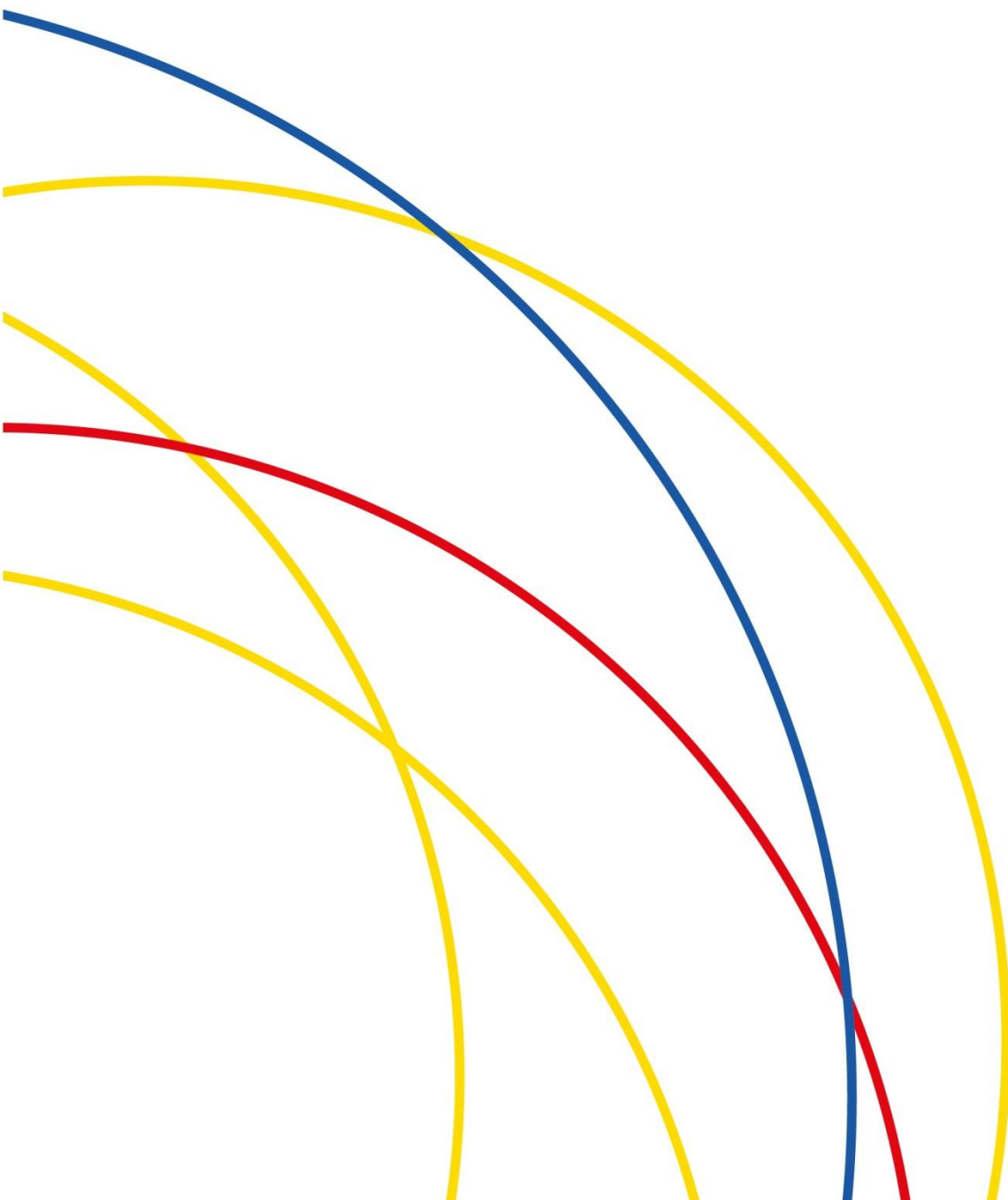




Degree Structures in the ASEAN Region

State of Play Report

February 2016





The European Union Support to Higher Education in The ASEAN Region



SHARE, the European Union Support to Higher Education in the ASEAN Region, is a four-year initiative by the EU and ASEAN. They have entrusted the implementation of SHARE to a consortium of British Council (leader), Campus France, DAAD, EP-Nuffic, ENQA, and EUA. Launched in Jakarta in May 2015, SHARE aims to support ASEAN in harmonising regional higher education by sharing European expertise. It does this through strengthening regional cooperation, enhancing the quality, competitiveness, and internationalisation of ASEAN higher education for institutions and students, and thereby contributing to a closer ASEAN Community in 2015 and beyond.

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Acronyms

ADB	Asian Development Bank
AIMS	ASEAN International Mobility for Students Programme
APEC	Asia-Pacific Economic Cooperation
APEL	Accreditation of Prior Experiential Learning
AQRF	ASEAN Qualifications Reference Framework
ASEAN	Association of Southeast Asian Nations
ASEM	Asia-Europe Meeting
AUN-ACTS	ASEAN University Network - ASEAN Credit Transfer System
AUN-QA	ASEAN University Network - Quality Assurance
DAAD	German Academic Exchange Service
ENQA	European Association for Quality Assurance in Higher Education
EUA	European University Association
ISCED	International Standard Classification of Education
LDCs	Least Developed Countries
MRA	Mutual Recognition Arrangement
NIC	National Information Centre
NQF	National Qualifications Framework
SHARE	Support to Higher Education in the ASEAN Region
SEAMEO	Southeast Asian Ministers of Education Organization
TVET	Technical Vocational Education and Training
UIS	UNESCO Institute for Statistics

1. Introduction

The aim of this report is to present an overview of higher education degree structures in the ASEAN region, including major degree types, how they are defined (e.g. degree descriptors), and to map these similarities and differences between systems of higher education. The study also explores implications of degree structures with regards to student mobility and regional harmonisation efforts within higher education in ASEAN. The report was commissioned as part of a European Union funded project, Support to Higher Education in the ASEAN Region (SHARE 2014-2018). SHARE is led by a consortium composed of the British Council (lead partner), the German Academic Exchange Service (DAAD), EP-Nuffic – the organisation for internationalisation of education in the Netherlands, Campus France, the European Association for Quality Assurance in Higher Education (ENQA) and the European University Association (EUA), which implement the project in close collaboration with their counterparts in ASEAN. The project has three main components: i) policy dialogues, ii) the ASEAN Qualifications Reference Framework and ASEAN quality assurance, and iii) credit transfer and student mobility with scholarships.

The following report aims to inform the SHARE activities, exploring the extent to which degree structures impact the various areas and objectives of ASEAN higher education integration. While SHARE focuses on higher education, the report also includes references to Technical Vocational Education and Training (TVET) and other post-secondary education programmes. This approach will provide a more comprehensive picture of educational pathways and other current issues related to higher education degree structures in ASEAN. Given the size and complexity of the region as well as the topic, this state of play report can only provide a first overview to guide future research and harmonisation efforts in and between ASEAN Member States, and contribute to the enhancement of study programmes and resulting qualifications.

In the concluding remarks, the report will provide key questions and issues to be further explored by the SHARE consortium in partnership with regional stakeholders. In particular, the concluding remarks will focus on the implementation of common recognition policies, including the UNESCO recognition conventions and other regional tools to promote greater transparency and mobility with the aim to strengthen international collaboration across higher education systems within the ASEAN Economic Community.

1.1. Research questions

Four primary research questions guided the development of this study:

1. How do post-secondary degree structures compare across ASEAN Member States?
2. Where are the major degree and credit recognition roadblocks between countries?
3. How are some countries and institutions overcoming these obstacles?
4. What are the supports needed from other stakeholders, especially international organisations and funding agencies?

Before addressing these questions and further exploring the current state of degree structures in ASEAN, the following section briefly outlines the research methods.

1.2. Methods

This state of play report relied on semi-structured interviews with university faculty and administrators, higher education ministry officials, representatives from international organisations (n=30 interviews), four student focus groups (in Indonesia, Cambodia, Viet Nam, and Thailand), and document analysis of official

sources on higher education degree structures, recognition and mobility in the ASEAN region. Based in Thailand, the researchers travelled to Cambodia, Indonesia, the Philippines, and Viet Nam to meet with officials and higher education stakeholders. The interviews provided on the ground insights, including from students at bachelor's, master's and Ph.D. levels across disciplines and faculties (e.g. faculty of oriental studies, department of archives, faculty of English, centre for human rights, and others) as well as faculty members and administrators at different levels of their institutions, including junior lecturers, professors, and deans. The aim of these interviews was to discuss degree structures and how they may impact academic progression (i.e. academic pathways), cross-border recognition of qualifications, mobility and other aspects relevant to efforts to promote collaboration among higher education institutions in the ASEAN region (see Appendix 1 for more about methodology). To supplement these methods, the UNESCO Institute for Statistics (UIS) International Standard Classification of Education (ISCED) was used for comparing education programmes and related qualifications in ASEAN. Additional background about ISCED is provided below in Section 2.1.

2. Current state of degree structures in ASEAN

In 2014, education ministers in the ASEAN region and Timor-Leste agreed to promote the harmonisation of higher education and research as part of a new education agenda for 2015-2035 (SEAMEO Secretariat, 2015). Currently, there is no specific regional commitment to align degree structures in ASEAN yet they are at the forefront of the ASEAN higher education agenda. Therefore, understanding where they are similar or different, and to what extent these differences may hinder mobility and recognition is key to understanding needs and potential within the region. With these issues in mind, the following section will describe the current state of higher education degree structures in ASEAN. Because education systems vary in terms of structure and curricular content, this overview will summarise and compare education systems based on standard definitions (i.e. ISCED). Before exploring major degree types and descriptors, establishing a common vocabulary is a helpful starting point.

2.1. Common definitions of degree structures

The ISCED provides internationally recognised guidelines for classifying national education programmes and related qualifications. ISCED is a product of international agreement and was formally adopted by UNESCO Member States, which includes the ten ASEAN countries. While an earlier version of ISCED (1997) is still in use, UIS and its data collection partners have already begun to work with countries to map their education systems based on a revised 2011 classification (UIS, 2015).

The definitions and concepts used by ISCED are an international referencing tool by which comparisons can be made by education level. For example, Table 1 below is an excerpt of ISCED definitions used in the present report (see Appendix 2 for a more complete glossary).

Table 1: Key terms from ISCED 2011

Key terms	Definitions
Course	A unit of instruction comprising a sequence of educational activities in a particular field or range of related fields of education. This can also be referred to as a 'module', 'unit' or 'subject'.

Credit	Unit in which the successful completion of courses or modules is earned and documented during and at the end of an education programme. Credits express the volume of learning based on a typical workload needed to achieve the expected learning objectives.
Degree	Educational qualification awarded upon successful completion of specific education programmes in tertiary education (traditionally by universities or equivalent institutions).
Learning outcomes	The totality of information, knowledge, understanding, attitudes, values, skills, competencies or behaviours an individual is expected to master upon successful completion of an education programme.
Qualification	The official confirmation, usually in the form of a document, certifying the successful completion of an education programme or a stage of a programme. Qualifications can be obtained through: i) successful completion of a full education programme; ii) successful completion of a stage of an education programme (intermediate qualifications); or iii) validation of acquired knowledge, skills and competencies, independent of participation in an education programme. This may also be referred to as a 'credential'.

Source: UIS, 2012

It is worth noting that in ISCED, the term 'qualification' is used interchangeably with 'credential'. Terms such as 'certificate', 'degree' or 'diploma' are also treated as being synonymous with each other within ISCED. While ISCED treats these terms as synonymous, they are not always seen as the same in practice across the ASEAN region. Instead of distinguishing between these terms, ISCED maps the relative position of a country's degree and qualifications. Further, ISCED considers only those qualifications that are officially recognised by the relevant education authorities in a given country. In this way, ISCED is a valuable tool to map the diversity of programmes within countries, as well as differences in structures between countries.

To further contextualise these issues, the following discussion explores definitions of major degree types found in post-secondary education. The aim here is to describe what each cycle means to each system in ASEAN and compare it to international standards such as ISCED.

2.2. Mapping major degree types in ASEAN

The core educational systems in ASEAN vary somewhat from country to country. For example, basic and secondary education generally consists of at least 12 years, but there are two notable exceptions. The Philippines and Myanmar have fewer years of pre-university study. However, both countries are reportedly undergoing reforms to align their education systems with the wider ASEAN region (see Section 3.1 below).

The progression pathway of students moving from secondary to TVET or higher education in ASEAN is usually clearly divided. As will be described later in this report, the two different tracks – TVET and higher education – do not always allow students to crossover from one track to another. However, Cambodia, Singapore, Thailand and to a certain extent, Malaysia have integrated systems where a link between vocational and higher education has been clearly mapped and articulated.

At the level of higher education, degrees in ASEAN are structured around three main degree cycles, including bachelor's, master's and the doctoral level. These three main cycles are the backbone of higher education throughout ASEAN countries.

As shown below in Table 2, apart from the three main degree types, qualifications also include various professional and academic certificates, which vary from country to country.

Table 2: How do degree structures compare across ASEAN countries?

Degree Structures	Bru	Cam	Laos	Indo	Mal	Mya	Phil	Sing	Tha	Viet
Doctoral Degree	X	X	X	X	X	X	X	X	X	X
Higher Graduate Diploma									X	X
Master's Degree	X	X	X	X	X	X	X	X	X	X
Postgraduate and Specialist Certificate/ Diploma	X			X	X	X			X	X
Bachelor's Degree	X	X	X	X	X	X	X	X	X	X
Graduate Diploma			X		X			X	X	
Associate Degree		X	X	X		X		X		X
Advanced Diploma	X		X		X			X		X
Diploma					X	X	X	X	X	X
Higher/ Advanced Certificate							X	X		
Certificate					X		X	X		X

Source: Teter and Dhirathiti

One interesting point of comparison is that least developed countries (LDCs)¹ in ASEAN, which are Lao People's Democratic Republic (Lao PDR), Cambodia and Myanmar, generally have fewer types of qualifications. One possible explanation would be that those countries with basic degree structures may lack the capacity and human resources to diversify qualifications on offer within the country. As seen in Table 2, only Brunei Darussalam's has fewer degree types than LDCs. In the case of Brunei, the more basic degree structure may be linked to the relatively recent launch of tertiary education in the country, including the country's first university, the Universiti Brunei Darussalam, in 1986. The diversity of qualifications and degree descriptors in ASEAN is further explored below.

Broadly, there are two categories of orientation: general and vocational education.

General education: General education is defined by ISCED as education programmes that are designed to develop learners' general knowledge, skills and competencies, as well as literacy and

¹ Least developed countries (LDCs) are defined by the United Nations as low-income countries suffering from structural impediments to sustainable development. Currently, three ASEAN Member States are listed as LDCs: Lao People's Democratic Republic, Cambodia and Myanmar (United Nations, 2015).

numeracy skills, often to prepare participants for more advanced education programmes and to lay the foundation for lifelong learning. These programmes are typically school- or college-based. General education includes education programmes that are designed to prepare participants for entry into vocational education but do not prepare for employment in a particular occupation, trade or class of occupations or trades, nor lead directly to a labour market-relevant qualification (UIS, 2012, p.14).

Vocational education: Vocational education is defined as education programmes that are designed for learners to acquire the knowledge, skills and competencies specific to a particular occupation, trade, or class of occupations or trades. Such programmes may have work-based components (e.g. apprenticeships, dual-system education programmes). Successful completion of such programmes leads to labour market-relevant, vocational qualifications acknowledged as occupationally-oriented by the relevant national authorities and/or the labour market (UIS, 2012, p.14).

Both general and vocational education provide learning experiences that build on prior learning, prepare students for labour market entry as well as TVET, higher education or other post-secondary education programmes. At higher education level, the terms ‘academic’ and ‘professional’ are often used in place of general and vocational education, respectively. ISCED 2011 does not yet define academic and professional education more precisely.

Given the diversity of qualifications and increasing number of public and private sector providers, ministries in ASEAN are under pressure to organise degree structures and promote the development of quality assurance mechanisms. Over the past decade, National Qualifications Frameworks (NQF) emerged as one such tool.

2.2.1 Overview of qualifications frameworks in ASEAN

As noted in a recent report by Bateman and Coles (2015), NQFs in ASEAN were developed based on different goals and rationales. However, common purposes include the ordering and specification of qualifications, the promotion of multiple pathways for learners, and international recognition (Bateman and Coles, 2015). In addition, most qualifications frameworks in ASEAN are still at the early stages of development or implementation. Table 3 (below) highlights the various levels of NQF development within the region. The table highlights the range of development, from background planning in Lao PDR, Myanmar, and Viet Nam to frameworks that have been established for more than five years such as in Malaysia and Singapore. The range in experience with NQF is significant because it highlights the diversity of needs within the region related to harmonising qualifications frameworks and underlying degree structures (see Appendix 3 for a more detailed summary of NQFs).

Table 3: Stage of NQF development and implementation in ASEAN Member States

Country	Level of NQF development and implementation
Brunei Darussalam	Some structures and processes established and operational (inaugurated in 2013)
Cambodia	Some structures and processes agreed and documented (inaugurated in 2012)
Indonesia	Some structures and processes established and operational (inaugurated in 2012)

Lao PDR	Background planning underway
Malaysia	Established for 5 years (inaugurated in 2007); review of structures and processes
Myanmar	Background planning underway
Philippines	Some structures and processes agreed and documented (inaugurated in 2012)
Singapore	Structures and processes established for 5 years (Inaugurated in 2003)
Thailand	Initial development and design completed (inaugurated in 2014)
Viet Nam	Background planning underway

Source: Adapted from Bateman and Coles, 2015

While many countries in the region are still at a preliminary stage of implementing NQFs, ASEAN Member States worked in parallel to develop a regional referencing tool – the ASEAN Qualifications Reference Framework (AQRf). The initial concept of AQRf was developed in 2010 with support from Australia and New Zealand via the ASEAN-Australia-New Zealand Free Trade Area and the Economic Cooperation Work Programme. A multi-sectoral working group collaborated to elaborate the regional referencing framework, which was ultimately endorsed by all relevant ministers in ASEAN in mid-2015.

As explained by Bateman and Coles (2015), the AQRf outlines generic levels of learning with no reference to specific types of qualifications such as bachelor's, master's, etc. Further, ASEAN Member States have not yet referenced their national qualifications to the generic level descriptions of AQRf. While countries in the region have not set a firm timeline to complete the referencing exercise, Member States agreed that they would start referencing national qualifications to the AQRf in 2016 and at the latest by 2018. In the interim, the internationally agreed ISCED definitions of major degree types provide a useful framework for comparing degree structures and descriptors.

2.2.2. Degree descriptors and expected learning outcomes in ASEAN

The AQRf endorses the use of learning outcomes based on levels of learning complexity, but it does not define degree types or qualifications. Some world regions have been more explicit with regards to describing degree types based on expected learning outcomes. For example, in Europe, the Dublin Descriptors provide a description of first, second and third cycle qualifications and the corresponding knowledge and skills (for an overview of the Dublin Descriptors, see Kohler in Gaebel, et al., 2008). As NQFs are implemented and referenced to AQRf, learning outcomes at each level are expected to play a more prominent role and may aid with comparison within ASEAN and with degree descriptors in Europe.

Currently, based on ISCED country maps (see Appendix 4) and associated degree descriptors in the region, a bachelor's degree refers to a systematic and coherent teaching and learning level that prepares students for employment and entry into postgraduate programmes and research as well as other highly skilled careers. This broad concept of the bachelor's degree in ASEAN aligns with the formal definition used by ISCED (see text box).

Bachelor's or equivalent level

Programmes at bachelor's or equivalent level, are often designed to provide participants with intermediate academic and/or professional knowledge, skills and competencies, leading to a first degree or equivalent qualification. Programmes at this level are typically theoretically-based but may include practical components and are informed by state of the art research and/or best professional practice. They are traditionally offered by universities and equivalent tertiary educational institutions (UIS, 2012, p.51).

As mentioned, there is no official consensus in ASEAN regarding expected learning outcomes of a bachelor's degree or other degree types (ASEAN Secretariat, Fourth AQRF Meeting, 2014). In Malaysia, bachelor's degree holders would be expected to demonstrate knowledge and comprehension of fundamental principles in a particular field of study, including relevant research methods and be able to communicate effectively to convey ideas and problems to both experts and non-experts. Similarly, Thailand and Cambodia both focus on the student's knowledge of their respective disciplines and the enhancement of skills necessary for work and further academic study. While not substantially different, the differences above imply regional variation in curricular content and expected learning outcomes. This variation is for two primary reasons: the decentralised nature of NQF development in ASEAN, and a trend towards greater autonomy for higher education institutions that encourages the development of unique curricular content. These issues are also relevant for master's level programmes.

For master's degree level, ASEAN countries broadly define the qualification as advanced knowledge, skills and abilities in a given field that demonstrates comprehension above the bachelor's degree. Most countries in the region identify the master's qualification as training for expertise that involves a significant independent project and advanced coursework. This was inferred by the authors based on ISCED country maps, interviews, and official sources such as qualifications frameworks, where possible. Similar to the bachelor's degree, the description of a master's degree is aligned with the ISCED framework.

Master's or equivalent level

Programmes at master's or equivalent level, are often designed to provide participants with advanced academic and/or professional knowledge, skills and competencies, leading to a second degree or equivalent qualification. Programmes at this level may have a substantial research component but do not yet lead to the award of a doctoral qualification. Typically, programmes at this level are theoretically-based but may include practical components and are informed by state of the art research and/or best professional practice (UIS, 2012, p.55).

The difference can be seen in some ASEAN countries where there are two tracks of master's degree programmes – research-based and taught programmes. Thailand is the best example here with both research-based and taught programmes. The two tracks aim for different learning outcomes. To ensure alignment of learning outcomes across types of programmes, an updated qualifications framework in Thailand was based on ISCED 2011, which will be used to enhance comparability across the country. Again given the diversity of higher education providers and number of degree programmes, there is no

comprehensive map showing which higher education institutions offer research-based vs. taught programmes, which would be useful to explore further in future research efforts.

For doctoral degrees, the qualification provides the further enhancement of knowledge, skills and abilities obtained at the master's level. Those who complete a doctoral degree in ASEAN would have to show a systematic comprehension and in-depth understanding of a discipline, and produce original research. Across the region, doctoral degrees often involve substantial advanced independent scholarship and the development of a recent field of inquiry, creation and interpretation and application of knowledge that adds to the enhancement of the subject, discipline or professional field. Most countries require students to complete the degree within 3-6 years. ISCED 2011 also defines the doctoral degree in comparable terms.

Doctoral or equivalent level

Programmes at doctoral are designed primarily to lead to an advanced research qualification. Programmes...are devoted to advanced study and original research and are typically offered only by research-oriented tertiary educational institutions such as universities. Doctoral programmes exist in both academic and professional fields (UIS, 2012, p. 59).

Definitions of doctoral degrees in ASEAN and in ISCED reflect a heavy emphasis on advanced study and original research, whereas demands on today's researchers are often wider. In Europe, for example, the Salzburg Principles of doctoral education recognise that in addition to original research, the structure and organisation of doctoral programmes must also reflect the needs of the employment market beyond academia (see Salzburg Principles I and II in EUA, 2005; EUA, 2010 respectively). In Malaysia, one effort to strengthen the connection between universities and industry is the creation of the industrial Ph.D., which can be undertaken in collaboration with any business or industry (Chapman, 2014). Given that such programmes are rare in ASEAN, the Salzburg Principles may be a relevant resource and opportunity to compare and elaborate on the structure of doctoral education within ASEAN.

Appendix 4 provides a more detailed table of common definitions and degree descriptors in ASEAN, including the three major degree types outlined above and a range of other post-secondary qualifications. As will be explained in the following section, AQRF does not guarantee mutual recognition of these qualifications, whether for students seeking a full degree (i.e. 'free movers') or for credit. The potential impacts of degree structure on issues such as mobility, credit transfer and degree recognition are further explored in the following section.

3. Potential impacts of degree structure on academic progression and mobility

Most interviewees, including civil servants acting as recognition authorities in ASEAN, do not consider higher education degree structures in the region to be substantially different, or to be a barrier that would limit mobility and degree recognition within the region. This is due to the fact that the three main degree cycles are broadly comparable throughout the region (i.e. bachelor's, master's, and doctoral degrees). Nevertheless, roadblocks and obstacles remain and can impact progression pathways within education systems and international mobility between ASEAN countries.

3.1. Progression pathways to higher education in ASEAN

Throughout ASEAN, there is a common pathway from upper secondary to higher education. Typically, this transition involves two to three years of upper secondary school before entrance examinations and potential access to higher education. Minor differences include Brunei Darussalam, which requires two years of “pre-university” studies and the Philippines where “senior high” plays a comparable role to upper secondary. While the overall structure of upper secondary school is comparable in length, there are two notable exceptions, as mentioned, that may impact transitions from secondary to higher education in ASEAN.

First, the Philippines is the last country in Asia with a 10-year pre-university cycle of primary and secondary education (Republic of the Philippines, 2015), which is incomparable to most other systems across the region. However, the issue of 10 vs. 12 years of basic and secondary study has been addressed through the K to 12 Basic Education Program, which will be implemented throughout the Philippines in 2016.

Similarly, as outlined in the 2013 ASEAN State of Education report, Myanmar’s public school structure conforms to an 11 year (5-4-2 years) pattern, which is unlike other systems in the region. Myanmar is reportedly reviewing this practice to be replaced by a 5-4-3 structure (i.e. 12 years of study). With these changes, ASEAN would have comparable school degree timelines and progression pathways through to higher education (see Appendix 4 for ISCED country maps).

Currently, there is limited official data on the extent to which the number of years of study in the Philippines and Myanmar has impacted progression from secondary to higher education across ASEAN. However, anecdotal evidence from government officials and university administrators suggests that the issue is of growing concern. In Myanmar, for example, while degrees are reportedly accepted as comparable to access higher education in Singapore and Thailand, universities outside the region such as in the United States do not. While students, administrators and recognition authorities interviewed were not aware of structural barriers to progression from secondary to higher education from one ASEAN country to another, further research is needed to better understand how secondary qualifications are evaluated throughout the region (see also UNESCO, 2015). The following section explores the issue of academic progression further, but through the lens of alternative pathways to accessing higher education.

3.1.1. *Alternative pathways to higher education*

Based on growing demand for higher education, alternative pathways to higher education are being developed to assess prior knowledge, skills and attitudes, often developed through work or other life experiences. Alternatives to formal education have received significant attention recently in ASEAN and throughout the global education community (UNESCO Bangkok, November 2015; Incheon Declaration, 2015). While assessing prior knowledge is relatively new in ASEAN, there are signs that alternative pathways to higher education are being developed. For example, Malaysia and Singapore both have developed systems to formally recognise prior learning – by work experience, family duties, or any other life experiences.

Malaysia developed formal guidelines for the accreditation of prior experiential learning (APEL). The corresponding guidelines for good practice allow higher education and training providers in the country to assess all forms of learning. While there is no single model regarding how to assess prior learning in Malaysia, there is a limit on the recruitment of APEL learners. A quota of 5% is imposed to limit how many APEL learners are present in a given institution at any one time (MQA, 2013).

Singapore has also developed alternative pathways to nationally recognised credentials. For example, a polytechnic diploma in Singapore is a recognised pathway to university and can be obtained in multiple ways (Ministry of Education in Singapore, 2015). A diploma in engineering or medical and pharmaceutical technology at Ngee Ann Polytechnic in Singapore can be obtained in part through the recognition of prior learning. As seen in the case of Singapore, the diversity of pathways to formal education includes portability between systems such as TVET and higher education. These transitions between systems are explored further below.

3.1.2. Pathways between TVET and higher education systems

While higher education and TVET are clearly distinguished throughout ASEAN, in most countries, progression pathways between the two are somewhat less defined. In such cases, if a student chose a vocational degree track, they would not necessarily be able to continue their education in higher education. As mentioned earlier, Cambodia, Malaysia, Singapore and Thailand are exceptions, where options and pathways between TVET and higher education are more clearly delineated.

In Thailand, for example, a bachelor's degree in technology has been developed to accommodate those who finished an advanced professional degree. Following the bachelor's degree, students can progress directly to a master's degree, preferably in technology-related fields.

In Cambodia, articulation pathways between TVET and higher education have also been developed. Previously, students entering vocational education would not be able to crossover to the higher education sector. This was considered a roadblock for those who wished to change from vocational to academic tracks. In the Cambodia Qualifications Framework (see Appendix 4), there are three degree levels in vocational education and three corresponding degree levels in higher education ranging from bachelor's to doctoral degrees, which form an integrated model of academic progression.

In countries where transitions between TVET and higher education sectors have not been described, there is a potential barrier for students to overcome. Currently, no comprehensive data has been collected about the issue of transferring between TVET and higher education systems in ASEAN, thus it is difficult to assess if differences between degree structures are impacting academic progression and/or mobility. Issues around international mobility, including the portability of credits, are explored in the following section.

3.2. How credit systems are embedded in degree structures across ASEAN

As defined earlier, credits express the volume of learning needed to achieve expected learning objectives (UIS, 2012). How expected learning outcomes are structured and measured varies significantly across ASEAN higher education. Further, previous researchers and practitioners have documented the fact that higher education institutions are using diverse credit systems (Sujatanond, August 2015). The lack of credit transfer between some ASEAN countries and institutions is an example of a structural barrier and an obstacle to validating international student mobility. Recent reports cite the importance of facilitating international credit transfer across the region (SEAMEO RIHED, 2012; ASEAN Secretariat, 2014). Table 4 highlights what is currently known about national credit systems in the ASEAN region.

Table 4: Summary of credit systems in ASEAN by country

Country	Credit based systems in the context of NQF
Brunei Darussalam	HE – 40 hours of notional learning = 1 credit TVET - 10 hours of notional learning = 1 credit
Cambodia	Varies depending on methodology (e.g. the Cambodian Qualifications Framework proposes 15 hours for 1 credit based on teaching and instruction, 30 hours for 1 credit based on laboratory/workshop teaching activities, and 45 hours for 1 credit is for fieldwork or internship/training activities. A semester is approximately 15-18 credit points according to the NQF.
Indonesia	Yes – in higher education
Lao PDR	No national credit system
Malaysia	40 hours = 1 credit point
Myanmar	No national credit system
Philippines	No national credit system
Singapore	1 Singapore Workforce Skills Qualifications (WSQ) credit value is equivalent to 10 recommended training and assessment hours (1 credit = 10 hrs)
Thailand	Yes – 30 credit points represent the minimum amount of learning normally expected of undergraduate students in one academic year
Viet Nam	1 credit is equal to 30 hours of notional learning

Sources: Adapted by the authors from Bateman and Coles, 2015

In terms of how credit systems are embedded in national contexts, such issues depend very much on the system established by each higher education institution. Given the number of higher education institutions (over 6,000), a more thorough review could capture credit systems used at institutional level. In Thailand, for example, institutions can set their own regulations in relation to credits and course recognition, including international credit transfer. At Mahidol University in Thailand, the course content taken in a given host university abroad will be assessed either at the central university or programme level. The comparability of coursework must be no less than 60 percent of the course content in the programme at Mahidol, and no more than 25 percent of credits can be transferred, unless specified otherwise in separate arrangements. However for some students, credit transfer requirements may be less of a concern. For example, graduate students may not take the issue of credit transfer seriously since time spent at another university may be for research or supervision and not relevant for their home degree.

In contrast, some faculties in Viet Nam reported that while they understood the importance of credit transfer systems and international comparability of coursework, they had limited resources and scope for designing new courses. To elaborate, faculties have a defined scope regarding how much they can revise course curriculum without ministry approval. In addition to time constraints, some faculty were reportedly cautious to restructure ministry approved courses, an issue that needs further exploration. The hesitation to reform and update curricula may present a challenge as Viet Nam is in the planning phase of developing and introducing an NQF, which presumably would require national degree structures to be reviewed and realigned based on expected learning outcomes. Ideally, such a review would also promote international comparability and credit transfer.

As noted by Bateman and Coles (2015), mutually recognised credit transfer systems in ASEAN are not yet in place, or are in preliminary developmental stages. For example, the ASEAN Credit Transfer System (AUN-

ACTS) supports students from AUN's 30 member universities who seek credit transfer for courses completed at partner institutions. More about the regional dimensions of credit transfer are explored below.

3.2.1. Regional credit transfer systems in ASEAN

While widely cited for its success within the ASEAN University Network, and often used as a reference point for credit transfer in the region, ACTS is not yet a widely accepted and implemented credit transfer system throughout ASEAN. The AUN-ACTS Secretariat reported in July 2015 that: "few universities are reporting their incoming students' grade through the ACTS online application system so that the AUN-ACTS Secretariat is struggling in ACTS academic transcript issuance" (Kamil, August 2015).

Despite the availability of AUN-ACTS and initiatives such as the University Mobility in Asia and the Pacific (UMAP) credit transfer system, and the Asian Development Bank's (ADB) recent support to build a common credit transfer system for the Great Mekong Sub-region², ASEAN as a whole does not yet have a common integrated system. To help address this issue, the ADB-supported project administered by the Southeast Asian Ministers of Education Organisation's Regional Centre for Higher Education and Development (SEAMEO RIHED) includes a review of credit transfer systems in the region, as well as pilot efforts and tentative plans for expansion.

The lack of an inclusive solution to transfer credits may impact a mobile student's progression towards a degree. In particular, this may be an issue for students outside flagship public institutions and capital regions where there are fewer resources and experienced advisors to guide them. The 2013 ASEAN State of Education Report cited similar concerns about the general absence of international credit transfer arrangements across the wider region (ASEAN Secretariat, 2014).

The issue of a common credit system has also been cited as a challenge for Asia-Pacific Economic Cooperation (APEC) members, where seven ASEAN Member States take part (Myanmar, Cambodia, and Lao PDR are not currently APEC members). A recent report by the APEC Secretariat cites the difficulty of determining the equivalency of education programs from foreign higher education providers or even institutions within a given country's own higher education system (APEC Secretariat, 2015). The lack of comparability presents broader challenges to facilitating international recognition of qualifications and mobility of students and workers.

In response, new tools for credit transfer are playing increasingly important roles in efforts to facilitate and recognise mobility within the region (see Section 4.2 below for more about international mobility programs). Along these lines, credit transfer gaps are reflected in the diversity of recognition policies and practices in ASEAN, which are discussed in the next section.

4. The diversity of recognition policies and practices in ASEAN

For degrees to be recognised internationally, transparency and quality assurance are key. The ASEAN Five-Year Work Plan on Education (2011-2015) stresses the need for improved transparency of regulations and recognition of qualifications at both national and regional levels. The ASEAN work plan, as well as the new

² See Building a Common Credit Transfer System for the Great Mekong Sub-region (GMS) and Beyond (<http://www.rihed.seameo.org/programmes/credit-transfer-system/>). Participating countries in the project include: Cambodia, China, Indonesia, Japan, Korea, Lao PDR, Malaysia, Myanmar, Thailand, and Viet Nam.

Seven Priority Areas of SEAMEO on Education for 2015-2035 (SEAMEO Secretariat, 2015)³ recognise the diversity of education systems, yet also aim to strengthen ties across the region. In short, harmonising quality standards is at the heart of agendas to enhance regional collaboration.

A fundamental aspect of recognising qualifications internationally is ensuring that higher education programmes meet required criteria in a given discipline as determined by a designated state authority or professional body. However, it is important to note the diversity of country-level issues related to recognition policies and practices. For example, a government representative from Myanmar reported during the 13th Session of the Regional Committee on the Recognition of Qualifications in Higher Education in Asia and the Pacific that recognition policies and practices are still underdeveloped: “there are no designated agencies that are authorised to provide recognition services” in Myanmar (UNESCO Bangkok, 2014). Along these lines, well-established networks in Europe have significant experiences to draw upon, including the ENIC-NARIC Network (i.e. the European Network of Information Centres in the European Region and the National Academic Recognition Information Centres in the European Union). This example raises an important point about the need for targeted capacity building, especially among LDCs. Capacity building is also needed to support the implementation of regional recognition policies and practices across ASEAN, which is explored further below.

4.1. Regional policies and practices on the recognition of qualifications in higher education

In ASEAN, recognition policies and practices in higher education are diverse and not fully transparent, which make it difficult for students and other stakeholders to gain access to official information about how a particular qualification is evaluated. The UNESCO regional conventions on the recognition of qualifications in higher education aim to provide a common framework to ensure credentials are assessed in a fair and transparent manner.

Currently Lao PDR, Indonesia and the Philippines are the only ASEAN Member States to have ratified the 1983 Regional Convention on the Recognition of Studies, Diplomas and Degrees in Higher Education in Asia and the Pacific. More importantly, few countries in the Asia-Pacific region and none in ASEAN have ratified the revised regional convention, the Asia-Pacific Regional Convention on the Recognition of Qualifications in Higher Education (i.e. the 2011 Revised Convention).

The 2011 Revised Convention is based on the 1997 Lisbon Convention, which has been relatively successful and is widely recognised, among others by the countries involved in the Bologna Process in Europe. Both the European Lisbon and Asia-Pacific convention provide a set of basic principles of good practice related to the recognition of higher education qualifications, including fair and transparent assessment procedures for promoting access to higher education programmes. Further, the work of the Asia-Europe Meeting (ASEM) such as the “ASEM Recognition Bridging Declaration” provides another forum to further explore collaboration and recognition policies in Asia and the Pacific and the European region.

Citing a need for a deeper understanding of such conventions within their national context, few countries in Asia-Pacific and no ASEAN Member States have ratified the 2011 Revised Convention, as mentioned. To address this need, an October 2015 capacity building workshop hosted by UNESCO in Bangkok, Thailand involved representatives from eight of the ten ASEAN Member States and aimed to address the broader challenges with regards to ratification and implementation of the 2011 Revised Convention (UNESCO

³ SEAMEO includes 10 ASEAN Member States plus Timor-Leste

Bangkok, October 2015). The lack of a common approach to recognition policy and practice throughout ASEAN illustrates the need for implementing baseline principles for credential evaluation and information provision. While no regional recognition conventions have been ratified throughout ASEAN, the community has committed itself to mutual recognition in specific professional fields. The following section highlights what is known about the status of these recognition arrangements.

4.1.1. Mutual recognition arrangements in ASEAN

To facilitate recognition of specific qualifications in ASEAN, Member States developed and implemented the ASEAN Framework Agreement on Services, which was signed by the ASEAN Economic Ministers in December 1995 in Bangkok, Thailand and served as the basis for the ASEAN Framework Agreement on Mutual Recognition Arrangements (MRAs) signed in December 1998 in Hanoi, Viet Nam. Since that time, ASEAN has finalized seven sector specific MRAs as well as an additional framework arrangement on Surveying Qualifications (see Table 5).

Table 5: ASEAN Mutual Recognition Arrangements

1) Engineering Services	Dec. 2005
2) Nursing Services	Dec. 2006
3) Architectural Services	Nov. 2007
4) Surveying Qualifications	Nov. 2007 *
5) Accountancy Services	Nov. 2014
6) Dental Practitioners	Feb. 2009
7) Medical Practitioners	Feb. 2009
8) Tourism Professionals	Nov. 2012
Source: ASEAN Secretariat, www.asean.org/	
* Framework only, no MRA yet	

The MRAs aim to facilitate the alignment of national standards with international standards within the ASEAN region. The original framework agreement on MRAs does not list specific international standards (ASEAN, 1998). Instead, sector-specific MRAs such as engineering services (ASEAN, 2005) and others are designed to support information sharing and harmonisation. In this way, the MRAs provide an important policy framework to recognise equivalent degree structures and resulting qualifications in designated fields. The

current reality is that little is known about implementation and governance of these agreements, including how they interrelate with NQFs and AQRF, which has not yet been articulated. Further research is needed to better understand these relationships. Beyond the policy frameworks of MRAs in ASEAN, there are country level challenges (and creative solutions) to international recognition, which are discussed below.

4.1.2. Recognition of open and distance learning and cross-border education

Currently, online and distance degrees are not universally recognised by ASEAN countries, even when they are quality assured by Member States within the region. For example, in Viet Nam, an expert on recognition issues reported that there are cases of civil servants pursuing a Ph.D. via distance from a quality-assured higher education institution in the Philippines, even though a Ph.D. via distance learning is not currently recognised in Viet Nam. This case, while perhaps limited in scope, leads to uncertainties about education programmes that are quality assured and offered through open and distance learning in one ASEAN country and not yet recognised in another. An increasing number of cross-border education providers raise concerns about quality assurance and future recognition practices in ASEAN.⁴

⁴ The UNESCO 2005 guidelines define cross-border higher education if the programme of study takes place in situations where the teacher, student, programme, institution/provider or course materials cross national jurisdictional borders. Cross-border higher education encompasses a wide range of modalities, in a continuum from face-to-face (taking

While little data is available, learning by distance is common in Myanmar and may continue to grow as students and professionals work to upgrade their qualifications throughout their lifetime and professional careers. Similarly, private sector cross-border education providers based in Singapore and perhaps other ASEAN countries offer pathways to graduate with a two-year bachelor's degree in collaboration with universities in Australia and the UK, which often are the degree granting institutions. Given the accreditation status of these cross-border providers, the short-cycle bachelor's is accepted, but is reportedly not well-aligned with the recognition policies in the ASEAN region as a whole. Since online and other non-traditional modes of learning and cross-border education are steadily increasing, an integrated approach to recognition policy and quality assurance is needed. Before summarising this discussion and providing concluding remarks, the following section explores current strategies to facilitate mobility and recognition throughout the region.

4.2. Strategies to promote international mobility and recognition in ASEAN

Despite the fact that there is still much work to be done in systematising credit transfer and recognition policies, countries and institutions in ASEAN have been adopting strategies to promote international mobility. This section explores these developments through the lens of a related research question for this report: How are some countries and institutions overcoming obstacles to degree and credit recognition?

For example, in the Philippines higher education institutions appear increasingly aware of the need for international comparability to promote social mobility, which students and their parents demand. Along these lines, the K-12 reforms mentioned earlier allow higher education leaders to restructure their curriculum and promote international mobility as a means for their graduates to be more competitive globally.

In Viet Nam, both students and experts interviewed for this report said there were no specific problems of other countries rejecting Vietnamese academic degrees; however, academic courses from other ASEAN countries were reportedly not accepted by some public universities in Viet Nam. In a focus group in Ho Chi Minh City, a student reported that despite a scholarship to study Thai language and culture for three months, the study abroad experience did not count towards the home degree. The student received a certificate, which had unofficial and professional appeal, but was not officially recognised in Viet Nam. This is especially concerning because the student was majoring in Thai language and culture. To address such issues, there are programme-level strategies to promote mobility and facilitate recognition. This section concludes with an overview of these important regional mobility programmes.

4.2.1. Regional mobility programmes

Given the global nature of international higher education, student mobility programmes in ASEAN often extend beyond the region. Table 6 (below) highlights international degree seeking students (worldwide) studying in ASEAN countries. As is clear from the gaps in available data below, comprehensive mobility data on country to country flows is still lacking within the region.

various forms such as students travelling abroad and campuses abroad) to distance learning (using a range of technologies and including e-learning (http://www.unesco.org/education/guidelines_E.indd.pdf))

Table 6: International degree seeking students in ASEAN (tertiary level)

Host country	2007	2008	2009	2010	2011
Brunei Darussalam	177	188	312	229	372
Cambodia	--	--	--	--	--
Indonesia	5,310	5,388	--	7,079	--
Lao PDR	254	332	671	713	827
Malaysia	47,928	69,164	80,750	86,923	--
Myanmar	57	--	--	65	--
Philippines	7,316	9,801	12,174	--	--
Singapore	--	--	--	--	52,959
Thailand	11,201	16,361	19,052	20,155	20,309
Viet Nam	3,230	3,362	--	3,278	3,996

Source: UNESCO Institute for Statistics and other sources compiled by Sujatanond, August 2015

Given the complex landscape of international student mobility, the present report focused primarily on mobility within the ASEAN region. For example, one of the largest and best known programmes promoting mobility within the region is the ASEAN International Mobility for Students (AIMS) Programme developed by SEAMEO RIHED. AIMS was first piloted by Malaysia, Indonesia, and Thailand from 2010 to 2012. In 2013, AIMS served 59 universities from three countries in seven fields of study, including some 670 ASEAN exchange students. Most importantly, AIMS forged agreements to award credits at the home institution, waive fees, and for governments from the sending country to fund travel costs. Given the relatively small number of opportunities for mobility, such programs and grant schemes are still considered somewhat exclusive and so far have benefited a limited number of students.

Student mobility in ASEAN is still largely based on national and institutional arrangements through bilateral exchanges and joint, double and dual-degree programmes. Based on the arrangement made between partner institutions, credit transfer can be established in a memorandum of understanding before the actual mobility takes place. Students can then go abroad to partner institutions knowing that the time spent during the mobility programmes will not be lost and that credits taken in host institutions will be transferred back home. This practice is common among top-tier or ‘flagship universities’ such as ASEAN University Network members.

To further enhance regional cooperation, governments in ASEAN have promoted mobility by setting up various supplemental mechanisms. For example, in Indonesia, the Ministry of Higher Education and Research is the main national agency promoting both internationalisation and mobility programmes. Under its internationalisation policy, the government relies on both multilateral and national platforms to promote mobility programmes. Through multilateral platforms, the leading umbrella under which the national government promotes mobility programme is through the ASEAN University Network and SEAMEO RIHED. These mechanisms are key strategies to raise awareness of Indonesian students about mobility opportunities within the region.

At the national level in Indonesia, an “excellence scholarship scheme” was also introduced to allow public and autonomous higher education institutions to apply for special grants to promote collaboration with international partners. The grants are offered on condition that the collaboration is reciprocal, that is, the activities must be two-way. Student mobility must be both inbound and outbound between the two

counterparts. An additional 3,000 scholarships are available for students in Indonesia to apply for mobility programmes abroad, especially for international degree-seeking activities. However, these national policies reportedly serve primarily public higher education institutions.

Although autonomous higher education institutions⁵ in Indonesia are able to apply for grants, these and other institutions raised concerns during expert interviews for this report. For example, non-autonomous higher education institutions and private universities cited issues with being disadvantaged. Taking into account the fact that the higher education landscape in Indonesia has a significant private sector (e.g. over 4,000 institutions in the country and public universities account for approximately one hundred institutions), the availability of scholarships and grants from the government are considered modest. Therefore, university-level policies regarding mobility programmes are important given that both autonomous and private higher education institutions rely heavily on their own resources.

In Cambodia, there is evidence that some leading private and public institutions have developed and revised their curriculum and degree structure to accommodate international mobility programmes. The majority of these programs appear to be with institutions outside the ASEAN region, which is beyond the scope of this report (e.g. France, Australia, etc.). For example, the Royal University of Law and Economics in Phnom Penh has made use of the availability of funding and resources from higher education institutions in Paris, Nantes and Lyon in disciplines such as law and economics. Student mobility is integrated into the double degree programmes under bilateral agreements, which provide a cost neutral means to increase the number of both inbound and outbound students. In total, a single higher education institution in Cambodia could send up to 100 students abroad through various mobility schemes (e.g. Erasmus Mundus, foreign governments scholarship programs, and from the support of the Ministry of Education).

Also, there are a few notable scholarship programs supporting mobility and recognition both within (i.e. intra-ASEAN mobility) and outside ASEAN. For example, the Norwegian Ministry of Foreign Affairs has a capacity-building initiative with Mahidol University in Thailand that offers 60 two-year master's and 40 three-year Ph.D. scholarships for ASEAN citizens to study at Mahidol. The scholarships are available to candidates from selected ASEAN countries, including Cambodia, Lao PDR, Myanmar, Indonesia, Philippines and Viet Nam. Student perceptions of mobility programmes are explored in the next section.

4.2.2. Student perceptions of international mobility and recognition in ASEAN

A student focus group with “free movers” (i.e. international degree-seeking students) from Mahidol University agreed that scholarships for students from LDCs and developing economies such as the initiative from the Norwegian Ministry of Foreign Affairs had significantly contributed to the diversity of their classes. While challenges with regards to student academic readiness were cited, scholarship programmes were perceived as valuable and necessary tools for promoting mobility within ASEAN.

Further, student focus groups in Indonesia, Viet Nam and Thailand did not find specific barriers regarding entry requirements or challenges with degree recognition when applying for full degrees in another ASEAN country. There was broad consensus that structural or technical assessment issues were less of a concern

⁵ Autonomy is considered a relative term in higher education in Asia, which is based on the local context (UNESCO, 2013). For example, in Indonesia, autonomous universities are expected to manage revenue-generating activities, yet also participate in regional, economic and social development (UNESCO, 2013).

than psychological, language, or financial barriers (e.g. English-language ability, motivation to study in another ASEAN country, or funding related issues).

Despite the availability of full scholarships and formal mobility programmes, student focus groups found international mobility to be highly competitive and a privilege largely reserved for students who are able to absorb the personal costs. The limited availability of mobility scholarships supported by institutions, foreign governments or donors can lead to intense competition among students (e.g. in Cambodia up to 200 applications for a single scholarship). In the cases of Cambodia, Indonesia, and Viet Nam, students reported being hesitant or unable to go abroad, often because of these funding related limitations.

Funding for mobility initiatives in Indonesia, the Philippines and elsewhere are also perceived to be centred on top-tier public institutions and leading autonomous universities, which can limit access for students outside national flagship universities. Still, such scholarship and mobility programmes have supported creative problem-solving to overcome barriers to international mobility and recognition.

During a focus group with master's candidates from Mahidol, a student reported a case where a master's student in human rights did not have a bachelor's degree or formal qualification. Given the candidate's professional experience and an assessment of prior learning, Mahidol University was still able to enrol the international student as a degree-seeking master's candidate and offer a full scholarship. This type of flexible learning pathway is an innovative example where a university in the ASEAN region was able to admit and fully fund an international student based on prior experience outside the standard degree structure and formal education pathway. Additional data is needed to assess the frequency and limits of such cases.

To summarise, the following section draws together findings and concluding remarks related to the impact of degree structures on academic progression, mobility, and recognition policies within the region.

5. Concluding remarks

Based on expert interviews, student focus groups and document analysis conducted for this study, degree structures in ASEAN were considered to be broadly comparable and not a main source of concern when it comes to recognition and educational mobility between countries. Nonetheless, there is still no clear consensus in the region on the expected learning outcomes of specific degree types such as a bachelor's degree nor on a coherent and inclusive system of credit transfer. Though sector specific MRAs exist between countries, degree recognition policies throughout ASEAN are diverse and not fully transparent. Thus, while there may be a perception that degree structures are broadly comparable, much work remains to be done to understand this issue on more depth, and to promote recognition and mobility between systems.

The following concluding remarks focus on enhancing comparability of degree systems across ASEAN, so as to facilitate mobility and recognition, which are aims for higher education in the ASEAN region.

5.1. Aligning recognition policies and practices in ASEAN higher education

Currently, ASEAN Member States do not have a common approach to the recognition of qualifications in higher education. While all recognition decisions remain with national governments or recognition authorities, a common set of principles of good practices may provide a baseline consensus to facilitate deeper regional cooperation in higher education. These good practices include ensuring competent recognition authorities are trained and well-supported, and establishing a national information centre (NIC)

to provide relevant information on the national higher education system and qualifications. In this regard, the European Higher Education Area and wider Asia-Pacific region have significant experiences to offer.

For example, the 2011 Revised Convention overseen by UNESCO Bangkok provides a framework for countries in the Asia-Pacific region to align their national recognition practices with basic principles. The aim is to ensure that procedures and criteria used in the assessment and recognition of qualifications are transparent, coherent, fair and non-discriminatory. Ratification of the convention demonstrates a country's commitment to improved mobility of students, academics and workers, while also strengthening information sharing and collaboration across ASEAN and the wider Asia-Pacific region.

On a related point, monitoring the impact and governance of MRAs is also needed. Little is known about the current status of implementing the seven MRAs in ASEAN. More research is needed to better monitor implementation and explore impact, accordingly. Along these lines, a dichotomy between academic and professional recognition is still looming over the current degree structures and education systems. As discussed, the link between professional recognition bodies and academic recognition authorities has not been articulated in regional referencing tools such as AQRF. The link between MRAs and AQRF is unclear and needs to be explored further. In addition to existing professional bodies which focus on certifying the eligibility for professional practices, a bridging framework can be integrated with NQFs where appropriate. This potential issue of how NQF, AQRF and MRAs work together, and how stakeholders from diverse sectors should be engaged has not been fully explored in ASEAN.

As underscored by Bateman and Coles (2015): “for the sake of presenting consistent messages and avoiding confusion there needs to be an analysis of contingent work such as on MRAs and other alignments. The ...interdependencies between the AQRF with relevant projects need to be scoped and understood” (p.25).

In consultation with SHARE and UNESCO's Asia and Pacific Regional Bureau for Education based in Bangkok, Thailand, ASEAN Member States could conduct national-level reviews and continue to work towards established international best practices in recognition policy. While cooperation across the region would add value, targeted capacity building in LDCs such as Cambodia, Lao PDR, and Myanmar, is crucial to develop and implement country-specific recognition policies and effective practices.

5.2. Expanding access to mobility opportunities and credit transfer throughout ASEAN

The two largest umbrellas under which national governments in the region promote international cooperation in higher education is through the ASEAN University Network and SEAMEO RIHED (i.e. the AIMS programme). These mechanisms are important regional platforms and starting points to help raise further awareness and discuss, *what is ASEAN higher education?* In this regard, additional efforts are needed to raise awareness about opportunities for international mobility beyond national flagship universities. One student focus group found that the need to raise awareness about ASEAN higher education institutions was more significant than any particular roadblock related to degree structures or degree and credit recognition.

Despite the successes and continued growth of both AUN-ACTS and SEAMEO RIHED's AIMS Programme, ASEAN does not yet have a regionally accepted framework for credit transfer. Further, the current state of play suggests that perceived top-tier institutions reportedly have greater access to student exchange opportunities. Mobility programmes and viable credit transfer models could be used as starting points to ensure adequate access and training is available to all higher education institutions, as well as to other appropriate and recognised educational institutions offering non-formal learning. To meet this need, an

innovative and inclusive approach to credit transfer, including non-formal learning (e.g. via open and distance learning), may need to be further researched.

To expand access to mobility and reduce barriers to credit transfer, governments and stakeholders have diverse options available. Ensuring smooth operations between recognition authorities and all recognised higher education providers can help raise awareness and pave the way for increased mobility and credit transfer throughout the region.

5.3. Integrating outcomes-based teaching and learning in ASEAN degree structures

As credit transfer and NQF systems evolve throughout ASEAN and beyond, the recognition of degrees may be tied more explicitly to learning outcomes. Greater transparency is needed to better understand the expected outcomes of post-secondary degrees. Our findings here reflect the role of an integrated system that balances recognition policy (e.g. the 2011 Revised Convention), NQF implementation, and quality assurance of learning outcomes (see Appendix 1 for a conceptual model). These three areas are often dealt with separately but are mutually reinforcing and should be intimately tied together to build trust among stakeholders at all levels, including students, parents, employers, job seekers, potential higher education partners, ministries, industry, etc.

Degree structures that are based on outcomes and flexible learning pathways, including recognition of prior learning and non-formal learning are emerging challenges that need to be further elaborated and addressed. The 2015 World Education Forum also called for “flexible learning pathways, as well as the recognition, validation and accreditation of the knowledge, skills and competencies acquired through non-formal and informal education” (Incheon Declaration, 2015). The shift to outcomes-based teaching and learning recognised across the region will require significant and long-term efforts. Support for faculty and higher education institutions to develop new courses and degree programmes and assess learning outcomes will be an ongoing challenge and crucial to ensure that higher education qualifications across the region are relevant and recognised internationally.

5.4. Strengthening governance and monitoring of national qualification systems

And last, promoting quality higher education and promoting lifelong learning opportunities for all is crucial for sustainable development (Incheon Declaration, 2015). The need for monitoring the comparability, recognition and quality of qualifications has become a growing area of concern, in particular in countries where governance systems are underdeveloped such as in LDCs. The SHARE programme can play a timely and important role in collaboration with EU and ASEAN Member States to strengthen governance and monitoring based on regional goals to ensure equitable and inclusive quality higher education and lifelong learning opportunities throughout the ASEAN Economic Community.

Appendix 1) Methodology

Mixed research methods were used in this study to provide a preliminary analysis of degree structures in all ten ASEAN Member States. To tackle this challenge, the researchers used secondary statistical data, primary qualitative data (from semi-structured interviews and focus groups), and document analysis with the dual aims of triangulating answers to the main research questions (see Section 1.1) and to lay the basic groundwork for more in-depth studies about degree structures in the ASEAN region.

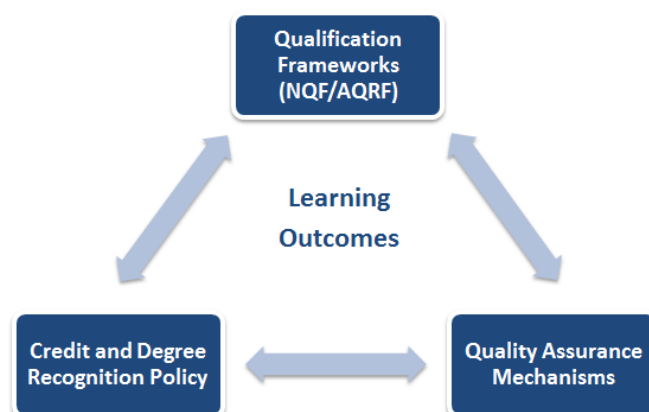
While not intended to be representative, a diverse group of participants was selected to highlight a broad set of perspectives including university faculty and administrators, higher education ministry officials/recognition authorities, and representatives from international organisations (n=30 interviews). In addition, four student focus groups were held in Indonesia, Cambodia, Viet Nam, and Thailand. Based in Thailand, the researchers travelled to Cambodia, Indonesia, the Philippines, and Viet Nam to help validate assumptions from desk research. These four countries were selected after consultations with EUA based on the aim to cover a wide range of higher education systems within ASEAN – from developing countries (e.g. Cambodia and Viet Nam) to countries with large and diverse higher education systems (e.g. Indonesia and the Philippines).

As a descriptive study and ‘snapshot’, the aim of the interviews was to identify current issues to help guide the SHARE project, as well as inform future research and harmonisation efforts in and between ASEAN Member States. Based on the four primary research questions, the semi-structured interviews and focus groups had four main parts:

- Comparability between national and regional degree structures (Q.1)
- Identifying potential problems and issues related to progression, mobility, and/or recognition (Q.2)
- Mapping national/institutional efforts to overcome barriers and eradicate problems (Q.3/Q.4)
- Exploring needs and perspectives of key stakeholders (Q.4)

To better inform the SHARE consortium and counterparts in ASEAN, the present study also cross-referenced SHARE project reports and presentations (e.g. Bateman and Coles, 2015; Kamil, August 2015; etc.). The authors also relied on experts from UNESCO working groups to help conceptualise potential relationships between degree structures and related issues such as NQF and recognition policy (see figure below). Given the limited scope of the report, this conceptual model was not tested, but could be useful going forward.

A Conceptual Model for Aligning Qualifications, Quality Assurance, and Recognition Practices in ASEAN: *Learning Outcomes at the Centre of Efforts to Promote Mobility and Employability*



Source: Adapted by Teter and Dhirathiti from Campbell-Dorning, October 2015

Appendix 2) Glossary

Excerpts from the UNESCO Institute for Statistics International Standard Classification of Education, ISCED 2011 (UIS, 2012).

Certificate: In ISCED, the term ‘qualification’ is synonymous with ‘credential’. Other terms such as ‘certificate’, ‘degree’ or ‘diploma’ are types of qualification and are treated as being synonymous with each other within ISCED.

Course: A unit of instruction comprising a sequence of educational activities in a particular field or range of related fields of education. This can also be referred to as a ‘module’, ‘unit’ or ‘subject’.

Credit: Unit in which the successful completion of courses or modules is earned and documented during and at the end of an education programme. Credits express the volume of learning based on a typical workload needed to achieve the expected learning objectives.

Degree: Educational qualification awarded upon successful completion of specific education programmes in tertiary education (traditionally by universities or equivalent institutions).

Education programme: A coherent set or sequence of educational activities designed and organised to achieve pre-determined learning objectives or accomplish a specific set of educational tasks over a sustained period. Within an education programme, educational activities may also be grouped into sub-components variously described in national contexts as ‘courses’, ‘modules’, ‘units’ and/or ‘subjects’. A programme may have major components not normally characterised as courses, units or modules – for example, play-based activities, periods of work experience, research projects and the preparation of dissertations.

Entry: The act of starting participation in an education level, set of levels, programme, or stage or module thereof.

Informal learning: Forms of learning that are intentional or deliberate but are not institutionalised. It is consequently less organised and structured than either formal or non-formal education. Informal learning may include learning activities that occur in the family, workplace, local community and daily life, on a self-directed, family-directed or socially-directed basis.

Learning objectives: Specification of learning outcomes to be achieved upon completion of an educational or learning activity. These encompass improving knowledge, skills and competencies within any personal, civic, social or employment-related context. Learning objectives are typically linked to the purpose of preparing for more advanced studies and/or an occupation, trade, or class of occupations or trades.

Learning outcomes: The totality of information, knowledge, understanding, attitudes, values, skills, competencies or behaviours an individual is expected to master upon successful completion of an education programme.

Non-formal education: Education that is institutionalised, intentional and planned by an education provider. The defining characteristic of non-formal education is that it is an addition, alternative and/ or complement to formal education within the process of the lifelong learning of individuals. It is often provided to guarantee the right of access to education for all. It caters to people of all ages but does not necessarily apply a continuous pathway-structure; it may be short in duration and/or low-intensity, and it is typically provided in the form of short courses, workshops or seminars. Non-formal education mostly leads to

qualifications that are not recognised as formal or equivalent to formal qualifications by the relevant national or sub-national education authorities or to no qualifications at all. Non-formal education can cover programmes contributing to adult and youth literacy and education for out-of-school children, as well as programmes on life skills, work skills, and social or cultural development.

Non-formal (educational) qualification: Qualification awarded upon achievement of the learning objectives of an education programme in non-formal education that is not recognised by the relevant national education authorities as being equivalent to a formal qualification.

Post-secondary non-tertiary education: Post-secondary non-tertiary education provides learning experiences building on secondary education, preparing for labour market entry as well as tertiary education. It typically targets students who have completed upper secondary education (ISCED level 3), but who want to increase their opportunities either to enter the labour market or progress to tertiary education. Programmes are often not significantly more advanced than those at upper secondary education as they typically serve to broaden – rather than deepen – knowledge, skills and competencies. It therefore aims at learning below the high level of complexity characteristic of tertiary education.

Professional education: ISCED 2011 does not yet define academic and professional more precisely, but opens up the possibility of distinguishing academic and professional orientations in the future based, for example, on fields of education. See tertiary education below.

Prior learning: The recognition of prior learning through non-formal education or informal learning has become more common in many countries over the last decade. ISCED 2011 specifically allows for the classification of qualifications obtained through the demonstrated acquisition of skills, knowledge and competencies comparable to successful completion of a formal education programme and acknowledged through a formal qualification.

Qualification: The official confirmation, usually in the form of a document, certifying the successful completion of an education programme or a stage of a programme. Qualifications can be obtained through: i) successful completion of a full education programme; ii) successful completion of a stage of an education programme (intermediate qualifications); or iii) validation of acquired knowledge, skills and competencies, independent of participation in an education programme. This may also be referred to as a ‘credential’.

Tertiary education: Tertiary education builds on secondary education, providing learning activities in specialised fields of education. It aims at learning at a high level of complexity and specialisation. Tertiary education includes what is commonly understood as academic education but also includes advanced vocational or professional education.

Validation of learning outcomes: Evaluation of an individual’s achievement of learning objectives using a variety of assessment methods (written, oral and practical tests/examinations, projects and portfolios) not presuming participation in an education programme.

Vocational education: Education programmes that are designed for learners to acquire the knowledge, skills and competencies specific to a particular occupation, trade, or class of occupations or trades. Vocational education may have work-based components (e.g. apprenticeships, dual-system education programmes). Successful completion of such programmes leads to labour market-relevant vocational qualifications acknowledged as occupationally-oriented by the relevant national authorities and/or the labour market.

Appendix 3) Summary of National Qualifications Frameworks in ASEAN

Country	Levels	Domains	Credit based
Brunei Darussalam	8	<ul style="list-style-type: none"> Knowledge and skills (the types of knowledge and skills involved) Practice: Applied Knowledge and Understanding (the context in which the knowledge and skills are applied) Generic Cognitive Skills Communications, ICT and Numeracy Skills Autonomy, Accountability and Working with others (the level of independence). 	H Ed - 40 hours of notional learning = 1 TVET - 10 hours of notional learning = 1
Cambodia	8	Knowledge, cognitive skills, psychomotor skills, interpersonal skills and responsibility, and, communication, information technology and numerical skills.	Varies depending on methodology
Indonesia	9	Consists in 2 parts: <ul style="list-style-type: none"> General – characteristics, personalities, working attitudes, ethics and morality Specific: <ol style="list-style-type: none"> Skills in fulfilling the job and competence Science/knowledge Methods and level of competence in applying science/knowledge Management skills# 	Yes – in higher education
Lao PDR*	8	Knowledge, skills application and social skills	-
Malaysia	8	Knowledge Practical skills Social skills and responsibilities Values, attitudes and professionalism Communication, leadership and team skills Problem solving and scientific skills Information management and lifelong learning skills Managerial and entrepreneurial skills	40 hours = 1 credit point
Myanmar*	8	Knowledge and skills, application and competence, responsibility	-
Philippines	9	Process, responsibility and application	-
Singapore	6	<ul style="list-style-type: none"> level of knowledge and skills involved level of application of the knowledge and skills level of accountability, independence, self organisation or organisation of others that is required to solve problems or complete tasks, and cognisant of the occupational levels and range and depth of the knowledge and skills required of the jobs which the qualifications relates to. 	1 WSQ credit value (cv) is equivalent to 10 recommended training and assessment hours. (1 cv = 10 hrs)
Thailand	9	Knowledge, skills and attributes	Yes
Vietnam*	8	Knowledge, skills autonomy and responsibility	1 = 30 hours of notional learning.

Note: * = proposed, # = Directorate General of Higher Education 2012

Source: Bateman and Coles, August 2015

Appendix 4) Summary tables of degree descriptors and structures in ASEAN

- i. Regional summary
- ii. Brunei Darussalam
- iii. Cambodia
- iv. Indonesia
- v. Lao PDR
- vi. Malaysia
- vii. Myanmar
- viii. Philippines
- ix. Singapore
- x. Thailand
- xi. Viet Nam

Regional Summary: Degree descriptors in ASEAN

Degree descriptors	ASEAN Member States									
	Bru	Cam	Indo	Lao	Phil	Mal	Mya	Sing	Tha	Viet
Certificate/ Diploma	* Capabilities acquired and practiced competently in the conduct of a task or work, usually manual skills, through practical technical and training tasks									
		✓			✓	✓		✓		✓
	* The skills acquired cumulatively through stages of training and qualification are recognised by competent authorities or industries									
		✓			✓	✓		✓		
	* Criteria and standards of skills certificates are articulated to higher level qualifications and enables certificate holder to progress to higher phases and set by specific authority									
		✓			✓	✓		✓		
	* Higher professional education which admits students following 12 years of education. This type of education provides a professional degree with a minimum requirements of the programmes devoted to practical and trainings									
		✓	✓	✓	✓	✓	✓	✓		✓
Higher or Advanced Certificate/ Diploma	* Specific qualification with more complex and advanced practical skills, knowledge and managerial abilities than those obtained diploma									
				✓		✓	✓		✓	✓
Graduate Certificate/ Diploma	* The qualifications are conferred upon the completion of education or formal training, recognition of work experience, inclusive of voluntary work. The degree is used for the purpose of continuing professional development, changing fields of expertise and for the facilitation of the progression in the context of lifelong learning.									
						✓		✓	✓	
	Bru	Cam	Indo	Lao	Phil	Mal	Mya	Sing	Tha	Viet
Bachelor's Degree	* Systematic and coherent teaching and learning level which prepare students for general employment and entry into postgraduate programmes and research as well as other highly skilled careers									
	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Postgraduate Certificate/ Diploma	* The qualifications acquired after the completion of the bachelor's or equivalent levels. Qualifications are usually conferred when the practitioner completes continuing professional education or advanced training which is more professional than academic.									
	✓					✓			✓	✓
Master's	* The Degree provides the furtherance of knowledge, skills and abilities obtained at the Bachelors level. It is designed to extend the principal subjects and build on relevant knowledge and skills derived from advanced occupational experience – there are generally two tracks of master's degree programmes (i.e. master's by coursework and master's by research)									
	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Advanced Graduate Certificate	* The qualification acquired after the completion of the master's or equivalent levels and usually conferred to those who obtain advanced academic/occupation and professional knowledge and expertise									
									✓	✓
Doctoral Degree	* The doctoral degree provides significant enhancement of knowledge, skills and abilities obtained at the master's level. It focuses on scholarly independence, and is awarded in recognition of substantial and original research that contributes new knowledge.									
	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Source: Teter and Dhirathiti

Brunei Darussalam

Brunei Darussalam Qualifications Framework (BDQF)

BDQF Levels	Schools Sector Qualifications	Technical and Vocational Education Sector Qualifications	Higher Education Sector Qualifications
8			Doctoral Degree
7			<ul style="list-style-type: none"> • Master's Degree • Post Graduate Diploma • Post Graduate Certificate
6			Bachelor's Degree
5		<ul style="list-style-type: none"> • Advanced Diploma • Higher National Diploma (HND) 	<ul style="list-style-type: none"> • Foundation Degree • Advanced Diploma • Higher National Diploma (HND)
4	<ul style="list-style-type: none"> • GCE "A" Level • IGCSE "A" Level • IB Diploma • STPU 	<ul style="list-style-type: none"> • Diploma • Higher National Technical Education Certificate (HNTec) 	
3	<ul style="list-style-type: none"> • GCE "O" Level (Grades A–C) • IGCSE and GCSE "O" Level (Grade A* – C) • SPU (Grades A–C) • BTEC level 2 Diploma 	<ul style="list-style-type: none"> • Skills Certificate 3 (SC3) • National Technical Education Certificate (NTec) 	
2	<ul style="list-style-type: none"> • GCE "O" Level (Grades D–E) • IGCSE "O" Level (Grade D–E) • SPU (grades D) • BTEC Level 2 Extended Certificate 	<ul style="list-style-type: none"> • Skills Certificate 2 (SC2) • Industrial Skills Qualifications (ISQ) 	
1	BTEC Level Introductory Certificate	Skills Certificate 1 (SC1)	

Source: Brunei Darussalam's National Accreditation Council

Brunei Darussalam: Excerpt of UIS validated mappings based on ISCED 1997

ID	Name of the education programme	Minimum entrance requirements	Main diplomas, qualifications or certificates awarded at end of programme	Theoretical entrance age	Theoretical duration (in years)
8	Sixth form (Pre-university)	Secondary 5	BC GCE Advanced level	17	2
9	Vocational	Secondary 3 or Secondary 5	BDTVEC Higher national certificate (HNC) / Ordinary national certificate (OND)	15-17	2
10	Art and Handicraft	Secondary 5	Art and Handicraft certificate	17	2
11	Technical / Mechanical	Secondary 5	BDTVEC National diploma (ND) / Ordinary national diploma (OND)	17	2
12	Secondary vocational programme	Secondary 3	BDTVEC National vocational certificate	15	2
13	Foundation course	Sixth form (Pre-university)	Certificates / Diplomas	19	1
14	Bachelor	Sixth form (Pre-university)	First degree	19	4
15	Master	First degree (Bachelor)	Master degree	23	1 - <2
16	Postgraduate certificate of education (PGCE) / Postgraduate diploma of education (PGDE)	First degree (Bachelor)	Postgraduate certificate of education (PGCE) / Postgraduate diploma of education (PGDE)	23	1 - <2
17	Nursing	Secondary 5	General Nursing / Diploma in Nursing	17	2
18	Teacher religious training	Secondary 5	Teaching certificate	17	3
19	Certificates / Diploma (Universities)	Secondary 5 / Sixth form (Pre-university)	Certificate / Diploma	17-19	3
20	Higher national diploma (Institute)	Sixth form (Pre-university) or BDTVEC National diploma (ND)	BDTVEC Higher national diploma (HND)	19	3
21	Philosophy Doctorate (Ph.D)	Master degree	Philosophy Doctorate (Ph.D)	24	3

Cambodia

Cambodian Qualifications Framework (CQF)

Level	Sector	
	Vocational Education	Higher Education
8	Doctoral Degree of Technology	Doctoral Degree
7	Master's Degree of Technology	Master's Degree
6	Bachelor's Degree of Technology	Bachelor's Degree
5	Higher Diploma of Technology/Associate Degree	
4	Technical Vocational Certificate 3	
3	Technical and Vocational Certificate 2	
2	Technical and Vocational Certificate 1	
1	Vocational Certificate	

Source: Ministry of Education, Youth, and Sport

Cambodia: Excerpt of UIS validated mappings based on ISCED 1997

ID	Name of the education programme	Minimum entrance requirements	Main diplomas, qualifications or certificates awarded at end of programme	Theoretical entrance age	Theoretical duration (in years)
5	Secondary level technical/vocational - Certificate 3	Lower secondary education diploma	Technical/vocational Certificate 3	15	3
6	Secondary level technical/vocational - Certificate 1	Lower secondary education diploma	Technical/vocational Certificate 1	15	<=1
7	Secondary level technical/vocational - Certificate 2	Lower secondary education diploma	Technical/vocational Certificate 2	15	2
8	Teacher training for Pre school Teacher	Need to finish grade 12 (Pass or fail)	Pre school teacher diploma	18	2
9	Teacher training for Primary school teacher	Upper secondary education diploma	Primary school teacher diploma	18	2
10	Teacher training for Lower secondary school teacher	Upper secondary education diploma	Lower secondary teacher diploma	18	2
11	Secondary school sports teacher	Upper secondary education diploma	Basic education sport teacher diploma	18	2
12	Bachelor degree	Upper secondary education diploma	Bachelor degree	18	4
13	Bachelor degree in Engineering	Upper secondary education diploma	Bachelor of Engineering	18	5
14	Bachelor degree in Medicine	Upper secondary education diploma	Bachelor of Medicine	18	7
15	Teacher training for Upper secondary school teacher	Bachelor degree	Upper secondary school teacher diploma	22	1
16	Post graduate education	Bachelor degree	Master degree	22	2
17	Associate degree	Grade 12 or TVET Certificate 3	Associate degree	18	2
18	Bachelor degree in Technology	Grade 12 or TVET Certificate 3	Bachelor of Technology	18	4
19	Post graduate education	Master degree	Doctorate	24	3-5

Indonesia

Indonesian Qualifications Framework (IQF)

Academic Qualifications	IQF	Technical and Vocational Education and Training		
S3	9	S3 (Applied)	Specialist	
S2	8	S2 (Applied)		
	7			Profession
S1	6	D IV D III D II D I		
	5			
	4			
	3			
General High School	2	Vocational High School Junior High School		
Junior High School	1			

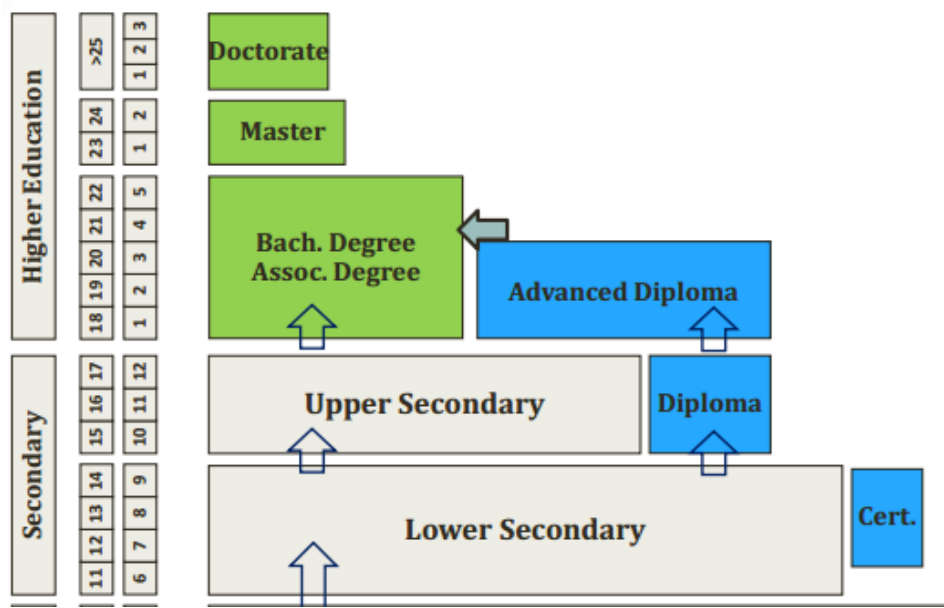
Sources: Directorate General of Higher Education, n.d. cited in
UNESCO Institute for Lifelong Learning, 2015

Indonesia: Excerpt of UIS validated mappings based on ISCED 1997

ISCED97 level	Programme orientation	Country description of programme	Entrance requirements	Qualifications awarded	Theoretical starting age (in years)	Theoretical ending age (in years)
3A	General	Senior secondary, general (<i>Sekolah Menengah Atas (Madrasah Aliyah)</i>)	Junior secondary certificate	Secondary school leaving certificate	16	18
3B	Vocational	Senior secondary, technical/vocational (<i>Sekolah Menengah Kejuruan (SMK)</i>)	Junior secondary certificate	Secondary school leaving certificate	16	18-19
5B (1st)		Diploma I programmes	Secondary school leaving certificate and an entrance examination	Diploma (DI)	19	19
5B (1st)		Diploma II programmes	Secondary school leaving certificate and an entrance examination	Diploma (DII)	19	20
5B (1st)		Diploma III programmes	Secondary school leaving certificate and an entrance examination	Diploma (DIII)	19	21
5B (1st)		Diploma IV programmes	Secondary school leaving certificate and an entrance examination	Diploma (DIV)	19	22
5A (1st, short and long)		Degree stream (Program Sarjana)	Secondary school leaving certificate and an entrance examination	Graduate diploma (SI)	19	22-24
5B (2nd)		Specialist I programmes	Diploma (DIV) or Graduate diploma (SI)	Specialist I (Spl)	23	25-27
5A (2nd)		Master's programmes (<i>Program Magister</i>)	Graduate diploma (SI)	Master's degree (SII)	23	24-27
6		Specialist II programmes	Specialist I (Spl)	Specialist II (SplI)	26-28	28-30
6		Doctorate programmes (<i>Program Doktor</i>)	Master's degree (SII)	Doctorate degree (SIII)	25-28	27-29

Lao PDR

Structure of Secondary and Higher Education



Source: Centre for Educational Quality Assurance, Lao PDR

Lao PDR: Excerpt of UIS validated mappings based on ISCED 1997

ID	Name of the education programme	Minimum entrance requirements	Main diplomas, qualifications or certificates awarded at end of programme	Theoretical entrance age	Theoretical duration (in years)
7	Upper secondary (grades 10-12)	Certificate of "Brevet"	Certificate of "Baccalauréat"	15	3
8	Vocational education - Upper secondary education	Certificate of "Brevet"	Vocational diploma	15	3
9	Primary, dance and music, and sport teacher training	Certificate of "Brevet"	Primary teacher certificate (8+3)	15	3
10	Primary teacher training	Certificate of "Baccalauréat"	Pre-primary teacher certificate (11+1)	18	1
11	Pre-primary teacher training	Certificate of "Baccalauréat"	Pre-primary teacher certificate (11+2)	18	2
12	Primary teacher training	Certificate of "Baccalauréat"	Primary teacher certificate (11+2)	18	2
13	Technical education	Certificate of "Baccalauréat"	Technical, Middle diploma	18	2
14	Technical education	Certificate of "Baccalauréat"	Technical, Middle diploma	18	3
15	University, Bachelor	Certificate of "Baccalauréat"	Bachelor degree	18	5
16	Upper secondary teacher training	Certificate of "Baccalauréat"	Upper secondary teacher certificate (11+5)	18	5
17	University, Bachelor in medicine	Certificate of "Baccalauréat"	Bachelor degree in medicine	18	7
18	University, Master	Bachelor degree	Master degree	23	2
19	Higher education	Certificate of "Baccalauréat"	Higher diploma	18	2
20	Higher education	Certificate of "Baccalauréat"	Higher diploma	18	3
21	Lower secondary teacher training	Certificate of "Baccalauréat"	Lower secondary teacher certificate (11+3)	18	3

Malaysia

Malaysian Qualifications Framework

MQF Levels	Sectors			Lifelong Learning
	Skills	Vocational and Technical	Higher Education	
8			Doctoral Degree	Accreditation of Prior Experiential Learning (APEL)
7			Masters Degree	
			Postgraduate Certificate & Diploma	
			Bachelors Degree	
6			Graduate Certificate & Diploma	
5	Advanced Diploma	Advanced Diploma	Advanced Diploma	
4	Diploma	Diploma	Diploma	
3	Skills Certificate 3	Vocational and Technical Certificate	Certificate	
2	Skills Certificate 2			
1	Skills Certificate 1			

Source: Malaysia Qualification Agency, accessed December 2015

Malaysia: Excerpt of UIS validated mappings based on ISCED 1997

ISCED97 level	Programme orientation	Country description of programme	Entrance requirements	Qualifications awarded	Theoretical starting age (in years)	Theoretical ending age (in years)
3A	General	Pre-university (Form 6, GCE, A-level)	Certificate of education	Higher school certificate of examination, General Certificate of Education (GCE)	17	19
3A	General	Pre-university matriculation	Certificate of education	Matriculation certificate	17	19
4B		Post-secondary, teacher training	Certificate of education	Teaching certificate	17	18
4B		Skills training	Certificate of education	Certificate	17	18-19
5B		Tertiary, teacher training	Certificate of education	Teaching diploma, diploma in education	18	20-21
5B		Tertiary, polytechnical	Certificate of education	Certificate or diploma in various engineering fields	18	20-22
5A (1st, short)		University	Higher school certificate of examination, GCE	Bachelor's degree	19	22
5A (1st, long)		University	Higher school certificate of examination, GCE	Bachelor's degree	19	24-25
5A (2nd)		Master's	Bachelor's degree	Master's degree	24	26-27
6		Doctorate	Master's degree	Doctorate	24	26
6 (2nd)		Doctorate	Master's degree or doctorate	Doctorate of law, literature or science	24+	29+

Myanmar

Proposed NQF for Myanmar

	Sectors			Lifelong Learning
Level	Basic Education	TVET	Higher Education	
8			Post-Doctoral Studies/ Doctoral Degrees	Recognition of Prior Learning (Assessment and validation) Non formal/informal
7			Post-Master Studies/ Master Degrees	
6		Degree	Post Graduate Diplomas, Bachelor Degrees	
5		Advanced Diploma	Advanced Diplomas	

	Sectors			Lifelong Learning
Level	Basic Education	TVET	Higher Education	
4		Diploma/ *V&T C/SC4		
3	High School	V&T C/SC3		
2	Middle School	V&T C/SC2		
1	Primary School	V&T C/SC1		

*Vocational and Technical Certificates/Skills Certificates

Source: Bateman and Coles (August 2015)

The proposed National Qualification Framework is based on 15 Criteria:

- Expected Learning Outcomes
- Programme Specification
- Programme Structure and Contents
- Teaching and Learning Strategy
- Students Assessment
- Academic Staff Quality
- Support Staff Quality
- Student Quality
- Student Advice and Support
- Facilities and Infrastructure
- Quality Assurance of Teaching and Learning Process
- Staff Development Activities
- Stakeholders Feedback
- Output
- Stakeholders Satisfaction

Source: Aung Win Kyi, 2014

As outlined in 2013 ASEAN State of Education report, Myanmar's public school structure conforms to a 5-4-2 pattern, which is unlike other systems in the region. However, the system is currently under review to be replaced by a 5-4-3 structure (i.e. 12 years of study). See table below.

Current structure of Myanmar's 5-4-2 System

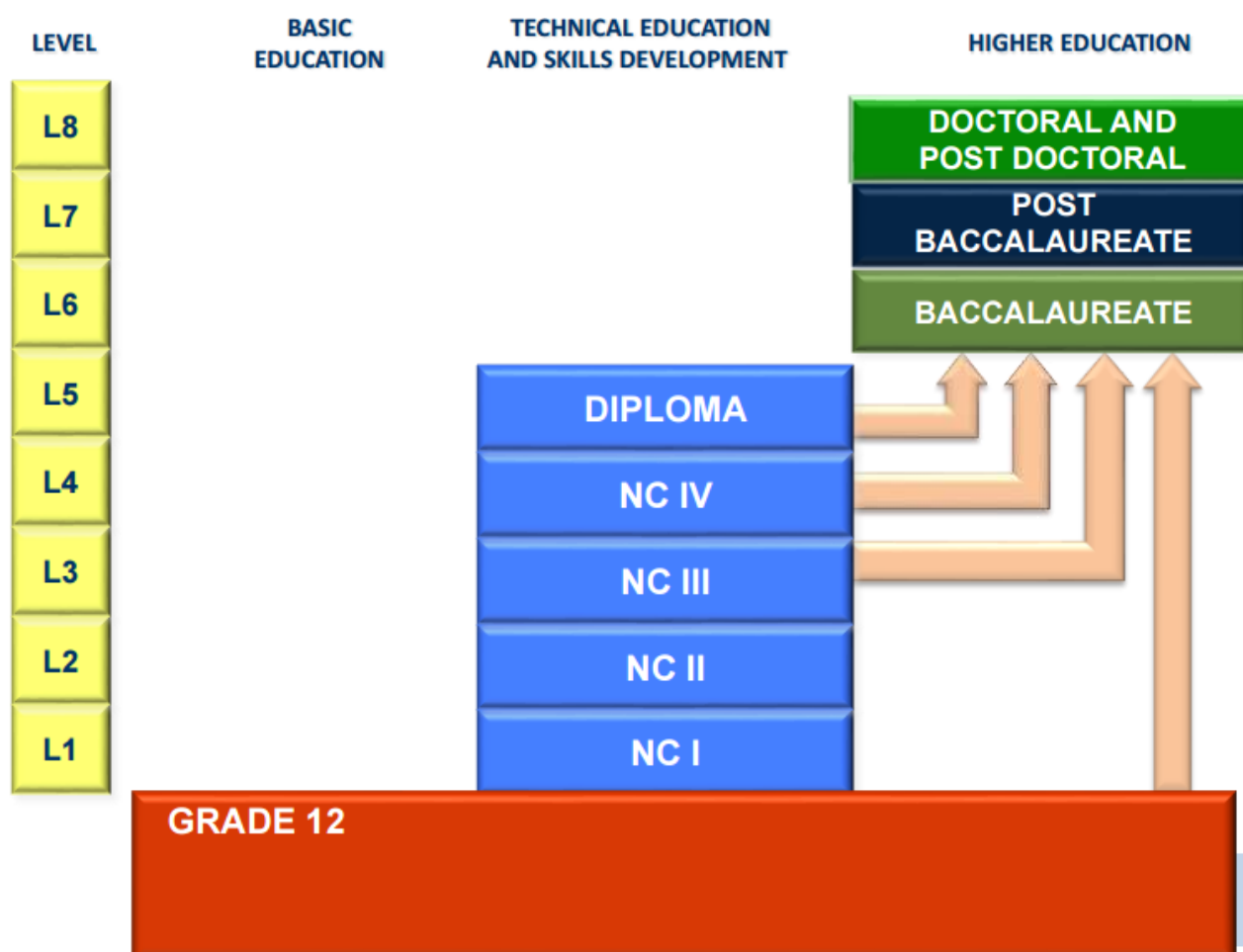
Age	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
Grade				1	2	3	4	5	6	7	8	9	10	11		
Level	Pre-Primary			Primary					Lower Secondary				Upper Secondary			
Access	Voluntary			Compulsory					Voluntary							
Cost				Free					Low cost: (about US\$1.5-2 per year)							

Source: ASEAN Secretariat, 2014

Note: ISCED mappings for Myanmar were not available online at the time of publication.

Philippines

The Philippines Qualifications Framework



Source: Bautista, July 2015

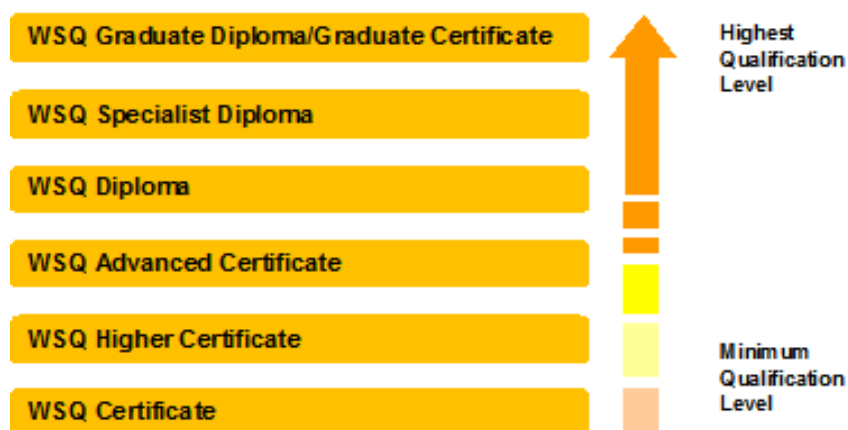
In the ASEAN Community, the Philippines appears to be a rare exception to a relatively harmonised degree structure. The Philippines is currently undergoing structural reforms of K-12, which impacts higher education. The K-12 reforms in the Philippines will address the alignment challenge and concerns about international comparability of higher education degrees (implementation of the new structure is set to begin in 2016). The Philippines is the most relevant example in ASEAN where degree structure clearly impacted international mobility and recognition issues, including “underemployment”. For example, architects from the Philippines were beginning to be downgraded to “draftsmen”, nurses as “nursing aids”, accountants were not full recognised as equivalent in their qualifications etc. The K-12 reforms are expected to ensure international alignment and comparability; for example, in line with the Washington Accord for engineering degree programs and the Seoul Accord for IT and academic computing programs (Bautista, July 2015).

Philippines: Excerpt of UIS validated mappings based on ISCED 1997

ISCED97 level	Programme orientation	Country description of programme	Entrance requirements	Qualifications awarded	Theoretical starting age (in years)	Theoretical ending age (in years)
4A	General	Post-secondary technical vocational programmes	Secondary school leaving certificate	Certificate of proficiency	16	17-19
4B	Vocational	Post-secondary technical vocational programmes	Secondary school leaving certificate	Certificate of proficiency	16	17
5B		University	Secondary school leaving certificate	Associate of Arts	16	18
5A (1st, medium)		Tertiary programmes	Secondary school leaving certificate	Bachelor's degree	16	20
5A (1st, long)		Tertiary programmes	Secondary school leaving certificate	Bachelor's degree	16	21
5A (2nd)		Tertiary programmes second stage - professional	Bachelor's degree	Bachelor's degree (medicine, dentistry, engineering, law)	20	24
5A (2nd)		Tertiary programmes second stage	Bachelor's degree	Master's degree	20	22
6		Doctorate programmes	Master's degree	Doctorate degree	22	24-25

Singapore

Singapore Workforce Skills Qualifications (WSQ)



Source: Singapore Workforce Development Agency (2015)

Singapore: Excerpt of UIS validated mappings based on ISCED 1997

ID	Name of the education programme	Minimum entrance requirements	Main diplomas, qualifications or certificates awarded at end of programme	Theoretical entrance age	Theoretical duration (in years)
7	Junior colleges	Completed 'O' Level	'A' Level or equivalent	16	2
8	Institute of technical education (ITE)	Completed 'N' or 'O' Level	National ITE certificate (Nitec) or Higher national ITE certificate (Higher Nitec)	16	2
9	University (1st degree)	Completed 'A' level	Bachelor degree	18	3
10	University (2nd degree)	Bachelor degree	Master degree	21	1
11	Polytechnic	Completed 'O' level	Diploma	16-17	3
12	University (Doctorate)	Master degree	Ph.D	22	3

Thailand

Thailand NQF Structure

Qualification Levels (QLs)	Connecting/Filling-up Mechanisms	Work Experiences	Learning outcomes according to Educational Qualification Levels
Level 9	Testing, measuring and evaluating transferred experiences from work; Accumulating learning units for raising EQL (Credit Bank)	Acquisition of additional knowledge from formal, Non formal and informal education. Practical training and actual work performance for raising occupational skills, craftsmanship and expertise	Doctoral Degree
Level 8			Advanced Graduate Certificate
Level 7			Master Degree
Level 6			Graduate Certificate
Level 5			Bachelor Degree
Level 4			Higher Vocational Certificate
Level 3			Vocational Certificate
Level 2			Upper Secondary
Level 1			Lower Secondary

Source: Office of National Council, Thailand

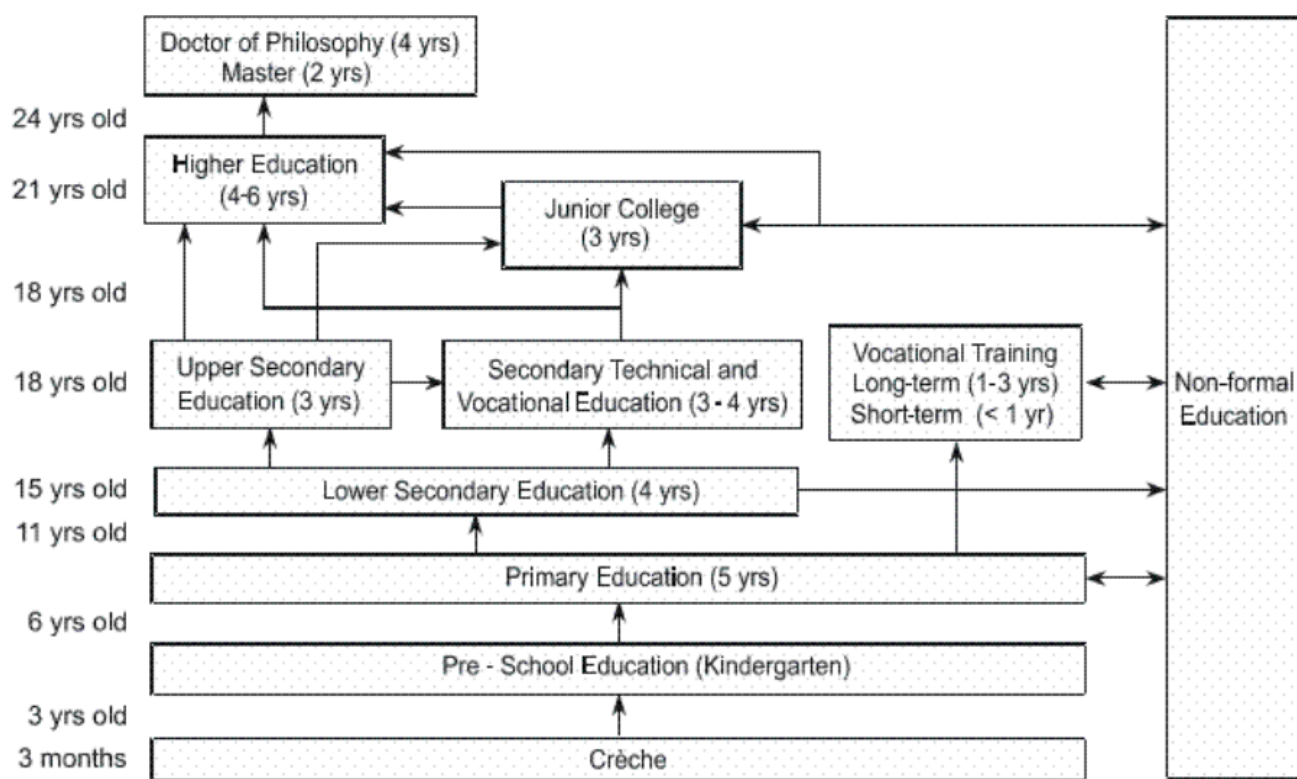
In Thailand, there are five learning outcomes for all three higher education degree levels (BA, MA, Ph.D.) including: 1) ethics and moral values; 2) knowledge; 3) analytical skills (wisdom); 4) interpersonal skills; and 5) quantitative statistical and presentation skills.

Thailand: Excerpt of UIS validated mappings based on ISCED 1997

ISCED97 level	Programme orientation	Country description of programme	Entrance requirements	Qualifications awarded	Theoretical starting age (in years)	Theoretical ending age (in years)
3A	General	Upper secondary, general	Graduation from lower secondary school (Grade 9)	Upper secondary education certificate	15	18
3A	General	Upper secondary (Basic education for adults)		Adult Basic Education Certificate for Upper Secondary	any age	...
3B	Vocational	Upper secondary, vocational	Graduation from lower secondary school (Grade 9)	Vocational education certificate	15	18
3C	General	Upper secondary, education provided by other agencies for specific purposes.	Graduation from lower secondary school (Grade 9)	Upper secondary certificate for specialised education in accordance with their needs and expertise.	any age	...
4B	General	Post-secondary non-tertiary	Graduation from upper secondary school	Post-secondary certificate	18	19-20
4B	General	Post-secondary non-tertiary, education provided by other agencies for specific purposes.	Graduation from upper secondary school	Post-secondary certificate for specialised education in accordance with their needs and expertise.	any age	...
5B		Diploma programmes	Vocational education certificate and upper secondary education, or equivalent	Diploma in vocational education	18	20
5A (1st, short)		University level education	Upper secondary education certificate	Bachelor's degree	18	22
5A (1st, long)		University level education	Upper secondary education certificate	Bachelor's degree	18	23-24
5A (1st, short)		Education provided by other agencies for special purposes	Upper secondary education certificate or upper secondary certificate for specialised education in accordance with their needs and expertise.	Bachelor's degree for specialised education in accordance with their needs and expertise.	approx. 18	22
5A (2nd)		Master's programmes, Post-graduate courses	Bachelor's degree	Master's degree, Graduate diploma	22	24-25
5A (2nd)		Education provided by other agencies for special purposes	Bachelor's degree	Master's degree, Graduate diploma for specialised education in accordance with their needs and expertise.	22	24-25
6		Doctorate programmes	Master's degree	Doctor's degree (Ph.D.)	25	28-29

Viet Nam

Viet Nam National Education System



Source: The 13th Regional Committee Meeting (UNESCO) Colombo, Sri Lanka (August 2014).
LE Chi Loi, Ministry of Education and Training, Vietnam

Viet Nam: Excerpt of UIS validated mappings based on ISCED 2011*

* Note: ISCED 1997 mappings for Viet Nam were not available online at the time of publication. Given the limited availability of ISCED 2011 country reports from ASEAN countries, ISCED 1997 mappings were primarily used for this report.

Name of the education programme (English)	Minimum entrance requirements (English)	Main diplomas, qualifications or certificates awarded at end of programme (English)	Theoretical entrance age	Theoretical duration (in years)	ISCED 2011 level	
Upper secondary	Lower secondary education completion certificate & successful passing of admission exam	Upper secondary education graduation diploma	15	3	Upper secondary education	3
Elementary vocational	Lower secondary education completion certificate	Elementary vocational education completion certificate	15	1	Upper secondary education	3
Intermediate vocational	Lower secondary education completion certificate	Intermediate vocational training completion diploma	15	3	Upper secondary education	3
Professional technical secondary education	Lower secondary education completion certificate	Professional technical secondary education diploma	15	3-4	Upper secondary education	3
Professional vocational secondary education	Upper secondary education graduation diploma	Professional vocational secondary education diploma	18	1-2	Post-secondary non-tertiary education	4
Higher education, Collegiate programmes	Upper secondary education graduation diploma OR Professional secondary education diploma + Entrant examination	College degree	18	3	Short-cycle tertiary education	5
Collegiate vocational	Upper secondary education graduation diploma OR Intermediate vocational training completion diploma	Collegiate vocational training completion diploma	18	2-3	Short-cycle tertiary education	5
Higher education, Bachelor of: economics, pedagogy, humanities, business, mathematics, physics, chemistry, fine arts	Upper secondary education graduation diploma OR Professional secondary education diploma + Entrant examination	Bachelor's degree	18	4	Bachelor's or equivalent level	6

Higher education, Bachelor of: construction, law, transport, mining	Upper secondary education graduation diploma OR Professional secondary education diploma + Entrant examination	Bachelor's degree	18	5	Bachelor's or equivalent level	6
Higher education, Bachelor of: engineering, architecture, medicine, dentistry	Upper secondary education graduation diploma OR Professional secondary education diploma + Entrant examination	Bachelor's degree	18	6	Master's or equivalent level	7
Higher education, Master's	Bachelor degree + Entrant examination	Master's degree	22	2	Master's or equivalent level	7
Doctorate	Master's	Doctoral degree	24	3-4	Doctoral or equivalent level	8

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