Envisioning a Higher Education System for the 21st Century: Cambodia

by

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Abstract

Higher education is essential for Cambodia’s human, social, cultural, and economic development. Yet, it is ineffective and inefficient. Improving higher education, especially making it more responsive to the needs for human resources, is one of the gravest and most urgent reforms Cambodia needs to undertake. This study aimed to explore options to help Cambodia improve in this area. To achieve this objective, the study incorporated the qualitative research methods of document review and stakeholder interviews as a means of collecting and analysing data.

A document review of statistics, technical reports, policy papers, and academic literature sources obtained from both local and international institutions was conducted throughout the research project. During July and August 2014, semi-structured interviews with 18 Cambodian participants were conducted to obtain their perspectives about Cambodian higher education development and challenges. These participants were purposively selected from various backgrounds and included students, parents, faculty, university administrators, higher education officers/expert, employers, and non-governmental staff member.

In keeping with the research purpose, three questions were deployed to guide the study: (a) What are the challenges facing higher education in Cambodia? (b) What lessons can Cambodia learn from policy and practice reforms in developing countries and how can these lessons inform higher education policy development in Cambodia? and (c) What do key stakeholders see as issues and directions for Cambodian higher education?
Overall, the findings indicated that, despite rapid development and growth after the introduction of private higher education in the mid-1990s, Cambodia’s higher education subsector still faces many overarching challenges that need to be addressed to ensure greater effectiveness and efficiencies. This study points out those problems. Also, it suggests some key changes that higher education institutions and the Cambodian government need to make to correct the mismatch between higher education and labour market demand. The directions proposed in this study are expected to provide policymakers in Cambodia (and hopefully elsewhere) with a foundation for their future higher education policy discussions and debates.
Preface

This thesis is an original intellectual work of the author, Sopheap Phan. The fieldwork reported in Chapter 5 received research ethics approval from the Behavioural Research Ethics Board at the University of British Columbia (UBC). The UBC BREB number is H13-00378.
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<tr>
<td>ACC</td>
<td>Accreditation Committee of Cambodia</td>
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<tr>
<td>ADB</td>
<td>Asian Development Bank</td>
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<tr>
<td>CDC</td>
<td>Council for the Development of Cambodia</td>
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<tr>
<td>CDRI</td>
<td>Cambodian Development Research Institute</td>
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<td>GDP</td>
<td>Gross Domestic Product</td>
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<td>HECS</td>
<td>Higher Education Contribution Scheme</td>
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<td>HRINC</td>
<td>Human Resource INC</td>
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<tr>
<td>IAU</td>
<td>International Association of Universities</td>
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<tr>
<td>MoEYS</td>
<td>Ministry of Education, Youth, and Sport</td>
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<tr>
<td>NIS</td>
<td>National Institute of Statistics</td>
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<tr>
<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
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<tr>
<td>PAI</td>
<td>Public Administrative Institution</td>
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<tr>
<td>QA</td>
<td>Quality Assurance</td>
</tr>
<tr>
<td>TFHES</td>
<td>Task Force on Higher Education and Society</td>
</tr>
<tr>
<td>UBC</td>
<td>University of British Columbia</td>
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<tr>
<td>UN</td>
<td>United Nations</td>
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<td>UNESCO</td>
<td>United Nations Educational, Scientific and Cultural Organization</td>
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Dedication

I dedicate this thesis to my parents (Ou Phan and Pen Ly), who inspired me and shaped my education; to my parents-in-law (Y Srun and Sa Mean); to my beloved wife, Sotheary Srun; and to my sons David and Ethan. This piece of work is for you! Thank you and I love you all.

I also dedicate this thesis to my grandmother, Seng, who passed away on January 22, 2015.
Chapter 1: Introduction

Cambodia is no longer stuck in what Collier (2007) called a “conflict trap” that still ensnares many countries in Asia and Africa. Nevertheless, the loss of human resources that occurred during the country’s protracted conflicts of more than 30 years continues to pose challenges for reconstruction and development. Emerging from the civil conflicts, Cambodia urgently needs trained personnel to fulfil important social roles such as maintaining social cohesion and promoting a culture of peace. At the same time, it also needs qualified human resources to deal with a wide range of other important issues, such as building stronger governance, institutions, and civil society; reducing poverty; and providing education and health care, environmental management and protection, growth, regionalization, and globalization. The need for such human resources is necessary and growing, as Cambodia has begun integrating into the regional and world system such as the Association of Southeast Asian Nations (ASEAN) and the World Trade Organization (WTO).

Education can help Cambodia produce this very much needed workforce. Improving it must be a high priority. Although lower levels of education are necessary, they are insufficient to ensure social, cultural, and economic development, as Kimenyi (2011), Tilak (2007), and Bloom, Canning, & Chan (2006) pointed out. Cambodia also needs an improved higher education system to promote the human development process. Higher education institutions will help train professionals with skills for society and the labour market. They can also help in other important roles such as instilling an understanding of human rights and civic virtues in students, promoting
social justice, and providing political stability and greater social mobility and capital (UN, 2004; Daxner, 2003; Brennan, King, & Lebeau, 2004), all of which Cambodia needs.

Higher education is expensive. An attempt to ensure quality higher education for all citizens will not be easily achieved. However, investing in higher education is essential. Investing in human capital is a major reason behind the rapid social and economic development of many developing countries. For example, the governments and societies of many countries in East Asia (Japan, Korea, Taiwan, Hong Kong, and China) and a few in Southeast Asia (Singapore and Malaysia) have invested heavily in postsecondary education. In an appropriate way, the educated citizens of these countries have helped transform their countries from extremely poor nations after World War II to economic tigers in a very short time (Castells, 2009). In addition, as the National Governors Association (2001) indicated, the driving force behind the 21st century economy is knowledge and developing human capital, which is the best way to ensure prosperity.

In a nutshell, a strong and effective higher education system will benefit society and have a positive effect on both social and economic growth and development, especially of young democracies such as Cambodia that have a weak institutional capacity and limited human capital. Because of these significant contributions, it is imperative that society recognise the role of higher education institutions and provide continuous support. Cambodia needs some clear steps to improve its higher education subsector.
1.1 Research problem

Since making a historical transition from a command-and-control, highly centralized planning economy to a market-oriented economy through a United Nations sponsored multiparty national election in 1993, the higher education system in Cambodia has experienced rapid transformation and growth. The number of students enrolled in higher education institutions has increased noticeably along with the number of higher education institutions. The emergence of private higher education institutions in the mid-900s considerably contributed to this development. Nevertheless, the expansion of higher education institutions has not been guided by careful planning at either the institutional or national levels. Chet (2006), Ayres (2000), the United Nations Educational, Scientific, and Cultural Organization [UNESCO] (2010), and the World Bank (2012) suggest that the expansion has been driven mainly by the financial goals of the institutions and owners. Consequently, the Cambodian higher education system continues to confront a wide range of interwoven issues and challenges.

The existing literature points out that the Cambodian higher education system has suffered and continues to suffer from severe limitations of national financial and human resources while the demand for higher education has grown rapidly. It has also experienced a disorganized management structure leading, among other things, to an ineffective working/training environment and a low degree of collaboration among higher education institutions. The skills and knowledge that graduates receive from the higher education system have not responded well to the needs of the labour market and thus social and economic development. Also, mismatch has created a high unemployment rate among graduates. Equity and access to higher education
remains a big challenge as seen in the wide gap between the enrolment of urban/wealthy and that of rural/poor students. The issue of quality continues to be a concern for all stakeholders due to the fast growing number of higher education institutions and student enrolment, loose management by education providers, and a lack of guidance from the central level (UNESCO, 2010). The Cambodian higher education system also faces other serious problems including a lack of clarity in vision, policy direction, and legislative framework; an absence of research; and the need for effective quality assurance mechanisms (UNESCO, 2010; Asian Development Bank [ADB], 1996; World Bank, 1994b, 2012; Chet, 2009; Human Resources INC [HRINC], 2010).

Faced with these unresolved issues, Cambodia needs to search for feasible strategies to improve its higher education system so that it can respond better to social and economic needs. Despite an increasing interest in education and educational development in Cambodia in recent years, most research and publications have focused on the overall situation of the whole education system, the political context of that system, and its shortcomings. Some of these studies include Man Malhotra's (1994) “System Analysis of the Education Sector” study; David Ayres’s Anatomy of a Crisis: Education, Development, and the State in Cambodia from 1953 to 1998; a 1994 study by Jandyala Tilak on Financing Education in Cambodia; the ADB’s (1996) Cambodia: Education Sector Strategy study; Martin Hayden and Richard Martin’s (2011) “Education System in Cambodia: Making Progress Under Difficult Circumstances” study; and the Ministry of Education’s (2014) “The Education Strategic Plan 2014-2018.”
Research on higher education is still limited. Until the time of this writing, about two dozen materials (most in the form of papers and book chapters) have been published. These include, for example, Moniroith Vann’s (2012) study on the “Stakeholders’ Perceptions of Quality in Cambodian Higher Education” and Chet Cheally’s (2009) “Higher Education in Cambodia.” The only book on higher education is David Sloper’s (1999) *Higher Education in Cambodia: The Social and Educational Context for Reconstruction*. Even this book, as Duggan (2001) pointed out, has many shortcomings as it was intended to provide donors with some key issues involving Cambodian higher education. This study will attempt to fill in the gaps in such an important topic.

1.2 Purpose

In recognition of the aforementioned situation, the main purpose of the study is to provide an evidence-based future direction for Cambodian higher education. It aims to provide relevant authorities and policymakers with an informed basis for policy discussions and dialogues for building a higher education system that matches Cambodia’s social, political, and economic needs and context. To accomplish this, I progressed through four steps.

First, I analysed the social, cultural, political, and economic situation in Cambodia and the key issues that are facing the society as a whole. In this phase, I conducted an extensive review of the literature of higher education in Cambodia to provide perspectives on the development and challenges facing the sector. In the second step, I looked at the international literature in the context of the issues and challenges identified in Step 1. Six key themes were explored to
identify the issues, practices, and trends in international higher education reforms, especially those in developing countries. The themes were (a) funding, (b) quality, (c) relevance, (d) access, (e) governance, and (f) research. Third, I carried out interviews with Cambodian stakeholders to learn about the most current developments within Cambodian higher education and to obtain information about the stakeholders’ experiences and perspectives concerning Cambodian higher education. Fourth, drawing from these data sources, I derived insights regarding what I saw as key recommendations for the building of future higher education in Cambodia.

This study takes a broad definition of higher education as described by the World Bank in *Putting Higher Education to Work: Skills and Research for Growth in East Asia* (2012). This definition includes all of the public and private formal institutions of learning beyond the upper-secondary level. These institutions award formal academic degrees, diplomas, or professional certification. They include, but are not limited to, universities, two- and four-year colleges, institutes of technology, religious-based educational institutions, online and distance learning, foreign branch campuses, and other collegiate-level institutions (such as vocational, trade, or career). This study also uses the terms “higher education,” “tertiary education,” and “post-secondary education” interchangeably to describe education and training programs and institutions after secondary (high) school.
1.3 Research questions

In keeping with my purpose, I used three questions to guide this study:

1. What are the challenges facing higher education in Cambodia?
2. What lessons can Cambodia learn from policy and practice reforms in developing countries, and how can these lessons inform higher education policy development in Cambodia?
3. What do key stakeholders see as issues and directions for Cambodian higher education?

1.4 Significance of the study

There has been a call for government, businesses, and other stakeholders to recognize the role of higher education institutions better in Cambodia and to search for appropriate measures to overcome their problems. This study aimed to contribute to this endeavour by providing a basis for future discussions and debates to reform the Cambodian higher education sector. The findings of this study are significant in three ways.

First, the study provides Cambodian policymakers with some insights into various new trends and practices for informed discussions, planning, and management, and for guiding the country in the promotion of higher education. The capacity building contribution of a good higher education system would help Cambodia to become more self-sufficient rather than remaining
dependent on continuous aid from the international community for social reconstruction and development (Cambodia has heavily relied on this aid since the early 1990s).

Second, this research study may help prevent future human loss and suffering and material destruction in Cambodia. The country experienced this during decades of national division and instability partly because of ignorance regarding important higher education issues. Each of Cambodia’s post-independence regimes has acknowledged the importance, for example, of agricultural development to the economy, but as Ayres (2000) pointed out, none of them has used education to address the problem.

Finally, as Collier (2007) argues, “the same approach is not going to work everywhere” (p. 190). Nevertheless, as not all countries are utterly distinctive, some insights arising from this research can help inform research efforts elsewhere. Some findings may be useful for the policymakers and the management of higher education in other countries (especially in developing countries) who are grappling with similar issues and who are seeking ways to further social and economic development.

### 1.5 Overview of the dissertation

In this chapter, I described the study’s background, problem, purpose, questions, key terms, and the significance of the study. In Chapter 2, I discuss Cambodia’s present situation and its historical and contemporary development in higher education. Its main purpose is to provide an understanding of the context of this study. The research design is outlined in Chapter 3. It spells
out details on the research procedures and instrumentation, data collection, and analysis. Chapter 4 analyses the international experiences, trends, strategies, principles, and practices using the literature and focusing particularly on the developing countries. Chapter 5 presents the analysis of the interviewees’ perspectives about Cambodian higher education challenges and the approaches Cambodia has adopted and should adopt to improve higher education for social and economic development. Chapter 6 concludes the study by briefly summarizing higher education problems and recommending key actions that should be undertaken to implement change.
Chapter 2: Cambodia and its Higher Education System: An Overview

In this chapter, I provide an overview of the current state and of Cambodia’s higher education development. In the first part, I describe the socio-cultural factors, political circumstances, and economic conditions with a particular focus on the period after the United Nations (UN) brokered peace deal in 1991. Also, I discuss some key challenges Cambodia faces. In the second part, I trace the historical background of the higher education system. I detail the distinctive features of its development leading up to the current system. I also examine key higher education legal frameworks, regulations, and policy reforms the government has adopted in recent years and point out the effects of policy implementation. Finally, I outline the challenges confronting the reform, development, and practices of Cambodian higher education. Although every effort has been made to keep the discussion as accurate as possible, it is important to note that some documents are outdated. Where appropriate, I rely on my 15 year involvement as a lecturer and administrator in the Cambodian higher education sector to fill in the gaps.

2.1 Social-cultural, political, and economic contexts

To provide the context for this study, I will focus on four aspects involving Cambodian society in this section. I will begin with the country’s social-cultural factors, which include population, education, language, religion, social organization, and the role of non-governmental organisations and development agencies. Next, I will describe the political context and economic conditions. I will end this section by identifying the challenges facing the country.
Cambodia is a small, poor, transitional Southeast Asian country. It has a total land area of 181,035 km$^2$. The country is bordered on the north by Thailand (803 km) and Laos (541 km), on the east and southeast by Vietnam (1228 km), and on the west by the Gulf of Thailand and Thailand (443 km). The climate is distinguished by two major tropical seasons. The dry season begins in mid-May and ends in mid-September or early October. The wet season lasts from early November to March. January is the coolest month and April is the warmest. The average temperature is around 25 °C. The maximum temperature is higher than 32 °C, but the minimum temperature rarely falls below 10 °C.

Cambodia is rich in natural resources: forests, minerals, coastal and inland fisheries, rich biodiversity, and a great variety of fertile soils (Hang, 2012). Also, it possesses other natural resource potential including oil and natural gas deposits offshore, gemstones, gold deposits, iron ore, manganese, phosphate, and hydropower. Many of these remain largely unexplored.

Population. In 2014, Cambodia had a population of approximately 14 million. Of this population, 48.6% were male and 51.4% were female (National Institute of Statistics [NIS], February 2014). Ninety percent of Cambodians are Khmer (Hang, 2012; NIS, 2014). Based on the General Population Census 2008, Cambodia still has a large youthful population (about 34% are under the age of 14 and 54% are between the ages of 15-49). Although the population aged 0-14 was lower than the 1998 Census, the 15-49 age group increased 6.5% from 1998. This means that Cambodia will face new challenges when this large number of youth ages in the next few decades. In addition, 85% of Cambodia's population lives in rural villages, making it a predominantly agricultural country (CDC, 2002).
Education. Every Cambodian has an equal right to obtain education for at least nine years in public schools (Cambodian Constitution, 1993). The Cambodian education system is a complete one, from pre-school (3 years), primary school (6 years), lower secondary school (3 years), upper secondary school (3 years), and higher education (4-7 years). Driven by an effective collaboration between the government and development partners/non-governmental organizations and by increases in education expenditure and foreign aid, Cambodia has made good progress in primary and secondary education.

Approximately 97% of Cambodian children enrolled in 7,051 public and 297 private primary schools across the country in the 2014-2015 academic year (Ministry of Education, Youth, and Sport [MoEYS], 2015). The gender gap in primary school has effectively been closed. The rate of improvement has been most notable among girls, in children in rural and remote areas, and among children from lower income quintiles (Engel, 2010; MoEYS, 2015). The Ministry of Education, Youth, and Sport also provides inclusive education programs for children with
disabilities in 3,420 schools. Despite these achievements, work needs to be done to provide and expand education service to disadvantaged areas and marginalized children and to improve curriculum, education quality, and school governance.

In 2014-2015, Cambodia had 1,704 lower and upper secondary education institutions (425 lower secondary schools from grade 7 to 12 and 30 upper secondary schools from grade 10 to 12) (MoEYS, 2015). The gross enrolment rate at lower secondary educational institutions accounts for 55.1% (56.2% for female students). However, the gross enrolment rate at upper secondary educational institutions accounts for only 25.3% (26.9% for female students; MoEYS, 2015). Dropout rates are the most acute at the lower secondary level among male and female students with an average dropout rate of about 20% compared with an average dropout rate of 9% in primary and 12% in upper secondary educational institutions (United States Agency for International Development [USAID], 2011; MoEYS, 2015). Completion rates are also a challenge, especially in lower secondary educational institutions. According to the latest figure, the completion rate at this level was a mere 40.3% in 2014-2015 (MoEYS, 2015). Apart from the high dropout rates, secondary education in Cambodia also faces other challenges including insufficient facilities, teaching and learning materials, specialised teachers (especially for science subjects), and teacher-student ratios.

Higher education, the third level of education following the secondary education, has also experienced some positive and negative developments. In the second part of this chapter, I describe the development and challenges of this subsector in detail.
Although the state of education has improved, shortcomings continue to limit progress. The relevance of education, disparities in access, (dis-)engagement with the education system, teachers, and inadequate structures and inefficient governance are among the challenges (UNESCO, 2010). The adult literacy rate of Cambodians aged 15 and over is 77.6% (NIS, 2009). The percentage of literate persons in the urban area is 94%, but in rural areas, the level of literacy is more than 20% lower. Indeed, young Cambodians made up the majority of the population today. However, the percentage of young people who complete education beyond the secondary level is only 1.8% (NIS, 2009).

**Language.** Piasa-khmer, or the Khmer language, is the official language of Cambodia. The majority of the population (96%) speak Khmer (NIS, 2009). Khmer is atonal, comprising of 33 consonants, 31 vowel configurations, and 14 “independent” vowels, and it involves a complex system of subscript and diacritics (Huffman, 1987). The structure and vocabulary are homogenous throughout the country with slight dialectical variations in a few remote areas. In addition, Cambodians also speak Vietnamese, Chinese, Thai, Laotian, and other minority languages (NIS, 2009). Cambodians also study French and English at school and universities. English is becoming a second language in Cambodia due to Cambodia’s recent economic and political transition and integration into the international community. Cambodians choose English over all other international languages due to economic, education, and employment reasons, particularly because better job opportunities are available to people with English knowledge. As a result, there has been a rapid development in and demand for English language training. Many Cambodian higher education institutions offer academic programs in English alongside instruction in national languages.
Religion. Buddhism is the state religion and is followed by 97% of the population (NIS, 2009). Other religions also enjoy the same freedom as stipulated in Article 43 of the constitution. Islam and Christianity are the next largest religions in Cambodia. The Muslim community numbers more than 200,000 while the number of Christians grew from 200 in the 1990s to around 60,000 (Peou, 2001). Cambodians also widely practice astrology.

Khmer Buddhism has played a significant role in Cambodian culture for centuries. It governs all aspects of daily life and it is intricately tied to the Khmer identity and customs. Buddhism is the sole institution that cuts across the deep political divisions separating Cambodians today (Yos, 1998). Buddhist temples (an estimated 4,392 throughout the country) are not only religious centres providing a sacred space for religious practice, but also sources of popular education and other social services for the local community (Kent, 2007).

However, the strong influence of Buddhism in the current social fabric has also raised some concerns about the political interference in and manipulation of the Buddhist monastic order. As Cambodian monks have the right to vote, their role has become sharply politicized and they have been locked into an unhealthy patron-client system with senior politicians, rendering them either incapable or unwilling to exercise Buddhist-oriented moral advocacy (Kent, 2007). In addition, there are concerns about the involvement of some Buddhist monks in commercial and/or business patronage/activities.
Social organization. Like its three neighbouring countries, Cambodia is a linguistically and culturally homogeneous collectivist polity. Social relationships are hierarchical. Within the family, social rankings are based upon birth order and sex. Outside the family, the social hierarchy is dictated by a mix of factors including age, wealth, political position, religious piety, and sex (Ledgerwood, 2006). Cambodia has a strong preference for these hierarchical relationships as seen in daily interactions and in working environments (Chan & Chheang, 2008). A dichotomy between the “higher” and the “lower” is also evident in the Khmer language. The appropriate word is chosen according to an individual’s status, age, and sex. Cambodians are taught and expected to uphold these hierarchical relationships from a very young age.

The strong hierarchical and patriarchal structures and practices continue to place Cambodian women in a highly disadvantaged position in society even though Buddhism recognizes equality between men and women with no intellectual difference between them (Seneviratne & Currie, 1994). Females are explicitly assigned a lower status that prohibits them from voicing opinions and advice. They have to always respect and obey their husbands and must avoid embarrassing them. In addition, females are taught to be gentle, passive, submissive, and pleasing housekeepers. Males, on the contrary, are considered superior to females in all aspects. They are socialized to view themselves as heads of households, breadwinners, and decision makers.

Since 1997, the government has passed many pieces of legislations and policies to ensure that women’s issues are properly addressed. More Cambodian women are now educated and are enjoying better opportunities than their parents and grandparents ever imagined. Given the
numerous social, economic, and political obstacles confronting the country, female participation at 38% in higher education in 2007 (MoEYS, 2010) looks encouraging. However, it is still far away from the equal participation of women and men in Cambodian society.

*Non-governmental organisations.* After the signing of the 1991 Paris Peace Accords, many local and international NGOs and development agencies have actively participated in the rehabilitation, reconstruction, and development efforts of Cambodia. These organizations have played and continue to play a key role in supporting the provision of basic social services and they fill gaps in government social and economic policies in Cambodia (Rasmussen, 2010). Today, approximately 2,000 NGOs are operating across Cambodia (Rasmussen, 2010). Their activities cover almost every sector of Cambodian social development including the environment, education, civil and religious education, human rights, poverty alleviation, and emergency relief. According to Rasmussen (2010), agriculture (13%), health (13%), and education (12%) are the top three sectors in which local and international NGOs implement programs. These organizations have brought alternative models and approaches to development and emphasize participation, equity, gender sensitivity, and environmental sustainability. One cannot deny that the present social and economic growth in Cambodia would not be possible without the participation of NGOs and development agencies.

The government has also recognized NGOs as important partners in Cambodia’s rehabilitation, reconstruction, and development process. Nevertheless, the operation of NGOs in Cambodia has not been entirely smooth and without obstacles. For example, NGOs still have a limited influence on government strategy and policy and limited space for dialogue (The International
Centre for Not-for-Profit Law [ICNL], 2015, para. 2). Despite democratic freedoms in Cambodia, some NGOs, especially those involved in advocacy, legal rights, and human rights, are often perceived by the government as unwanted opposition. Some have been criticized by the government for “incitement” because of their connection with the political opposition (ICNL, 2015, para. 5). In 2010-2011, the government drafted a law on Associations and NGOs. It said the law was intended to promote and strengthen civil society, but due to its restrictive nature, many saw it as the government’s desire to curb the activities of civil societies (Christie, 2013).

2.1.1 Political context

Cambodia was once the centre of the thriving Khmer empire that spread well beyond the country’s current borders, and for a period, centred on the world famous Angkor Wat temples (Hill & Menon, 2013). However, during the last 150 years, Cambodia has faced many difficult times. It became entangled in countless internal struggles for power, territorial disputes with its neighbours, foreign intervention, and colonial rule. For 90 years, it was under French colonial rule. Not long after it obtained independence from France in 1953, the war raging in neighbouring Vietnam crossed into Cambodia and set the scene for the Khmer Rouge seizure of power in 1975. The Khmer Rouge established a state that relied on agriculture and turned Cambodia into a “killing field” that resulted in the deaths of nearly two million citizens from disease, hunger, overwork, or execution. This barbarous regime was ousted in 1979.

Subsequently, Cambodia became a communist country supported and recognized by the Communist bloc (Vietnam, Soviet Union, and Eastern European communist countries). The
country was totally cut off from the international community and had to overcome years of international and economic isolation and sanction. Fighting continued between the government and remnant Khmer Rouge fighters in areas bordering Thailand. In 1991, all factions agreed to stop fighting and signed the UN brokered peace deal in Paris. The deal led to the UN monitored nationwide elections in 1993.

Today, Cambodia is a kingdom with a king who rules according to the Constitution and to the principles of liberal democracy and pluralism. Since 1993, Cambodia has undergone radical changes. It has managed, with international support, to end the armed conflict and bring peace to the country within nearly 50 years. It abandoned communist party rule and adopted a pluralistic liberal democracy that includes guarantees for multi-party elections and other civic rights. The new political platform allows Cambodia to be integrated into the democratic world system and to receive support for reconstruction and social-economic development. It has reclaimed its UN seat and has become a member of the ASEAN, the WTO, and other international organizations. With the change of political landscape, Cambodia has also made a historical transition from a command-and-control, highly centralized planning economy into a market-oriented, more dynamic economy.

Given “its complex, bloody history” (Hill & Menon, 2013) and “the extremely messy domestic situation before the UN intervention” (Sachsenroder, 2012), Cambodia has come a long way in the 24 years since the historic 1991 peace settlement. It has made good progress in a number of important political areas including in the direction of national reconciliation, reconstruction, and internal stability. The country has become politically stable and has initiated political, social, and
economic transformation (Ing & Ghebreab, 2012). Every Cambodian is guaranteed by the Constitution to have “the right to participate actively in the political life of the nation” (which means each Cambodian over the age of 18 can vote and can stand as a candidate for the election). National elections are held every five years following the democratic multi-party principles. Political parties function freely in Cambodia (Hang, 2012). So far, Cambodians have gone to the polls five times. The last election took place in summer 2013. Cambodia has also signed and ratified most of the international agreements on human rights protection (Hang, 2012).

Voting institutions have strengthened and notable progress has been made, particularly in improvements in the conduct of elections (Lum, 2009). All the polls were generally peaceful and relatively free of voting irregularities. There has also been good progress in political development, especially regarding the re-emergence of civil society (Downie & Kingsbury, 2001). An active civil society, labour unions, and a varied and lively press, as Lum (2009) pointed out, have developed in Cambodia. A recent survey by the International Republican Institute indicated that 82% of Cambodians believe that their country is moving in the right direction. The ruling party has garnered genuine popularity based upon the country’s economic development, relative political stability, and material improvements achieved under its rule (Lum, 2009).

The government began to address its corrupt practices by passing an anti-graft law in 2010, which requires asset declarations by more than 100,000 state officials (Sachsenroder, 2012). The enactment of this law to combat corruption is a significant step forward for Cambodia. However,
be effective, enforcement must be strict and should be accompanied by efforts to improve living standards for the general population.

Despite its achievements, Cambodia’s political development remains weak. More work remains in terms of democratic consolidation and good governance. Some politically inspired violence continues, especially before and after national elections. Corruption also continues to mar democracy and governance: it clearly pervades Cambodian society and government. Moreover, the lack of respect for human rights and for differences of opinion, and the arbitrary exercise of power, particularly the continued future of impunity, remain key challenges to Cambodia’s political development (Downie & Kingsbury, 2001; Lum, 2009). In addition, the election process in Cambodia still “needs work”—from reducing pre-election violence, intimidation, and vote buying to providing more balanced media coverage and more candidate debates (Lum, 2009). In the 2008 election, 52% of the respondents interviewed by the International Republican Institute reported having been offered a gift by a political party or candidate during the elections (Lum, 2009). Cambodia needs to overcome these political challenges to promote social justice and to achieve full national reconciliation and unity.

2.1.2 Economic conditions

With a gross domestic product (GDP) of $15.24 billion in 2013 (World Bank, 2015), Cambodia’s economy is among the smallest in the Asia Pacific region and is still classified as one of the least developed economies. Nonetheless, since the Cambodian economy was transformed from a socialist economy to a market economy in the 1990s, the GDP has grown
very quickly at an average of 9.5% per year (Hill & Menon, 2013; Norodom, 2012; Hang, 2012). In fact, Cambodia has achieved much more rapid economic development over the past two decades than even the most optimistic forecasts could have projected at the time of the 1991 Paris peace settlement. This rate is arguably faster than that in any other post-conflict country (Hill & Menon, 2013). Several reasons have explained such rapid growth. The restoration of peace and security, large public and private capital inflows, economic openness, and a dynamic, integrating neighbourhood are the main enabling factors (Hill & Menon, 2013).

The government’s prudent macroeconomic management that aimed to make Cambodia a focal point for foreign investment and encourage the export of goods and services has also laid the foundation for economic takeoff and rapid transformation (Hang, 2012). In addition, Cambodia’s high growth and noteworthy social outcomes have resulted from many other factors: the country’s’ utilization of plentiful resources; her young, cheap, and abundant labour force; her geographical advantage (part of the dynamic ASEAN); her preferential market access (to the USA, European Union, and others); and her receipt of generous foreign assistance for public investment in infrastructure (Oum, 2013).

Generally, in terms of size, the majority (95%) of enterprises in Cambodia are micro-enterprises. They account for almost half of all employment and contribute to 62% of the GDP (World Bank, 2009; Norodom, 2012). These small and medium enterprises are mostly situated in the informal sector of the economy. Three sectors have provided strong impetus to the Cambodian economic growth performance: (a) agriculture, (b) garment manufacturing, and (c) tourism (Hang, 2012; Lum, 2009).
Agriculture is a key player thanks to the country’s abundant natural resources, rich biodiversity, fertile soils for crops, and favourable weather conditions (Hang, 2012). However, as Hang (2012) has pointed out, the agricultural sector is comprised of non-mechanized peasant farming, which is strongly dependent on climate conditions. In 2007, the agricultural sector contributed 30% of Cambodia’s GDP (Hang, 2012; James, Gill, & Bates, 2013). Rice accounts for a third of agricultural production and is a major source of export income. Driven by a strong international demand (especially the European Union’s “Everything But Arms” initiative), rice exports have increased significantly in the last several years. Rubber and fish are also among the country’s major exports (Hang, 2012). These two products are primarily exported to countries in the Southeast Asian region (Vietnam, Thailand, and Malaysia).

The economic sector is now driven increasingly by light industry and tertiary sectors. The industry sector’s contribution to the real GDP growth was 35.6% in 2012 (World Bank, 2013). Garment manufacturing makes up the largest segment: accounting for 80% of national exports (Maierbrugger, 2013). In 2014, the garment sector (with 960 factories) employed nearly 620,000 workers and contributed U.S. $5 billion to the country’s economy (the Minister of Labour and Vocational Training, as cited in Rasmei Kampuchea, 2014). Cambodian garment factories have developed a reputation for good labour practices (Lum, 2009). However, clashes between workers and the government during wage protests in early 2014 have worried foreign investors and buyers. Cambodia needs to deal quickly with this issue if it wants the sector to remain attractive to international investors/buyers.
Beside agriculture and garment manufacturing, the Cambodian economy also relies extensively on tourism as a source of growth. Driven by great natural and cultural tourist attractions, a recent infrastructure development and/or upgrade, diversification of tourism markets, and the government’s efforts to promote tourism internationally, tourism is fast becoming Cambodia’s second largest industry after the garment sector (Cheang, 2010; World Bank, 2013). Tourist arrivals reached 3.58 million visitors, representing 24% year-on-year growth in 2012 compared to 15% growth in 2011 (World Bank, 2013). This has helped Cambodia earn foreign currency and provide employment for hundreds of thousands of Cambodians. Tourism also helps boost other Cambodia’s sectors including services, manufacturing industries, and food production.

Robust macroeconomic performance in the agriculture, garment manufacturing, tourism, and construction sectors has so far helped create jobs and bring steady income for Cambodia. Over the period 2002 to 2007, a total of 1.7 million new jobs were created to bring Cambodia’s workforce to around 8.4 million people (representing an increase of 27%; HRINC, 2010). About three quarters of these people are engaged in unskilled labour and are either self-employed or work in family businesses in the informal sector (James et al., 2013). Of the employed people, 81.2% live in rural areas (James et al., 2013). The agriculture sector employs approximately 55.8% of the total employed population (Hang, 2012; World Bank, 3013). In the years 1998-2007, the agriculture sector is estimated to have added around 80,000 jobs per year (on average; World Bank, 2009). The industry sector (mostly garment production and construction) is absorbing increasingly large portions of the Cambodian labour force. In 2011, the sector provided 16.9% of total employment (World Bank, 2013). The services sector continues to provide sustained employment. Its employment share was around 17% for the rural areas and
73.7% in the urban areas in 2011 (World Bank, 2013). In the services sector, the greatest share of employment comes from trade, followed by transport and communications, public administration and defense, and education (HRINC, 2010).

Due to economic growth, Cambodia managed to reduce its national poverty from 39% in 1993/94 to 30.1% in 2007. In 2014, the poverty rate was 20.5% (World Bank, 2014, October). Cambodians, as Hill and Menon (2013) pointed out, are now better educated and fed. They live longer, and they have greater social and occupational choice than ever before. Great potential in oil and natural gas exploration and hydropower, the growing integration into the world markets, and increasing foreign investment may speed up economic development in the coming years.

Nonetheless, this economic success has been accompanied by a number of critical problems. One of the most current obstacles is the lack of skilled labour. Employers thus face significant difficulties in expanding their businesses due to the low skill levels of the workforce (World Bank, 2009, 2012). The loss of educated Cambodians during the war significantly contributed to this human resource deficiency, and it will take more than one generation to overcome this loss (Hill & Menon, 2013). Over the years, Cambodian education, especially the higher education system, has failed to produce graduates to respond to labour market needs. The Cambodian government has been tackling the problem by importing foreign experts and workers. Continuing economic growth relies on the government’s ability to address the challenge of a skilled labour shortage and Cambodian workers’ low productivity that, according to Weinland (2012), stood at 35–45% of the regional efficiency level.
Another challenge is that the growth of the economy is still narrowly based and volatile. The economic base remains small, with rice dominating the rural economy and garments, tourism, and construction driving much of the urban economy. Indeed, economic diversification has picked up in the past few years following foreign investment in light manufacturing in special economic zones (Un, 2013), but concerns remain about the slow and limited diversification within the economic sector. Economic growth could stall when tourists stop coming en masse coupled with a lower demand for key garment exports (Hill & Menon, 2013).

2.1.3 Challenges facing Cambodia

Cambodia has made some significant progress in promoting social and economic development, fostering economic growth, rebuilding national institutions, maintaining macroeconomic and political stability, and creating a liberal investment climate after decades of isolation and conflict (Hang, 2012). Despite these achievements, many substantial challenges lie ahead. Some are legacies left by the past armed conflicts and political instability, while others are new problems created by factors such as population growth, financial deficiency, and globalization. Five challenges that Cambodia needs to overcome are: (a) political instability and social insecurity, (b) inadequate infrastructure development and enhancement, (c) poor institutional capacity, (d) a lack of environmental protection, and (e) inadequately trained human resources.

Political instability and social insecurity. Political stability and social order are crucial for Cambodia’s future social and economic growth, but they remain nascent and volatile. The 1997 event in which the coalition government broke up and sent Cambodia into a serious political
deadlock clearly demonstrated the extent of the danger. Therefore, maintaining, strengthening, and protecting political stability should be a top priority. The principles of democracy, rule of law, and good governance can engender greater stability and reduce the incidence of conflicts (Collier, 2007). Cambodia needs to deal with the current social injustices created by inequitable sharing of the fruits of development. Corruption and the deprivation of landless farmers need to be tackled immediately. Since the majority of the population is young, Cambodia must engage them in the democratic process by educating them about law and regulations, rights and responsibilities, and their participation in promoting and protecting the democratic process. The government must ensure that young people receive proper education and employment and become an important player in society. These people should be well taken care of because, as Collier (2007) pointed out, youth is among the major characteristics that can make people more likely to engage in political violence.

_Inadequate infrastructure development and enhancement._ Infrastructure development can help countries to jump-start and grow economies, deal with employment challenges, and reduce poverty (World Bank, 1994a; Calderon & Seren, 2003; Estache, 2006). Starting from scratch after the war, Cambodia has rebuilt some good infrastructure. Nevertheless, infrastructure development and investment remains inadequate, untimely, and in relatively poor quality, especially in remote, rural areas. The Global Competitiveness Report issued by the World Economic Forum in 2010–2011 ranked the overall quality of Cambodia’s infrastructure near the bottom (at 114 of 139 countries). Key infrastructure shortages remain in the water, irrigation, power, and transport sectors. The cost of energy remains high, inadequate, and unreliable. In
addition, the transportation infrastructure—airports, ports, railroads, roads—is of poor quality and has not improved much.

To have proper infrastructure that would lead to a healthy and balanced social and economic development, Cambodia needs clear strategies and new regulations to guide the government and developers. More focus, for example, should be directed toward providing employment opportunities to the poor in rural areas. Increased employment participation would ensure sustainable poverty reduction, social justice, and security. Meanwhile, the development and improvement of human capital/resources should become a top priority because the poor quality of the Cambodian infrastructure has been caused, among other things, by poor governance (accountability, monitoring, and implementing) due to the lack of qualified human resources.

Poor institutional capacity. Much remains to be done to improve administrative, legal, commercial, judiciary, and regulatory institutions (UNESCO, 2010; ADB, 2011). Capacity building and enhancement are required for fostering the effectiveness of these domestic institutions. Individuals in organizations need skills and competencies to formulate and implement policies and reforms and to deliver services. Enhanced capacity will enable Cambodia to engage effectively in managing and implementing regional social and economic cooperation, and help it communicate and coordinate with the international community. At present, Cambodia relies on foreign expertise and resources to perform many of these elemental tasks of development (ADB, 2011).
A lack of environmental protection. Protecting the environment and overseeing the management of natural resources is not only crucial but also urgent for Cambodia. The impact of civil war, recent population growth, and illegal logging has had deleterious consequences on the country’s environment. Water pollution and deforestation are among the most pressing issues (Norodom, 2012). Waste from growing factories and industries has polluted the quality of the water. The Mekong River and Tonle Sap Lake, Cambodia’s sources of irrigation and fisheries, are being seriously threatened by development and by limited knowledge and understanding of environmental protection.

Forests are an important national resource that can be developed to support social and economic development. Forests cover approximately 59% of Cambodia’s total land area, corresponding to approximately 10.7 million hectares (Forestry Administration [FA], 2007). However, this resource has been severely destroyed due to a lack of coherence in rural land management policies, the weak capacities of sub-national sector line agency departments, poor service delivery mechanisms, and the limited involvement of rural land and resource users in formalized natural resource management procedures (FA, 2007). The Cambodian government needs a political will to ensure the sustainable use and management of forests to improve rural livelihoods and to promote a balanced socio-economic development.

Inadequately trained human resources. Human resource development and enhancement is an integral part of the solution to overcoming the aforementioned challenges. Presently, human resource capacity in both the public and the private sector remains the greatest bottleneck in Cambodia’s development efforts. Only less than 2% of the population has had any form of
training beyond high school (NIS, 2009). The country needs a more qualified and adaptable labour force to promote stronger governance, institutions, and civil society and to deal with a range of other key issues such as environmental management, poverty alleviation, the provision of education and health care, growth, and globalization.

Thus, the Cambodian government urgently needs to invest more in education by putting in place a long-term strategy that aims at human capital and human resource development at all levels. It needs to improve the low quality of education, high drop-out and repetition rates, low research capacities in higher education institutions, mismatch between labour supply and demand, low labour productivity, and lack of both soft and hard skills (Cambodia Development Resource Institute [CDRI], 2012). A concerted national effort should focus on improving education and skills, especially among Cambodia’s emerging middle class and predominantly young rural workforce. A good higher education system may help Cambodia tackle its human resource deficit. The sector deserves continuous attention and support from society.

2.2 Higher education development

Higher education in Cambodia has been shaped and dominated by a wide range of internal and external forces. Its development and provision was uneven and associated with occasional crises of civil war and changes of political regime until the early 1990s. To understand the current state of the Cambodian higher education system more fully, I will undertake a detailed review of Cambodia’s higher education system in Section 2.2.1. The discussion focuses on the historical
development of the Cambodian higher education sector, policy reforms and initiatives, national goals for higher education, the present system, and key challenges.

2.2.1  **Historical development of Cambodian higher education**

Higher education in Cambodia started in the late 1940s with the establishment of the National Institute of Law, Politics, and Economic Sciences (Chandler, 1993, 2008). According to Chandler (1993, 2008), France was controlling Cambodia and this institution was assigned to train civil servants for the French colonial rule. Students studied for two hours each evening for two years with instruction in French (Fergusson & Masson, 1997). Scholars, however, seemed to provide a slightly different date concerning its establishment. For example, Can (1991) noted that the institution was founded in 1949, Chandler (1993) gave 1947 as the date of establishment, while Fergusson and Masson (1997) stated it was founded in 1948. Regardless of the correct date, it is clear that modern higher education in Cambodia has existed for only about 50 years.

Prior to this, wealthy and outstanding Cambodian students wishing to pursue further studies were forced to travel to Vietnam or France. Access to these studies was extremely limited and was provided exclusively to those in the highest echelons of society (generally, those who were members of the royal family). As Chandler (1993) stated, about a dozen Cambodians had been trained abroad in tertiary institutions by 1939. By 1950, there were approximately one hundred Khmer students studying in France (Ayres, 2000), and a larger number had attended technical and professional courses in Hanoi, Vietnam (Osborne, 1994).
From the 1950s to 2015, Cambodian higher education has undergone five critical stages due to regime changes in Cambodia. In this section, I describe what happened in higher education development during each of the five stages:


Higher education in post-French colonial Cambodia (1953-1970). In 1953, Prince Norodom Sihanouk, who helped Cambodia achieve independence from France, led Cambodia for more than a decade. Under his guidance as the builder of the modern Cambodian nation-state, Cambodia was regarded as the golden era of post independence (Howes & Ford, 2011) and was popularly portrayed as an “oasis of peace” or a Southeast Asian “Camelot” (Chandler, 1993). The government set educational expansion as a dominant policy priority, spending over 20% of the national budget on the sector (Chandler, 1993). Consequently, it made significant progress in the field by establishing a good number of modern school buildings, teacher training centres, and higher education institutions.

Cambodia’s first university, the University of Phnom Penh, was founded in 1963 with a Khmer national as its first vice-rector (Duggan, 1996). The university became an elite Francophone institution whose graduates were recognized by universities in France (Howes & Ford, 2011).
After founding this first university, the number of higher education institutions in Cambodia increased rapidly. The Ministry of Education, Youth, and Sport (1971; as cited in Pit & Ford, 1994) reported that, in 1965 alone, six universities were inaugurated: (a) the Royal Technical University, (b) the Royal University of Fine Arts, (c) the Royal University of Kompong Cham, (d) the Royal University of Takeo-Kampot, (e) the Royal University of Agriculture Science, and (f) the People’s University. During the 1969-1970 academic year, nine tertiary institutions with more than 48 faculties and a student population of nearly 11,000 were operating in Cambodia (Can, 1991). By the end of the 1960s, the extent of Cambodia’s educational infrastructure was among the best in the developing world (Ayres, 2003; World Book Inc., 2006). More young Cambodians were given opportunities to enter university, receive training, and gain the skills necessary to assume economic, political, and technical posts (Chandler, 1993; Clayton & Yok, 1997; Osborne, 1994). Many of these posts had been held previously by French nationals (Osborne, 1994).

Two reasons were behind the government’s strong interest and investment in education. First, Sihanouk “slavishly pursued the expansion of educational provision in order to promote and ensure his uncontested legitimacy” (Ayres, 2000, p. 32). He wanted to show both Cambodians and the world that he was the only person in Cambodia who could bring economic development and modernization to the country. Second, Sihanouk drew on justification and encouragement from modernization and the human capital theories that were dominating the agendas of developmental sociologists and economists during that time (Ayres, 2000; Pit & Ford, 2004). Both modernization theory and human capital theory regarded the provision of modern education
as an investment that would provide the type of labour force necessary for industrial
development and economic growth (Becker, 1964; McClelland, 1961; Schultz, 1961).

Sihanouk’s decision to expand higher education did not escape criticism and fault. Many Cambodians accused him of focusing heavily on secondary and tertiary education to the neglect of primary school studies (Ayres, 2000, citing Realities Cambodgiennes, 1970). Ayres researched Cambodian education development extensively and charged that the government’s expansion policy “was not a product of detailed planning” (p. 50). Rather, it was the brainchild of the Prince and was not carried out on the advice of both local and international education experts. The government, for example, paid little attention to UNESCO’s call for restraint (Crowley, 2010). Instead, it expanded schooling beyond its means (Crowley, 2010). In addition, Ayres argued that Sihanouk ordered a rapid expansion of campuses and faculties without putting the infrastructure in place to support their operation and/or without a cohort of secondary graduates to fill the institutions. Sihanouk gave little thought to how these institutions were to be financed and staffed or to what would happen to the graduates.

Sihanouk’s higher education expansion priority was also problematic because it was largely confined to the capital city and the urban areas of some major provinces (Chandler, 1993; Duggan, 1996; Vickery, 1986). As Chandler (1993) pointed out, rural Cambodia did not benefit from the selective expansion strategies employed by the Prince. Rapidly growing modern tertiary institutions did little to improve the economic well-being of the country and did not assist rural children or reduce the poverty of their families (Chandler, 1993; Verkoren, 2005). Instead,
growth only served to exacerbate the rural-urban, elite-peasant divide that contributed significantly to the downfall of Sihanouk’s government in 1970.

Finally yet importantly, Sihanouk’s rapid expansion of higher education institutions also involved issues of quality and mismanagement. According to Osborne (1994), “standards in most of the newly established faculties were deplorably low, not least because there were simply not enough trained university teachers” (pp. 268-269). Labour market opportunities did not grow as rapidly as the education system, and few opportunities existed in the private sector (Ear, 1995). Osborne (1994) pointed out that, during Sihanouk’s term, one avenue of employment available to Cambodian university graduates was to become professors themselves. However, openings for professorships were highly competitive and many graduates were turned away each year (Osborne, 1994).

Higher education during Lon Nol’s regime (1970-1975). While on an official state visit to Russia in 1970, Prince Norodom Sihanouk was deposed by his Prime Minister, Lon Nol. Lon Nol, with both financial and military support from the U.S., took charge of Cambodia for five years. However, from the beginning of Lon Nol’s leadership, the Communist movement that Sihanouk allied himself with after his overthrow increased its control of Cambodia (Chandler, 2008). Together with the Vietnam War in neighbouring Vietnam spilling over Cambodia’s eastern border and American aerial bombardment, fighting inflicted widespread damage on the rural Cambodian countryside. Ayres (2000) referred to this time as:
. . . a period of division: between supporters of Communism and republicanism; between supporters of the political left and those of the political right; between inhabitants of the city and those of the country; between the rich and the poor; between the beneficiaries of corruption and its victims; and between those Cambodians whose conception of nationalism constituted the notion of social equity and those whose conception supported the status quo. (p. 69)

Unlike the previous regime, the new administration did not regard tertiary education as a national priority. In contrast, it claimed that the labour needs of the Cambodian economy did not require an abundance of secondary and tertiary graduates (Ayres, 2000). As a result, the higher education system that had developed rapidly for 20 years dramatically reduced its activities. No new higher education institutions were built during this time. Even worse, most of the existing educational buildings were damaged by the war. Increased control of government territory by the communist movement saw the unrelenting closure, abandonment, or destruction of the majority of Cambodia’s schools and higher education institutions throughout the 1970s (Can, 1991; Duggan, 1997; Pit & Ford, 2004). Duggan (1997) estimated that, by 1974, 50% of the nation’s schools and higher education institutions had been destroyed by bombing and artillery. The government had lost interest in all national development priorities, leaving education to “drift with the tide of countrywide despair” (Ayres, 2000, p. 88). Many of the educated elite fled the country (Pit & Ford, 2004).

Under Lon Nol’s government, Cambodian higher education suffered enormously from despondency, rivalry, factionalism, mismanagement, inactivity, and corruption (Ayres, 1997).
According to Fergusson and Masson (1997), “little or no progress in the areas of curriculum development, research, or instructional methods was made during the early 1970s” (p. 108). Based on Fergusson and Masson’s assessment, higher education and teacher education barely existed during this time. The disruption to education caused by the outbreak of this civil unrest that began in the late 1960s did not improve during the remaining years of Lon Nol’s Republic.

*Higher education under the Khmer Rouge (1975-1979).* Led by Pol Pot (who had been educated in France), the Khmer Rouge overthrew Lon Nol’s government in 1975 and controlled Cambodia with devastating consequences until January 7, 1979. From the start of their rule, the Khmer Rouge began to destroy the social, political, economic, and cultural infrastructure of the old society (Quinn, 1989). They established a socialist state that relied totally on agriculture (Quinn, 1989). As mentioned in Section 2.1.1, in less than four years, the Khmer Rouge regime transformed Cambodia into a “killing field” in which almost two million citizens died from exhaustion, disease, hunger, overwork, or execution.

The entire higher education system, which had already suffered the consequences of human and material destruction during Lon Nol’s government, was left in ruins (Ayres, 2000). Scholars who have studied Cambodia under the Khmer Rouge described its system as at a “virtually standstill” (Vickery, 1984), “abolished” (Ayres, 2000; Duggan, 1996; Pit & Ford, 2004), “completely destroyed” (Can, 1991), and “completely devastated” (Fergusson & Masson, 1997). Fergusson and Masson (1997) succinctly added, “twenty years of higher education and teacher education development effectively came to an abrupt end with the rise of the Khmer Rouge in Cambodia” (p. 112).
All types of schools and higher education institutions that had been founded by the Sihanouk government were destroyed, abandoned, and/or transformed into prisons, stables, re-education camps, granaries, slaughterhouses, and factories for manufacturing grenades, shells, and other weapons (Kiernan, 1985; Can, 1991; Pit & Ford, 2004; Ayres, 2000). For example, a Phnom Penh high school was turned into Cambodia’s infamous genocidal museum, S-21, where approximately 14,000 prisoners were held, tortured, and killed (Kiernan, 1985). In addition, Cambodia’s first university, the University of Phnom Penh, was converted into a farm (Clayton, 1998). Equipment, laboratories, libraries, facilities, and learning and teaching materials were abandoned or destroyed.

For the Khmer Rouge, the education system left by the previous regimes was associated with imperialism (Pit & Ford, 2004). According to Vickery (1984), most local cadres considered higher education as “useless and people who had obtained it less reliable than the uneducated” (p. 173). The primary targets of the Khmer Rouge’s vengeance, according to scholars such as Collins (2009), Duggan (1996), Kiernan (1985), and Fergusson and Masson (1997), were Cambodia’s “intellectuals.” These individuals could speak a foreign language, wore glasses, had received higher education, or had been Buddhist monks. Since these individuals were the products of feudal-capitalist institutions, they were treated as class enemies and seen as barriers to progress in the new society (Clayton, 1998). Thus, they were specifically targeted for elimination (Vickery, 1984).
Under such circumstances, thousands of intellectuals, professors, students, researchers, and educated professionals were arrested, interrogated, tortured, executed, and/or forced to overwork in the rice fields (Ayres, 2000; Clayton, 1998). The Ministry of Education (1984) estimated that 75% of tertiary qualified teachers, lecturers, and instructors and 96% of university students either were killed by the Khmer Rouge or fled the country to nations such as France and Thailand.

To create a new social order based on an agrarian, communal society, the Khmer Rouge proposed an alternative educational system. They offered basic education services in factories and cooperatives where students could study 2-3 hours a day and gain experience at manual work at the same time (Clayton, 2005; Vickery, 1985). Clayton (2005), however, acknowledged that attendance at these classes varied widely around the country and probably did not exist at all for many individuals because they were grossly overworked.

*Higher education after the Khmer Rouge (1979-1991).* After nearly four years of brutal rule, the Khmer Rouge was ousted from Phnom Penh on January 7, 1979. A new government supported by the Soviet-led Communist bloc took power in Cambodia. From 1979 to 1991, Cambodia was a communist country supported by Vietnam and the former Soviet Union. Higher education was in a devastated state and suffered from indescribable destruction. In 1979, only about 300 people with postsecondary education remained in Cambodia (Ministry of Education, 1984). Many of them later fled the country. Ninety percent of all educational buildings, libraries, equipment, and materials had been destroyed by the Khmer Rouge (Clayton, 1998).
Given the legacy of dramatic destruction, turmoil, and trauma, the task of re-establishing the national higher education system was overwhelming for the new government (Ayres, 2000). However, with Vietnamese and Soviet support, Cambodia was able to reopen several higher education institutions in the late 1970s and early 1980s in Phnom Penh (Ayres, 2000). The lack of physical and institutional infrastructure outside of Phnom Penh made higher education expansion slow and unsystematic and left the higher education sector very fragmented (Duggan, 1996). This slow development was also because the government did not consider technical training and higher education as a policy priority (Ayres, 2000). It needed all its money for military spending and committed 40% of the annual budget to defense (Duggan, 1996).

Table 2

Higher Education Institutions Established Immediately after the Fall of the Khmer Rouge

<table>
<thead>
<tr>
<th>No.</th>
<th>Institution</th>
<th>Date Established/Reopened</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Royal University of Phnom Penh</td>
<td>1960 [1980]</td>
</tr>
<tr>
<td>2</td>
<td>Institute of Technology of Cambodia</td>
<td>1964 [1981]</td>
</tr>
<tr>
<td>3</td>
<td>Royal University of Agriculture</td>
<td>1964 [1984]</td>
</tr>
<tr>
<td>4</td>
<td>Royal University of Fine Arts</td>
<td>1965 [1979]</td>
</tr>
<tr>
<td>5</td>
<td>National Institute of Business</td>
<td>1979</td>
</tr>
<tr>
<td>6</td>
<td>Faculty of Medicine and Dentistry</td>
<td>1979</td>
</tr>
<tr>
<td>7</td>
<td>University of Health Science</td>
<td>1980</td>
</tr>
<tr>
<td>8</td>
<td>Institute of Economics</td>
<td>1984</td>
</tr>
</tbody>
</table>


During this phase, higher education followed the Soviet model. The system was organized and divided into specialized institutes and faculties (Pit & Ford, 2004). Its main objective, according to Clayton (1995), was “to provide good political and good technical training… following the objectives of socialism” (as cited in Pit & Ford, 2004, p. 340). The function of higher education
institutions was mostly to train cadres for work in the civil service (Ayres, 1997). Students had the privilege of guaranteed employment appointed by the government upon graduation (Ayres, 1997).

The national teaching staff seriously lacked experience and training in the delivery of tertiary education since most of them had been promoted from teaching in senior secondary schools (Ayres, 2000). The country relied heavily on lecturers or “experts” from Vietnam, the Soviet Union, and other Eastern-bloc countries to replace the Cambodians killed by the Khmer Rouge (Clayton, 1998). Ayres (2000) also stated that, by the mid-1980s, Vietnamese and Russian were the dominant languages of instruction in Cambodian universities and institutes. Progress in the Cambodian higher education sector was also fraught with a “low quality of standardized curriculum, and high dropout and repetition rates” (Collins, 2009, p. 193), significant fragmentation, a lack of coordination in policy and programming (Neth & Wakabayashi, 2001), and a ministry that lacked the credentials to adequately administer the system (Ayres, 2000).

*Higher education in post-conflict Cambodia (1991-2015).* The period from 1991-2015 has been regarded as a turning point in Cambodian history in general and in the development of the Cambodian higher education sector in particular. As discussed in Section 2.1.1, in 1991, all warring factions agreed to sign the Paris Peace Accords to end Cambodia’s civil conflict. Then Cambodia adopted a democratic model through elections monitored by the UN in 1993. Based on changes that shaped Cambodian social and political environment after 1993, the higher education system in Cambodia has experienced rapid transformation and it has become more driven and controlled by market forces. As a result, Cambodia has made several changes to its

In the following section, I look closely at these changes over the last 24 years (1991-2015). The section is divided into two parts. The first part deals with policy reforms that have been introduced and implemented from 1991-2008. In the second part, I outline the three most recent policies/initiatives that have been adopted and/or proposed from 2009-2015: (a) the formation of the National Education Strategy (2009-2013), (b) the approval of the Research Policy Master Plan (2011), and (c) the issue of a royal decree on professor ranking in 2013.

2.2.2 Higher education policy reforms (1991-2008)

The period after Cambodia’s first democratic elections in 1993 has seen a number of changes in higher education policy in Cambodia. In this section, I analyze six higher education reforms that the Cambodian government has initiated and implemented in accordance with its pledge to improve the higher education system for economic development:

1. The introduction of a tuition fee policy.
2. The founding of a quality assurance agency called the Accreditation Committee of Cambodia (ACC).
3. The establishment and rectification of the Education Law.
4. The introduction of curriculum reform.
5. The introduction of admission reform.
6. The transformation of public higher education institutions into autonomous Public Administrative Institutions (PAIs).

Also, I point out the effects of the policy implementation and the challenges confronting the reform of Cambodian higher education.

*The introduction of a tuition fee policy.* The first policy reform in Cambodian higher education sector involves the introduction of tuition fees. That is, in the mid-1990s, the Cambodian government authorized the establishment of private higher education institutions. Before this, Cambodia was one of the few countries in the Southeast Asian region that provided free higher education (Duggan, 1997). This crucial policy change followed the government’s adoption and implementation of its new economic development strategy, which aimed to promote growth, employment, and human resource development (Ahrens and Kemmerer, 2002; World Bank, 2010). The policy shift also resulted from two significant factors: (a) a sharply increasing demand for higher education and (b) a limited state capacity or government inability to finance expansion (World Bank, 2012). The demand for higher education was especially evident among the increasingly large numbers of high school graduates (World Bank, 2010). Recognizing the opportunities provided by the introduction of the private higher education, investors have played a dominant role in the development and massification of the Cambodian higher education sector, sharing almost 60% of the higher education provision in 2007-2008 (Neth, 2009).
Along with the establishment of private higher education institutions, the Cambodian government also introduced fee-paying classes within public higher education institutions through a Prime Minister’s Circular in 2000 (Chet, 2009; World Bank, 2010). This policy further moved the costs of higher education toward parents and students. The policy allowed all public higher education institutions to accept fee-paying students above their quota of non-fee-paying, government-sponsored students (Pit & Ford, 2004). The Circular (government decree) stated that one-third of students enrolled in public higher education institutions could be fee-paying students with the other two-thirds being “scholarship” students (World Bank, 2010). In this way, public higher education institutions could raise their own revenue to upgrade their quality and expand capacity.

Implementation of a fee-paying policy has been largely successful in terms of increasing enrolment in higher education without relying on public funding and allowing public higher education institutions to generate income for institutional development and academic incentives. Overall, this adoption had a huge impact on access to higher education, resulting especially in an enormous growth in undergraduate admission. Although the higher education enrolment rate was low (11%) compared to other developing countries in the region (World Bank, 2010), private higher education institutions and fee-paying programs at publicly funded higher education institutions enrolled the largest number of high school leavers and working adults needing to upgrade their skills and/or adults who were formerly bypassed by the university system (more than 80%; Neth, 2009).
A proportion of the income generated from private tuition fees is used to top up the salaries of faculty members who assume extra teaching loads (Chet, 2009). Without these incentives, faculty members would leave to work in the private sector where they could earn approximately $300 to $600 U.S. per month depending on their qualifications and experience. In contrast, they earn $45 - $100 U.S. per month at public institutions. Indeed, data on the revenue generated from fee-paying programs are not available, but this revenue supplementation has certainly contributed to the overall improvement of public institutions, especially with regard to participation, instructional facilities, equipment, and academic and staff development programs.

Nonetheless, as the World Bank (2010) reported, implementation of a fee-paying policy has not followed the government decree. The figure of fee-paying students has been increasing drastically, while the ratio of scholarship students has been reduced (World Bank, 2010). Fee-paying students currently make up 70-80% of the total enrolled students in public higher education institutions, well beyond the 33% stated in the decree (World Bank, 2010).

Also, implementation of a fee-paying policy has created other challenges. First, it brought an inclusiveness problem. Implementation of cost sharing was not supported by government-backed loans as in most other countries. Students totally rely on their own or their family’s funds to pay for their educational costs. With no government supported loans and grants, the adoption of cost sharing prevents people, especially those from disadvantaged backgrounds, from entering higher education. The World Bank (2010) claimed that educational inequalities in Cambodia have proven resistant to interventions including this cost sharing scheme: disparities persisted between urban and rural areas, male and female, and rich and poor.
Second, the cost sharing option has somehow created a problem with employment and national objectives. The demand-driven private higher education subsector enabled Cambodian students to dictate what a degree program is and what courses are relevant. The majority of Cambodian students enroll in only a few subjects: business, finance, and English. According to Bruni, Luch, and Kuoch (2013), economics and business administration accounts for slightly more than 50% of total student enrolment. As a predominantly agricultural country, Cambodia needs more trained human resources in that area. The Cambodian government has recognized this fact in its 2004 triangular strategies. In addition, the World Bank (2012), as touched on before, has stressed that close to 30% of Cambodia’s future employment involved the agricultural sector. Enrolments in agriculture were only 4% (Bruni et al., 2013). Therefore, the cost sharing scheme is risky for Cambodia for it promotes macro-economic inefficiency, as Salerno (2006) found out in other countries, and forces culturally important but financially weak programs such as agriculture and arts to close.

The founding of a quality assurance agency called the Accreditation Committee of Cambodia (ACC). Another key higher education policy reform is the creation of a quality assurance authority known as the Accreditation Committee of Cambodia (ACC) in March 2003. This, according to Innes-Brown (2006) and Pen (2010), was a response to serious concerns over the relevance and quality of higher education, particularly after the massive expansion of the private higher education sector. This authority was established as a governmental agency operating under the supervision of the government’s executive arm, the Council of Ministers, with all appointments to its overall structure made by the government (Innes-Brown, 2006). The government stipulates that all higher education institutions in Cambodia must obtain
accreditation status from the ACC in order to confer degrees based on the established criteria and indicators (Touch, Mak, & You, 2013).

The Accreditation Committee of Cambodia is charged with accrediting and ensuring the quality of both higher education public and private institutions in Cambodia (Pen, 2010; World Bank, 2010). The Committee fulfils its mandatory roles and duties according to the operating criteria put forth by the central government. Specifically, the ACC is responsible for the following:

- determining the accreditation policy and measures to assure academic quality for all Cambodian higher education institutions,
- determining the accreditation status of institutions,
- approving the curriculum for the foundation courses for first-year university students,
- maintaining the records of institutional evaluation and program evaluation involved with quality assurance accreditation,
- cooperating with other national and international institutions involved with quality assurance and accreditation,
- securing the proper participation of stakeholders concerned with the outcomes of each academic institution that applies for accreditation, and
- making broad announcement to the public of the results of the ACC findings in relation to its task of accreditation (Mak, 2006).
The ACC began by focusing on the Foundation (first) Year program that was introduced into Cambodian universities a few years before its launch (World Bank, 2010). Since then, the ACC has made some positive steps. It issued some statutory papers on the minimum standards for the Foundation Year program and later gave the “provisional accreditation” of the Foundation Year to most higher education institutions (Chet, 2009; Innes-Brown, 2006; You & Sok, 2008; World Bank, 2010). The agency also established plans for accrediting bachelor’s degrees and produced guidelines on the credit system, credit transfer, and minimum standards (You & Sok, 2008; World Bank, 2010). In preparing higher education institutions to improve their education programs and obtain accreditation from the ACC, the Ministry of Education also formulated guiding principles and directions for the start up of a quality assurance unit in every institution and provided mechanisms for quality audits and assessment at the higher education institution and faculty levels (You & Sok, 2008).

The achievements of the ACC are encouraging. Yet, due to a lack of technical and financial resources coupled with the complex management and operation of Cambodian higher education institutions (they fall under the supervision of many different parental ministries with limited coordination at the national level), the ACC cannot achieve much more.

*The establishment and rectification of the Education Law.* The next significant step in the reform effort to improve the Cambodian higher education sector came through the ratification of the Education Law by the Senate in 2007 (four years after the formation of the ACC). The Education Law, as Mak (2008) pointed out, is a visionary legal instrument for the effective and efficient governance and development of the Cambodian education sector in general and the higher
education subsector in particular. The Law has 54 articles and governs the educational programs of both public and private institutions at all levels. The primary purpose of higher education, according to this law, is “to teach learners to have complete personality and characteristics and promote the scientific, technical, cultural and social research in order to achieve capacity, knowledge, skill, morality, inventive and creative ideas and enterprising spirit to the development of the country” (Royal Government of Cambodia [RGC], 2007, p. 6).

For the first time in the history of Cambodia’s higher education, the categories of higher education institutions have been clearly laid out by the Education Law. Article 18 codified two categories of these institutions: (a) universities and (b) institutes. The passage of the Education Law is a good first step and helps further situate the reform in conformity with the 1993 democratic Constitution, the government’s human resource development strategy, and relevant international laws. Nonetheless, there are substantial gaps and inconsistencies in the actual implementation of the Education Law. In reality, there are four different categories of higher education institutions in the system. The other two additional categories are (a) schools and (b) academies (Mak, 2008). According to Mak (2008), two agricultural schools and an army school are being managed and operated by the Ministry of Agriculture and the Ministry of National Defense. The current higher education system also has two academies: (a) the Royal Academy of Cambodia and (b) the Academy of National Police. Under the direct supervision of the Council of Ministers, the Royal Academy of Cambodia is currently providing graduate programs in various fields on top of its mandatory research and think-tank functions. The Academy of National Police was founded by the Ministry of Interior, and it offers both undergraduate and graduate programs besides training the police force (Mak, 2008).
Enforcement of the Education Law is still lacking and needs to be rectified. For example, it should take tough action against institutions that continue to call themselves “universities” even though they have fallen short of the minimum required programs and operate in substandard buildings they do not own. Many such universities have closed down in the past, leaving students in despair and hopelessness at having wasted their time and money.

The introduction of curriculum reform. Recognizing the importance of a modern curriculum (a more student-centred and information and computer technology (ICT) based approach) in improving the quality of teaching, learning, and research in higher education, the Cambodian government has responded to this shortcoming by initiating policy actions to develop a curriculum development framework (MoEYS, 2011). In 2000, the curriculum at Cambodian higher education institutions was changed from a semester and module/block system into the credit system. The Ministry of Education, Youth, and Sport also attempted to develop a qualification framework for higher education so that it facilitates the mobility, transparency, and recognition of qualifications from one educational setting to another (MoEYS, 2011).

In the new policy, higher education institutions were given the autonomy to design and develop their own curriculum (ADB, 2011). However, the actual implementation of this curriculum has proceeded very slowly with a clear lack of guidance from the central authority and with little coordination among higher education institutions themselves (Chet, 2009). According to Innes-Brown (2006), the public and private higher education institutions with better physical, financial, and human resources have initiated the curriculum developments and changes more quickly. Some of these universities have also established a curriculum review committee that looks at
revising curricula based on market knowledge, government reports, and the emerging needs of the labour market (Innes-Brown, 2006). However, many schools lack the required resources to ensure that their curricula are appropriate and meeting the needs of the labour market (HRINC, 2010). In addition, no mechanisms or regulations at the system or institutional level assess and evaluate the efficiency and quality of the curriculum developed by the universities (Innes-Browns, 2006; UNESCO, 2010; World Bank, 2012).

The introduction of admission reform. In the mid-1990s, the Cambodian government began to overhaul the admission procedures. It attempted to improve the security of the entrance test papers by proposing the introduction of computer marking; using more objective, multiple-choice tests; and introducing standard “pass profiles” (ADB, 1996). Further reform was introduced in 2002 when the government eliminated the national university entrance exams, allowing all higher education institutions to use Grade 12 exam results to admit students (You & Sok, 2008). The introduction of this new policy enabled the government to save money for other higher education development activities.

In the past, the enrolment policy at Cambodian higher education institutions focused entirely on the test scores from the national entrance exams. To be eligible for those exams, students were subjected to two conditions: (a) they had to pass the high school examinations and (b) they had to remain within the age limit of the mid-20s and below (ADB, 1996). Since test scores from these exams were used exclusively as a basis for university student selection, corruption/bribery was rampant (ADB, 1996). Admission was largely determined by a student’s ability to pay between $2,000 to $5,000 U.S., depending on the program (World Bank, 1994). Exams often
acted as a disincentive for academic excellence and as a barrier for Cambodian students from less affluent families (ADB, 1996).

However, the policy did not eliminate the problems of equity and access. The tradition of what was known in Cambodia as “sous le table” or “under the table” continued at the high school level since the high school exit exams became the sole determinant for university places (ADB, 1996). Based on this newly introduced policy, outstanding high school graduates with an A or a B+ overall could choose whatever programs or universities they wanted (mostly “lucrative” fields of study such as medicine, law, or economics) with full government tuition support. In an attempt to provide access to those students who did not pass the high school exams to enrol in higher education, the government also made it possible for them to have an alternative pathway to higher education through the successful completion of an associate degree (Chet, 2009). The new admission policy also eliminated the age restriction to enrol in university.

Despite the government’s effort to establish a unified admission system for higher education institutions, implementation remained diverse across the system. Some institutions, specifically those with international links and/or support, adopted and used their own admission criteria (e.g., my former workplace). They either gave priority seats to students who demonstrated great achievement in their targeted training areas or selected students through internal exam procedures. A case in point was the selection of first year students to enter the English and Media Bachelor degree programs at the Royal University of Phnom Penh. Both programs required students to have a good knowledge of English to enter. Thus, both programs selected students through their individual entrance exams, not through the high school results as set forth by the
The transformation of public higher education institutions into autonomous Public Administrative Institutions. Last, but not least, in an effort to bring about more responsibility and accountability at the institutional level, the Cambodian government moved to transform public higher education institutions into autonomous agencies known as Public Administrative Institutions (PAIs) in 1997. This reform aimed at reducing the financial burden of the government, shortening the budgetary processes of public higher education institutions, and enhancing the quality and relevance of higher education to meet the requirements of the labour markets and social and economic development (Touch et al., 2013). With this status, PAI institutions had more authority and power to operate under the direction of a governing board rather than under the direction of governmental parent ministries, although they were still regarded as government organizations (Chet, 2009).

By 2010, eight such universities had been given PAI status (Touch et al., 2013). The introduction of the PAI policy was seen as an encouraging trend toward decentralization, an effective mean for the administration of tertiary institutions, and a positive step for the modernization of Cambodian higher education. Touch et al. (2013) stressed that increased autonomy for higher education institutions in this form has brought about many positive changes including student enrolments, student admission and management, academic programs, decision-making structures, administrative procedures, financial management and corporatization, and staff management and evaluation. In its 2011 publication of higher education across Asia, the
Asian Development Bank also applauded Cambodia as the only country that has successfully advanced toward introducing more autonomy to some of its public higher education institutions.

The model aimed to offer the opportunity for staff, students, alumni, community, industries, and other clients to participate in university governance through their representatives on the governing body. Yet, as Chet (2009) and Mak (2008) pointed out, the current PAI law was not adequately designed for full participation in higher education institution governance. For example, there was a low participation of external members sitting on the governing board (the board was dominated by members from the university and the government). A conflict existed here between the government’s desire to focus on the organizational efficiency and effectiveness of higher education institutions and its continued control of power in policymaking. In a study to examine the effectiveness of two PAI institutions, Touch et al. (2013) also found that implementation was not successful due to unclear understanding of PAIs, limited management ability, lack of experience in planning (financial and academic programs), and immaturity among higher education institutions.

2.2.3 Higher education policy initiatives (2009-2015)

In addition to the key reforms described above, the Royal Government of Cambodia, through its Ministry of Education, Youth, and Sport, also proposed and/or adopted a number of other policy initiatives that aimed to promote higher education further. The following section looks at some of the most important initiatives that were announced between 2009 and 2015. The first one involves the National Education Strategy for 2009-2013. The second initiative details the plan
for research in the education sector for 2011-2015. The third document concerns the royal decree on professor ranking.

To raise the quality of education services further to make them consistent with international standards and its development needs, the Cambodian government also mapped out a five-year National Education Strategy (2009-2013). The National Education Strategy detailed action plans for all levels of education (MoEYS, 2011).

Regarding higher education, it specifically focused on increasing the opportunities for equitable access; improving the quality of teaching, learning, and research; improving staff capacity and institutional management; and expanding technician and engineer training to address labour market needs (MoEYS, 2011). Based on the strategy, to increase access and improve equity, prioritized students (poor students, female students, students from remote areas, and outstanding students) have a better opportunity to enrol in higher education through additional government scholarship programs. The quality of teaching, learning, and research have been enhanced by employing updated teaching methodologies, developing curricula, and equipping higher education institutions with necessary facilities. Staff and institutions are receiving training, incentives, and greater autonomy to fulfil their mission.

The World Bank has provided U.S. $23 million (50% grant and 50% credit) to support these efforts through a 5-year project (2011-2015). So far, fellowship programs and capacity development activities have made much progress and the scholarship component continues to
show outstanding outcomes (World Bank, 2013). However, much remains to be done, especially in the areas of capacity development and research promotion.

Following the National Education Strategy, the government started to develop the Master Plan for Research in the Education Sector in 2010 (OECD, 2013). It adopted the Master Plan in March 2011. This Master Plan intends to facilitate research development in higher education and enhance the research capacity of academic staff and institutions. It also stresses the need for higher education institutions to work on priority programs that benefit national social and economic development.

With the World Bank’s technical and financial support (mentioned above), the Master Plan specifically aims to (a) ensure that a wide range of research is conducted in all disciplines, (b) improve the capacity of researchers and develop the research capability of all higher education institutions, (c) promote respect for research ethics, the protection of research achievements, and the dissemination of research results, and (d) encourage the utilization of research results for producing new knowledge and developments. Based on the Plan, initial implementation targets nine public higher education institutions under the Ministry of Education, Youth, and Sport (seven universities and two institutes). The Master Plan is now ready for implementation, but to provide further implementation guidance, MoEYS still needs to develop the university-based action plan with costing (UNESCO, 2014).
On top of major reforms that have been introduced and implemented, the Cambodian government also proposed a professor ranking system in 2013. The ranking of academic professionals is based on academic qualifications, publications, and professional contributions and achievements (RGC, 2013a). The adoption of this legal framework is an important step for the quality improvement of the Cambodian higher education sub-sector. It will provide a clear career path that will develop and motivate strong faculty members to contribute to the well-being of their institution and the higher education sector.

2.2.4 The goals of Cambodian higher education

Policy changes have so far reflected the Cambodian government’s continued commitment to achieve the goals it set out for the higher education subsector. These key goals aim towards improving social and economic development by focusing on the provision of trained human resources for the labour market (MoEYS, 2014). This overall purpose has become a policy priority in the last 15 years. Beside the Constitution that guarantees every Cambodian’s right to quality education at all levels including higher education, the 2004’s “Rectangular Strategy” (a government road map for development in Cambodia) has stressed higher education as a catalyst for development (RGC, 2013b). The government is determined to enhance and improve its quality in line with international standards (RGC, 2013b).

To achieve this goal, the Cambodian government has adopted three key policy objectives for higher education. The first priority objective is to increase or expand the access and equity of higher education enrolment to ensure inclusion for both social justice and economic development
in Cambodia. This policy especially aims to increase the participation of students facing social and economic barriers to higher education (i.e., poor students, female students, students from remote areas, and outstanding students). The second objective is to improve quality (teaching, learning, and research) in higher education and the relevance of higher education at both the national and system levels (MoEYS, 2013). This priority is key given that Cambodia’s rapid expansion of the higher education system in recent years has had a negative impact on the quality of higher education (see Section 2.2.6). The third policy priority for the improvement of Cambodian higher education concerns building and improving staff capacity (both administrative and teaching staff) and institutional management. The government has promised to correct the shortcomings through training and incentives, and institutional and financial reforms that enable the greater operational autonomy of higher education institutions (MoEYS, 2013).

2.2.5 The Cambodian higher education system today

The following section outlines some key components of the current system. These include the types and numbers of higher education institutions, the presence of private higher education institutions, the governance structure, the degree types and fields of study, the teaching staff, and the student enrolment.

*Types and numbers of higher education institutions.* Officially, Cambodian higher education consists of two types of institutions: universities and institutes (RGC, 2007). A university refers to a generalist institution that is authorized to provide all higher education diplomas (bachelor degrees, master’s degrees, and doctorates) (RGC, 2007). To register as a university, establishing
criteria need to be met. These criteria state that the university should be comprised of several dependent faculties and offer five major fields of study. Three of these fields of study are compulsory: (a) humanities (art, literature and languages), (b) sciences (mathematics and natural sciences), and (c) social sciences. Universities are the largest providers of higher education programs in Cambodia. Appendix A contains a list of the major public and private universities in Cambodia.

An institute is any higher educational institution that offers a single disciplinary field of study or many such fields of study (RGC, 2007; UNESCO, 2010). Cambodia’s institutes, according to the World Bank (2010), are vocationally specialized institutions offering mainly associate degree programs to students who did not pass the Grade 12 leaving examination. Thirty-one institutes currently provide education and research activities in Cambodia, and 11 of these are publicly funded (Mak, 2008). A few technical institutes also offer higher education degrees. The main difference between a university and a technical institute is that the latter tends to include a larger practical component to its studies, especially fieldwork and on-the-job training. For example, the National Polytechnic Institute has developed a new and modern curriculum with a greater emphasis on practice (70%) rather than on theory (30%; HRINC, 2010).

In reality, higher education in Cambodia also includes schools and academies (Mak, 2008). A distinct characteristic of these higher education institutions is that they are outside the control of the Ministry of Education, Youth, and Sport. The Ministry of Agriculture, Fishery, and Forestry operates two agricultural schools, and the Ministry of National Defense manages the School of the Army (Mak, 2008). Cambodia has two academies: (a) the Royal Academy of Cambodia and
(b) the Academy of National Police. Under the direct supervision of the Council of Ministers, the Royal Academy of Cambodia is currently providing graduate programs in various fields on top of its mandatory research and think-tank functions. The Academy of National Police, founded by the Ministry of Interior, offers both undergraduate and graduate programs besides its training mission (training the police force; Mak, 2008).

The number of higher education institutions, especially in the private sector, has increased sharply. This has provided a wider variety of institutions and more opportunities for young Cambodians to engage in higher education. Today, the number of higher education institutions has grown from a mere nine public universities/institutes and one private institution in 1997 to 110 institutions in 2014 (MoEYS, 2015; see Table 3). Among these, 67 higher education institutions are private institutions and 43 are public universities and institutes (MoEYS, 2015).

Table 3

Cambodian Higher Education Institutions (1997-2015)

<table>
<thead>
<tr>
<th>Year</th>
<th>Public</th>
<th>Private</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>9</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>2000</td>
<td>8</td>
<td>6</td>
<td>14</td>
</tr>
<tr>
<td>2005</td>
<td>13</td>
<td>32</td>
<td>45</td>
</tr>
<tr>
<td>2015</td>
<td>43</td>
<td>67</td>
<td>110</td>
</tr>
</tbody>
</table>


The current structure of Cambodia’s higher education system is a mixed version of different characteristics/modalities. Scott (1995) introduced a typology of five models: (a) university-dominated systems, (b) dual systems, (c) binary systems, (d) unified systems, and (e) stratified
systems, Based on this typology, the Cambodian higher education system can be said to contain one or more characteristics of the dual, binary, and stratified systems. The system combines both academic studies and professional programs. It has mono-disciplinary universities (the University of Health Science and the Royal University of Agriculture), multi-disciplinary universities (the Royal University of Phnom Penh and the University of Cambodia), and research activities located in research institutes (the Cambodian Agricultural Research and Development Institute).

*Private higher education institutions.* The private higher education sector has been undergoing dynamic growth, diversification, and expansion, and it has been arguably making a huge contribution to Cambodian social and economic development (Chet, 2009; Innes-Brown, 2006; Neth, 2009; World Bank, 2010). Just over a decade since the first private university was established (in 1997), 58 private higher education institutions have been put into operation across the country (MoEYS, 2011). In the next few years, seven more private higher education institutions are expected to be in operation (MoEYS, 2011). These private higher education institutions have allowed (and will allow) more Cambodians (including workers from the government, private sector, and civil society) to study for a higher education degree and/or upgrade their qualifications and skills. The rise of the private sector helped tackle the problem of an excess social demand for higher education, reduced some of the pressures on the public sector, and contributed significantly to the decentralization of chosen fields of study and program initiatives in the Cambodian higher education system up to the doctoral degree (Neth, 2009).
Cambodian private higher education institutions are profit-oriented institutions, and therefore, do not receive public financial support. They rely completely on tuition fees and funds generated from other activities. Despite this lack of financial support from the government, these institutions have proven financially viable due to large enrolments, high tuition rates (approximately $450 U.S. per year for a bachelor’s degree to $1,200 U.S. for doctorates), and the popular courses they offer (especially business administration, computer science, marketing, accounting, economics, and languages). Private funding for higher education has been exceptionally high in Cambodia. For example, the total private funding for 2007 was U.S. $42.36 million, which was more than 80% of the total funding for higher education (World Bank, 2010).

The private sector remains generally unregulated. It has operated largely independently without proper licenses and/or with loose management and a lack of effective quality control and guidance from the central government (ADB, 2011; UNESCO, 2010; World Bank, 2012). Many institutions have fallen well below national or regional quality standards (Rao & Pearson, 2009) due to the chronic shortage of qualified academic staff, facilities, funds, and instructional materials (World Bank, 2010).

*Governance. Governance is concerned with the internal and external arrangements and coordination of higher education including the determination of values inside higher education institutions, their systems of decision making and resource allocation, their mission and purposes, the patterns of authority and hierarchy, and their relationship to the different academic worlds and the worlds of government, business, and community (de Boer & File, 2009; Organisation for Economic Co-operation and Development [OECD], 2007). The Cambodian
government embraced a strict control of higher education by playing a decisive role in educational development through top-down policymaking. As indicated in the Education Law, all higher education institutions are required to register with the Ministry of Education, Youth, and Sports [MoEYS] (RGC, 2007). The Ministry holds all the power in higher education policymaking including the appointment of university presidents, the allocation of finance, the admission procedures, staffing policy, budgetary allocations, and the number of students admitted (Chet, 2009; Innes-Brown, 2006; RGC, 2007). Universities have little input regarding the number of positions, the level of salaries, or promotions (World Bank, 2012).

However, the governance of Cambodian higher education institutions is a complex issue. The current system is at best characterized by institutional segmentation and fragmentation. All institutions are managed by different agencies responsible for different roles. The Ministry of Education, Youth, and Sport registers 61 of the total higher education institutions (9 state and 54 private; MoEYS, 2015). Most of these institutions offer academic streams. The remaining higher education establishments are managed by 14 specialized government ministries and institutions (MoEYS, 2011, 2015; Phoeurng, 2011):

- The Ministry of Labour and Vocational Training (25 institutions)
- The Ministry of Health (3 institutions)
- The Ministry of Agriculture, Forestry, and Fisheries (3 institutions)
- The Ministry of Culture and Fine Arts (1 institution)
- The Ministry of Economy and Finance (1 institution)
- The Ministry of Religious Affairs (3 institutions)
• The Ministry of National Defense (5 institutions)
• The Ministry of Interior (1 institution)
• The Ministry of Public Works and Transportation (1 institution)
• The National Bank of Cambodia (1 institution)
• The Office of the Council of Ministers (1 institution)
• The Ministry of Social Affairs, Veterans, and Youth Rehabilitation (1 institution)
• The Ministry of Mine and Energy (1 institution).

Table 4

Higher Education Institutions and Their Parent Ministries

<table>
<thead>
<tr>
<th>No.</th>
<th>Parent Ministries</th>
<th>Number of Higher Education Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Public</td>
</tr>
<tr>
<td>1</td>
<td>Ministry of Education, Youth, and Sport</td>
<td>9</td>
</tr>
<tr>
<td>2</td>
<td>Ministry of Agriculture, Forestry and Fishery</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>Ministry of Culture and Fine Arts</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>Ministry of Health</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>Ministry of Labour and Vocational Training</td>
<td>10</td>
</tr>
<tr>
<td>6</td>
<td>Ministry of Religious Affairs</td>
<td>2</td>
</tr>
<tr>
<td>7</td>
<td>Ministry of National Defense</td>
<td>4</td>
</tr>
<tr>
<td>8</td>
<td>Ministry of Interior</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>Ministry of Economy and Finance</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>Ministry of Public Works and Transportation</td>
<td>1</td>
</tr>
<tr>
<td>11</td>
<td>Office of the Council of Ministers</td>
<td>1</td>
</tr>
<tr>
<td>12</td>
<td>National Bank of Cambodia</td>
<td>1</td>
</tr>
<tr>
<td>13</td>
<td>Ministry of Social Affairs, Veterans, and Youth Rehabilitation</td>
<td>1</td>
</tr>
<tr>
<td>14</td>
<td>Ministry of Mine and Energy</td>
<td>1</td>
</tr>
</tbody>
</table>

Degree types and fields of study. Cambodian higher education institutions host students in a diverse range of degree programs from the associate degree to the doctor of philosophy degree. Students are required to complete a specified number of credits to be awarded a degree. The ACC sets the minimum number of credits for both professional and academic programs:

- Associate degree (approximately 75 to 85 credits over two years),
- Bachelor degree (120 credits over four years),
- Master’s degree (45 credits over two years), and
- Doctor of philosophy degree (45 credits and research over at least three years).

However, many higher education institutions appear to impose a slightly higher credit requirement than ACC for their bachelor degrees (HRINC, 2010).

Currently, Cambodian higher education institutions offer nearly 100 fields ranging from foreign languages, health science, engineering, agriculture, tourism, and business management to law and economics (UNESCO, 2010; MoEYS, 2011). However, fields of study in both undergraduate and graduate levels seem to be guided by students’ preferences, not necessarily by labour market needs. Enrolment has been concentrated in only a number of popular courses, especially business-related programs (Ahren & Kemmerer, 2002; ADB, 2011).

Teaching staff. The number and the composition of university teaching staff has also increased and changed since 1993. More teaching staff have received advanced training in their teaching specialty (Pit & Ford, 2004; MoEYS, 2011). Also, a growing number of young lecturers have
graduated with higher degrees from universities in countries such as the U.S., Canada, the United Kingdom, Australia, and France. The teaching pool has also been enhanced by expatriate Cambodians who left the country before, during, or after the collapse of the Khmer Rouge and have now returned to teach in their own country (Pit & Ford, 2004). In addition, Cambodian higher education institutions have also recruited more foreign lecturers and professors, especially from the West (MoEYS, 2011; Table 2). According to MoEYS (2015), in the 2013-2014 academic year, the Cambodian higher education sector employed 11,566 Cambodian lecturers and professors. Among them, 3,409 held bachelor degrees, 7,117 held master’s degrees, and 836 held doctorates (MoEYS, 2015).

Table 5
National and Foreign Professors

<table>
<thead>
<tr>
<th>Professor</th>
<th>Bachelor</th>
<th>Master’s</th>
<th>PhD</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Professor</td>
<td>3,139</td>
<td>6,632</td>
<td>717</td>
<td>10,488</td>
</tr>
<tr>
<td>Foreign Professors</td>
<td>270</td>
<td>485</td>
<td>119</td>
<td>874</td>
</tr>
<tr>
<td>Total</td>
<td>3,409</td>
<td>7,117</td>
<td>836</td>
<td>11,362</td>
</tr>
</tbody>
</table>


Enrolment. By 2014, Cambodia enroled 233,457 students (Table 6) in academic programs in public and private higher education institutions (MoEYS, 2015; Rasmei Kampuchea, 2014). Owing to an enormous growth in the private higher education sector, more than 80% of the enroled students were fee-paying students. Out of these enroled students, 93% studied for a
bachelor degree. They enroled mainly in the fields of management (53%), foreign languages (14.5%), and finance (10%; Phoeurng, 2011; United Nations Development Program [UNDP], 2011).

Graduate education has been a new development. According to Phoeurng (2011), domestic higher education institutions, mainly private ones, began offering master’s degree programs in 2002. Doctoral programs only became available in the late 2000s. According to MoEYS (2015), 18,010 students (20.09% female) were currently pursuing master’s degrees while the total enrolment in doctoral degree programs was 1,181 (5% female). Both kinds of graduate programs were mostly conducted on weekends to attract potential students who usually worked full time (Walker, 2012). In addition, the majority of these graduate programs were offered in English. Therefore, students were required to have competent English skills to attend.

Table 6

<table>
<thead>
<tr>
<th>Degree</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor</td>
<td>121,723</td>
<td>92,543</td>
<td>214,266</td>
</tr>
<tr>
<td>Master’s</td>
<td>14,238</td>
<td>3,772</td>
<td>18,010</td>
</tr>
<tr>
<td>Ph.D.</td>
<td>1,121</td>
<td>60</td>
<td>1,181</td>
</tr>
<tr>
<td>Total</td>
<td>233,457</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2.2.6 Challenges to today’s higher education system

Given the scale of destruction in both human and physical resources during a long civil war, Cambodian higher education has made some progress in a number of areas. The growth of both public and private higher education institutions over the last two decades has produced profound implications for its human resource development and has significantly contributed to the overall social and economic development of post-conflict Cambodia (World Bank, 2010). Nevertheless, the Cambodian higher education system remains challenged by several key issues. In this section, I look at the challenges facing Cambodian higher education in terms of quality, governance, resources, relevance to labour market needs, access, and research capacities.

Quality in higher education is inherently multidimensional and thus difficult to measure (Daugherty, Miller, Dossani, & Clifford, 2013). According to Clifford et al. (2013), quality in higher education is relative from a stakeholder perspective, and it may differ for students, academics, policy-makers, employers, faculty, the general public, and other groups. Clifford et al. (2013) pointed out, for example,

... quality to the government sector may be tantamount to efficiency: do institutions produce graduates and research efficiently, and do they provide a net return on a social investment? On the other hand, quality to a student must consider the quality of instruction and resources he or she is provided with, as well as the likelihood that he or she will find employment in his or her chosen field. (p. 10)
The Cambodian higher education system by this definition is problematic. It appears to symbolize quantity rather than quality (HRINC, 2010). In other words, it is weighted too strongly toward expanding the system (coverage and quantity). Consequently, the quality of all academic programs has become one of its greatest challenges (UNESCO, 2011). Most institutions fall far short of national and international quality standard requirements in core areas such as teaching, governance, and research (CDRI, 2011).

Although Cambodia continues to have the lowest graduate unemployment rates among countries in Southeast Asia (2.7% (ILO, 2013), programs of study at Cambodian higher education institutions have not kept pace with changing employer demands and most do not match labour market requirements (World Bank, 2012). Many programs lack academic rigour (they are predominantly theoretical, fragmented, and irrelevant to the job market). A majority of employers, for example, complain that university graduates do not possess the right kinds of skills for work (HRINC, 2010; World Bank, 2011). Students are given little opportunity to develop technical competencies, problem-solving skills, or communication and organizational skills (World Bank, 2011). The skills necessary to perform adequately in the work place (particularly practical knowledge of the technology, work experience, written and verbal communication, foreign language and communication skills, teamwork orientation, and creative thinking) are not taught to a satisfactory level.

The poor quality of Cambodian higher education is caused by a number of related factors. These include a shortage of qualified teaching staff, irrelevant curricula, limited and obsolete library resources, insufficient equipment and instructional materials, the absence of a systematic
evaluation of performance, and a widely deficient learning and teaching infrastructure including limited access to computers and the internet. The quality issue is also seriously threatened by poor leadership and management, a lack of vision, cronyism, a lack of recognition given to research, low morale, graft, profiteering practices, improprieties in exam procedures, favoritism, and poor quality student intakes (Innes-Brown, 2006; Pit & Ford, 2004; UNESCO, 2011).

In terms of governance, higher education in Cambodia is not being managed as a system but, instead, as “individual disconnected institutions” (World Bank, 2012) or as “very disparate organization mechanisms with poor quality output” (United Nations Development Program [UNDP], 2011). The governance structure and management traditions of public tertiary institutions have often been characterized by weak leadership and a serious lack of regulatory and management flexibility (Duggan, 1997; ADB, 2011). Governance of the private higher education institutions is less guided or administered by many standardized government policies. Coordination between agencies responsible for administering higher education is missing and suffers from a lack of guidance from the central level (UNESCO, 2010; World Bank, 2012).

Such visible fragmented supervision and management of higher education institutions is not beneficial for Cambodia. Of course, separate management and operation, as the World Bank (2012) pointed out, allows individual institutions to have a say in the implementation of new study programs and to gather supplementary funding from the relevant ministries, agencies, and private providers. However, the fragmentation of institutional and financial resources of the higher education institutions puts Cambodia in a difficult position to effectively control, monitor, and coordinate higher education. As a result, it can make the overall higher education progress
difficult because individual institutions will make fragmented decisions relevant mainly to their circumstances/objectives and not necessarily reflective of related national issues and challenges. In the meantime, institutional leadership and management are also weak. Most leaders/managers are politically promoted (Vann, 2012); they are not trained to run higher education institutions. Their limited capacity causes internal inefficiency that leads to poor performance in almost every aspect including teaching and learning.

Unlike some countries in the region (for example, Singapore, whose universities and vocational technical/non-university higher education institutions serve different roles) (Lee, Goh, Fredriksen, & Tan, 2008), the role of Cambodian higher education institutions is not clearly defined. Cambodian universities offer both academic studies and vocational programs. The universities also award associate degrees. This clearly contradicts the national regulation (the Education Law) that stipulates that universities can only award degrees at the bachelor degree level and higher.

In order to make higher education reform attainable so that it can provide high quality and efficient service, both financial and human resources need to be readily available. However, neither of these has kept pace with the huge increase in higher education institutions and the growing demand for access to higher education. As a result, Cambodian higher education has suffered and continues to suffer from severe resource constraints.
National financial resources that are needed for improving the educational infrastructure (e.g., computer, internet access, libraries, classrooms), developing and implementing curricula and academic programs, and increasing access and the development of academic staff, are still limited. Based on 2008 data, the share of the higher education budget was 3.3% of the total public education expenditure or 0.09% of the GDP (World Bank, 2010). For 2012, the government allocated approximately $8.4 million U.S. to higher education (Department of Higher Education, 2012). However, an enormous amount of this budget went to staff salaries (Chet, 2009; Duy, Hang, & Yos, 2001; HRINC, 2010).

Due to the financial constraints, public higher education institutions in Cambodia are increasingly expected to generate more of their own income. Thus, they are shifting more of the costs to students and their families. For that reason, they have been given some flexibility in determining tuition fees and designing personnel compensation (World Bank, 2012). University-level administrators can play a limited role in making financial decisions that affect their institutions. However, this push to diversify revenues is greatly challenged by the limited experience, expertise, and capacity of institutions to mobilize resources. Unlike other countries in the region such as Singapore and Thailand, Cambodian private higher education institutions receive no public financial support for the fulfillment of their missions (Chet, 2009; World Bank, 2012). They have to rely on tuition fees and funds generated from the provision of other education services.
The minimum funding the education sector receives from the government is a difficult financial challenge for quality improvement and expansion. Nevertheless, the sector including higher education also faces another issue concerning budget planning and management. According to Duy, Hang, and Yos (2001), the MoEYS’s annual budget preparation and submissions to the Ministry of Economy and Finance have been unrealistic, technically weak, and difficult to defend. This reflects a serious, insufficient lack of qualified budget planners in the system. In the meantime, the MoEYS also does not yet have a system and the capacity to monitor budget implementation.

Well-qualified academics are the greatest resource of any higher education institutions (World Bank, 2012; Task Force on Higher Education and Society [TFHES], 2000). The Cambodian higher education sector remains diagnosed with an acute shortage of these human resources. This has happened in spite of an increase in the number of teaching staff in recent years. A large number of Cambodian academic staff hold low qualifications (Ayes, 2000; Chen, Sok, & Sok, 2007; MoEYS, 2011; Pit & Ford, 2004; UNESCO, 2010; World Bank, 2012; MoEYS, 2015). Out of the total teaching staff, 3,409 hold bachelor’s degrees, 7,117 hold master’s degrees, and only 836 hold doctorates (MoEYS, 2015).

Many academic faculty members or lecturers (as they are known in Cambodian higher education) enter the system with little preparation as teachers and with little hands-on work experience, content knowledge, research competence, and effective teaching and communication skills. In their study about the quality of education at Cambodian universities, Chen et al. (2007) reported that, among the five most prestigious Cambodian higher education institutions, only 6%
of the lecturers held doctorates and, across the board in the system, 85% of Cambodian lecturers have not published any academic or research papers. Worse, staff members often have restricted or provided no access to professional development opportunities due to a lack of financial and human resources at most institutions (UNESCO, 2011). Low compensation has forced many faculty members to engage in moonlighting and excessive absenteeism. Thus, attending professional development activities was not a high priority among local educators (UNESCO, 2011).

Motivation and commitment is crucial in determining the quality of higher education (Rowley, 1996). This has been a huge problem for Cambodia due to inadequate salaries and compensation, undefined career paths, and corrupt promotion practices. The challenges of staff shortages, insufficient qualifications, inadequate salary/compensation, and low institutional commitment have been even worse at private institutions.

The capacity of the personnel in charge of implementing all reform initiatives also remains insufficient in terms of both quality and quantity. A clear example is the obvious lack of trained and qualified staff at the Accreditation Committee of Cambodia, the most important quality assurance agency for education (You & Sok, 2008). According to UNESCO (2010), the ACC did not have staff with the expertise to perform its role as the provider of accreditation for higher education institutions. You and Sok (2008) argued that this inadequacy of capable human resources make it difficult for the ACC to proceed with the development of a minimum standard of quality and the accreditation process. In addition, efforts towards achieving international
parity is stalling because the ACC does not have constituent membership sufficient to present itself as credible in ASEAN nations and beyond (Touch et al., 2013).

The lack of human resources is exacerbated since brain drain is a great challenge for the country. When Cambodia first adopted a market-oriented economy in the early 1990s, thousands of Cambodians studied in advanced degree programs around the world. In the last 10 years, the Cambodian government has sent close to 3,000 students to study in 24 countries through its cooperative initiatives with foreign governments (You, 2009). Many wealthy Cambodians also have chosen to study overseas using their own resources. However, many of those students have not returned to Cambodia due to corruption, nepotism, poor working conditions, low salaries, the lack of good career opportunities, etc., in the country. In addition, according to You (2009), many of those students who did return left their jobs after a few years to work in the private sector or to set up their own businesses.

About 90% of the Cambodians studying in Australia stay in Australia after they have completed their courses (Roy, 2009). Despite lack of evidence, it is believed that many Cambodian students studying in other part of the world (US, Canada, Europe) remain in those countries after completing their studies. Therefore, there has been a growing concern that this trend of educated Cambodians choosing to stay in the host countries or immigrating to Western nations will continue if no appropriate and serious policies or actions are taken by the government to address the issue. Cambodia will continue to lose the much-needed capable human resources that can help speed up reform.
In addition to these challenges, the Cambodian higher education sector is also greatly challenged by the advance of information technology. For example, to assist teachers in moving toward student-centred teaching so that students can learn more effectively through critical thinking, problem solving, and creative ability (all ranked as the most important skills by employers in Cambodia according to the World Bank, 2012), modern equipment and technology are necessary and should be put in place. Cambodia remains a least-developed country in this area despite UNESCO’s assistance to enhance the use of ICT in higher education institutions (UNESCO, 2010). Many Cambodian higher education institutions lack computer equipment, labs, and internet connection. The country and its universities have one of the lowest internet penetration rates in the world. As of 2009, only 0.11% and 0.85% of all Cambodian households had access to the internet at home and outside the home, respectively (NIS, 2009). Where such resources are available (especially at major public and private universities through foreign links and support), accessibility and speed are extremely restricted due to high subscription costs. Moreover, computer literacy and competence among Cambodians is still very low. Even if access improved, the lack of content available on the internet in the Cambodian language is a serious impediment to internet use.

Similar to many other developing countries, the execution of reform in higher education in Cambodia in recent decades has encountered the impacts of globalization. According to Lee (2007), these impacts were reflected in the growth of new information and communication technologies, increased trade in educational services, and the emergence of borderless education. Already, Cambodia has been suffering from a continued loss of its many educated population through immigration and brain drain. This increasingly globalizing trend is forcing Cambodia to
further deal with what Altbach (2004) referred to as marginalization, increasing inequality, and increasing commercialization.

The relevance of higher education to economic, political, civil, and social dynamics in Cambodia is limited (UNESCO, 2011). Employers have expressed concern about a shortage of qualified workers and a lack of the right skills for employment (World Bank, 2012). For example, employers report that it is difficult to find professional staff who had strong analytical and decision-making skills (UNESCO, 2010). Put in another way, the knowledge and skills the students acquire in Cambodian higher education institutes is not merely superficial but also is seriously irrelevant to the world of work (HRINC, 2010; UNESCO, 2010; World Bank, 2012). As 40% of firms cited skills as at least an obstacle to growth in Cambodia (World Bank, 2012), the mismatch between higher education and the labour market demand is a matter of grave concern for education stakeholders and policymakers. It has serious economic and social implications for Cambodia, as it can constrain productivity and economic growth and can stifle a country’s attempts to diversify its sources of growth (World Bank, 2012).

Skill-labour mismatch is due mainly to the irrelevance and low diversification of curriculum and instruction and the imbalance across fields of study. The curriculum in Cambodia remains excessively outdated, abstract, and academic, and it has not kept pace with changing employer demands in the market-oriented economies (HRINC, 2010; UNESCO, 2010). The World Bank (2012) and UNESCO (2011) also agree that the Cambodian higher education curriculum does not sufficiently provide its graduates with the skills that businesses need to increase their productivity. Inadequate infrastructure, teaching, and learning resources, and a generally large
The number of students in the classroom (most classrooms accommodate between 70-100 students), are some of the main contributors to low quality courses (Neth, 2009). In addition, the system continues to place too much emphasis on teaching and learning theories rather than on practical knowledge. Pit and Ford (2004) observed that many Cambodian university lecturers even include more theories of greater difficulty in their teaching rather than improving the relevance of the theories for the actual needs of employers and industries.

The majority of Cambodian higher education institutions still use a didactic pedagogy while library resources (books, periodical collections, and online access) are poor. The internet penetration rate within higher education institutions, for example, remains below 10% (World Bank, 2012). Cambodian classroom pedagogy has been generally characterized as being primarily focused on frontal teaching, rote learning, and content (World Bank, 2007). Teaching and learning in higher education institutions has not encouraged students to develop the ability to explore and anticipate future events. Methods continued to lack heuristic and participatory aspects as teachers usually adopt a “teacher-centred” approach to instruction (Pit & Ford, 2004; World Bank, 2012). “Teachers spoke for the majority of classroom sessions, with little student interaction, teamwork, or time for problem solving” (World Bank, 2012, p. 68). This style of teaching does not relate to the real situation and labour demand of the country (World Bank, 2007).
Effective teaching and learning methods such as learning by inquiry, self-learning, critical thinking, creative ability, problem-based learning, information acquisition and generation, and intellectual independence are only practiced in a few major institutions that have good resources and international links. As Innes-Brown (2006) pointed out, only some teachers encourage lively classroom discussion through a probing question and answer exchange at the graduate level. In some cases, discussions and writing about sensitive issues are restricted and/or banned. For example, the University of Law and Economics issued a ban on more than a dozen political research topics for students (Mony, 2012).

Alongside these problems is the choice of study by students. As reported by Ahrens and Kemmerer (2002) and UNESCO (2011), student enrolment is not necessarily geared toward labour demands since it has been concentrated in only a number of popular courses of study, especially business-related programs. The system has an unbalanced disciplinary structure with 66% of students graduating in social science, business, or law (ADB, 2011; World Bank, 2012). As a result, there is a surplus of graduates in business (without preparation in workplace skills) and the training of advanced, skilled professionals in many other fields continues to drop far short of the labour demand (HRINC, 2010; World Bank, 2010). This is a big concern when fewer than 4% of students enrol in agriculture even though the sector accounts for 30% of the national gross domestic product (GDP) and supports the livelihood of 59% of the population (Word Bank, 2012). Cambodian higher education has also failed to deliver skills because higher education institutions have been managed as disconnected individual institutions (World Bank, 2012). Higher education outcomes, as the World Bank (2012) emphasized, are the product of its interactions with other actors such as skill providers (primary and secondary education
institutions) and users (firms). But such interaction is not effective in Cambodia due to information, capacity, and incentive constraints.

Higher education access is generally defined as “the ability of people from all backgrounds to access higher education on a reasonably equal basis” (Usher & Medow, 2010; Wang, 2011). In Cambodia, access is a national objective for higher education (MoEYS, 2013). Cambodians’ access to higher education has improved. As presented in Section 2.2.5, for the 2013-2014 academic year, 233,457 students registered in both public and private higher education institutions. Despite this increasing enrolment, access and equity remain an issue within Cambodian higher education. Disadvantaged groups remain underrepresented. Access continues to be a problem for women and for rural, poor, minority Cambodians. Poor academic achievement in lower-level education, unfavorable social-economic backgrounds, gender, a lack of student and institutional finance, attitudinal barriers, and remote geographical location are among the main reasons for their limited enrolment.

Providing access to these disadvantaged groups has been unequal due to various significant aspects. First, the majority of the Cambodian higher education institutions, in spite of a large quantitative expansion, remain concentrated in major cities and provinces. Thus, a large number of high school graduates, especially those from remote areas, are often excluded from having equitable access to higher education. Attending university means they have to bear the cost of basic living expenses and transportation in addition to their tuition fees. This geographical condition prevents many high school graduates from enrolling in higher education despite the efforts of most universities to offer some support for poor students.
Second, unlike many countries in the region, Cambodia does not have any financial aid programs and student loans. The country has a government scholarship program intended to promote the access of disadvantaged students to higher education. However, this program can be characterized as inadequate, inefficient, and inequitable. First, the scholarship mainly pays tuition fees, mostly at public higher education institutions. Recipients get only about U.S. $5 a month for other necessary expenses. Second, the ratio of scholarship students has recently been reduced significantly (World Bank, 2010). Accurate records are not available, but given that fee-paying students currently make up more than 80% of the total number of enrolled students in higher education institutions, the sign is not good for those who need this financial support.

Third, the existing scholarship program does not seem to perform its intended job in assisting the real poor to attend universities due to the serious shortage in funds. Arguably, so far, most scholarship places have gone to affluent students. The selection of students for scholarships is based on high school grades. Those students who earn an A overall, for example, can choose to study any subject with the government paying for their tuition fees. These students are mostly from affluent families who can afford to pay for private tutoring at high school. There seems to be no way for poor students to get good grades since, most of the time, detailed lessons and in-depth discussion of high school topics take place in private classes offered by the subject teachers.

Those who can afford higher education usually stay in pagodas and in crowded and unhealthy places that are not conducive to learning. This is even more difficult for female students. In the Khmer tradition, women are not encouraged to live away from their families. Government-
funded dormitories and housing options for them are non-existent (Pit & Ford, 2004) despite specific policies that urge their entry into higher education. Consequently, students from rural areas, poor students, and minority populations (including women) remain significant subgroups among the students enrolled in higher education institutions (World Bank, 2012).

Third, in addition to the barriers of location and housing, the cost of attending university keeps rising (it represented 58% of GDP per capita) (HRINC, 2010). Fourth, corruption in higher education remains endemic and worrisome (Tan, 2010; ADB, 2011). University admission, grades, graduation, and subsequent employment opportunities continue to be influenced by bribes and favoritism (Tan, 2010). All of this has deprived more than 90% of the tertiary-age population of enrolling in tertiary education and has created a huge disparity between the rural and urban populations (CDRI, 2011). According to the World Bank (2012), students from the top income quintile are more than 50% more likely to enrol in higher education than are students from the lowest income quintile. Thus, many poor students are excluded.

The 2007 Education Law recognized the importance of research as a catalyst for the long-term development of the Cambodian economy and society. In accordance with this law, the Ministry of Education, Youth, and Sport adopted a “Policy on Research Development in the Education Sector” in 2010. To date, however, research remains limited in all areas in Cambodia. Universities in Cambodia, according to the World Bank (2012), conduct very little research, and their connections with research institutes are weak. According to the CDRI (2010), only several universities have undertaken some research projects. Key institutions among these include the University of Health Science (research on dental and oral health in partnership with Korean,
Japanese, and Australian universities), the Faculty of Pharmacology (herbal medicine), the Royal University of Agriculture (some research projects on natural resources, food, livestock, land management, agro-industry, and agronomy), and the Royal University of Phnom Penh (diversified research activities and interdisciplinary academic platforms) (CDRI, 2010). The Royal University of Phnom Penh has also done well in research material production. It has produced nine volumes of Socio-Cultural Research Congress proceedings, 10 research-training books, two proceedings of Khmer Studies Conferences, and two volumes of research working papers (CDRI, 2010). In addition, its Centre for Population Studies has published nine working papers (CDRI, 2010).

Generally, higher education institutions do not have adequate training and research programs across the board. Funding for research is a huge obstacle. Financial support for this area has never been a top government policy priority because Cambodia has never had a research culture and higher education institutions in Cambodia do not encourage innovative practices and research (Pit & Ford, 2004). Because of funding constraints, research facilities are not available. Existing equipment/facilities donated and/or previously funded mainly by donors have become outdated due to the expensive cost of replacement and maintenance.

Weak research capacities are also due to the shortage of senior faculty, strategic vision and leadership, and research/academic freedom. An attempt by the Cambodian government to promote research by providing an honorarium is not effective. The selection process, among other things, lacks transparency, and the researchers who are selected are not rewarded based on their results or performance (Chet, 2009). The training of faculty members is low in both
quantity and quality (CDIR, 2010). The lack of such important research education and training has led to a dearth of trained people in the field. The shortage is further amplified by both internal and external brain drain.

2.3 Chapter summary

In this chapter, I examined two key aspects about Cambodia. First, I looked at the historical context and recent situation and development involving the social, economic, political, and cultural sides. As described, Cambodia is a country with a very long history, but many consecutive conflicts turned it into a destroyed country. Reconstruction began, almost from scratch, in the early 1980s. Since then, Cambodia has progressed in a number of social areas. Second, I described the development of the Cambodian higher education sector. I also outlined some of the major challenges the sector faced. Compared with the other higher education systems in the region, Cambodian higher education is relatively young. Its development has met with many challenges due to the changing political situation of the country.

Going forward, Cambodia needs to develop new viable strategies to reform higher education so it can effectively respond to social and economic needs. In Chapter 4, I will examine how the present challenges have been overcome and/or are being dealt with in other places, especially in developing countries. In Chapter 5, I will present what Cambodian stakeholders saw as the issues and solutions for Cambodian higher education. However, before doing this, I outline the research design for this study in Chapter 3.
Chapter 3: Research Design

In this chapter, I discuss the key elements of the research design of the study. First, I reintroduce the purpose, problem, and questions for this study. Second, I outline the design and the reason for its selection. Third, I describe the data collection methods and explain the rationale for them. Next, I describe the data collection procedures by detailing how, when, and where the data were collected and the order in which these procedures occurred. Fifth, I detail the data management and frame the data analysis procedures with an explanation of its rationale. Finally, I discuss the issues related to research trustworthiness and point to the limitations of the research design.

3.1 Research purpose and problem

In this study, I aim to propose some strategies to improve the Cambodian higher education system so that it can achieve its long-term human resource development goal. After decades of political conflict and instability, Cambodia needs trained workers to reconstruct and develop its society. Higher education should be able to contribute a great deal to this process. Yet, Cambodian higher education remains weak due to the problems described in Chapters 1 and 2. In this study, I look for ways to help policy makers and educators in Cambodia address the current higher education challenges. To achieve this research purpose, I rely on two sets of data. The first set of data came from an examination of the literature about international higher education reforms and trends. The second set of data came from my fieldwork in Cambodia. Third, in Section 3.4, I explain how I collected and analysed these data.
3.2 Research questions

As presented in Section 1.3, three questions were employed to guide this research study:

1. What are the challenges facing higher education in Cambodia?
2. What lessons can Cambodia learn from policy and practice reforms in developing countries, and how can these lessons inform higher education policy development in Cambodia?
3. What do key stakeholders see as issues and directions for Cambodian higher education?

3.3 Research design

The purpose of this section is to discuss the research design for data collection and analysis. Many different types of research designs exist. The two most commonly used are quantitative or qualitative approaches. A quantitative approach involves the formulation of hypotheses and hypothesis testing. Its hallmark feature is its fixed and predetermined nature and the data are primarily numerical and appropriate mathematical procedures are required for analyzes. A qualitative approach, on the other hand, relies on non-numeric forms of data. The data are words that describe people’s knowledge, opinions, perceptions, and feelings as well as detailed descriptions of people’s actions, behaviours, activities, and interpersonal interactions (Roberts, 2010). A qualitative approach orients toward discovery, description, and the holistic understanding of processes and activities and less on the issues of explanation, generalization,
and control (Strauss & Corbin, 1990). It does not provide hypotheses (Nkwi, Nyamongo, & Ryan, 2001). It assumes that each participant brings various interpretations and values to the process. Qualitative research also involves the themes of authenticity and contextual sensitivity (Patton, 2002).

A qualitative approach is best suited for this study, since the study aims to explore policies and practices to improve the Cambodian higher education system. According to Rist (1994), qualitative research is relevant for studying issues associated with policy development. This approach allowed me to seek the participants’ opinions and perspectives with flexibility to examine whatever data emerges and/or to probe into answers or observations as needed.

In qualitative research, interviews, observations, and the review of documents are the most commonly used methods (Creswell, 2009; Locke, Silverman, & Spirduso, 2010; Marshall & Rossman, 1999; Brikci & Green, 2007; DiCicco-Bloom & Crabtree, 2006). In addressing my research questions, I used documents and interviews as a means of data collection. The use of this combination, as Eisenhart (1991) pointed out, can facilitate more comprehensive ways of investigating a research problem. It allowed me to investigate a broader range of the potential aspects of higher education, and it enabled me to make connections and cross-validate various issues to increase the trustworthiness of this study.
3.4 Data collection methods and procedures

In this section, I describe the two data collection methodologies used in this study: (a) the review of documents and (b) interviews. Regarding the document review, I explain its key characteristics, the procedures in choosing the documents to review, and the sources of selected documents. Regarding the interviews, I describe the interview format and rationale for selection, the sampling of research participants, and other interview techniques and procedures relevant to the study.

3.4.1 Documentary review

A document is a text-based file that may include primary data (collected by the researcher) or secondary data (collected and archived or published by others) as well as photographs, charts, and other visual materials (Schensul, 2008). Document analysis is a systematic procedure for reviewing or evaluating documents (Glenn, 2009). According to Glenn, the procedure entails finding, selecting, appraising, and synthesizing the data contained in documents. It requires that the data be examined and interpreted in order to elicit meaning, gain understanding, and develop empirical knowledge (Corbin & Strauss, 2008; Rapley, 2007). Documents of all types can help the researcher uncover meaning, develop understanding, and discover insights relevant to the research problem (Merriam, 1988).
Despite these strengths, documents also have limitations. Some documents may lack sufficient detail (Glenn, 2009). Therefore, they should not be treated as necessarily precise, accurate, or complete. Another limitation is the low retrievability or difficult retrievability of the documents. For example, in this study, most of the materials, especially those about Cambodia, were published in the Cambodian language and were not widely available. The national library (the biggest library among a few others) held some of the materials I needed to use in this study. However, loans of some of these books and documents were not possible. I had to spend hours in the library jotting down notes or photocopying these materials. Last, but not least, a limitation of the document analysis method lies in the biased selectivity. “Biased selectivity,” according to Yin (1994, p. 80), is caused by an incomplete collection of documents.

In dealing with these problems, the researcher needs to (Glenn, 2009):

- Establish the meaning of the document and its contribution to the issues being explored.
- Determine the relevance of documents to the research problem and purpose.
- Ascertain whether the content of the documents fits the conceptual framework of the study.
- Determine the authenticity, credibility, accuracy, and representativeness of the selected documents.
- Consider the original purpose of the document and the target audience.

Moreover, since documents are context-specific, Glenn (2009) reminds us that they should be evaluated against other sources of information.
For this study, I used the document review as a data collection tool for two purposes. First, I used it to obtain historical and contextual information relevant to Cambodia’s social, cultural, historical, and economic conditions and to gain an understanding of the issues and challenges Cambodia faces concerning producing human resources. I had reviewed many of these documents for my comprehensive exams, but I conducted a more intensive library and electronic search and gathered additional, related sources/documents, especially about aspects concerning higher education, that could fill gaps in the data for this study. These data explained Cambodia’s historical and recent development and helped me answer the first research question: What are the challenges facing higher education in Cambodia?

The documents searched and reviewed included journals, books/edited volumes, government documents, technical reports, and conference proceedings. Relevant documents were obtained, among others, from the UN, UNESCO, United Nations Children’s Fund (UNICEF), UNDP, ADB, World Bank, and ASEAN. These international and regional agencies and organizations have been active in collecting and publishing social and economic data about Cambodia. Thus, they have the most recent information/data about the country. In addition, I reviewed government documents and reports, statistics, and literature on higher education in Cambodia published by local and international non-governmental organizations. These documents and data were obtained from institutions such as the MoEYS, the Council for the Development of Cambodia, the National Institute of Statistics, the Cambodian Development Research Institute, and public and private universities. Some examples of these documents include “Education Sector Review: Forward Strategy,” “Draft Education Sector Review,” “Education Sector Strategy Study,” and the “Law On Education.”
Second, I used the document review to identify and analyze the international trends in higher education reform. The key purpose was to identify and describe the approaches that other developing countries have adopted to improve higher education. The findings from this can help inform the future development of a higher education strategy for Cambodia. The higher education aspects I focused on in this review were based on the issues and challenges identified in the analysis of Cambodia and its higher education in Chapter 2. I carefully annotated and jotted down specific key ideas/concepts, development, practices, and the challenges of higher education related to six areas: (a) funding, (b) quality, (c) relevance, (d) access, (e) governance, and (f) research. The review was based on higher education systems in developing countries, particularly those in Southeast and East Asia, since many of these countries share a strong similarity with Cambodia in higher education issues and social conditions. Relevant lessons of experience and perspectives of higher education reforms elsewhere in the world were examined as well.

In conducting the document review of the existing literature, I paid particular attention to scholarly journals and reports, best practices, and findings of studies around the world. The World Bank, UNESCO, OECD, ADB, and African Development Bank also provided extensive and comprehensive materials on higher education development and reforms in many countries. They were the key sources for the comparative analysis and study of higher education. To obtain materials for the review, I used the following search engines, websites, and databases: the University of British Columbia (UBC) Library, Google Scholar, Google Books, the Education Resources Information Center (ERIC), the Bielefeld Academic Search Engine (BASE; a search
Some of the central questions used to conduct this review were:

1. How have higher education challenges been addressed in other countries?
2. How have other countries done to improve the quality of higher education?
3. What measures have they used to ensure that higher education is affordable for students and that higher education institutions can thrive?
4. How have they found new sources of funding to support the higher education system?
5. How did other countries ensure that the knowledge and skills of graduates were aligned with the workplace needs?
6. How have barriers to accessing and completing higher education been dealt with?
7. What governance tools and structures have different countries adopted to ensure their higher education system achieved what they wanted?
8. What are the key approaches developing countries have taken to improve research within higher education?

The resulting data served to help answer my second research question: What lessons can Cambodia learn from policy and practice reforms in developing countries, and how can these lessons inform higher education policy development in Cambodia?
3.4.2 Stakeholder interviews

Qualitative interviews are effective instruments for getting deep insights into how people experience, feel, and interpret the social world (Mack, Woodsong, MacQueen, Guest, & Namey, 2005). They provide a way of collecting information and finding out about things that the researcher cannot directly observe (Patton, 1990). Interviews range from a highly structured style, in which questions are determined before the interview, to an open-ended, conversational format (Thomas, Nelson, & Silverman, 2011; Brikci & Green, 2007). In this study, I used semi-structured interviews to gather information on the issues and challenges involving Cambodian higher education. The data from the semi-structured interviews were intended to answer the first and third research questions:

1. What are the challenges facing higher education in Cambodia?

3. What do key stakeholders see as issues and directions for Cambodian higher education?

Semi-structured interviews are conducted based on a loose structure (topic guide) made up of open-ended questions defining the area to be explored (Brikci & Green, 2007; Merriam, 2001). A researcher develops a series of interview guides that outline the set of issues and questions to cover in the interview (Patton, 1990). According to Patton, the guides allow the researcher to be flexible and responsive to unexpected paths and discoveries during the interview. Frequently, the interviewer asks the same questions of all the participants, but the order of the questions, the exact wording, and the type of follow-up questions may vary considerably. Semi-structured
Interviews are, however, more than just “chats” (Longhurst, 2010). “The researcher needs to formulate questions, select and recruit participants, choose a location and transcribe data while at the same time remaining cognizant of the ethical issues and power relations involved in qualitative research” (Longhurst, 2010, p. 106). Brikci and Green (2007) pointed out that, in using semi-structured interviews, it is important to have some prompts ready to encourage the interviewee to talk about specific issues if they do not come up spontaneously.

For this study, semi-structured interviews were employed as the means of data collection instrument for three reasons. First, they are flexible in process (for example, in the order of topics covered). Second, they are well suited to the exploration of attitudes, values, beliefs, and motives (Bryman, 2004; King, 2004). This method gave the participants ample time and scope to express their diverse views in their own terms and elaborate on the issues raised (Denscombe, 2003; Dunn, 2005). Third, they allowed me, as an interviewer, to react to and follow up on emerging ideas in the conversation in more detail (Britten, 1995). In other words, I could probe for more information and clarification of answers. Probing can be an invaluable tool for ensuring reliability of the data, as it allows for the clarification of interesting and relevant issues raised by the respondents (Hutchinson & Skodal Wilson, 1992). Probing also provides opportunities to explore sensitive issues (Nay-Brock, 1984); can elicit valuable and complete information (Bailey, 1987); enables the interviewer to explore and clarify inconsistencies within respondents’ accounts; and can help respondents recall information for questions involving memory (Smith, 1992).
I used a purposive sampling approach to identify the participants for the interviews. The purposive approach is appropriate for two reasons. First, it enabled me to choose individuals “likely to be knowledgeable and informative about the phenomenon of interest” (McMillan & Schumacher, 2001, p. 433) or who have knowledge relevant to the research (Bowling, 2009). Second, the purposive sampling approach allowed me to gain access to higher education specialists in Cambodia. Such access was not easy to obtain due to the limited number of field experts in the country. Moreover, some of these experts do not want to take part in information-seeking processes because of Cambodia’s past (especially the Khmer Rouge period where engaging in social-political practices earned individuals torture, punishment, and even execution).

3.4.2.1 Pilot testing of interview questions

The interviews focused on exploring the participants’ views on higher education reform in Cambodia. Using semi-structured interviews as a data collection method, I developed an interview guide (see Appendix E). The guide provided me with pre-constructed questions according to the themes. It also allowed me the flexibility to explore emerging themes based on participant responses to previous questions or to ask questions spontaneously to probe a particular subject. These questions covered key higher education aspects including financing, access/equity, governance, quality, research, and labour market relevance.
The questions were piloted via Skype on a Cambodian student studying in the United States and on a university lecturer in Cambodia. These two participants were not invited to take part in the study. The pilot interviews were conducted by Skype. However, I ensured that the pilot interviews simulated the actual ones. The aim of the pilot interviews was to check if the questions functioned effectively; determine how long it took to complete each interview (the plan was to finish each interview within approximately 60 minutes); and identify any flaws and potential causes of confusion, unclear wording, irrelevant questions, and logistical problems (Roberts, 2010). The pilot interview was also intended to check its content validity (appropriateness and completeness of the contents of the interview schedule) in relation to its subject domain and purpose. The pilot test allowed me to make some necessary revisions prior to implementation of the study (Kvale, 2007).

### 3.4.2.2 Participant recruitment

I invited 28 people to be interviewed. The criteria for selection included individuals who were familiar with the Cambodian higher education context, development, and operation, students and/or graduates who experienced higher education firsthand, parents whose sons or daughters studied at university, and employers of higher education graduates. The majority of this population resided in Cambodia’s capital, Phnom Penh, and in its neighboring Kandal Province. Despite having lived and worked in these two locations, some of these individuals originated from many provinces across Cambodia. A few had just returned to Cambodia after living overseas for long periods of time. Three individuals invited to participate were studying overseas in Canada, Australia, and the USA.
I sent an invitation by email in early June 2014 to all potential participants using my personal networks (acquaintances, friends, former students, and colleagues). An interview consent form was attached to the email. The consent form outlined the purpose of the study and what participation in the study would involve. A copy of both the invitation letter and the consent form are provided in Appendices C and D.

I asked each potential participant to reply within one week. Each person could reply with “Yes” if she/he wished to participate or “No” if she/he did not want to take part in the study. I informed the potential participants that I would try to contact her/him again if I did not receive the response after one week. After this one-week period had passed, I wrote an email to four potential participants who did not reply explaining how important their contributions were to the study. In addition, I asked a former colleague at the Royal University of Phnom Penh to assist in securing interview appointments with two administrators at his university.

Eighteen individuals volunteered to participate in a face-to-face interview (see Appendix F). The sample consisted of three students (2 undergraduate and 1 graduate), two parents of students, three university administrators, one foreign expert, four academic faculty members, one Non-Governmental Organization employee, two employers, and two education ministry-level officials. In total four of the 18 participants were women. Sixteen of these participants were located in Phnom Penh and Kandal Province. Two participants were studying in the USA and Canada. I explained the consent form to the participants first by email and then face-to-face before starting the interview.
3.4.2.3 Conducting the interviews

The interviews began in July 2014 and were completed in early August 2014. In early June 2014, I began to send out invitation emails to potential participants. Then, in mid-June 2014, I contacted the participants who agreed to be interviewed to make an appointment for an interview. The interview schedule is attached in Appendix F. Before the interview, I informed the interviewee of the purpose of the study and the confidentiality issues, checked if the interviewee had any questions or concerns, and asked each participant to sign the written consent form. The interviewee was given a copy of the signed consent form to keep. I also reminded the participants that the interview would be audio recorded on my laptop. Recording the interviews allowed me to concentrate on the topic and the dynamics of the interview without being distracted by the need to write extensive notes (Brinkmann & Kvale, 2015). I could thus return to it again and again for relistening (Brinkmann & Kvale, 2015).

All interviews were conducted at a convenient place for the participants. Most participants preferred to have their interview in a cafe. A few lecturers and administrators chose to be interviewed in their offices. In the cafe, I always booked a spot in a quiet area to avoid/reduce background noise and distraction. Several interviews took place on heavy rain days (June to November are rainy months in Cambodia). I asked the interviewees to speak up because the rain was heavy with loud thunder.
During the course of the data collection period (July to August 2014), I conducted semi-structured interviews with 18 participants. Each interview lasted between 45-80 minutes. I followed the interview guide, but I adapted it slightly. For example, I changed the order of the questions according to the roles/responsibilities of each participant. I realized that the participants were more responsive and more confident when the interview began with what they knew best. Also, I did not press for an answer on every question. Throughout the interviews, I maintained my role as listener. Nevertheless, I used techniques such as probing for further information, requesting clarification, asking for examples, and reflecting the responses of the interviews when the participants were confused or had little response.

In addition to audio recording the interviews, I also took notes during them. I wrote down sensitive or interesting viewpoints or anything that I could use to ask for further information or for clarification. During two of the interviews, participants asked me to turn off the recorder while touching on very sensitive issues involving their workplace. One respondent spoke angrily about his/her supervisor’s unfair treatment, favoritism, and nepotism. The other complained about corrupt practices in his/her university. In addition to notes about viewpoints, I took notes about the participant and the context to capture any nonverbal information that could not be recorded such as anger, disappointment, eye contact, facial expressions, and body language. For example, one interviewee shrugged when I asked him/her how corruption could be dealt with. Several interviewees looked around and lowered their voices when talking about the government’s actions and strategies in certain aspects involving higher education.
3.5 Data management and analysis

To achieve the purpose of this study, I relied on two major kinds of data: documents and interviews. This section discusses the procedures in the management of these data, the preparation for analysis, and the data analysis.

3.5.1 Data management and preparation for analysis

While conducting the document search, I collected over 350 journal articles, scholarly reports, and studies that I could use to analyse and write Chapters 2 and 4. To make them easy to find during the data analysis as well as to make the creation of the reference list easier, I made both electronic and paper copies of these relevant documents. I developed a research folder on my computer by making each document uniquely identifiable and tagging it with key information. For example, I tagged a report published by the World Bank (2012) entitled “Putting Higher Education to Work: Skills and Research for Growth in East Asia” by using the name of the author, the date of the document, the key terms, and topical association. To find this report, I can use the keyword tags “World Bank,” “2012,” “higher education,” “higher education in Asia,” and “higher education and work.” In addition to the electronic and searchable inventory, I printed out most of the documents and organized them according to their main focus or topic.

Regarding the data gathered through interviewing Cambodian stakeholders, I began transcribing the interview audio recordings immediately after each interview. I transcribed each interview verbatim: capturing exactly every word, exclamation, or the way it was spoken during an
interview. Interestingly, Cambodians do not use filler words such as “ums,” "uh-huh," “ahs,” and “you knows.” To safeguard the privacy and confidentiality of the interviewees, I removed the participant's name as well as any detectable variables such as workplace, characteristics of a given institution, or identifiers that provided an explicit link to the participants. Each interview was labelled by the number of the interview and the interviewee’s occupation (e.g., “Interview 1, student”; “Interview 4, parent”) to disguise the participant's names. I typed out my interview transcripts in Microsoft Word and stored them in an encrypted file on my computer. I also kept (and still keep) an external hard drive backup of the interview transcripts in a locked cabinet and a printed copy of each transcript for data analysis.

3.5.2 Data analysis

Data analysis was conducted in two parts. The first part dealt with the analysis of the international trends in higher education reforms using information collected through the document review. The second part covered the analysis based on stakeholder interview data from fieldwork in Cambodia. There are many different techniques for analysing qualitative data. Data analysis in this research followed the constant-comparative method (Merriam, 1998), which means the findings involve identifying, reflecting, testing, revising, refining, confirming, or even discarding data until themes or categories began to emerge. In other words, such analysis involves the constant comparison of one unit of data with another, comparison of new data to existing codes, organization of emerging concepts into categories, and comparison of units of data with emerging conceptual categories (Merriam, 1998).
3.5.2.1 Analysis of documents

The analysis of international data on higher education reforms in Chapter 4, based on the document review, progressed over the course of this study. The analysis involved the following stages. First, all of the documents selected were reviewed and sorted into relevant themes or topics. Second, through an iterative process, I created an analytical map for writing up the findings. In fact, the determination of relevance and themes for document analysis began during the data collection. Nonetheless, I decided on the final themes and subthemes for the research findings after an intense examination of the reviewed documents. The analytical map drew exclusively on the issues and challenges that Cambodian higher education faces including financing, higher education quality, higher education relevance to the labour market, access to higher education, governance, and research. After finalizing the themes, I identified and sorted relevant, suitable points from the documents to support those themes. In writing up the findings of each theme, I focused on the international experiences, trends, strategies, principles, and practices that other countries have used to address higher education challenges and that would help Cambodia to improve its higher education sector.

3.5.2.2 Analysis of stakeholder interviews

As mentioned before, the interviews with 18 stakeholders aimed to explore their perspectives on Cambodian higher education issues/challenges, development, and reform. The findings reported in Chapter 5 reflect the outcome of the interview analysis. This analysis was conducted as follows. First, I familiarized myself with the interview data by reading all transcripts to get an
overview of the content. Next, I examined the transcripts and then categorized the interview data according to the different themes I used to guide the development of the interview schedule and asked about during the interviews. These themes are an overall assessment of Cambodian higher education, teaching, and learning in higher education; research in the Cambodian higher education sector; curriculum for the labour market needs; the funding of higher education, higher education access, and equity; governance in higher education; quality issues; and a desirable higher education structure.

Examination of the data was also conducted to search for other emerging significant themes and subthemes that are relevant to the research questions. For example, themes such as corruption, capacity of leaders, and vocational and technical training centres arose during the interviews. It is essential to note that, while the themes were organized according to the questions that I asked, there were mixed responses of different themes in one place. For example, as a result of probing questions, while answering a question about governance issues, interviewees also spoke about funding and other aspects. I examined and numbered such information and then added it into relevant groups. After making sure that all the themes had been identified, I began segmenting the relevant text data into their themes. Finally, I analysed, compared, and synthesized all interview data to provide a description of the participants’ views regarding the problems Cambodian higher education faces.

The findings were reported using what McMillan and Schumacher (2001) called “a comprehensive, holistic narrative description and interpretation” (p. 36). When quoting the interviewees, I omitted their names and identified them instead either according to their
occupation (e.g., Interviewee 1, student) or as proportional groups of the whole sample (e.g., more than half of the participants). I also omitted the names of the organizations that the participants belonged to ensure their anonymity. During the interviews, a few participants spoke in English and/or used some key or technical terms in English. When quoting the interviewees who spoke English, I decided not to edit their English. When quoting those who spoke Khmer, I did my best to translate their responses to reflect their views.

Although the second part dealt exclusively with stakeholder interview data analysis, in interpreting and reporting the findings, I used triangulation of data (Mathieson, 1988), analysed the evidence from document analysis, and compared data within and across interview cases. For example, I pointed out whether the interviewees’ views were similar, relevant, or different from the findings in the documentary reviews. To avoid possible discrepancies due to poor recording quality or mishearing of a recorded interview during transcription, I listened again to the recording of all interview portions I selected to quote in Chapter 5.

3.6 Trustworthiness of the research study

Trustworthiness is a significant factor for a research project (Andres, 2012). Appropriate mechanisms must be put in place to assure the researcher and reader of the quality of the research, its process, and its findings. Andres (2012) pointed out that, to ensure “the worth or truth value” of a research study, it requires that researchers pay attention to each facet of a research design. According to Andres, “trustworthiness is built into a study from its initial conceptualization” (p. 116). Following Lincoln and Guba (1985, p. 289-331) and Andres (2012,
p. 115-128), I addressed the issues of credibility, transferability, and confirmation to build a foundation for trustworthiness in this study.

3.6.1 Credibility

Ensuring credibility is one of the most critical factors in establishing trustworthiness (Lincoln & Guba, 1985). Credibility seeks to ensure that the study measures or tests what is actually intended. Credibility holds the researcher accountable to ensure that the study results are an accurate reflection of the participants’ behaviours, attitudes, and opinions (Andres, 2012). Creditability can be established by various methods. In this study, my methods of choice were document authority, the background and experience of the researcher, adhering to university regulations, participant recruitment, and triangulations. The following section will describe how I used each method to establish the trustworthiness of findings.

In a pursuit of highly credible data for the document analysis, I focused on the document authority as the main selection criterion. For example, as mentioned earlier in this chapter, the literature used for the analysis of international higher education reforms was based essentially on technical reports, articles, and books published by trusted authors, journals, and publishers such as the American Educational Research Journal, Review of Educational Research, World Bank, ADB, and OECD.
The credibility of the researcher is especially important in qualitative research, as the researcher is the major instrument of data collection and analysis (Patton, 1990). Credibility involves the background, qualifications, and experience of the investigator. I began this research study with a strong background in Cambodian post-secondary education. I have taught in both public and private institutions since 1995. I also served as a department head at the Royal University of Phnom Penh from 2003-2008. As an education officer, I have actively participated, among many other things, in policy formulation and implementation at the ministerial and institutional levels on issues such as student and staff recruitment, program planning, and inter-institutional cooperation. Also, I have worked closely with various international experts, professors, and donors. My experiences, training, perspectives, cultural knowledge, and familiarity with the research context have provided me with many insights and a good understanding of the challenges associated with policymaking and implementation. Hence, they have put me in a good position to undertake this research.

However, as Paisley and Reeves (2001) and Pezalla, Pettigrew, and Miller-Day (2012) pointed out, my background and experience also have the potential to influence the collection of data and data analysis. First, since I have come to know the system well, my views about Cambodian higher education may influence participant responses. My experience, knowledge, and understanding of the Cambodian higher education system and development might entice me to make pre-judgments about its overall development and practices. Second, by recruiting participants through personal networks, some participants know my background and might have presumed what I wanted to hear during the interview. To deal with these possible biases, I ensured that the participants did not think they knew what answers “the researcher was looking
for” (Miles & Huberman, 1984). For example, I avoided asking leading questions. Instead, I encouraged the participants to speak freely and to give their own, honest answers. I told each participant that there was no right or wrong answer to any of the questions asked. In addition, during the interviews, I was very conscious that my role was that of an observer, not a participant.

In compliance with the regulations of the UBC Behavioural Research Ethics Board, permission for conducting the research was acquired. Prior to my visit to Cambodia to conduct the interviews, ethics approval was obtained from the UBC Behavioural Ethics Research Board. Formal research ethics approval processes were not in place in Cambodia during this study. Permission was needed in some institutions if the research directly involved the institutions. Most of the interviews with individual participants in this study were conducted outside their workplace. As such, they had no involvement of workplaces in the study process. However, written consent was obtained from each participant.

To ensure honesty in the participants when contributing data, I took the step to “involve only those who are genuinely willing to take part and prepared to offer data freely” (Shenton, 2004, p. 66). As explained in the section about participant recruitment (Section 3.4.2.2), the potential participants were given an opportunity (a) to consider taking part in the study and (b) to withdraw from it at any point during the research project without any conditions. I made this clear to all participants in both the consent form and at the beginning of each interview.
In addition, I used other means to protect the privacy and confidentiality of participants. For example, the interview files, audio recordings, and transcripts were kept in a locked filing cabinet. Interview data were stored in computerized files with password protection and encryption. I backed up all interview data files onto an external hard drive and stored it in a locked safe. I collected only information that was strictly relevant to the research purpose. In addition, other identifiable information such as names, phone numbers, and email addresses that were needed for communicating with participants during the data collection process, and in setting up times for interviews, were coded using a pseudonym. I also made sure that no information and/or issues arising from the interviews were discussed with others in ways that might identify an individual. All data were not and will not be accessible to anyone other than the researcher (me) and my committee.

With regard to triangulation, I used documents in combination with the interviews to provide “a confluence of evidence that breeds credibility” (Eisner, 1991, p. 110). Triangulation refers to the use of a combination of different data collection methods in a study of the same phenomenon (Denzin, 1978; Creswell, 1994; Miles & Huberman, 1994; Tashakkori & Teddlie, 1998). Triangulation helped me guard against the accusation that a study’s findings are, as Patton (1990) pointed out, simply an artefact of a single method, a single source, or a single investigator’s bias. I also examined different data sources within the same method to ensure the consistency of the data. I found that inconsistency in data sources existed. For example, while comparing information about key governance characteristics in Cambodian higher education system, I found some discrepancies between the report published by the ADB in 2012 and the one published by the World Bank in the same year. According to the ADB report, Cambodia
seemed to have semi and full autonomy in all eight clusters (ADB, 2012d, p. 22). However, in the World Bank document, Cambodia only had autonomy in some respects about one characteristic (setting academic structure/course content) of the same eight clusters (p. 135).

### 3.6.2 Transferability

Transferability means that those who wish to replicate the study can apply the findings of the study to their own situation (Merriam, 1998; Lincoln & Guba, 1985; Miles & Huberman, 1994). Transferability is sometimes difficult to achieve because the findings of a qualitative study are specific to a small number of particular contexts and individuals (Shenton, 2004; Erlandson, Harris, Skipper, & Allen, 1993). Good research, however, always engages in some form of transferability (Andres, 2012). While each case may be unique, it is also an example within a larger group. As a result, the prospect of transferability should be possible (Stake, 1997; Denscombe, 2008).

A good practice is that a researcher “shows the audience of research studies as much as possible of the procedures that have led to a particular set of conclusions” (Seale, 1999, p. 158). In other words, the processes within the study need to be reported in detail to enable those who wish to repeat the work to produce comparable outcomes (Andres, 2012). Shenton (2004) pointed out that, to enable readers of the research report to develop a thorough understanding of the methods and their effectiveness, the text should include:
(a) the research design and its implementation, describing what was planned and executed on a strategic level;
(b) the operational detail of data gathering, addressing the minutiae of what was done in the field; and
(c) a reflective appraisal of the project, evaluating the effectiveness of the process of inquiry undertaken. (pp. 71-72)

To provide for transferability, I offered researchers who want to replicate the findings of this study with an opportunity to make their own assessment whether or not the results are transferable to other circumstances. I provided detailed information about the research participants, data, and context. For example, I pointed out that the interview participants were 18 stakeholders of the Cambodian higher education system including students, parents, employers, faculty members, administrators, non-governmental organizational staff member, policymakers, and higher education experts (see Section 3.4.2.2). In addition, I examined and documented all phases of the research process to ensure that the process was applicable to the research being conducted and to determine whether it was applied consistently (Lincoln & Guba, 1985). I also showed how the data were collected, recorded, and analysed (Bowen, 2009; Li, 2004).

3.6.3 Confirmability

Confirmability is a measure of how well the inquiry’s findings are supported by the data collection (Lincoln & Guba, 1985). It is concerned with providing a set of checks against the introduction of bias of interpretation (Andres, 2012) or establishing that the data and
interpretations of the findings are clearly derived from the data (Tobin & Begley, 2004). To achieve confirmability, a researcher can use tools such as triangulation to reduce the effect of investigator bias, an in-depth methodological description to allow the integrity of the research results to be scrutinized, and an audit trail (Lincoln & Guba, 1985). An audit involves the researcher assessing her/his own background, perceptions, and interests in relation to the data collection process and analyses (Andres, 2012). Also, Seale (1999) suggested that, in order to make auditing possible by other researchers, it is a good idea that the researcher archive all collected data in a well-organised, retrievable form so that it can be made available to the researcher if the findings are challenged.

To demonstrate confirmability, I ensured that the findings of both the analysis of international higher education reforms and stakeholder interviews were reflective of the data found in the literature and the participants’ perspectives, respectively. For example, in presenting the findings in Chapter 5, I used quotations from the interviews to assure that the data and interpretation were a function solely of the participants and the conditions of the research and not of other biases, motivations, and perspectives (Guba, 1981) and/or were not merely figments of my imagination (Schwandt, 2007). I also kept all interview records and documents secure during the investigation as described in Section 3.5.1. My dissertation committee also provided a regular check to ensure that this study contained the key criteria for trustworthiness.
3.7 Limitations

Every effort has been made to keep this study as accurate and objective as possible. However, limitations cannot be avoided. Employing a purposive sampling strategy, my sample size was small. I mainly obtained the interview sample by targeting a specific group of people from only two locations in Cambodia (Phnom Penh City and Kandal Province) out of 23 cities and provinces. Such a sample size did not represent the majority of stakeholders. Consequently, it is impossible to extrapolate the results to the whole population. The findings should therefore be used with caution. Having said that, the study may provide a basis for future investigations in the higher education context either in Cambodia or in countries that face similar problems. For example, developing countries in the region (such as East Timor and Laos) may learn something from the findings of this study.

3.8 Chapter summary

In this chapter, I described the research design, data collection method and procedures, and data analysis. I reintroduced the research purpose and problem, included a statement about my background vis-à-vis my training (education) and experience with the topic, and pointed out how I used document review as a data collection method in this study. In addition, I explained who my participants were, how and why I selected them, and which type of sample I drew. I also provided the number of participants and their locations and explained how protected their confidentiality and privacy. Finally, I described the activities related to data analysis, explained
how the data were analysed and reported, and discussed the trustworthiness of the research and the limitations of my choice of research design.

In Chapter 4, I examine higher education reforms and practices in other countries.
Chapter 4: Analysis of International Trends of Higher Education Reform

The review of the Cambodian context and development in Chapter 2 has pointed to a number of key issues in the Cambodian society that involve higher education. These include poor governance and unclear policy direction; chronic underfunding; inequitable access; curricula that lacks relevance; inappropriate instructional methods; an absence of research; and the need for effective quality assurance mechanisms to improve education quality.

Considering that the Cambodian higher education system faces many challenges, this chapter will look at what governments and higher education institutions, especially those in the developing countries, have done with regard to various key higher education aspects including funding, quality, relevance, access and equity, governance, and research. The questions I used to guide this review include:

1. How have higher education challenges been addressed in other countries around the world?
2. How have other countries done to improve the quality of higher education?
3. What measures have countries used to ensure that higher education is affordable for students and that higher education institutions can thrive?
4. How have they found new sources of funding to support the higher education system?
5. How did they ensure that the knowledge and skills of graduates were aligned with the workplace needs?
6. How have barriers to accessing and completing higher education been dealt with?

7. What governance tools and structures have different countries adopted to ensure their higher education system achieved what they wanted?

8. What were the key approaches developing countries have taken to improve research within higher education?

4.1 Financing reforms

Responding to challenges and needs in both social and economic sectors, countries have set out to improve higher education institutions and have made them a key part of national development policies (World Bank, 2012). For example, they have reoriented and repositioned their predominantly public higher education systems (Maassen & Cloete, 2006) and have focused on the need for higher education institutions to be more strategic and to contribute effectively to the knowledge society (Sursock & Smid, 2010; ADB, 2011).

In tackling increasing demands for higher education, quality, and access while reducing dependency on the government for funding, many countries have formulated policies aimed at supplementing governmental revenues, enhancing long-term financial viability and sustainability, and ensuring that there is an effective use of public funds (ADB, 2011, 2012a; World Bank, 2012; Altbach, 2007a; Moja, 2007; Rolfe, 2003). The financing of higher education, as a result, has been diversified dramatically. In the following section, I deal with four key financing trends: (a) the introduction of cost sharing, (b) the adoption of performance-based
funding, (c) the effective use of existing resources, and (d) the push for alternative funding (which includes income-generating activities and funding from philanthropy).

*The introduction of cost sharing.* Cost sharing has been widely adopted as a means to achieve the goal of fund mobilization and to expand higher education finance and provision. Cost sharing is defined as “the predominant development towards a gradual transfer of the financial costs of higher education from governments towards the students and their families” (Johnston & Shroff-Mehta, 2000, p. 1). The mechanism has been a strong element in the education sector in East Asian countries (e.g., Japan, Korea, Taiwan, China, Hong Kong, and Singapore; Marginson, 2011). The adoption of this funding mechanism has occurred because of three significant causes (Johnstone, 2003, 2004; Ziderman, 2013):

1. The inability of the governments to adequately fund and support higher education institutions due to the increasing young demographics and a higher percentage of high school graduates desiring higher education;
2. The viewpoint that those who benefit should at least share in the costs, and
3. The neoliberal economic notion that tuition will make students and families more discerning consumers, universities more cost-conscious providers, and universities more responsive to individual and societal needs.

Among developing countries, however, the most compelling cause for cost sharing adoption, according to the ADB (2009) and Varghese (2004), is the need for alternative (nongovernment) revenue to reduce the financial burden of the expansion of higher education on the state.
Johnstone (2003, 2004) categorized several forms of cost sharing in higher education: (a) the introduction of tuition fees where public higher education was formerly free, (b) sharp increases in tuition fees where public higher education tuition has already existed, (c) the imposition of user charges to recover the expenses of formerly subsidized food and accommodations, (d) the diminution of student grants or scholarships, (e) an increase in the effective recovery of student loans, and (f) official encouragement of tuition-dependent private higher education sector where it did not exist to absorb some of the ever increasing higher education demand. Two of these categories have been adopted in many developing countries: (a) privatization of public institutions and (b) the encouragement and expansion of private higher education institutions.

An increased demand for higher education combined with insufficient public finance has led to the privatization of public higher education institutions in the form of the “dual track” system in many countries (Johnstone, Marcucci, & Ngolvoi, 2008). This is a system where “less-qualified” students who do not pass selection procedures for publicly funded higher education institutions can participate in higher education based on the payment of full tuition costs (Vossensteyn, 2004). Australia, Hungary, China, Russia, Cambodia, and several African nations (see Johnstone et al., 2008) are among those that allowed their public higher education institutions to expand by accepting additional students who pay the full cost of education to reduce the over-dependence on government funds. Russia (since 2000) has allowed its public universities to admit up to 25% of their total enrolment on a full fee-paying basis, as long as all available publicly funded placements are filled (Vossensteyn, 2004). Nowadays, as many as 50% of Russian university students are admitted as fee-payers (Bain, 2001).
Dual track tuition policies have contributed to the dramatic increase in enrolment. In Africa, dual track policies also appear to achieve some real revenue supplementation (Marcucci & Johnstone, 2007). Nevertheless, they also appear to have problematic impacts on equality (Marcucci & Johnstone, 2007; Carrol, 2004). According to Carrol (2004), policies do not increase access for traditionally underrepresented groups in the absence of student financial assistance programs such as means tested grants and student loan programs. A private entry scheme might even reinforce existing inequities in participation at universities (Carrol, 2004). Moreover, Johnstone (2002) noted that it might also elicit favouritism towards the enrolment of full-fee paying students: thus further reducing the already limited places for government-supported students.

In addition to the privatization move, many countries in Asia, Africa, and Latin America encourage private provision through the establishment of private higher education institutions (Varghese, 2012). The private higher education sector has expanded rapidly in many countries (Levy, 2006). Private institutions of higher education traditionally have absorbed a considerable part of the higher education sector in most Asian countries (Vossensteyn, 2004). The percentage of university students enrolling in private higher education institutions is high in the Philippines, Korea, and Japan. Cambodia is also a country with most of its students enroled in private higher education institutions (more than 80%).

In transferring a share of the financial costs of higher education from governments towards students and their families, many governments have focused heavily on student loans (ADB, 2009; Johnstone & Shroff-Mehta, 2000; Vossensteyn, 2001; Ziderman, 2013). “Loans enable student borrowers to avoid upfront payments for higher education (whether for tuition fees or
living expenses) by delaying payment, which will be rendered in managed installment out of enhanced earnings after graduation” (Ziderman, 2013, p. 82). Some student loan schemes aim at cost recovery (Australia and England) while others target greater access (Thailand), particularly by the poor (ADB, 2009; Ziderman, 2013). Student loan schemes can facilitate expansion, ease the financial burden of both the country and the students, improve the equality of access to higher education, and increase human capital (Canton & Blom, 2004; Shen & Ziderman, 2007). A study in Australia also suggested, “the simultaneous introduction of tuition fees and the development of a comprehensive student support system does not negatively affect rates of participation in tertiary education, including those of disadvantaged students” (OECD, 2008b, p. 183).

The 1990s, according to Vossensteyn (2004), have witnessed a trend towards the introduction of student loans in many countries where they did not exist before: France (1991), Hong Kong (1998), India (2001), Hungary (2001), Poland (1998), Slovenia (1999), Egypt (2002), Kenya (1991), South Africa (1994), and the United Kingdom (1991). Shen and Ziderman (2007) reported that more than 70 separate governmentally sponsored student loans schemes have been in operation in the early 21st century. In many countries, governments usually support interest subsidies for student loans programs. The two most popular types of student loan models are mortgage-type loans and income-contingent loans (ADB, 2009; Bray, 2000).

Mortgage-type loans are the common standard for loan schemes in most countries (Ziderman, 2013). With mortgage-type loans, the borrower pays off the sums owed (principal and interest) over a specified loan period, usually in fixed periodic repayments. Students can repay the loan by
monthly, quarterly, or annual installments. However, the most common repayment is by fixed monthly commitment and the loan repayment starts shortly after graduation.

Mortgage-type loans provide a few advantages. One is the ease in knowing the borrowers’ monthly repayment commitment, which is “time-invariant”: the borrowers clearly know their debt burden and can determine their own amount of loans (Ziderman, 2013). Another benefit is that the lenders can calculate and know in advance how much they collect. This provides a good projection for the lenders to determine investment in the following year. The costs to manage the loan programs are also reduced since there is no need to track and calculate the borrowers’ income.

The main disadvantage of mortgage-type loans is the heavy burden that new graduates have to face following graduation (borrowers are required to start repayment shortly after completing their studies). During this time, graduates’ incomes are usually low. The burden is even heavier for borrowers in developing countries due to unstable and high graduate unemployment. Such a burden encourages repayment default (Ziderman, 2013). Another difficulty is that, to determine loan eligibility, a record of incomes must be available. This is often not the case in many countries including Cambodia. Prospective borrowers, especially those from lower socio-economic backgrounds, may abandon the loan application for university studies fearing heavy loans debt and loan default. This can ultimately impact accessibility to higher education.
Income-contingent loan is the collection of the debt based on the borrowers’ future levels of income (Chapman, 2005). This loan removes the up-front financial barriers that prevent the participation of students from financially disadvantaged backgrounds (OECD, 2007). The loan provides faster avenues for repayment by high-income graduates and safety nets for low-income graduates by linking the size of repayment to graduates’ incomes. Students do not begin repaying their loan until after graduating and securing a job (ADB, 2009). Those who fail to secure a job, or those whose income does not exceed the threshold, are not liable for loan repayments: they may be forgiven after a specified period. In addition, there is no interest levied on the loan, but the owed amount is adjusted each year according to the inflation rates (Ziderman, 2013). “A much touted benefit of income-contingent repayment is that the repayment obligation is lower in the earlier repayment years” (Ziderman, 2013, p. 100). The repayment amount is the proportion of the graduate’s future expected income. Thus, repayment delinquencies and default rarely take place.

Australia’s Higher Education Contribution Scheme (HECS) is an expansion of an income-contingent loan system. According to Ziderman (2013), it is an option worthy of consideration for other countries to enhance access to higher education for individuals who might otherwise not have the opportunity to participate. The Australian government instituted these subsidized loans in 1989 in response to a shortage of government funding for public higher education institutions. The HECS is available to all students, regardless of their personal resources (Ziderman, 2013).
To ensure income-contingent repayment, an effective mechanism for income reporting and tax conditions is required. Unfortunately, tax authorities in many developing countries do not have the capacity to perform the task effectively (ADB, 2009). The repayment amount calculation is complex. Because the repayment amount is fixed, it is difficult to accurately calculate and estimate the amount if the source of income is diversified and fluctuates (ADB, 2009; Ziderman, 2013). Recovery loss is difficult to detect by financial institutions due to the relative long repayment periods. Students can avoid repayment by not earning enough income despite living in high-income households, or in some cases, leaving the country (Armstrong & Batten, 2011). Also in developing countries, postgraduate incomes are often too low to provide sufficient rates of repayment over the life of the scheme (Armstrong & Batten, 2011).

A few loan programs (relatively small in scope) function reasonably well in developing countries, such as CONAPE in Costa Rica and FUNDAPEC in the Dominican Republic (Kapur & Crowly, 2008). However, in Asia, the implementation of student loans does not show a high degree of success (Ziderman, 2013). The lack of planning and weak control from the centre, together with overgenerous loan eligibility and repayment conditions, leads to a substantial and unplanned growth in loan recipient numbers and unexpected (and unsustainable) funding obligations by the state (Ziderman, 2003). For example, in Thailand, the size of individual loans offered to students has decreased due to insufficient funding and higher interest rates than expected (ADB, 2012a). Limitations also apply in Indonesia and India (ADB, 2012a). However, disappointing results in these countries, according to ADB (2012a), also involve a weak tax system, increasing fee levels, corruption, and low public-sector salaries. Loan schemes in China are also problematic in that the maximum amount of loan is generally sufficient for tuition and
fees, but not enough for living costs (ADB, 2012a). This is also the case in Russia and India (Kapur & Crowley, 2008). Some evidence shows that more non-needy applicants than poor applicants qualified for the scheme and some of these had lower college entrance scores than needy students (Shen, 2010).

Experience from developing countries indicates a lack of essential conditions for success. Some of these conditions include a sufficiently high level of individual support to cover necessary expenses and a broad coverage of poor students to achieve national impact (Ziderman, 2013). The experience also underlines the difficulty in accurately determining individual income over the long term in the absence of effective mechanisms for income reporting and tax conditions (Shen, 2010).

*The adoption of performance-based funding.* To achieve the higher education expansion strategy under conditions of national resource constraints, some governments in developing countries (e.g., Thailand and Malaysia) encourage higher education institutions to become more efficient and productive by adopting performance funding into the basis for allocating public funds to higher education institutions (Frolich, 2008; Taylor & Taylor, 2003; Vossensteyn, 2004). Performance-based funding is a system based on allocating a portion of funds from the government budget according to specific performance measures such as course completion, credit attainment, quality of teaching and research, number of research publications or the patents and licenses issued, and degree completion (Jongbloed & Vossensteyn, 2001; Miao, 2012).
Among other things, performance indicators can serve to heighten pressure on higher education institutions to invest greater effort in the activities measured and rewarded by the indicators (Taylor & Taylor, 2003). Indicators provide the most efficient path for the allocation and distribution of scarce resources to achieve optimal outcomes in academia. They also provide a rational method of moving resources from less well-performing areas to areas where they can be used to greater effect (Geuna & Martin, 2003). Furthermore, this funding structure, according to Jones (2012), can help the higher education sector improve accountability and internal efficiency and advance the cause of institutional autonomy, because higher education institutions must operate under full management control to be eligible for the allocation of funds (Jones, 2012).

Success with performance-based funding, however, requires careful design and thoughtful implementation procedures (Jones, 2012; Estermann, Pruvot, & Claeys-Kulik, 2013). The design principles should address four aspects. First, it needs a clear statement that expresses a reasonable set of goals tailored to the need of the country. This statement must also have broad acceptance/support among those involved. Simply put, this funding scheme needs to be driven by a public agenda. Second, the allocation of resources should promote mission differentiation by using different metrics and setting different pools of funding allocation for different kinds of institutions. These institutions can then compete for resources in only one pool. Third, a performance funding policy design should include provisions that reward the success of students from disadvantaged groups (e.g., low-income families, rural populations, women, ethnic groups). This criterion would help to prevent higher education institutions from seeking to enrol only those who are most likely to succeed, because their funding will be tied to the accomplishment of certain desired outcomes. Fourth, another key design principle is to limit the categories of
outcomes to be rewarded. The NCHEM (2011) suggested that policymakers keep the variables attached to each type of institution to no more than four or five national goals. In addition, the government should reward continuous improvements, not only if institutions reach a predetermined level of performance (Jones, 2012).

In designing a performance-funding scheme, it is essential to have higher education institution representatives at the table at every step (Jones, 2012; Estermann et al., 2013). Their knowledge and experience would help improve the final policy. To ensure success with a well-designed performance funding policy, some implementation principles are important. Institutions should be able to adjust to the changes, so it is wise and practical to consider phasing it. Institutions should not be exempted from cuts to their allocations if they are not contributing to national goals. Nevertheless, cuts should not be so large as to jeopardize the stability of the institution (Jones, 2012). There are, however, some uncertainties about this funding system (Burke & Modarresi, 1999). Burke and Modarresi found that performance funding was a difficult funding system to implement in the complex and varying structures of different higher education institutions.

*The effective use of existing resources.* In the background of resource scarcity, many countries have also tried to explore ways for higher education institutions to use resources more efficiently. Specifically, they have reviewed such factors as completion rates, extensive time for study completion, student-staff ratios, program duplication and under-enrolment, cross-institution collaboration, and student mobility (OECD, 2008b). These factors are believed to have impacted institutional efficiency. Non-completion rates and late completion, for example,
can raise the cost of a degree. Student-staff ratios also raise concerns about efficiency as low student-teacher ratios (such as in Japan, Iceland, the Slovak Republic, Spain, and Sweden, where the ratio is below 12) mean that unit costs are excessively high due to relatively low levels of utilization (OECD, 2008b).

In trying to reduce inefficiencies within higher education, many countries have converted a fraction of loans into grants in relation to students’ success in completing their studies (OECD, 2008b). Other approaches are to include tax benefits: making payments of a loan deductible from taxes if the student’s studies are completed within a given time period and instituting a private contribution (i.e., tuition fees) if a prescribed time limit is exceeded (OECD, 2008b).

Recognising the need for more collaboration among universities and other education providers, industry, business, regions, and communities, Australia introduced a funding mechanism to foster such collaboration (OECD, 2008b). Across Asia, many governments are now involved in re-evaluating and revising their university admissions procedures (ADB, 2011). They want admission to higher education to rely less on the test-based tradition (typically some combination of secondary leaving exams, matriculation exams, and other entrance exams). For example, in Thailand, university admission has been modified to rely on secondary school performance, and in Vietnam, universities no longer use their own entrance examinations as the basis of university admission (ADB, 2011).
In addition to what has been adopted, there are also suggestions that countries consider the steps below to ensure that the resources provided to higher education institutions are used effectively. The OECD (2008b) suggested that governments:

- create incentives to reduce non-completion rates and the length of study time,
- eliminate duplicated programs,
- rationalise low-enrolment programs with possible redeployment of academics across programs,
- downsize faculty to respond to falling student enrolments,
- increase the use of shared facilities, and
- expand student mobility between institutions.

As inefficiencies in higher education also result from the weak preparation and effectiveness of incoming university students, instructional staff, and administrators, and a lack of information about the labour market, it is important, according to ADB (2011), that governments give the highest priority to improving instructional quality to raise quality, improve career information available to students, and encourage higher education institutions to conduct tracer studies as a basis for revising curricula and instructional methods.

Higher education institutions can contribute to achieving efficiencies in higher education by being proactive and embedding those aspects in their institutional strategies (Estermann et al., 2013). Estermann et al. (2013) pointed out, for example, that cooperation among universities may help to drive costs down, and thus could lead to a more efficient use of resources (OECD,
However, Estermann, et al. (2013) warned that implementing efficiency measures may be more difficult in systems where universities do not benefit from significant autonomy. According to et al. (2013), higher education institutions need to have autonomy in different areas to be effective. They said that organizational autonomy is needed to create legal entities as appropriate or adapt academic structures in ways to foster synergies and lead to efficiencies. Financial autonomy is a prerequisite for efficient estate management (e.g., enabling the university to own its buildings). Academic autonomy makes it possible to combine or create new programs in sustainable ways. Finally, autonomy in staffing matters allows the university to decide on positions and salaries.

The push for alternative funding. Apart from the move to reduce dependency on government funds through cost sharing and the introduction of performance-based funding, some countries encourage higher education institutions to search for funding alternatives from productive activities including research and consultancy, entrepreneurship, patenting, commissioned training for enterprises, educational services, logistics services, and university enterprises (World Bank, 2012; ADB, 2011, 2012d; TFHES, 2000; OECD, 2008b; Tilak, 2003). China began these activities in the late 1990s (Mok, 1999). A number of Chinese institutions have started to adopt innovative methods to generate their own funds by running businesses, commercialising their research for the industry, using contracts for training and development, and providing consultancy and IT services to the public (Tilak, 2003). In 1992, the amount of self-generated funds amounted to 18.2% of universities’ total revenue (World Bank, 1997). This policy provided valuable income for higher education institutions to improve educational quality in China (OECD, 2009b).
Funding incentives such as matched funding schemes can play a key role in increasing private investment in higher education. In matched funding schemes, public money is used to match money raised from the private sector by the university. These schemes are being used (or have been used) in many countries such as Canada, the USA, and New Zealand (Estermann & Pruvot, 2011).

Philanthropy is also a main non-state or nongovernmental funding source for higher education. Philanthropy involves seeking funding for the construction of new facilities; the endowment of professorial chairs; donations of scientific equipment, books, and art; or the provision of scholarships for needy students (World Bank, 1994c). Although it is a new thing in many developing countries, higher education philanthropy has a long tradition in many developed countries around the world. Europe and North America has a very strong culture of generous giving to universities. In the U.S., for example, the participation rate from alumni of public universities is about 10%. Such generous donations have facilitated the development of academic institutions in those countries and have enabled them to enjoy economic, social, and cultural success (Higher Education Funding Council for England [HEFCE], 2012).

To mobilize private donations to higher education, governments and higher education institutions use a range of mixed methods. One method is through effective government matching-fund programs and favourable tax incentives. For example, in Hong Kong SAR, China, and Singapore, governments have raised the ceiling for tax-exempt donations from 10% of income or profits to 25% (World Bank, 2012). Starting in 1991, Singapore began encouraging philanthropic support to research universities with a matching ratio of 3 to 1. Private donations were also
eligible for double tax deductions (World Bank, 2012). Beside tax concessions and matched funding, some countries have endorsed the role of philanthropists through various policy initiatives. For example, the UK has done this to ensure recognition for exceptional and sustained philanthropy. The success of these schemes, however, requires strong institutional capabilities, conducive legislative climates, and applicable tax laws (World Bank, 2012).

4.2 Higher education quality

Higher education quality, in terms of providing students with the skills needed for the workforce, producing research that has an impact on society, and developing an educated citizenry (Daugherty et al., 2013), remains a key challenge in many higher education systems due to increasing demand, decreased public funding, the effects of the brain drain, and other things. Quality improvement has thus become a central objective of the political agendas of higher education policies worldwide (Van Damme, 2002; Westerheijden, Hulpiau, & Waeytens, 2006). Countries have adopted different mechanisms to deal with quality issues according to their socio-political contexts. The most widely adopted mechanisms include accreditation and linking quality to funding.

Accreditation, a process-oriented measure of quality, has been used in both developed and developing countries. Some countries evaluate quality in relation to the institution’s mission, which may include different standards for different institutions or programs, as established by the institution (American Council on Education, 2012; Eaton, 2012). Other countries evaluate institutions along a relatively standardized set of measures, with some small potential variation
by institution type (Martin & Stella, 2007). The process involves a self-evaluation by the institution, a study visit by a team of evaluators, and an examination by an accreditation committee (Vlasceanu, Grünberg, & Pârlea, 2004).

In Southeast Asia, governments have adopted two models of quality assurance agencies for quality improvement. Brunei, Lao PDR, and Vietnam set up an organization as a government agency within the ministry responsible for higher education (Southeast Asian Ministers of Education Organization - Regional Centre for Higher Education and Development [SEAMEO RIHED], 2012). Cambodia, Indonesia, Malaysia, and Thailand created an independent entity (a unit in the ministry responsible for higher education), but these agencies run independently (SEAMEO RIHED, 2012). Singapore and the Philippines have created mixed systems. Singapore has a government accreditation agency to oversee public higher education institutions and another statutory body to regulate private education institutions (SEAMEO RIHED, 2012). In the Philippines, all higher education institutions apply to a government organization for the right to operate. Underneath that organization, however, there are two umbrella organizations of certifying bodies (SEAMEO RIHED, 2012).

In most African countries, structured quality assurance processes in higher education at the national level are a very recent phenomenon, but the situation is changing rapidly. Many of those countries now have functioning national quality assurance agencies (Materu, 2007). The move has been triggered particularly by the emergence of private tertiary institutions and the need to regulate their activities to enhance accountability and quality improvement.
Based on the experience of many countries, quality assurance systems are highly essential for continuous control and improvement in higher education. These countries have pushed higher education institutions to pay more attention to the issues of effective teaching and learning and have ensured that the programs offered are related to the socioeconomic demands of the society they serve. They have also proved to be a mechanism to promote and monitor the accountability of higher education institutions to their stakeholders and to improve institutional management.

However, quality assurance systems in many developing countries such as Cambodia still face many problems. Some common issues across countries include:

- insufficient and weak human capacity,
- limited funding at agency and institutional levels,
- lack of a national QA policy,
- lack of QA standards for distance learning programs,
- insufficient communication within institutions about external QA processes,
- lack of incentives and sanctions to enforce compliance,
- accreditation standards not linked to outcomes and skills needed by labour market, and
- lack of standards and mechanism to regulate quality of education from cross-border providers (Materu, 2007; ADB, 2011; TFHES, 2000).

Furthermore, there is a lack of leadership for respective countries to strengthen their national quality systems (SEAMEO RIHED, 2012).
Also, since accreditation measures are typically one-level measures— institutions either pass or fail (Martin & Stella, 2007) — the measure provides no information about the range of qualities across institutions that meet accreditation standards (Daugherty et al., 2013). In addition, there are substantial concerns about the fairness and transparency of the accreditation process (Hernes & Martin, 2008). Even in some countries where QA systems have better financial and human resources, many criticisms remain involving the QA system (OECD, 2009d). The Koreans, for example, are not happy that their QA agencies are involved in accreditation without a coherent framework and sufficient legal status. Quality agencies are often seen as compliance exercises rather than a crucial method of improving quality, and the results are not particularly transparent (OECD, 2009d).

In an attempt to reverse the decline in quality and to improve it, many countries have also created policies that link quality to funding (Strehl, Reisinger, & Kalatschan, 2007; World Bank, 2012; ADB, 2011). Policy requires the government to provide funding support to higher education institutions so they can enhance their performance and quality. At the same time, higher education institutions need to take a more active role in quality improvement, and they need to meet quality standards in order to receive funding. Stated another way, higher education institutions can obtain funding based on their efficiency and performance that includes, for example, the quality of teaching and learning, student satisfaction, research and development, and graduate employability.
Some of the most important methods for linking quality with funding include government-based mechanisms, such as performance-based budgeting, performance contracts, and competitive grants (Daugherty et al., 2013). In performance-based budgeting, institutions receive information on performance and they are asked to develop budgets with an eye toward improving performance (Daugherty et al., 2013). Performance-based budgeting can be a tool to help higher education institutions recognize their areas of weakness and understand how budgeting can be used to make improvements (Daugherty et al., 2013). Nevertheless, one problem, according to Daugherty et al. (2013), is that performance-based budgeting might not directly indicate to institutions what issues are leading to suboptimal performance and what is needed to improve quality.

France, Austria, Spain, and Chile use performance contracts to ensure a commitment from institutions to fulfill intended national objectives in exchange for access to additional funding (Salmi, 2009; Strehl et al., 2007). East Asia governments (e.g., Japan, Korea, and Singapore) also use performance contracts with institutions to set mutual performance-based objectives (World Bank, 2012).

This method allows institutions to differentiate themselves and target various areas for improvement. However, it can be administratively burdensome, and it is typically used in small countries with a centralized higher education governance of a few public institutions (Strehl, et al., 2007). Competitive grants are set amounts of money for which institutions, programs, and individuals compete (Daugherty et al., 2013). Indonesia, Chile, Vietnam, and a number of African governments have used competitive grants to encourage innovation (Saint, 2006;
Aldeman & Carey, 2009; World Bank, 2012). The Chilean government has invested over U.S. $200 million from 1997-2005 in the promotion of quality and relevance in Chile’s higher education system through a competitive fund allocation process (OECD, 2009a). In Mexico, compensation packages for academic staff involve a component related to performance and the promotion of academic careers is associated with the accomplishments of staff, particularly in research (OECD, 2008a). Nevertheless, Fielden (2008) pointed out that the ability of grants to incentivize quality could be dampened if institutions were made to compete excessively for a limited number of small grants, as was the case in England.

Apart from using accreditation and funding restrictions to raise quality, a number of other mechanisms are used around the world. These include the introduction of new reporting requirements or other mechanisms of management control, the establishment of evaluation committees or centres that carry out cycles of external review, and the creation of national independent bodies to oversee quality-oriented policy implementation and development (TFHES, 2000; OECD, 2007; ADB, 2011; Maassen & Cloete, 2006).

Some countries also encourage higher education institutions to pursue innovative approaches to quality improvement by improving the recruitment of instructional staff; improving the capacity, motivation, and performance of instructional staff; improving faculty incentive and evaluation systems; and promoting academic freedom (ADB, 2011; TFHES, 2000; World Bank, 2012). European governments have also responded to concerns about quality in higher education by revising degree structures, encouraging the mobility of students and teachers, and promoting the transparency and comparability of qualifications (Loukkola & Zhang, 2010).
Some African countries (Cameroon and Ghana) have developed a mentoring system for higher education institutions to improve higher education quality. Governments there have a mandatory system of mentoring in which private higher education institutions choose a mentor from among the public institutions and sign a mentorship agreement with the state and/or the accredited university as part of the conditions for accreditation (Materu, 2007). This is an interesting option worth considering for developing countries such as Cambodia, since many of its private higher education institutions are young and seriously need means and mechanisms to improve education quality.

4.3 Higher education relevance to the labour market

Two views regarding the relevance of higher education oppose each other sharply (Simpson, 2013). The first view holds as its standard the formation of a human being possessing intellectual and moral virtue: higher education is not to produce “useful workers, but excellent human beings” (Simpson, 2013, p. ix). The second view holds as its standard the preparation of students for the tasks of work life and the introduction of students to the responsibilities of civic life: it focuses on practicality in the sense of responding to the immediate needs of the economic environment and solving social problems (Simpson, 2013).

Based on the second view, it has been argued that higher education today does not provide its graduates with the skills and research needed to spur and/or increase productivity and innovation to help many countries realize their economic and social objectives (World Bank, 2012). The gap between higher education institutions and the skill needs of employers remains wide. This gap is
often affected by ineffective curricular and pedagogical approaches that do not meet the needs of services and manufacturing, an imbalanced distribution of students across disciplines, and a misaligned institutional combination. According to the World Bank (2012), three reasons contribute to this disconnect: (a) a lack of information on graduate employment, labour markets, and skills; (b) pervasive low human resources; and (c) weak incentives from the government. To make higher education systems more responsive to labour market demands, governments and higher education institutions have adopted a range of measures. The following section discusses six different approaches that have been implemented worldwide:

1. Tracer studies
2. The community college model
3. The professionalism of bachelor degrees
4. Career services
5. Employment engagement
6. Public-private partnership

*Tracer studies.* One approach the higher education sector has done to enhance relevance is to conduct tracer studies of recent graduates to assess the relevance of their training (World Bank, 2012; De Weert, 2011). Many higher education institutions in the Asia Pacific region have undertaken graduate tracer studies (ADB, 2011). In the UK, Germany, Sweden, and France, higher education institutions have conducted surveys of both graduates and employers (De Weert, 2011). These tracer studies allow higher education institutions to have a strong basis for developing programs tailored to specific job opportunities/requirements as well as for revising
curricula and instructional methods to bridge the gap between higher education and the labour market and to enhance graduate employment (ADB, 2011).

*The community college model.* Some countries (e.g., Hong Kong, China, Thailand, and Vietnam) have adopted a non-university model to address the needs of a dynamic labour market (Elsner, 2009; Raby & Valeau, 2009, 2011). According to Raby and Valeau (2009), non-university institutions promote access, inclusion, community and labour market responsiveness, and innovation. They shape the skill sets of workers, provide midlevel expertise across a range of technical fields, and provide the specific abilities and talents required to build local communities. They also provide students with alternatives to enter the workforce quickly after graduating from secondary school. In short, non-university institutions respond more quickly to labour market needs and help reduce poverty (ADB, 2011; Lam & Vi, 2009).

*The professionalism of bachelor degrees.* To tackle the problem of skill mismatch, many higher education institutions in the European Union have adopted a “professionalization” approach to the bachelor degree to help higher education become more relevant to the labour market needs (De Weert, 2011). This approach has been implemented by including work-relevant components such as internships or other practical elements in the curriculum (De Weert, 2011). Those elements include key competences and skills that are deemed useful in the workforce (e.g., personal skills, the capability to analyse practical problems, computer and language skills, and disciplinary and employment-related knowledge).
Career services. Across the world, higher education institutions have set up career services to advise students. University career services are seen as a contributing factor to the improvement of higher education relevance (De Weert, 2011; ADB, 2011). They help students make informed choices about which institutions to choose and which programs to enter. They provide career information about the availability of employment in different sectors of the economy, the requirements of different jobs, and career ladders that characterize the careers they wish to pursue (De Weert, 2011). Meanwhile, they also initiate activities or policies to enhance graduate employment, such as course development and revisions in bilateral agreements with employers or respective professional bodies.

Employment engagement. Employer engagement, according to De Weert (2011), is increasingly seen as an effective way to improve the relationship between higher education and the labour market. Employer engagement encompasses collaboration regarding research, knowledge transfer, placements and internship, workplace learning, and involving employers in the design and delivery of programs (ADB, 2011). Two essential reasons have been cited for the increasing engagement of employers in higher education (Sastry & Bekhradnia, 2007):

1. Better skills planning: if the courses offered by the higher education institutions can be better aligned with the needs of employers, it might be thought that productivity will improve.

2. Cheap growth: if employers can be persuaded to contribute financially, there is the prospect of increasing the pool of highly qualified people at reduced cost to the state budget.
Despite the benefits, Daniel and Uvalic-Trumbic (2008) suggest that attention should be given to balancing the traditional academic autonomy and the higher education institutions’ impartiality as a close higher education-employer engagement could erode them in some way. They said that higher education institutions might lose sight of their larger role of creating global citizens who could contribute to the development of their own countries and the larger regional economy. In addition, they could find themselves moving from being the principal providers of higher education to assuming a quality assurance, coordination, and accreditation role (Daniel & Uvalic-Trumbic, 2008). Also, as the pressures on universities to excel in different aspects of teaching, learning, and research expand, further strategic differentiation between institutions is likely and could lead to fragmentation of the sector (Sastry & Bekhradnia, 2007).

Public-private partnership. To increase the employability of their graduates, many governments have also pushed higher education institutions to enter into public/private partnerships (De Weert, 2011). De Weert argues that the interface between public and private higher education is complex but provides opportunities for significant synergies. Private institutions have an incentive to respond to competitive labour markets, since their survival often depends upon it (ADB, 2012c). According to De Weert (2011), many governments have pursued this by removing regulatory barriers that were preventing a level playing field for higher education providers of all types and preventing them from engaging in private/public partnerships.
4.4 Access to higher education

Access has come to be understood in academic and policy arenas as enrolling larger percentages of the population who desire higher education, while equity requires that these opportunities are equally available to all citizens (Reisberg & Watson, 2011). There are strong economic and societal reasons for increasing and widening access to higher education (Veugelers, 2011). According to the International Association of Universities (IAU), access contributes to the development of human resources, promotes social justice and cohesion, enhances personal development and employability, and facilitates sustainable development (IAU, 2008). Around the world, countries have realised the benefits of people having access to higher education. Nevertheless, many young people still face barriers to accessing and finishing postsecondary education. Concerns for access and equity in and through higher education have been at the forefront of the design of an array of key policies, approaches, and arrangements in many countries. In this section, I describe some approaches different countries have adopted to increase participation and success in higher education: (a) the use of government funding tools, (b) the differentiation of higher education institutions, (c) the improvement of early schooling, (d) public-private partnerships, (e) the participation of private higher education institutions, and (g) the use of affirmative action for particular groups.

The use of government funding tools. Need-based scholarships, grants, tuition waivers, and student loan programs are key government funding tools that have been used as a strategy to expand access in many countries. These tools aim to provide incentives and resources to students and/or families to pursue higher education while alleviating financial barriers. China, Korea, and
Japan have extensive systems employing these tools, especially student loan programs (OECD, 2009b, 2009c, 2009d). Korea has eight major loan programs aimed at different groups of students with different interest rates and repayment schedules (OECD, 2009d). Japan’s unique equity success with respect to higher education has been strongly rooted in these funding mechanisms (OECD, 2009c). Similarly, the success stories of Finland and the Netherlands in terms of affordability and accessibility have been partly a contribution from their extensive grant programs (Veugelers, 2011).

However, such tools are not free from problems. Student loan programs have, as discussed earlier in this chapter, some challenges in the implementation process due to student default, high administrative costs, and difficulties in assessing student needs (Johnston & Marcucci, 2010). Scholarships and grants have also been blamed for having worked against equity efforts. This has been a problem, for example, in Korea where some universities and colleges have used grants in the form of fee waivers to attract the “best” (or highest-scoring) students (OECD, 2009d). Cambodia also has had a similar experience when the government largely selected the top students to receive financial support.

In addition to these tools, governments provide higher education institutions with financial incentives to develop special initiatives for increasing the mobility of students (especially those from disadvantaged backgrounds), developing bridging and remedial programs, and tailoring higher education courses to suit the needs, age, experience, and qualifications of entrants (ADB, 2011, 2012a; Watt & Paterson, 2000). This has been a policy action in Europe (e.g., Ireland and Finland) where core funding from the government has been linked, for example, to achieving
targets of students (of particular groups) to improve and widen access (Veugelers, 2011). Australia also provides government rewards to institutions for meeting equity and access targets (see Watt & Paterson, 2000).

*The differentiation of higher education institutions.* Another approach that many countries adopt to increase participation is through the creation of new forms of higher education structures. This involves a departure from a uniform rigid system to one that is flexible and able to accommodate the varied demands of different groups (ADB, 2012b; Veugelers, 2011; Varghese, 2014). Such creation of new types of institutions can both parallel and complement existing universities (Osborne, 2003; ADB, 2012b; Neubauer & Tanaka, 2011). Different institutional models, flexible programs of study, as well as a variety of delivery modes are made available to allow individuals move through higher education in a manner that suits their needs (Veugelers, 2011; IAU, 2008).

The introduction of new institutes for higher education such as polytechnics, open universities, distant learning, and e-learning has substantially expanded access (Clifford, Miller, Stasz, Sam, & Kumar, 2013; OECD, 2008b; Osborne, 2003; ADB, 2012b). Distance education and open distance education are especially attractive because of costs relative to campus-based education (ADB, 2012a; Clifford et al., 2012). They are able to offer services to many more students without the high overhead costs of campus-based education. This kind of education provides more flexibility to accessing educational resources and learning opportunities. Distance learning also becomes a viable option for increasing female access to higher education, especially in countries such as Cambodia where the absence of secure accommodation is often the primary
factor deterring young women from pursuing higher education (King & Hill, 1998). The impressive access/equity in Japan’s higher education, for example, has been partly due to a highly diverse system of higher education (OECD, 2009c).

However, the creation of open universities, the use of distance education, and the application of ICT to deliver learning have not been without problems or critics (ADB, 2012b). These problems involve ineffective policies, limited outreach, limited access to and the unreliability of ICT, the inefficiencies and ineffectiveness of administrative arrangements, and the actual or real cost of producing a graduate given the high rates of attrition and non-completion and the quality of those graduating (ADB, 2012b). Many critics have also questioned the quality of learners, the “dumbing down” of curricula, the “commodification” of education, the validity of assessment systems, and the lack of a comprehensive support system that a campus education provides (ADB, 2012b).

Establishing distance/virtual education programs is a difficult task for many developing countries because of their weak higher education system, poor technological infrastructure, low ICT literacy, and insufficient ICT workforce. For example, in Cambodia, ICT is a recent phenomenon and is available only on a very limited scale. Access to the internet and library facilities is extremely poor. The internet, in particular, remains a mystery to a majority of the Cambodian population. Even if internet access improved, the lack of content available on the internet in the Cambodian language is a serious impediment.
The improvement of early schooling. In many developing countries (see ADB, 2011, 2012b; World Bank, 2012), limited access to higher education is caused by a low quality of education offered at primary and secondary schools. In an effort to address this issue, some countries have taken steps to improve education quality at these levels. They believe that improving access to quality primary and secondary education would help stimulate demand over time. The ADB (2012b) pointed out that, in Asia, the success of expanding access to primary schooling has started to have an impact on enrolment in secondary schooling and higher education. Japan provides a particularly good example: its extraordinarily strong emphasis on elementary and secondary education has improved higher education access and equity dramatically (OECD, 2009c).

Awareness campaigns and experiments among parents are among the essential activities many European countries use to improve the early years of schooling (Obsorne, 2003). Integration of planning between secondary and higher education has also been found to be helpful in attracting young people to further study (ADB, 2012b). Institutions of higher education play an important role. They work closely with educational authorities to ensure that prior learning is fully taken into account and to ensure a seamless transition from secondary school to university (Watt & Paterson, 2000). Local communities participate in this process by motivating and supporting students to attend school, assisting students in preparing for higher education, and supporting student success.
Public-private partnerships. Partnerships between public and private higher education institutions (both voluntary and legally mandated) have been adopted to improve higher education access in many countries (Clifford et al., 2012; Levy, 2008). Each type of institution has its strengths and weaknesses. For example, the public sector expertise tends to focus more on higher education at the national level while the private sector expertise focuses on the institutional level (Musaazi, 2005). By combining the best aspects of both sectors, partnerships can help combat public problems that are “too great to be solved by one sector acting alone” (Stadtler, 2012, p. 78). Effective public-private partnerships have led to a greater quantity of improved services than would have been the case when private and public sectors were working independently of each other (Cheung, Chan, & Kajewski, 2009). Public-private partnerships also help to improve higher education relevance, as discussed in Section 3.3.6 above.

Through partnerships, public and private higher education institutions have the potential to collaborate in a wide range of key aspects including program/curriculum design and improvement, resources sharing and staff exchange, policy making and improvement, and joint quality assurance undertakings (Yimam & Nega, 2012). In several South Asian countries, partnerships among private and public higher education institutions are done through public universities supervising and granting degrees for “affiliated” private colleges, which provide the actual instruction (Clifford et al., 2012).

The participation of private higher education institutions. Private higher education institutions have been encouraged to enter the higher education marketplace to increase access (ADB, 2012b). Within the last three decades, the private higher education sector has grown substantially
East Asia, in particular, has dramatically increased its provision of private education: as much as 80% of students have turned to the private sector for their higher education (Goel, 2013). In South Korea, private higher education has constituted 85% of the total number of higher education institutions and enrolled approximately 80% of university students (Kim, 2010). Enrollments in private higher education institutions are also higher than public higher education institutions in other places around the world, such as India (64%), Malaysia (52%), Brazil (70%), and Chile (also 70%; Ernst & Young, 2011; Tham, 2011; Goel, 2013). This global expansion of private higher education institutions has improved access. Their presence has also provided competition for public sector institutions and has prompted these institutions to improve their quality.

However, private institutions, especially in developing countries, continue to face great challenges including governance, faculty development and recruitment, equity, and relevance. A particular question remains to be answered about the quality of education delivered by private institutions (Goel, 2013). Some of them, according to Goel (2013), have been described as little more than diploma mills. In recent years, allegations have also been made that some private universities in Asia have been selling certificates, providing easy-to-get degrees, providing very low standards of teaching and poor infrastructure, and charging high tuition fees (Naser, 2008). In Bangladesh, the quality of education in private higher education institutions remains poor compared to the country’s public universities, and in India, a large number of private higher education institutions have been forced to close (Goel, 2013).
Equality is also a huge challenge. Higher education institutions (e.g., in Cambodia) are usually set up in major cities and towns. Consequently, students from rural areas are largely excluded. Also, because private higher education institutions often charge higher fees, many students, especially those from low-income families, cannot access private education. In addition, private higher education has created further inequality by focusing too much on offering professional programs. Thereby, their target audience was very selective (Goel, 2013; ADB, 2012c; World Bank, 2012). Girls and women have been left out due to limited transport facilities, unlikely financial support from their families, and a lack of accommodation. In China, despite a better female participation rate than the situation in other East Asian societies, female students find themselves drawn into the lower echelons of the system (Hayhoe, 1996).

The use of affirmative action for particular groups. In the pursuit of an equitable access to higher education, many countries also used affirmative action in the form of quota and reservation programs to address the unequal participation of disadvantaged groups (Reisberg & Watson, 2011). However, the countries with the most aggressive programs seeking to address educational inequalities among different social groups, according to Kapur and Crowly (2008), have been Brazil, South Africa, Malaysia, and India.

Malaysia is a successful example of affirmative policies in middle-income East Asia for its Malay ethnic group (Mukherjee, 2010). When it decided to dismantle the affirmative policies in 2003, the percentage of Malay undergraduates reached more than 70% (when the affirmative action started, it was less than 10%; Cohen, 2004).
In response to its stark racial inequalities, Brazil has introduced quotas to reserve space in the public sector for more non-white students (Kapur & Crowley, 2008). Kapur and Crowly (2008) also pointed out that the Chinese government has given minority students additional points on their national entrance exams with the hope of increasing the share of minority students in national universities. Also, India has introduced this mechanism with the objective of distributing social benefits more equally to "backwards classes and scheduled tribes" (Reisberg & Watson, 2011, p. 14). In sub-Saharan African countries such as Kenya and Uganda, affirmative action has been used to increase the admission of female students, especially in the science and technology fields.

Nevertheless, quota programs, reservation programs, and affirmative action programs have also stirred considerable controversy. There have been concerns about the difficulty in clearly identifying exactly who belongs to the targeted groups. The reservation program has also provoked protests from students and professionals who warn that this strategy will only serve to replace qualified candidates with unqualified and unprepared individuals (Neelakantan, 2006).

4.5 Trends in higher education governance

Since the 1990s, higher education governance has transformed to respond to the increasing complexity of the sector due to its demands and growth. Changes have taken the form of a visible shift, for example, from a “state control model” (where the central government sought to control its higher education institutions) to a “state supervision model” (where it “monitored and regulated them”; OECD, 2003; van Vught, 1994; TFHES, 2000), a “state-steered system”
(World Bank, 2012), and “decentralization” (ADB, 2011). According to Fielden (2008), three types of changes involving this “state control” and “state supervision” have been taking place around the world.

The first type of change involves the federal government delegating power to another lower tier of government (regional, provincial, and/or state level governments). In this group, the Ministry of Education (e.g., in China and some European and developing countries) transfers the responsibilities and resources of public higher education institutions to the provincial or regional level while retaining control of coordinating policy function and retaining some strategic financial and funding powers such as strategic planning, negotiating overall funding with the Ministry of Finance, and coordinating with other ministries (Fielden, 2008; Hayhoe, Li, Lin, & Zha, 2012). This means that lower level governments have a great deal of discretion in decision-making in running higher education institutions. In the meantime, however, they are held accountable to the central government for obtaining this power delegation. For example, in China, according to Hayhoe et al. (2012), except for the Ministry of Education, central ministries are now no longer permitted to run higher education institutions. Most formerly ministry-run institutions have been transferred to provincial authorities.

The second type of reform in higher education governance in recent years shows governments giving powers to the buffer bodies (for example, Indonesia, Thailand, and Malaysia). These buffer bodies generally include representatives of the government, institutions of higher education, the private sector, and other stakeholders including student organizations. Some of the statutory bodies, according to TFHES (2000), include:
• councils of higher education that advise the government on the size, shape, and funding of higher education (often, they are also responsible for quality assurance, promotion mechanisms, and accreditation);
• research councils or agencies that fund and promote research; and
• governing councils (or boards of trustees).

In addition, buffer agencies can be in the form of professional councils that focus on specific areas of higher education. For example, Kenya has a buffer body to control and manage student loans, the level of government subsidy, and the collection of repayments. Australia has an advisory body providing support and assistance to institutions for the improvement of teaching. In addition, South Africa has a technical agency to provide and manage the national higher education computing network and to negotiate bandwidth access for the sector (Fielden, 2008).

A range of powers are delegated to these buffer bodies including strategic planning, policy analysis, problem resolution, academic program review, budget development/funding advice and allocation, program administration, quality assurance/standards review, student admission quotas, monitoring programs, and accountability (Fielden, 2008; TFHES, 2000). The most common power that buffer bodies receive from the government is related to funding and operational management (Fielden, 2008).

Many countries adopt such buffer mechanisms to achieve the aim of balancing the government’s responsibility to protect and promote the public’s interest with an individual institution’s need for academic freedom and autonomy (TFHES, 2000). A buffer body is advantageous because it
protects the state from charges of intervention in academic affairs and it helps insulate higher education institutions from excessive external interference (Fielden, 2008; TFHES, 2000; ADB, 2012d). By having buffer bodies to get involved in the detailed, operational management of institutions as primary responsibilities, Ministries of Education can then focus on strategic policy issues and planning that are critical to higher education sector improvement. Fielden (2008, pp. 15-16) points to the advantages of a buffer body by showing what a higher education institution could look like if it were managed by a division of the Ministry of Education:

- Subject to direct intervention by the education minister on detailed matters of university finance and management.
- Limited in their ability to think strategically, except within government policy guidelines.
- Liable to lose their best staff at the whim of the head of the civil service.
- Have little flexibility regarding recruiting staff or taking in secondments or part-time specialists from universities.
- Unable to operate with a board chaired by an independent chair drawn from industry or civil society.

Despite the key benefits of having a buffer body to balance institutional freedom and government control, implementation remains a challenge in many parts of the world. In Malaysia, the governing boards or boards of directors do not have the status and power to perform their duties (ADB, 2012d). In Cambodia, unlike countries like Sweden where the government appoints the
chair of the board who is not employed at the institution of higher education in question and who is “a well qualified and experienced external personality” (OECD, 2007, p. 159), the chair of the university governing board is not an independent person. Instead, she/he is often a political figure (a member of the government). The appointment of board members is also conducted in a biased and unaccountable manner. Some countries (e.g., Australia) have decided to ignore or close down some buffer bodies because their education ministers have lost confidence in them or think that they might be becoming too independent (Fielden, 2008).

The third change concerns the government transferring part of its authority and responsibility directly to institutions of higher education in the form of increased institutional autonomy in both the academic and administrative areas to enhance their self-regulating capacity (ADB, 2012d; OECD, 2007; Varghese & Martin, 2014; World Bank, 2012). According to Askling, Bauer, and Marton (1999), institutional autonomy is essentially the “degree of freedom of the university to steer itself” (p. 177). Alternatively, it is the “condition where academia determines how its work is carried out” (Neave & van Vught, 1994, p. 295).

Specifically, governments allow universities and other higher education institutions to determine their own paths and/or make their own decisions regarding academic, administrative, and financial issues without outside power. Institutions, for example, can decide on student numbers and on employment and the dismissal of academic staff, and they can set salaries and tuition fees. Moreover, higher education institutions also obtain the freedom to decide on academic aspects including curriculum, instructional material, pedagogy, and techniques of evaluation (Varghese & Martin, 2014; World Bank, 2012). Allowing for such increased higher education
institutional autonomy means that governments increasingly exit from the day-to-day management of the tertiary sector (World Bank, 2012).

The move towards greater institutional autonomy is seen even in countries such as Japan and Korea where autonomy has hitherto been relatively restricted (OECD, 2003). China, too, has adopted this strategy for its higher education development. Chinese universities have gradually gained autonomy over decisions regarding admission size, the establishment of programs, staff appointments, professional development, compensation standards, and the expenditure of funds (Hayhoe et al., 2012).

The literature shows that institutional autonomy (with accountability) can have huge benefits for skill development and innovation (World Bank, 2012). Autonomy can also provide quality improvement, the full involvement of teaching staff in the system, transparency in evaluation and teaching, increased scope for reforms, speedy implementation of programs, and innovation (ADB, 2011; TFHES, 2000; World Bank, 2012).

The move toward giving more autonomy to higher education institutions has been the most crucial current development and reform issue in higher education in Southeast Asia (ADB, 2012d). In fact, institutional autonomy has been a key area of reform in Asian countries as a whole (Raza, 2010). This reform has been approached in three different ways. First, some countries (e.g., Thailand and Indonesia) have established new types of public higher education institutions with the status of “autonomous entity.” These countries empowered higher education institutions to govern their overall administration, including personnel, financing, academics, and
other matters, under the direction of governing boards (ADB, 2012d) whose members are composed of academic staff, non-academic staff, external stakeholders (such as private sector representatives), and students (Stoessel, 2013; World Bank, 2012). A governing board acts as a buffer between a higher education institution and the external bodies to which the institution is accountable (TFHES, 2000). Cambodia has also adopted this approach by granting more authority and power to some public higher education institutions to administer themselves under the direction of governing boards rather than under the direct supervision and management of their parent ministries (ADB, 2012d; World Bank, 2012).

The second approach empowers higher education institutions through reforming the funding mechanism. The governments in Malaysia, Mongolia, and Philippines provide higher education institutions with more flexibility in terms of setting tuition fees. Higher education institutions are also encouraged to generate their own funds through income generating activities such as consultancy, applied research, and training activities.

The third approach involves the establishment of special categories of higher education institutions with a higher degree of autonomy. Malaysia and Thailand have done this by selecting research universities as top-tier higher education institutions that are given full autonomy to run their affairs (ADB, 2012d).

Human resources and institutional capacity development have been considered for the effectiveness of autonomous higher education institutions. Many countries in Southeast Asia have emphasised the enhancement of staff competency and the management capacity of
university administrators so that they can lead their institutions efficiently and effectively (ADB, 2012d). Malaysia, for example, has tried to increase the number of qualified human resources in public higher education institutions by promoting academics with PhDs and by allocating various national scholarships to academics wishing to pursue their studies at the postgraduate level. The Indonesian government’s establishment of a new mechanism for recruitment, career development, remuneration, and other engagement activities of university staff to suit the new, more competitive higher education environment is also a good example (ADB, 2012d). In Thailand and Indonesia, however, the focus is on the promotion of good governance rather than on the management of higher education institutions (ADB, 2012d). In doing so, they have transferred management control to higher education institution university councils and have placed management responsibility in the hands of university administrators (ADB, 2012d).

Nonetheless, increasing institutional autonomy has brought some problems. For example, in balancing institutional freedom and government control, Malaysia has transferred administrative powers to higher education institutions through their boards of directors (ADB, 2012d). However, the problem, as touched on previously, is that the board of directors has neither the status nor the authority to act as a true corporate board (ADB, 2012d). In addition, increased autonomy has placed pressure on academics in performing their traditional roles of teaching and research because allowing higher education institutions to generate incomes means that academics are permitted to become involved in income generation. As for the establishment of special tiers of higher education institutions, the problem is that many other higher education institutions have questioned the criteria of top university selection and believe that full autonomy
status should not be reserved for only the top research universities but should be applied to all higher education institutions (ADB, 2012d).

4.6 Research

In the global knowledge economy, research is critical since no country, even the smallest one, as Castells (2009) suggested, could benefit much without it. The creation of knowledge through research and development provides a direct economic way for achieving added value, helps to improve the competitiveness of existing industries and leads to the creation of new industries, an increase in employment rates, and an increase in gross domestic product (Castells, 2009; Lebrun & Rebelo, 2006; Proenza, 2003). A strong research system, however, depends critically on the ability of universities and university systems to adjust to the role of knowledge creators and incubators for entrepreneurial activities (Göransson & Brundenius, 2011) and research training centres (Sanyal & Varghese, 2007).

Acknowledging the importance of research in social and economic development, many countries in both the developed and developing world have taken various actions to set up some level of a national research system or improve research activities both inside and outside higher education institutions. The development of research capacity has particularly been a national policy agenda item for many developing countries. Governments in the Confucian heritage zone, for example, have invested a huge amount of their national budget in research (Marginson, 2011). In fact, public investment in research and world-class universities is among four key elements in their higher education model. These countries have invested a relatively higher share of their national
income in research and development than have other developing countries (Sanyal & Varghese, 2007). Countries such as China (with an expenditure on R&D of 1.49% of its GDP), South Korea, Taiwan (2.63%), and Singapore (2.61%) have even spent more than other OECD countries (Sanyal & Varghese, 2007). Confucian research, however, still faces some challenges. Among some things, the research is uneven by discipline. It is strong in engineering and technologies, but not as strong in medicine and life sciences (Marginson, 2011).

In many other developing countries, research activity and capacity and the contribution of higher education to R&D has been little, slow, and marginalized due to a lack of financial and human resources and the absence of a research culture and a supportive research environment. In the Philippines, only 2 out of 223 higher education institutions meet the criteria for doctoral/research university categories (Salazar-Clemeña & Almonte-Acosta, 2007). In South Asian countries, the higher education sector has the smallest role in research. The contribution of higher education to R&D activities in India, for example, is a mere 2.4% of all research (Sanyal & Varghese, 2007).

Research capacity in terms of human resources is also limited. Compared with North America and Oceania, which took the first and second spot with 4,280 and 2,397 researchers per million inhabitants, respectively, Asia has only 555 researchers per million and Africa has only 73 researchers per million inhabitants (Sanyal & Varghese, 2007).

What steps have those developing countries taken to strengthen the research capacities of universities so they can better contribute to the R&D activities? According to Sanyal and Varghese (2007), one common approach countries have undertaken is to strengthen the role of
universities by encouraging and supporting them to provide initial research training through their graduate and other advanced level programs. Thailand is a good example. It has selected nine flagship public universities to upgrade as national research universities to produce research positions in advanced fields of study that could serve the community and meet national demands (Suwanwela, 2013). To support those research universities in fulfilling their duties, the Thai government has provided them with additional funding. In the meantime, the government has also focused on research capability and performance for academic promotion, career tenure, and remuneration (Suwanwela, 2013). Individual staff members have also received a large proportion of any financial returns from the exploitation of their intellectual property and from patents. Staff members are recognized and rewarded for quality research outputs such as publications and citations (Suwanwela, 2013). Also, in the area of human resource development, Malaysia has launched programs to expand its pool of scientists and researchers through postgraduate awards and scholarships. It also enhanced its institutions, mechanisms, and programs to ensure the continual development of a talent pool engaged in R&D and innovation activities (Ministry of Science, Technology, and Innovation, 2012).

Another trend is the establishment of centres of excellence within universities to focus attention on specific critical areas where research is needed for the country (OECD, 1999). The Philippines has established 12 such centres across the country (Salazar-Clemeña & Almonte-Acosta, 2007). Thailand has also established Centres of Excellence as a means to build a strong foundation for research and development in nine priority science and technology areas. The Malaysian government, too, has designated the National Science and Research Council to co-
ordinate publicly funded research schemes so that research efforts are aligned with national priorities (Lee, Sirat, Chang Da, & Karpudewan, 2013).

Ireland and India’s reliance on their diaspora is also considered a reliable strategy to create research facilities, establish academic links, and mobilize funds to strengthen institutional research capacities in developing countries (Sanyal & Varghese, 2007). Some countries in the East Asian region (China, Taiwan, and Hong Kong) have also had some success. For example, the Chinese government has set up a program to encourage Chinese migrants and students settled abroad to return for short visits and to involve them in their country’s development through ongoing teaching or research activities even while they are abroad (Zweig, Fung, & Han, 2008). To enable universities to play an active role in knowledge mobility and transfer, the Chinese government has also created platforms or mechanisms to allow most Chinese universities to be engaged in a unique industry-university articulation arrangement (Hayhoe et al., 2012).

4.7 Chapter summary

In this chapter, I have reviewed international higher education reforms that address the challenges that the Cambodian higher education sector faces. I have focused on reforms involving funding, quality, relevance, access/equity, governance, and research.
Higher education, like other sectors of societies, has been under considerable reform pressures to respond to the changing local, regional, and global socio-economic and political environment. Higher education has been asked to do more to meet the demand of the labour market despite dwindling governmental financial support. As a part of the national development policies in many countries, higher education institutions have been told to improve both internal and external efficiency and to look for additional funding through, among other things, fee charging policies and university-industry linkages. Governance structures and management practices, both at the system and institution levels, have been modified to enhance the overall effectiveness of the higher education system.

As a result, many governments have redefined the relationship between the state and higher education institutions. Among other things, this increased autonomy has included giving the institutions more autonomy regarding organizational structure, selecting university leaders, recruiting academic staff, creating new academic programs, and proposing enrolment plans. In short, countries around the world have been striving to restructure the higher education system through the introduction of new laws, legal amendment procedures, and special projects (ADB, 2011, 2012d). Some countries have made progress in various higher education aspects due to the effective implementation of reform policies. Nevertheless, implementation has also remained slow and limited in many developing countries.
In the next chapter, I present stakeholders’ views on higher education in Cambodia. I point out what they see as problems and directions for Cambodian higher education. The discussion also indicates whether the key issues and challenges Cambodian higher education identified in the literature review and document analysis are still relevant, if the interviewees picked up on the international trends discussed in this chapter, and if they raised issues unique to the Cambodian context.
Chapter 5: Stakeholders’ Perceptions of Cambodian Higher Education Sector

In this chapter, I present the perceptions of stakeholders about Cambodian higher education. I describe the range of perspectives that they offered during the interviews and their viewpoints about the approaches the government has taken or should take to address the higher education challenges. The responses from 18 interviews conducted in July and August 2014 with representatives of higher education officers, students, parents, employers, and experts from the education field are discussed in this chapter. This chapter is organised according to the interview questions that include, but are not limited to, teaching and learning, research, curriculum, financing, access and equity, and quality (see interview questions in Appendix F).

5.1 Overall assessment of Cambodian higher education

I began the interviews by asking the participants to talk about the strengths and weaknesses of the current higher education system in Cambodia. Generally, the participants were unanimous in their opinion about the system expansion. They said the expansion was “rapid,” “huge,” and “unprecedented,” linking it especially to the increasing number of both students and institutions. The privatization of the higher education sector and participation of the private higher education institutions were cited as the main factors behind the expansion.
Interviewee 2, student: …What I can easily say is that higher education is improving in terms of quantity…we saw a huge and rapid change… the number of higher education institutions, the number of students are the most important ones.

Interviewee 11, faculty member: The strengths include the increasing number of higher education institutions and student enrolment. The number of schools increased to more than 100. …I think this happened because of the increase in high school graduates and the government’s encouragement of private higher education institutions to participate in the system.

The participants also noticed that the government has taken some steps to improve higher education quality. For example, it has adopted legislation to transform public universities into autonomous independent entities and it has created a national accreditation agency to ensure and monitor quality. A university administrator described some quality-oriented activities Cambodia has done as “gradual improvement in quality”:

Interviewee 6, university administrator: Now we are beginning to see gradual improvement in quality. Before, we focused on the quantity- you see, in the past, high school graduates with average scores were allowed to enter higher education because we needed more students and we didn’t want them to go out and commit unwanted activities. … Now we started to think about the quality. For example, we have established the ACC. … Now we are starting to see some schools creating institutional QA unit. This allowed higher education institutions to begin talking about standards. Of
course, we have not yet achieved what we really desired, but these are good signs because we began to organize and recognize the importance of quality at the higher education institutions. That means at least we have a system in place. … Private higher education institutions also started focusing on quality improvement; and some even became better improved than some public higher education institutions. We also have laws and regulations regarding education. For example, we have Law on Education and so on…. In addition, we also have cooperation with the World Bank and other development partners with regard to higher education development. For example, the World Bank provided tentative scholarships to poor students and female students to enrol in universities. If we look at the outcomes, we see that many Cambodian graduates have continued their further studies overseas (with scholarship). So we gradually move forward.

Although the existing literature shows a predominant view that university governance and management in the Cambodian higher education sector remains weak (Chet, 2006; ADB, 2011; UNESCO, 2010) and that recent attempts at reform are stuck in the legislature (World Bank, 2012), a participant at a national university observed a promising trend in the leadership improvement at her/his institution, especially after the appointment of a new university president:

Interviewee 12, faculty member: These new leaders seemed to use new leadership techniques. For example, they encouraged faculty members from every area/department to participate by being open. If they have problems, they can approach the
leaders…Before we never had this…Now the university requires the head of the department to share ideas with the staff members through weekly/monthly meetings. We use these meetings to share experience and ideas and plan activities for the department. So teachers now have some say in the department operation. Now the new rector spent time meeting with teachers, listening to their concerns, and studying department’s needs.

Nevertheless, the responses concurred with most of the literature that higher education in Cambodia remains problematic. A majority of the participants opined negatively about the overall quality of Cambodian higher education. They agreed that the government recognized the importance of quality and has thus attempted to improve the sector by adopting mechanisms such as creating the ACC and the Education Law to promote it. Nevertheless, they observed that quality remains a challenge due to a range of issues. A lack of accountability within the higher education system, they emphasized, is an important contributing factor.

Interviewee 10, faculty member: …It seemed to me no one cared about quality. Higher education leaders just produced policies. Higher education institutions and teachers just taught. They didn’t talked about the outcomes; they didn’t care…. it’s like, if you asked me to produce 100 graduates, I have to do that - I care about the number, not the students’ knowledge, not their future employment.
Interviewee 16, employer: …Now what we can see is that no one is taking any responsibility. The universities/higher education institutions now think that their responsibility/accountability only exists when students are still with them (in class). They never care after that.

A participant argued that using the word “strength” to talk about the increasing number of students and institutions seemed to suggest that the increasing number of students and institutions was all good:

Interviewee 7, university administrator: …The question we should be asking is whether the increase is coming from the need or business? I think higher education in Cambodia today is business oriented. So the increase so far is because of this business orientation. It is not because of the social needs.

Furthermore, the weaknesses also involved, among others, relevance of higher education in relation to the labour market needs, research and development, access/equity, system and institutional management, and funding. For example, the participants’ responses continued to reflect a strong existing disconnection between the country’s higher education institutions and labour market requirements. Most interviewees expressed concerns about the lack of skills and fields of study in areas of national importance such as agriculture and rural development and the general lack of appropriate skills among university graduates. A faculty member provided an account about why Cambodia ended up with so many graduates with business and accounting degrees:
Interviewee 10, faculty member: Back in 2000 or 2001, the curriculum private universities (Norton and National Management Universities) used was borrowed from Hong Kong and Singapore. You see, Hong Kong and Singapore are financial hubs of the region, so their curriculum is business oriented - the way they teach…their degree programs are mainly business, accounting, etc. So when students graduated from those universities and became teachers, they only knew how to teach those subjects…some staff from those institutions left and started their own business, so they opened business schools and universities. That’s why Cambodia has a lot of these schools and student studying these subjects.

Several participants, especially those from outside the academic context, insisted that many small and medium-sized enterprises in the mushrooming manufacturing sector would benefit greatly from skill sets such as detail oriented work, team oriented work, and communication that could help improve their competitiveness and productivity. Unfortunately, they said that higher education institutions currently fail to recognize and provide those skills and competencies required in the workplaces. As a result, many graduates continue to be unemployable, underemployed, or employed in the wrong fields because they do not have the type of skills the workplaces need.

Interviewee 14, NGO employee:… Cambodia has a lot of potentials in garment sector. We have a lot of factories in Phnom Penh and even in remote provinces. I think universities should focus on training people for the job…. provide skill training that can
help Cambodia compete with other similar countries. I don’t see any universities in Cambodia teach those skills.

Interviewee 15, employer: Cambodia is full of university graduates, but the quality is so poor… Now, there are too many accountants, too many business graduates. They are not needed by the labour market, so they ended up working in the wrong fields…. In a province where we are helping, there are some provincial staff members with degree from accounting, business management, and even agriculture working as radio producers.

In the following sections, I describe each aspect of the Cambodian higher education sector based on the responses from the participants. I also present their views regarding measures for improving the sector.

5.2 Teaching and learning in higher education

Teaching and learning, a core component in Cambodian higher education, did not fare well. As also found in the documentary review by Pit and Ford (2004) and the World Bank (2012), teaching and learning, according to the participants, continues to follow a traditional style (the teachers talk and the students listen) and the passive absorption of knowledge content. The lack of appropriate teaching and learning materials, methods, and qualified workforce along with financial and professional support remain key issues.
Despite acknowledging that, in general, classroom teaching remained teacher-centered with a focus on rote learning and content memorization, the respondents noticed a change in the teaching methodology at some Cambodian higher education institutions. Two student respondents noted that:

Interviewee 1, student: Now, the teachers in some subjects such as language, law, and education at big universities began a shift from those practices conducive to learning based on repetition and memorization. They introduced different modes of learning such as group work, discussions, and debates.

Interviewee 3, student: teaching? In my school, in my class, the teachers promote discussions and debates. The thing I like about my teachers is that they don’t strictly follow the books. They give us the materials or book that we need to read and ask us to read at home. When we go back to class, we can discuss the things we read.

The participants applauded this practice. One student said it was beneficial to the learners because it encouraged them “to express themselves, share ideas, and become more confident” (Interviewee 1). To this student, this was a big change, because “Khmer culture somehow does not want us to talk much, just listen . . . Khmer teachers, even in (the name of a famous university), just talked and talked without knowing or caring if the students listened or not; that’s terrible.” The student wished that the teachers and higher education institutions provided more classroom interaction in university classrooms. Interviewee 1 talked about the limitation of discussion/debate-based classroom pedagogy:
Interviewee 1, student: …during the whole semester of three/four months we have only a total of 2 to 3 group/class discussions. And some classes have no discussions throughout the whole semester-none. It’s limited because they have to teach so much within so little time.

It is interesting to point out that conflicting opinions about the way teaching and learning should be carried out emerged when I brought the students’ perspectives into the conversations with university teachers. The faculty members recognized the importance of the students taking part in classroom conversations and interacting with the subject matter, but explained why it was not easy to foster that new way of teaching and learning in Cambodian higher education institutions. One faculty member argued in favour of the interactive modes of teaching and learning and said that it helped students to gain confidence in themselves and to be competent problem-solvers as well. However, the same faculty member pointed out that students often evaluated his teaching negatively: they commented that he did not teach, but just facilitated and listened to the students. The teacher admitted that he had been called to meet with his departmental head a few times to talk about the students’ complaints. He sensed that university administrators understood his intention to plan lessons using student-centred techniques, but they told him to follow the students’ wishes, as “the university needed to please and keep the students in the program” (Interviewee 13). Thus, he suggested that the students reinforce “the passive pedagogy”:
Interviewee 13, faculty member: … students complained about the teachers letting them talk and share ideas in class…During the evaluation session, they said they found it hard to catch up with the lessons through class discussions…some said they got lost. So they wanted me to teach them using slices - explain everything one by one, line by line like a baby is being fed.

Another faculty member suggested that personality and character traits played a part in the continuation of passive, traditional teaching and learning pedagogy. He said the majority of Khmer students are naturally shy and are fearful of making mistakes in front of other people, so they do not like class interaction and discussions. He said, “It does not help when you are taught from a very young age that silence is golden” (Interviewee 11, faculty member).

According to the study participants, the reason why conventional classroom methods prevail in Cambodian higher education institutions involves other aspects as well. An employer participant said that the majority of faculty members did not have appropriate and/or graduate level training. Therefore, teachers lacked preparation in pedagogical approaches. Nevertheless, he argued that qualifications were not the only problem: the lack of motivation and financial reward also impacted classroom teaching.

Interviewee 16, employer: …most universities have teachers with only bachelor degrees - they teach student studying bachelor degrees. We know the problem, but not much has been done about that. That is a starting problem that affect teaching, but there are also…I mean motivation and money. No one is motivated to teach when your efforts are
not recognized. And the money is not there…well, I mean like salary is low and other incentives are not available.

One student felt some sympathy with the observations concerning teaching and learning quality within Cambodian higher education. He explained why universities lack qualified teachers to promote effective teaching and learning this way:

Interviewee 3, student: I think there are still many challenges if we talk about university lecturers. The first thing is their salary is low. Universities can’t attract qualified people to teach - these people do not want to teach for a little money like that. They have many opportunities like working for international organizations for a lot of money.

As a higher education officer actively involved in both teaching and policymaking, one participant pointed to the lack of regulations as a challenge for the ineffective teaching and learning in Cambodian universities:

Interviewee 17, higher education officer: Generally, the majority of the teachers lack pedagogical skills. For example, those who teach law and economics-they graduated from law school and business school, but they have not trained to be teachers. This is an obstacle. And as you know, teaching needs methodology, needs training. We don’t yet have requirements for all teachers to possess all these things before beginning teaching. We don’t require all teachers to have teacher certification like in other countries where you can only teach after getting the certification. In our country, we only need a degree
a level above the students to teach. This is a problem. Also, teachers teach too many hours and lack research due to lack of incentives.

When asked to suggest ways to improve teaching performance/effectiveness, a student spoke of his good experience at high school and wished that university teachers followed the example of his high school teachers:

Interviewee 2, student: I picked up one very good teaching method from my high school. The teachers there had really good interaction with the students. It was like we were friends and they always helped every time the students needed help. With caring teachers like that, students became happier and more enthusiastic in class.

The student participants wanted people in general and university students in particular to make some changes to improve teaching and learning effectiveness:

Interviewee 1, student: ….I think people and students should start giving out ideas and they should never be satisfied with what the teachers told them. In our culture, we tend to believe whatever the teachers say. That is terrible. Sometimes I found my teachers’ mistakes, but I could not do anything because they are my teachers. And most of the teachers are not open-minded either.
Interviewee 2, student: I think both the teachers and the curriculum should aim to encourage students to share ideas. I mean you get them to speak up, to not be shy. In our culture, people are afraid of making mistakes. I think we should somehow change this mindset.

A faculty member was enthusiastic about the new development regarding teaching at her university, especially at her department. She said it was promising that the department was taking steps to encourage teachers to work together in developing and sharing teaching materials and other teaching and learning resources. She suggested that higher education institutions pay attention to staff development to ensure they have sufficient qualifications for effective teaching performance:

Interviewee 12, faculty member: I think each department should try to build capacity. I strongly believe capacity building is still weak. For example, some teachers who do not have a master’s degree are allowed to teach. This affects the quality of education. Some students mind this, and don’t want to study from teachers who don’t have a master’s degree.

Another respondent, however, advocated a government initiative in making sure that university teachers have both qualifications and competency in teaching and learning. He said, “The teachers in the system must know their subject areas and should know how to teach those subjects” (Interviewee 10, faculty member). He suggested that government should develop a clear policy framework that encourages higher education institutions to conduct proper staff
recruitment and provide ongoing training while simultaneously providing the institutions with technical and financial support for capacity and professional development activities.

5.3 Research development in higher education: Challenges and opportunities

The participants recognized research as a necessary aspect for the Cambodian higher education sector.

Interviewee 17, higher education officer: Research is important… You know, the cores of the universities are three: teaching, research, and community engagement/services. Now our higher education institutions focus only on teaching-no research and community services. Research needs to be promoted. I just think that universities cannot grow much with only teaching without research.

Interviewee 18, higher education officer: Research can help improve higher education quality. Higher education institutions should focus on researching the kinds of skills and needs the labour market need. Once they know the needs, they can integrate them into the curriculum so that they produce graduates to meet those needs.

When asked about research progress in Cambodian higher education institutions, most of the participants did not have much to say. A university administrator said research was beginning to take off gradually and pointed out that the MoEYS has recently established a scientific research institute in an effort to promote research activities. The administrator was, however, quick to
acknowledge that “the institute was not in operation” (Interviewee 7, university administrator). Two other participants said the government had taken steps to promote research through policy development. Nevertheless, they argued that the policy on research was not properly developed and thus was ineffective, as it lacked mechanisms and tools for implementation.

Interviewee 7, university administrator: …there is policy. But the policy is too broad, not clear enough, not specific enough. The policy is only about recommendations…policy that says there should be research. But, there are no clear requirements, for example, that, in order to be a university, it needs to have this or that number of research hours.

Interviewee 13, faculty member: Every law/regulation sounds good on paper. But actual implementation is often absent. Research policy doesn’t promote incentives. If we compare to Vietnam, to Thailand, to Malaysia, and other countries in the region, we see that they have funds for research, but Cambodia is nothing- I mean no funding for research. But the Ministry of Education said, “Well, we encourage people to do more research.” They don’t have any mechanisms to recognize research. So no one wanted to do it…except me because I wanted to get published (laugh).

According to their responses, research seemed to be the least developed aspect within the Cambodian higher education sector. The majority of participants referred to research as “weak,” “piecemeal, fragmented,” and “inactive” due to several difficulties. Funding was highlighted, among other things, as the most challenging aspect that led to poor interest, development, and commitment in research.
Interviewee 17, higher education officer: …we don’t have the budget package for research. Because funding for higher education is little, research activity is inactive. The good point is that we have developed policies around research. But the implementation and enforcement of research policies are not working due to lack of budget.

Interviewee 13, faculty member: Of course, universities need research. But the problem is we don’t have the incentives. The government doesn’t provide money for research. We never talked about research in our group-in meetings. We know there is no money to do research, so we just don’t care.

One participant pointed out that the World Bank was planning a project to support the implementation of the existing policies involving research in Cambodian higher education institutions. However, he insisted that the project would not be sustainable due to funding issues and bureaucracy around funding.

Interviewee 17, higher education officer: …The World Bank is planning a project to support the implementation of research policies. But I don’t think it will work after that because we don’t have our own resources. Implementation will stop when the support from the World Bank ends. It is also difficult in a sense to spend the World Bank fund; it’s so bureaucratic. This demotivates researchers who want to do research - the money is little and difficult to obtain.
At private higher education institutions, an interviewee warned, the research situation was even worse. This interviewee said no one there, as far as he knew, “conducted research for any reason” (Interviewee 18, higher education officer). He maintained that teachers did not want to do research because they did not have time; some teachers were teaching 30-40 hours or even more. If they had time, the financial support for research activities was not available. He said that private higher education institutions only had one financial source: student fees. Therefore, they “could not do anything else except paying for the teachers” (Interviewee 18, higher education officer).

Using his own experience, a participant said, “Cambodian universities did not focus on research activities much” (Interviewee 13, faculty member). He alleged that the leaders considered research as “a challenge to their leadership” and that “some even regarded those who conducted research as members of the opposition party” (in Cambodia, being labelled as someone who sides with the opposition party is believed to be a disadvantage and sometimes a safety issue. One does not want to be known as being associated with the opposition party).

Interviewee 13, faculty member:.. In February (2014), I presented a research paper about why education policies didn’t work. I was then accused of using the forum to criticize the government. They told me to write and talk only about the good points. I then said there had to be bad points and good points going alongside each other. I don’t think I can follow what they suggested (leave all the bad points out and only talk about the good ones). So that’s the challenge.
The Khmer tradition also contributes to the lack of research activities in Cambodian higher education institutions. This view was corroborated by many respondents. They further confirmed a claim made by past researchers that Cambodia did not have this research foundation (see Pit & Ford, 2004; Chet, 2006; CDRI, 2010; HRINC, 2010). One participant argued that the “old paradigm” prevented faculty members from participating in research activities:

Interviewee 7, university administrator: The factors that teachers do not want to conduct research are many. But one involved the tradition. An old paradigm is that because we are teachers, so our role is teaching. Khmer word for teacher is “the person who ‘bangrean’” (teaches) so this influences our behaviour and thinking. As a result, Khmer teachers only know that their responsibility is to teach.

Interviewee 15, employer: We don’t have that research culture in our education system. You and I now talked about research, yes, but traditionally we talk about “search” or “look for” (these terms literally mean “find” - no scientific methods involved). …research is generally understood by Cambodians as “find” something that has already been found, not something new. So we don’t have the concept.

From students’ perspectives, poor research development in Cambodia resulted from the unavailability of training and research programs at higher education institutions. They said that a large majority of universities do not offer any research courses to students.
Interviewee 1, student: …I never took any research course. I learned some rules about plagiarism in my writing class though. As far as I know, now there is no research methodology course even for the current year 4. In my university, students study the subjects the school sets. You can’t choose the subjects - they don’t have elective subjects anyway. I think they should teach us how to do research-we don’t know much.

Interviewee 2, students: No, I never studied research methods. I don’t think my school teaches that subject. Maybe for Master’s program? But for us, no.

Complaints about the lack of training at Cambodian higher education institutions were not expressed by student participants alone. Two other respondents who were not students spoke about the deficiency of research training in higher education institutions. They disagreed strongly, however, on faculty and institution engagement and commitment in promoting research training:

Interviewee 12, faculty member: Research skill is important, but my university never teaches that skill. The university often says they don’t have anybody qualified to teach the subject. But I think that some departments have staff with research expertise/skills. The university just doesn’t want to engage them - they don’t want to encourage or push staff to teach or take up research. So they spend time and resources doing something else. They have opportunities outside. Some teachers never even show up at the university.
Interviewee 8, university administrator: I think that there are faculty members who are capable of doing research. They have done research for the World Bank and ADB and so on. But these members always use this opportunity for their own benefit. The question is why they don’t help the university with this kind of knowledge.

In response to a specific question about how Cambodia can improve research capacity, almost all respondents from students to faculty members to university administrators as well as higher education officers and employers stressed the need for financial support for research promotion and development. They said funding would help faculty members to get more involved in research and help institutions to strengthen and promote research activities and capacity.

Interviewee 6, university administrator: …these days teachers teach to live. They don’t have any intention to do research. If they do research, they won’t be able to teach to support their family. People wanted to do research, but the government must design a financial policy to help out. What will they get from doing research?

A faculty member saw an alternative way to encourage faculty to be involved research development. He wanted the government to recognize research effort through providing those committed to research with a promotion and other recognition if it could not afford to provide them with money. He said the government could “use research to make appointment in academic or management structure” (Interviewee 11, faculty member).
Interviewee 11, faculty member: I think this way people will do it because they want promotion. But as you can see, the leadership/management people in the institutions are not appointed according to research or academic achievements. I think this practice can be stopped.

During a time when financial and human resources remain a huge challenge for the country, a participant suggested that higher education institutions reach out to other institutions inside and outside Cambodia to mobilize necessary support for capacity building and research development.

Interviewee 12, faculty member: One more thing I want all Cambodian universities to do is build networks with other institutions outside. They can be Cambodian universities or foreign ones. I think those universities may be able to help - like my university; it received some fund from an Italian university to upgrade staff’s qualification. Maybe we can ask them to help provide research training to our teachers.

As a scholar who has been actively involved in research (mainly through funding from international agencies), Interviewee 10 commented that any effort to build or strengthen research capacity in Cambodia required more than just funding. The interviewee agreed that faculty members often became less motivated to engage in research because of the lack of financial support or reward. But he also blamed a wrong mindset for research inactivity and/or low interest and poor development in research. He proposed that developing research in Cambodian higher education should begin with “changing that wrong mindset about research.”
Interviewee 10, faculty member: With money, we can promote research. But through my teaching and work, I heard people say again and again that we cannot do research like other countries do - that we don’t have money and educated people and equipment to do that. I think if people understand research that way, we won’t make anything. Why do we need to be like Europeans or Japanese? Their research is great - we can’t do like them. I think we should start thinking about research based on our own needs and expertise.

Well…agriculture is a good strength we have. We can focus on that. Or why not just focus on small research, but useful for our daily life? For example, we can just test how much salt or bichneng (monosodium glutamate - MSG) restaurants or food sellers use in their food and then make a product people can use to test that themselves when they go to restaurants or eat out - maybe something like we test pregnancy. But we Cambodians never want to do this, thinking that it’s not a big thing - we want to make airplanes or ships like developed countries. I noticed that many Cambodians, including our university president, often reacted to what they saw overseas. When they returned home from foreign trips, they often told their staff, you see, in this or that country, they have gone a long way; they made this, they made that. The question is why do we have to do like them or can we? Why not focus on what we can do?

Aside from the inadequacy of the research budget and qualified researchers and the lack of infrastructure, the participants said Cambodian higher education institutions can still and should still encourage faculty members and students to get involved in simple research that is most relevant to Cambodia. They pointed out that focusing on this kind of research would allow
faculty members and students learn how to conduct simple searches that, in the long run, could help Cambodia in the development of research capacity.

5.4 Curriculum for the labour market needs

Curriculum continues to be a problem in Cambodian higher education. The participants said it lacks the transfer of current knowledge and the training of relevant skills and thus is still unresponsive to the labour market. They noted that the majority of university curricula are the products of ongoing “cut and paste,” “evidenceless,” “copy,” and “borrow” activities. They argued that higher education institutions did not design/develop curricula based on the actual needs of the labour market.

Interviewee 10, faculty member: higher education institutions do not have resources to develop their own curriculum. Some institutions just don’t care. The way they do it is cut and paste curriculum from others.

Interviewee 6, university administrator: curriculum is plagiarized from one institution to another. In some cases, the copying/borrowing of curriculum has been done without institutions thinking whether they could deliver or not. The impact is obvious because we didn’t conduct research about the skills or aspects that the companies wanted. We are a poor country, so our teaching should serve the needs of the labour market, but we never studied the market needs. We really do not know the type of content and skills the market
wanted… our curriculum design and development is not based on research…. We just do things based on our guess.

Many participants believed that the lack of human resource capacity for curriculum development significantly contributed to the problem. An administrator at a public university, for example, pointed out that curriculum reform has been debated for a long time now, and there have been some attempts to look for ways to develop curricula that meet labour market needs. However, he said that actions were not system-wide because of the lack of qualified people to do the work. One faculty member, nevertheless, saw it differently. She said that Cambodia now had many educated people trained both locally and overseas. Large public and private universities in Cambodia had some of those people with research skills and knowledge about curriculum design and development: they could be invaluable resources for helping their institutions to design relevant curricula for the Cambodian labour market. However, the problem was that “those people were not used” (Interviewee 12, faculty member). The faculty member raised an example about a curriculum design project financially supported by a group of donors.

Interviewee 13, faculty member: People who worked in the project did not have any ideas about curriculum; they did not understand the process and procedures. … Those who took part in the project were not educators. Because of the project’s huge incentive and pay, project members were recruited through network/nepotism. Those who have research skills/knowledge about the project were not used. That’s the problem.
The participants were aware that Cambodia is poor, but they stressed that the culture of copying curricula from others without considering the real needs of the work world would only harm, not help, the country in its efforts to improve human resource development and higher education relevance to the labour market demands. To make higher education more responsive to the labour market needs and the country’s evolving demands for wider social and economic development and growth, they want to see the Cambodian government take appropriate steps to improve higher education curricula. One participant highlighted the need of higher education institutions to study the actual needs of the labour market and integrate those needs in the curriculum and training programs:

Interviewee 12, faculty member: I think there should be a clear policy/direction about curriculum - what subjects are important for the students, for the labour market. We must find out what the market needs in terms of skills, knowledge, and then prepare the curriculum accordingly. Right now, we are not doing that - no tracer studies, no market research. We don’t know what kind of skills the market need in the future. All we focus on now is business, business. Some of business students who graduated couldn’t find work so ended up working in anything available - often outside their area of training.

The participants also noticed the absence of the collaboration and interaction between the higher education institutions and the workplaces-participation of the employers, both public and private. They said the interaction was needed, as it could provide expertise and information about expectations, skill, and knowledge needs in different sectors of the economy. Interaction could help higher education institutions to adapt their curricula and instructional methods and ensure
that their educational programs match employment requirements. The participants called on the government to establish a coordinated body with representatives from different sectors (e.g. the government, key professions, higher education institutions, NGOs, and the private sector) to deal with the mismatches.

Interviewee 6, university administrator: So to come back to our issue, we need different players involved in the process of making higher education work for our society. We need the participation of the Ministry of Education, Ministry of Labour, industries, and other institutions so that we can study and find out exactly what we need … I believe it is only effective if it becomes a national issue involving different ministries and institutions.

Interviewee 17, higher education officer: Universities should share experience and work together to develop a standardized curriculum so that we can improve the quality together…. there is a need for a national coordinator to facilitate curriculum development. I don’t think the ministry has resources to develop curriculum alone. It may be possible that higher education institutions join together with other stakeholders in setting up special a committee for curriculum design and development.

Encouraged by what has been done at a private university where she taught part time, a participant suggested other higher education institutions follow its “good example.” She said the university was committed to educating its staff members about the curriculum development by organizing a workshop twice a year for all relevant members to discuss and debate the ways in which they could improve curriculum. She also spoke enthusiastically about having useful
opportunities to learn and connect with different employers from both public and private sectors that the university had invited to its workshops.

One participant provided an interesting perspective about the issue of graduates’ skill irrelevance to the labour market needs. Despite repeated reports and claims in prior publications (HRINC, 2010; World Bank, 2012), and despite ongoing conservations about the issue in Cambodia and in this study, she/he said those were “baseless.” He said that people tended to blame higher education for all the problems. He agreed that higher education institutions did not know the kinds of skills Cambodia needed, but argued that neither did “each workplace, company, and even a small organization” (Interviewee 10, faculty member). He said they did not know what skills they would need in 5 years, 10, or 15 years. He asked that, “if these institutions did not know what they wanted, how should the students correctly chose the skills to learn?” Interviewee 10 put it this way, “I don’t think people can’t find work because of the irrelevance of skills. They have the skills but those skills are not up to the level the workplaces need.” When I asked what Cambodia should do to solve the problem, he said:

Interview 10, faculty member: Turn teacher training into vocational technical schools. Now we have 6 regional teacher-training colleges and 19 provincial centres for primary level). I think we must turn all these into vocational colleges. I think that, when vocational colleges are more accessible, more students will go there…. students who dropped out from high schools or grade 9 or students who don’t want to continue to study further can go there. Our present economy needs this kind of training.
This respondent also provided a short account to advocate the development of the vocational training centres:

Interviewee 10, faculty member: I had a conversation with a spa employee one day. He worked as a ‘towel passer’ there. He said he graduated with a bachelor of English from a private (name deleted) university. He was paid with low wage and some small tips. My question is, do we need to study four years to get this degree for this? No. If we have a vocational training sector this person could just go there and got the skills quickly for what he was doing cheaper-faster-better.

To reduce the oversupply of graduates in particular disciplines, a participant suggested that:

Interviewee 15, employer: I think we should do this: Let’s suppose we have 10 thousand high school graduates every year. We have to plan, OK, 4 thousand study for 2 years, 3 thousand study skills that need three years, and so on depending on the labour market needs of the country.

When explaining that, when a country moves from a low-income to a middle-income status, it also needs to move from primary economy to secondary economy (from resource producing to resource processing), a participant suggested Cambodia prepare higher education for a secondary economy.
Interviewee 16, employer: …So for Cambodia, if we want higher education to be relevant, we need to prepare our system to secondary economy (processing). You see, today all our agricultural products are not processed in Cambodia; we don’t know how and don’t have the resources to do so. By processing, we talk about the system, we do from the time we grow until the time we sell to the market and make money.

Along this viewpoint, a faculty member (Interviewee 13) recommended a clear enrolment policy. He pointed out, “If a student has the ability to study at higher education, say so; if he or she does not have enough capacity to study, say so . . . (Interviewee 10, faculty member). The higher education department must be responsible for this.” He said that entrance must be tough to prevent students from over enrolling in a particular field. He insisted that Cambodia’s problem of having too many master’s and bachelor degree holders was because the entrance/admission requirements are too easy.

5.5 Financing higher education in Cambodia

Based on the interviewees’ responses, the government, students/parents, private businesses, donors, and development agencies funded Cambodian higher education. Public higher education institutions including PAIs depended largely on funding from the government’s annual allocation and on additional revenue from students/parents through the cost sharing policy. Private higher education institutions did not get any public financial support: they relied completely on students’ fees and other income-generating activities. International agencies/universities (for example, the World Bank and the ADB) supported certain areas in the higher education sector.
Many outstanding students and some needy ones received scholarships and/or tuition support from international institutions, private individuals, and businesses. A participant described higher education financing with regard to scholarships:

Interviewee 14, NGO employee: At the moment, it depends. If the students who are supposed to go to universities and are poor, the government give them scholarship. If they can afford they will be asked to pay. For a Master’s degree, I think that students can get funding because the universities have formed partnership with international organizations and institutions. Many universities have asked foreign universities they have connection with to support the programs. For example, when I studied for my Master’s degree, I got 50 percent scholarship from the university that got funding support from Italy.

The participants’ responses concerning Cambodia’s overall funding for public higher education institutions were discouraging: They stated that public financing for the sector continued to be significantly underfunded. The government only provides funds to public and public administrative (semi-autonomous) higher education institutions. In the academic year 2013-2014, there were 39 such higher education institutions in Cambodia out of 110 higher education institutions (MoEYS, 2015), and the majority of the funds allocated were provided for staff salaries.
Interviewee 17, higher education officer: Our budget for education is only 1.8% of the GDP. Other countries in the region have from 3-6% of GDP spent on education. … We don’t have the budget package for many things.

Interviewee 8, university administrator: The third challenge is funding. Our department is different from other institutions. For others, the main things they need are generally blackboard, markers, and classrooms. With all these they can operate. But our department focuses on … (the respondent talked about several unique courses and related equipment his department offered). All these need a lot of money. But, as you know, the donors can only support us in certain areas. So, funding is a big issue for us. There are a lot of expectations that we can do a lot. But, in reality, we don’t have enough resources to operate. So human resources, decision-making and funding are our key challenges.

To explore how the sector should be financed to ensure sustainability, I asked participants about the possibility of a student loan program for Cambodia. The participants’ opinions were divided on the student loan issue. Acknowledging some challenges, more than half of the participants saw a student loan scheme as a good option for the long-term financial viability and sustainability of the higher education sector in Cambodia. They said, “Cambodia was ready” and agreed that doing so would “provide a means for students who wanted to go to university.”

Interviewee 6, university administrator: 5 or 10 years ago, it was difficult to talk about loan issue. But now we have banks everywhere. We see that now people are becoming more comfortable with the banks: they dare go to the bank, use the banks for business,
for buying a house. It seems that people are accustomed to the word ‘loan’; it was no longer a bad word people used to say. It’s a win-win. So based on this new social trend, I think the loan scheme is the next thing we can have. I personally think student loan scheme is a good thing we should have. And I also think it is within what we can do. I think it is possible. I believe both lenders and borrowers are ready.

Interviewee 18, higher education officer: I think that, if we have the student loan program, it will help students and will increase their access…higher education institutions will have money to spend on quality improvement.

Several participants were sceptical about a loan scheme for Cambodian students. They claimed that the country and the people were not ready for such a scheme. They argued that, even if it were possible, there would be many problems/issues in terms of implementation. Lack of job security/opportunities, absence of administrative tools, and financial and human resource deficiency were indicated as contributing factors for the implementation challenges.

Interviewee 9, expert: I think it’s going to be difficult due to the job market in Cambodia. To make a student loan program work, government must ensure that students can get a job after graduation so they can repay the loan. Without a policy that supports job creation, it’s going to be very difficult.
Interviewee 7, university administrator: Oh, there have been a lot of unofficial discussions about a loan scheme. But it’s difficult for Cambodia. It is not possible to do that now. Administration is one issue. We don’t have the resources or means to follow students when they finish - we don’t know where to find them…In the present context, a student loan is not possible due to lack of proper administrative tools. We don’t know how the student should repay the loan. We need a lot of studies.

Interviewee 17, higher education officer: Now I believe we can’t do it - the government is short of money every year (laugh). About 50-60 % of the money is borrowed or provided in the form of grant from outside. This is more than enough to understand why student loan cannot be done. And how much can you do with a budget of 1.8% of the GDP for the whole education system? 1.8% is divided into 3-4 subsections, and we see how much higher education gets. How can we establish a student loan program based on this already limited money? So, for the time being, loan is impossible.

A participant warned of the dangers of a student loan program, hinting that it was a wrong thing to have and a waste of resources. He did not want the government to create a student loan scheme even though Cambodia has the resources to do it. He argued that it would harm rather than help. He said the money could be used to promote skill training to meet the labour market demands and to help the students.

Interviewee 10, faculty member: I think that is not the right way. In Cambodia, we don’t need everyone to study at the university….So why do we have to invest in a student loan scheme while we can do better with other less expensive choices, but with more benefits
and impacts. For me, I don’t want the government to put money into that loan program. I know in other countries they can do it well because they have a good mechanism in place: they have the system. For me, I think if the government has the money to create loans; it should pay more attention to establishing and improving vocational technical training. We’d rather provide access through that channel. All we need is a mechanism to assess individual students - what potentials they have with regard to education. For example, if we know that they can’t succeed at university, we should better give them two years of free access to vocational training.

Recognizing the national financial constraints, one participant suggested that the government take tough actions against corrupt practices within the higher education sector. He said he could name those who embezzled public money allocated to development at his workplace, but would rather not do that for safety reasons. He wanted to see the government’s newly established Anti-Corruption Unit look into the illegal embezzlement of public funding at public higher education institutions.

Interviewee 13, faculty member: I am very concerned but can’t do anything…we know who wasted the money at (name of his university), but you can’t say it. We can’t win…You know, the government has allocated money for research, field trips, I mean some money for supporting teaching and learning - they called this PAP budget (Priority Action Program) - not much, but at least we have some money. So each teacher/class can ask for the money for field trips, for research. The problem is, if you don’t give a certain amount to those in charge of the budget office, you won’t have the money. The teachers
are fed up and so many don’t want to bother requesting. You know, people in the budget office just produced fake reports and requests and took the money for themselves. I really wished Anti-Corruption Unit investigate and tackle this problem.

Several other respondents agreed corruption was a huge problem within the higher education sector, but added that it was a social phenomenon: bribery and corruption actions were taking place in all other social sectors as well. They said fighting corruption was not easy given the current economic and political conditions. It required a “serious political will.”

5.6 Participation in higher education

Thanks to the privatization policy, the total student enrolment increased every year, but based on many participants’ first-hand experiences and/or anecdotal stories, the access issue seems to involve more than simply increasing aggregate rates. For example, the number of Cambodian students enrolled in university could be fewer if many of the students (in this study, two students out of three) were not studying at two different places simultaneously.

Interviewee 1, student: I enrolled in two programs at the same time. I paid almost $1000 every year for both programs… Most of my friends are doing the same; they go to English program in the morning and business in the evening.

Interviewee 4, student parent: I have two kids attending university. Both are studying together in business and computer programs. I pay for them and that way I get a discount … the schools give you a discount when you have more than one relative enrolling.
Echoing the findings in UNESCO (2010), a majority of the participants (about three-fourths) were concerned about significant disparities and inequalities in Cambodian higher education. They said young people from rural areas and from low socio-economic backgrounds remain under-represented in the system. Two significant problems were cited as the reasons for participation or lack thereof: the geographic locations of higher education institutions and financial issues including a lack of support from the government:

Interviewee 18, higher education officer: higher education is a business; it is not much a social investment. So schools mostly existed where businesses can make profit. Good universities are not available in the rural areas. Of course, they have some branches in big/rich provinces, but even there students only get the name of the school… I mean the quality is extremely questionable. Why?... Many problems but an important one is that they mostly employ their graduates to teach. Qualified teachers never want to go there with low pay and incentives.

Interviewee 3, student: If you go to university, you need $300-500/year for tuition. You also need money for food and other things related to your study. …I think that may be fine with city people, but for poor students, where can they find even $100 - they never touch it (referring to $100 note). As far as I know, a lot of my friends stopped studying before or after high school because of poverty.
When asked what should be done to increase access of the disadvantaged groups (rural, poor, ethnic, and female students) in particular, a parent participant suggested the government should build some kind of housing for students from rural areas, especially for female students who do not have relatives to stay with when they go to study in the city.

Interviewee 5, student parent: As you know, female students cannot stay in pagoda like boys. They should be provided with accommodation that guarantees their safety. This is an important issue if we want to help those people to attend university.

Another participant agreed that accommodation for poor students was important, but added that other supports should be available for those poor students as well if we wanted to help them to succeed in university.

Interviewee 16, employer: Students from poor families or from remote provinces can’t afford to study at the university… they don’t have the money to pay tuition fees and to live in the city. If they can get the scholarship, they still need to pay for food and accommodation. Phnom Penh is an expensive place to live now. So it’s difficult for poor students… Maybe the university or government can help them by providing accommodation and some other assistance.

A participant suggested that, if the government could not provide appropriate accommodation for students from disadvantaged groups, it should invest public resources in setting up training institutions or centres in the provinces or places where such institutions are non-existent and are
much needed. He said that government could encourage the private sector to establish higher education institutions in the poor areas.

Interviewee 14, NGO employee: …Government must pay attention to the rural areas….I mean…build schools there or create job opportunities there…I heard the government decided to stop giving permits to open new universities. I don’t know why? But I think the government should allow private universities to be built if they are located in the provinces, not Phnom Penh or big cities/provinces…I have a relative studying in Phnom Penh and is staying with me right now. If there is a school near his district, he may go to school there.

According to participants, there have been an increasing number of private foundations, businesses, and individuals providing poor students with scholarships to study at universities. However, this activity is conducted in isolation without coordination with relevant government institutions. The participants suggested that the government explore ways to integrate private scholarships into government policy so that there is a systematic policy to tackle access.

Interviewee 11, faculty member: Almost all of private scholarships are provided without involvement of the education planners - I mean the ministry in charge of education does not have anything to do with this. No one knows how many students get scholarships. I heard on the radio, especially after the high school exams, that this or that person or business offers this or that scholarship… and then they ask students to seek more information at the universities, they give scholarships too. I don’t know if really poor
students get the scholarships because I heard they say if you had A or B marks, you get full scholarship, C or D marks, you get maybe 75% or something like that. You see getting an A grade is not easy - there are a few smartest students who get it. These are not poor students.

An education specialist (Interviewee 9) suggested that the government must work with private scholarship providers to ensure that poor students get the support. He said that, “there is a need for the government to acknowledge the private effort and help coordinate this to be transparent and to avoid confusion.”

5.7 Challenges to higher education governance and desirable policy changes

Despite the positive steps Cambodia has undertaken to improve higher education governance (see Section 5.1), the participants remarked that challenges in governance continue to be an overarching issue at both the system and institutional levels. Based on his role, a participant captured the key challenges in higher education governance:

Interviewee 6, university administrator: We still have challenges…. in terms of student affairs. …. dealing with faculty members. …. Many of my faculty members teach at many places; they need sufficient income to support their family. So they don’t have time to commit to the institution. We can’t do much to help their living standard, so we let them work outside. Another challenge is the managers/administrators themselves. Some of them don’t have training in leadership and management. Another challenge for the
management is sometimes the implementation of policies…some universities and higher education institutions are small scale; they don’t have resources to meet what was required in the policies or regulations. For example, the ACC requires that higher education institutions have this and that, but higher education institutions don’t have any means to fulfil those requirements; higher education institutions cannot do anything. It is also a challenge when recommendations get stuck somewhere because, you know, Cambodia has a culture of respect or saving-face - the inferiors dare not report anything bad to superiors.

One participant reported that “recommendations get stuck” in his institution.

Interviewee 12, faculty member: … I think some department heads don’t care much. I mean we often suggested ideas for the improvement of the department and the university, but we don’t know how much he/she delivered our suggestions/recommendations to the university management. We faculty members rarely have opportunities to go meet directly with the university leaders/managers. So we trust him/her to bring our concerns, our messages to the top management.

Leadership in particular remained weak. Just as Vann (2012) found out in his study on stakeholders’ perceptions of quality in Cambodian higher education, the respondents in this study indicated that the persons occupying leadership positions were mostly appointed through political connections and nepotisms and many of those had qualifications in fields other than education. Due to such appointments, the participants said scores of higher education leaders,
especially at the national level, lacked training in leadership and management skills and did not have much experience in higher education matters. Consequently, some high-ranking university administrators led in an “uncertain,” “unfair,” and “unpredictable” manner. A participant noted that some university leaders even worked against the “national trend.”

Interviewee 7, university administrator: what I can say, broadly, about the management issue is that, in a number of ways, some universities go against the national trends. The Ministry of Interior has developed a national plan on democratization. In that plan, there is a focus on decentralization and de-concentration. But some universities, especially those public universities are operated against the plan… they want centralization. …this is what they are doing right now - asking for a single form across university, one entrance, one bank account, spending permission must be submitted and approved through the a single office … a number of rectors including that of (name of his university) asked for autonomy. The problem is the university asks for autonomy for the university management only… I think… Hmm ... It is not OK to say, “I am a university, so I ask for autonomy” - and when I get the autonomy, the autonomy is only for the management in which I am a member or a chair.

According to another interviewee, within the university setting, “politics” often play a crucial role in the day-to-day institutional management and operation. This interviewee used the term “politics” to share his personal experience in dealing with the top university management. He hinted that one could receive special treatment just by knowing the university president or a high-ranking member in the university management team. This kind of connection often helped
speed up important decisions. However, this participant confessed that “politics” sometimes created tensions within his university and could backfire.

Interviewee 8, university administrator: …I feel that [his department’s name] is left alone as an independent institution because I have a close connection with the rector…. We can do anything…. But sometimes, when we don’t have resources and need resources, the top management doesn’t seem to care either.

A director of a university centre murmured that many higher education institutions (including his own) were not able to meet the requirements of the regulations set forth by the national authority due to its lack of resources and a lack of vision and relevant policy formulation at the system level because of the shortage of qualified planners and strategists. Difficulties also happened because higher education institutions continued to be supervised and managed by various parent ministries.

Interviewee 17, higher education officer: Higher education institutions today are under the management/ supervision of 14 parent ministries [12 according to recent reports - see Table 4]. For vocational-technical, Ministry of Labour and Vocational Training is in charge. So if we talk about VT, we go to Ministry of Labour and Vocational Training - no one can touch this. And for Ministry of Education, vocational training is limited because it focuses on basic education and higher education. It is really difficult when there are too many ministries in charge of higher education institutions. We don’t have a specific institution that controls this thing.
Some programs were supported by donors, and as such, were demanded to follow donors’ conditions. This fragmentation led to divided lines of responsibility in higher education institutions. Exacerbated by an absence of coordination and communication, attempts for an integrated and holistic approach to a policy for higher education could not be realized.

Interviewee 8, university administrator: Donors think that our department is like an NGO. That means when they provide funds, they can get what they want. But the real story is our department is under the management of (name of his university) and also the Ministry of Education. So whatever we do must comply with the rules of the university and the ministry. So sometimes we cannot make some decisions ourselves. Decisions must be acceptable to the donors and must comply with the rules of the university and the ministry. Our difficulty, our challenge, is finding a way to meet what the donors want and what the rules say. We need to consider both sides…being in the middle like (name of department) is the most challenging thing. This is a situation (name of department) is facing everyday—the university thinks we have a donor to support and the donor thinks we are under the university, so the university should take responsibility.

When asked what should be done to improve higher education governance, several participants said they wanted to see the government have both the political and financial commitment not only to ensure that higher education policy initiatives link growth, the labour market, and skills, but also to provide necessary support to higher education institutions so that they could effectively manage institutions and successfully implement national policies.
Interviewee 6, university administrator:…to have an effective management, it requires a lot of guidance and assistance from the Ministry of Education. For example, if the ministry requires us to have this or do that, the ministry should put the support in place so that we can do our job. Take science, for example, we wanted to focus on science too, but we can’t do that due to a lack of resources. It seems to me that the ministry only inspects and controls; it doesn’t provide consultation and resources…the ministry expects and waits for the higher education institutions to do the job without support.

Interviewee 18, higher education officer: What I want the government to do is ensure that policies and regulations must be tied to support so that universities can do their job. The government sometimes needs to adjust the policies so that higher education institutions can fulfil...Government should not act only as regulator - it should study what universities can or cannot do also.

Frustrated by the ongoing unpredictability and what he called, “one individual knows everything” scenario, a participant strongly suggested, “government provide financial, administrative, and academic autonomy to higher education institutions and individual institutions pass that autonomy to their lower management and faculty teams” (Interviewee 7, university administrator). He said autonomy “encouraged each HEI to try its best.” However, he pointed out that, “all kinds of autonomy must be attached to responsibility and accountability”:
Interviewee 7, university administrator: ….too much interference is not going to be productive…. Linking to autonomy is responsibility. You must be responsible - financially, academically. … If you are not accountable to your graduates, your graduates will not be able to find employment or use skills. So you must have accountability. The reason for autonomy is to encourage each HEI to try its best. Responsibility must not end when the students graduate. If we run an education that way, we are not going to go far.

According to the participants, improving the quality and capacity of leaders of higher education is another main agenda for strengthening higher education governance in Cambodia. The participants suggested a reform be made in selecting people for leadership. The selection must be based on relevant qualifications. There is also a need for clear policies and political will to support the implementation and operation of higher education.

Interviewee 13, faculty member: Government must reform the management - set a condition. For example, in order to be in management, you need to have an acceptable academic qualifications. To be dean or vice dean, or president or vice president, you need to have qualification, not politics - stay away from it. … get rid of politics. Like in Thailand, you can get punishment if you do something against the regulation/law. For Cambodia, we need a new law stating clearly the operation of higher education institutions.
Interviewee 15, employer: Reform the ministry! They need to look for people who know how to do action plans, know how to assess and evaluate higher education. It’s not good now that the head of higher education does not know English. Knowledge in this language could allow him/her to read books and collect new ways to integrate into higher education. The appointment is not transparency. It doesn’t link with academic qualification… rather it is done through nepotism or corruption (we should not accuse others; we don’t see it ourselves). So we need policies, staff, and political will. Without political will, we can’t do anything.

One participant called today’s governance reforms a “reform fatigue” and a “change fatigue” due to “a lack of implementation” and a “ka chei te nik kheung” (which means, a reaction or doing something as one wishes). He proposed that each reform policy should engage all stakeholders, especially those who directly implement the policy. These people must have a say in the policy discussion to avoid the implementation failures Cambodia has seen.

5.8 Quality issues and approaches

“Lack of accountability-responsibility.” “Graduate unemployment.” “No one cared.” These are some contributing factors to the low quality of Cambodian higher education noted by participants in this study and that I quoted earlier in this chapter. Poor quality, however, was also linked to other issues. One participant recounted a conversation he had with a university student and asked how one could ensure quality when a student enrolled in a program without knowing what to expect, without commitment, and without having much time to study.
Interviewee 16, employer: I spoke with a young lady at Toul Tompoung market (in Phnom Penh) and I asked her, “Ok, you come to sell everyday?” “You are young. Do you go to university?” And she said, “Yes, I am a year four student at a law school.” I then said why don’t you find an internship? Why you become a clothes seller? And she said, “I don’t know where? The internship is not a requirement anyway.” You see, she’s in year four, she is about to graduate to become a lawyer. And she has no time to study; she doesn’t have any experience… her only experience is selling clothes. You see? And she herself doesn’t value education; she just goes to her university for the sake of graduating - get a degree and yet goes to work somewhere else.

The ability of higher education institutions to produce graduates for labour market needs efficiently depends, among other things, on the quality of instruction provided by qualified and experienced faculty members. Judging from several respondents’ observations, Cambodian higher education institutions do not have many qualified faculty even though the country has more and better human resources including those educated overseas and expats. The participants blamed the business nature of Cambodian higher education (the fact that the majority of higher education institutions are profit-oriented) for the lack of qualified teaching staff at Cambodian higher education institutions. An employer maintained that higher education institutions focused on recruiting the “middle” teachers with basic qualifications to save cost. He continued:

Interviewee 15, employer: Quality is not international standard. A lot of universities, especially the private ones, just wanted to make money. People without any experience in teaching could get a teaching job there. I have a number of friends (expats), not
Cambodians who taught at Cambodian universities - they don’t have any teaching experience. The universities don’t require you to have any professional skills. They just want you to go there and teach one hundred students like that. …Worse, the teachers have been told to lower the expectation too - to pass students so that they could continue to study at their universities.

One student spoke about how a university teacher with qualifications and teaching experience could affect the teaching and learning quality.

Interviewee 1, student: I think they have impacts as well. I think as the teachers have a high degree they are well read and tend to have been exposed to more teaching methods - I mean a whole different way of teaching techniques, maybe. So they may be able to use the knowledge and methods to teach when they become teachers themselves.

There was also a problem regarding the unpreparedness of students entering university. A faculty member saw a need for every Cambodian university to offer necessary support to students so they could succeed.

Interviewee 11, faculty member: Cambodian students need to be taught or introduced to study skills. Study skills doesn’t necessarily mean how to study but getting to know the whole university structure, what it has, where they can get help, etc. Now Cambodian students know nothing about all this. They don’t understand what is academic, what is student affairs.
To improve quality, the participants suggested that Cambodia take steps to improve and strengthen accountability. An officer at a public university commented that higher education institutions should be held accountable to the government and other stakeholders (students, parents, and society). “Actions must be taken against them if they do not.”

Interviewee 8, university administrator: …We also need to ask higher education institutions to be accountable to their training, too. Standards must be put in place to judge how well individual higher education institutions perform. For those that don’t perform to the minimum standards, the government can lower their status from university to institute or something like that.

The participants sympathized with the government in adopting policies to remedy higher education issues. However, they said that the government needed to be held accountable as well. For example, the actions and policies it produced needed to be consulted with the stakeholders to guarantee relevance and successful implementation. They cited a few cases where the government decided on actions without proper consultation and studies of implication.

Interviewee 15, employer: The Prime Minister announced that the Minister of Education would not sign your certificate…. the dean of the university would sign it to ensure quality. I am not sure whether by just changing the person to sign the certificate will improve the quality. So it’s not effective. …They said the aim is to improve quality. But the question that needs to be answered is how can you guarantee that?
Interviewee 14, NGO employee: According to the new Minister of Education, he would stop issuing permits for new higher education institutions to improve quality. That decision can’t ensure quality. For quality, it needs more than just stopping issuing more permits. Stop issuing? Fine. But how you are going to deal with the existing ones? There is a need of new policy about all that or ways to deal with that.

Improving the higher education sector quality also requires that Cambodia mobilize the participation of all stakeholders in the process. Their participation is critical, so it should be appropriately prioritized. A higher education officer pointed out that, “these days, stakeholders, especially those from the private sector, were not encouraged or invited to take part in the higher education development process” (Interviewee 17, higher education officer). He argued, “The policies involving higher education were often made by a dozen top officials and then disseminated to the lower level for implementation.” One employer participant said that universities and businesses could work together to improve quality. But rather:

Interviewee 16, employer: I think the universities or schools should have a close contact with us, the private sector. Now I am contacting them because I need people to work in my company. I think schools can learn something from us. They need to learn more about our needs and we can help...like we can sit down and work out the curriculum, or we can be guest speakers, or we can teach certain subjects, etc.
According to one participant, “student participation” was critically important in the effort to improve higher education quality. He said students have the power to push teachers to try harder because they pay tuition. They should know the value of their money paid to the school and demand that teachers do their part. He used his case as an example of how his students had taken part in their learning process to enhance quality.

Interviewee 10, faculty member: Like myself, students were successful in removing me from teaching a course because I was absent and late a few times. It was my mistake; I took external work (translation/interpretation) so I was late and tired. Sometimes because of exhaustion, I didn’t speak much in class or spoke but in low voice. Students could not hear me and so on. So students knew they wasted time and money so they petitioned to remove me from teaching the course. This is what I mean by student participation; they can change - improve the higher education sector in Cambodia in this way. Students must exercise this power - they have responsibility too.

The same respondent also wanted Cambodia find a way to change how kids are taught. He said that the Cambodian education system and society need to teach students to learn to challenge and express ideas, to participate, and to be responsible. He stated, “all this must be taught when they are young; when they grow up they can and dare use the skills.”

An attempt to improve higher education quality in Cambodia, one participant reminded me, must include policy actions to promote teachers’ living conditions, to fight corruption in higher education sector, and to attract qualified people to work in the sector. He urged the Ministry of
Education to have a strategic plan concerning these key aspects. But he said the other social sectors must play a part in the process - some norms need to be changed to support the improvement efforts. He said:

Interviewee 18, higher education officer: …for example, involving culture. We stick to it 100% - we don’t accept new thinking or new practical ways of doing things. I don’t think that is good. Some part in the culture that was the norm more than 2000 years ago should be changed to fit the current reality. I don’t say we replace our culture, but we should be open to new ideas. I just think that when you and I talked about improving higher education quality we talk about today - we need to improve our higher education system to catch up with other countries. So everything is new. If we bring new ideas and experiences into our system, we also need other parts of the society to be open to them too to be successful. The education can’t do it alone successful without wider participation of other sector.

5.9 Desirable higher education structure?

When asked which among the three proposed higher education scenarios was the most appropriate for Cambodia, 16 of the 18 interviewees believed Cambodia needs a higher education system that provides a range of practical and technical skills for local small and medium-size businesses and for Cambodia’s largely undeveloped rural areas. They said most Cambodian businesses are small and the country has excellent potential in agriculture. They argued that Cambodia could compete with the other countries in the region by tapping into this
potential if higher education institutions offered more skills-oriented programs that those sectors need.

Interviewee 12, faculty member: I think the system that focuses on skills for small and medium size businesses and enterprises can work for Cambodia. We need a lot of skilled laborers for this sector. Higher education institutions should focus on this. You see, about 3000 to 4000 students are studying accounting in the degree programs at Vanda Accounting School. We don’t need that many accountants. I have a few relatives who finished high school. They took a year or so accounting course, and now working with my Chinese companies in Cambodia… You see, it’s easy.

Interviewee 4, parent: … students need to know how to grow, how to care, and how to produce. All this doesn’t need four-year university study.

An employer of a medium-size company based in Phnom Penh strongly favoured the skill-oriented programs:

Interviewee 15, employer: I need my staff to be able to perform what they are hired for. Schools should at least provide them with some skills and knowledge that match our needs… I don’t care what kind of qualification they obtained if they don’t understand and can’t do their job they waste money and time going to university. We can train them when they are with our team, but it takes time and resources, and we don’t want to do that all the time.
Another employer said he would support any plan that shaped Cambodian higher education institutions to focus on producing skilled labour for the local needs because the required skills were often in short supply. He spoke about the difficulty of hiring university graduates for his company:

Interviewee 16, employer: Through my experience hiring people, I think it is difficult to find people with the right skills. We often ended up hiring people with the wrong field to train before they start working with us. I even hired some law graduates to work as salespeople. …I also see a changing pattern in terms of graduate’s knowledge and skills obtained from the higher education system. Six years ago, I think a candidate could tell you during the interview some specific skills they learned in their program. Now, recent graduates couldn’t tell; they didn’t know the answers to a lot of questions about their degree. So, I think our higher education sector is having a problem: maybe the curriculum. Maybe how they teach. I don’t know.

Despite agreeing with the importance of vocational and technical skills for Cambodia, a university lecturer argued that a higher education scenario that focused on producing skilled labour for the local businesses was not going to work. He gave two reasons to support his position. He said, “Cambodian public universities are under the leadership of different parent ministries and those universities never want to be a vocational and technical institution because of its low status - they would not offer skill oriented programs” (Interviewee 11, faculty member). The other reason, he said, was that “Cambodian students do not want to study
vocational/technical skills; they always want to study management and business because they want to be leaders, not skilled labourers.”

Interviewee 11, faculty member: But universities don’t want this because it means they will have fewer students. You see, even now many vocational training institutions already upgraded their institutions to train master’s, PhD students. Of course, they keep the same name: vocational school/centre, but they no longer focus on vocational skills. …Students don’t want to study “medium enterprises” or “vocational” subjects. They think that those subjects are low status, low salary. They want to be a manager. They said their parents wanted them to be a manager.

One participant told me that the World Bank and UNESCO used to propose that Cambodia establish a few elite universities at the top and small faculties/institutions at the bottom to offer skills-based programs for the labour market needs. However, he said, “The proposal was taken down because many higher education institutions did not like it. They were afraid of losing their business.”

Interviewee 13, faculty member: As far as I know, the World Bank and UNESCO used to propose the first scenario. But this proposal died because of conflict of interest from the ‘lower’ level. No institutions wanted to be the second.

He pointed out that the first option could work if Cambodia had a clear regulation that allowed a credit transfer from vocational training to university. He said that was the case in Australia where some students went to vocational school after high school graduation, and then, after a few years
there, went out to work knowing that they could go to university for a higher degree without any problem once they had enough money.

Interviewee 13, faculty member: …There should be a regulation allowing transfer from vocational training school to university. If you already spent two years at the vocational training school and you wanted to enrol in a bachelor degree program, university should let you do that for only two more years, for example. This would encourage students to attend vocational training school because they know that they could upgrade their qualification at the university later on.

Although most participants wanted Cambodian higher education institutions to focus on the training of job-ready graduates, emphasizing skills that directed towards the needs of the local businesses and rural development, one participant rejected all scenarios except Scenario 1. He insisted that Cambodia would benefit long term from a higher education system in which universities were oriented toward providing top quality teaching, training, and scientific research. He did not want to see Cambodian higher education institutions become a training ground: “it can be dangerous because training only involves skills for jobs. It doesn’t encourage critical thinking.” He said, “education should have liberal arts in it.”

Interviewee 6, university administrator: I think the first scenario is the healthiest option for Cambodia. That allows elite universities (this word ‘elite’ is a little too much, but let’s use it) to conduct research (applied, theoretical research). But it doesn’t mean that non-elite institutions cannot move up. If they want to upgrade, they can do that. For a start, the
number should be very small. But the number should be open. We should not have fixed number. If you meet requirement, you move up.

Several participants, especially those from the business side, suggested that, to complement training, higher education institutions should prepare programs for students to learn practical skills through internships, volunteering, or part-time work. They also urged universities to establish links with secondary schools to improve curriculum, teacher qualifications, teacher experience, and teacher quality, and to ready high school graduates for university studies.

Without mentioning any particular type of higher education suitable for Cambodia, one ministry-level official suggested that future higher education development should be based on the long-term objectives of the government. He said, for example, that the government now has three visions: Vision 2020, Vision 2020-2025, and Vision 2025-2050. “In these visions the government wanted to increase the income level of Cambodians from low to high by 2050” (Interviewee 18, higher education officer). He wants every education institution to use them as a basis for their future planning and training. He pointed out that, for a shorter term, each ruling government also had its own policies and said higher education institutions must follow them as well. “We must know both short term and long term objectives so we can plan and design training programs effectively, so we can avoid waste like today.”
5.10 Chapter summary

In this chapter, I analysed the responses from 18 face-to-face interviews with stakeholders in Cambodia regarding their perceptions about Cambodian higher education issues and their views concerning approaches the government should try to reform the sector. Based on the participants’ responses, Cambodian higher education grew noticeably in terms of quantity. The number of higher education institutions and students has increased rapidly since the country allowed private higher education institutions to operate since the mid-1990s. The participants also noted some attempts to improve higher education quality such as the adoption of the Education Law and the creation of the Accreditation Committee of Cambodia (ACC). However, as this chapter shows, multidimensional problems remain. Quality, infrastructure, management, administration, and higher education relevance to the labour market needs, among others, continue to be immediate challenges for Cambodia’s higher education sector.

In the next chapter, I will set out some possible strategies for higher education reform focusing on what will work in Cambodia based on the analysis of Cambodian higher education in Chapter 2, the international higher education reforms presented in Chapter 4, and stakeholder perceptions in this chapter.
Chapter 6  Conclusion and Future Direction for Cambodian Higher Education

In this chapter, I propose some recommendations based on the findings of this study. These recommendations are considered against the backdrop of the country’s structural issues, path dependency, and current and future social demands for human resources. However, before discussing the recommendations, I will briefly summarize the main purpose of this research, the key research questions, and the way in which it was conducted.

This research aimed to identify strategies to improve the Cambodian higher education subsector. In trying to achieve this objective, I relied on two sets of data. First, I used literature about higher education reforms and practices in many parts of the world. Second, I interviewed stakeholders to obtain information concerning higher education issues and development in Cambodia. The findings of this study were informed by three key research questions as presented in Chapters 1 and 3. The questions aimed to assess the present system, investigate experiences in other countries, and explore options for Cambodia. To be cognizant of the experience of higher education policy reforms and implementation in other countries, I reviewed a range of both print and electronic literature throughout the study. For nearly two months from July to August 2014, I conducted semi-structured interviews in Cambodia with 18 participants. At every step during the data collection process, several key themes were explored (i.e., funding, governance, relevance to the labour market, quality, access, and research).
This study found that Cambodian higher education still faces a range of key challenges. The national expenditure on higher education is relatively low, the teaching and learning is of poor quality, academic programs are not responsive to the needs of the labour market, access to higher education needs improving to ensure social justice and inclusive development, reform policies are not effective, and actions are needed to develop and promote research capacity and activities.

Going forward, Cambodia needs to do many things to deal with these challenges. For example, sufficient human and financial resources, clear policy direction, and implementation mechanisms must be put in place to deal with the problems, as they are major reasons why the Cambodian higher education sector has remained weak and unresponsive to the labour market needs. However, trying to change the whole system at the same time is not possible for Cambodia. A step-by-step approach to higher education improvement would be more appropriate and beneficial given its current social and economic condition. In this regard, I propose the government address three significant areas that can be most effective in terms of change. The first area deals with the kind of higher education institution that should be made available to serve Cambodia’s actual human resource needs. The second area focuses on funding; looking particularly at how Cambodian higher education institutions should be financed to ensure affordability and sustainability. The third area sets out strategies for quality improvement.
6.1 Rethinking higher education institutions: Skills for the labour market

Throughout this investigation, concerns about higher education institutions not meeting the needs of labour market have been raised. Earlier in this thesis, I showed some reasons why this happened. In short, these concerns suggest that governments, graduates, and their families continue to waste time and money because many graduates cannot find employment. To tackle this problem, and to deal with growing employer demands for a relevant skilled workforce, it seems more appropriate that Cambodia focus on the non-university sector. The non-university sector should include all institutions that offer predominantly short-cycle programs (1–3 years in duration), as well as a hybrid of short-cycle and degree-level programs. These institutions are known by different names in different parts of the world such as “polytechnics,” “non-university higher education,” “short-cycle higher education,” “alternatives to universities,” and “community colleges.”

In the face of financial austerity, I see great potential for this sector regarding bridging the gap between higher education and workplace needs. The main reason for this is that non-university institutions are smaller and more specialized institutions. The curriculum is either a combination of theory and practice, or a combination of theory, practice, and work placement (Mikhail, 2008). Because this sector (such as in Europe) is adapting swiftly to the demands of the rapidly evolving social and labour market conditions (Mikhail, 2008), it can equip graduates with the knowledge, skills, and competencies employers or workplaces need. Thus, as Geiger (1992) pointed out, the non-university sector can fulfil specific needs of the local economy not
adequately met by universities. This is an important aspect for Cambodia, as higher education institutions are constantly criticized for not providing the right kind of graduates for society.

Nevertheless, this is not the only advantage. The development of a non-university sector is a preferred direction for it can also help Cambodia reduce inequality in access to higher education among its growing young population. Based on the current statistics, the large majority of these young people are from poor backgrounds and rural areas. Finding solutions to ensure that they have opportunities to pursue higher education is of great importance to Cambodia’s inclusive social and economic development. During my interviews with stakeholders, I heard repeated calls for access widening for these economically disadvantaged groups to ensure a more socially acceptable balance among the various socio-economic groups. The creation of a non-university sector should help Cambodia expand access for those people, because it is less expensive than regular university education due to the shorter length of the study programs (1-3 years). It can provide access in a cost-effective manner, usually at a lower cost per student than four-year universities can (Mikhail, 2008). Hence, it contributes to better national economic and social benefits for public investment (Psacharopoulos, 1997; Oketch, 2007).

Having said that, I do not propose Cambodia should neglect or abolish the current system and replace it with a non-university sector. The current system still has many problems that need to be addressed. But it also has significant positive developments and strengths. The government needs to find ways to improve it further. After all, Cambodia needs professional, political, and industrial graduates with university qualifications to take up important responsibilities in society. The need is even more critical as Cambodia is integrating into the world stage (e.g., the ASEAN
Economic Community and the World Trade Organization). A stronger and more effective university system built upon the strengths of this current system would help the country achieve this goal. As the stakeholders suggested, one important thing the government should do immediately to improve the effectiveness of the current system is to strengthen the connection between higher education and the labour market.

Following international practices, the government needs a clear workforce vision to achieve this, because higher education institutions can contribute effectively only when they know what kind of human resources the country needs. Thus, the government should encourage higher education institutions to conduct surveys of both graduates and employers in the whole higher education sector to monitor graduate supply and demand and the destinations of graduates from different disciplines. These people can provide feedback about the workplace relevance of higher education courses and programs. Also, the Cambodian government should encourage links between higher education and other sectors by engaging the latter in the design of educational programs and in institutional governance. To avoid any wastage of resources used to conduct graduate surveys, the government should follow up on the findings and incorporate them into program planning that fits the needs for human resources.

Where should non-university institutions be built? According to the experience in other countries, the decisions about the location of these institutions seem to be based on a range of factors. In proposing the establishment of two-year colleges in British Columbia (Canada), Macdonald (1962) urged that the selection of location be based, among other things, on the total population of the area targeted and the size of the student pool within and around the location
concerned. In Poland, however, a main reason underlying the decision about the location of non-university institutions is an attempt to “revive” disadvantaged regions (Macukow & Witkowski, 2001). Vietnam, too decided to set up many community colleges in the Mekong River Delta because the education network there is less developed in comparison with other regions despite its large population (Dang & Nguyen, 2009).

Decisions about the location of non-university institutions in Cambodia should be carefully planned to ensure maximum benefits for the Cambodian society and so that young people in the rural areas have an opportunity to attend post-secondary education. In that respect, many non-university institutions should be built in the provinces, not in the capital (Phnom Penh). Today, well over 90% of higher education institutions in Cambodia are concentrated in the capital. The existence of proposed institutions in rural and/or disadvantaged urban communities would provide access to higher education for many Cambodians who otherwise have no opportunity to enter regular university systems.

Traditionally, access/equity to higher education in rural Cambodia where the majority of the disadvantaged groups reside has been a huge challenge because the investment in higher education in those areas has been historically low. Consequently, many students from rural areas do not have equal access to education beyond elementary and/or high school. Because of this, many participants in this study want to see the government invest more resources in building education and training centres in the rural areas, so much so that they suggested that a recent decision by the Minister of Education to stop issuing permits for new universities should be
reversed if the proposal to establish a higher education institution targets rural areas or places that the government considers a priority for such development.

I suggest strongly that the government set up a national commission or a coordinated body to identify locations for non-university institutions that best serve the country. Since this would be a new endeavour for Cambodia, there should be policy dialogue among different social and economic sectors and participation from these social and economic sectors. Key relevant government authorities should be represented on a committee established to facilitate this dialogue, such as the Ministry of Education (Department of Higher Education), the Ministry of Economy and Finance, the Ministry of Commerce, the Ministry of Industry, the Ministry of Labour, the Cambodian Development Council, and the Accreditation Committee of Cambodia.

The committee should also involve representatives from different local and international organizations such as UNESCO, UNDP, ADB, the World Bank, and representatives from the business/private sector and civil societies. Since an important purpose of the possible development of non-university institutions is to promote remote/rural areas or provinces, their participation in the process would be vital.

In addition to identifying appropriate locations for the new institutions, the committee should be tasked to plan and coordinate other important development processes. Some of its mandated priorities should be to conduct needs assessments and reviews; identify gaps in the existing vocational and technical training programs; plan relevant programs; and discuss strategies and measures regarding enrolment, issues of management/operation, possible partnership, and the ways and/or levels of integrating existing vocational and technical training centres into the non-
university sector. This committee can help Cambodia to avoid redundancy, or overlap, in responsibilities and functions within the higher education sector.

To ensure the long-term viability of the non-university sector that best serves the economy, society, and the community, concerted efforts and policies are needed to ensure that Cambodians change their perceptions about the non-university sector. It is well known that Cambodians place a much higher value on university degrees and regard vocational technical education as inferior. As Heng (2011) correctly put it, vocational-technical education is for workers and not for professionals. This mindset must be changed. Cambodia can learn from the experiences of other countries in order to help it deal with this important issue. Among other countries in the region, Singaporeans have done a good job in building a positive image of vocational training and cultivating support and recognition for it. For example, they have established a comprehensive marketing program that reaches out to students, teachers, parents, and the community every year by conducting promotional talks in secondary schools, inviting potential clients (students, parents) to campuses, hosting open houses, and going on road shows (Law, 2008).

In addition, Singaporeans have successfully changed the image of the non-university sector by using media forms such as newspapers, posters, buses, and trains to advertise the success of students. Television and radio can play an important role in this area as well, as both kinds of media are popular and widely accessible in Cambodia. They should be used to promote non-university education or to help change Cambodian perceptions of the non-university sector. It does not help when TV shows only depict lawyers, doctors, and those studying overseas as the most successful individuals in society.
Also, it would be unfortunate if attempts to establish a non-university sector merely result in the creation of more universities. If that happens, the higher education system will not expand and diversify, and hence it will not serve the needs of the labour market.

6.2 Breaking the financial challenges to ensure affordability and sustainability

As the study demonstrated, funding is a large issue for Cambodian higher education, and government financial support provided to higher education institutions has never been adequate. Given competing demands for resources from other social segments such as basic education, healthcare, clean water, public works, and rural development, future public funding increases for higher education is unlikely to happen soon. But for higher education institutions, including the proposed skill-oriented institutions to produce human resources for social and economic needs, the funding situation must improve. Having undergone tough conditions just as Cambodia has, many countries, as I showed in Chapter 4, have adopted a mixture of various policy mechanisms to deal with financial challenges. Drawing from their experience and stakeholder responses, I encourage the Cambodian government to take four steps:

1. Mobilize new financing for higher education.
2. Utilize resources efficiently.
3. Promote student/parent contributions.
4. Encourage higher education institutions to generate extra income.
Mobilize new financing for higher education. I agree with the participants in this study who urge the Cambodian government to invest more in the next generation by raising the budget for higher education. Indeed, mobilizing new financing for higher education is not easy since Cambodia still has a narrow base of revenue sources (as shown in Chapter 2, economic activities mainly focus on a few areas). Moreover, the country still relies heavily on foreign assistance. According to the U.S. Department of State (2014), between 30-40% of the central government’s budget comes from foreign aid donations. But resources invested in higher education, especially in the development of a non-university sector, would provide Cambodia with, among other things, the necessary human resources to expand economic activities and improve social services.

One way the Cambodian government can mobilize new revenues for higher education is by improving current tax collection mechanisms and fighting against widespread corruption in Cambodian society. This action alone could help Cambodia recuperate hundreds of millions of dollars in lost revenues every year. Doing this is possible, but it requires a strong and sustained political will and determination as well as the participation of everybody (e.g., governments, higher education institutions, businesses, civil society, and donors).

Utilize resources efficiently. In light of national financial constraints for higher education, the government needs to take steps to make higher education institutions use available resources more effectively and efficiently. Based on this finding, low efficiency is a major waster of the limited financial resources for higher education. As I showed in Chapters 2 and 5, unqualified staff, irrelevant content and curricula, lack of teaching and learning resources, and poor preparation of secondary school students have contributed to inefficiency problems. The
introduction of the Foundation Year program at universities (see page 46) to further prepare students is evidence that financial resources are wasted twice (first at secondary school and then at university), as it shows that the knowledge and skills students obtain during high school do not prepare them sufficiently for university studies.

In Chapter 4, I discussed some of the trends that other countries have adopted to deal with inefficiencies in higher education systems. Cambodia cannot do everything. Nevertheless, as the largest amount of the national budget for higher education is spent on staff salaries, building capacity to improve efficiency must be prioritized and addressed. Already, many national resources have been wasted because of the poor preparation and effectiveness of both teaching and non-teaching staff. An important place to start is to review staff recruitment strategies to ensure faculty quality. Cambodia can follow the good examples practiced elsewhere. For example, appointments to faculty should be made through an open and transparent process; that is, with a fair, professional, and efficient spirit, not through connections, bribes, and nepotism. Cambodia should reconsider academic staff recruitment strategies at public higher education institutions where employment is guaranteed once staff members enter the system. Following international trends, Cambodian higher education institutions would benefit more when long-term contracts with faculty members are based on performance. This kind of contract should be used to attract the most talented, brightest, most creative, and most highly motivated members to work in higher education.
However, reform should not stop at the selection or recruitment stage. On the contrary, there is a need for the professional development of academic staff as well. In other words, higher education institutions need to provide training programs to enhance and elevate the competency of academic staff on a regular basis. Doing so will not only help higher education institutions address resource wastage, but also improve the quality of higher education at the same time. University teachers should have the opportunity to take part in professional development so they can upgrade the subject matter, their knowledge, their pedagogical skills, and their core values. When they are better prepared, they will experience a greater sense of professionalization and their responsibilities will be more intrinsically rewarding, which will enhance institutional commitment as well (ADB, 2011).

Professional development can be done by sponsoring staff to earn further qualifications or training, to take sabbaticals, or to attend local, regional, and international conferences and workshops. Malaysia and Mexico, for example, have significantly enhanced staff competency and/or the qualification levels of full-time academic staff in public institutions through scholarship allocations to faculty members for the completion of postgraduate degrees. At the same time, the government can consider mobilizing resources to establish teaching staff development centres in higher education institutions to plan staff training and strategize staff needs and development. This practice has been adopted in many countries in East Asia and Africa. Training topics may include (a) curriculum planning and course design based on intended learning outcomes, (b) strategies for linking teaching methods and student learning assessment methods to intended learning goals, (c) strategies that foster active learning, and (d) strategies that prepare students to engage in new forms of learning (ADB, 2011). In addition, government
and higher education institutions should also encourage all academic staff to learn improvement methods from each other and work together to enhance their skills, knowledge, and teaching effectiveness.

*Promote student/parent contributions.* As the demand for higher education is rapidly increasing and resources are tightening, Cambodia has taken the right step in line with international practice in adopting a cost-sharing policy. Now, a large majority of Cambodian students contribute to the costs of postsecondary education by paying tuition fees. Faced with financial stringency, the introduction of cost sharing has provided Cambodian higher education institutions with some of the much-needed revenues to address their delivery and provision challenges. Also, as more than 80% of university students are fee payers, the introduction of cost sharing can be argued to have helped widen access as well. Therefore, faced with rising budget pressures to maintain funding for public higher education institutions and a growing demand for higher education, cost sharing should remain for both the existing higher education institutions and the proposed non-university institutions.

In the meantime, though, the government should consider introducing a student loan program to help reduce the financial barriers facing many Cambodian students. Indeed, some of the stakeholders surveyed in this study argued that a student loan program is not a likely option for Cambodia based on the country’s current social and economic context: the government does not have the necessary financial and human resources to start and maintain the program. Also, as I pointed out in Chapter 4, a viable loan program requires substantial administrative capacity and a reliable system for tracking income. Cambodia seriously lacks such a resource. Nevertheless,
given that Cambodia has already implemented a cost sharing policy, a student loan scheme
should be considered to provide people with an option for financing their education. As Salmi
(2006) pointed out, “cost-sharing cannot be implemented equitably without adequate student
support mechanisms for academically qualified but needy students” (p. 1).

Although it should be a future goal, planning should start as early as possible. The Cambodian
government should set up a committee to explore options and find out how to make a student
loan scheme work within the context of the country. Many different kinds of student loan
programs exist and each has disadvantages and advantages. Mortgage type loans and income-
contingent loans, as described in Chapter 4, have been widely adopted in many countries. Is
Cambodia ready for any of these loan schemes? Student loans can ease the payment burden of
education on students by enabling them to delay payment (whether for education-related costs or
living expenses) until they are in receipt of the higher earnings that their additional education has
made possible (Ziderman, 2003). As I have already shown in Chapter 4, this option has helped
many countries around the world to enhance access to higher education. The country may not be
able to introduce mortgage type loans, either now or in the short run. The success of this kind of
loan relies significantly on an effective tax authority. Likewise, it may not have the necessary
conditions for successfully implementing a system of income-contingent repayment, as it
requires an information system that accurately reflects earnings plus robust mechanisms for
collection (ADB, 2009). Yet, exploratory studies should be conducted to assess the potential and
requirements of student loans and to be prepared for future policy formulation and development.
Despite negative reports about student loan schemes in many parts of the world, there also appear to be salient lessons and positive developments about them that Cambodia can draw from. In Section 4.1.1.2, I discussed how Costa Rica and the Dominican Republic have made student loan programs work well in their respective countries. According to the OECD (2012b), the student loan program in the Dominican Republic experiences only about 4% delinquency. Brazil and Mexico also have student loan agencies/institutions that are recognized as models for other institutions in the Latin American region (Salmi, 2006). These should be good places for Cambodia to start exploring further.

As an example, in the Dominican Republic, the student loan agency (FUNDAPEC: APEC Foundation for Educational Credit, Inc.) is a private not for profit foundation (OECD, 2012b). The foundation gets its resources from the government and from the Inter-American Development Bank and USAID. It provides student loans for all levels of higher education or technical level studies (both within the Dominican Republic and abroad) at institutions that are accredited by the relevant authorities (OECD, 2012b). It is also responsible for the selection of students to receive loans and for the recovery of loans made by third parties (firms and universities). Student loans or credit granted by FUNDAPEC cover the total or partial cost of tuition, monthly fees, books, and transportation (Woodhal, 1993; OECD, 2012b). A student borrows funds to finance four years of study and then takes a further four years to repay them while working (with interest rates around 20%).
One important thing to remember is that the introduction of higher education fees, as Cambodia has experienced first-hand, has placed a considerable financial burden on students from lower socio-economic backgrounds. Put in another way, these people face a difficult and entrenched hurdle that prevents them from benefiting from higher education due to financial barriers. To provide opportunities for many of those capable to attend postsecondary education, the Cambodian government should try to remove these barriers. In this respect, a need-based and merit-based bursary system of grants should be established. As shown in Chapter 4, many governments have used grants effectively to promote equitable access to higher education for financially needy students from socio-economic disadvantaged backgrounds (Armstrong & Chapman, 2011; OECD, 2012a).

Usher (2006) argued that grants appear to be effective at increasing retention among low-income students as well. This bursary should be sufficient to cover tuition, living expenses, and other compulsory fees. The government should make it clear that, in order to qualify for bursaries, the target recipients must be clearly defined. For example, they must be low income or very low income students. In some countries, “high priority careers” are used as a condition for bursary eligibility. In other words, in order to receive education bursary, a student must choose to study for a career that is deemed a priority by the government or for a career that leads to in-demand jobs.

How can a poor government such as Cambodia earmark resources for students from low socio-economic backgrounds? The answer involves two possible scenarios. One scenario is that the government should turn its existing scholarship program into a bursary grant scheme that targets
these less privileged students. As stated in Chapter 2, Cambodia has created a government scholarship program to promote access. But as both the existing literature and stakeholder responses in this study have shown, the scholarship program has not been effective. It is inadequate, non-transparent, and confusing. It has not benefited the poor because the selection of students for scholarships is solely based on academic merit. As a result, a large majority of scholarship recipients are from wealthy families. Hence, a bursary program versus a scholarship program should be revised to serve the neediest students.

The other scenario is that the government and society can encourage gift giving to support these need-based and merit-based bursaries. Based on this study finding, it is particularly encouraging that an increasing number of wealthy Cambodians and businesses have donated money already to help sponsor students to continue their studies after high school. These private donations and philanthropic contributions have helped address the challenge of insufficient resources for the neediest students. But the Cambodian government can do more to mobilize additional resources to help poor students.

For example, by learning from good experiences in other countries such as those I mentioned in Section 4.1.3, the Cambodian government can create favourable tax treatment to attract donations from companies operating in Cambodia. A large majority of individual Cambodians do not pay income taxes, so tax treatment is out of the question for individuals. However, as a participant in this study appropriately suggested, the government should acknowledge the “private effort” (contributions) and ensure that the administration and distribution of donations is transparent. This may convince more Cambodians and/or alumni to contribute. The government
should work with private scholarship/grant providers to coordinate the program better to ensure transparency and efficiency.

*Encourage higher education institutions to generate extra income.* Finally, the Cambodian government should consider encouraging higher education institutions to generate additional income. Seeking such funding is an option that higher education institutions in many countries around the world have embraced to supplement financial support from the government. For example, Uganda's Makerere University offers evening diploma and certificate courses, and they have started bookshop and bakery services to generate extra income for university improvement and operations (TFHES, 2000). Additional income sources have had an important impact on the financial environment of African universities (Marginson & Considine, 2002). They have helped higher education institutions to supplement staff salaries; purchase academic materials and equipment; attract, motivate, and retain competent staff; and slow down the accelerating brain drain (Kiamba, 2003; Butare, 2004). In the Southeast Asian region, 84% of Malaysian universities are implementing consultancy activities to generate income (Ahmad, Soon, & Ting, 2015). Other top activities include post-graduate programs, short-term professional development programs, continuing studies programs, and off-shore programs in local universities. Currently, income generating activities are an exception within Cambodian higher education institutions. Thus, this is an area worth studying further by the government and higher education institutions to deal with financial austerity.
However, some mechanisms need be put in place to ensure the transparency and effectiveness of income-generating activities. Like elsewhere, higher education institutions should only choose areas in which they have actual expertise, experience, and capacity to perform. This will prevent the offering of low quality products or outcomes that can negatively impact users’ trust and confidence in higher education institutions. Also, the government needs to define clearly the scope and size of the income generating activities. That means to what extent higher education institutions should generate additional revenues that will not affect the roles, responsibilities, and education quality provision of each institution. Without clear guidelines about this issue, higher education institutions may focus too much on generating extra income at the expense of fulfilling their roles as educational institutions.

Higher education institutions also need to understand clearly what the generated income will be used for. They need to know whether the money is for purchasing teaching and learning material and equipment, for supplementing staff salaries, or for expenditures on other things. The purpose of clear guidelines is to avoid corruption and embezzlement. Higher education institutions should establish a group or unit to be responsible for additional income generating activities. Its responsibilities should be to explore or seek funding opportunities, identify areas of strength for universities in terms of potential income-generating activities, and oversee the spending process.
6.3 Quality mechanisms

Cambodian higher education institutions need to improve quality to strengthen their relevance in relation to the labour market needs. I am well aware that Cambodia lacks resources to do this critical job well, but that should not become a justification for poor quality higher education. Building on the strengths of the current system, I recommend that Cambodia take three actions to promote the quality of higher education programs:

1. Improve the national accreditation authority.
2. Tighten licensing for both new and existing higher education institutions.
3. Improve staff capacity.

The first action is to strengthen the national quality assurance agency (ACC) that is already established. The creation of the ACC is a positive development because that means the government, as one participant put it “began to organize and recognize the importance of quality at the higher education institution” (Interviewee 6, university administrator). However, in order to ensure that the agency can fulfil its functions effectively, its shortcomings require attention. The most important shortcoming is its poor human capacity. The ACC does not yet have a sufficient number of adequately trained staff to oversee the systematic QA process (UNESCO 2010; You & Sok, 2008).
Lack of a clear staff recruitment procedure significantly contributes to this staff shortfall. Most staff members are recruited from the university teaching pool with no solid knowledge in quality assurance matters (Vann, 2012; Interviewee 6, university administrator). The ACC leaders are appointed by the government, mostly through political or social connections. They, too, lack the skills and knowledge to manage QA effectively. As the integrity, credibility, and legitimacy of the agency depend on the quality of professional and technical staff, capacity training has to be a top priority, especially in the areas of accreditation standards, system conceptualization, the development of methodology (collecting and analyzing data), assessment, budget planning, strategic planning, and implementation skills.

Capacity development in this area may be achieved by having staff take part in conferences and study visits to QA agencies in the region or by inviting experts to provide training in the country. With scarce resources, the government may need to seek assistance from regional and international institutions/donors and quality assurance agencies. For example, the Asian University Network is a good place to start. The opportunities and support from this activity can enable Cambodian QA staff to learn good and relevant experience/lessons to improve their system.

To complement the ACC in a move to gear toward quality improvement, the Cambodian government should also encourage higher education institutions to establish QA units. As evident in this finding, the majority of Cambodian higher education institutions do not yet have this mechanism or any QA policies in place. They need internal policies and mechanisms to self-assess programs, progress, and performance to ensure that they are fulfilling their goals as well
as the standards that apply to higher education. Introducing quality assurance units at this level will allow higher education institutions to develop ownership of academic programs and outcomes, foster contacts with external stakeholders, and react dynamically to their changing needs (Glonti & Chitashvili, 2006). So institutionalizing quality assurance can be an effective tool for enhancing and maintaining the quality of education provision.

An important first step towards this initiative is the need to build core capacity within the units. In planning quality assurance systems at this level, various groups within higher education institutions should be mobilized and encouraged to take part in the process. Also, in order to ensure that quality assurance units are capable to fulfil their tasks, the Cambodian government should provide them with the necessary financial and technical support and capacity building resources.

The second action that needs to be taken to enhance quality is to impose stricter requirements for the establishment of new institutions and for existing institutions to obtain accreditation or reaccreditation. As stakeholders pointed out, the low quality of many higher education institutions has resulted from the practice of charging excessively low fees to attract students and then cutting corners to save money. To prevent this practice, I see the need for the government (through the ACC or the MoEYS) to enforce stricter regulations or requirements for the registration of new higher education institutions and for existing ones to obtain accreditation and reaccreditation. For example, if higher education institutions do not have adequate facilities, a sufficient number of lecturers, or an adequate library, they must be denied authority to operate as universities or denied accreditation/reaccreditation. A suggestion from a participant asking the
Cambodian government to create proper standards to judge how well individual higher education institutions perform (“For those that do not perform to the minimum standards, actions must be taken to lower their status from university, for instance, to institute”) is worthwhile.

As many Cambodian students are registering in the fields that correspond poorly to the labour market needs, Cambodia needs to control the expansion of the supply of graduates to ensure the efficiency of higher education institutions. Drawing from international experience, it can use accreditation as an instrument to assure that students make sound career study choices. The ACC should ensure, among other things, that all accredited institutions have a labour market relevant qualification embedded in the programs they offer. In other words, the ACC should award accreditation status based on the condition that higher education institutions include skills and requirements that the business sector needs. Employer representatives should be invited to participate in implementing and monitoring the process.

6.4 Final thoughts

My recommendations in this study are in no way meant to be inclusive. As I pointed out earlier, many substantial and largely unresolved higher education problems require attention. However, achieving the three approaches proposed here would provide Cambodia’s predominantly young population with opportunities to acquire skills and knowledge that benefit them, the labour market, and society. In turn, it would help Cambodia respond better to its social and economic development challenges. All these benefits can be realised if the Cambodian government, people, and society as a whole have a determined willingness to act and make changes.
To implement changes, Cambodia can learn from its own strengths and weaknesses. At the same time, it can draw from a wide range of international experiences. As Cambodia shares a fairly close social and cultural system with the Confucian tradition of the East Asian countries (Japan, Korea, China, Hong Kong China, Taiwan, Singapore, and Vietnam), it can adapt some of the characteristics of higher education in these countries. Higher education in these countries has moved forward rapidly and simultaneously in relation to participation, quality, and research, among other things (Marginson, 2011). According to Marginson, that achievement has been driven by a common approach to organizing education that involves four interdependent elements: (a) strong governmental shaping of structures, funding, and priorities, (b) a tendency to universal participation, partly financed by households, (c) “one chance” national examinations, and (d) accelerated public investment in research and “world-class” universities.

Of course, Cambodia would not benefit from adapting the third element and does not have the resources to focus on and/or promote the last element. However, given the current context, a high degree of governmental involvement is crucial in higher education development and reform in Cambodia. In other words, governmental involvement is needed to initiate and monitor the development, policy, and implementation of the national higher education system. It needs to be involved in policy decisions to shape higher education practices that promote relevance to the labour market needs, and to ensure, as Smith (1991) points out, organized national standards for curricula, methods, finances, teacher certification requirements, minimum graduation standards, and professional ethics. Without the government operating as a powerful centralizing and centripetal force, the reform process is likely to experience fragmentation and chaos.
Another dimension that should be explored further is the role of household funding; enrollment in the Confucian systems has increased although most students have received no state support in the form of grants, scholarships, and loans (Marginson, 2011). It is worthwhile that future research investigates the specific actions those countries have undertaken to arrive at that outcome.

In line with Collier (2007)’s argument about the importance of neighbours in development and growth, Cambodia can certainly benefit from positive events in its neighbouring countries in its attempts to create changes. Thailand, Vietnam, and Laos have experienced social, political, and economic development and growth for a long time now. Not so far away in the region, Malaysia, Singapore, and Indonesia can also positively affect Cambodia’s efforts to reform higher education because of their more developed higher education systems. Successful practices and reforms in these countries can provide appropriate and useful insights for the future development of Cambodian higher education.

Cambodia owes it to its youth.
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# Appendices

## Appendix A  List of major public and private universities

<table>
<thead>
<tr>
<th>No</th>
<th>Institution</th>
<th>Status (public or private)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Royal University of Phnom Penh</td>
<td>Public</td>
</tr>
<tr>
<td>2</td>
<td>Royal University of Law and Economics</td>
<td>Public</td>
</tr>
<tr>
<td>3</td>
<td>Royal University of Fine Arts</td>
<td>Public</td>
</tr>
<tr>
<td>4</td>
<td>Royal University of Agriculture</td>
<td>Public</td>
</tr>
<tr>
<td>5</td>
<td>Svay Rieng University</td>
<td>Public</td>
</tr>
<tr>
<td>6</td>
<td>University of Health Science</td>
<td>Public</td>
</tr>
<tr>
<td>7</td>
<td>Meanchey Univeristy</td>
<td>Public</td>
</tr>
<tr>
<td>8</td>
<td>Build Bright University</td>
<td>Private</td>
</tr>
<tr>
<td>9</td>
<td>Pannasastra University of Cambodia</td>
<td>Private</td>
</tr>
<tr>
<td>10</td>
<td>Norton University</td>
<td>Private</td>
</tr>
<tr>
<td>11</td>
<td>University of Cambodia</td>
<td>Private</td>
</tr>
<tr>
<td>12</td>
<td>University of Puthisastra</td>
<td>Private</td>
</tr>
<tr>
<td>13</td>
<td>Mekong University of Cambodia</td>
<td>Private</td>
</tr>
<tr>
<td>14</td>
<td>American University of Phnom Penh</td>
<td>Private</td>
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<tr>
<td>15</td>
<td>Zaman University</td>
<td>Private</td>
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<tr>
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<td>Chea Sim University of Kamchay Mear</td>
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<td>17</td>
<td>Preah Sihanouk Raja Buddhist University</td>
<td>Public</td>
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<tr>
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<td>National Defense University</td>
<td>Public</td>
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<td>Status (public or private)</td>
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<td>Phnom Penh International University</td>
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<td>Chamroeun University of Poly-Technology</td>
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<tr>
<td>21</td>
<td>Cambodian University for Specialties</td>
<td>Private</td>
</tr>
<tr>
<td>22</td>
<td>International University</td>
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<td>Western University</td>
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<td>ICS University</td>
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<td>Khemarak University</td>
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<td>Angkor University</td>
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<td>Sovannaphum University</td>
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<td>Asia Euro University</td>
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<td>30</td>
<td>University of Management and Economics</td>
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<td>31</td>
<td>City University</td>
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<tr>
<td>32</td>
<td>National University of Management</td>
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<td>Chenla University</td>
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<tr>
<td>34</td>
<td>Lim Kokwing University</td>
<td>Private</td>
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<tr>
<td>35</td>
<td>IIC University of Technology</td>
<td>Private</td>
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<tr>
<td>36</td>
<td>Khmer University of Technology and Management</td>
<td>Private</td>
</tr>
<tr>
<td>37</td>
<td>Angkor Khemara University</td>
<td>Private</td>
</tr>
</tbody>
</table>
Appendix B  Search engines/essential websites

- UBC library
- Google scholar
- Google books
- Eric
- BASE (search engines especially for academic open access web resources) http://base.ub.uni-bielefeld.de/index_english.html

- Infomine http://infomine.ucr.edu
- WorldCat
- EBSCO's databases http://search.ebscohost.com
- OECD Library http://www.oecd-ilibrary.org
- Springer http://www.springer.com

Search terms

- Higher education AND challenges
- Higher education AND developing countries
- Higher education challenges
- University AND challenges
- Issues AND higher education institutions
- Challenges of higher education institution AND developing countries
- The challenges of higher education
- The challenges in higher education
- Higher education in developing countries
- Higher education AND challenges AND alternatives
- Higher education trends
- Issues and challenges in higher education
- Challenges and strategies in higher education
- Challenges facing universities
- Approaches to higher education
- Higher education institutions AND challenges
- Issues of higher education institutions
- Higher education AND reform(s)
- Reform(s) in higher education
• Higher education reform
• Reforming higher education
• Reform(s) of higher education institutions
• Tertiary education AND reform(s)
• Higher education AND reform(s) AND developing countries
• Higher education AND reform(s) in developing world
• Higher education institutions in developing countries
• Responding to higher education challenges
• Restructuring higher education
• Restructuring higher education institutions
• Restructuring tertiary education
• Restructuring tertiary education in developing countries
• Higher education improvement
• Improvement in higher education
• Improvement in tertiary education
• Improvement of higher education institutions
• Improvement AND higher education
• Improving higher education
• Higher education strategy
• Strategy for higher education
• Higher education AND twenty first century
• Higher education policy
• Higher education action plan
• Higher education initiatives
• Higher education funding
• Higher education AND funding trends
• Financing higher education
• Higher education financing
• Funding of higher education
• Higher education quality
• Quality assurance and Higher education
• Higher education AND labour market needs
• Access and equity in higher education
• Challenges to higher education access and equity
• Approaches to higher education access
• Increasing access to higher education
• Access and equity AND higher education
• Higher education AND governance
• Higher education governance
• Changing governance patterns in higher education
• Governance of higher education
Types of publications used:

- Policy papers/working papers
- Journals
- Books/edited volumes
- Government documents
- Scientific publications on the World Wide Web
- Technical reports
- Conference proceedings
Appendix C  Letter of Initial Contact

Dear Participant,

My name is Sopheap Phan and I am a PhD candidate in the Department of Educational Studies at the University of British Columbia in Vancouver, Canada. I would like to invite you to participate in my research project that is entitled “Toward a Future Higher Education System in Cambodia: Developing Possible Alternatives to Current Issues and Challenges.”

The purpose of my study is to explore with you your views on current and future trends, strategies, principles, and practices for higher education reform in Cambodia. This research will provide a foundation for guiding the country in the promotion of education that matches the social needs in the context of the social, economic, and political climate of Cambodia. Your participation may satisfy your desire to contribute in any way to the improvement of the Cambodian higher education system and the future social and economic well-being of Cambodia in general.

I invite you to be interviewed for 60-90 minutes. The interview will be used for my final thesis. The information from my interviews with you could be disseminated to policymakers and individuals who are interested in the development of higher education in Cambodia. The time and location for the interview will be arranged to your convenience. The interview will be audio recorded.

All raw data will be secured in a locked filing cabinet, and I will only use pseudonyms in coding and writing my research. Your participation in this study is entirely voluntary and you may refuse to participate or withdraw from the study at any time without jeopardy.
I hope that you will volunteer to participate in this study. Please reply with ‘Yes’ if you wish to participate. If you do not decide to take part in this study, please reply with ‘No’ in the subject line. I would like to contact you again if I do not hear about your decision after one week. If you have questions or if you want to obtain a copy of the findings of this study, please contact me by email xxxx, by phone +1 xxx-xxx-xxxx. You may contact my supervisor, Dr. Lesley Andres at xxxx, or Tel: xxx-xxx-xxxx. If you have concerns about your rights as a research subject and/or your experiences while participating in this study, you may contact the Research Subject Information Line in the UBC Office of Research Service at 604-822-8598 or if long distance e-mail RSIL@ors.ubc.ca or call toll free 1-877-822-8598.

Yours sincerely,
Sopheap Phan
Appendix D  Interview Consent Form

Toward a Future Higher Education System in Cambodia: Addressing the Current Issues and Challenges

Principal Investigator:
Dr. Lesley Andres
Professor, Educational Studies
University of British Columbia
Tel: xxx-xxx-xxxx

Co-Investigator:
Sopheap Phan
Doctoral Candidate, Educational Studies
Tel: xxx-xxx-xxxx

Purpose
The purpose of my study is to explore views on current and future trends, strategies, principles, and practices for higher education reform in Cambodia. This research will provide a foundation for guiding the country in the promotion of education that matches the social needs in the context of the social, economic, and political climate of Cambodia.

Study Procedures
You have volunteered to participate in a one-on-one interview with the co-investigator of this study. You will be interviewed once for 60-90 minutes. The interviews can take place in your home or at another location of your choice. Some of the possible topics of discussion include: strengths and weaknesses in higher education in the areas of teaching, curriculum, research, finance, access and equity, and scenarios for a future higher education in Cambodia.
The interviews will be audio-recorded for the sole purpose of making an accurate transcription after the interview is over. You will have an opportunity to make corrections and clarifications, and to exclude any part of the interview with which you are uncomfortable.

**Use of the Data**
Data collected during the interview will be used to inform my doctoral research on approaches to reform Cambodian higher education system. The information from my interviews with you could be disseminated to policymakers and individuals who are interested in the development of higher education in Cambodia through publication, presentations at conferences, visits to local institutions, and other public appearances.

**Potential Risks**
Your participation in this study should cause you no risk of any kind. However, you may experience some emotional discomfort or be inconvenienced due to time spent participating in this study.

**Potential Benefits**
Your participation may satisfy your desire to contribute in any way to the improvement of the Cambodian higher education system and the future social and economic well-being of Cambodia in general. You get a summary of the findings of this study by email and can access the thesis through the UBC library and the main library of the Royal University of Phnom Penh (Cambodia).

**Confidentiality**
Your identity will be kept strictly confidential at all time. All documents will be identified only by code number and kept in a locked filing cabinet. You will be identified only by pseudonym in the research data and any reports of the completed study.

All participant data and coding lists will be stored separately in locked cabinets. Soft copy will be password protected and encrypted to preserve security of the data. In addition, no information and/or issues arising from your interview will be discussed with others in ways that you might be identified. All data will not be accessible to anyone other than the principal and co-investigators listed above. All documents and recordings will be kept in a locked, secured location for up to five years, at which time they will be permanently destroyed.

**Contact for information about the study**
If you have any questions or desire further information about the study, please contact Sopheap Phan at +1 xxx-xxx-xxxx.

**Contact for concerns about the rights of research subject**
If you have any concerns about your rights as a research subject and/or your experiences while participating in this study, you may contact the Research Subject Information Line in the UBC Office of Research Services at 604-822-8598 or if long distance e-mail RSIL@ors.ubc.ca or call toll free 1-877-822-8598.
Consent
Your participation is in this study is entirely voluntary, and you may refuse to participate or withdraw from the study at any time without giving a reason for your decision. There will be no negative effects if you decide not to participate. If you wish to participate, you will be asked to sign this form.

Your signature below indicates that you received a copy of this consent form for your own records.

Your signature indicates that you consent to participate in this study.

________________________________________________________________________
Subject Signature                      Date

________________________________________________________________________
Subject Name (Printed)
Guiding Interview Questions

Interview protocol

1. Thank the interviewee for taking part in the study
2. Introduce myself (interviewer)
3. Re-introduce the study
4. Inform the interviewee of the confidentiality issue
5. Ask for permission to tape record the interview
6. Check if the interviewee has any questions or concerns
7. Request the interviewee’s signature on consent form
8. Provide a copy of the signed consent form to interviewee to keep

Interview Questions

1. As I informed you in my initial contact with you about this study, I am interested in hearing about higher education development, issues and challenges in Cambodia. Perhaps I could ask you to begin by telling me your overall views of the current higher education system in Cambodia.

2. What do you think are the strengths of the current higher education system in Cambodia?

3. What do you think are the weaknesses?

4. How are the weaknesses being addressed?

5. In your opinion, how can the current weaknesses be addressed differently?

6. What are good practices about teaching, and how can it be further improved?

7. Describe research in Cambodian higher education? Do you want to say more here?

8. Should Cambodia develop curriculum to respond to the labour market needs? If so, how?

9. How should Cambodian higher education be financed?

10. What can be done to increase access and equity to higher education (I will explain what access and equity means)?
11. I propose three scenarios for a future higher education system in Cambodia:

a. A two-tier system: a few elite universities at the top and the rest, polytechnics and technical-vocational training institutions
b. A system that focuses on skills for small and medium size businesses and enterprises
c. A system that has a strong connection between higher education institutions and secondary education and that focuses on the development of the rural areas

What are the advantages and disadvantages of each one?

12. In your opinion, what kind of higher education does Cambodia need?
## Appendix F  Interview Participants

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<tr>
<th>Coded name</th>
<th>Affiliation</th>
<th>Position</th>
<th>Date</th>
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<tr>
<td>Interviewee 1, student</td>
<td>Public university</td>
<td>Student</td>
<td>July 17, 2014</td>
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<td>Interviewee 2, student</td>
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<td>Student</td>
<td>August 2, 2-14</td>
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<td>Student</td>
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<td>Parent</td>
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<td>Director</td>
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<td>Deputy Director</td>
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<td>Team leader</td>
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<td>Faculty member</td>
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<td>Research Coordinator</td>
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<td>Interviewee 18, higher education officer</td>
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<td>Policy official</td>
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