends in distance learning have proven that many courses, if planned correctly, can effectively extend the reach of a university to offer learning opportunities no matter where the student is physically located. A fast and reliable internet connection is a key requirement to achieve this goal. A second key to effective development of this goal will be stringent quality assurance following best international practice and a commensurate shift in educational patterns to allow teachers to teach and students to learn in a new media.

138.   Thirteen main policies related to **Quality and Relevance** have been proposed by the EPIC team. These are supplemented with comments in line with current regional and international HE systems. For each policy statement, a primary issue is identified as an initial priority action to initiate or safeguard the implementation of the respective policy.

C1. University Quality Promotion Policy

Universities will attempt to gain the qualities of world ranking universities.	139. This statement is not really a policy, but is rather a policy objective. The proposed set of policy statements will certainly provide the foundations for achieving this long-term goal. **Primary issue:** This is a long-term goal.

C2. Teacher Quality Promotion Policy

C2.1 As many outstanding university teachers as affordable will be sent abroad *[for further study and research]*.	140. As affordability, as well as workloads at the home institutions, will limit the opportunities for study or research abroad, criteria for selection and prioritization need to be established. In addition, achievements through further study or research, whether abroad or domestic, should be included as salary and/or ranking steps into the career development policy. **Primary issue:** Establish criteria for award of travel grants/ scholarships/foreign research fellowships.
C2.2 Teacher quality upgrading courses will be conducted by local and foreign teachers.	141. Not a single respondent to the Rectors' survey expressed high satisfaction or high dissatisfaction with the standards of teaching at their institutions or believed that their students are highly satisfied or highly dissatisfied with quality of teaching. However, 86.03% stated they are satisfied and 80.23% believed their students are satisfied with the quality of teaching, in contrast to only 8.14% dissatisfied. Only 69.32% of respondent HEIs state that they use student feedback to assess teaching quality, so the high frequency of satisfaction may be over-estimated by the Rectors. This survey result may indicate that there are no major problems to be addressed in teaching quality, only that there is room for improvement in terms of experience and the tools teachers are given. However, another interpretation could be that the senior HEI administrators are not well versed in assessing quality (no criteria for 'quality' were provided in the survey). 142. It is therefore proposed that a priority should be to identify baseline teacher/lecturer competencies as the foundation for definition of teacher quality, including both subject content and methodologies. Development of teacher professional upgrading courses (using both foreign and domestic expertise) that can be delivered either face-to-face or on-line as self-study modules should be considered. This model has been successfully applied most recently in Lao PDR with a 12-module course provided to new faculty members. Such courses could include modules on use of IT, on-line and off-line libraries and learning networks, linking to C2.3. Teaching and learning support centres with staff members who are qualified to promote learner-centred approaches should be established, initially within existing Departments/Faculties of Pedagogy. Their role would be to provide outreach services to other faculties and institutions on teaching methods, student assessment approaches, etc.

	Primary issue: Develop understanding of application of different learning and teaching modalities to different pedagogical situations as basis for identification of required teacher competencies.
C2.3 Local and foreign universities will be linked to use online library.	143. This policy statement should be linked to policy statements C3.2-5, C5, and C9 to provide an overall policy statement on the application of IT to all aspects of HE, including: blended learning; IT-supported teaching; information archiving and sharing for libraries and research data-bases; administration; student affairs; timetabling and other resource utilization.

Primary issue: Autonomous HEIs should have the right to establish their own or joint e-libraries, whether in collaboration with foreign HEIs or not. Training and information is need for HEIs to have a clear understanding of the different types of open-source and licensed data spaces, before decisions are made. |

C3. *[Learning]* Quality Promotion Policy

C3.1 Student-centred Approach will be applied in teaching.	144. See for example C2.2 on which this policy direction will depend.

Primary issue: Develop understanding of application of different learning and teaching modalities to different pedagogical situations as basis for identification of required teacher competencies. |
| C3.2 The use of internet in teaching will be encouraged. | 145.   This policy statement should be linked to policy statements C3.2-5, C5, and C9 to provide an overall policy statement on the application of IT to all aspects of HE, including: blended learning; IT-supported teaching; information archiving and sharing for libraries and research data-bases; administration; student affairs; timetabling and other resource utilization.

Primary issue: Deeper understanding of the role of internet and ITC as tools for teaching, learning and research must be developed at both government and institutional levels as the basis for decisions on investment in this area. |
| C3.3 The practice of the use of library will be encouraged. | 146.   Students (and teachers) need to understand the role of a modern library as a source of information for study and research and also for information exchange.

Primary issue: Autonomous HEIs should have the right to establish their own or joint e-libraries, whether in collaboration with foreign HEIs or not. Training and information is need for HEIs to have a clear understanding of the different types of open-source and licensed data spaces, before decisions are made on investments in on-line, off-line and/or hard copy library access and usage.. |
| C3.4 Modern teaching aids and laboratory equipment will be provided. | 147.   This statement is not really a policy, but is rather a policy objective. The proposed set of policy statements will certainly provide the foundations for achieving this long-term goal, but planning for these investments needs to be based on institutional assessments and matching requirements to actual programmes..

Primary issue: Develop understanding of application of different learning and teaching modalities to different pedagogical situations as basis for identification of requirements for teaching aids and equipment for labs and workshops. |
| C3.5 Visiting professors will be invited to teach | 148.   At face value, this is an admirable policy, and should be linked to broader faculty (and student) exchange policies. However, issues such as the ability of undergraduate students to understand the English (or other foreign |

at universities.	languages) spoken by visiting scholars must be also taken into account. **Primary issue:** Each institution should have the opportunity to develop its own faculty and exchange programmes.
C3.6 Outstanding students will be nurtured in a special programme.	149. Consideration should be given to guiding outstanding students to a research orientation, possibly with a view to doctoral studies and an academic career. Incentives could be offered to encourage academically oriented students to take up academic teaching and/or research careers. **Primary issue:** Careers guidance should be integrated into the studies of every student, based on aptitudes, motivation and field of endeavour.

C4. Quality Assurance Enhancement Policy

C4.1 The Internal Assessment Teams will be formed at universities.	150. International practice tends towards an organization which includes faculty level QA teams as well as a central institutional QA coordinator. Every member of staff is involved in QA, and overall QA is the responsibility of the institution. **Primary issue:** Institutional level training and awareness-raising on QA issues should be started in parallel with establishment of the national body responsible for guiding QA policy and implementation.
C4.2 The External Assessment Teams will be formed with external academicians to assess the quality of the universities.	151. The overall direction of education quality assurance must be developed as a mechanism to raise educational quality level nationwide and to allow Myanmar academic awards to be recognized by regional and international standards. However, the ultimate goal of the QA system for HE must focus on improving the graduates' qualifications and strengthening the country's competitiveness. **Primary issue:** Institutional level training and awareness-raising on QA issues should be started in parallel with establishment of the national body responsible for guiding QA policy and implementation.
C4.3 Cooperation with the Regional Quality Assessment Agencies in ASEAN will be offered.	152. Whatever the extent of collaboration with regional bodies, the key principle should be that the Myanmar HE quality assurance system is managed by a Myanmar agency working together with the HE institutions. The regional bodies can provide assistance to the government to define and establish the systems, train agency and HEI QA personnel etc., but responsibility with for the processes and how the QA data is utilized rests firmly in Myanmar hands. **Primary issue:** Institutional level training and awareness-raising on QA issues should be started in parallel with establishment of the national body responsible for guiding QA policy and implementation.
C4.4 Quality Assurance *[and]* Accreditation Body will be formed.	See Policy A1.6 **Primary issue:** Institutional level training and awareness-raising on QA issues should be started in parallel with establishment of a national body responsible for guiding QA policy and implementation.

C5. Applied Research Policy

Incentive will be offered to applied research.	153. Presently less than 25% of academic staff are actively involved in research work in 56.47% of respondent institutions, and less than 10% are actively involved in research in 35.3% of HEIs. This is despite the fact that 71.6% of respondent Rectors would like to see more active research work and publication of results by all members of staff at their institutions. Incentives alone will not be sufficient to establish a strong culture of research at all HEIs. Initial training on research methods and how to write research proposals will be necessary to open the field to all HEIs.

154.   The Phase 1 report proposes provision of support to develop and evaluate a pilot applied research scheme in some stronger HEIs whereby academic staff is rewarded financially for publications. The scheme should be linked to the provision of training in research methods, and mentoring in writing for publication. In the interests of equity and the full development of human resources, particular attention should be paid to the needs of HEIs in rural and minority locations in any wider rollout of the scheme. As stated above (see para. 52): experience in the region has shown that the communities served by second-tier and third-tier HEIs could greatly benefit from research that addresses local or specific problems in agriculture, urban development, energy use, transport infrastructure, product development, etc.

155.   "Pure" research or research which does not have an immediate application must not be marginalized, as it contributes strongly to the professional development of researchers, and may also lead eventually to new exploitable fields.

156.   This policy statement should be linked to policy statements C2.3, C3.2-5, and C9 to provide an overall policy statement on the application of IT to all aspects of HE, including research.

Primary issue: Capacity-building support to develop a national policy on research and innovation: the role and importance of research conducted by universities; research funding, and the need for funded research to demonstrate benefits for the people of Myanmar. |

C6. Curriculum and Syllabus Policy

Curriculum Development Teams will be formed comprehensively at each university with a wide range of academicians to design the curricula and syllabi that can supply the needs	157. Such curriculum teams need to be informed by other sectors of the community, such as commercial interests, as well as by the international and national academic communities. It has been demonstrated that university-industry relations have potential to improve teaching and learning outcomes as well as research activities[45], and may also contribute to the generation of income. However, several factors affect the building and maintenance of such relationships: (i) there must be a strategic vision that includes the objectives of each partnership, (ii) the top management of the partner organizations must be committed to supporting and following through on the partnership; (iii) the partnership must be managed in a professional manner through specially established structures and appropriate procedures worked out collaboratively. There are several modalities for such partnerships, and each has different

[45] See, for example, The Global Competitiveness Report 2013-1014 and IIEP/UNESCO (2003) The Management of University-Industry Partnerships in Eastern Asia

of the region/industry.	requirements and consequences, for example, in terms of resource provision and utilization. Issues such as management of intellectual property rights must be clearly resolved in advance.

158.   Presently, the curriculum is centrally devised, and is not well informed by international content or methods. There is a need to make the curricula dynamic (i.e. curriculum development is a continuous process), and to reference them to those other faculties, whether national or international. The curriculum should require students to be routinely required to demonstrate analytical and problem-solving skills, and should be designed to help prepare graduates for employment.

159.   97.67% of the Rectors' survey respondents support the principle of allowing institutions to develop their own programmes.

Primary issue: Capacity-building support to subject experts to develop curriculum frameworks that promote active learning by requiring problem-solving skills, the application of knowledge to solve practical problems, and the integration of workplace-based learning with conceptual learning. |

C7. International Collaboration Policy

C7.1 Universities will have autonomy in fostering international collaboration.

C7.2 Universities will have autonomy in signing MoUs.

C7.3 Universities will collaborate with foreign universities for student exchange, faculty exchange and academic mobility.

C7.4 Universities will collaborate with foreign universities for joint research and joint degree. | 160.   See Policy A3. This policy statement is an inevitable consequence of overall autonomy. A key factor will be funding levels for these activities. |
| *Policy on exploitation of Myanmar's "diaspora resources"* | 161.   The Phase 1 report indicates a significant level of higher-level human resources have left Myanmar, often to work in other ASEAN member states, resulting in both a major and ongoing loss of talent, and significant educational inefficiency, since these individuals are the most expensive to produce. |

	162. A review should be conducted of the experience of regional countries that have implemented such foreign talent/knowledge diaspora schemes, notably the PRC, as well as the costs and benefits of financing such a model scheme. The aim should be to draw lessons that might be adapted for use in the Myanmar context.

C8. English Proficiency Skill Development Policy

English language teaching (ELT) and English language proficiency skill development programmes will be launched.	163. Experience has shown that participation in language programmes may not be highly motivated unless the programme is linked to specific career paths or, for example, to a specific scholarship programme.
	Primary issue: As far as possible, ELT and other language proficiency development should be linked to specific programmes so that participants are motivated to study.

C9. Information Communication Technology (ICT) Utilization Policy

C9.1 Information Communication Technology will be utilized in teaching, learning and administration.	164. This policy statement should be linked to policy statements C2.3, C3.2-5, C5, and C9.2 to provide an overall policy statement on the application of IT to all aspects of HE, including: blended learning; IT-supported teaching; information archiving and sharing for libraries and research data-bases; administration; student affairs; timetabling and other resource utilization.
	165. As stated in the Phase 1 report, information sharing between HEIs and across the subsector is generally deficient, which greatly restricts strategic planning aimed at securing national priorities in teaching and research.
	Primary issue: Development of a Higher Education Management Information System to inform decision-making.
C9.2 The use of internet in teaching-learning will be encouraged.	166. See Policy statement C3.2.
	Primary issue: Deeper understanding of the role of internet and ITC as tools for teaching, learning and research must be developed at both government and institutional levels as the basis for decisions on investment in this area.

C10. Teaching Staff Recruitment Policy

| C10.1 Only qualified graduates will be admitted for teaching staff recruitment.

C10.2 If necessary, aptitude tests will be administered.	167. A teaching staff recruitment policy which allows individual HEIs to recruit, promote and dismiss staff according to their needs is an essential step in providing institutional autonomy. However, while teachers remain government employees, the system and criteria for recruitment as well as promotion policies should be based on common, transparent criteria for all HEIs. See also C11.
	168. 91.86% of Rectors' survey respondents support the principle of HEIs in Myanmar having more autonomy is determining which teaching staff members they should employ.
	Primary issue: Establishment of target ratios of PhD : Masters :

	Bachelor/Other qualification, and development of clear, common recruitment and promotion criteria are priorities.

C11. Teaching Staff Promotion Policy

Qualification and performance based policy will be applied in teaching staff promotion.	169. Staff recruitment (see also C10), promotion and continuous development policies are closely linked to achievement of autonomy (see A3). In some countries, HEI staff are employed by the institution directly (the "corporate model"), whereas in others, like Myanmar, all staff are government employees. In many post-Soviet and eastern European countries, this continues to be so, but responsibility for promotion, continuous development etc. has been devolved to the HEIs in line with government guidelines on staffing issues. This model may best suit Myanmar, at least in the medium-term. **Primary issue:** Development of clear, common recruitment and promotion criteria are priorities.

C12. University Entrance Policy

The respective universities will formulate the university entrance system.	170. This policy statement is strongly supported by Rectors and Principals. 90.59% of respondents to the Rectors' survey feel that selection for admission to HEIs should be decided by individual HEIs, which should have the right to select the students to match their institutional profiles. However, only 60.2% feel that selection should be purely meritocratic, and 71.08% would support an admission system that provides more opportunities for young people from socio-economically disadvantaged backgrounds to enter higher education. 77.65% believe undergraduate students in Myanmar should be permitted to choose the institution at which they will study, having regard to factors such as its quality, the relevance of its programs, its convenience, etc., while 90.59% believe undergraduate students should be permitted to choose the training program they wish to undertake. 171. See also Section B, in relation to the role of the matriculation exam in admissions. **Primary issue:** Clear guidelines and criteria on admission to HEIs should be established and made known to the general public in order for potential graduates to make informed decisions on courses and institutions.

C13. Assessment Policy

The Board of Studies from the respective universities will supervise setting the standardized questions.	172. This policy statement should be linked to policy statements A1.6, C3.6 and C4 to provide an overall policy statement on the how student assessment is linked to overall quality assurance within HE

D. MANAGEMENT AND FINANCING

> RECOMMENDATIONS:
>
> **Short to medium term**
> - Preparation of clear mandate, terms of reference, financing and membership for UCC.
> - Role of the Central Universities' Academic Board must be redefined.
> - Integrated of UCC mandate with the mandate and TOR of individual HEI Councils.
> - Prior agreement must be reached with HEIs on potential government-financing : self-financing ratios as well as timetables to achieve them.
> - Preparation of plans for consolidation of HEIs should begin at the institutional level with inputs from the specific line ministries, and implemented on the basis of pilot consolidations to examine all the impacts (benefits and disadvantages) of consolidation.
> - Preparation of mandate, financing and establishment of an independent national QA body is an immediate priority for both governance of HEIs and quality and relevance of their programmes.
> - Minimum standards for teaching contact hours, practical work, self-study, etc. must be established as the basis for any decisions on the duration and timing of academic years.
>
> **Long-term**
> - Without marginalizing their special status, these universities under MoBA, MoD and MoH should be encouraged to follow the same guidelines as for other HEIs.

173.   **Management and Efficiency** issues address the processes by which the HE system and institutions are governed and managed. The main goal is to consider the degree to which the systems are efficient and effective in utilizing resources to achieve the objectives set for the sector. The report defines options to improve the management and financing of Higher Education, including efficiency of delivery and outputs.

174.   Five main policies related to **Management and Efficiency** have been proposed by the EPIC team. These are supplemented with comments in line with current regional and international HE systems. For each policy statement, a primary issue is identified as an initial priority action to initiate or safeguard the implementation of the respective policy.

A1. Policy of Governance Structure

A1.1 The university governance will be administered by the Universities' Central

175.   Similar organizations with a broad mandate to coordinate the governance and guide the strategic purpose of HEIs can be found throughout the region (e.g. Thailand's Higher Education Commission) and globally. The essence of such structures is "steering from a

A1.4 The Universities' Central Council will be an autonomous council.

Should be expressed as:

University governance will be overseen by an autonomous Universities' Central Council.

Governance of individual universities will be through a University Council to include members from the faculties, staff, students, local community and the business/industrial sector.

distance", which allows the HEIs to develop their specific identities, organizations and programmes within specified guidelines or frameworks. In many knowledge-based societies, the trend is towards voluntary membership of national organisations that promote collaboration between HEIs and which act as lobbying agencies in discussions with government.

176.   Each HEI must have its own organizational structure with clear lines of responsibility and accountability. In many countries this is achieved through a University Council which acts as an advisory and supervisory body (e.g., the universities of 16/33 European countries are governed by such bodies which have membership that includes both external and internal stakeholders: local community, business community as well as faculty, staff and student representatives). Often, the Rector or Principal will be elected from the faculties, or recruited by the Council, and reports to the Council. Additional institutional-level bodies such as Board of Studies (see Policy C13) are also responsible to the Council.

Primary issue: preparation of clear mandate, terms of reference, financing and membership for UCC (see model at Annex 11), which are integrated with the mandate and TOR of individual HEI Councils (see Annex 12). In addition, the role of the Central Universities' Academic Board must be redefined.

A1.2 The universities emerging from consolidating 141 universities of 8 ministries and the private universities will be under the Universities' Central Council.

A1.5 The comprehensive universities will be formed by consolidating the universities in terms of the Regions and States.

177.   Decisions on consolidation of universities must be based on institutional level needs and capacities, geographical proximity, academic synergies. Such consolidation may be best achieved by adopting a faculty structure at the new universities. According to discussions during site visits, establishment of faculties already has broad support in the universities.

178.   As noted above (see para. 62), in theory it would be possible to combine a process of consolidation of institutions with greater autonomy – basically, by designing more autonomous academic, governance, organizational, financing and management systems to be applied to a new amalgamated HEI which would incorporate the staff and facilities of several existing institutions. The legal basis for such a process would be relatively simple as the sites and facilities of all public HEIs are presently under government ownership, and such a new amalgamated HEI could be established under a new decree with articles of association that reflect autonomous status. This all could be done quite easily on paper, but, in practice, such an approach would require the staff and administrators of the HEIs to undertake an enormously ambitious reform programme which would have simply too many facets to manage with the existing levels of skills and experience in most HEIs.

Primary issue: Preparation of plans for consolidation of HEIs should begin at the institutional level with inputs from the specific line ministries, and implemented on the basis of pilot consolidations to

	examine all the impacts (benefits and disadvantages) of consolidation.
A1.3 The universities from the Ministry of Defence, Ministry of Religious Affairs, Ministry of Health and Ministry of Border Affairs will be admitted as Associate Members in the Universities' Central Council.	179. While the special position of the institutions under these ministries is recognized, the qualifications they provide should be comparable with qualifications from other national institutions, particularly in the case of MOH institutions. **Primary issue**: Without marginalizing their special status, these universities should be encouraged to follow the same guidelines as for other HEIs.
A1.6 The autonomous Quality Assurance Accreditation Body will always access the quality and standard of universities. Should be expressed as: An autonomous Quality Assurance Body will establish HE standards and will promote a continuous assessment process to monitor the quality of HEIs and their programmes. Accreditation of institutions and/or programmes will be a function of the UCC.	180. Countries throughout ASEAN are developing or strengthening their HE Quality Assurance systems. There are already available systems developed under the ASEAN Universities Network (AUN) and SEAMEO-RIHED which can be adapted to the Myanmar context. However, accreditation should be viewed as a separate function, not necessarily under the same institution. 181. An index of minimum quality (teacher:pupil ratios, teacher qualifications, facilities, library access, etc.) should be devised as targets for every HEI to meet. The achievement of such targets could be applied as a requirement to receive permission to establish private HEIs. 182. There is very strong support for this quality assurance policy from the present Rectors and Principals (over 90% of respondents to Study I[46] strongly agree or agree with the need to improve quality assurance and reporting to the public). **Primary issue**: preparation of mandate, financing and establishment of an independent national QA body is an immediate priority.

A2. Financial Policy

A2.1 Universities will receive Grants from the State to administer the finances autonomously and effectively. A2.2 The system in which the Grant of the State is distributed to the universities according to their performance will be practised.	183. In many HE systems, such a policy of financial autonomy is seen as the final step in creating fully autonomous institutions. Funding levels and modalities of disbursement and accounting need to be clearly established, and human and institutional capacity developed before the Grants system is implemented. Decisions must be made on ownership of facilities and resources, and trusteeship issues must be settled. Similarly, agreement must be reached on the types and levels of responsibilities and performance levels (e.g. anticipated graduation levels, number and types of programmes, types of research) of the individual institutions in return for the funding. **Primary issue:** careful and detailed preparation of financing and ownership plans is essential for implementation of such a policy.
A2.3 Universities can manage and boost the	184. International experience has shown that self-financing mechanisms can improve not only an institution's finances, but also

[46] Study I: Survey of Rectors and Principals of 168 Myanmar HEIs in November/December 2013 – response rate was 52.4%.

<table>
<tr>
<td>finance freely so that they can stand on their own in the long term.</td>
<td>encourages the institutions to look outwards and adopt a driving role in society (see para. 18, Goals of HE). However, care must be taken to ensure that HEIs do not focus all efforts on money-raising at the expense of their other responsibilities.

Primary issue: prior agreement must be reached with HEIs on potential government-financing : self-financing ratios as well as timetables to achieve them.</td>
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A3. Autonomy Policy

<table>
<tr>
<td>Universities will have the academic autonomy, administrative autonomy and financial autonomy.</td>
<td>185. Autonomy should be seen as part of a process towards achieving certain goals, not as an objective in itself. International experience shows that autonomic HEIs are better able to react to changing technologies and societal needs, that they are often more effective in promoting and contributing to knowledge-based society, and that they are often more efficient in resource utilization than centrally planned and managed HEIs. Thus, for example, a goal could be "improvement of quality of teaching and learning", and operational autonomy could be one way to achieve the goal.

186. Staff recruitment, promotion and continuous development policies (see C10 and C11) are closely linked to achievement of autonomy. In some countries, HEI staff are employed by the institution directly (the "corporate model"), whereas in others, like Myanmar, all staff are government employees. In many post-Soviet and eastern European countries, this continues to be so, but responsibility for promotion, continuous development etc. has been devolved to the HEIs in line with government guidelines on staffing issues. This model may best suit Myanmar, at least in the medium-term.

Primary issue: different HEIs in Myanmar are at different stages of readiness to take on the responsibilities and benefits of autonomy: thus the planning and scheduling of any moves towards autonomy must be based on individual institutional plans.</td>
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A4. Administrative Staff Quality Promotion Policy

<table>
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<td>Local *[and]* foreign training courses will be conducted for Administrative staff.</td>
<td>187. Institutional analysis should be carried out at each individual HEI to determine capacity needs in line with present and future responsibilities, as well as existing skills levels.

Primary issue: Staff training and development programmes to be based on specific institutional requirements.</td>
</tr>
</table>

A5. Academic Year Policy

<table>
<tr>
<td>The respective universities will determine the duration of the academic years.</td>
<td>188. This links to both academic autonomy and quality assurance policies.

Primary issue: minimum standards for teaching contact hours, practical work, self-study, etc. must be the basis for any decisions on</td>
</tr>
</table>

| | the duration and timing of academic years. |

E.   POLICY AND LEGISLATION

189.   **Policy and Legislation** issues will be addressed once the final versions of new Laws on Education and Higher Education have been released to the public. It will then be possible to analyse the impact of the new legislation on the policy options for governance and management of the HE system and institutions.

F.   IMPROVING PARTNERSHIPS IN HE

190.   Options for establishing and improving partnerships issues will be addressed once the impact of the new legislation on the policy options for governance and management of the HE system and institutions has been analysed. A key focus should be to avoid divergence of Myanmar institutions as a result of international links, and to provide a framework to promote a consistent and systematic approach to collaboration. Thus the relevance and exploitation of various types of partnerships (public with private HEIs, local HEI with local HEI, local HEI with regional/international HEI, etc.) will be examined and recommendations made on promotion and funding of such activities. The existing and potential roles of alumni associations will also be considered in terms of providing data for tracer studies, opportunities for work placements, etc.

G.   THE REFORM PROCESS

191.   Assumptions are often made that institutions which are involved in a reform process automatically need to implement a strategic planning process. While this is often the case, the leaders of the institutions do not always understand why this may be so. The questionnaire below helps to identify whether or not an institution needs to carry out a review of its strategies. In addition, as the statements are analysed by the management team, they help to provide focus on the issues that should be addressed during the strategic planning process.

Figure 1: Questionnaire on strategic issues for a university or other educational institution management team

Score: Definitely Yes = 1   Maybe = 2   Definitely No = 3

Statement	Definitely Yes	Maybe	Definitely Not	SCORE
1. The organization has a clear vision of what it wants to achieve AND there is consensus around this vision.				
2. Value issues are often discussed in the organization AND there is agreement on the core values of the organization				
3. The current mission statement of the organization clearly reflects what the organization does, for whom, and why it is important.				
4. The organization regularly reflects on its strengths and weaknesses and on the opportunities and threats in its environment.				
5. The organization has clear goals and objectives for what it wants to achieve AND these goals are SMART*.				
6. The organization finds it easy to prioritize, making a distinction between what it must do, what it should do and what it would like to do.				
7. The organization has clear indicators by which it measures the impact of its work.				
8. The way in which the organization is structured internally makes sense in terms of efficiency and effectiveness.				
9. The work done by the organization fits together coherently (the different areas of work fit well with one another).				
10. The external and internal contexts in which the organization operates are relatively stable and there have been no major changes in the past year.				
			TOTAL	

* Achievable Objectives should be Specific, Measurable, Agreed upon, Relevant and Time-bound (SMART)
Analysis: <15   = consider revising your strategic plan within the next 3 years
                16 – 20 = your organization would probably benefit from a strategic
                        planning process
                >20   = your organization is now ready for a strategic planning process

2.1   Vision and Goals of HE

192.   A vision is a mental image of a possible and desirable future state of the university: it expresses the leaders' ambitions for the university. The best visions are both ideal and unique. If a

vision conveys an ideal, it communicates a standard of excellence and a clear choice of positive values. If the vision is also unique, it communicates and inspires pride in being different from other universities. The choice of language is important; the words should imply a combination of realism and optimism, an action orientation, and resolution and confidence that the vision will be attained. Para. 80 (above) contains a proposal for an overall vision for the Higher Education sub-sector in Myanmar. The vision proposed by the EPIC team covers the same basic themes, but is written more as goals for the system rather than as a vision that it takes a broad view of what we expect from higher education. The visions of individual institutions should also reflect the overall systemic vision, and then relate to the institution's specific environment.

193.   Para. 82 provides a suggestion for systemic goals. These goals closely reflect those of the EPIC team. Each institution should ensure that its own strategic goals are aligned with the systemic goals, but should be focused on the institution's own situation, and should reflect the core values of the institution.

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ANNEXES