

# COUNTRY STUDY



## ASK Asia

Erasmus Mundus Alumni Employability Study in  
the Field of Agriculture and Related Life Sciences

**A**griculture  
**S**kills  
**K**nowledge  
**Asia**



With the support of the  
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# Abbreviations and Acronyms

<b>ASEAN</b>	Association of Southeast Asian Nations
<b>EM</b>	Erasmus Mundus
<b>GDP</b>	Gross Domestic Product
<b>HEIs</b>	Higher Education Institutions
<b>ILO</b>	International Labour Organization
<b>MAFF</b>	Ministry of Agriculture, Forestry and Fisheries
<b>NGO</b>	Non Governmental Organization
<b>RGC</b>	The Royal Government of Cambodia

# Executive Summary

The agricultural sector in Cambodia continues to play an important role in supporting national economic growth and food security. Governments together with a range of local and international non-profit organisations and private businesses work in interrelated areas of development, particularly in the agriculturally more productive provinces. This creates a number of job opportunities for skilled labour. This is one of the reasons why international study exchange programmes such as Erasmus Mundus have always paid attention to agriculture as one of its major domains. Certainly, a lot of effort and resources have been invested in creating a process of capacity building for Asian students. This research aims to identify how the labour market in agriculture and related life sciences in Cambodia is ready for and open to competitive graduate labour that has received part of or all its training in Europe. The principal aim was to assess how alumni of Erasmus Mundus programmes perform on the professional job market in Cambodia. The goal was to identify whether the supply of higher education and training provided to these graduates is adapted to the needs of the employers.

To conduct this study, two-dimensional research was chosen. It combined a quantitative survey among Erasmus Mundus alumni from Cambodia who participated in one of the agriculture-related programmes in Europe between 2004 and 2013. A qualitative approach was facilitated using semi-structured interviews and focus group discussions with employers/HR managers and key informants from related NGOs, public and private institutions. Outcomes from the research were discussed with representatives of higher education in Cambodia and Europe and with representatives of non-governmental, private and public institutions. Recommendations and suggestions for future programme adaptation were handed over to the corresponding authorities.

The main findings showed that EM alumni expressed satisfaction with their position in the labour market after the mobility programme was terminated. The reasons for their success in employment varied among respondents. This was often given as due to their competence and qualifications in a specific field, their research skills and knowledge of foreign languages (particularly English) that were built up during the mobility programme. Some considered that a degree obtained in Europe itself is a guarantee of a successful career. Particularly soft skills such as the ability to work in a team, self-confidence, independence in work, innovative thinking, flexibility in performing different tasks and social communication were key elements in increased employability.

Feeling grateful for the possibility of studying abroad, alumni tended to convert the knowledge and experience they gained into a contribution to their country's development, despite low salaries, particularly



in the governmental sector. Being exposed to a different environment could cause a change in their approach to social communication which is not always perceived positively by employers in Cambodia. Besides orientation and preparatory courses prior to arrival in the host country, re-adaptation courses before returning to their homeland would help to facilitate reintegration into the home society.

Results showed that graduates with European study or research experience are very competitive and their skills and competences are highly valued by employers on the Cambodian labour market. However, the established recruitment process for public sector, especially for higher education institution which open for general BSc, MSc, PhD, looking at only general background rather than academic performance and output-based, with early age restriction. This practice could cost of losing opportunity for high quality human resources to become permanent government officer building the capacities of public institutions.

Results showed that even experienced EM alumni could advance in academic and policy research skills to be able to conceptualize, theorize and discuss issues academically and become politically relevant. Research and analytical skills usually improved during the mobility abroad unlike in graduates of Cambodian institutions who were found to be inadequate at analysis, synthesis and creativity. With the internationalisation of the labour market, a knowledge of English in both oral and written forms is required. This is often an obstacle for local graduates whose language skills are limited compared to alumni having experience from abroad.

There is a high demand for human resources in specific fields of agriculture and rural development in Cambodia, provided for by only a small number of highly skilled competitive labour. A shift in graduates' study preferences has been noticed in Cambodia. Hence it is crucial to attractively promote life-sciences and agriculture not only at the production stage but in its whole value chain. It has been proven that in some areas of expertise, there is still a mismatch between market demand and supply. It is hard to fill positions requiring technically trained students. Demand was for applicants capable in farm management and agricultural economics; hard to fill positions are offered in extension services, monitoring and evaluation and sustainable agriculture activities. With a high prevalence of malnourished people in Cambodia, food security and nutrition should be prioritized. A comprehensive system of vocational training and linkage among technicians, producers, traders and exporters should be constructed.

There is a need to develop high quality and capable human resources to improve competitiveness during Cambodia's socio-economic development and to ensure continuity of development. With a large stock of young dynamic workers, Cambodia is challenged to use its full potential of transforming the new generation into a productive labour force by, among other things, providing good quality education that will correspond to market demands.

# Introduction

Cambodia is one of the countries that benefits from the Erasmus Mundus Programme that provides scholarships for and mobility of Cambodian students to study at selected European universities. Such cooperation aims to build up human resources for the future development of Cambodia. Up to date over four hundred Cambodian students, scholars and fellows have been selected to take part in the EM mobility and to experience educational excellence at European universities, 30 of them under the action 1 programme and 392 under the Action 2 programme (European Commission, 2014). The second phase of the Erasmus Mundus was launched from early 2009, running until 2013 and thus success-related questions arose in the following years. This country report is part of a comprehensive study that was conducted under the ASK Asia project. The **project ASK Asia** (“Agriculture, Skills, Knowledge in Asia: Competences and Employability of Erasmus Mundus Graduates in Agriculture on the Asian Professional Market”) is an Erasmus Mundus Action 3 project funded by the European Commission (EACEA) in the period from 2013 till 2015. The main objective is to assess how the Erasmus Mundus graduates in Agriculture and related Life Sciences perform on the professional job market in Asia and to identify specific competences and skills that provide these graduates with a comparative advantage in meeting the expectations of their employers following the education/training period.

# Brief overview of the Cambodian higher education and labour market

In past decades, the Cambodian economy has gone through many changes. Despite the global financial crisis in 2009, Cambodia managed to keep GDP growth positive at 0.1%. GDP growth rebounded quickly to 7.4% in 2013 (World Bank, 2015). Noticeable progress has been achieved in reaching the Cambodia Millennium Development Goals (CMDGs). The country has been successfully integrated into the international community on both a regional and global level which has positively affected the support for national development (RCG, 2013). Despite recent success, Cambodia is still facing many development challenges and has potential to grow in every area and sector. The Global Competitiveness Report 2011-2012 specifically highlighted warning numbers in terms of labour productivity. Cambodia comes in at number 97 in a list of 142 countries with productivity lower than in neighbouring countries (Schwab, 2011). The Royal Government of Cambodia (2013), in its Rectangular Strategy for Growth, Employment, Equity and Efficiency, among other challenges identified two that are crucial in the sector of education and labour. There is the need to develop high quality and capable human resources to improve competitiveness during Cambodia's socio-economic development and ensure continuity of development. In the education sector, focus should be given to strengthening the quality and responsiveness to labour market demand and the development of technical skills for the youth to increase their job opportunities in the full geographic context of Cambodia.

**Table 1** Overview of Cambodian economy and demography

	2000	2003	2006	2009	2010	2011	2012	2013	2014
<b>GDP per capita (constant 2005 US\$)</b>	329.4	389.4	471.2	580.0	605.2	637.3	672.0	708.8	-
<b>Agriculture value added (% of GDP)</b>	37.8	33.6	31.7	35.7	36	36.7	35.6	33.5	-
<b>Gross agricultural production value (constant 2004- 2006 million US\$)</b>	1,643	1,871	2,639	3,408	3,749	4,888	5,036	-	-
<b>Population (1000)</b>	12,223	12,934	13,555	14,144	14,365	14,606	14,865	15,135	15,408
<b>Agricultural labour (1000)</b>	3,956	4,367	4,631	4,953	5,046	5,137	5,226	5,313	5,394

**Source** FAOSTAT, 2015; World Bank, 2015

The agriculture sector in Cambodia has recently been going through a noticeable evolution. Large-scale developments were based on private companies through making economic land concessions (Open-development, 2014). Not only are private companies involved in this development but also NGOs and the public sector. Today, there are many local and international NGOs working in agriculture and rural development in Cambodia and most of them work in inter-disciplinary sectors, not only in the agriculture field but also in other activities related to rural development such as health, food security and nutrition, human rights, hygiene and sanitation, clean water, gender and community empowerment and development etc. (Domashneva, 2013). This creates a number of job opportunities for skilled labour. Moreover, in 2014, the Royal Government of Cambodia recruited 307 members of staff to work at the Ministry of Agriculture, Forestry and Fisheries (MAFF) (MAFF, 2014). The Royal Government of Cambodia also continues to provide

scholarships to students who pass their high school exams with excellence, to the poor and to women through the Ministry of Education Youth and Sport.

Cambodian agriculture continues to play an important role in supporting national economic growth. The promotion of the agriculture sector in the country became the subject of the first “rectangle” in the national strategic plan of the Royal Government of Cambodia. Nevertheless, Cambodian agriculture keeps facing challenges including vulnerable farming systems, low productivity and low value-added outputs. The Royal Government of Cambodia (RGC) also promotes agriculture by setting up agriculture as priority sector to ensure food security in the country, contribute to GDP growth and decreased poverty.

With the majority of the Cambodian population living in the rural areas, livelihoods are heavily dependent on agriculture. Mechanisation in the form of modern farming equipment is being introduced into the agricultural sector. Farming is predominantly rainfall dependent. The expansion of agricultural activities including rice farming and agro-industrial crops such as cassava and rubber is important in increasing production. There are two lowland areas around the Mekong river and around Tonle Sap lake that play a crucial role in the agricultural production of the country. Approximately 52% of the population lives in the plains region, 30 percent in the Tonle Sap plains and only 7% in coastal areas. The remaining 11% lives in the plateau/mountainous area which covers 38% of the total land area (IFPRI, 2013).

Labour Market Assessment, after successfully putting a decade long civil war behind it, Cambodia faced a baby boom in the 1980s and 1990s. The total population has increased every year leading to an increasing labour force. The strongest annual growth rate of the labour force, with an approximate value of 4%, was noticed from 1998 to 2003, going from 5.22 to 6.35 million (FAOSTAT, 2014). With such a large stock of potentially dynamic workers, Cambodia is facing a big challenge in managing this opportunity.

The majority of the labour force works in agriculture. Although annual population growth is decreasing, the total labour force working in agriculture is increasing. According to new research results published by the National Institute of Statistics in cooperation with the ILO, 67% of 10.8 million people aged 15 years or older were in employment or engaged in economic activities and 47% of them were females. The younger age group from 15 to 34 years old accounts for around 56.2% of the employed population. The highest employment is in rural areas and represents around 75.2% of the employed population while in the urban areas around 24.8% are employed. 23.5% of all employed people were skilled agricultural workers. In urban areas, the largest share by far, at 41% of the employed population, was in services and sales (NIS & ILO, 2013).

**Table 2** Employed population aged 15 or older, by age group, sex and area, 2012

Occupation (ISCO-08)	Cambodia			Urban			Rural		
	Both	Male	Female	Both	Male	Female	Both	Male	Female
<b>Total</b>	<b>7,197,416</b>	<b>3,797,706</b>	<b>3,399,710</b>	<b>1,783,646</b>	<b>933,323</b>	<b>850,323</b>	<b>5,413,770</b>	<b>2,864,383</b>	<b>2,549,387</b>
<b>Managers</b>	149,685	103,460	46,225	93,372	53,808	39,565	56,313	49,653	6,660
<b>Professionals</b>	314,523	189,864	124,659	155,797	94,657	61,140	158,725	95,207	63,518
<b>Technicians</b>	265,524	178,911	86,613	100,556	70,387	30,168	164,968	108,523	56,445
<b>Clerk</b>	144,618	96,037	48,581	81,625	60,772	20,853	62,993	35,265	27,728
<b>Services and sales</b>	1,577,288	547,882	1,029,406	730,947	260,626	470,321	846,341	287,256	559,085
<b>Skilled agriculture workers</b>	1,688,213	886,099	802,114	46,993	28,219	18,774	1,641,220	857,879	783,341
	100%	52.48%	47.52%	100%	60.05%	39.95%	100%	52.27%	47.73%
<b>Craft and related trades</b>	856,551	542,549	314,002	195,091	137,285	57,806	661,460	300,208	392,530
<b>Elementary occupation</b>	1,253,258	777,605	475,653	154,838	82,649	72,189	1,098,420	694,956	403,464
<b>Armed forces</b>	62,043	61,622	421	31,450	31,450	0	30,592	30,171	421

Source National Institute of Statistic and International Labour Organization, 2013

The Cambodian economic census shows the numbers of economic establishments in the country (NIS, 2011). Trading activities and vehicle repair services have the highest prevalence of 56% (almost 300,000 establishments), followed by manufacturing with 18.7%. The high concentration of these two main economic sectors shows that current demand on the Cambodian labour market is for low-skilled rather than high-skilled workers. Moreover, most of the establishments in these economic sectors are in the informal economy, operated without proper registration or without proper records of financial transactions

(Sopheap, 2012). Thus, these positions may not require such high skills as are provided by universities and a mismatch between demand and supply on the labour market is being created.

The Royal Government of Cambodia is also promoting the development of the labour market through implementing its strategic objectives. A challenge remains particularly in the availability of skills, labour productivity, a shortage of engineers and technicians and the need for forecasting market demand for labour by profession and skills. Despite a decade of rapid growth that improved the livelihoods of Cambodian people particularly in the urban areas, productivity counted as output per worker has been one of the lowest in the region. In 2010 output per worker in Cambodia was two-thirds of that in Vietnam and less than one-fifth of that in Malaysia (ILO, 2013).

In such a context, the quality and relevancy of training at both tertiary and vocational training levels and the high internal migration of workers are pending issues identified by the Royal Government of Cambodia. The results published by Walker (2012) show evidence of a wide-spread belief that universities in Cambodia need to establish clear links between the study programmes they offer and market needs for skilled labour. A current goal is to implement policy linking industry with improvement in labour conditions in textile, garment and foot-ware factories specifically, to provide vocational training to meet market demand, disseminate labour market information, to develop a statistical system for labour and a national qualification standards framework and to implement the labour law (RGC, 2013). The Royal Government has already established the National Employment Agency to provide employment services and disseminate labour information among job seekers. Additionally, in recent years, the Ministry of Agriculture, Forestry and Fisheries has been increasing the number of staff recruited, coming from the new, younger generation of students. The number of governmental staff that is working at the provincial department of agriculture and also at the ministerial level increased from 169 in 2013 to 344 in 2014. This younger generation is replacing retired staff and filling new positions (MAFF, 2013 & 2014).

## Higher Education

In 2012, approximately 80% of the population aged 15 or older was literate. In urban areas, literacy is around 91.2%, higher than in rural areas where it is about 76.3. About 11.8% of the population was attending school at the time of the survey, while 15.9% had never attended school, 40.4% had completed primary level, 28.8% had completed secondary school, 1% had completed vocational school and 2.1% had completed university (NIS & ILO, 2013).

In Cambodia, students spend around 12 years in general education which is divided into three different levels (primary, secondary and high school). Students start attending primary school at the age of six. The enrolment ratio in primary education has improved, the majority of school drop outs are observed during

secondary and higher education. In primary school, students spend around 6 years, 3 years in middle school and 3 years in high school. To finish grade 12 which is the last year of high school, students have to take the national state exam. During that year the Ministry of Education provides the students optional subjects or study at the university under a scholarship quota system. Students can apply for three areas of study by priority. Students are selected to study at the university with a scholarship according to the results of the national state exam.

There are 105 higher educational institutions (HEIs) in Cambodia (2013), of which 39 are public and 66 are private, located in 19 capital provinces. Out of the total, 65 are under the Ministry of Education, Youth and Sports, while another 40 are under the supervision of another 13 ministries/agencies (MoEYS, 2014). Some of the universities offer doctoral study programmes in agricultural research however there are no post-doctoral programmes available in Cambodia. With the privatization of higher education, the total number of students enrolled in HEIs increased tenfold within a decade (Kwok et al., 2010).

Currently, there are 3 educational agriculture institutions under the MAFF providing agricultural education (The Royal University of Agriculture, Prek Leap National College of Agriculture and The Kampong Cham National Agriculture School) and another 4 comprehensive universities under the MoEYS<sup>1</sup>, each having one of its faculties offering higher education in agriculture and related life-sciences (The University of Battambang, Mean Chey University, The Chea Sim University of Kamchaymear, and Svay Rieng University). Moreover, with the increasing development of global partnerships, there is a significant amount of private institutions offering education in Cambodia at all levels. The active involvement of the private sector in education is indicated by the number of private institutions that were opened in recent years. Out of the 255,791 students enrolled in HEIs in 2012/2013, 59% of them were studying at private institutions. Among these, the doctoral enrolment rate in private HEIs is 78% compared to only 13% in public HEIs (MoEYS, 2013)

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<sup>1</sup> Ministry of Education, Youth and Sports



# Methodology

To reach the objectives of ASK Asia project in Cambodia, several means of data collection were combined. Objectives are described in detail in the ASK Asia Erasmus Mundus Alumni Employability Study. The general procedure followed the overall methodological framework explained in the ASK Asia Erasmus Mundus Alumni Employability Study. Three main data collection approaches were applied, firstly an online questionnaire was distributed among EM alumni, secondly in person interviews were conducted with key employers and informants in the field of agriculture and related life-sciences in Cambodia and, last but not least, focus group discussions were facilitated during the national workshop with alumni and employers. Some specifications were adjusted in order to be suitable to the local conditions.

The total number of alumni who completed the online survey was 52. The database was cleared of those who studied in non-agricultural related fields and thus the total sample size was 26 respondents. The unanswered surveys are explained due to pending graduation or a prolonged period of study, so that respondents had not yet enter the job market. Contact with the particular institutions that employ EM graduates was obtained via the online questionnaire survey. A complementary range of interviews was conducted with key employers and informants in the government, UN agencies, international and local NGOs and in selected business enterprises. Corresponding respondents were chosen on the condition of being engaged in agriculture-, life-sciences- and rural development-related fields and upon recommendation by local informants. In total 21 interviews were conducted, seven of them with employers based on the online survey, the rest being identified as key employers in agriculture.

As a follow-up of the previous data collection, a national workshop was organized in Siem Reap, Cambodia on November 14, 2014. In total 21 participants contributed to the discussion, five representatives of employers, six alumni, five representatives of Asian universities and five representatives of European universities. First the preliminary results were presented and key issues were discussed. Secondly, two focus group discussions proceeded, separately for employers and alumni. The workshop was jointly organized together with the ‘Academic Recognition and Credit Transfer Workshop’ which created an enabling environment for networking and information share.

Finally, lessons learnt from each country and final conclusions were discussed during the regional conference that was facilitated in Phuket at the Prince of Songkla University, Thailand on February 2-4, 2015. The regional workshop hosted 25 representatives of European and Asian universities and consultants involved in the research process.

# Erasmus Mundus Alumni Experience

In this chapter results from the alumni survey are presented, including general demographic information about the respondents, their study background, professional experience and skills development gained throughout the programme and, last but not least, the current employment situation of EM alumni in the field of agriculture and related life sciences.

## Sampled alumni characteristics

The age of respondents varies between 25 years and over 36 years. Various age groups were more or less equally represented with the only exception being of the group over 36. This might be explained by the minimal amount of Cambodian alumni enrolled in doctoral study programmes and by the absence of post doctoral positions. Alumni who participated in EM programmes come from different environments. As was to be expected, 54% of alumni originally came from urban areas, which provide easier access to universities. On the other hand, 35% of alumni came from the rural areas of Cambodia that might be taken as a consequence of the numerous scholarship programmes for excellent students provided in the country by the government and private donors; the rest came from suburban areas. Among respondents, 85 % were male. More focus should be given to equal gender distribution of EM alumni coming from Cambodia.

The majority of the respondents, 65%, declared they participated in the EM study programme at a Master's level. 27% of the respondents participated at a Bachelor level and only two participated at a Doctoral level. The length of study is to a considerable extent determined by the level of study. Doctoral programmes were financed for the full three-year period while Master's and most of the Bachelor's study programmes were variously financed for one, two semesters or for the full two-year period. The majority of studies were financed equally through the Eurasia 2 project, Mover and Techno I at 15% each.

An absolute majority of the alumni sampled were studying in France. The reason for choosing France was mainly because of their interest in the particular university and interest in the country in general, which might be explained by historical links and the strong cooperation on the level of higher education between France and Cambodia. Moreover, the decision is often affected by recommendation from schoolmates with their own previous experiences.

The results show that support in the field of agriculture and related life-sciences was given to alumni enrolled in the Masters' study programmes, particularly in agricultural engineering, sustainable development in agriculture and rural development. Apart from these fields of study, agricultural economics and management and environmental management were studied.

A variety of reasons motivated the alumni to participate in the EM programme. In the studied sample, there was no significant pattern to the choices. Among the most frequent answers was the academic level of the chosen university, particularly in France, Italy and Portugal, where alumni studied agricultural economics, agronomy, engineering and environmental management. 23% of the EM programmes were chosen because of the particular study programme offered by the host university, however these programmes varied between rural development, animal science, engineering, sustainable development in agriculture and agricultural economics and management. Alumni with no previous exchange experience from Europe valued the opportunity of studying and living there. Why alumni chose the particular country of study varies according to the countries that offered scholarships. Alumni preferred to choose a country according to the particular university or due to their own interest in the countries' culture, history etc. Moreover, 23% of alumni studied in more than one country within their scholarship; these were alumni of EM action 1 Master programmes focused on inter-European mobility. The main reason for choosing the given university was the availability of a particular study programme at that university. This was affirmed by 78% of alumni. Integration into the host society was evaluated as perfect, without any problems, or as good, with only slight problems that were not further commented on.

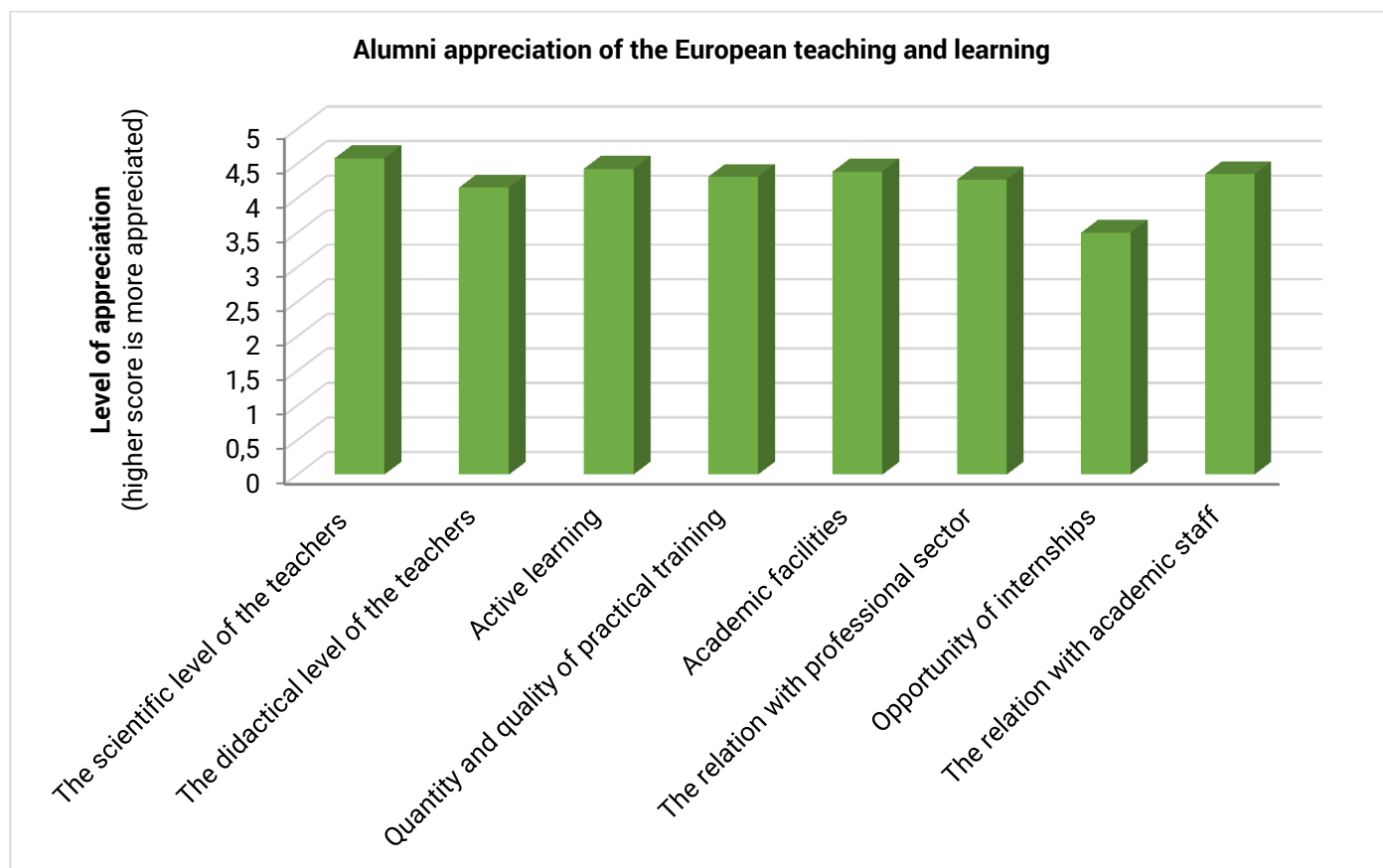
## **Knowledge and professional skills of graduates**

Some representatives of the researched sample had study, work or research experience outside of their home country already before applying for the EM programme. These were in total 31% of the alumni who went abroad for a short period of time (not longer than one year). That experience was mainly from ASEAN countries and France and, in one case, from Hong Kong. Less than half of the alumni participated in an internship/training during their study/research period. This was in the majority of cases, a mandatory internship requested by the university, regardless of the country. 95% of alumni strongly agree or agree that their participation in the EM programme helped them find a job and develop their career. The majority of alumni returned back to their home countries immediately after finishing the mobility period with one exception who stayed in Europe because of continuing study. This can be explained by the Erasmus Mundus programmes' rule to go home after the end of their studies to avoid creating a "brain drain".

Within our research, the alumni made a self-evaluation of their skills and competences development which showed that, most importantly, alumni became more independent after the programme, more responsible and more self-confident. Contrarily, their computer skills remained unchanged. The set of soft skills that were developed by alumni during the study/training period such as independence at work, responsibility, self-confidence, thinking in an innovative way and language skills were seen during our research to be highly valued by employers. A majority of students improved their English (56%) and French (36%) due to the language of study at the university.

Alumni significantly appreciated the method of teaching and learning in Europe compared to their home universities. The evaluation of individual criteria is represented in the following graph, which alumni scored on a scale of zero to five with five being the best result.

**Figure 1** Alumni appreciation of the European teaching and learning



**Source:** Online survey on alumni experience with the EM programme

The only indicator that lags behind is the opportunity of doing an internship/training provided by the host university that corresponds to the fact that only 46% of alumni received some experience from internships/training. More focus could be put on providing internship/training opportunities for alumni during their study/training period as they could enhance their practical skills and get experience before entering the labour market.

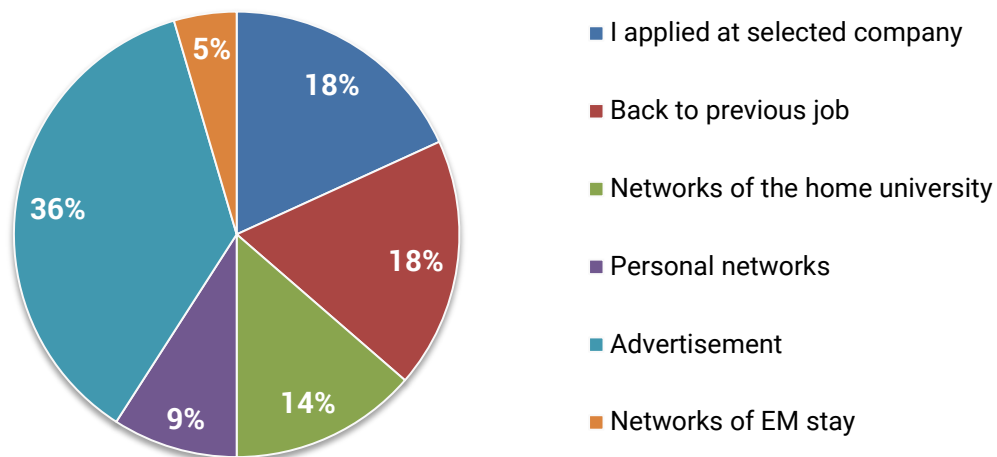
## Employment

Over half of the alumni were employed before they started to study as part of the EM programme (54%). This number is evidence of the fact that employers in Cambodia support their employees upgrading their academic levels abroad, particularly in the governmental sector. Moreover 27% of those alumni who were

employed before the study/training period maintained their job position throughout the programme. The rest were not employed before the EM programme or they changed their employment after the programme was terminated.

At the time of our research, 80% of the sampled alumni were employed. The alumni who were unemployed were searching for a job for a period shorter than three months with the only exception being a case of a three to six month unemployment period. In fact, 47% of alumni who are currently working had a job arranged already before they returned from Europe. A common means of announcing a vacancy in Cambodia is public advertisement through web pages and newspapers. The majority of alumni who did not have a job arranged before their return from Europe found their job through these channels. The various methods alumni used to find their jobs are presented in the following figure.

**Figure 2** How did the alumni find a job



**Source:** Online survey on alumni experience with the EM programme

Results show that the majority, 69%, of alumni were employed in the public sector particularly in universities and ministerial bodies, which can be explained by the fact that these are the institutions that require its employees to build on their education level and that support them through global partnerships to complete studies abroad. This is also reflected in their salaries and job positions. Having a strong position in the country's development, non-governmental organisations are important employers for the alumni. They require young professionals with enthusiasm. Contrarily, only one alumnus worked in the private sector. A good proportion of alumni originally came from rural areas which, considering the job opportunities, leads to migration into the cities after the study/training period. The employed alumni who came from a rural background were employed in non-governmental organisations or in governmental bodies that implement

projects in rural areas concerned with environmental conservation, fauna and flora protection and thus contributing to sustainability and rural development.

After the education/training period one fourth of alumni returned to the same organisation and worked in the same sector as prior to the EM programme. This fact might significantly contribute to the capacity building of institutions if it is maintained properly and the “brain drain” phenomenon can be avoided by providing sufficient working facilities and incentives. On the other hand, it seems that entrepreneurial potential is not developed by the individuals due to the fact that none of them established their own business after they returned back to Cambodia. Based on the presence or absence of work experience prior to the study/training period, a cluster analysis was carried out and the respondents were divided into three clusters.

## Cluster I

The first cluster represents the alumni who had previous work experience and continued working in the same organization after the study/training period in Europe and who thus maintained their employment throughout the programme. Except for one respondent, these alumni were working in the public sector (particularly at universities and ministries) and their placement was arranged before their return from Europe. Thus this contributes to capacity building in these Cambodian institutions. These alumni chose the particular university based on the study programme offered and followed a full length Master's or Doctorate course. They belonged to two age groups, 26-30 and 30+.

The following figure presents selected testimonies of alumni with EM experience as to their satisfaction with their position in the labour market:

+ Pros	- Cons
Studies are applied in practice	Low governmental salaries compared to the private sector
Job content corresponds to the field of study	
Building capacities for higher education development	
Ability to convert the knowledge and experience into development of the country.	

**What do they consider to be the most important factor influencing their employability?**

Experience  
 Specific knowledge in the field  
 Language knowledge  
 Motivation and enthusiasm  
 Responsibility  
 Creativity  
 Communication, interpersonal skills and networking  
 Degree from Europe

**Cluster II**

In the second cluster, the alumni with work experience obtained before the study/training period in a different field are presented. These were 27% of respondents. These alumni were accepted for either a full length or for a 6 to 10 month mobility within a Master's course. Studies were chosen because of interest in the particular university and the study programme on offer. These alumni were, at the period of research, working in non-governmental organisations.

**+ Pros****- Cons**

Ability to learn new things in the multicultural environment

Benefits and incentives

Enjoyment of work on national and international projects

Ability to assist with the development of Cambodia

None identified in this cluster

## What do they consider to be the most important factor influencing their employability?

Professional experience  
 English knowledge  
 Academic background and degree from Europe  
 Flexibility  
 Self-confidence  
 Communication skills  
 Specific knowledge  
 Capacity to work in a team

### Cluster III

The third cluster represents the alumni who had no working experience before applying for the mobility, in total 46% of alumni are in this cluster. These respondents received 5 to 10 months mobility at a Bachelor's or Master's level, the field of study was principally engineering, with sustainable development in second place. This sample was experiencing the highest unemployment ratio, 42% of them were still searching for a job, although the unemployment period is generally shorter than 3 months. Moreover, 2/3 of them did not go through any internship/training during the EM mobility and most of them originally came from the rural areas of Cambodia.

#### + Pros

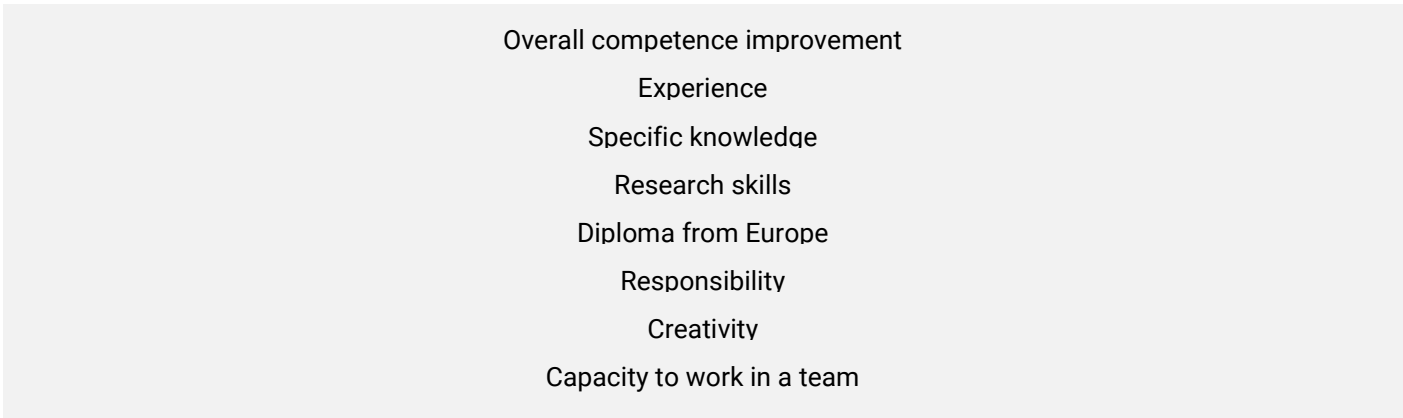
Ability to develop communication skills, time management and expertise in the field  
 Enjoyment of the work in NGO combining research for development and administrative work  
 Possibility to apply the knowledge through different projects  
 Contribution to higher education development  
 Advancing the know-how in research for development

#### - Cons

Not well paid governmental job  
 Research institutions should be established in cooperation with universities so that the research knowledge could be spread and developed

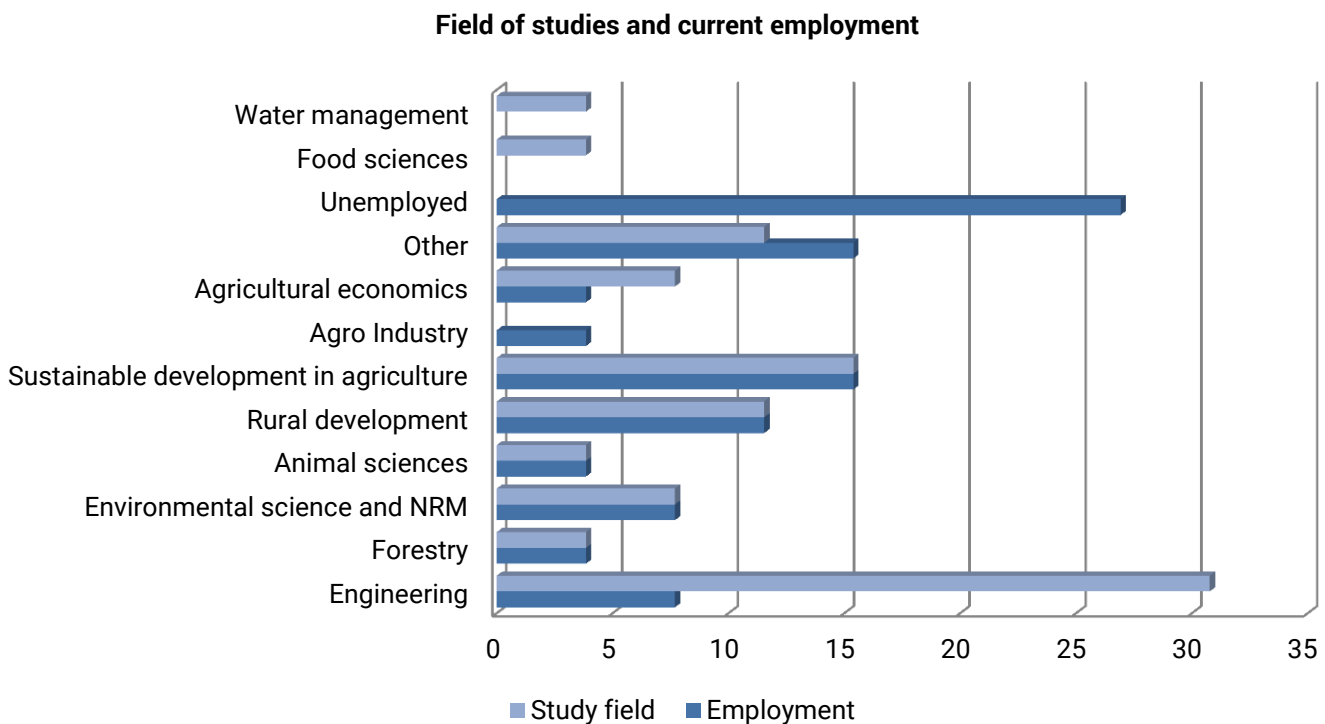


**What do they consider to be the most important factor influencing their employability?**



There is a diversity in the fields of employment taken by the alumni within the field of agriculture and related life-sciences. With only a few exceptions, alumni found their employment in a field related to their studies. Among other fields of employment were technical vocational education and training, criminal justice, finance and international relations. The following graph represents the variety of study programmes in which the alumni were enrolled and their current area of employment.

**Figure 3** Study fields and current employment of alumni



**Source:** Online survey on alumni experience with the EM programme

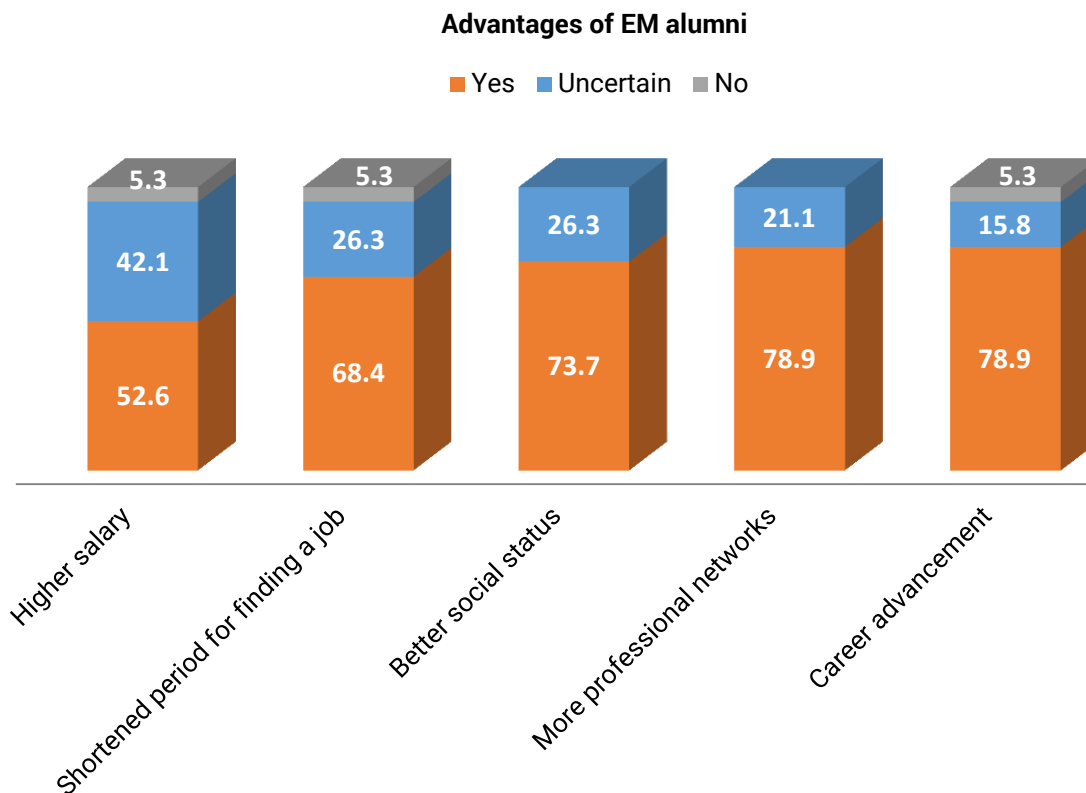
As the majority of the sampled alumni are employed in the public sector, the positions they took over are mostly connected with the activities they carried out at the HEIs. The sampled alumni were working as academically qualified employees without any management function (10%) and with a moderate management function, e.g. project manager (32%) or, 16% of alumni as research assistants. Further, 16% of sampled alumni were working as qualified employees, 16% as public servants at a high level. One respondent is working as a public servant at a high level and one is an ordinary employee (e.g. sales person, secretary).

Alumni were assigned in their job to a variety of working positions while each of them required a slightly different set of skills and competences. In fact the variety of activities performed in jobs in Cambodia in the field of agriculture and related sciences is usually a combination of office work and practical work in the field. According to the alumni, planning and organizing, responsibility to work and capacity for analysis and synthesis are the most important competences required for success in this range of positions. Employees need to be able to facilitate research, apply knowledge gained in practice, be innovative, generate new ideas, be creative with enough self-confidence. As opposed to which, an ability to interact with different people and cultures and computer skills are not considered very important in the professional environment.

## **Alumni perception of their position in the labour market**

How the alumni perform on the competitive labour market is partially influenced by the level of confidence they have in themselves. Do they feel an advantage in comparison with home university graduates who did not have a chance to study abroad? This element is represented in the following graph.

Figure 4 Advantages of EM alumni



**Source:** Online survey on alumni experience with the EM programme

The alumni feel that participation in the EM programme helped them to facilitate and advance their work and life, and developed their competences to stand out from the domestic labour market.

Alumni believe they are better off in all stages of career development. Participation in the EM programme shortened the unemployment period, provided them with better social status and helped to develop their career possibly through professional networks that they established. Gains from the EM programme might not necessarily be represented by a higher salary. The difference in their career progression is seen over time.

In general, alumni were rather satisfied with their position on the labour market; they felt a duty to pay their country back for providing them with the opportunity to study abroad, thus they want to convert the knowledge and experience they gained into the development of higher education, to build the capacity in their institutions and contribute to the country's development even though salaries in the governmental sector were very low. Alumni employed in non-governmental organisations likewise enjoyed the ability to apply their research skills in practice. They learned new things within a multicultural environment and enhanced their skills and competences in the field they studied.

There were several reasons given by alumni for getting to the position in the labour market in which they were at the time of data collection. These reasons varied according to their employer and the tasks they had to perform. Hence they could be different for different groups; a first group believed that their competence, knowledge, qualifications in the specific field and knowledge of a foreign language (particularly English) were the factors making them better off in the domestic labour market; a second group considered that the degree obtained in Europe itself was a guarantee of a good professional prospect because the higher degree one holds the higher position he/she might possibly get within the organisation; a third group believed that particularly their soft skills, such as the ability to work in a team, self-confidence, independence in work, innovative thinking, flexibility in performing different tasks and social communication were the key elements in the employability situation and a last group was actively using their research skills and academic knowledge in their job placement.

# Employers' perception of the employability of EM alumni

In Cambodia, 22 in-person interviews took place with EM graduate employers identified through the online survey and with key employers in the field of agriculture and related life-sciences. This approach enabled the project team to understand the job market situation and market demands in Cambodia. How the employers perceived the situation on the labour market and development in the agricultural sectors are interpreted in this chapter. Moreover the recruitment process and the skills requirements of labour in different sectors are explained.

## Job market characterisation and agricultural sector evolution

Based on the perception of the employers, the agricultural sector in Cambodia has great potential and is playing a very important role in generating GDP. Currently, the Royal Government of Cambodia is promoting agriculture as a priority sector that can lead to increased GDP and decreased poverty in the country. A large number of economic land concessions are being managed by both local and foreign investors who are interested in setting up large scale farming systems. The demand for agriculture inputs is increasing. Local and international NGOs supported by international agencies also play a role in Cambodian socio-economic development particularly through rural development activities. With such an evolution, the demand for human resources in agriculture-related fields is increasing. A labour force more qualified in specific fields is needed.

The government aims to transform family-based agriculture into small and medium-sized enterprises. Many private initiatives are looking for investment opportunities in large scale farming such as rubber plantation, rice, corn, cassava, sugar-cane and animal husbandry. The agricultural sector needs to be developed in all its aspects to ensure future economic growth. Nowadays, not only agriculture production but also agribusiness and agro-processing are being developed via the participation of the public sector (government), private institutions and NGOs. In this case, human resources related to this sector are really needed. A special demand has arisen for rice specialists to support rice exports, agribusiness and food processing and who are able to introduce and use new technologies in rice production and processing because conventional practices are no longer competitive. These initiatives are looking for graduates who studied in the field of agriculture to implement their investment projects. Concern remains that supplies of production inputs are mostly imported from abroad. Fertilisers are often missing a users' manual in the

local language and thus are not used properly. There is a demand for providers of extension services able to train local farmers in order to become competitive and efficient producers. Recently, agriculture has become more efficient but its competitiveness needs to be supported in terms of the capital, skills, and technologies that are available. There is a need to link the agriculture sector with industry and services and add value to production by processing raw agricultural products to make final or semi-final products to add value and to advance social and economic development in terms of employment rather than exporting the raw materials from agriculture production. With the country's location, there is a potential for promoting agro-tourism. The majority of labour is engaged in manufacturing; the garment industries significantly contribute to the output of production value in Cambodia but the raw materials for this production are being imported. The economy is getting more diverse but cannot quite match this with job opportunities. There is a problem with an outflow of highly-skilled labour which is not challenged as much as in foreign countries and who often lack freedom of expression and speech: the market must be professionalized.

### **Visible impact of international donors and support from government**

In Cambodia local and international NGOs and international institutions are playing a crucial role in supporting Cambodian society especially in agriculture and rural development through the provision of technical expertise, building infrastructure, financial support for development activities and building capacities at local institutions. These are priorities implemented by donors and government through local training, by providing scholarships and internships for students and staff and by promoting research activities. Higher education is also supported by the Royal Government of Cambodia, which provides scholarships to outstanding students, poor students, students from remote areas, female and disabled students, who graduate high school and continue to study at university level.

Research capacity at university level is still limited because of a lack of human resources in specific fields, limited financial support from the government and insufficient facilities to implement research projects. Today, universities get financial support from government, tuition fees from students and international research funds. Partner universities and international NGOs also support the higher education system through technical and financial support and through capacity building. Private companies and NGOs have complained about the quality of education in Cambodia because they are facing many problems with the recruitment of new staff to fill available positions in their organizations because candidates do not have adequate knowledge related to their specific field and display a lack of experience and technical know-how; language and communication skills are weak; there is a lack of soft skills and they are not able to work independently. Selected candidates were most often trained by NGOs and private companies before working as full staff members.

## Supply of people with these specializations and new positions to be filled

In the progress of agricultural development and the promotion of rural development activities in general, there are many job opportunities available for graduates in agriculture-related fields to work in the public sector, private sector and NGOs. These graduates are required to have qualifications in their field. In this case the public educational institutions are playing an important role in producing qualified human resources to supply those sectors. The curriculum at the university is sometimes developed in cooperation with NGOs and private companies who employ graduates from the HEIs and with the National Employment Agency.

As Cambodia is among the developing countries in the region, specialization of graduates is really important for the development of Cambodia, especially in agriculture, by transforming family-based agriculture into small or medium enterprises, promoting agribusiness, food processing, rural development and research in the life-sciences. Demand for highly skilled agricultural workers is in place. Universities lack human resources, in specific fields, so as to provide qualified lectures to local students to meet the employer's needs and build the research capacities to produce new innovations and technologies at university level that could be applied in practice. Currently, the universities' research capacity is also promoted by making proposals for international research projects, local training and university staff mobility programmes to study and enhance their capacities abroad through the scholarship programmes provided by donors, partner universities and other entities such as the European Union, Japan, the United States of America, Australia, Korea, Thailand, the Philippines, China, Vietnam and others.

According to the employers, there is a sufficient amount and even an excess of graduates in agriculture-related fields, particularly in veterinary and agronomy graduates entering the labour market. However, employers are usually not satisfied with their competencies and experience. Most graduates prefer to work in urban areas rather than working in the provinces which leads to urban migration. The city provides more work opportunities and young people have better access to continuing studies and to English language studies. There has been a shift in graduates' preferences: many young graduates who enter the labour market now opt for accountancy, finance or positions in advertising and prefer to work in the private sector, which usually provides higher salaries and complementary incentives. On the other hand, there are alumni who prefer to apply for governmental positions, which are more secure though not well paid. This usually provides them, however, with a chance to get involved in international projects with a contract salary. Working in NGOs is quite interesting for graduates because of the good salaries offered and good working conditions, but there is the threat of a possible decline in support from donors once the country increases its economic status. Recently, some local graduates expressed their willingness to run their own farm businesses, but the necessary initial capital, experience and knowledge are missing. With the economy

getting more diverse, there is a growing interest in working in the private sector that usually provides good salaries and additional incentives.

In some areas of expertise, there is still a mismatch between market demand and supply. In the private sector, there are difficulties filling vacancies in engineering. Employers perceive the local candidates as under-qualified. In employers' perceptions, there is a demand for capable applicants in farm management and agricultural economics; hard to fill positions are offered in extension services, monitoring and evaluation, and sustainable agricultural activities. A comprehensive system that links technicians, producers, traders and exporters together should be built. There is no educational centre specializing in food security and nutrition. With the high prevalence of malnourished people in Cambodia, this field of expertise should be given greater priority. In the opinion of employers, the pyramid of education is in danger of losing its base of technical vocational training. There are an increasing number of graduates holding Bachelor's and even Master's degrees but it is hard to fill positions that require more technically trained students.

Mechanisation is increasingly being applied to extent to any work position but technical vacancies are hard to fill because of a lack of professionalism. Most of the experts in the professional technical fields are invited in from neighbouring countries. Alumni who have studied in technical fields, particularly alumni from abroad, face a problem with unavailability of modern equipment at their workplace, making it difficult to find a suitable placement for them. On the other hand, there is a lack of technicians and a lack of vocational training in agriculture and related fields in Cambodia.

## Recruitment process

There are different means of announcing a vacancy used in Cambodia and the recruitment process differs according to the type of establishment. In private organisations and NGOs, job vacancies are usually announced internally in the organization first, via professional and personnel networks, to head hunt qualified and competent candidates. Vacancy announcements are usually published through web-pages, particularly through [www.bongthom.com](http://www.bongthom.com) or [www.camhr.com](http://www.camhr.com) portals and in newspaper advertisements such as in *The Cambodia Daily* or *The Phnom Penh Post*, on the information boards of the organizations and delivered to educational institutions. The universities announce, publicly within the campus, any need to fill contractual and volunteer staff positions, and students studying at those universities are encouraged to apply as volunteer staff. After students finish their Bachelor's degree they are promoted to contractual staff if they are willing to work at the university and wish to continue to study abroad through scholarship programmes. The announcement period for a job vacancy depends on the job position and on the urgency



of the need of the organization. Normally, the announcement period is around one month. For governmental positions, vacancies are announced by the specific Ministry.

There is no difference between the documents required from EM alumni and other graduates. A curriculum Vitae (CV) and covering letter are the most frequently required documents needed for job applications. NGOs and international organisation usually require applicants to fill in their own application form prepared by the organization and submit it together with a CV and covering letter to the human resources unit. In the public sector the required documents are a bit different.

### **The Public sector (Educational institutions, ministries and other governmental institutions)**

There are two different kinds of staff working in the public sector: permanent/official staff and contractual staff. Moreover, volunteers are accepted. For each of these positions, different documents need to be submitted. To apply for a permanent governmental or official staff position, candidates have to fill in the application form prepared by the governmental institution for which they wish to work. The application covers personal data, educational background, past experience, agreement to working conditions and a request sit for the national state examination. For the contractual staff, candidates have to send a CV and letter of recommendation through the head of department to the Rector or the Head of the institution concerned. Additionally, volunteer staff are only required to supply a CV by the head of department. Recruitment processes applied in the private and public sector in Cambodia are described in the following section.

### **Governmental staff**

To become a permanent member of governmental staff, candidates have to undergo a recruitment process based on the national state examinations. In the official governmental process of recruiting new staff, all institutions under the Royal Government of Cambodia have to submit a request to the particular Ministry including skills and positions that need to be filled; the particular Ministry submits a proposal to the Ministerial Council which decides about the final number of positions that will be opened in order to replace retired staff and to fill new and vacant positions in the organisational structure. The amount of vacancies opened depends on the national budget, which is very limited. The MAFF seeks to hire candidates with associate degrees (universities offer two years associate programmes) and Bachelor's degrees. The salary offered increases in accordance with government policy. With increasing education level, work experience and promotion, the salary is increased. The initial salary is fixed no matter what degree one holds. All levels of graduates from Cambodian and international HEIs (Associate Degree, Bachelor's, Master's and Doctorate) have an equal right to apply to become governmental staff. However the national exam is

limited by age. The age limit for candidates with a qualification under a Bachelor's is 25, for candidates with a Bachelor's or higher degree the age limit is 30 when applying for institutions under the MAFF and 35 for institutions under the MoEYS. Candidates can apply to any position made open by the government.

The national exam that candidates have to pass is the same for applicants with a Bachelor's, Master's or Doctoral diploma. There are three areas of questions included in the national examination: (i) general knowledge on the current situation in Cambodia, a general overview about what is happening in the country; (ii) professional knowledge that differs according to the specific areas of expertise and the position offered and which is different for applicants with Associate Diplomas and for those with a Bachelor's or higher qualification; (iii) an English language exam which is unified for all the candidates. The final selection of candidates to be hired is based on their scores from the national exam and the number of selected candidates is based on a quota agreed between the ministry and the ministerial council. After the results are announced, the candidates who have passed the exam start a one-year probation period. Then, based on an evaluation process they can become new permanent governmental staff and will work at the place and position for which they applied.

Application is available to all candidates once they register and wait for the date of the exam to be announced. The exam is usually held once a year, just rarely is it held twice a year, depending on the demand for new staff. Staff of HEIs and other experts from relevant departments under the MAFF suggest exam questions that should be included in the exam. In collaboration with the Ministry of the Civil Service and with the Anti-corruption Unit, the final version of the exam is decided. Specialized committees are responsible for individual parts of the exam, for the exam proceedings and for the final evaluation. The Anti-corruption Unit monitors the process ensuring its transparency. Finally, high scoring candidates are selected for the positions. The Anti-corruption Unit is an independent organisation.

## **Contractual staff**

Contractual governmental staff can be recruited in two different ways. The number of contractual staff is either limited and financed by the ministry or the staff is selected by the head of the institution according to the need of the department or faculty within the institution. For example, a faculty within the university needs contractual staff to work for the faculty, so the Dean of the faculty has to make a request to the Rector of the university, then the Rector of the university makes the decision to employ new contractual staff based on the financial situation in the university and how reasonable the request is from the Dean of the faculty. The contractual staff get a salary from the university, working under the conditions of the university, and the amount of the salary is based on government guidelines.

More than a thousand respondents apply to be governmental officers to work as permanent staff for government, and there are a few candidates who want to be contractual and volunteer staff.

## **Volunteer staff**

The educational institutions often offer volunteer positions, mainly for students, to help with project organisation and proceedings. This is an opportunity for students to get practical experience during their studies. The Dean of the faculty and head of the particular research centre within the university have the right to involve volunteer staff to work on projects. The volunteer staff does not get any salary but they can earn some little money from work on projects of the faculty. Students build their professional networks through these internships and thus have a better chance to be employed afterwards. Mostly, it is volunteer staff who are considered for positions as contractual staff once they finish their Bachelor's degree. There are also some opportunities for volunteer staff to apply for scholarships to study abroad. Many volunteer positions are also provided in NGOs as well as in some private companies but there is a very weak link between the educational institutions and the private sector in providing practical training opportunities to students.

## **The Private sector and NGOs**

The recruitment process and competences required by the private sector and by NGOs are more or less similar. A CV and covering letter are accepted and screened by the human resources unit, then applicants are short-listed based on the requirements of the specific advertisement. Interviews are usually facilitated by the human resource unit and representatives of the specific department who made the request to employ the new staff. Only short-listed candidates are invited to personal interview. Part of the interview is often a written test or English exam. Selected organisations provide specialized training and field trips which might take from a couple of days up to one month; during this training the candidates are evaluated and the best are offered employment. There are three basic criteria to be evaluated during the recruitment: (1) work attitude, ethics and horizontal skills that are usually the most important criteria. Here, the most important characteristics are independence, creativity, the ability to solve problems, analytical thinking and team work; (2) written and oral English and (3) technical know-how. There are around 100 applicants applying for the lower skilled operational positions, around 20 candidates for the higher skilled positions and only a few candidates applying for managerial positions; of these, only a few candidates are truly competitive.

## **Mission and activities carried out**

There are a wide range of missions and activities that are carried out within the field of agriculture and related life-sciences. The specific missions depend on the sector in which the organisation carries out its activities. Responsibilities are usually given according to what kind of contract is signed by the employers and employee.

According to employers from the public sector, volunteer staff and contractual staff at universities that have a Bachelor's degree mostly only work as research project assistants and mainly focus on the administrative work, assisting core lecturers, collecting data from the targeted areas or working directly in the field. Contractual or permanent staff that have obtained a Master's or Doctoral degree usually become core lecturers or research project leaders at the university. Currently, many EM alumni working at universities already were governmental staff before they got their scholarship. According to interviews with the employers, EM alumni have opportunities to apply for middle level positions in the organizations such as country project coordinator or assistant, program manager, project leader or designer and head of department because they learn fast and have a good chance of being promoted if they have a good and broad perspective in the fields related to the institutional activities, good English and communication skills.

Activities carried out in NGOs and international agencies often require a combination of work in the field in the provinces and work in the office in the cities or provincial municipalities. The activities carried out in these positions are, for example, daily coaching and providing training, organizing meetings and raising awareness, regular monitoring and data collection, providing technical advisory services, reporting, proposing further interventions etc. In private organizations, the activities carried out are profit-oriented in working with the clients, introducing new technologies and supporting trade.

Employees often take on more responsibility than they are able to handle. Contracts are not always fulfilled because employees are overloaded. There is not enough expertise and there are low salaries in the government sector. Thus employees accept consultancy jobs apart from their full time work because providing consultancy is a way to afford living in the city. Particularly NGOs and international agencies often recruit governmental staff to provide consultancy because those are the ones responding to vacancy announcements.

## **The most important skills and competences in the candidates' background**

During the recruitment process various skills and competences are evaluated in order to find the most suitable candidates. The results from the interviews with employers' showed that there is hardly a candidate whose set of skills fits the requirements perfectly. The employers mostly have to compromise

between technical know-how in the particular field, attitude to work, horizontal skills and knowledge of a foreign language. Thus, the most important factor is that the candidate be prepared and willing to learn so their capacities can be built up. As full governmental staff is selected via a national exam that requires more theoretical knowledge, these requirements are more valid for the employers in the private sector and in NGOs or international agencies. Employers prefer to hire applicants who proved to be very committed to their work, having a positive working attitude and are dynamic. Knowledge of a language was shown to be among the most important and required competences in the job market in Cambodia. According to the interviews with employers who play a main role in employing graduates, they require the employees to have a good knowledge of language, especially of English, as most of the donors, local and international NGOs, international agencies, local and international companies, local and foreign universities use English in communication and report writing. Employers particularly require employees who work at middle and top level positions to be able to fully operate in English. In addition, lower level positions should know and understand English as well, even if they do not use English in their work, but have to understand what is happening in the organization. Candidates having a good knowledge of English writing and speaking are really advantaged in a getting good job and making progress in their career.

The most required and valued skills and competences among the applicants are their knowledge, independence within their position so they can solve problems and make decisions individually without being guided, the ability to create new ideas and to be innovative, be critical and progressive, having good communication skills at both written and oral level and within the team and be just self-confident enough to stand out and contribute to discussion.

Technical know-how is very important in specific fields of agriculture and life-sciences; however, the quality of technical education at the Cambodian universities is not always perceived as good by the employers. Thus they often sacrifice the technical know-how of applicants for other horizontal and language skills and instead provide them with specialized training in relation to the activities they carry out at their workplace in order to supplement the knowledge and experience that is often missing in the candidates.

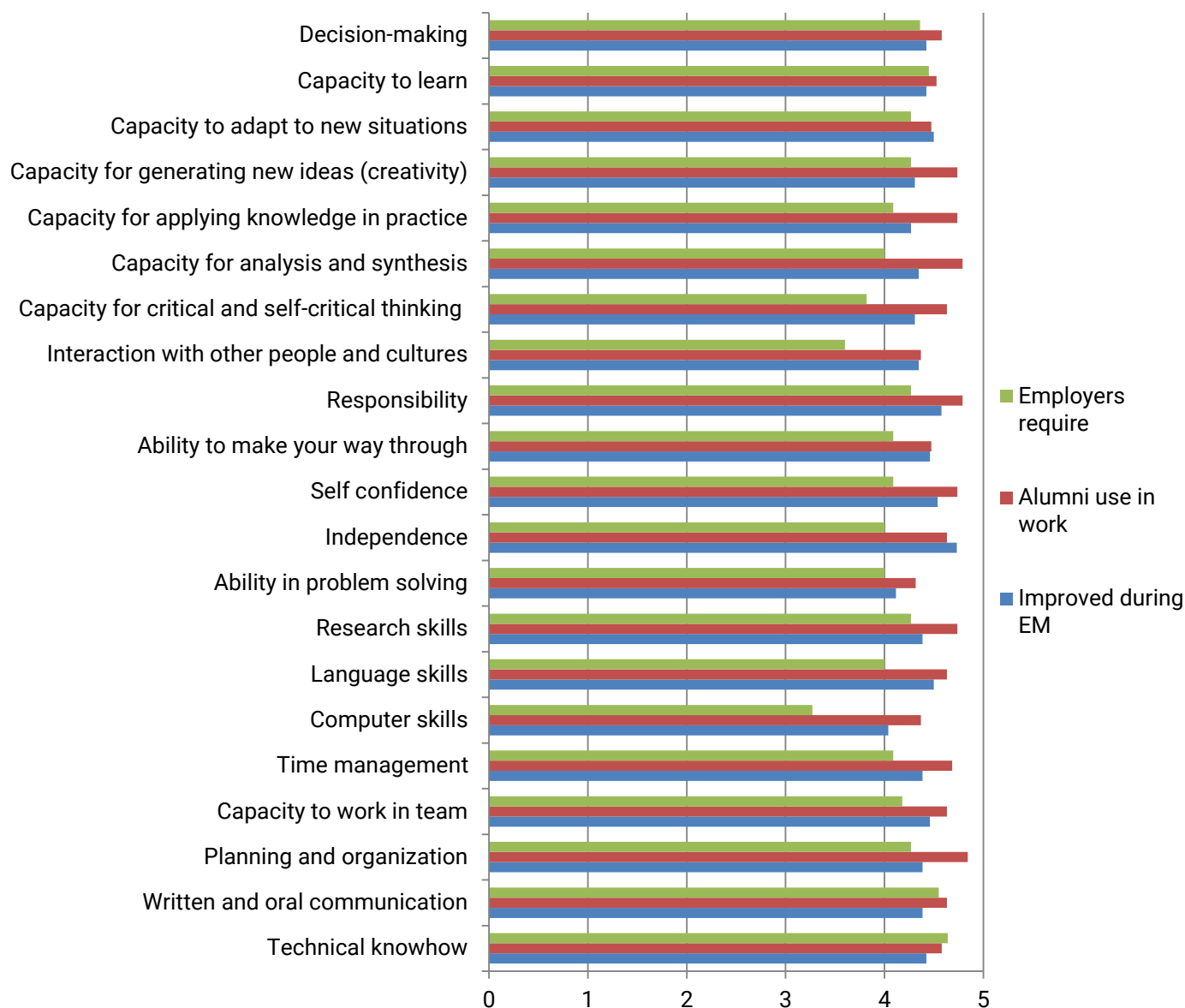
Contrarily, practical experience is a very crucial point in candidates' backgrounds during the recruitment process; applicants have to prove that they not only know theory but that they are also able to work in real situations. New graduates should at least have some volunteering experience as evidence of their competence. Candidates should have planning and organizing skills to schedule activities properly according to a work plan, to be effective and think strategically and have the capacity to learn new things quickly not only at the theoretical level but also how to apply them in practice. The employers also stress responsibility in their positions within the organisation. Employers often complain about a lack of practical experience at home universities and generally among all new graduates. Experience from abroad is also a

point much-valued by employers. It is not a precondition, but candidates with international experience are perceived to have a good knowledge of English, good communication skills, a broader perspective in the work context and greater creativity due to adequate experience from abroad. Moreover the international organisations operating in Cambodia, as well as local institutions, foresee a chance to build a professional network with foreign institutions through candidates who have international experience and contacts at host institutions.

Employers are not concerned much with the excellence of the university, as only popular and well-known world universities are taken into account. Education and training is also an important point in a candidate's background. Candidates with only high school or Associate degrees are usually not preferred by employers and they can face difficulties finding the skills required for work. They can apply for low level positions in the NGOs or private companies, but there is only a small chance of them getting one, due to the relatively high number of candidates in competition; thus they often end up working in garment factories. Most NGOs and private company employers prefer to employ candidates with Masters' degrees; universities prefer candidates with doctorates. Additional training outside the university curriculum is also highly-valued by employers.

The following figure represents the subjective opinion of target groups involved in the research on the importance of predetermined skills and competences. Firstly, alumni evaluated their skills and competences developed during the EM period, secondly the alumni scored these skills according to how much they are used in their work and thirdly, the employers scored these individual skills and competences according to how important they really are. The results are combined in the following figure. Skills are scored on a scale between one and five where five indicates the greatest importance.

**Figure 5** Importance of skills and competences



**Source:** Online survey on alumni experience with the EM programme; Personal interviews with employers

### Skills missing in the candidates

According to the employers, the fields in which alumni can still advance are: academic and policy research skills. Even those who already have practical experience still need to fill in these gaps to be able to conceptualize, theorize and discuss issues academically so that they become politically relevant. Research and analytical skills usually improve during the mobility abroad. The capacity for analysis and synthesis is not sufficient and something else is missing, especially in the local graduates.

Most of the positions at middle and higher levels require a good knowledge of English, in both oral and written form, to be able to communicate with international partners and write reports. This is an obstacle for local graduates whose language skills are limited compared to alumni having experience from abroad.

University graduates are usually limited in not being able to see beyond what is obvious and in not being able to conceptualize issues as a whole. Applicants are unable to assimilate literature reviews and synthesize information. They lack the ability to understand and follow the logical framework of projects and to organize their work strategically which is an impediment in working for NGOs and national agencies.

There is a shortage of applicants with good technical knowledge and competitors fight for each skilled applicant. There is lack of professional and vocational training in agriculture. Some employers are not satisfied with the computer skills and literacy in information technology of applicants. During some recruitment processes a test is done which proves that often even simple calculations are beyond the abilities of local graduates.

Applicants joining the recruitment process very often lack practical experience and they are not able to link theory with practice. Most of the employers complain that local graduates do not have a good knowledge of their field of study; they do not perform well immediately and they have to be trained by the employer before being given any responsibilities, particularly in terms of technical know-how.

### **Advantages of EM graduates in comparison with other graduates**

Results show that among the employers, graduates who went through training or education abroad are often preferred due to the skills and competences they have built. Employers do not make any difference between alumni who graduated in USA, Europe or Australia; generally this is not an issue except for organisations having activities directly linked with the particular country. European, American and Australian programmes have a better name and receive greater recognition from the employers compared to those within Asian mobility programmes.

Generally, alumni who have studied abroad are more able to think in a broader perspective compared to the local graduates. This appears to be linked with the level of study achieved. Being exposed to higher living standards and a different study environment itself already has a big impact on the graduates being able to think outside of the box. Moreover graduates from abroad seem to integrate faster in new positions and work environments.

Employers generally perceive the EM alumni as advantaged compared to graduates from local institutions. After graduating from Europe, the employers recognized that they are more active, their behaviour has changed, their technical know-how is more focused on the specific field, their professional communication



skills have improved and their research and analytical thinking become more complex. Their level of English has improved. Most of the employers stated that graduates from abroad have a better knowledge of English than local graduates because the majority of scholarship programmes are provided in English; there were only some local graduates who had a good level of English because they studied at a private English school or took English courses at the university.

Typically, employers in the governmental sector have a chance to make comparisons of staff before and after experience abroad. They found that their employees became more proactive and self-confident, language (English) improved, as did critical thinking, research and analytical skills built up, communication skills were better than before leaving the home institutions and, in universities, they were able to advance cooperation between the home and foreign universities. The constraint sometimes was in a behavioural change among the alumni. Some of them become too open minded, critical, less integrated in local circumstances and over-confident, and as a result sometimes they were faced with reintegration problems. Moreover, EM alumni lacked experience related to the local context as the study or training period facilitated a long stay abroad and alumni lost touch with the Cambodian environment. EM graduates are more flexible after they adapt to work, mainly because of their knowledge of another language; they are brighter due to their experience and usually have a clearer perception of issues.

### **Is there a likelihood of a promising career for candidates with European experience?**

Employers explained that having a diploma from abroad is not a guarantee of a good employee nor of immediate career progression. It is not strictly a precondition and the temperament and performance that employers look for is very individual. All candidates have an equal opportunity to get a job and all have to compete with each other equally. Most of the EM graduates ask for a higher salary and higher position in the organization immediately after they return, which is not usually offered to them. Promotion comes with proof of their competences and is based on the outcomes of work achieved. However, a majority of EM alumni are capable of proving their abilities and they have a greater chance of being promoted. It was agreed by the employers that graduates from abroad have better skills and competences than local graduates because their qualifications more likely to meet the employer's requirements. And thus EM alumni have more advantages than local graduates, finding a good job in a shorter time period, reaching a higher position and thus increasing their salary and with better chances to be promoted in future. In fact, all the interviewees who contributed to the research were alumni from foreign universities currently working at high positions in the institutions.

Many local graduates have difficulties competing with graduates from abroad in the recruitment process because many of them come from rural and remote areas where it is difficult to access educational

services and learn English. There is an outflow of graduates from the governmental institutions to NGOs and private companies because of the low salaries in the government. This is also the case for graduates from foreign institutions. Some graduates start working for the government for the first couple of years after graduation to get some experience and then look for another placement in the private sector providing a higher salary.

# Outcomes from national workshop

During the national workshop, focus group discussions proceeded separately with selected employers and alumni. The points discussed are summarized in this chapter.

## Employers' perspective

**Employers agreed that it is important to prepare for the post 2015 era to be ready to face new development challenges.** This applies not only to the commercialisation of agriculture and agro-businesses but also to the issues of environmental sustainability and climate change. Therefore we must learn about what future generations will require. Likewise, the reduction of poverty should be a greater focus when talking about agriculture.

**It was perceived that it is important to develop new partnerships.** These partnerships must include civil and non-governmental organisations and other private partners in the projects of HEIs to support the partnership across sectors and to provide internships for students.

**The most important factor influencing graduates' employability is their skills: even more important than the degree and the field of study.** There is a difference between full degree students and short-term technical training. Short-term training is less popular and we must reverse this trend and make short-term training equally valued. The advantage of combining a full degree in Cambodia with short-term training in Europe would be a greater preparedness of students for the field. This requires the home universities to develop their capacities to award valuable degrees. Networking and behaviour change is more likely to improve when students stay anywhere for a longer time.

**There are some perceived differences between education in the USA, Australia and Europe.** Australia had a head start when Cambodia opened to mobility programmes but recently Cambodia has turned things around and Europe seems to be catching up. Cambodian employers are not familiar with the Erasmus Mundus programme. It has become popular only in the last five years. The programme is known in the United Nations family but not among other employers. It was recommended by the employers that we spread information around the 25 Cambodian provinces. This would create exposure for project activities at a sub-national level.

**EM graduates have skills and competences that differ from local graduates.** But what exactly these differences are is difficult to say. EM programmes create an imbalance among graduates. The challenge

remains in the technical fields where graduates feel over-qualified and therefore do not look for low wage positions in the public sector and at universities. Solving this requires a well structured programme-based approach.

**The role of orientation and preparatory meetings for students is very important.** Students who study in Europe require advisory and mentoring services during their stay. Also, the sending universities must support the technical preparedness and internet skills of students.

## Alumni testimonies

Results from this focus group discussion show that students from Cambodia prefer to study in European countries rather than in Australia and the least preferred was the USA with the exception of degrees in business. Although, in general, countries with higher English proficiency were a priority for all.

Results show that information about mobility opportunities in Cambodia is not wide-spread nor easily accessible for the public and thus the opportunity is not always equally distributed as explained by the following testimonies of alumni:

“Information about EM mobility is not spread well. I was working in the office for international relations, thus it was easy for me to access the information. Later on it was announced on the information board of the university but not many students noticed that. The representatives of EU countries who provide the scholarships make a lot of effort to find applicants who are in vulnerable situations and thus it is a rather person to person search approach. However for the other target groups the information is not always distributed equally among all. I wanted to keep working for the government that is why I had to upgrade my degree otherwise the salary is too low. I was lucky to be where the information is.”

“Before applying for the mobility I was working at the directory building of our university, thus the information was going through my hands and I decided to apply for a 10-month mobility. However, after my return, I kept the same position in the organisation as I had before.”

Another three testimonies illustrated that information about the mobility offer was announced by representatives of projects implemented by European partners during their visits in Cambodia. The information shared within the Cambodian home institutions is limited.

A common means of vacancy announcement in Cambodia is public advertisement through web pages and newspapers. It was also through these channels that the majority of alumni, who did not have a job arranged before their return from Europe, found their job. The testimony of one alumnus describes a selected case as follows:

“Through representatives of a French project that aimed to develop an integrated management system for rural development in Cambodia, I received the information about the mobility call. Based on good study results I was selected and received the mobility through the Agris Mundus project. I studied in France and Denmark in combination. As France offers many research projects abroad supporting research for diplomas, I had a chance to go and do the research in Vietnam, where I met my future employer. He was interested in me and we arranged my job before I finished my studies.”

## Implications and outlook

In the view of employers, there is high demand for human resources in specific fields of agriculture and rural development in Cambodia. The skilled labour market is very competitive. There are only a small number of highly skilled workers, for whom there is a demand, and an adequate amount of general labour, the required competences of whom are the subject of necessary compromise by employers during the recruitment process. Among the graduate labour force, EM alumni generally stand out on the Cambodian labour market. Although employers do not promise career progression immediately, in reality, most of the employers wish to employ EM graduates as long as they accept the working conditions, salary and the given position. EM alumni usually ask for a higher salary and a good job within the organization; promotion and work responsibility depend on the output of their work. However, EM alumni usually show better results compared to alumni without international experience and thus have a good chance of building a career. The alumni themselves feel that participation in the EM programme helped them facilitate and advance their career and resulting living conditions, and developed their competences to be able to compete on the domestic labour market. This fact is as well underlined by the reality that all employers or human resource managers who were interviewed during the research are graduates from foreign programmes.

The set of horizontal skills that were developed by alumni during the study/training period, such as independence in work, responsibility, self-confidence, thinking in an innovative way, their overall approach to work and their language skills are the factors making them advantaged compared to students who did not participate in any mobility programme. During the research, a number of issues concerning the quality of education at Cambodian universities were identified. Young local graduates lack practical experience and thus, once employed, have to undergo special training in specific fields, as facilitated by the employers, who have to make a compromise between language, technical knowledge and horizontal skills during the recruitment process. Even more importantly, young people who graduated in Cambodia do not have sufficient horizontal skills. They are less skilled at working and solving problems independently and often need to be guided to fulfil their tasks. They lack analytical and critical thinking, having difficulties in re-telling the plot of a story they hear. Active participatory learning techniques need to be incorporated in the didactic approach that is applied at home universities to allow students not only to listen and study, but rather to actively contribute to the educational process. Moreover, their knowledge of foreign languages is not sufficient in either oral or written communication. This creates a barrier to accepting graduates in international markets and development organizations that now play an important role on the labour market in Cambodia. Recent graduates do not have enough practical experience after graduating from either Cambodian or European universities. Practical experience and internships should be not only be provided to both local and EM graduates to allow them to learn from and experience reality, but should also be

recognized within the curriculum. Public/private partnerships need to be strengthened to provide opportunities for practical experience and to better address the needs of the market. An increase in internship opportunities during the EM programme and at Cambodian institutions would be of great help in preparing the alumni for their careers. Not only university education, but even more importantly the system of vocational training was found inappropriate. There is an insufficient supply of technically skilled labour coming from vocational training which is reflected in the competitiveness of the agriculture sector.

With a large stock of dynamic young workers, Cambodia is challenged to use its full potential to transform the new generation into a productive labour force by, among other things, providing good quality education that will correspond to market demands. Current development is making agriculture less attractive for the young. These tend to switch towards white collar work, mainly to finance and accounting, while agriculture is often considered a step backwards. Moreover, the young generation see agriculture only at its production stage and does not see the variety of activities carried out along with the value chain and within the lateral fields that have recently become a key interest of government and institutions. There is a need to promote agriculture broadly speaking to make it more desirable and attractive for the young.

As the agricultural sector is developing towards becoming a more integrated one and includes lateral aspects of development, new positions are opening up. This trend needs to be addressed by providing specialists, capable of facilitating the transition from subsistence agriculture to competitive agribusinesses, in all the aspects of sustainable development in the local context. Moreover, entrepreneurial potential should be supported in the young to create a competitive environment for development in the agricultural sector and to strengthen the country's economic position within ASEAN.

After the education/training period one fourth of alumni returned to the same organisation and worked in the same sector as prior to the EM programme. This fact might significantly contribute to the capacity building of institutions if it is maintained properly and the "brain drain" phenomenon is avoided. More focus should be put on proper selection of candidates based on the human resources development plan of the home institutions to ensure that the capacities and skills built during the mobility can be transformed to the benefit of the sending institutions. Various methods of recruitment are applied in different sectors of employment. Becoming a permanent governmental member of staff working at universities and governmental institutions is controlled by passing a national exam that is limited to the age of 35 for the MoEYS and 30 for the MAFF respectively. This is a burden for the candidates who do not fit into that age range, among those, many are EM alumni with a Master's or a Doctoral degree and thus this age limitation causes a loss of quality human resources capable of building the capacities of the home institutions. The Royal Government of Cambodia could come up with an alternative recruitment approach or extend the age limit so that candidates are able to apply to be permanent governmental officers and not only contractual

staff, so they would feel more comfortable contributing to the institutional settings with their knowledge and experience while being more secure for their future, rather than being simply contractual staff.

## Recommendations for EM programmes

1. More focus should be given to establishing more equal gender distribution of EM alumni coming from Cambodia to counter-act the fact that the majority of participants in the past were male, as well as to ensuring a more equal information share among possible applicants. This should be complementary to the improving gender balance at Cambodian HEIs.
2. A good proportion of alumni originally come from rural areas which, considering the paucity of rural job opportunities, leads to migration into the cities after the study/training period.
3. Results showed that information about EM mobility is not spread well at the sending institutions and potential applicants do not have equal access to this information.
4. Contrary to USA or Australian mobility programmes, EM application seems to be protected and hard to do. The application process is complex and the information about available study programmes is not always easily accessible.
5. We recommend the creation of a more attractive and stronger marketing system to promote EU higher education under a good quality brand.
6. As a part of this strategy, there is a necessity to maintain the professional relationship of both sending and hosting institutions with the alumni through continuing cooperation projects. That should help to facilitate the promotion of the programme, to continue the development of higher education and to establish economic links between private and public institutions at a national and international level.
7. Moreover, official support from the European Commission provided to EM alumni in regards to the recruitment process in governmental institutions could eliminate the age restriction with respect to the national exam and the public institutions could use the potential of all alumni returning from Europe.



8. The scholarships should provide a specific package for a pre-departure intensive English preparatory course, particularly for poor and vulnerable students who do not have the financial resources to study English apart from basic university courses, which leaves them worse off in competing at the higher levels of English. They often even lack the courage to apply for the scholarship.
  
9. Besides these preparatory courses, it is very important to regularly implement re-adaptation orientations for alumni who are leaving Europe and coming back to Cambodia after the programme is terminated. As they were exposed to a different environment and cultural values, their methods of communication might have changed. This is not always appreciated by the employers. The re-adaptation courses would help to facilitate reintegration to the home society and prepare the alumni for the return to their homeland.
  
10. Short-term mobility programmes for management staff should be supported in order to develop and build up research capacities, time management and didactic approaches.

# References

European Commission. 2014. Erasmus Mundus (2004-2013) in Asia.

Domashneva, Helena. 2013. Diplomat. NGOs in Cambodia.

Available at <http://thediplomat.com/2013/12/ngos-in-cambodia-its-complicated/>. Domashneva, 2013: Accessed 2015-01-19.

IFPRI, International Food Policy Research Institute. 2013. Cambodian Agriculture. Adaptation to Climate Change Impact. Environment and Production Technology Division.

FAO. 2015. FAOSTAT: Inputs – Population.

Available at <http://faostat.fao.org/site/550/default.aspx#ancor>: Accessed 2014-12-08.

MAF, Ministry of Agriculture, Forestry and Fisheries, MAFF. 2014. Job announcement.

Available at <http://www.maff.gov.kh/>: Accessed 2014-11-08.

MoEYS, Ministry of Education, Youth and Sport. 2013. Policy Paper No.1: Higher Education in Cambodia. Phnom Penh, Cambodia.

MoEYS, Ministry of Education, Youth and Sport. 2014. Education Statistics and Indicators 2013-2014. Phnom Penh: EMIS Office, Department of Planning, Cambodia.

National Institute of Statistics. 2011. Final Results of 2011 Economic Census.

Available at <http://www.stat.go.jp/english/info/meetings/cambodia/census11.htm>: Accessed 2015-01-15.

National Institute of Statistics, International Labour Organization (NIS & ILO). 2013. Cambodia Labour Force and Child Labour Survey 2012. Labour Force Report. Phnom Penh: ILO. 120p.

National Institute of Statistics, Ministry of Planning. 2014. Cambodia Socio-Economic Survey 2013. Phnom Penh.

Open-development. 2014. Economic Land Concessions (ELCs). Available at: Accessed 2014-12-06.

Royal Government of Cambodia. 2010. National Strategic Development Plane Update 2009-2013. For Growth, Employment, Equity and Efficiency to Reach Cambodia Millennium Development Goals. Phnom Penh, Cambodia.

Royal Government of Cambodia. 2013. "Rectangular Strategy" for Growth, Employment, Equity and Efficiency Phase III of the Royal Government of the Fifth Legislature of the National Assembly. Phnom Penh, Cambodia.

Royal Government of Cambodia, Ministry of Planning. 2013. Annual Progress Report. Achieving the Millennium Development Goals. Phnom Penh, Cambodia.

Schwab, Klaus. 2011. The Global Competitiveness Report 2011-2012. World Economic Forum. Geneva, Switzerland.

Sopheap, Chak. 2012. The Youth Labour Market in Cambodia. Work in the Developing World on Cambodia.

Walker, K. 2012. Cambodia's Postgraduate Students: Emerging Patterns and Trends. AJTLHE 4: 1-13.