

JICA Ogata Sadako Research Institute for Peace and Development

Empirical Research Project on Impacts of Study Abroad in Developing Countries - based on Study

Abroad Experiences of Academic Professionals of Major Universities in ASEAN

Higher Education in Cambodia: Impacts of Study Abroad Programs on Academic Institutions

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Empirical Research Project on Impacts of Study Abroad in Developing Countries - based on Study Abroad Experiences of Academic Professionals of Major Universities in ASEAN:

The JICA Ogata Sadako Research Institute for Peace and Development is currently (2018-2023) conducting research on the impact of study abroad on societal and institutional development in ASEAN. The research employs a large-scale survey and interviews with academic professionals at 10 top universities in four ASEAN countries (Cambodia, Indonesia, Malaysia and Viet Nam) to examine the impacts of study abroad on university development and their current activities at the university. Further, shifts in study abroad trends over time are identified in the data. For more details about the project, please refer to the site below.

https://www.jica.go.jp/jica-ri/research/human/strategies_20180401-20210331.html

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This report was prepared as part of the JICA Ogata Research Institute Research Project on Impacts of Study Abroad in Developing Countries to gather essential information on the history and current status of higher education as well as the impacts of study abroad on academic professionals in Cambodia. The Project commissioned Dr. Say SOK, Dr. Bophan KHAN, and Ms. Rinna BUNRY to prepare this report and the work was supported by JSPS KAKENHI Grant Number 20H00094.

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Abbreviations and Acronyms

AAA-C Australian Alumni Association of Cambodia
ACC Accreditation Committee of Cambodia

ACIAR Australian Centre for International Agricultural Research

ADB Asian Development Bank

AFD Agence Française de Développement (French Agency for Development)

AOP Annual Operational Plan

APWINC Asia Pacific Women's Information Network Center

ARES-CCD Académie de Recherche et d'Enseignement Supérieur-Development Cooperation

Committee

ASCOJA ASEAN Council of Japan Alumni

AUF Agence Universitaire de la Francophonie

AUN ASEAN University Network

AUN/SEED-net ASEAN University Network/Southeast Asia Engineering Education Development

Network

BAAC British Alumni Association of Cambodia

CAC China Alumni of Cambodia

CAMKAA Cambodia-Korea Alumni Association
CCAA Cambodian Canadian Alumni Association
CDC Council for Development of Cambodia
CDRI Cambodia Development Resource Institute
CESSP Cambodian Education Sector Support Project

CKCC Cambodia-Korea Cooperation Center

CoM Council of Ministers

CPAN Cambodia-Philippines Alumni Network
CFB La Communauté Française de Belgique
DAAD German Academic Exchange Service
DFAT Department of Foreign Affairs and Trade
DGHE Directorate General of Higher Education

DHE Department of Higher Education

DP Development Partner

DSR Department of Scientific Research
EEE Electrical and Energy Engineering

ELBBL English Language Based Bachelor of Law Program
EMA-Cambodia Erasmus Mundus Students and Association Cambodia
ENSIM École Nationale Supérieure d'Ingénieurs du Mans

ESP Education Strategic Plan

EU European Union

FAO Food and Agriculture Organization

FUSAAC Fulbright and Undergraduate State Alumni Associations of Cambodia

GCA Department of Chemical and Food Engineering

GCI Department of Civil Engineering

GEE Department of Electrical and Energy Engineering

GIC Department of Information and Communication Engineering
GIM Department of Industrial and Mechanical Engineering

GIZ German Society for International Cooperation

GMSARN Greater Mekong Sub-region Academic and Research Network

GRU Department of Rural Engineering HEI Higher Education Institution HEIP Higher Education Improvement Project

HEMIS Higher Education Management Information System

HEQCIP Higher Education Quality and Capacity Improvement Project

HRD Human Resource Development

HRMIS Human Resource Management Information System ICE Information and Communication Engineering

ICTC-RERC ICT Convergence Rehabilitation Engineering Research Center

IFAD International Fund for Agricultural Development

IME Industrial and Mechanical Engineering

IQA Internal Quality Assurance
IRO International Relations Office
IRRI International Rice Research Institute
ISP International Science Program
ITC Institute of Technology of Cambodia

JAC Japan Alumni of Cambodia

JDS Japanese Grant Aid for Human Resource Development Scholarship

JICA Japan International Cooperation Agency

JSP Japanese Scholarship Program

JSPS Japan Society for Promotion of Science

JST Japan Science and Technology Agency

KDF Cambodian-German Friendship Association

KOICA Korea International Cooperation Agency

KNB Kemitraan Negara Berkembang (Scholarship)

LBE Lab-Based Education

MEXT Ministry of Education, Culture, Sport, Science, and Technology of Japan

MoA Memorandum of Agreement

MoAFF Ministry of Agriculture, Forestry and Fisheries

MoCS Ministry of Civil Service MoE Ministry of Environment

MoEF Ministry of Economy and Finance MoEYS Ministry of Education, Youth and Sport

MoFAIC Ministry of Foreign Affairs and International Cooperation

MoH Ministry of Health MoI Ministry of Interior

MoLVT Ministry of Labor and Vocational Training

MoU Memorandum of Understanding NBC National Bank of Cambodia

NERC Natural Environment Research Council

NIPTICT National Institute of Posts, Telecoms and Information Communication Technology

NSDP National Strategic Development Plan

NZAAC New Zealand Alumni Association of Cambodia

NUBB The National University of Battambang
OHEC Office of Higher Education Commission

PAI Public Administrative Institute
OSF Open Society Foundation
PMO Personnel Management Office
RGC Royal Government of Cambodia

RS Rectangular Strategy

RUA Royal University of Agriculture

RULE Royal University of Law and Economics

RUPP Royal University of Phnom Penh

SATREPS Science and Technology Research Partnership for Sustainable Development

SEAMaN South East Asia Mathematical Network

SEARCA Southeast Asian Regional Center for Graduate Study and Research in Agriculture

SEP2D The Sud Expert Plantes Développement Durable Program
SHARE Support to Higher Education in the ASEAN Region

SICA Strengthening Quality Assurance in Cambodian Higher Education Project

Sida Swedish International Development Cooperation Agency

SIIT Sarinthorn International Institute of Technology

SRU Svay Rieng University

STEM Science, Technology, Engineering, and Mathematics

TAAC Thailand Alumni Association of Cambodia

TEIN Trans-Eurasia Information Network
TUFS Tokyo University of Foreign Studies
UCL Université Catholique de Louvain
ULB Université Libre de Bruxelles

UK United Kingdom

UNESCO United Nations Educational, Scientific and Cultural Organization

USAID United States Agency for International Development

WaSo Water and Society

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Executive Summary

This report provides a snapshot of higher education development in Cambodia, with a particular focus on the impacts of study abroad programs of four leading higher education institutions located in Phnom Penh. It is written based on existing literature, the authors' knowledge and experience of the sector, a field survey, and key informant interviews with faculty members and key staff from the four higher education institutions.

Section 2 provides an overview of the national higher education landscape in Cambodia. Key themes of the chapter include a brief history of higher education development, key national policies and strategies for higher education development over the past three decades, and recent national and sectoral policies and strategies on human resource development in the public sector, including education. The chapter also covers inbound and outbound mobility, including popular scholarship programs for Cambodians, basic information about major alumni networks, and an overview of international aid for the higher education sector. It concludes with a discussion of the impacts of study abroad programs on the development of the country at large and academic institutions in particular.

The subsequent chapters examine the recent development of the four higher education institutions—namely the Royal University of Phnom Penh, Institute of Technology of Cambodia, Royal University of Agriculture, and Royal University of Law and Economics. Sections 3–6 each cover one higher education institution, beginning with an overview of the university's development and an analysis of the institutional policies and strategies for the development of faculty and staff. The study abroad experience of the faculty and staff (both short and long-term), inbound mobility, and mobilization and management of international aid, including collaborative projects that focus on research, teaching and learning, and community services. Support for student mobility is also featured in each chapter. Each chapter ends with a discussion of the perceived impacts of studying abroad on university development.

Chapter 7 concludes with some significant remarks about higher education development in Cambodia from a broader perspective, before assessing the development of the four institutions more specifically, including the impacts of their faculty's study abroad program on the development of the academic institutions.

1 Introduction

1.1 Aim of the Report

This report aims to provide basic background information on the impacts of study abroad in Cambodia by paying specific attention to the higher education sector. It focuses on both the national and institutional levels. At the national level, it examines the activities and achievements of the Ministry of Education, Youth and Sport (MoEYS) and the Ministry of Civil Service (MoCS). At the institutional level, it covers the following four prominent public higher education institutions (HEIs)—the Royal University of Phnom Penh (RUPP), the Institute of Technology of Cambodia (ITC), the Royal University of Agriculture (RUA), and the Royal University of Law and Economics (RULE).

1.2 Overview of the Research Methods

The process of undertaking this research can be divided into three phases. It commenced with a desk review of the publicly available literature and information obtained from the four HEIs. This includes relevant national legislation, national and institutional rules and regulations; national and institutional policies, plans and reports; academic and development papers, as well as the websites and social media platforms of the concerned institutions and organizations. This was followed by a survey conducted with the four HEIs to collect information and data on the staff profile, higher education internationalization, and the support of the respective institutions for capacity development in the second phase. The last phase involved key informant interviews with the institutional managers (senior and/or mid-level) to develop an understanding of each university's development policies, plans and programs, study abroad activities of the staff, and the impact of study abroad on the HEI and beyond.

2 National Level

2.1 Overview of National Higher Education Development History

Cambodian higher education has a fairly long—but roller coaster and disastrous—history. More gradual and stable development only started in 1979 with meager but increasing investment from the government and its development partners (DPs). Based on changes in political regimes, higher education development can be divided into six important periods. First, under the nearly century-long French colonization (1864–1953), higher education development was virtually ignored. The colonial administration invested little even in secondary education, let alone higher education. No institutions for tertiary learning were established. While there were a few institutions that could be considered professional training institutions (Mak et al. 2019a; Sam et al. 2012), these were only established in the latter years of the colonial period.

Second, remarkable development could be observed during the post-independence *Sangkum Reastr Niyum* period (1953–70), which can be considered the birth of the 'modern' Cambodian state and 'modern' higher education. The first modern secular university was established in 1960 (Sam et al. 2012), with only a few post-secondary institutions established before this time. The establishment of public HEIs increased rapidly after Prince Norodom Sihanouk's state visit to Indonesia in 1964. By 1970, more than a dozen HEIs were established, and by 1966, 7,360 students were enrolled in tertiary education (Ayres 2000, 50; Sam et al. 2012). To many Cambodians and some outside observers, this period is considered the 'Golden Era' of modern Cambodia. However, higher education development also had its own problems (Jacobsen 2018), including the lack of qualified staff and the high number of graduates in the social sciences and humanities.

Following this, in the third period, higher education fell into disarray due to intense conflicts and wars under the Khmer Republic (1970–75) of General Lon Nol. This led to the fourth period, in which higher education was annihilated in the Democratic Kampuchea (1975–79) under Saluth Sar (aka Pol Pot), when all HEIs were closed and the 'educated', including university lecturers and officers of the previous regime, were specifically targeted for execution (Ayres 2000; Sam et al. 2012). In this sense, the regime was the most destructive in modern Cambodian history: the repercussions on higher education (under)development were immense and can still be felt decades later (Wan et al. 2018).

In the fifth period, the People's Republic of Kampuchea (1979–1989) and the subsequent State of Cambodia (1989–1991)—despite the embargoes from the West—the sub-sector was 'revived' almost from scratch by the few educated survivors of the genocide. This was done with the support of Eastern Bloc countries, particularly Russia, which not only provided scholarships to Cambodian students to pursue higher education in their countries but also dispatched experts and educators to work side-by-side with their Cambodian counterparts at the HEI level. Given the nature of the regime, higher education was, therefore, elitist, fragmented, centrally planned and state-sponsored (in addition to the aid-providing countries), mainly intended to produce graduates to meet the need of the public sector. Institutional management was top-down, placing power in the hands of the rector/director, and HEIs were placed under the direct supervision of the respective line ministries. According to Ross (1987), only 50 university staff remained in the country to rebuild the entire sub-sector. Under the two regimes, more than 6,500 students were sent to study abroad—i.e., in Eastern Bloc countries (Mak 2016).

In the second Kingdom of Cambodia after 1993—the sixth period—higher education development was influenced by selected principles of the neoliberal economy, such as privatization and deregulation and mundane state regulation. However, this was done without adequate steering or strategic investment and guidance from the center (Sen and Ros 2013; Un and Sok 2018b). After the collapse of the Soviet Union, support from the Eastern Bloc waned, and new sources of foreign support to the sub-sector needed to be more diverse. Initially, this support came mainly from bilateral sources, provided directly to the selected HEIs. Since the late 2000s, funding has increased from multilateral institutions (mainly the World Bank) through MoEYS, while direct foreign support to respective institutions continues and, in the cases of some HEIs, has soared over the past decade (Mak et al. 2019b). There are also various

tertiary scholarship schemes (as presented below) for Cambodians to pursue their higher education abroad, and these are mainly managed by the respective foreign aid providers.

Since 1993, various subtle transformations can be observed. The advancement of higher education has occurred in the national context of a more stable, peaceful Cambodia, more sustained national development—especially in economic and financial terms—and multiple transitions including the adoption of liberal democracy and liberalization, a market economy, rising consumer society, and Cambodia's integration into the regional and global economy. This has also occurred within the broader international context of rising neoliberalism, regionalization, and globalization.

Between 1993 and 1997, higher education was still sponsored solely by the state, and there were only eight public HEIs that had around 10,000 students enrolled on the government's subsidy. There was a small pool of local staff—all civil servants. Graduates were guaranteed civil service employment, and higher education was elitist. In the meantime, the economy was in the early stage of privatization and global integration, and the public sector was in the initial stages of reform.

A watershed event occurred in 1997 when higher education was first privatized and attempts began to reform the public institutions that generated and managed revenue. Privatization brought about two things: on the one hand, private HEIs were allowed to be established, and on the other hand, public HEIs were permitted to establish fee-paying academic programs to generate revenue for their own "institutional development." Thus, the first private university was established in 1997. In practice, the reform of public higher education was partly a response to the rise of private providers, which were attracting staff from public HEIs to teach on a sessional basis, and the limited government funding available to the sub-sector. In other words, public HEIs were allowed to run private programs so that they could generate money to top up the meager salaries of their staff, who were finding the teaching wages at private HEIs attractive. In public HEIs, a dual personnel system (civil servants and on-contract, sessional staff) and dual financial management (public budget and institutional revenue) began to emerge. In 1997, the government issued the Royal Decree on Legal Statutes of Public Administrative Institutes (PAIs) to provide some degree of institutional autonomy to public institutions that generate and manage their own revenues. In response to this, as well as to legalize the status quo in public higher education, this decree was rolled out to public HEIs in 1999, allowing the first public university, RUA, to transform itself into a PAI HEI (Mak 2019a; Un and Sok 2018b). As of 2019, nine public HEIs under the supervision of four different ministries have been granted the status of PAIs. The 2015 amended decree on PAIs attempted to transform all public HEIs that generate and manage revenue into PAIs, but so far, this has been more of a policy intent (for discussion of PAI HEIs, see Touch et al. 2014; Sok et al. 2019).

Another development has been the growing internationalization of higher education, which took place rapidly in the late 2000s. Among other outcomes, this internationalization is reflected, especially, in the sharp escalation of the numbers of outbound students (on student exchanges and for degree programs), the growing presence of international providers and joint degree programs with international providers, and increases in international collaborative research, particularly in selected public HEIs. Coinciding with this, there has also been additional foreign support for higher education (Mak et al. 2019b).

A few other related facts and figures are worth highlighting. First, HEIs can be legally classified into a university or an institute based primarily on the number of disciplines/fields of study they offer—defined legally as the number of faculties or equivalents they have. In terms of founding bodies and operations, they can be divided into three types: public, PAI, and private. Some private HEIs claim that they are not-for-profit.

There has been increasing fragmentation in system governance, making it impossible to create a favorable, proactive higher education system (let alone an ecosystem) to lay out a grand design for the sub-sector and systematic intervention. In 1997, there were only four technical supervising ministries, with the number increasing to 16 in 2022. Among these, MoEYS and the Ministry of Labor and Vocational Training (MoLVT) supervise some two-thirds of the HEIs. However, permanent

coordination and collaboration mechanisms for all the ministries, as well as the two main supervising ministries, are simply absent.

Since 1997, there has also been a rapid increase in the number of HEIs, both public and private, climbing from merely eight in 1996, to 51 in 2006, and rising to 125 (48 public and 77 private) in 2019 (MoEYS 2019a). This rapid increase has proved taxing for regulatory bodies—especially the technical supervising ministries and the Accreditation Committee of Cambodia (ACC)—in fulfilling their quality assurance and enhancement purposes. Quality monitoring, inspection and institutional accreditation (let alone program accreditation) are running behind while the system grows (Chet 2009; Mak et al. 2019; Sen and Ros 2013; Un and Sok 2018a; Vann 2012).

The number of students has soared quickly, thanks in part to the rapid increase in the number of providers, relatively low tuition fees and flexible tuition fee arrangements, as well as increasing family and individual purchasing power. However, compared to countries in the region, the gross enrollment rate is still relatively low. It has increased from about 10,000 in 1997 to 211,484 in 2018 (MoEYS 2019a). Some 90% of the students, around half of whom enroll in public HEIs, are fee-paying. Access to higher education is thus primarily based on the purchasing power of the individual and their families and not so much on merit, equity or the needs of the country or labor markets (Mak et al. 2019b; Un and Sok 2018b).

The rapid increase in the number of students and HEIs has led to the demand for more faculty members and support staff. It also means rising opportunities for the HEI staff to teach at more HEIs and/or for more hours. This is especially so given that HEIs are generally teaching-oriented, and wages are often paid on an hourly basis. According to data from Department of Higher Education (DHE), in 2018, there were 16,167 local and foreign HEI staff (with no disaggregation of full-time or part-time staff or administrative or teaching staff available) working at the public and private HEIs. Of these, 1,309, 10,270, and 3,281 hold bachelor's, master's and doctoral/PhD degrees, respectively (DHE 2019). There is a small pool of foreign staff (over 600), most of whom worked at private HEIs and mainly as teaching staff.

Finally, higher education has not been a priority sub-sector in terms of financial investment, regardless of whether it comes from DPs, not-for-profit organizations, or the government. Investment is significantly lower than the global average of 1.00 percent of GDP and 15–20 percent of total education expenditure, including that of the advanced countries in ASEAN (Mak et al. 2019; Ting 2014). Investment in higher education has accounted for some 0.05 percent of GDP over the past decade (Mak et al. 2019), and its share of the total education budget stood at 5.02 percent in 2019. There is no project-type investment from the government, and the biggest project investment has come from the World Bank through the Cambodian Education Sector Support Project (CESSP) 2005–2010, amounting to USD3 million; the Higher Education Quality and Capacity Improvement Project (HEQCIP) 2010–2017, USD23 million, and the Higher Education Improvement Project (HEIP) 2018–2024, USD92.5 million. Large-scale project investment only started in 2010. The few big bilateral investors, which fund individual public HEIs directly, include the Japan International Cooperation Agency (JICA), Korea Cooperation International Agency (KOICA), Swedish International Development Cooperation Agency (Sida), French Agency for Development (AFD), and the United States Agency for International Development (USAID).

2.2 National Higher Education Policies and Strategies

Compared with policy formulation in the more advanced ASEAN countries, higher education long-term planning is relatively young in Cambodia. Shorter-term planning includes annual and medium-term

¹ According to the Department of Finance of MoEYS, in 2019, the total share of the higher education budget to the MoEYS (inclusive of funding from the development partners [DPs]) budget is 5.02% (comprising 2.1% from the government's budget and 2.92% from DPs' budget)(MoEYS 2019).

plans. The annual plan is called the Annual Operation Plan (AOP) and is prepared by the respective concerned departments, namely the Department of Higher Education (DHE) and Department of Scientific Research (DSR) of the Directorate General of Higher Education (DGHE) of MoEYS, and the public HEIs. Such a plan needs approval from the supervising technical ministry and endorsement from the Ministry of Economy and Finance (MEF) during the annual budget negotiations.

Medium-term, sector-wide planning dates back almost two decades. The five-year Education Strategic Plan (ESP)—the medium-term technical, sector-wide plan—enlists the development programs of the ministry. The underlying principles and philosophy guiding its development have been adopted from the global agenda (i.e., United Nations) of equity and access (or equitable access), quality and efficiency (or relevance), and institutional development and capacity building (or effective leadership and management). This is manifested in the first four plans: 2001–2005, 2006–2010, 2009–2013 (update), and 2014-2018. The latest plan (2019-2023) includes a focus on inclusive and equitable quality and lifelong learning, as well as effective leadership and management. The first two plans (2001–2005, 2006-2010) were arranged thematically, and higher education (as all other sub-sectors) was not presented as a separate section but embedded in each of the three major themes. Sub-sectors have been used to guide the development of the last three plans (2009–2013, 2014–2018, 2019–2023), and thus higher education is written as a separate section and given more prominence in these plans compared to the first two. Upon his re-appointment as Minister of Education, Youth and Sport in 2018, the current Minister issued the Reform Strategies for Education, Youth and Sport 2018–2023 in November 2018 (MoEYS 2018). Only a very small section (one page) is dedicated to higher education. Aiming more specifically at higher education, in 2015, the ministry also issued the Higher Education Reform Action Plan 2015-2018.

Long-term planning for higher education (education in general) has been much more recent, thanks mainly to HEQCIP. In 2019, the ministry issued the Education Roadmap 2030 to guide the sector development. Under the project, the ministry issued the *Policy on Higher Education Vision 2030* in 2014, and in 2017, with funding from the World Bank and UNESCO, the *Cambodian Higher Education Roadmap 2030 and Beyond* aimed to operationalize the *Higher Education Vision 2030*. Like ESP, the former covers the themes of quality and relevance, access and equity, and governance and management, while the latter mandates four main goals of quality and relevance, access and equity, internationalization, and governance and finance. Selected major elements of these two policy papers have been used to inform the preparation of the higher education sub-sector of the latest ESP. In 2021, the ministry endorsed the *Strategy for Higher Education 2021–2030*, with the intention of improving the quality of academic programs and increasing research productivity as part of the Higher Education Improvement Project (HEIP). Notably, a higher education action plan was first prepared in 1997 under the chairmanship of the Council of Development of Cambodia (CDC) and with limited involvement of MoEYS. The draft plan was never adopted by the CDC, MoEYS or the government.

Cambodia has no separate national policy or strategy on higher education internationalization. Nor does it have any national policies or strategies for members of the university faculty. Moreover, there are no policies to support specific staff development or staff development across the entire sub-sector. In fact, ESPs make little explicit mention of higher education internationalization, but the latter plans have some patchy initiatives on faculty and support staff development, and to a lesser extent, internationalization (mainly promoting faculty members' overseas study and training through "technical cooperation," i.e., foreign support). The Reform Strategies for Education, Youth and Sport 2018-2023 also makes no mention of internationalization or faculty and staff development. However, sub-sectoral plans provide more comprehensive coverage of the two matters. The two long-term sub-sector policies (Vision 2030 and Roadmap 2030 and Beyond) cover internationalization and faculty and staff development extensively. One of the four goals for the sub-sector, as stated in the roadmap, is higher education internationalization, which mainly focuses on the promotion of inbound and outbound students and faculty mobility, academic program mobility, and institutional mobility, programs using a foreign language as a medium of instruction, and the organization of international and cultural events. Numerous objectives and strategies across the four goals aim to promote the capacity development of academic and support staff. Currently, one of the practical issues facing the policies (an issue common to many policies in Cambodia) is the translation of policy intent into concrete, systematic investment programs, especially from the government and major DPs, as well as their monitoring and evaluation. Table 2.1 highlights significant policies extracted from the recent plans and policy documents related to higher education internationalization and faculty and staff development.

Table 2.1: Excerpts from recent plans and policies related to Higher Education Internationalization and Faculty and Staff Development

Policy 3 on Institutional and Capacity Development for Education Staff for Decentralization (in Program 2 on Higher Education):

- Improve staff capacity and institutional management in HEIs through training and incentives, and institutional and financial reforms, which enable the greater operational autonomy of HEIs.

Proposed actions:

- Develop a capacity development plan for administrative staff and lecturers in higher education in 2011.
- Organize two comprehensive universities in 2013.

Required Technical Cooperation:

- Develop staff capacity and expand programs to pilot the implementation of two comprehensive universities.
- Develop the capacities of higher education lecturers through the provision of scholarships to continue their studies in local and foreign countries and to conduct research activities.
- Send students to study abroad through bilateral and multilateral cooperation programs.

Source: MoEYS 2009

Policy Action: Prepare a Policy on Human Resource Development for Higher Education in 2015.

Strategies:

- Develop capacity for teaching and administrative staff of the higher education sub-sector.
- ❖ Enhance curriculum diversification and priority programs to meet ASEAN standards (engineering, architecture, medicine, dentistry, nursing, accountancy, tourism and other priority professions).

Outcome indicators:

- Number of faculty members with master's degrees increases by 1,000 and with PhDs by 250 by 2018. Programs and activities:
- Quality Improvement Program and Expand Relevant to Labor Market: through curriculum development and instructional design and high-quality priority sector programs
 - Curriculum development and instructional design: (i) develop curriculum based on labor market needs and focus on analytical skills, problem-solving, group work, communication, etc. (ii) [develop] indicators for ASEAN priority curriculum standards. (iii) Improve foreign language programs at all HEIs to strengthen students' ability to understand foreign languages. (iv) Develop competency frameworks for higher education. (v) Staff of DSR, DHE and development partners attend national and international workshops, training programs and study visits on curriculum development.
- Higher Education Capacity and System Development Program:
 - ❖ Capacity development program: (i) establish a scholarship fund for a postgraduate program through contributions from the government and DPs. (ii) Rigorously improve foreign language proficiency of DHE and DSR staff. (iii) Continue to build DHE and DSR staff capacity through graduate studies inside the country and overseas. (iv) HEIs upgrade their lecturers' qualifications. (v) Create a brain-gain platform to more actively involve Cambodian graduates from foreign HEIs in higher education. (vi) Staff of DGHE and HEIs attend workshops and study visits on capacity development.
 - ❖ In and out country cooperation: through exchange experiences, students, professors, researchers, and programs. Strengthen the management of students in and out of the country (dormitories).

Source: MoEYS 2014a

3. Sequencing of Higher Education Reform Actions 2015 – 2018

- Expansion of Best Practice HEI (RUPP) to 10 HEIs to Meet National Standards
 - + Implement a shadowing program with top autonomous universities in Thailand and other countries in the region.
- Building Best Practice Public HEI toward Regional and International Standards
 - + Twinning program arrangements between RUPP and other HEIs, especially those specialized in STEAM (Science, Technology, Engineering, Arts, and Mathematics) and reputable international HEIs on priority programs (science, math, arts, engineering, technology, etc.).
- Beginning the Referencing of Public HEIs toward Reaching Regional and International Benchmarks on a More Formal Basis
 - + RUPP and other HEIs share experiences on twinning programs; discuss challenges faced; and propose lessons learned for policy decision
 - + Memorandums of Understanding (MoUs) and Memorandums of Agreement (MoAs) between local and international HEIs are facilitated to maximize win-win interests on institutional development and training programs
 - + Selected for readiness, several HEIs participate in international/regional accreditation process; based on feedback, produce plans for improvement and implementation
 - + Encourage HEIs that have excellent programs to have their programs accredited by national, regional and international professional accrediting bodies

Source: MoEYS (2015)

Objectives and Strategies

- 5.3. Ensure that the Cambodian higher education system maximizes opportunities for qualified students to gain access to lifelong learning and professional development.
 - 5.3.2. Build HEIs' capacity to meet national standards on governance and management based on regional and international guidelines.
 - 5.3.3. Develop minimum standards to make Cambodian undergraduate and postgraduate programs comparable with regional and international standards.
- 5.4. Ensure that HEIs develop quality assurance systems to meet national accreditation standards and allow full participation in the global system of quality-assured higher education.
 - 5.4.2. Promote twinning and exchange arrangements with foreign universities of good standing in order to help improve staff capacity, learning, teaching, and research.
- 5.5. Ensure that academic staff and students, especially postgraduates, contribute to improving the research and development culture in Cambodia to serve national development needs.
 - 5.5.2. Develop a comprehensive staff professional and career development scheme that encourages excellence in learning, teaching, research, and management.
- 5.8. Ensure that relevant ministries and agencies coordinate and collaborate to maximize the impact of higher education on Cambodia's economic, industrial, commercial, agricultural, social and cultural development.
 - 5.8.2. Ensure the management and governance of the Cambodian higher education system and of individual HEIs meet regional and international standards.

Source: MoEYS 2014a.

Higher Education Vision: To build a quality higher education system that develops human resources with excellent knowledge, skills and moral values in order to work, learn, and live within the era of globalization and knowledge-based society.

Higher Education Mission: The mission for the higher education sub-sector to achieve Higher Education Vision

2030 aims to develop an accessible higher education system that is diverse, internationally recognized, and conducive to teaching, learning, and research, by enabling HEIs to:

- 1. Generate and equip students with scientific and social concepts and principles, recognizing the importance of local and global wisdom and values; and
- 2. Instill in students the capability to meet society's needs and participate in the changing labor market and society.

There are four goals to achieve the higher education vision and mission: (1) Quality and Relevance; (2) Access and Equity; (3) Internationalization, and (4) Governance and Finance.

Internationalization: Indicators for this goal focus on three key sub-areas: (i) enhancing inbound and outbound student and faculty mobility; (ii) promoting program and institution mobility, and (iii) upgrading selected academic programs offered by Cambodian HEIs to reach regional and international standards.

Goals, objectives and strategies related to internationalization and faculty development include:

Goal 1: Quality and Relevance

Objective 1.1. To improve teaching and learning

Strategy 1.1.1. Review and reform curriculum & assessment

Strategy 1.1.2. Strengthen pedagogy

Strategy 1.1.3. Enhance teaching & learning resources

Objective 1.2. To promote research and innovation

Strategy 1.2.1. Improve post-graduate programs

Strategy 1.2.2. Mobilize Khmer diaspora

Objective 1.3. To upgrade faculty and staff

Strategy 1.3.1. Develop capacity of academic staff

Strategy 1.3.2. Develop capacity of non-academic staff

Goal 2: Access and Equity

Objective 2.2. To retain students in higher education

Strategy 2.2.1. Improve student support services

Strategy 2.2.2. Implement credit and credit transfer systems

Goal 3: Internationalization

Objective 3.1. To promote academic mobility and collaboration

Strategy 3.1.1. Enhance faculty and student mobility

Strategy 3.1.2. Enhance program and institution mobility

Objective 3.2. To promote international and regional academic programs

Strategy 3.2.1. Promote regional academic programs

Strategy 3.2.2. Enhance regional research partnership

Strategy 3.2.2. Promote international academic programs

Goal 4: Governance and Finance

Objective 4.1. To enforce and enact policies and legal frameworks

Strategy 4.1.1. Enact and enforce policies and laws

Source: MoEYS 2017.

Note: For detailed descriptions of the underlying principles for faculty and staff development and internationalization, see MoEYS (2017) pp. 6–9; key indicators, pp. 11–14; detailed description of each goal, objective and strategy, pp. 19–31; and detailed activities, pp. 32–57 and Annex B, pp. 67–77.

Aside from the roadmap, the other policy documents only make fleeting mentions of studying abroad in view of faculty and staff development and/or higher education internationalization. The two latest ESPs (2009–2013, 2014–2018) have one line each regarding study abroad. ESP 2009–2013 calls for technical cooperation to develop the capacity of "lecturers through providing scholarships for them to

continue their study in local and foreign countries" (MoEYS 2009, 40–41). The third program on higher education capacity and system development in ESP 2014–2018 appeals for the creation of "a brain-gain platform to more actively involve Cambodian graduates from foreign HEIs in higher education" (MoEYS 2014a, 38–39). The Higher Education Reform Action Plan 2015–2018 has one explicit stipulation on faculty and staff development. The plan indicates the building of one "model university," which can later be adapted and expanded to 10 other HEIs, through the implementation of "a shadowing program with top autonomous universities in Thailand and other countries in the region" (MoEYS 2015, 6). One of the actions in the Higher Education Vision 2030 calls for the development of a detailed staff professional and career development scheme that encourages excellence in learning, teaching, research, and management in order to enable staff and graduate students to contribute to national development (MoEYS 2014b, 4). The roadmap specifies several key activities related to overseas study and/or exposure, namely the development of joint doctoral degree programs with foreign HEIs; an increase in the number of faculty members with graduate degrees, especially PhD/doctoral degrees; improvements in the qualifications of support staff; increases in outbound faculty mobility, and funding for joint research collaboration with regional and international partners (MoEYS 2017, 32–57).

Policy intent and statements aside, there has never been a single permanent domestic national scholarship scheme to send faculty and staff members to study abroad and/or to develop their capacity locally, as widely practiced in countries such as Malaysia and Viet Nam. Nor have there been any feasibility studies conducted into this matter, although under HEIP there is a plan to prepare a human resource master plan for the sub-sector in the near future. Besides this, some senior technocrats and politicians have been pondering the issue of overseas education and professional capacity development for faculty and staff members for some time. The first instance occurred when the government, with funding from the World Bank, managed to send a few dozen HEI lecturers and MoEYS staff to pursue postgraduate degrees abroad. This was carried out by HEQCIP, under which a few million dollars was allocated to send 64 faculty and staff members from both public and private HEIs and MoEYS to pursue master's and doctoral degrees in Australia and 15 other lecturers to pursue master's degrees in STEM (Science, Technology, Engineering, and Mathematics) majors in Malaysia (World Bank 2018a). Under HEIP, more than 100 faculty members and staff from the five main public HEIs in the project—i.e., ITC, RUA, RUPP, the National University of Battambang (NUBB), and Svay Rieng University (SRU)—will be able to further their education through a "partnership program" with selected HEIs in the region (World Bank, 2018b). The two projects also sent (and will send) faculty members and MoEYS staff for short-term overseas education and capacity development training (World Bank 2018a; World Bank 2018b). So far, the World Bank has been the sole DP that funds the central government for sending faculty members and MoEYS staff to study abroad, i.e., through HEQCIP and HEIP. There are other DPs: institutional (i.e., HEI to HEI), bilateral, and multilateral programs, such as the JICA, Sida, USAID, and the Erasmus programs of the EU that support both the long-term overseas education and/or short-term training of faculty and staff members; however, they mainly work directly with their respective HEIs, and central and aggregate data on this matter is unavailable.

2.3 Human Resource Development Policies and Strategies in the Public Sector

Human resource development (HRD) has always featured prominently in national development plans and strategies, namely the Rectangular Strategy (RS) and the National Strategic Development Plan (NSDP) and their predecessors. The last two RSs and NSDPs even put HRD to serve the public and private sectors at the forefront of the intervention. According to the latest RS, HRD in this mandate of the government will focus on: (i) strengthening the quality of education, science and technology, (ii) technical and vocational education, (iii) strengthening public health services and nutrition, and (iv) strengthening gender equity and social support (RGC 2018, 21).

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² The ESP 2019–2023 has a more extensive focus on HEI staff capacity development and to a lesser extent internationalization (MoEYS, 2019b).

Management of public service employees nationwide is under the Ministry of Civil Service (MoCS). established in 2013 through the amalgamation of the Secretariat of Civil Service, the Secretariat General of the Council for Public Administrative Reform, and the Royal School of Administration. HRD has featured in all the national public administrative reform measures/programs since 1994, including the first National Program for Administrative Reform 1999-2003, developed under the Council of Administrative Reform (RGC 2015). In 2015, the government, spearheaded by MoCS, laid out its latest National Program for Public Administrative Reform 2015-2018. The program envisions "transform[ing] the public administration into an effective public service provider and a reliable partner towards serving people better." One of the three goals focuses on improving human resource management and development to improve performance, activeness, effectiveness and reliability in public service delivery. Capacity building of civil servants through further training and improved quality of training delivery is identified as one of the main objectives and strategies. Two key objectives related to HRD are: (1) to develop and implement a regulatory framework on mandatory training of civil servants and to improve the training curriculum and HRD in line ministries/institutions, and (2) to review and improve management structures, operational management and capacity development of the human resource units of the line ministries/institutions at both national and sub-national levels. To achieve the first objective, the program lays down the following activities: to develop a three-year human resource plan and regulations for training, develop a short-term training program for technocrats at the senior management level, develop and provide an induction training program for newly recruited civil servants, and assess and establish a public administration institution to provide training on public administration and policy research (MoCS 2015; RGC 2015). No further activities are provided to achieve the second objective. The estimated budget allotted for capacity building-related activities is: \$1.9 million for training, \$1 million for workshops and meetings, and \$875,000 for mobility inside and outside the country (RGC 2015, 23).

In 2013, two years before the passage of the national program, the government under the imitative of MoCS issued the Policy on Human Resources in Public Administration. One of the five strategies in the policy focuses on HRD—to enhance the quality and delivery of training to public service providers. The central spirit of the policy was included in the 2015 national program. Three key activities somehow related to international collaboration are: (a) collaboration with Cambodian training providers, foreign training institutions and learning networks and setting up of training provider networks; (b) establishment of a distance learning capability to facilitate access to world networks and bringing quality training opportunities to civil servants, and (c) harmonizing and aligning scholarship programs according to the priorities of ministries and institutions (RGC 2013, 7–8).

The national program and policy make no explicit mention of studying abroad to promote the development of government officials; nor is there any consideration of the need to establish a domestic national scholarship scheme to support government officials with study abroad activities. Efforts have not yet been made to meet with MoCS face-to-face to learn more about the progress in the implementation of their human resource policies. A March 2018 report released by the ministry—"Five-Year Effort in the Public Service Sector"—summarizes the major achievements of MoCS between 2013 and 2018. However, the above key areas are not covered in the report. In fact, overseas training for government officials is not mentioned at all, indicating that no systematic intervention in this area has ever been conducted. For the HRD section, apart from a few local training programs organized by the ministry itself, the above-cited report listed three small-scale, short-term training programs jointly organized with international agencies: the Commission of Public Service of Thailand (for public service development), KOICA (for human resource and ICT development in the public administration), and JICA (for experience sharing in public service management and salary reforms in Japan). There was also one conference jointly organized with Singapore, attended by government officials from other ministries and state agencies. Many local training programs—both short-term and long-term—are organized under/by the Royal School of Administration. One of the short-term training programs on general administration for senior technocrats was jointly organized with the Civil Service College of Singapore, and the rest were organized by the school itself. International collaboration and assistance to send government officials to study abroad are not mentioned in the report, indicating that such activity is limited. According to the report, the Asian Development Bank (ADB) was the sole main development partner. ADB funded a large-scale training program on public financial management for rural development programs, attended by 1,965 government officials (MoCS 2018, 21–24; 32–37).

At the sectoral level, MoEYS issued its Policy on Human Resources in the Education Sector in 2012. There is no specific stipulation on study abroad in view of HRD; nor is there any mention of a domestic scholarship scheme to support its officials, including HEI faculty members and staff, to study abroad. The generic, explicit statements on staff development are shown in Table 2.2.

Table 2.2: Excerpts on Human Resource Development from Policies on Human Resources in the Education Sector

F			
Vision	The Policy on Human Resources in the Education Sector envisions transforming human resources to promote higher work competence, effectiveness, efficiency and credibility in provision and support of education services in order to contribute to the development of individual and institutional capacity with excellence.		
Aim	The Policy on Human Resources in the Education Sector aims to equip human resources with precise professional skills, high responsibility, and responsiveness and employed according to actual demand efficiently and equitably.		
Goals	The Policy on Human Resources in the Education Sector aims to:		
	4.2 Rationalize the management process, as well as the development and use of human resources in the education sector		
	4.3 Develop the capacity of individuals, agencies and institutions within the sector		
Strategies	 In order to achieve the aim and goals, key strategies include the need to: Strengthen and modernize human resource planning Conduct analysis on education staff supply and demand Strengthen and encourage scientific human resource planning in education agencies and institutions Strengthen training and professional development quality Modernize pre-service training programs Determine work conditions to guarantee the professional development of education staff 		
Financing	Implementation of the Policy on Human Resources in the Education Sector at the national and sub-national levels shall be done with budget of MoEYS and from other sources.		
Human Resource Development	In order to guarantee the effectiveness of the policy implementation, attention shall be paid to the development of supplemental materials and tools to support human resource management and development which meet the national standards and respond to regional and global standards and to training human resources as below: - Education managers at the national and sub-national levels - Education planners - Education developers or human resource trainers - All education personnel		

Source: MoEYS 2012.

In 2016, MoEYS issued the Action Plan on Human Resources in the Education Sector as a blueprint to implement its 2012 Human Resource Policy. On capacity development of individuals, agencies and institutions within the education sector (Goal 4.3), it lays out the following actions for 2016–2017:

- To upgrade the qualifications of education staff and managers at the central level to at least master's degrees;

- To organize the staff qualification upgrade system in every possible manner (on-site, fast-track programs, short-term training programs for those who have specific degrees...);
- To develop an action plan for the training of specialized education personnel in accordance with the demands of the ministry or the nation; and
- To strengthen education personnel recruitment procedures.

The following activities are planned for 2018–2020:

- To utilize training based on credit systems to encourage education personnel [to pursue further education and training] in conformity with the career path for individual education personnel,
- To ensure that 40% of education personnel possess master's degrees, and
- To strengthen the capacity of trainers/direct mentors to reach the national capacity standards/national qualification framework.

To achieve the strategy on "strengthen[ing] and moderniz[ing] human resource planning," the action plan proposes key HRD actions/outputs for 2016–2020 as follows:

- (1) The leadership of the Personnel Office are able to use the Human Resource Management Information System (HRMIS) and 270 HRMIS personnel at the sub-national level receive further training on HRMIS data analysis in order to update and improve the accuracy of human resource data;
- (2) Two staff members of the HRMIS Office are sent to pursue short-term training on HRMIS data coding and management in Thailand and one to pursue long-term training on data analysis in France; development of a long-term plan for recruiting technical education educators and training; and
- (3) Development of a rolling five-year HRD plan including a regulatory framework and training mechanisms to implement the plan, and key person teams on human resources are sent to pursue further education on human resources and continuing professional development for eight months.

To achieve the strategy on "strengthen[ing] training and professional development quality," the plan proposes the following key actions:

- (1) Preparation of a short-term training program of one week on human resource development and management to senior technocrats every year and qualification upgrade for education personnel and managers at the national, provincial and district levels to at least a master's degree; and
- (2) Prioritization of continuous professional development and increase in the number of education staff and managers who have master's degrees (MoEYS 2016).

As seen in the policy intents above, there are instances where the policy and action plan indicate the need to send MoEYS staff for overseas education. However, there is no permanent domestic scholarship program designed to send education personnel to study abroad. Through external funding such as through the Cambodia Capacity Development Partnership Fund (CDPF) and projects funded by development partners such as JICA and ADB, some staff members at both the national and institutional levels have been sent to undertake short and long-term training abroad (ADB 2018; MoEYS 2017; UNICEF 2015; Van Gerwen et al. 2018). Further discussion with the ministry and key DPs will be needed to better understand the efforts toward HRD in the sector.

2.4 Study Abroad Programs

Tertiary student and faculty outbound mobility from Cambodia is generally reactive, ad hoc and dependent on the availability and amount of external funding—at both the national and institutional levels. There is no national comprehensive, strategic master plan for academic mobility (or HRD, more broadly) to serve higher education development or the needs of the economy and society. This reactive, random and dependent nature and lack of a designated plan can also be seen in the respective HEIs. Thus, the nature of the outbound mobility, such as majors of interest, countries of destination, etc., is mainly at the goodwill of the benefactors and dependent on the interests of the students and faculty

members.

The countries of destination for Cambodian outbound students have changed significantly since independence in 1953. During the colonial period (1864–1953), Sangkum Reastr Niyum (1953–1970), and the Khmer Republic (1970–1975), a small cadre of higher education students were mainly sent to France (Ayres 2000), and to a lesser extent, to a few other countries including USA and Australia. Student and faculty outbound mobility resumed after the Democratic Kampuchea (1975–1979), yet the countries of destination had changed. During the People's Republic of Kampuchea and State of Cambodia (1979–1991), the Eastern Bloc countries were the main destination and funders, and 6,509 Cambodians were sent to pursue their higher education in these countries (Mak 2016). The countries of destination have diversified to a large extent since 1993. Fewer students go to study in the former Eastern Bloc countries, and the main destinations and funders are located in Asia, Oceania, Western Europe, and North America. Over the past two decades, three observable trends of mobility are: (1) that more and more students have been going to pursue their education through private funding, (2) that the number of outbound students through exchange programs has increased significantly, and (3) that there is no proactive, systematic national policy for and investment in student and faculty mobility—for both inbound and outbound mobility.

The number of outbound students has increased significantly in the past two decades, although it is still far behind that of more advanced ASEAN countries. Table 2.3 indicates that there were 5,469 outbound students from Cambodia in 2017, an increase from 4,231 in 2012. Thailand, Australia, USA, Viet Nam, and France have remained the top five destination countries over the past decade (Table 2.4). Other popular destinations include Saudi Arabia, Japan, South Korea, Malaysia, New Zealand, the United Kingdom (UK), Canada, and Germany (Mak 2016).

Table 2.3: Total Outbound Students from Cambodia, 2012–2017

2012	2013	2014	2015	2016	2017
4,231	4,440	5,075	5,283	5,479	5,469

Source: http://data.uis.unesco.org/ Accessed March 19, 2019.

Table 2.4: Top Five Destination Countries for Cambodian Students, 2009–2017

	2009	2014		2017	
Destination	# of Students	Destination	# of Students	Destination	# of Students
Thailand	984	Australia	728	Thailand	1,031
France	546	Thailand	692	Australia	908
Vietnam	388	France	611	USA	560
Australia	366	Vietnam	443	Vietnam	432
USA	347	USA	411	France	431

Source: UIS Statistics as cited in Mak 2016, and 2019

With little funding from the Cambodian government for student and outbound faculty mobility, multilateral institutions, foreign not-for-profit foundations, and especially bilateral programs of several major countries are the main source of funding for outbound mobility. Japan, South Korea, China, Thailand, Viet Nam, Australia, New Zealand, France, Britain, Germany, and the European Union (EU) are among the major funding sources. The following are the popular scholarship programs in Cambodia:

A. MEXT Scholarship: Japan

The MEXT Scholarship is administered by the Ministry of Education, Culture, Sports, Science and Technology of Japan (MEXT). It offers four types/levels of scholarships to Cambodian applicants: research students (toward the pursuance of master's degrees with the potential to continue to doctoral

studies), undergraduate students, college of technology students, and specialized training college students.³ The scholarship program targets students and the general public. According to the number of applicants and recipients (Figures 2.1 and 2.2), MEXT Scholarships are one of the most popular and competitive schemes. Between 2011–2018, 227 scholars were sent to Japan via the scholarship program.

1,600 1,334 1,400 1,292 1,252 1,330 1,200 1,000 800 762 776 698 600 629 400 200 0 2011 2012 2013 2014 2015 2016 2017 2018

Figure 2.1: Number of Applicants for MEXT Scholarships in Cambodia, 2011–2018

Source: Embassy of Japan in Cambodia 2018.

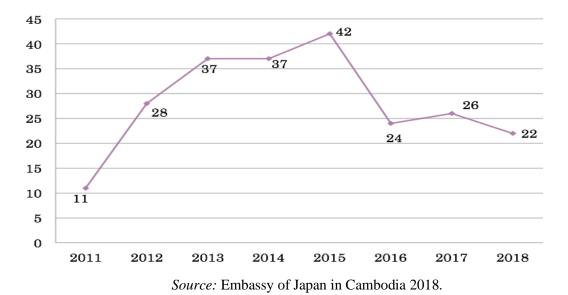


Figure 2.2: Number of MEXT Scholarship Recipients in Cambodia, 2011–2018

³ https://www.kh.emb-japan.go.jp/itpr en/00 000086.html Accessed March 21, 2019.

B. Japanese Grant Aid for HRD Scholarship – Japan

The other major and popular Japanese scholarship scheme is the Project for HRD Scholarship by Japanese Grant Aid (JDS), formerly known as the Japanese Grant Aid for HRD Scholarship. The project, funded by the Ministry of Foreign Affairs of Japan under the Grant Aid of Official Development Assistance, mainly targets government officials, including full-time civil servants working in public HEIs, who are supposed to engage in the socio-economic development of Cambodia as well as to serve as ambassadors to enhance the bilateral relations between the two countries. In this sense, selected fields of study are prioritized. The project focuses solely on the master's degree level, with courses taught in English and taking more of a policy than academic orientation. In Cambodia, the project started in 2000 and has since sent 416 fellows to Japan. The number of dispatches is 24 per annum.⁴

C. Asian Development Bank/Japan Scholarship Program – ADB/Japan

The Asian Development Bank/Japan Scholarship Program (ADB/JSP) was established in 1988 with financing from the government of Japan. It targets postgraduate scholars (at the master's and doctoral levels) in the fields of economics, management, science and technology, and other development-related fields of study from ADB's developing member countries and Japanese Official Development Assistance scholarship-eligible countries. Each year it offers some 150 scholarships to recipients from countries in Asia and the Pacific, with Cambodia among the eligible countries. Since its inception, it has granted 3,500 scholarships to scholars from 37 participating countries. Participating academic institutions are located in 10 countries in Asia and the Pacific. No specific figure of recipients from Cambodia is available.

D. Australia Awards – Australia

The Australia Awards Program is funded by the Department of Foreign Affairs and Trade of Australia and targets citizens from developing countries in the Indo-Pacific region to pursue undergraduate and postgraduate education in Australia. In Cambodia, it was re-introduced in 1994. Initially, it solely targeted government officials and the master's level but is now open to employees in the not-for-profit and private sectors as well. The Australia Awards Scholarship is the most prominent Australian long-term scholarship program, targeting "Cambodians from all walks of life"—i.e., public, not-for-profit, and private sectors. It now targets master's level (by coursework and from 2019, also by research) and, in exceptional cases, doctoral level, covering all fields of study except general management degrees. It is one of the most popular scholarship schemes in Cambodia. Since its inception, it has sent more than 600 Cambodians to pursue postgraduate education in Australia. Apart from the Australian Awards Scholarships, there are also short-term awards within this program: Australia Awards Short Courses and Australia Awards Fellowships.⁶

E. Endeavour Leadership Program – Australia

The Endeavour Leadership Program, an amalgamation of the Endeavour Scholarships and Fellowships and Endeavour Mobility Grants in 2018, is administered by the Department of Education and Training of Australia. The predecessor, Endeavour Scholarships and Fellowships, was initiated in 2009 and formed part of the Australia Awards. The program promotes two-way mobility, and hence the scholarships and fellowships are eligible for Australians and citizens of many other countries across the Asia-Pacific, the Middle East, Europe, and the Americas. The program targets undergraduate and postgraduate study and shorter-term research and professional development in Australia. Cambodia is

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⁴ http://jds-scholarship.org/ Accessed March 21, 2019.

⁵ https://www.adb.org/site/careers/japan-scholarship-program/main and https://www.adb.org/sites/default/files/publication/29268/jsp-brochure.pdf Accessed March 21, 2019.

⁶ https://dfat.gov.au/people-to-people/australia-awards/Pages/australia-awards/Pages/australia-awards-cambodia.org/; https://dfat.gov.au/people-to-people/australia-awards/Pages/australia-awards/Pages/australia-awards-cambodia-scholarship-program/ Accessed March 22, 2019.

one of the priority countries in the program, and since its inception, a few dozen individuals have received funding to pursue long-term and short-term training and research in Australia.⁷

F. New Zealand Scholarships – New Zealand

The New Zealand Scholarships target citizens of developing countries, including Cambodia. Postgraduate scholarships are offered at four different levels: a postgraduate certificate (six months), postgraduate diploma (one year), master's degree (two years), and PhD (3.5. years). For Cambodia, a maximum of 10% of the scholarships are allotted for PhD studies. The latest priority fields of study include climate change and resilience, disaster risk management, food security and agriculture, renewable energy, good governance, and education. Every year, some 30 full scholarships are allocated for Cambodia under the Cambodian scheme—the New Zealand ASEAN Scholarships.

G. Chevening Awards – United Kingdom

The Chevening program was established in 1983 and is the global scholarship program of the UK funded by the Foreign and Commonwealth Office and partner organizations. It comprises of Chevening Scholarships and Chevening Fellowships. In Cambodia, the program started in 1993. The Chevening Scholarships target recipients who pursue a one-year master's degree program in the UK. The number of recipients has increased from a few recipients per year in the 1990s to some two dozen recipients per year in the past few years. Up to 2015, a total of 96 recipients had been sent to pursue their degrees in the UK. While applications from a wide range of fields of study are considered, in Cambodia, the program prioritizes the following fields: Good Governance and Human Rights; Politics and International Relations; Public Administration; Legal and Judicial Sector; Economic, Social or Private Sector Development, and Climate Change and Environmental Management. Apart from the Chevening Cambodia Scholarships, Cambodia is eligible for Chevening Cambodia/University of Warwick Scholarships, and Chevening Central Partnership Awards. 10

H. French Government Scholarships – France

The French government scholarship program offers financial support—full and partial—for postgraduate studies (master's and doctoral degrees) in France in all fields of study. However, every year the French Embassy in Cambodia and MoEYS work together to set priority fields of study. In the past few years, the primary focus has been on STEM-related fields of study. Some 600 Cambodian students go to pursue their studies in France every year, and around 15% of them are on scholarships supported by the French Government, EU, and University Agency of the Francophone (AUF). Between 1990 and 2015, around 2,000 students pursued their education in France, mainly through the French Government Scholarship scheme. However, the exact number of recipients under this scheme

⁷ https://orau.org/endeavourscholarships/ and https://internationaleducation.gov.au/endeavour%20program/scholarships-and-fellowships/about/pages/default.aspx Accessed March 22, 2019.

⁸ IDP Education Cambodia. (2019). New Zealand Scholarships 2019. Phnom Penh: IDP Education, and https://www.mfat.govt.nz/en/aid-and-development/new-zealand-government-scholarships/ Accessed March 21, 2019.

⁹ https://www.chevening.org/cambodia/ Accessed March 22, 2019.

¹⁰ https://www.cambodiajobs.biz/2007/06/british-chevening-scholarships.html, http://www.stemcareers.online/scholarships/ and https://www.khmertimeskh.com/531137/chevening-scholars-all-set-to-study-in-uk/ Accessed March 22, 2019.

^{11 &}lt;a href="http://www.stemcareers.online/scholarships/">https://kh.ambafrance.org/Espace-Campus-France%E2%80%8B%E2%80%8B-un-lieu Accessed March 25, 2019; Embassy of France in Cambodia. (2017). French Government Scholarships Application File: Explanatory Notes 2017–2018. Phnom Penh: Embassy of France in Cambodia.

¹² <u>https://www.khmertimeskh.com/58178/cambodians-get-scholarships-to-study-in-france/</u> Accessed March 25, 2019.

is not publicly available.

l. Korean Government Scholarship Program – South Korea

The South Korean Government Scholarship Program is administered by the Ministry of Education of Korea. It is managed by the National Institute for International Education with support from Korean embassies abroad. It aims to provide international students the chance to pursue study in Korea, promote international exchange and foster friendships among the participating countries. The program provides full scholarship support to students from 167 countries to pursue undergraduate, master's and doctoral degrees in South Korea. It is a country-based quota program. In 2018 and 2019, for example, the quotas for the undergraduate degree applicants for Cambodia were one out of 95 and one out of 105 total scholarship applicants, respectively; four postgraduate degree applicants out of 470 and five out of 500 applicants under the Embassy of Korea track; and ten postgraduate degree applicants out of 305 and eleven out of 330 under the University Track, respectively.¹³

J. Thai Royal Scholarships – Thailand

The Thai Royal Scholarships program to the Kingdom of Cambodia is perhaps one of the biggest scholarship projects in terms of the number of annual scholarship recipients. A wide range of fields of study is included. In Cambodia, the program covers bachelor's, master's and doctoral degree awards. In 2019, 282 full scholarship awards were granted: 15 for doctoral degrees, 71 for master's degrees, and 196 for bachelor's degrees. ¹⁴ The total number of recipients since its inception is not publicly available.

K. Thailand Scholarships – Thailand

The other smaller Thai scholarship scheme for Cambodia, Laos and Myanmar are the Thailand Scholarships. This program started in 2018 upon the termination of Austrian Government support for the ASEA-UNINET (ASEAN European Academic University Network) Thailand On-place Scholarships for Cambodia and Laos in 2017. The scholarships are coordinated and administered by the Office of the Higher Education Commission (OHEC) of the Ministry of Education, Thailand. They are offered by selected Thai universities under OHEC's coordination. It targets students, faculty members of HEIs, and the public from the three countries. The awards of full scholarships are for the pursuit of master's and doctoral degrees, and the scholarships are applicable to a wide range of fields of study. In 2018 and 2019, up to 32 and 37 awards, respectively, were available for candidates from the three countries. Between 2016 and 2018, 30 awards were granted to Cambodia, four to Laos, and 17 to Myanmar. 16

L. Chinese Government Scholarship Program – China

The Chinese Government Scholarship program covers bachelor's, master's and doctoral studies, and a wide range of fields of study are available. The number of annual scholarship awards is quite numerous and varies from year to year—e.g., 64 in 2013, 72 in 2014, and 171 in 2017. According to the Chinese

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¹³ Ministry of Foreign Affairs. (2018a). 2018 Korean Government Scholarship Program for Graduate Degrees Application Guidelines; Ministry of Foreign Affairs. (2018b). 2018 Global Korea Scholarship: Korean Government Scholarship Program Application Guidelines for Undergraduate Degrees (via Korean Embassies); Ministry of Foreign Affairs [of Korea]. (2019a). 2019 Korean Government Scholarship Program for Graduate Degrees Application Guidelines; Ministry of Foreign Affairs. (2019b). 2019 Global Korea Scholarship: Korean Government Scholarship Program Application Guidelines for Undergraduate Degrees (via Korean Embassies).

http://royalscholarship.buu.ac.th/2016/index.php/MjZ8fGxpc3RzY2hvbGFyc2hpcA Accessed March 26, 2019.

¹⁵ http://www.thaiembassy.org/yangon/contents/files/news-20180117-180751-996154.pdf Accessed March 26, 2019; OHEC. (2019). Application Guideline for Thailand Scholarships (2019).

http://inter.mua.go.th/ Accessed March 26, 2019.

Embassy in Cambodia, until 2016, a total of more than 2,000 applicants had been granted scholarships to pursue degrees in China.¹⁷

M. Vietnamese Government Scholarship Program – Viet Nam

The Vietnamese Government Scholarship Program provides scholarship funding for undergraduate, master's and doctoral studies. Scholarship funding from the Vietnamese government dates back to the 1980s, and the number of annual recipients is quite high. In 2013, for example, 120 awards were granted to Cambodians. The total number of recipients since its inception is not available. However, given its longer history and large number of annual recipients, the figure may stand at a few thousand, thus making it one of the largest schemes in terms of recipients.

N. Fulbright Program – United States of America

The Fulbright Program was established in 1946 by the US Congress to promote mutual understanding between the citizens of the US and other countries. It is thus a two-way mobility program for short-term and long-term education engagement, inclusive of teaching, learning, and research. It is administered by the Department of State's Bureau of Education and Cultural Affairs. Currently, the program operates in more than 160 countries, including Cambodia. Annually, and globally, some 8,000 awards are granted to pursue degrees in a wide range of fields of study. ¹⁹ In Cambodia, from 5 to 8 recipients are awarded fellowships to pursue degrees, mainly at the master's and, to a lesser extent, doctoral levels every year. The Cambodian program was reactivated in 1994, and up until 2013, more than 130 scholars went to the United States pursue their education. ²⁰ The total figure makes it one of the smallest scholarship schemes in Cambodia in terms of recipients, despite the US's global prominence.

O. Indian Scholarship Schemes – India

According to the Indian Embassy in Cambodia, 25 full scholarships for undergraduate, postgraduate, and doctoral studies as well as (shorter-term) engineering and cultural courses are allotted for Cambodia every year. The three programs are the Mekong Ganga Cooperation Scholarship Scheme (10), General Cultural Scholarship Scheme (13), and India-Cambodia Cultural Exchange Program (2). The three schemes are managed by the Indian Council for Cultural Relations, a cultural wing of the Ministry of External Affairs of India. ²¹ The total figure of recipients from Cambodia is not available.

P. Indian Technical and Economic Cooperation Program – India

The Ministry of External Affairs also offers funding for short training courses under the Indian Technical and Economic Cooperation Program. The program targets Cambodian government officials, both civilian and defense, from various state agencies. The training covers Government Functions, IT and Telecommunications, Rural Development, etc. In 2018–19, 150 awards were allocated to Cambodia.²²

¹⁷ https://www.khmertimeskh.com/50695/cambodian-students-get-chinese-scholarships/ and http://www.xinhuanet.com//english/2017-08/14/c_136525800.htm Accessed March 26, 2016. MoEYS. (2013). Notification on Selection of Bachelor's and Master's Degree Scholarship Students to Study in China. Phnom Penh: MoEYS.

 $[\]frac{18}{http://scholarship-cambodia.blogspot.com/2012/05/vietnamese-government-scholarships-for.html}. See \\ \frac{http://theasiadialogue.com/2019/03/04/the-real-significance-of-the-vietnam-cambodia-relationship/}{Accessed March 26, 2019.}$

¹⁹ https://eca.state.gov/fulbright Accessed March 22, 2019.

²⁰ https://www.voacambodia.com/a/fulbright-scholars-prepare-for-us-study/1694601.html Accessed March 22, 2019.

²¹ https://embindpp.gov.in/pages?id=9avme&subid=zbq2d Accessed March 26, 2019.

https://embindpp.gov.in/pages?id=9avme&subid=YaOpb Accessed March 26, 2019.

Q. Philippines' Scholarship Offering for ASEAN Researchers – the Philippines

Since 2017, the Filipino Government has offered ten full scholarship awards to Cambodia, along with four to Laos and four to Myanmar, via the Scholarship Offering for ASEAN Researcher Program, initiated under the Duterte administration. The scheme is administered by the Department of Science and Technology of the Philippines and targets master's (five) and doctoral studies (five) in the fields of sciences and engineering. The program also offers 50 short-term training slots for science and engineering to Cambodia.²³

R. Erasmus Mundus Joint Master Degrees Awards – the European Union

The Erasmus+ program started in 1987 to promote inbound and outbound student mobility to and from Europe. The Erasmus Mundus Joint Master Degree Awards Program is funded by the EU under the Erasmus+ program, which ran from 2014 to 2020. Selected students are supposed to study toward a master's degree in at least two European countries and obtain a joint, double, or multiple degree. The total number of Cambodian students who were offered the scholarships has increased in the past few years: 11 (2014), 15 (2015), 27 (2016), and 39 (2017). Under its predecessor program, the Erasmus Mundus Scholarship Program, one student also went to pursue a doctoral degree in 2011.²⁴

S. International Credit Mobility (Erasmus+ Program) – the European Union

Since 2015, the Erasmus+ Program has also offered support for short-term mobility between Europe and Asia for students to attend student exchange programs and for faculty members from European and Asian HEIs to teach at a foreign HEI. Students can receive support to attend a foreign university for 3–12 months and faculty members can receive a grant for between 5–60 days. The number of Cambodian students and HEI staff moving to Europe and European students and staff moving from Europe to Cambodia has been increasing over the last few years. For example, the outbound figures from Cambodia were 59 (2015), 120 (2016), and 104 (2017), and the inbound figures were 17 (2015), 71 (2016), and 70 (2017). Between 2005 and 2016, more than 600 students and staff had been granted scholarships and grants to study and lecture in Europe under the Erasmus programs. ²⁶

T. German Academic Exchange Service – Germany

A number of scholarships and support for master's and doctoral studies, short-term training for university staff and managers, and student exchange are available under various programs of the German Academic Exchange Service (DAAD). Cambodia is eligible for many of these programs, including the master's degree program at the Asian Institute of Technology, master's scholarships for public policy and good governance, DAAD postgraduate scholarships for developing countries, and DIES-training course on management of internationalization. ²⁷ The number of recipients from Cambodia is not publicly available.

²⁴ European Union. "Erasmus+ for Higher Education in Cambodia." March 2018.

²⁵ European Union. "Erasmus+ for Higher Education in Cambodia." March 2018.

²⁶ https://eeas.europa.eu/delegations/cambodia/30792/43-cambodian-students-and-academic-staff-received-eu-scholarships en Accessed March 25, 2019.

https://www.daad.de/medien/deutschland/stipendien/formulare/ausschreibung-helmut-schmidt-programm-2018-engl.pdf; https://aseanop.com/master-phd-scholarship-study-germany-cambodian-students/; https://www.daad.de/deutschland/stipendium/en/; http://www.adw-cambodia.org/news/62-daad-offers-scholarships-for-cambodian-nationals.html; https://www.daad.de/der-daad/unsere-aufgaben/entwicklungszusammenarbeit/foerderprogramme/hochschulen/infos/en/44514-dies-training-courses/. Accessed March 28, 2019; DAAD. (2018). Scholarships in Germany. Bonn: DAAD.

U. Civil Society Leadership Awards – Open Society Foundation

The Civil Society Leadership Awards, administered by the Open Society Foundation (OSF), aims to provide funding opportunities to citizens of selected developing countries who "clearly demonstrate academic and professional excellence and a deep commitment to leading positive social change in their communities" to pursue master's degrees in a number of OSF partner universities located in USA, the UK, Europe, and some parts of Asia. A range of fields of study in the social sciences and humanities are covered. Cambodia is one of the eligible countries.²⁸ Every year, a number of Cambodian applicants are awarded scholarships, although the exact numbers of annual and total recipients are not available.

V. Civil Society Scholar Awards – Open Society Foundation

The OSF also offers the Civil Society Scholar Awards, to which Cambodia is eligible. This awards program aims to provide funding opportunities for doctoral students and full-time faculty members from selected countries to conduct research outside the country of residence. A range of fields of study in the social sciences and humanities are eligible. The funding can run from two months to one year.²⁹ Annual and total recipient numbers are not available.

Apart from these scholarship and fellowship schemes, other major countries of destination for Cambodian students, in which data is not publicly available or is very scant, include Russia, Malaysia, Laos, and Saudi Arabia.

2.5 Alumni Networks

The following section presents information on the alumni networks. This information is publicly available to varying degrees depending on the network. This section is generally organized on the basis of information availability from the most to the least widely available.

A. Japan Alumni of Cambodia

The Japan Alumni of Cambodia (JAC) was established in 1999. It was registered with the Ministry of Interior (MoI) as an apolitical and not-for-profit association in 2002 and became a member of the ASEAN Council of Japan Alumni (ASCOJA) in 2006. According to its website, it has approximately 800 registered members. JAC is one of the oldest and biggest alumni associations of Cambodian overseas graduates. It wishes to become "a strong 'Social and Brain Network' of Cambodian graduates from Japan that effectively contribute to the development of Cambodia, and the promotion of Cambodia-Japan bilateral relations and beyond." The four main activities it carries out every year include social networking, academic exchange, cultural exchange, and community services.³⁰

B. Australian Alumni Association of Cambodia

The Australian Alumni Association of Cambodia (AAA-C) is one of the oldest and biggest alumni associations, whose establishment dated to 2002. It was legally registered with MoI as a national association in 2017. It is a not-for-profit and non-political organization and has around 700 members from diverse academic and professional backgrounds. In recent years, it has been one of the most active alumni associations. It is governed by a board of directors with the day-to-day operation managed by a small secretariat. It mission is "to present Australian alumni inside and outside Cambodia to contribute to the well-being of society, as well as, to assemble the Australian alumni to positively implement the

²⁸ https://www.opensocietyfoundations.org/sites/default/files/2019-civil-society-leadership-awards-guidelines-20180320.pdf Accessed March 26, 2019.

29 https://www.opensocietyfoundations.org/grants/civil-society-scholar-awards Accessed March 26, 2019.

³⁰ http://jac-khmer.info/wp-content/uploads/2016/08/jac-by-law-final-1.pdf; http://jac-khmer.info/about-us/ Accessed March 27, 2019. The by-law of this alumni association is downloadable via http://jac-khmer.info/jacby-law/ Accessed March 28, 2019.

association's objectives in a professional and responsible way." It aims to assist its members to:

- Benefit from the experience gained in Australia;
- Achieve their full professional potential;
- Share the knowledge gained for the development of Cambodia;
- Create a network of informed citizens that can advise Australian and Cambodian institutions on social, economic and education matters; and
- Foster friendly relations between Cambodia and Australia. 31

C. Fulbright and Undergraduate State Alumni Association of Cambodia

The Fulbright and Undergraduate State Alumni Associations of Cambodia (FUSAAC) is the successor organization to the Fulbright Alumni Association of Cambodia, which was founded in 2000 as an alumni association. It has more than 1,000 members, who are former Fulbright Scholars and returnees from a number of US exchange programs sponsored by the US Department of State. The alumni association's vision is to "foster peace and development in Cambodia through the promotion of access to quality education, youth capacity building, and cross-cultural understanding." In working toward this mandate, its mission is to help youths find a passionate career and contribute to their fullest potential to the development of Cambodian society.³²

D. Cambodia-Korea Alumni Association

Cambodia-Korea Alumni Association (CAMKAA) was first established in 2002 as an informal group called "I Love Korea Club" with the support of KOICA. It was transformed into CAMKAA and registered with MoI in 2007 as a "social, cultural, and academic community, which is not political or aimed at gaining financial profit." The alumni association has the following objectives:

- a. To promote fellowship and cooperation among the participants of KOICA-sponsored training programs in Korea;
- b. To enhance partnerships between Korea and Cambodia;
- c. To facilitate the sharing of knowledge, skills and resources among the alumni, and
- d. To extend widespread exemplary services for the public good.³³

E. New Zealand Alumni Association of Cambodia

The New Zealand Alumni Association of Cambodia (NZAAC) was launched in 2015. Its Facebook page states that it was established to enable New Zealand graduates to share their experiences, good memories, and academic and professional achievements. Its objectives are:

- a. To provide a forum for sharing study and living experiences with prospective students;
- b. To provide a platform for alumni to showcase their achievements and expertise;
- c. To foster friendship between alumni and between Cambodia and New Zealand;
- d. To enable alumni to maximize their potential; and
- e. To contribute to the development of Cambodia.³⁴

³¹ http://www.aaa-c.org/ Accessed March 28, 2019. The charter of this alumni association is available at http://www.aaa-c.org/wp-content/uploads/2018/01/compressed AAA-C-Charter MoI-2017.pdf Accessed March 28, 2019.

³² https://www.fusaac.org/ Accessed March 28, 2019.

³³ https://camkaa.wordpress.com/ Accessed March 29, 2019. Its constitution is available at https://camkaa.wordpress.com/camkaa-constitution/ Accessed March 29, 2019.

https://www.facebook.com/New-Zealand-Alumni-Association-of-Cambodia-343916692474335/ Accessed March 29, 2019.

F. Cambodian-German Friendship Association

The Cambodian-German Friendship Association (KDF) is a network of former Cambodian people who studied, learned and lived in Germany. The initiative started in 2012, and with the support from the German Society for International Cooperation (GIZ), it was formalized and registered with MoI as an association in 2013. The association envisions a Cambodian society that can achieve sustainable development with contributions from competent human resources. To this end, it wishes to facilitate exchanges of relevant information, knowledge, experience, culture and technology, to make good use of its members' professions and to promote the bilateral relationship between Cambodia and Germany.³⁵

G. Erasmus Mundus Students and Alumni Association Cambodia

Not much information is publicly available about the Erasmus Mundus Students and Association Cambodia (EMA-Cambodia). According to its "official" BlogSpot, the first meeting was on July 6, 2010, suggesting that the alumni association may have been established since then. Its "official" Facebook page states that EMA-Cambodia "aims to provide a forum for networking and communication, and to promote the Erasmus Mundus Scholarship Program."³⁶

H. Thailand Alumni Association of Cambodia

Little information about the Thailand Alumni Association of Cambodia (TAAC) is available. Its Facebook page merely states that it is established to strengthen solidarity among student alumni who used to study in Thailand.³⁷

I. British Alumni Association of Cambodia

The British Alumni Association of Cambodia (BAAC) was established in 2013. Its official Facebook page states that it was created to contribute to the "conservation and social welfare of Cambodia." Besides this statement, little is known about this alumni association.³⁸

J. France Alumni Cambodia

The France Alumni Cambodia was established in 2015 as a network of former Cambodian students who studied in France or a Francophone. Its website reported 698 alumni.³⁹

K. Cambodia-Philippines Alumni Network

In 2016, the Embassy of the Philippines in Cambodia spearheaded the establishment of the Cambodia-Philippines Alumni Network (CPAN). As of April 2016, it had registered 159 members. 40 Little information about this alumni network is available.

³⁶ https://www.facebook.com/EMA.Cambodia; https://www.facebook.com/groups/35170649056/, http://ema-cambodia.blogspot.com/ Accessed March 29, 2019.

37 https://www.facebook.com/Thailand-Alumni-Association-of-Cambodia-641270599345513/ Accessed March

https://www.francealumni.fr/en/position/cambodia/page/1896/overview-of-france-alumni Accessed April 1, 2019.

³⁵ http://www.vkdf.org/ Accessed April 1, 2019.

^{29, 2019.}

https://www.gov.uk/government/news/launch-of-the-british-alumni-association-of-cambodia; https://www.facebook.com/baacpage/ Accessed March 29, 2019.

https://www.facebook.com/francealumnicambodge/;

⁴⁰ https://www.khmertimeskh.com/80194/studying-in-the-philippines/; https://www.facebook.com/groups/150464845002868/about/ Accessed April 1, 2019.

L. Cambodian Canadian Alumni Association

The attempt to establish the Cambodian Canadian Alumni Association (CCAA) started in 2016⁴¹, making it one of the youngest alumni associations in Cambodia. Little is known about this alumni association is little known.

M. China Alumni of Cambodia

No information about China Alumni of Cambodia (CAC) is publicly available.⁴²

N. Viet Nam Alumni Association of Cambodia

It seems that there is no Viet Nam Alumni Association of Cambodia or that it is not active. 43

O. Cambodia-India Alumni Association

No information is known about the Cambodia-India Alumni Association.⁴⁴

2.6 International Aid for the Higher Education Sub-sector

So far, the World Bank has been the sole major DP that funds higher education through MoEYS. However, attempts from the international development community to engage in the sub-sector started in the late 1990s. An extensive research study on higher education was commissioned, culminating in the draft [Higher Education] Action Plan 1997 and a few unpublished reports (see Mak et al. 2019; Sok 2016). However, it was not until 2005 that the World Bank began its soft engagement in higher education through the Cambodian Education Sector Support Project (CESSP). This was followed by two subsequent large-scale investments: HEQCIP and HEIP.

A. Cambodia Education Sector Support Project

In 2005, the World Bank started providing small-scale funding to higher education by nesting a small component on higher education in CESSP, a project targeting general education that ran from 2005 to 2011. Under the project, the small amount of USD3 million (or 10% of the total fund) was allocated to higher education (Component 3 of the project). USD1 million was allocated to RUPP for the expansion of the Hun Sen Library, and USD1 million each was given to the ACC and DGHE for the preparation of a regulatory framework and capacity building, including the adoption of the Higher Education Accreditation Standards and Accreditation Guidelines, and Cambodian Higher Education Vision Paper, and development of the Higher Education Management Information System (HEMIS) prototype. The actual expenditure was USD3.7 million out of USD28.9 million. Internationalization and study abroad did not feature in the project, although a small investment was made toward short-term capacity building, especially to prepare ACC and DGHE staff to implement the upcoming large-scale investment in higher education, according to a senior technocrat.

https://www.facebook.com/China-Alumni-of-Cambodia-851114504932219/ Accessed March 29, 2019.

⁴¹ https://www.facebook.com/Cambodian-Canadian-Alumni-Association-897561723693541/; https://www.khmertimeskh.com/35557/canadian-university-grads-recruit-ex-classmates-for-alumni-association/Accessed March 29, 2019.

⁴² http://www.cac-kh.org/;

https://www.facebook.com/groups/1655270791410927/about/ Accessed March 29, 2019.

⁴⁴ https://www.facebook.com/groups/206432736072232/about/ Accessed March 29, 2019.

⁴⁵ For further information about the project, see World Bank. *Project Appraisal Document [ESSP]*. Washington DC: World Bank, 2005; World Bank. *Implementation Completion and Result Reports [ESSP]*. Washington DC: World Bank, 2012.

B. Higher Education Quality and Capacity Improvement Project

The World Bank's large-scale engagement started in 2010 with the implementation of the USD23 million HEQCIP 2010–2017. There were four project components:

Component 1: Strengthening the Capacity of the Higher Education System (estimated cost of USD7.46 million and actual cost of USD10.36 million). Its primary focus was to improve the overall development, management and governance of the sub-sector. It focused on staff development of DHE, DSR and ACC and the organizational capacity of individual HEIs.

Component 2: Provision of Competitive Development and Innovation Grants (estimated cost of USD4.58 million and actual cost of USD3.66 million). This component aims to strengthen the capacity of participating HEIs (public and private) in research, teaching and learning and to introduce a mechanism in DGHE in the allocation of research funds. Two windows of funding are available: support for teaching and learning and solutions to local problems.

Component 3: Provision of Scholarships to Disadvantaged Students (estimated cost of USD5.85 million and actual cost of USD4.24 million). This component aims to provide 1,000 special priority scholarships for undergraduate studies in local HEIs, based on pro-poor targets and educational criteria. Tuition was paid to the host HEIs and beneficiary students received a monthly living stipend.

Component 4: Project Management and Monitoring and Evaluation (estimated cost of USD5.11 million and actual cost of USD4.59 million). As the name suggests, this component deals with the management, monitoring and evaluation of the project and preparation of some key policies, as well as HEMIS development.

The following are the key quantitative achievements of the project by component: Component 1: Strengthening the Capacity of the Higher Education System

- A total of 7,395 (13% female) staff from MoEYS, other concerned ministries, and HEIs participated in 841 capacity development programs; 758 local workshops, seminars, conferences and monitoring visits were conducted, and 83 overseas trainings, workshops and conferences were organized/participated.
- A total of 79 (31 female) fellows were sent to pursue postgraduate education, including three PhDs, abroad. Of these, 64 were sent to Australia to pursue education in a range of fields of study and 15 to Malaysia to pursue degrees in STEM-related fields. Among the 64 fellows sent to Australia, 62 graduated and all the 15 fellows sent to the University of Sains Malaysia completed their studies successfully.
- The Guidelines for Higher Education Institutional Accreditation were approved along with the ACC standards and guidelines; pilot institutional assessment of 36 institutions was conducted.
- A draft Financial Management Manual and Human Resource Management Manual for HEIs were developed.
- The Curriculum Framework for English for Specific Academic Purposes and STEM Promotion Policy were prepared.

Component 2: Provision of Competitive Development and Innovation Grants

- Through the project, a "groundbreaking research culture" has been emerging. A total of 45 research grants were awarded to 24 HEIs (public and private) and all were successfully completed.
- Six new buildings were constructed and nine others renovated using the project research grant funds.
- 16 HEIs prepared institutional research promotion policies.
- Through the capacity development programs, some HEIs succeeded in gaining research grants from international research programs such as Erasmus+, SEA-EU-Net, and Re-Inventing Japan.

Component 3: Provision of Scholarships to Disadvantaged Students

- Of the 1,000 students (377 female) who received the scholarships, 844 (or 84%) successfully completed their studies. This rate is much higher than that of students receiving other scholarship programs.
- A draft Policy on Scholarships, Subsidies, and Student Loans was prepared.

Component 4: Project Management and Monitoring and Evaluation

- M&E Operations Manual was produced and HEIs were trained in using the manual.
- Internal Quality Assurance (IQA) Guidelines and Manuals were drafted.
- HEMIS platform was developed, and six HEIs fully piloted the HEMIS.
- The Policy on Higher Education Vision 2030; Policy on Higher Education Governance and Finance for Cambodia, Cambodian Higher Education Roadmap 2030 and Beyond, and Higher Education Reform Action Plan 2015–2018 were adopted.
- The draft Higher Education Action Plan 2018–2022 and draft Regulation on Higher Education Governance and Finance were prepared.
- The draft Function Review of the ACC was produced.
- The draft Function Review for the DHE and DSR was prepared. 46

Notably, internationalization and the overseas study of individual staff featured prominently in the project, which focused on both long-term education toward a degree and short-term training and exposure visits.

C. Higher Education Improvement Project

Upon the completion of HEQCIP, the follow-up HEIP was approved and is currently in the initial stage of implementation. The project is worth USD92.5 million and will run from 2018 to 2024. The main development objective of the project is "to improve the quality and relevance of higher education and research mainly in STEM and agriculture at targeted higher education institutions and to improve governance in the sector." The main fields of study supported by this project are thus STEM-related, and the five major target public HEIs are ITC, RUA, RUPP, SRU, and UBB. Eight million dollars has also been earmarked to support private higher education development, mainly in teaching, learning and institutional management. The project is divided into three components:

Component 1: Improving Teaching and Learning Capacity (approximately USD63.7 million). This component is designed to enhance the quality of teaching and learning capacity of targeted HEIs in the fields of STEM and agriculture, as well as other fields of study important to Cambodia's economic development. The three sub-components are:

- 1.1) Improving teaching and learning at the five public HEIs (USD52.7 million). For upgrading of curriculum and faculty qualification in target programs, establishing new graduate programs, constructing and renovating buildings and classrooms, and strengthening university-industry linkages;
- 1.2) Improving institutional capacity (USD3 million). This includes supporting financial management and human resource management reform, as well as developing monitoring capacity on employability; and
- 1.3) Supporting private HEIs (USD8 million) by upgrading curriculum and faculty qualifications and improving institutional capacity.

Component 2: Improving Research in STEM and Agriculture (approximately USD15.8 million). The aim of this component is to enhance the quality and relevance of research in STEM and agriculture through the provision of research grants to the target public HEIs for the development and implementation of the research project that will lead to peer-reviewed publications. The project will support research equipment and facilities/laboratories, research consumables, research operation costs,

⁴⁶ For further information about the project, see World Bank. *Implementation and Results Report [HEQCIP]*. Washington DC: World Bank, 2018.

and researcher incentives, which will be financed by the government's counterpart funds.

Component 3: Strengthening Sectoral Governance and Project Management (approximately USD13 million). The component is made up of two sub-components:

- Sub-component 3.1 (USD7.5 million) aims to strengthen sectoral governance. Specifically, Sub-component 3.1 will focus on the implementation of institutional accreditation, development and implementation of IQA guidelines, expansion of HEMIS, provision of technical support to develop and process needed policy documents, coordination of activities related to financial management and human resource management reform, and capacity development to track graduate employment data.
- 2. Sub-component 3.2. (USD5.5 million) covers project management, coordination, and monitoring and evaluation.

At a minimum, the following will be the outputs from this project (by components):

Component 1: Improving Teaching and Learning Capacity

- 30 higher education partnerships programs evaluated as modest or higher (more than 30 partnership programs with international HEIs will be established);
- 30 faculty members receive advanced degrees (through the partnership programs);
- 17 signed agreements for higher education partnership programs;
- 55 laboratories constructed or rehabilitated;
- 80 classrooms built:
- 4 student dormitories built:
- 5 HEIs produce a consolidated financial management report;
- 5 HEIs complete tracer studies;
- 5 HEIs collect, record and report on grievances from students, and
- 16,356 students benefit from direct interventions to enhance learning.

Component 2: Improving Research in STEM and Agriculture

- 35 research projects in collaboration with industry completed, and
- 24 submitted articles to peer-reviewed international journals.

Component 3: Strengthening Sectoral Governance and Project Management

- Legislation on HEI autonomy submitted to the Council of Ministers;
- HRD master plan approved;
- 25 HEIs complete accreditation process;
- 20 IQA units submit reports with recommendations to their respective boards of directors, and
- 40 HEIs input data into HEMIS.

Again, internationalization and overseas study feature significantly in the project but the focus is more on institutional partnership with foreign HEIs and joint delivery of the degrees to faculty members. Short-term overseas training and exposure visit will be conducted as well.

2.7 Historical and Empirical Review of the Impact of Studying Abroad

There has been little research into the impact of studying abroad in Cambodia, neither in the education sector nor nationwide. It should be underlined that it is difficult to approach this subject matter, as national and sectoral development can be achieved or influenced by other extraneous factors besides studying abroad, which can be hard to control for. However, in modern Cambodia, which saw the majority of its educated people wiped out, in particular during the Khmer Rouge genocide, study abroad has played an important role in the rapid rebuilding of its scarce human resources and may be said to have impacted positively on the development of Cambodia —economically, politically, socially, and

culturally as well as for the development of university sector.

Without the support from the Eastern Bloc to train thousands of graduates in the 1980s, for instance, it would not have been possible to fill the bureaucratic positions in the 1980s and 1990s with competent individuals. The return of graduates since the 1990s from the West and beyond has perhaps helped shape the development of a democratic political system and market economy. Study abroad has certainly contributed considerably to the development of Cambodian higher education, given that many of the overseas graduates work in HEIs and higher education. This has resulted in many being promoted to leadership positions at both the national and institutional levels. The key issues are perhaps whether the number of graduates from study abroad programs has created sufficient critical mass to bring about sustained, comprehensive, positive change to Cambodia; whether they have instilled and nurtured new or better practices to enhance institutional performance, or whether there are now the systematic, overarching national and institutional policies on higher education internationalization and HRD necessary to steer the development of the sub-sector.

While the positive impact of studying abroad may be indisputable, we also do not know to what extent it has had negative impacts on Cambodian politics, economy and society. Has the education attained from the Eastern Bloc and other communist or socialist countries, for example, hindered democratic consolidation? Has the promotion of a liberal market economy, without building a strong social foundation and welfare state institutions, created and sustained more social and economic inequality and crony capitalism? Has the scholarship provided to those pursuing higher education in Islamic countries changed the landscape of Islamism and the Cham community in Cambodia? These are just some questions that should be asked to shed light on the negative impacts of study abroad in Cambodia, and these are areas that are underexplored.

Historically, the impact of studying abroad on Cambodia's development has been mixed at best. During the colonial period, a small pool of Khmer elites trusted by the French administration were sent to pursue education in France by the colonial masters, returning to hold prominent political positions in the colonial administration in order to pursue France's agenda in Cambodia. Key political positions in the Sihanouk administration after independence were still held by graduates from France. The political leaders of the Khmer Rouge machinery were former graduates from France who were inclined toward communist and/or socialist ideologies and were mainly indoctrinated while undertaking their studies in France (Chandlers 2008; Edwards 2007). With the fall of the Khmer Rouge and the death or subsequent escape of a majority of the educated during the reign of terror under the Democratic Kampuchea, the People's Republic of Kampuchea initially relied upon the remnants of the educated survivors to rebuild its political and bureaucratic machinery. However, later its administration came to rely upon and was staffed by graduates from Russia and other Eastern Bloc countries. Many of these people also held key bureaucratic and political positions within the government. However, after the lifting of the economic embargo by the West in the early 1990s and the elections in 1993, Cambodia began sending its students to pursue higher education in a greater range of countries, mainly with bilateral support from foreign governments. In more recent years, increasing numbers of students have gone to pursue education abroad in a private capacity. We can now see that the political and bureaucratic positions have been occupied by overseas graduates from more diverse countries, including Japan, Australia, USA, and France. Many graduates have held (senior) managerial positions at HEIs, including rectors and vicerectors (or their equivalent)--in public and private HEIs. These overseas graduates have played important roles in the development of the Cambodian economy and society at large and civil society in particular.

Efforts to locate literature on the impact of studying abroad in Cambodia have generally proved futile. According to the available literature, it seems that the Department of Foreign Affairs and Trade of Australia is the only agency that has conducted a regular tracer study (once every five years since 1999) of the Australian alumni who studied in Australia on the sponsorship of the Australian federal government (and made the document(s) publicly available). As discussed above, Australia is among the few countries to have provided a quite significant number of scholarship awards to Cambodia. Its fourth and latest tracer study of the Australian alumni (1996–2013), released in 2014, indicates that the

Australian alumni have contributed significantly to the development of Cambodia. The study concluded that "There was strong evidence to indicate that the majority of the alumni have made significant contributions to their organisation, to their community and towards national development" (Bryant 2014, 7). While a majority of the alumni work in the public sector—understandable given that the scholarship initially targeted public employers and was only later opened, to some extent, to employees in the not-for-profit and private sectors—many also serve in the not-for-profit sector, development agencies, and the private sector. Key findings from the study include:

- Two-thirds of the graduates surveyed (of a total of 394 respondents) worked in the public sector; 21% in civil society organizations, non-governmental organizations and development agencies, and 11% in the private sector, including self-employment;
- Government agencies with a large number of Australian alumni are: the Ministry of Health-MoH (25); Ministry of Agriculture, Forestry and Fisheries-MoAFF (24); Ministry of Economy and Finance-MoEF (23); Ministry of Education, Youth and Sport-MoEYS (19); Ministry of Environment-MoE (19); Ministry of Foreign Affairs and International Cooperation-MoFAIC (13); Council of Ministers-CoM (13); Ministry of Interior-MoI (11); National Bank of Cambodia-NBC (17) and Royal University of Phnom Penh-RUPP (11).
- Two-thirds of the graduates believed that their award had been used "to a great extent" for Cambodia's development;
- Studying in Australia has enhanced their skills (including "soft skills") necessary in the workplace and technical knowledge in a wide range of fields of study;
- The knowledge and skills gained in Australia have contributed significantly to their organization, community and national development;
- The knowledge and skills have been used in multiple ways to improve their work performance and workplace: greater technical/operational responsibilities (91%), a greater role in policy development (80%), greater financial responsibilities (66%), and/or supervising more staff (68%);
- Some three-fourths of the survey participants have been promoted since their graduation, with almost half (47%) currently holding (senior) managerial positions, especially if they worked in the public sector, which had 38% in professional positions;
- One-fourth of the respondents (26%) had had publication (48% with an international academic journal).

The study also reports the "negative impact" of studying abroad, especially in relation to the public sector. Brain drain from the public sector to the private sector, the not-for-profit sector and development agencies was found to be a key issue. Of the graduates, 14% were found to be living overseas. Reasons for this included joining family overseas; seeking a more stable environment; pursuing further study, or for employment-related reasons. Graduates also reported challenges in utilizing their knowledge and skills to effect positive change in their workplace. Of the survey participants, 45% raised "resistance to new ways of thinking and working" as a challenge. Many of the public sector employees interviewed raised similar and other "systemic barriers" that hinder their contribution to Cambodia's development, and these include entrenched bureaucracy, political interests, conservatism, and corruption. Other challenges included the lack of opportunities to further develop skills and knowledge (61%), lack of resources and equipment (46%), and the lack of a professional network to share ideas (43%) (Bryant 2014).

3 Royal University of Phnom Penh

3.1 Overview of University Development History

As the oldest and largest public university in Cambodia, RUPP was inaugurated on January 13, 1960, as the University of Royal Khmer (RUPP 2018), seven years after Cambodia declared its independence from France and the end of colonization. Originally, the university ran the following schools, institutes, and faculties: National Institute of Judicial and Economic Studies, Royal School of Medicine, National School of Commerce, National Pedagogical Institute, Faculty of Letters and Human Sciences, and Faculty of Science and Technology, and two other faculties by 1965. In 1970, the university's name was changed to the University of Phnom Penh, adding *the École Normale Supérieure*, known as ENS (RUPP 2018).

The university closed its doors during the Khmer Rouge regime and reopened on May 13, 1980, initially offering only teacher training and foreign language education. It was therefore known as either ENS or the School of Foreign Languages. In 1988, the university was officially renamed the University of Phnom Penh, serving as the main higher education institution in Cambodia through its 11 faculties. Later, three of these faculties would continue to expand to become specialized universities and an institute, namely the Royal University of Law and Economics, the National University of Management, and the National Institute of Education (RUPP 2018). In 1996, the university adopted its current name.

The University had over 18,000 students, five faculties and one institute, and eleven offices and centers in 2019. Between its reopening in 1980 and 2017, 50,477 students graduated from RUPP (RUPP 2018). It had over 470 civil servant staff members and over 500 contracted ones (RUPP 2018). It is one of the only two universities that are full members of the ASEAN University Network (AUN) (AUN 2016). Working hard to maintain its position as a leading university in Cambodia and to achieve its vision as a key role player in higher education in the region in teaching, research, and academic as well as community services, it established partnerships with 149 international universities and institutes in 22 countries around the world, with Japan, Korea, China, and Thailand ranking first, second, third, and fourth, respectively (RUPP 2018).

3.2 Staff Development Policies and Strategies

RUPP, through its 2014–2018 Strategic Plan, is envisioned to become Cambodia's flagship university in teaching, research and community services. The plan identifies six mission points as follows:

- 1. Building competency (knowledge, skills, values, and attitudes) for students in all education and training programs and equipping them with entrepreneurship skills, innovation skills, cross-cultural competence, and employability skills;
- 2. Becoming a center of excellence for language learning and information and communication technology (ICT);
- 3. Becoming a leading institution for Social Science and Humanities and STEM education;
- 4. Enhancing research and development in all graduate programs;
- 5. Becoming the leading institution for the provision of high-quality research, consultancy and community service;
- 6. Becoming a center of good governance in which all administrative and financial services will be accountable, transparent, and participatory to students, staff members and stakeholders.

To achieve these six mission points, ten goals were prioritized. They are to:

- 1. Enhance teaching staff and middle-level administrative staff to hold at least master's degrees with both English and ICT competence;
- 2. Be an established center for high-quality research and publications;
- 3. Increase graduate programs and enhance academic freedom;
- 4. Increase the number of international students in all types of courses;
- 5. Enhance student and faculty exchange with universities in AUN and other partner universities, including services provided to development partners and civil society organizations;
- 6. Promote integrity and a sense of belonging and ownership among students, faculty and staff;
- 7. Ensure a safe and sound teaching and learning environment;
- 8. Provide free information technology (IT) support and internet access to all students and staff;
- 9. Become a resource center for teaching/learning, research and community service, and
- 10. Mainstream quality assurance and evaluation mechanisms in all departments and programs.

Responding to the needs of the stakeholders and professional bodies, the university has constantly been streamlining its strategic plans to maintain its position as the "flagship" university. One of the eight prioritized strategies and activities identified in its 2019–2023 strategic plan is to enhance the quality of teaching and learning and curriculum development through even more local, regional, and international collaborations. This initiative is a follow-up to the strategy established in the 2014–2018 Strategic Plan, which highlights the following staff capacity building and development strategies:

- Categorize staff as teaching and non-teaching, part-time, full-time, and contractual for receiving training support, professional development and promotional opportunities;
- Facilitate staff for internship, fellowship and scholarship opportunities for working and studying abroad, and
- Develop staff competence in teaching, learning, research and community service

Implementing this strategy, the university conducted a capacity assessment to identify the successes, challenges, and opportunities institution-wide. The assessment was performed through a diagnostic and a detailed study, leading to the development of the university's first draft Human Resource Management Manual (Bang 2017).

Development of staff members is also highly encouraged through research and innovation, as revealed through its 2014–2018 strategic plan (RUPP 2014). This involved the need to:

- Encourage faculty and students to become members of professional societies, participate in national and international conferences, give presentations of academic papers, and publish their papers and books with peer-reviewed journals/publishers, and
- Motivate staff and students to do and collaborate in research with local and international partners through financial and academic incentive support.

To keep up with and contribute to the changing political and socio-economic landscapes, the university continues to prioritize research, innovation, and staff capacity building and development. An interview with a dean and the head of the Personnel Management Office (PMO), however, revealed that, due to a lack of information flow from faculties, departments and PMO, supporting documents used when sending staff overseas for short workshops or trainings cannot be fully received and recorded. Professional staff development plans are not systematically or fully developed and recorded. ⁴⁷ Therefore, the information about education and training in foreign countries among its staff members

⁴⁷ An interview with mid-level managers, February 11, 2019.

documented in this report is indicative but by no means conclusive. The information was provided by the International Relations Office (IRO), PMO, and the study office.

Table 3.1 displays the number of management teams at the university, categorized by degree and gender. In this section, a management member is ranked from the head of a department to the university rector. The total number of staff, categorized as full-time/part-time and teaching/non-teaching, is displayed in Table 3.2. Not counting management, RUPP had a total of 820 teaching and non-teaching staff members, 535 (65.2%) of whom were teaching and researching at the university. 399 (74.6%) were male whereas 153 (53.7%) of the 285 non-teaching staff were male. These figures do not include foreign staff—the statistics on foreign staff are presented in Table 3.4.

Table 3.1: Number of RUPP's Management Team Members by Degree and Gender, as of January 2019

(Full-time Civil Servant)	Bachelor's	Master's	Doctor/Ph D	Others	Sub-Total
Management	13 (1)*	92 (18)	25 (5)	1	131 (24)

Source: Compiled by authors based on the data provided by PMO, RUPP 2019.

Table 3.2: Number of Staff by Gender at RUPP, as of January 2019

	Total	Male	Female
Full-time teaching staff	535	399	136
Part-time teaching staff	NA	NA	NA
Full-time non-teaching staff	238	124	114
Part-time non-teaching staff	47	29	18
Total staff	820	552	268

Source: Compiled by authors based on the data provided by PMO, RUPP 2019. *Note:* Information about part-time teaching staff was unavailable as no clear regulation regarding full-time/part-time teaching was agreed upon at the RUPP.

Yonghwan Bang (2017) defines a full-time staff member at RUPP as someone who has an "authorized full-time position in the personnel budget of the employing office and is scheduled to work at least 40 hours a week for more than three consecutive months." A part-time position requires working "fewer than 20 hours per week or any number of hours per week for three consecutive months or less." This definition, however, applies to non-teaching staff only. There is no clear criterion to distinguish full-time from part-time teaching staff. Information about part-time teaching staff at RUPP was not available at the time this report was written.

As for the highest degrees, not counting the management team, 55 (10.3%) of the teaching staff had a doctoral or PhD degree; 366 (68.4%) had a master's degree; 114 (21.3%) had a bachelor's degree. In the case of non-teaching staff, only four (1.4%) had a PhD; 35 (12.3%) had a master's degree; 147 (51.6%) had a bachelor's degree; 99 (34.7%) had a certificate lower than a bachelor's degree.

When combining teaching and non-teaching staff, 59 (7.2%) had a PhD; 401 (48.9%) had a master's degree; 261 (31.8%) had a bachelor's degree; 99 (12.1%) had a certificate lower than a bachelor's degree. Noticeably, the discrepancy between males and females widens as the levels of study increase—the higher the level of study, the fewer female staff (see Table 3.3).

^{*} Numbers in parentheses enumerate female staff.

Table 3.3: Number of Staff (Excluding Management Staff) by Qualifications at RUPP, as of January 2019

	AD/HD	Bachelor's	Master's	Doctor/PhD
	or below			
Full-time and part-time teaching staff	0	114 (31)	366 (95)	55 (10)
(female)				
Full-time non-teaching staff (female)	90 (48)	111 (54)	34 (12)	3 (0)
	37.8%	46.6%	14.3%	1.3%
Part-time non-teaching staff (female)	9 (5)	36 (11)	1 (1)	1 (1)
	19.1%	76.6%		
Subtotal	99	261	401	59

Source: Compiled by authors based on data provided by PMO, RUPP 2019.

Note: AD/HD = associate degree/ high diploma; numbers in parentheses enumerate female staff.

Table 3.4: Number of Foreign Staff by Qualifications at RUPP, as of January 2019

	Bachelor's	Master's	Doctor/PhD	Total
Foreign teaching staff (female)	7 (2)	6 (2)	4 (1)	17 (5)
	41.2%	35.3%	23.5%	100%
Foreign non-teaching staff (female)	0	0	0	0

Source: Compiled by authors based on data provided by PMO, RUPP 2019.

Note: Numbers in parentheses enumerate female staff.

By January 2019, 17 foreign staff were working and/or undertaking research at the university. Four had a PhD; six a master's degree; and seven a bachelor's degree.

The five-year Strategic Plan 2014–2018 clearly states a policy to promote staff development for higher academic credentials. A senior management member confirmed that the university is finalizing its 2019–2023 strategic plan, and one of its priorities is to develop staff and build their capacity—in both academic (teaching) and non-academic (support) roles. The policy aims to be taken as a general guideline: no system has been established to implement this staff capacity-building plan, and faculties are not required to design or implement a strategic plan to upgrade their staff's capacity. Staff members are encouraged to seek training and study abroad opportunities themselves, and those offered directly by a donor or partner institution to a faculty are not managed systematically.⁴⁸

Another management member commented, "We have no system to help them. We do encourage them, though. We have one PhD program, which is the first PhD program offered at RUPP. There is a limited budget to support staff members in doing a PhD, but it's rather selective than systematic." Without such a system, it is hard to determine the amounts and kinds of contributions by these individuals, be it at the university or faculty levels, and thus difficult to decide who should receive support to continue their studies.

The other major hurdle is the absence of a baseline indicator or designated target for staff development within a realistic timeframe. The same faculty member stated, "Even with an intention toward staff development, we have not set a certain number/figure, for example, an increased percentage, and we have not had any baseline to compare with, so we only want to increase, but we do not have any

⁴⁸ Interview with a senior manager, 5 April 2019.

⁴⁹ Interview with a mid-level manager, April 1,2019.

3.3 Study Abroad of Faculty Members

Based on the figures provided by PMO, 67 civil servants (management staff included) working at the university held a PhD as of November 2018. Of these, 38 were academic staff teaching and researching at RUPP. Figures for contracted staff members were not available. Among all the master's degree-holding faculty, 141 obtained their degrees from local institutions, while 207 others had a master's degree conferred by an international institution. Japan, Australia, France, Korea, and USA were the top five countries from which the staff members obtained their degrees (Table 3.5). Information about the institutions from which the staff received their bachelor's degrees was not available, but they are likely to be local degrees. With doctoral and postgraduate degrees combined, Japan appeared to be the first, followed by Australia, France, USA, and Korea, as the top five foreign countries where its staff pursued their master's and PhD degrees.

Table 3.5: Foreign Countries Where Cambodian Staff (including Management) at RUPP Obtained the Highest Degrees in 2018

Country of destination	Doctor/PhD	Master's	Subtotal
Australia	9	14	23
Korea	4	10	14
France	9	11	20
Japan	15	14	29
United Kingdom	1	2	3
Germany	3	2	5
EU (Except members above)	5	8	13
Soviet Union/ Russia	2	9	11
USA	4	11	15
ASEAN (other than Cambodia)	10	38	48
Others	5	88	93
Total	67	207	274

Source: Compiled by authors based on data provided by RUPP 2019.

Note: This record only applies to the civil servant staff only. Records for contracted staff were not available at the time this report was written. Breakdown by gender was also not available.

Other than degree programs, staff at the university have also been engaged in outbound capacity building through the university's mission, staff exchanges, and short-term training. The definition of such training and development opportunities is not clearly stated or defined, and activities under this category are not formally recorded as there is no system available for capturing this data.

As for terms and conditions bound to the outgoing study abroad endorsed by RUPP, "no strings attached" seems to be the sentiment, as staff who have been on study abroad contracts and short-term "mission" are not required to fulfill specific duties and/or responsibilities upon their return to the university. This is also true even for those who sign a contract with donors or scholarship providers to return to work at the university for a certain period of time after they finish their study abroad. Brain drain, staff turnover, and staff mobility, according to the same faculty member, are influenced by both push and pull factors

⁵⁰ Interview with a mid-level manager, April 1,2019.

as their development trajectory at the university may not match their interests, and the benefits provided by working elsewhere may outweigh those offered by RUPP.

3.4 International Aid

IRO is tasked with promoting international relations through cooperation activities, academic exchanges with international institutions and academic services to the international community in order to establish RUPP as a gateway to regional and international venues in the higher education sector. The office also assists with international fellowships and scholarship applications, and it coordinates the establishment and development of collaborative projects through national and international collaborative agreements. This includes MoUs and agreements for academic cooperation and collaborative research, as well as faculty and student exchange programs. The office has played a key role in securing development projects across the university. This section reports on international aid and partnerships for the development of the university based on the data provided by the office itself.

Table 3.6 presents the university's 40 major projects with partners and donors as of August 2018. The list, which is compiled by IRO, is indicative and not conclusive, as certain collaborative projects at the department level may not have been reported to the office. An interview with a faculty dean confirmed this practice. By the time this report was written, several projects were being implemented by some departments, and information about them was not being disseminated to the faculty or the IRO. One PMO officer estimated that IRO probably receives about 50% of the information regarding grants and collaborative projects, especially small-scale ones and ones that do not involve a donation of money.⁵¹ Among the 40 projects reported here, academic program support and development, infrastructure upgrade, staff capacity building through exchange, training, and research collaboration are significant highlights. The authors were asked not to reveal the budget for each project and have conformed to this request.

Table 3.6: RUPP's International Networks, Collaborators and Support, 2016–2018 (and Beyond)

No.	Project title	Faculty in charge	Duration	Start-End year	Source
1	CONSEA: Developing Curricula for Environmental Safety and Conservation of Biodiversity in Cambodia	RUPP	3 Years	2018–2020	ERASMUS+
2	GERe-SH-CAM: Support Cambodian Academics in Shaping a Policy of Research and Innovation in the Social Sciences and Humanities in Cambodia	Research Office	3 Years	2017–2019	EU- ERASMUS+
3	Hub4Growtha: Heightening University- Business Partnerships for Smart and Sustainable Growth in Cambodia	Engineering	3 Years	2017–2019	ERASMUS+
5	HR4Asia	Engineering	3 Years	2017–2019	ERASMUS+
6	Strengthening Quality Assurance in Cambodian Higher Education Project (SICA)	Engineering	3 Years	2018–2020	ERASMUS+
7	Smart Classroom	Engineering	3 Years	2018–2020	SusTech. Univ.
8	STEM	Engineering	6 Years	2019–2024	World Bank
9	SIDA	Engineering	3–4 Years	2019–2021	Sweden
10	SEASIN: Hub for Research, Education and Training, Incubation and Dialogue on	Development Studies	3 Years	2017–2019	EU

⁵¹ An interview with a mid-level manager, February 11, 2019.

		1	1		
	Social Enterprise, Cooperative, Social				
	Innovation, Corporate Social				
	Responsibility and Broader Social				
	Economy Organizations in Cambodia				
11	SOGANG: Physics and biology	Science	More than		Korea
	laboratories and scholarships for		8 Years		
	postgraduate studies				
12	OXFAM	Science	More than	2006-	UK
			10 Years	Present	• • •
13	Ehwa Womans University: Master of Arts	Social Work;	Ongoing	11000110	Korea
15	in Social Work	Science	ongoing		Horeu
14	Development of Energy Education in	Science	3 Years	2017–2019	EU-
14		Science	3 Tears	2017-2019	ERASMUS+
1.5	Mekong Region (DEEM)	C	2 7/	2010 2020	
15	Node of Excellence in Geo-Spatial Data	Science	3 Years	2018–2020	EU-
	(NEXUS)	~ .		2010	ERASMUS+
16	Air pollution in smaller city	Science	6 months	2018	UNEP
17	G-DORM: Co-creative Dormitory-type	RUPP-IRO	5 Years	2017–2022	Japan
	Group-work for Science and				
	Technological Students in Japan and				
	Mekong Countries with Regional				
	Collaboration				
18	PEACE Project: Capacity of research and	RUPP-IRO	5 Years	2017-2022	Japan
	social planning for peaceful, inclusive, and				-
	sustainable development				
19	TUFS: Short Stay Programme at Tokyo	RUPP-IRO	5 Years	2017-2022	Japan
	University of Foreign Studies				•
20	APWINC, Soomyong Women's	RUPP-IRO	2 Years	2017–2018	Korea
	University				
21	SHARE Mobility: Student mobility	RUPP-IRO	5 Years	2015	EU-ASEAN
21	STARE Modifity. Student modifity	KUFF-IKO	Plus	Onward	EU-ASEAN
22	Secondary Education Improvement	Education	1103	2018–	MoEYS
22	Program	Education		Onward	MOLIS
23	Twincle Program	Physics	More than	2012	Japan
23	Twincle Program	rilysics	8 years	Onward	зарап
24	Australia Awards Fellow 2017–18	Education	5 Years	2017–2022	Charles Darwin
24	Building Capacity and Integrating	Education	3 Tears	2017-2022	University
					Oniversity
	International Standards into Education				
25	Programs at RUPP	CIVCC	2.37	2016 2010	MOICA M
25	KOICA-CKCC ICT Training Program	CKCC	3 Years	2016–2018	KOICA-Korea
26	Master of Social Work	CKCC	3 Years	2016–2018	KOICA-Korea
27	Establishment of Silk Centre at RUPP	CJCC	2 Years	2018–2019	Japan
28	Strengthening Korean Studies Research in	CKCC	4 Years	2015–2018	Korea
	Cambodia and the Korean Studies				
	Educational Program as a Comprehensive				
	Korean Studies through Establishment of				
	the Korean Studies Research Centre at				
	RUPP				
29					Sweden
49	International Science Programme (ISP),	Mathematics-	3 Years	Jan 2018–	Sweden
29	International Science Programme (ISP), Sweden: South East Asia Mathematical	Mathematics- Science	3 Years	Jan 2018– Dec 2020	Sweden
29	International Science Programme (ISP),		3 Years		Sweden
30	International Science Programme (ISP), Sweden: South East Asia Mathematical		3 Years 4 Years		Sweden
	International Science Programme (ISP), Sweden: South East Asia Mathematical Network (SEAMaN)	Science		Dec 2020	
30	International Science Programme (ISP), Sweden: South East Asia Mathematical Network (SEAMaN) SIDA: Capacity Building in Mathematics and Statistics	Science Mathematics- Science	4 Years	Dec 2020 Jul 2018– Jun 2022	Sweden
	International Science Programme (ISP), Sweden: South East Asia Mathematical Network (SEAMaN) SIDA: Capacity Building in Mathematics and Statistics World Bank Project:	Science Mathematics- Science Mathematics-		Dec 2020 Jul 2018– Jun 2022 Jul 2018–	
30	International Science Programme (ISP), Sweden: South East Asia Mathematical Network (SEAMaN) SIDA: Capacity Building in Mathematics and Statistics World Bank Project: - Capacity Building in Mathematical	Science Mathematics- Science	4 Years	Dec 2020 Jul 2018– Jun 2022	Sweden
30	International Science Programme (ISP), Sweden: South East Asia Mathematical Network (SEAMaN) SIDA: Capacity Building in Mathematics and Statistics World Bank Project: - Capacity Building in Mathematical Modelling Stimulation, and Optimization	Science Mathematics- Science Mathematics-	4 Years	Dec 2020 Jul 2018– Jun 2022 Jul 2018–	Sweden
30	International Science Programme (ISP), Sweden: South East Asia Mathematical Network (SEAMaN) SIDA: Capacity Building in Mathematics and Statistics World Bank Project: - Capacity Building in Mathematical Modelling Stimulation, and Optimization - Massive Open Online Course for RUPP	Science Mathematics- Science Mathematics-	4 Years	Dec 2020 Jul 2018– Jun 2022 Jul 2018–	Sweden
30	International Science Programme (ISP), Sweden: South East Asia Mathematical Network (SEAMaN) SIDA: Capacity Building in Mathematics and Statistics World Bank Project: - Capacity Building in Mathematical Modelling Stimulation, and Optimization - Massive Open Online Course for RUPP - Creation of Computer Laboratory	Science Mathematics- Science Mathematics-	4 Years	Dec 2020 Jul 2018– Jun 2022 Jul 2018–	Sweden
30	International Science Programme (ISP), Sweden: South East Asia Mathematical Network (SEAMaN) SIDA: Capacity Building in Mathematics and Statistics World Bank Project: - Capacity Building in Mathematical Modelling Stimulation, and Optimization - Massive Open Online Course for RUPP	Science Mathematics- Science Mathematics-	4 Years	Dec 2020 Jul 2018– Jun 2022 Jul 2018–	Sweden

32	Honda YES Award Program in RUPP	CJCC	1 Year	2018-	Honda
	<u> </u>			Present	Foundation,
					Japan
33	IATSS Forum Program in Cambodia	CJCC	6 Years	2013-	IATSS Forum,
				Present	Japan
34	Preliminary Research of Insect Diversity at	Biology-	1 Year	June 2017-	Ministry of
	Kulen Promtep Wildlife Sanctuary	Science		May 2018	Environment
35	Developing Curricular for Environmental	Biology-	3 Years	Oct 2016–	France, Span,
	Safety and Conservation of the	Science		Oct 2019	Belgium,
	Biodiversity in South-East Asia				Austria, and
	(CONSEA)				Vietnam
36	Plants Specimens	Biology-	24 Years	1994–	National
		Science		Present	Museum of
					Natural History,
					Paris, France
37	Family Menispermaceae Lythraceae and	Biology-	5 Years	2016–	France,
	Eriocaulaceae	Science		2020	Scotland, and
					Laos
38	Family Zingiberaceae	Biology-	3 Years	2018–	France,
		Science		2020	Scotland, and
					Laos
39	University-Industry Cooperation Centre:	RUPP	Ongoing	2018–	Erasmus+
	Establishment of the Centre				HUB4GROWT
					H, European
					Union
40	SICA: Strengthening quality assurance in	RUPP	Ongoing	2018–	Erasmus+
	Cambodian higher education				

Source: Compiled by authors based on data provided by IRO, RUPP 2019.

Many foreign cooperation partnerships through MOUs and MOAs are made at the faculty and even department levels to help with staff development. The official brochure of the Faculty of Engineering, for example, lists the following institutions as foreign partners: Osaka Prefecture University, Interdisciplinary Center for Scientific Computing, Universidade do Minho, Universitatea "Lucian Blaga" din Sibiu, and ICT Convergence Rehabilitation Engineering Research Center (ICTC-RERC), among others. A senior management member has hinted that whereas other faculties (i.e., sciences and engineering) have continually received staff development and staff upgrade projects from strategic partners, Faculty of Humanities and Social Sciences has no ongoing foreign partners; only individual faculty members have been involved in certain collaborative projects. One-off collaboration comes in the form of inbound staff exchange to raise the quality of academic curriculums and programs. However, without a proper plan in place, the faculty has not taken optimal advantage of such an initiative. ⁵²

International aid in the form of student exchange has also been provided for students across the university and accompanying faculty members. Table 3.7 shows the top countries for both inbound and outbound student exchange programs as of 2018. China, Viet Nam, USA, Japan, and South Korea are the top five countries where inbound exchange students originate, while Japan is a clear favorite for outbound student exchange, accounting for almost half of the student exchange abroad. Together with Japan, Singapore, Thailand, Korea, and Viet Nam round out the top five for outbound student exchange. Noticeably, the university hosts much fewer exchange students than the number of exchange students it sends abroad. The ratio for inbound to outbound students exchange is approximately 1 to 2.

⁵² An interview with a mid-level manager, April 1,2019.

Table 3.7: Inbound and Outbound Student Exchanges at RUPP by Countries, 2018

No	Inbound stud	dent exchange	Outbound student exchange		
No.	Country	Number of students	Country	Number of students	
1	China	294	Japan	429	
2	Vietnam	102	Singapore	103	
3	USA	38	Thailand	79	
4	Japan	31	South Korea	63	
5	South Korea	11	Vietnam	49	
6	Other ASEAN countries	11	Other ASEAN countries	160	
7	Europe	6	Europe	35	
8	Others	4	Others	1	
	Total	497	Total	919	

Source: RUPP Prospectus 2018.

International aid also helps with the development and quality assurance of academics. For example, the Department of Social Work, in partnership with the University of Washington School of Social Work, was established and admitted its first batch of students on July 3, 2008. The department was the first in Cambodia to provide a bachelor's degree program in Social Work and has over 40 linkages with national and international organizations. The program has been one of the two higher education programs in Cambodia to be nominated for an AUN Quality Assessment. The department is the first Cambodian higher education department to be awarded a certificate of accreditation from the Philippines Accrediting Association of Schools, Colleges and Universities in May 2017. This external accreditation status remains in effect for a three-year period.

3.5 Impact of Study Abroad

As one of the two ASEAN Network universities, RUPP has treated the internationalization of its education as a priority. It has incorporated the need to internationalize educational and administrative services and research collaborations into the Human Resource Management Manual, Strategic Plan, and Prospectus. The study abroad of faculty and management members has contributed significantly to the university's short- and long-term development. Those who have studied abroad tend to be viewed in a positive light and have been favored in teaching, research, and administrative /management work. Numerous returnees have helped to establish new academic programs and streamlined the existing ones based on the models they have witnessed during their study abroad. They are also the main drivers in implementing and attracting more international partnerships and collaborative projects. More importantly, they are the key determinants of teaching and learning quality and achievements at the university.

Not every returning faculty member is lured by impressive benefits and opportunities offered outside of the university; there are those who are deeply attached to the university and have chosen to continue supporting development activities at the university. This continued commitment requires a separate investigation in order that lessons can be learned to better manage the impact brought about by faculty members and their work at the university after they return from study abroad.

International aid and partnerships are crucial to the development of staff capacity, research ability, and

innovation as the university strives to balance staff turnover and retention, especially after their return from studying abroad. Compared to private universities, which have their own financial resources to constantly invest in infrastructure upgrades, RUPP, to a large extent, depends on donors and international partners to do so. The teaching ability of its staff remains a major drawcard for students to the university. Long-term investment in staff capacity building with a strategic plan, through both study abroad and locally, will be indispensable to the future development of the university as high staff mobility continues to run its course, rightfully requiring a much more reasonable system to reward and develop its staff for their contribution to the university in teaching and learning, research, and services.

4 Institute of Technology of Cambodia

4.1 Overview of University Development History

Opening in 1964, ITC has been a focal education provider for teaching and research in engineering, sciences, and technologies. Under the agreement between the Cambodian and French governments, it was revised in 1993, giving the institute an impetus to improve its governance, administration, financial services, human resources, and most importantly, educational services. Since then, it has positioned itself at a cutting-edge crossroads in South Eastern Asia region where teaching, learning, and research collaborations happen (ITC, n.d.).

ITC partners with key development agencies, institutions, and organizations in achieving its status as one of the most international HEIs in Cambodia. Some notable partners include French Cooperation, the French Embassy in Cambodia, Agence Universitaire de la Francophonie (AUF), La Communauté Française de Belgique (CUD), ASEAN University Network/Southeast Asia Engineering Education Development Network (AUN/SEED-net), Greater Mekong Sub-region Academic and Research Network (GMSARN) and School on the Internet, JICA, Science Council of Asia, Trans-Eurasia Information Network (TEIN), among others (ITC, n.d.).

To continue its internationalization of educational services and research and to build multilateral relations, it has established connections with numerous regional and international partners in the form of cooperation agreements and MoUs. In the 2018–2019 academic year alone, as shown in Table 4.1, it established cooperation agreements and MoUs with seven international partners.

Table 4.1: Regional and International Partners of ITC in the 2018–2019 Academic Year

No.	Name of institution	Country	Date	Type
1	TAISEI ROTEC Corporation	Japan	Feb 15,2019	Agreement
2	École Polytechnique (Formation Humaine et Exercice des Responsabilités)	France	Sept 24, 2018	Agreement
3	University of Ryukyus	Japan	Sept 19, 2018	MoU
4	Development Innovation, USAID	USA	Sept 5, 2018	Agreement
5	Rosatom South East Asia Pte Ltd	Russia	Aug. 28, 2018	MoU
6	Université de Toulon	France	July 31, 2018	MoU
7	HEFEI University	China	June 28, 2018	MoU

Source: ITC 2019a.

ITC is structured into eight departments: (1) Foundation Year, (2) Chemical Engineering and Food Technology (CEFT), (3) Civil Engineering (CE), (4) Electrical and Energy Engineering (EEE), (5) Georesources and Geotechnical Engineering (GGE), (6) Information and Communication Engineering (ICE), (7) Industrial and Mechanical Engineering (IME), and (8) Rural Engineering (RE). It has three centers: the Research Center, IT Center, and E-Learning Center, plus two sections for teaching foreign languages, i.e., English and French.

Since its inception, a number of bachelor's and master's degree programs have been offered in engineering, sciences, and technology. A doctoral degree program was launched in 2017, with 16 candidates currently enrolled as full-time students. In its 2018–2019 strategy and perspective report, it proposed to open a new department in the field of transport and logistics engineering in response to the government's upcoming Logistics Master Plan (ITC 2019b) and to help address the gap in Cambodian skilled labor and development challenges brought about by increasingly strong economic activities and population growth. The new department is expected to partner with Tokyo City University, Sarinthorn International Institute of Technology (SIIT) and Taisei Rotec.

4.2 University Development Policies and Strategies

Backed by strong cooperation agreements with strategic partners, ITC has been making inroads into national and international collaborations in research, degree programs, mobility of students and staff, and industry linkages. Through its 2019–2023 Strategic Plan, it has set priorities in strengthening its research and innovation capacity in STEM – a development made based on RS (Phase IV) of the government together with NSDP 2019–2023. To achieve this goal, six objectives have been established (ITC 2019b):

- To improve the governance model of ITC;
- To contribute to the development of Cambodia by increasing the number of technicians and engineers in a relevant area and bringing support and assistance to the development of STEM in partner universities;
- To become a leading institution in research and innovation in ASEAN;
- To train students to foster innovation and entrepreneurship;
- To ensure access to high-level information technology; and
- To make ITC a model for social and environmental responsibility.

The following strategies are proposed for the 2019–2020 academic year to achieve the aforementioned objectives:

- To build the new campus in Phnom Penh;
- To improve the capacity of staff in terms of hard skills and soft skills;
- To strengthen the doctoral school (master's and doctoral programs);
- To implement the Lab-Based Education (LBE) program;
- To implement the "Skill for Competitiveness" project;
- To implement a self-assessment mechanism for improving the quality of teaching and learning through HEIP;
- To develop partnerships with international partner universities, donors, industries, and the public sector;
- To strengthen research and innovation capacity in all engineering fields; and
- To propose to establish a new Department of Transport and Logistic Engineering.

The recurring themes among all these objectives and strategies are capacity building and improving the quality of educational services and innovative research. The institute aims to increase the academic credentials of faculty members, especially at the PhD level (from 76 in 2019 to 111 in 2023), in order to help fill "the technical gap" in Cambodia and, at the international level, for regional economies (ITC 2019a). This could be achieved through the following main approaches: (1) international collaboration to seek scholarship opportunities in foreign partner countries; (2) encouragement of existing master's degree-holding faculty to enroll in their own PhD program through HEIP, and (3) LBE (through a JICA project) and HEIP (ITC 2019b).

Table 4.2 shows the figures for the total staff members at the institute, which include full-time and part-time teaching staff, and full-time and part-time non-teaching staff. The figures provided by the institute's personnel office indicate that 409 staff members in total teach and work at ITC in 2019. Of these, 299 are categorized as teaching staff, further divided into full-time, trainees and part-time lecturers, lecturer-researchers, and full-time researchers (ITC 2019b). Within a seven-year period, the teaching staff saw an approximately 40% increase from 201 in 2011 to 299 in 2019. A unique factor to the institute is that the staff includes a category of trainee lecturers who teach full-time but have yet to obtain a full lectureship title. There are also lecturer-researcher and full-time researcher categories. By its definition, a lecturer is considered full-time only when he or she has passed through the recruitment

process as a civil servant and thus has permanent employment status.

Table 4.2: Teaching and Non-Teaching Staff at ITC by Classification and Gender, 2019

Staff by category	Total	Male	Female
Full-time teaching and research staff	152 (100%)	NA	NA
Part-time teaching staff	89 (100%)	NA	NA
Trainee lecturers	58 (100%)	NA	NA
Full-time non-teaching staff	110 (100%)	72 (65.5%)	38 (34.5%)
Part-time non-teaching staff	NA	NA	NA
Total staff	409 (100%)	297 (72.6%)	112 (27.4%)

Source: Compiled by authors based on data provided by ITC 2019.

In 2018, 13 foreign lecturers and professors taught and conducted professional development activities to build staff capacity at ITC (Table 4.3). Because their missions were short-term, these lecturers were not included in the teaching staff category.

Table 4.3: Foreign Lecturers at ITC in the 2017–2018 Academic Year

Foreign staff	Total	Male	Female
Foreign lecturers/professors	13	NA	NA

Source: ITC 2019a.

As displayed in Table 4.4, 168 (41.1%) of the staff members held a master's degree, while 88 (21.5%) held a PhD, 56 (63.6%) of whom were categorized as full-time teaching staff. The 58 trainee lecturers made up 19.4% of all teaching staff. Many of these staff were also enrolled in the institute's PhD program. Expectedly, non-teaching staff appeared to have lower academic degrees, with only 12 (10.9%) holding a PhD and 16 (14.5%) a master's degree. ITC apparently does not contract part-time non-teaching staff.

Table 4.4: Number of Staff Members by Qualifications at ITC, 2019

	AD/HD or	Bachelor's	Master's	Doctor/PhD
	below			
Full-time teaching staff (female)	0	19	77	56 (11)
Part-time teaching staff (female)	0	44	38	7
Trainee lecturers (female)	0	8	37	13
Full-time non-teaching staff (female)	42 (15)	40 (15)	16 (6)	12 (2)
Part-time non-teaching staff (female)	NA	NA	NA	NA
Subtotal	42 (10.3%)	111 (27.1%)	168 (41.1%)	88 (21.5%)

Source: Compiled by authors from data provided by ITC 2019.

Note: AD/HD = associate degree/ high diploma; numbers in parenthesis enumerate female.

4.3 Study Abroad of Faculty Members

There has been an upward trajectory in the number of staff going for further study abroad. Capacity building is the priority of the institute, and this is mainly done through the channels of sending faculty abroad for further experiences in teaching, scientific research and soft skill development, with its wide range of university partnerships and exchange programs. As of April 2019, it had 29 lecturers enrolled

in postgraduate studies abroad (one post-doctoral, 26 doctoral, and two master's students). This plan is categorized as long-term overseas capacity building for lecturers, while the short-term overseas capacity building for lecturers in the 2018–2019 academic year saw 112 missions undertaken abroad by lecturers across the departments. These capacity-building initiatives were supported by its own funding, AUF, Académie de Recherche et d'Enseignement Supérieur-Development Cooperation Committee (ARES-CCD), Erasmus+, AUN/SEED-Net, JICA, etc. There were only 84 missions for lecturers in the 2017–2018 academic year. This increase in capacity building abroad for faculty members has been borne out of its vision to become a widely recognized science and technology research center in the regional and international communities. Detailed lists of the 2018–2019 capacity building programs can be found in Table 4.5, adapted from the 2018–2019 consortium meeting on the international support report, Annexes 8 (ITC 2019a).

Table 4.5: Number of ITC's Lecturers Currently Enrolled in Overseas Postgraduate Programs

No.	Sex	Department	Degree	University	Country	Source of Funding
1	F	GCA (Department of Chemical and Food Engineering)	PhD	Montpellier SupAgro	France	BGF
2	F	GCA	PhD	Université de Liège	Belgium	ARES-CCD
3	F	GCA	PhD	ULB	Belgium	ULB
4	F	GCA	PhD	Université de Nantes and ITC (Double Degree)	France and Cambodia	BGF
5	F	GCA	PhD	Montpellier SupAgro and ITC (Double Degree)	France and Cambodia	BGF
6	F	GCI (Department of Civil Engineering)	PhD	INSA de Toulouse	France	
7	M	GCI	PhD	ULB	Belgium	
8	M	GEE (Department of Electrical and Energy Engineering)	PhD	TIT	Japan	JICA
9	M	GEE	PhD	INP-Grenoble	Japan	BGF
10	M	GEE	PhD	INP-Toulouse	France	BGF
11	M	GEE	PhD	TIT	Japan	JICA
12	M	GEE	PhD	Myongi University	South Korea	Laboratory
13	M	GEE	PhD	INP-Toulouse	France	BGF
14	F	GGG	PhD	Hokkaido University	Japan	JICA
15	F	GIC (Department of Information and Communication Engineering)	Post- Doctoral	UCL	Belgium	ARES CCD
16	M	GIC	Master	Gadjah Mada University	Indonesia	Kemitraan Negara Berkembang (Scholarship) (KNB)
17	F	GIC	PhD	UCL	Belgium	Bourse de l'UCL
18	M	GIC	PhD	Université de Mons	Belgium	ARES-CCD
19	M	GIC	PhD	University of Hokkaido	Japan	MEXT Scholarship
20	M	GIC	Master	King Mongkut's Institute of Technology Ladkrabang	Thailand	AUN/SEED-Net

21	F	GIC	PhD	Université de Namur	Belgium	ARES CCD
22	M	GIC	PhD	Université de Mons	Belgium	ARES CCD
23	M	GIC	PhD	Université de Namur	Belgium	ARES-CCD
24	M	GIC	PhD	TIT	Japan	JICA Special Scholarship (LBE project)
25	M	GIC	PhD	UCL	Belgium	ARES-CCD
26	F	GRU (Department of Rural Engineering)	PhD	Chulalongkorn University	Thailand	AUN-SeedNet
27	M	GRU	PhD	Université de Toulouse	France	BGF
28	M	GRU	PhD	Université de Toulouse	France	BGF
29	F	GRU	PhD	TIT	Japan	AUN-SeedNet

Source: Compiled by authors from data provided by ITC 2019.

Note: Refer to the list of abbreviations and acronyms for the full names of the departments.

On top of the study abroad and missions abroad, it also supports inbound and outbound staff development through collaboration with partners; the case of the 2018–2019 academic year is illustrated in Table 4.6.

Table 4.6: Inbound and Outbound Staff Development at ITC, 2018–2019

Numbe	er of Inbound Staff			
# of	Skill/ Department	Partners	Financial support	Remarks
staff	_			
2	GGG	TOTAL Cambodia	TOTAL Cambodia	
1	Master's thesis defense	INSA de Rennes, France	AUF	
1	Teaching practice	INSA de Rennes, France	AUF	
Numbe	er of Outbound Staff			
# of staff	Skill/ Department	Partners	Financial support	Remarks
2	GGG	Kyushu University	JICA	PhD scholarship
4	GRU	Chulalongkorn University, University of Toulouse, INP Toulouse, Tokyo Institute of Technology, Japan	French Government, JICA, AUN- Seednet	PhD Scholarship
2	GCI	University of Liege, INSA Toulouse	ARES-CCD/French Government	PhD scholarship
5	GEE	TIT, INP- Grenoble, INP Toulouse	JICA/French Government	PhD scholarship
2	Capacity building for teaching	INSA de Rennes	AUF	Mission
1	Training on Dual Education for Engineering	University Pavia, Italy	Erasmus+	Mission
1	Training visit	Ecole Doctoral MEGeP, France	AUF	Mission

Source: Compiled by authors from data provided by ITC 2019.

ITC's short-term and long-term strategic plans also aim to build staff capacity through research collaboration projects. For example, in the 2019–2020 Strategic Plan, it targets both long-term and short-term capacity building of its staff and students through a number of proposed and current projects,

Table 4.7: Selected Project Proposals Submitted by ITC to Development Partners to Build Staff and Student Capacity

Submitted and planned projects	Project objectives	Partner	Target departments	Funding agency
Establishment of a Research Platform on the Power System	To contribute to the long-term human resources development for the power sector in Cambodia (goal), and to establish a platform for research and training on the power system in Cambodia (objective).	EDC, Grenoble INP	GEE	AFD, WB
Staff Capacity Building	To attend short-term training at partner universities for several courses	Grenoble INP/INPT	GEE	AUF
Improving Soil and Water Management for Crop Diversification	- To identify water savings for crops and to propose management interventions for crop development	Université de Liège and Université Catholique de Louvain	GRU	ARES-CCD, Belgium
Building Energy Structure and Lifestyle Database of Asia (BELDA) II	- To study energy consumption behavior in the household sector of the target group; to analyze the electricity consumption based on load curve profile for a six-month period, and to enhance research collaboration between Japanese and ASEAN universities	Waseda University, Japan	GIM (Department of Industrial and Mechanical Engineering)	Ministry of Environment, Japan
Development of Solid Fuel Briquettes Using Fish Residue as Binder and Its Application for Drying of Meat	To study the technique of applying binder and its percentage and sticking ability and burning to briquettes; to investigate the properties of biomass briquettes after with/out applied binder such as calorific value, flame temperature, volatile matter, fix carbon and ash content, moisture content, impact resistance test, etc., and to test obtained briquettes as heating material in fish drying system and to measure the gas emission of the new biomass briquetting, CO, CO2, N, SO	Université Catholique de Louvain, Belgium	GIM	ARES-CCD, Belgium
Initiating Scientific Investigation to Understand and Prevent the Failure of the Cambodian Railway	To study the root cause of fracture mechanics of Cambodia's railways, and to observe railway operations and maintenance	Yokohama National University	GIM, Dr. SRY Vannei, Dr. CHHITH Saosometh, Dr. TO Dara, Dr. LIV Yi	World Bank
Capacity Building for Online Content Development	To advocate for a best practice, strategy and policy for e-learning and to build the capacity of staff and students for e-learning	Ministry of Education of Republic of Korea (ROK)	E-learning Center	Ministry of Education of Republic of Korea (ROK)

Source: ITC 2019b.

These staff development initiatives have helped propel a constant increase in the number of academic faculty members as the institute continues to improve the lecturer-student ratios and upgrade the highest academic degrees completed by the faculty members. In the 2019 report on the consortium meeting on international support, the increase in the number of PhD and master's degree-holding faculty members is a prominent highlight, with figures increasing from 33 for PhDs and 99 master's degree-holding faculty in 2012 to 76 and 152, respectively, in 2019. This significant increase is credited to its regional and international cooperation and agreements with partners identified throughout this section. Table 4.8 shows the foreign countries from which staff members obtained their highest degrees, while Table 4.9 shows the number of staff who received their highest education in Cambodia. Noticeably, half of the staff received their highest degrees from abroad, with ASEAN, France, and Japan being the most popular destinations.

Table 4.8: Foreign Countries Where Cambodian Staff of ITC Obtained Their Highest Degrees, as of 2019

Country of destination	Doctor/PhD	Master's	Bachelor's	Total
Australia	1	1	0	2
ASEAN (Except Cambodia)	14	50	3	67 (32.7%)
France	21	37	1	59 (28.8%)
Japan	28	4	0	32 (15.6%)
Germany	0	1	0	1
Spain	2	0	0	2
EU (Except members above)	0	0	0	0
Soviet Union/ Russia	0	7	0	7
USA	1	1	0	2
Others	8	25	0	33
Total	75	126	4	205

Source: Compiled by authors based on data provided by ITC 2019.

There is strong encouragement from the institution, together with an individual's drive for a higher degree, as ITC strives to be innovative in both teaching and research with the goal of becoming a leading institute in STEM education in Cambodia and in the region. As for teaching staff, it has recruited Cambodian staff who have graduated from foreign countries in the ASEAN region (32.7%) and 17 other foreign countries, including France (28.8%), Japan (15.6%), Belgium, South Korea, and Russia. It is not surprising that France and Japan are the two most popular destinations, given that these countries are its current strategic cooperative partners. However, as it continues to expand its cooperation and partnerships with regional and international institutions, in the coming years, the landscape of foreign countries from which its staff obtain their highest degrees is expected to change.⁵³

On the other hand, Table 4.9 indicates that the other half of its staff have received their highest degree locally, with only one member obtaining a PhD. The remainder have received master's and bachelor's degrees, as well as certificates below a bachelor's degree.

⁵³ An interview with a mid-level manager, March 13, 2019

Table 4.9: Cambodian Staff of ITC Who Have Obtained Their Degrees from Cambodia as of 2019

Country of destination	Doctor/PhD	Master's	Bachelor's	AD/HD or Below	Total
Cambodia	1	46	86	71	204

Source: Compiled by authors based on data provided by ITC 2019.

4.4 International Aid

This section discusses the major international networks, collaborators, and support the institute has been receiving. The data reported here (Table 4.10) are based on the report on its activities in the 2018–2019 academic year (ITC 2019a). The list is not exhaustive, and it highlights only selected areas of support and information about the amount of funding for many projects is not known at this point. The list also combines projects of different scales. Some items cover sub-projects running across the departments and centers, while others support individuals with their research projects and publications.

Table 4.10: ITC's Major International Networks, Collaborators and Support, as of 2019

No.	International network/ Collaborator/Support	Collaboration area	Duration	Funding (USD)
1	Higher Education Improvement Project (World Bank)	Higher education improvement	2018–2024	23 million
2	Asian Development Bank	Skills for Competitiveness Project	2019–2024	10 million
3	Laboratory-Based Education (LBE)	Project for Strengthening Engineering Education and Research for Industrial Development in Cambodia	2013–2015	5.32 million
4	Science and Technology Research Partnership for Sustainable Development (SATREPS/Japan)	Establishment of Conservation Platform for Tonle Sap Lake, Cambodia	2016–2021	5 million
5	Agence Française de Développement (AFD)	Provincial Water Supply and Sanitation Project	2018–2021	1.2 million
6	ARES Project (ARES-CCD)	Academy of Research and Higher Education	2014–2019	1 million
7	World Education's EdTech Center and UNESCO	Basic Education Equivalency Program (BEEP): Basic alternative education to out-of-school youths at lower secondary level	NA	NA
8	KOICA	Project for Establishment of Incubation System Between Universities and Industries in Cambodia	2020–2024	NA
9	World Bank Loan	26 research projects, such as food contaminant analysis for better food quality in Cambodia and biotechnology for integrated pest management in Cambodia		7 million
10	JST/JICA	7 research projects and/or publications	2018–2019	NA
11	Wuhan University, China	2 research projects and/or publications	2018–2019	NA

12	The Academy of Finland	1 research project and/or publication	2018–2019	NA
13	Natural Environment Research Council (NERC) (UK)	1 research project and/or publication	2018–2019	NA
14	JICA	1 research project and/or publication	2018–2019	NA
15	Guilin University of Technology, China	1 research project and/or publication	2018–2019	NA
16	JSPS	3 research projects and/or publications	2018–2019	NA
17	BGF	7 research projects and/or publications	2018–2019	NA
18	Erasmus+KA2	1 research project and/or publication	2018–2019	NA
19	ASEAN-JAIF	1 research project and/or publication	2018–2019	NA
20	The Sud Expert Plantes Développement Durable Program (SEP2D)	1 research project and/or publication	2018–2019	NA
21	Pierre Fabre	2 research projects and/or publications	2018–2019	NA
22	Fyfe Asia Pte Ltd	2 research projects and/or publications	2018–2019	NA
23	Nikko-Kinzoku	1 research project and/or publication	2018–2019	NA
24	Asian Office of Aerospace Research and Development (AOARD), Air Force Office of Scientific Research (AFOSR), USA	1 research project and/or publication	2018–2019	NA
25	US Embassy, Cambodia	1 research project and/or publication	2018–2019	NA
26	The ABU Asia-Pacific Robot Contest (ABU Robocon)	1 research project and/or publication	2018–2019	NA
27	Waseda University	1 research project and/or publication	2018–2019	NA
28	Takahashi Foundation	1 research project and/or publication	2018–2019	NA
29	JURC for Zero-Emission Energy Research, Kyoto University	1 research project and/or publication	2018–2019	NA
30	ARES- CCD, SMART, EZYCOM and USAID	University-Industry Linkage Office	2018–2019	NA

Source: Compiled by authors based on data provided by ITC 2019.

ITC has gradually been developing itself as a research institute, having established its own Research and Innovation Centre (RIC) in 2015 with support from JICA. By April 2019, RIC had recruited 51 lecturer-researchers, ⁵⁴ bringing the total number of researchers to 90 (ITC, 2019a) who are currently leading and collaborating on 77 research projects in five areas: (1) water and environmental management, (2) food technology and nutrition, (3) material sciences and structure, (4) mechatronics and information technology, and (5) energy technology and management. Indispensable to RIC and its

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 $^{^{54}}$ A lecturer-researcher divides his/her work schedule for teaching and research by the 50–50 formula.

projects are support from and collaboration with international donors and partners, such as ARES-CCD (Belgium), AgroSup Dijon (France), AUF, JST/JICA (Japan), AUN/Seed-Net JICA, JSPS (Japan), Kanazawa University (Japan), Ambassade de France, INSA de Rennes (France), Australian Centre for International Agricultural Research (ACIAR) (Australia), Cambodia Development Resource Institute (CDRI), USAID (United States of America), US Air Force (USA), and Takashi Foundation (Japan), Kurita Foundation (Japan), UK Trust Fund, and Pierre Fabre (France).

A prime example of research collaboration is the SATREPS project, which involves 35 of its researchers and master's degree students, researchers and staff from RUPP, the Ministry of Environment, Ministry of Water Resources and Meteorology, and Tonle Sap Authority, and 31 Japanese project members from Tokyo Institute of Technology, Ishikawa Prefectural University, Toyama Prefectural University, Shimane University, University of Tokyo, Yamagata University, and the Institute for Global Environment Strategies (ITC 2019a).

4.5 Internationalization of Higher Education

Other than sending academic staff to pursue a higher degree in partner institutions and countries, with the launch of its PhD program in 2017, the institute has internationalized its education through its cotutelle programs and implementation of the co-supervision system. The report on the 2019 consortium meeting on international support identifies the cotutelle program as a dual education program, with students enrolled in such programs seeking to earn a double degree from ITC and partner universities abroad. In the 2018–2019 academic year, 16 students were enrolled in PhD programs. Of these students, 11 were in the cotutelle programs, with eight alternating their studies between ITC and universities in France, while the other three were completing theirs in Belgium.

As for the co-supervision system, five PhD students are co-supervised by ITC and partner-university professors yet are registered only in partner universities in France and Belgium. They received financial support from ARES-CCD, AUF, BFG, as well as ITC itself. The institute runs the PhD program in five specialized fields: (1) Water and Environment, (2) Food Technology and Nutrition, (3) Mechatronics and Information Technology, (4) Materials Sciences and Structures, and (5) Energy Technology and Management (Table 4.11).

Table 4.11: ITC's PhD Students in Cotutelle or Double Degree Programs, as of 2019

# of students	Sex	Type of diploma	Year of study	Source of finance	Remark			
Field: N	Field: Materials Science and Structures							
1	F	Double degree with UPS	PhD 2	BGF and ITC	Staff of ITC			
2	F	Double degree with INSA de Rennes	PhD 1	BGF and ITC				
3	M	Double degree with INSA de Rennes	PhD 1	BGF				
Field: H	Food Tec	hnology and Nutrition						
1	F	Double degree with University Nantes	PhD 2	BGF, AUF and ITC	Staff of ITC			
2	F	Double degree with Univ. Montepellier Sup. Agro	PhD 1	BGF and ITC	Staff of ITC			
Field: V	Vater an	d Environment						
2	M	Double degree with UPS	PhD 1	BGF and ITC	Staff of ITC			
3	M	Double degree with UPS	PhD 1	BGF and ITC	Staff of ITC			
Field: H	Energy T	echnology and Management						
1	M	Double degree with University Grenoble Alpes.	PhD 1	BGF and ITC	Staff of ITC			

Field: N	Field: Mechatronic and Information Technology							
2	M	Double degree with UMONS	PhD 1	ARES and ITC	Staff of ITC			
4	M	Double degree with UMONS	PhD 1	ARES and ITC	Staff of ITC			
6	M	Double degree with University Namur	PhD 1	ARES and ITC	Staff of ITC			

Source: ITC 2019a.

At the master's degree level, six programs are operating under the Graduate School, namely: (1) Civil Engineering, (2) Electrical and Energy Engineering, (3) Water Resources Engineering, (4) Agro-Industry and Environment Engineering, (5) Industrial and Mechanical Engineering, and (6) Information and Telecommunication Engineering. In total, there were 144 graduates (27 female) by the 2017–2018 academic year. The programs receive co-financial support from various partners/projects, e.g., from ARES-CCD (R2) of Belgium, AUF, Erasmus+, EU-AFD Project, Water and Society (WaSo) and the National Institute of Posts, Telecoms and Information Communication Technology (NIPTICT). This support is mainly in the form of student scholarships, staff and student mobility, and students' research activities.

In summary, ITC has received funding from various sources to enrich its graduate students' international education experiences. Table 4.12 recaps the funding sources, development areas, and the number of students by degree levels supported by such funding.

Table 4.12: Sources of Funding for Students to Experience International Exposure at ITC, as of 2019

No.	Funding source	Budget	Development area	# of Post- doc fellowship	# of Doctor/ PhD	# of Master's
1	ARES	NA	Local degree, and double degree with Université de Mons and University Namur		5	
2	AUF	NA	Double degree with Université Nantes		1	
3	BGF	NA	Double degree (Cotutelle program)		8	
4	University of De Liège	NA	Agricultural Science		2	
5	UCL	NA	Natural Language Processing		1	
6	ULB	NA	Civil Engineering and Food Engineering		2	
7	Montpellier SupAgro		Food Engineering			
8	ARES-CCD scholarships	1000 USD for tuition fee + 200USD allowance /month for 10 months	MMS, MWE	1		6
9	WaSo	1000USD for tuition fee + 200 USD allowance / month for 10 months	MMS, MWE			2
10	EU-ADF	1000USD for tuition fee + 200 USD	MWE			27

		allowance / month			
		for 10 months			
11	ARES-CCD	500USD for			6
	research funds	consumables			
12			Internship in Belgium		2
			for 3 months		
13	Erasmus+	Air ticket,			7
	scholarships	Assurance and 5			
		months allowance			
14	AUF-INSA de		Capacity building for		
	Rennes		teaching		

Source: Compiled by authors based on data provided by ITC 2019.

In the 2018–2019 academic year, the institute accepted 11 foreign students from France to conduct their internships. The students came from three universities: Aix-Marseille University, INSA de Rennes, and École Nationale Supérieure d'Ingénieurs du Mans (ENSIM). Four foreign students are studying at the institute. One student is French; the other three are Vietnamese (ITC 2019a).

With a partnership agreement in 2014 between ITC and Ecole Polytechnique ParisTech, intensive training conducted by French professors has been provided to ITC-eligible undergraduate students to prepare for exams to the highly selective and prestigious Grandes Écoles. Since the 2007–2008 academic year, 37 of its students have been admitted to the Grandes Écoles in France. Similar training has also been provided by the Embassy of Japan in Cambodia to prepare its students for Japanese government scholarship exams since the 2010–2011 academic year. Table 4.13 displays the number of students who have been awarded a Japanese government scholarship and the kinds of programs they have undertaken.

The use of English and French as the predominant mediums of instruction plays a key role in the internationalization of higher education at ITC.

Table 4.13: ITC Students Who Have Been Granted a Japanese Government Scholarship since 2010

				I	Programs				
Year	Research		Undergraduate		College of Technology		Specialized Training College		Total (ITC)
	Total	ITC	Total	ITC	Total	ITC	Total	ITC	
2010–11	9	0	0	-	0	-	2	2	11 (2)
2011–12	11	0	2	1	8	8	7	1	28 (10)
2012–13	11	0	0	-	14	13	12	3	37 (16)
2013–14	11	0	1	0	16	15	9	3	37 (18)
2014–15	12	2	2	0	15	12	13	7	42 (21)
2015–16	12	2	1	1	6	3	7	3	26 (9)
2016–17	12	3	1	1	7	4	10	5	30 (13)
2017–18	12	1	2	1	5	4	3	3	22 (9)
2018–19	12	5	1	1	7	3	5	0	25 (9)

Source: Consortium meeting on international support: Report of activities 2019.

Note: The number in parentheses indicates the number of female students.

4.6 Impact of Study Abroad

Through both short-term and long-term capacity-building plans, the impact of study abroad on the development of ITC can be observed at various levels, from the up-skilling of teaching and non-teaching

staff, classroom pedagogy and academic curriculum development, research projects and publications, and linkages with industries both within and outside of the country. Graduates from foreign partner countries have been promoted to take up leadership and management positions on boards of directors, or as directors, heads, and chairs of departments and centers. Curricula are regularly revised to keep up with international education as well as to ensure a smoother integration as students and staff are mobilized internationally and that, on their return, they provide input and experience to improve academic programs. New programs and even a whole new department have been implemented/proposed. This is a testament to the direct impact of studying abroad on ITC's development.

Study abroad returnees are also key players in renewing current collaborations and partnerships and bringing in new ones. Notably, many of its "study abroad" leaders, managers, and administrators are actively engaged in teaching and academic research. Their roles as lecturers, co-researchers, and mentors ensure that the knowledge, skills, and experience they have acquired through their study abroad are utilized in their work with international and local students and collaborators. On top of the scholarships, visits, and seminars abroad, donors of ITC also run local workshops and seminars for lecturers and students. Through the arrangements by the University-Industry Linkage Office, these lecturers, in turn, conduct meetings and give seminars to other students, industry people, and even other lecturers at the institute. The establishment of RIC in 2015 is another direct impact of studying abroad on its expansion in research and innovation. The ripple effect through skill transfer is also present in the industry as a good number of academic staff members from the institute have suspended their work to pursue a career in industry. A senior management member has observed that ITC's study-abroad researchers and skilled employees are among the most sought-after ones in Cambodia, thanks to their academic credentials, research capacity, and project/publication records.⁵⁵

The government has provided generous financial support: 350 million riels (over USD86,000) of its budget and seven million dollars through the World Bank loan for the institute and its research projects. While this figure is very impressive, international support remains indispensable for the development and sustainability of ITC as a science and technology higher education institute/research hub. With a clear strategy outlined in its 2019–2020 Strategic Plan, it aims to increase its PhD holding faculty members to 111 in 2023 (ITC 2019b). Together with its vision —to spearhead research and innovation in science and engineering in Cambodia and in the region—it continues to benefit substantially from study abroad initiatives and returnees from such programs.

International aid, partnerships, collaboration, and especially, study abroad initiatives in the form of long-term and short-term capacity building for staff and students continue to develop the human resources needed for it to run its academic programs, to connect the academy to industry in Cambodia. It also seeks to attract international development projects as a point of departure from which capacity building and institutional development activities can spring.

⁵⁵ An interview with a mid-level manager, March 13, 2019

5 Royal University of Agriculture

5.1 Overview of University Development History

RUA was established in 1964 as the Royal University of Agronomy Sciences, with the main technical support coming from France. After the genocide, it was put under the supervision of the Ministry of Agriculture and was reopened as the Institute of Agricultural Education in 1980 to offer short course training programs in agriculture. In 1985, it was renamed *Chamkar Daung* Institute of Agricultural Technology, receiving its support mainly from the Soviet Union, and hence, courses were offered in the Russian language. In 1990, Soviet support ended, and courses were offered in Khmer by local lecturers. It was transformed into a university and re-named the Royal University of Agriculture in 1994. Five years later, it became the first HEI to be transformed into a PAI HEI.

RUA is a specialized university focusing on agriculture. There are currently ten faculties and one graduate school. They are (1) the Faculty of Agronomy, (2) Faculty of Animal Science, (3) Faculty of Forestry, (4) Faculty of Agricultural Engineering, (5) Faculty of Agro-Industry, (6) Faculty of Rubber Science, (7) Faculty of Veterinary Medicine, (8) Faculty of Fisheries, (9) Faculty of Agricultural Economics and Rural Development, (10) Faculty of Land Management and Land Administration, and the Graduate School. Other dependent entities include the Division of Foundation Year, Division of Academic Affairs, and Division of Research and Extension. It offers mainly undergraduate degree programs, and its master's and doctoral degree programs started in 2002 and 2006, respectively. Although its main emphasis is teaching, the university is one of the most research-intensive HEIs in terms of the external funding available and the number of annual publications.

5.2 University Development Policies and Strategies

In recent decades, RUA has continuously developed its 10-year/5-year strategic plans to guide its development and provide a roadmap to achieve its vision and mission. The first ten-year plan ran from 2000 to 2010, and this was followed by a 5-year strategic plan spanning 2011–2016 (RUA 2018). The current long-range plan runs from 2017 to 2026. To implement the strategies set in the 10-year plan, a medium plan will be developed. The current strategic plan consists of three main goals that cascade into six strategic objectives, 49 strategies and 42 key indicators. Four of the 16 strategies and four of the 13 key indicators in Goal 2, which is to "Develop Human Resources and Infrastructure for High Standard of Education and Research," focus on HRD. The strategies are (1) to develop an HRD policy and plan, (2) to strengthen basic competence and diversity in the expertise of faculty members, (3) to continuously build capacity to increase interdisciplinary working ability, and (4) to differentiate staff and terms of reference between departments and laboratories within a faculty in order to establish a mechanism for senior-junior staff balance for continuous capacity building and sustainable availability of expertise. For the key indicators, they are (1) a recruitment and capacity development plan is developed and implemented, (2) the percentage of PhD holders among faculty members, (3) the percentage of faculty members who attended non-degree capacity building programs such as trainings, workshops and conferences, and (4) the percentage of faculty members involved in interdisciplinary research and extension programs. There is no detail given in the 10-year strategic plan on how to implement each strategy (RUA, 2017, 4). The university does not have a separate human resource policy or plan.⁵⁸

In 2018, the university had a total of 348 staff (31% female). Of these, 132 were full-time teaching staff (23% female), and 96 were part-time teaching staff (16% female). The number of full-time non-teaching staff was 120 and there was no part-time non-teaching staff (See Table 5.1). Table 5.2 shows that a majority of the teaching staff held master's degrees, i.e., 69% for full-time staff of whom 19% were female, and 74% for part-time (12.5% female). Few full-time non-teaching staff held doctoral and

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⁵⁶ Presentation by an RUA representative in a workshop organized by DGHE on February 18, 2019.

⁵⁷ http://www.rua.edu.kh/de aboutrua/22041992/about Accessed February 18, 2019.

⁵⁸ Interview with RUA senior staff, May 2, 2019.

master's degrees.

Table 5.1: Number of RUA Staff by Employment Status and Gender in 2018

Staff members	Total	Male	Female
Full-time teaching staff	132	101	31
	(100%)	(77%)	(23%)
Part-time teaching staff	96	81	15
	(100%)	(84%)	(16%)
Full-time non-teaching staff	120	57	63
	(100%)	(47.5%)	(52.5%)
Part-time non-teaching staff	0	0	0
Total staff	348	239	109
	(100%)	(67%)	(31%)

Source: Compiled by authors from data provided by RUA 2019.

Table 5.2: Number of RUA Staff by Qualification in 2018

Staff members	Total	AD/HD or below	Bachelor's	Master's	Doctor /PhD
Full-time teaching staff	132 (31)	0	14 (3)	91 (25)	27 (3)
(female)			11% (2%)	69% (19%)	20% (2%)
Part-time teaching staff	96 (15)	0	12 (3)	71 (12)	13 (00)
(female)			12.5% (3%)	74% (12.5%)	13.5% (0%)
Full-time non-teaching staff	120 (63)	41 (16)	61 (37)	13 (8)	5 (2)
(female)		34% (13%)	51% (31%)	11% (7%)	4% (2%)
Part-time non-teaching staff	0	0	0	0	0
(female)					

Source: Compiled by authors from data provided by RUA 2019.

Note: AD/HD = associate degree/ high diploma; numbers in parenthesis enumerate female staff.

As shown in Table 5.3, there were 11 foreign teaching staff and two non-teaching staff working at the university. All of the foreign teaching staff held a PhD (82%) or master's degree (18%). There were 19 inbound exchange staff and 13 outbound staff (three exchange staff, and five pursuing master's degrees and five PhD degrees) (Table 5.4). RUA does not have a dual or double degree program with any foreign HEI, nor does it have programs run in a foreign language. None of the programs (except for the Foundation Year) is accredited by the local accreditation body or any international or regional body.

Table 5.3: Number of RUA Foreign Staff by Qualification in 2018

Foreign staff	Total	Master's	PhD
Foreign teaching staff (female)	1 (3)	2(1)	9 (2)
	100% (27%)	18% (9%)	82% (18%)
Foreign non- teaching staff (female)	2(1)	1 (0)	1(1)
	100% (50%)	50% (0%)	50% (50%)

Source: Compiled by authors from data provided by RUA 2019.

Table 5.4: Number of RUA Exchange Staff in 2018

Inbound foreign exchange (female)	19 (9)
Outbound foreign exchange (female)	13 (5)

Source: Compiled by authors from data provided by RUA 2019.

The Strategic Plan of the university does not give any detailed activities to promote study abroad for its staff, nor does it indicate any budget allocations for staff to study abroad or for capacity building. In

practice, through MoUs and MoAs, RUA has expanded its partnerships with foreign partner HEIs and other international partners as a strategy to provide staff members with the opportunity to pursue education opportunities abroad and to attend overseas training, workshops and conferences. Through the bilateral and multilateral support arrangement, it has sent its staff abroad through numerous various scholarship schemes (i.e., as stand-alone programs or as components embedded in research projects/programs) as well as training programs.⁵⁹

5.3 Study Abroad of Faculty Members

Table 5.5 indicates that 70 of the Cambodian staff obtained their highest degrees abroad. Of these, 26 obtained PhD/doctoral degrees, 43 obtained master's degrees, and one received a bachelor's degree. The most popular destination countries were in the ASEAN region. Their specific fields of study were mainly in agricultural sciences, agricultural engineering, agricultural economics, livestock production, veterinary medicine, food sciences and other related fields. The university does not allocate its own resources to support the study abroad of its staff, either for long-term education toward a degree or shorter-term non-degree training. Instead, these staff received funding support from its partner HEIs, international networks and collaborations. These scholarships for overseas education are either embedded as part of the projects discussed in the following section or provided to the university by its partner universities in Japan, Thailand, and China. 60

Table 5.5: Overseas Countries Where Cambodian Staff of RUA Obtained Their Highest Degrees, as of 2019

Country of Destination	Doctor/PhD	Master's	Bachelor's	Total
Australia	3	1	0	4
ASEAN (Except Cambodia)	5	23	1	29
France	3	2	0	5
Japan	3	5	0	8
Germany	2	4	0	6
Spain	1	0	0	1
Sweden	1	0	0	1
Belgium	0	1	0	1
EU (Except members above)	3	2	0	5
Soviet Union/ Russia	1	0	0	1
USA	2	1	0	3
South Korea	2	4	0	6
Total	26	43	1	70

Source: Compiled by authors from data provided by RUA 2019.

The trends in the study abroad of its staff have changed quite significantly in terms of the destination countries, levels of degrees obtained, and areas of specialization. Many of the staff members went to selected countries in the EU and ASEAN, and this is mainly due to the funding availability and arrangements with the international partners. In recent years, there has been an increase in the number of staff holding PhD degrees, and noticeably the number of PhD-holding faculty members and opportunities for overseas education varies from one faculty to another. The following faculties are reported to have the most PhD holders and opportunities: the Faculty of Veterinary Medicine, Faculty of Agronomy, and Faculty of Agro-Industry. The Faculty of Agricultural Engineering and Faculty of Agricultural Economics and Rural Development are also observed to have many PhD-holding faculty members. The increasingly popular specific fields of study are livestock production, agronomy and food

⁵⁹ Interview with RUA senior staff, May 2nd, 2019.

⁶⁰ Interview with RUA senior staff, May 2nd, 2019.

processing, and agricultural sciences and agricultural engineering. 61

At the institutional level, there are no regulations or policies on duties of study abroad of staff members (for either the civil service staff or on-contract staff) upon their return to work. As a legal requirement, however, there is a contract regarding duties upon return between the Ministry of Agriculture, Forestry, and Fisheries and the civil service staff who pursue their education abroad. As noted above, the university does not have its own budget for staff's overseas education and training, and the pool of its civil service staff is small(er) and older. Therefore, two key HRD strategies are to increase the number of international partners, networks, and collaborators and the recruitment of on-contract staff, who are more energetic and competent. Reportedly, for RUA, there are few risks or major problems with studying abroad in terms of staff retention and turnover, such as brain drain to other training institutions and the private sector. However, this does happen to a small degree, given the "limited opportunities within the university" and better opportunities elsewhere. Some civil service staff are reportedly too old to pursue further education abroad and choose not to. 62

Many staff members are not willing or able to pursue degrees abroad, given their family situations and other personal commitments and capacities, especially in relation to foreign language proficiency.

5.4 International Aid

Table 5.6 shows the major networks and collaboration partners of the university over the past three years (2016–2018). In recent years, RUA has garnered increasing international support while establishing additional international networks and collaborators, especially in relation to research advancement and capacity building for staff and students. Financial support for joint projects and programs is covered by its partners and it generally only contributes in-kind support such as office workspace, staff, and administrative support. These major collaboration programs focus on institutional development, capacity building (scholarships and training), curriculum development, research capacity building, lab facilities, and value supply chains and smart agriculture.

Table 5.6: RUA's International Networks, Collaborators and Support (2016–2018)

No.	International Network/ Collaborator/Support	Collaboration Area	Funding Amount (In	Budget Contributed by	Funding Period
1	TIGA (II. d. I.	4 4 4 11 22 12	USD)	RUA	1.0
1	USA (Horticulture	1. Animal-horticulture	2,211,199.31	(Office, staff and	1–3 years
	Innovation Lab, Kansas	farming systems;		administrative	
	State University,	2. Living fences for		support)	
	Livestock Systems	improved livestock feed in			
	Innovation Lab, PEER,	Cambodian smallholder			
		systems;			
		3. Remote sensing;			
		4. Establishment of Centre of			
		Excellence on Sustainable			
		Agricultural Intensification			
		and Nutrition;			
		5. Pig health and nutrition:			
		the major drivers of			
		profitability and			
		sustainability for smallholder			
		farmers in Cambodia,			
		vegetable value chains etc.			

⁶¹ Interview with RUA senior staff, May 2, 2019.

⁶² Interview with RUA senior staff, May 2, 2019.

2	EU	1. Human resources	609,290.74	(Office, staff and	1–3 years
2	1. Universitat Rovira I	development and staff	009,290.74	administrative	1–3 years
	Virgili/Spain,	capacity building;		support)	
	2. LUNDS Universitet/	2. Learning by doing for		support)	
	Sweden,	improving agricultural			
	3. Universiteit GENT St	engineering;			
	Pieter/ Belgium,	3. Geometric database			
	4. CESKA	development;			
	ZEMEDELSKA	4. Doctoral program in			
	Univerzita V Praz,	Khmer universities for			
	5. MONTPELLIER	strengthening the			
	SUPAGRO/ France,	international development of			
	6. International	environmental and maritime			
	Committee on Food/ UK,	research;			
	7. Universitaetskasse	5. Enhancing smart			
	Bonn/ Germany,	agriculture practices by			
	8. SNV Netherlands,	reforestation for water saving			
	9. Universita DI PISA/	etc.			
	France,	Cic.			
	l '				
	10. Universite de VIA				
	RGF/ France,				
	12. University of				
	Canberra,, CIRAD				
	DECAISSEMENT/				
	France)				
3	International Fund for	Agriculture Services Program	756,462.49	(Office, staff and	1–3 years
	Agricultural Development	for Innovation, Resilience		administrative	
	(IFAD)	and Extension.		support)	
4	Korea (Kindai University,	Promoting Rainwater	364,668.69	(Office, staff and	1–3 years
	KOPIA, AGM SANDE)	Harvesting through High		administrative	
	,	School, Animal production,		support)	
		Potato Production,		FF)	
		Entomology etc.			
5	Japan	Promoting the Floating Rice-	225,250.39	(Office, staff and	1–3 years
	(1. Mitsui & Co., Ltd.	Based Agro-Ecological	223,230.37	administrative	1 5 years
	2. Environment	Farming Systems for a		support)	
	Foundation,	Healthy Society and		support)	
	3. Nagoya University,				
		Adaptation to Climate			
	NAGAO,	Change in the Lower			
	3. Institute for Global	Mekong Region, Capacity			
	Environment,	Development etc.			
	5. KYOKO SAIO,				
	6. YANMAR CO LTD)	7.111	00.505.51	(O.00)	1.0
6	China	Establishment of Chinese	90,293.51	(Office, staff and	1–3 years
	(1. Hainan University,	Learning Center; research		administrative	
	2. Tongji University,	finding dissemination		support)	
	3. Asian Vegetable				
	Research)				
7	Australia	Improving market	47,091.60	(Office, staff and	1–3 years
	(1. ACIAR, University of	engagement, post-harvest		administrative	
	Adelaide,,	management and		support)	
	2. Australian National	productivity, vegetable		"TT - 7	
	University,	industries etc.			
	3. Australian Center for	maasires etc.			
	Agricultural Research,				
	4. REDCLAW INK PTY				
0	Co. LTD)	Climata mailianas and	26 126 00	(Office staff and	1 *****
8	Food and Agriculture	Climate resilience, smart	36,126.00	(Office, staff and	1 year
	Organization (FAO)	agriculture etc.		administrative	
1	İ	i l		support)	1

9	Others	Hand and minds connected	333,623.11	(Office, staff and	1–3 years
	1. Universitat Bern/	to boost eco-efficiency in		administrative	
	Switzerland,	smallholder system		support)	
	2. Asian Institute of				
	Technology/ Thailand				
	3. MAFF-PSU,				
	4. ASEAN-India Green				
	Fund/ Indonesia,				
	5. CIAT ASIA/ Vietnam,				
	6. Embassy of Israel/				
	Thailand				

Source: Compiled by authors from data provided by RUA 2019.

Table 5.7 shows that many faculty members and staff of RUA have benefited from its international collaborators and networks in building capacity. Over the past three years, there were 14 doctoral scholarships and 19 master's degree scholarships provided by its international networks and collaborators, and 136 staff members attended short-term and medium-term capacity-building programs supported by its 13 collaborators and networks. There was no cost sharing from RUA. All scholarships and training for capacity building were directly funded by the collaborators and networks. There is no post-doctoral fellowship offered to the staff, and the short to medium-term training programs, which were numerous, were non-degree training programs.

Table 5.7: Capacity Building Opportunities Provided to RUA by International Networks and Collaborators (by Countries and Institutions Funding the Projects)

No.	Funding source	Development areas	# of Doctor/ PhD	# of Master's	# of Bachelor's	# of Non- degree	Others
1	EU	Rheumatic Technology and Polymers; Microbiology and Food safety; Cattle feeding and nutrition; Toxins and Pathogens; Topical and subtopical Agricultural Science; Medical drug experiments; Economy and Management Forest Science; Food Safety and Public health; Land management and land tenure Staff exchange program; Veterinary Medicine; Entrepreneurship; Teaching pedagogy; Food safety at Processing factory; Food safety and Analysis of Food Quantity; Erasmus+ Cooperation for Innovation and the Exchange of good practices Capacity Building in higher education; Short course for staff and alumni center; Theory of change and systematic control; Research support service and roundtable meeting; Erasmus Plus Mobility; Staff Exchange; TEEDE training	7	5		41	
		courses; Lecturers training					

2	Japan	Agricultural Science	3			
		Crop Science; Biological mechanism and Function;		3		
		Training at Nagoya			11	
		University; Exchange program in Science; Sensory				
		testing on rice quality through				
		cooking				
3	Southeast Asian	Food Science	1			
	Regional	Animal Science; Plant		7		
	Center for	diseases; Soil Science; Animal medicine; Food				
	Graduate Study and	Science				
	Research in					
	Agriculture (SEARCA)	Food value chain			6	
4	US	Plant diseases; Agricultural Science	2			
5	Australia	Agronomy and Plant	1			
		organisms				
6	Thailand	Fisheries Science;	2			
		Agricultural Engineering		2		
		Food processing chain;			4	
		Global health leadership; Silkworm; Diversified				
		Farming Practices using				
		Participatory Approach for				
		Food Security and Safety; Food value Chain; Food				
		Safety Management Tools in				
		Food Manufacturing; South				
		East Asia One Health University Network; Climate-				
		Smart Innovative Food				
		Preservation and Processing				
		Technologies Applied by Woman in Rural				
		Environments				
7	Korea	Animal Medicine; Food		2		
		Security and Agricultural Development				
		Busan International Training			25	
		on Agriculture; Potatoes				
		production Technology;				
		Training Program for Demonstration Village				
		project Saemaul Undong;				
		2017 Gyeong-Sangbuk-Do Agricultural Training				
		Program; Development of				
		Agriculture and Future				
		collaboration; Peace Education; 2018				
		Gyeongsangbuk-Do				
		Agricultural Training; The				

		Seventh Japan-China-Korea Grassland				
8	China	Agriculture data management system; Rain collecting and utilization for developing countries; Application and Development of Biogas Technology for the Treatment of Waste; Technical training on production and conservation efficiency for significant tropical crops in 2017; Plant Protection; Biogas Technology for Countries along Mekong River; Ocean Forecast Systems; Founding Ceremony of the Belt and Road /South-South Cooperation Agricultural Education, Science and Technology Innovation League; 16th International Symposium on JUNCAO Industry Development			37	
9	International Rice Research Institute (IRRI)	Rice crops diseases			1	
10	Indonesia	Summer school livestock; Reducing the loss of post- harvest agricultural products			2	
11	Malaysia	The 18th Asian-Australian Animal Production Congress			1	
12	Philippines	Global Farm Tourism Summit			1	
13	ADB	Use of equipment in the microbiology laboratory related to the health of plants, animals and food safety			7	
14	World Bank (MoEYS)	Toxic chemicals of Health	2	DIIA 2010		

Source: Compiled by authors from data provided by RUA 2019.

5.5 Impact of Study Abroad

The study abroad of faculty members is perceived to have a positive impact on different aspects of institutional development at the university. One of the noticeable instances is the increase in the number of peer-reviewed publications of the faculty members. Besides this, overseas-educated faculty members have also brought in new partners and initiated new research projects with international partners. Some have shared their knowledge and experiences abroad with faculty members in such areas as curriculum development and teaching pedagogy; thus contributing to the university's staff capacity-building initiatives. Some have also become engaged in partnership collaborations, conferences, research projects, development projects, and student exchange programs.

Study abroad of faculty members also has a positive impact on the public and private sectors, although this was not discussed in depth with the university. Some have transferred to work in other public or private institutions or provided consultancy services to these institutions.

Regarding the career trajectory of overseas graduates, a significant number have been promoted to various management positions within the university, ranging from the head of department or office to the rectorship. ⁶³ RUA is one of the two public universities that used to implement the professoriate system, and hence many of its staff have been promoted to the rank of professor.

 $^{^{63}}$ Interview with RUA senior manager, May 2, 2019.

6 Royal University of Law and Economics

6.1 Overview of University Development History

RULE was first established in 1949 as the National Institute of Law and Economics during the colonial period. After independence, it was integrated into the University of Phnom Penh (the predecessor of RUPP) as the Faculty of Law and Economic Sciences. After the Khmer Rouge genocide, it was reopened as the Administrative and Judicial School in 1982. It was transformed into the Faculty of Law a decade later under the supervision of the Ministry of Justice. In 1994, the economics program of the Faculty of Management (now the National University of Management) was moved into the Faculty of Law, and the faculty was renamed the Faculty of Law and Economics ⁶⁴ and was once again reintegrated into RUPP. In 2003, it was divorced from RUPP and upgraded to a university, bearing the name RULE ever since. Its latest milestone was its transformation into a PAI HEI, becoming a Cambodian "semi-autonomous" university in 2007 (RULE 2017, 2).

Like almost all public HEIs re-established in the 1980s, and as the name suggests, RULE is a specialized university with a core concentration in teaching law and economics. There are currently four faculties: the Faculty of Law, Faculty of Public Administration, Faculty of Economics and Management, and Faculty of Informatic Economics, and one Graduate Program. Other dependent entities include the Foundation Year Program, English Language Institute Cambodia (run by an international NGO), International Programs (in collaboration with universities in France and elsewhere with some technical support from France Embassy in Phnom Penh and are run autonomously - administratively and financially), and three centers: Center of Research in Law, Center of Research in Economics, and Education and Research Center for Japanese Law (RULE 2017, 2). The last research center is run by the Nagoya Asian Satellite Campus based in RULE, which started in 2008. The university currently runs bachelor's and master's degree programs, pending offers of a doctoral degree program in the near future. It is a teaching university with little focus on or investment in research. Programs are taught predominantly in Khmer, except for the few small international programs taught in English and/or French and Japanese. The former includes the French collaboration dual degree program, which offers bachelor's and master's degrees; a "multi-country cooperation program" offering dual master's degree programs in a few selected majors, and RULE's endogenous programs run in English: one 'autonomous program' in the name of English Language Based Bachelor of Law Program (ELBBL) and the other program run by the Faculty of Public Administration. The program with Japanese as a medium of instruction offers a certificate from Nagoya University and is run independently by the Satellite Campus.

6.2 University Development Policies and Strategies

One year after the passage of MoEYS's ESP 2014–2018, RULE issued its fleeting Strategic Plan 2015–2018 in 2015. Six of the 27 bullet-point "strategic" activities are related to staff and faculty development. They are to (1) conduct teaching methodology training, (2) provide research methodology training to lecturers, (3) create a performance appraisal and motivation system to improve performance, (4) improve capacity building of lecturing staff, (5) promote exchange programs for staff and students, and (6) organize field trips for staff and students (RULE, 2015, 5). The plan gives no details on how these points would be implemented. Another related document is the Guidelines on Revenue and Expenditure, endorsed by the governing board, which governs the institution's budget management. There is no separate policy or plan for human resource development and management.

According to Table 6.1, the university had a total of 609 staff members (29% of whom were female) in 2018. Of the total, 56 were full-time teaching staff, and 391 were part-time teaching staff. Like many

⁶⁴ Interview with RULE senior manager, May 11, 2019.

⁶⁵ According to the senior manager, at the time of writing, RULE is in the initial stages of preparing the next strategic plan, pending the passage of the MoEYS's ESP 2019–2023. Interview with senior manager, May 11, 2019.

other large public HEIs, RULE employs a large pool of sessional (part-time) teaching staff. The number of full-time non-teaching staff was 162 and the university employed no part-time non-teaching staff. Table 6.2 shows that the majority of teaching staff held master's degrees: 80% for full-time (23% female) and 73% for part-time (18% female). Few full-time non-teaching staff held doctoral degrees, and some one-third each held master's, bachelor's or associate degrees or lower.

Table 6.1: Number of Staff at RULE by Employment Category and Gender in 2018

	Total	Male	Female
Total staff	609	433	176
	(100%)	(71%)	(29%)
Full-time teaching staff	56	40	16
	(100%)	(71%)	(29%)
Part-time teaching staff	391	304	87
	(100%)	(78%)	(22%)
Full-time non-teaching staff	162	89	73
	(100%)	(55%)	(45%)
Part-time non-teaching staff	0	0	0

Source: Compiled by authors from data provided by RULE 2019.

Table 6.2: Number of Staff of RULE by Qualification in 2018

	AD/HD or below	Bachelor's	Master's	Doctor/PhD
Full-time teaching staff (female)	0	7 (2) 13% (4%)	45 (13) 80% (23%)	4 (1) 7% (2%)
Part-time teaching staff (female)	0	40 (5) 10% (1%)	284 (69) 73% (18%)	67 (13) 7% (3%)
Full-time non-teaching staff (female)	51 (36) 31% (22%)	48 (24) 30% (15%)	55 (13) 34% (8%)	8 (0) 5% (0%)
Part-time non-teaching staff (female)	0	0	0	0

Source: Compiled by authors from data provided by RULE 2019.

Note: AD/HD = associate degree/ high diploma; numbers in parenthesis enumerate female staff.

Of the total staff, 93 were foreign teaching staff, and four were non-teaching staff (Table 6.3). Many of these people have been loaned from overseas partner HEIs to teach the joint degree programs on an occasional basis, and a few of them managed the international degree programs. A significant number of foreign teaching staff held master's (58%) and doctoral degrees (33%). Besides this, there were 84 inbound exchange staff members and five outbound exchange staff (Table 6.4).

Table 6.3: Number of Foreign Staff at RULE by Qualification in 2018

	Bachelor's	Master's	Doctor/PhD	Total
Foreign teaching staff (female)	8 (4)	54 (19)	31 (8)	93 (31)
	9% (4%)	58% (20%)	33% (9%)	100% (33%)
Foreign non-teaching staff	0	4(2)	0	4(2)
(female)		100% (50%)		100% (50%)

Source: Compiled by authors from data provided by RULE 2019.

Table 6.4: Number of Exchange Staff at RULE in 2018

Inbound foreign exchange (female)	84 (26)
Outbound foreign exchange (female)	5 (0)

Source: Compiled by authors from data provided by RULE 2019.

International programs at RULE can be divided into two types. One is the endogenous program run by its very own faculty. There are two such programs: one on International Relations under the Faculty of Public Administration, while the other, started at RULE in 2002, is the English-based law degree program run autonomously. The other type is a dual or double degree program with other foreign universities. Three programs currently exist under such arrangements: the French cooperation program, the multi-country collaboration program, and the Japanese collaboration program. These programs are run separately, each with its own director/manager. Currently, nine areas of specialization are offered through the first two programs:

- 1. International master's degrees in business and management with a specialization in (i) Entrepreneurship and Project Management, (ii) Risk Management in Insurance, Banking and Finance, and (iii) Management and International Commerce–Information and Communication Technologies
- 2. International Bachelor's Program in Economics and Management
- 3. Master in International and Comparative Law with a specialization in International Business Law
- 4. Master's in Land and Patrimony Law
- 5. Master's of Public and International Law
- 6. Executive Master's of International Business Law
- 7. Bachelor of Laws (French Cooperation Program)

Source: Data from RULE 2019.

Like almost all academic programs at any HEI in Cambodia, none of the programs is accredited by the local accreditation body nor by any international or regional agency. However, according to the senior manager interviewed, the programs that are run in English and/or French, which have the curriculums designed by the partner institutions and which are the hallmark of the university, can be accredited "on their side."

The strategic plan makes no mention of activities or programs to promote the study abroad of faculty members. In practice, there is no institutional budget allocated to promoting staff's long-term or degree study abroad programs. Expansion of partnerships through Memorandums of Understanding (MoUs) or Memorandums of Agreements (MoAs) with international partners is reported as the strategy to expand staff opportunities to pursue education and training abroad. Thus, some opportunities for study abroad that are organized through the institution are available through this arrangement, with costs covered by the respective partners. Three or four staff members have gone on to pursue degrees abroad through such arrangements in the last few years. There are instances where RULE provides some inkind support, such as an air ticket for staff who go abroad to pursue degrees or for long-term training, but this is considered on a case-by-case basis by the board. Funding support is also available for short-term overseas training (i.e., less than ten days) or participation in international workshops/conferences, including for airfares, accommodation and a per diem, and is also considered on a case-by-case basis. Since 2013, the university has organized a short annual field visit for selected staff and faculty members to selected AUN members "to expose them to higher education development in the region." Around a dozen people join the trip each year.

6.3 Study Abroad of Faculty Members

Table 6.5 shows that 124 Cambodian staff members have obtained overseas degrees. Of this number, 26 earned PhD/doctoral degrees and 98 received a master's. The most popular country/bloc of destinations were France and ASEAN. The data on their specific fields of education obtained is not available but given the specialized nature of the university, they must be mainly in the fields of law, economics and the related fields of study. Given the absence of institutional funding and limited external

⁶⁶ Interview with senior manager, May 11, 2019.

⁶⁷ Interview with senior manager, May 11, 2019.

funding through RULE, these staff members most likely obtained funding for studying abroad through various bilateral and multilateral scholarship schemes discussed in another section above.

Table 6.5: Overseas Countries Where Cambodian Staff at RULE Obtained Their Highest Degrees, as of 2019

Country of destination	Doctor/PhD	Master's	Bachelor's	Total
Australia	1	9	0	10
ASEAN (Except Cambodia)	3	21	0	24
France	8	31	0	39
Japan	6	4	0	10
United Kingdom	0	3	0	3
Germany	1	0	0	1
EU (Except members above)	0	4	0	4
Soviet Union/ Russia	3	4	0	7
USA	2	10	0	12
Others	2	12	0	14
Total	26	98	0	124

Source: Compiled by authors from data provided by RULE 2019.

There are no regulations or duties for those studying abroad. This applied to the few lecturers who pursued their degrees through RULE. There are few risks or major problems resulting from study abroad, including staff turnover and retention, although brain drain to the public and private sectors exists to some extent. Many staff members are not willing or able to pursue degrees abroad, given their family concerns and other personal commitments and capacities, especially in relation to foreign language proficiency. ⁶⁸

6.4 International Aid

The data provided by RULE indicate that the university does not have any large-scale investment or funding from or collaboration with its partners. There are currently 41 active MoUs and MoAs.⁶⁹ The existing collaboration programs primarily focus on student and staff exchange, academic program development (such as curriculum development and joint degree programs), and to a lesser extent, research collaboration. Table 6.6 presents its major collaboration with external partners in the past three years.

Table 6.6: RULE's International Networks, Collaborators and Support, 2016–2018

No.	International Network/ Collaborator/ Support	Collaboration Area	Funding Amount	Budget Contributed by RULE	Funding Period
1	Université de Montréal (Canada)	Long-term student exchange (one semester or one year)	None	None	2016 (5 years)
2	Toulon University (France)	Support the economics programs	None	None	2016 (5 years)
3	Japan Foundation (Japan)	Providing one Japanese instructor to support teaching Japanese language	None	None	2016–2018 (collaboration continued on yearly basis)

⁶⁸ Interview with senior manager, May 11, 2019.

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⁶⁹ Interview with senior manager, May 11, 2019.

4	Seattle Pacific University (USA)	Establishing exchange programs in teaching and research	None	None	2016 (5 years)
5	University of Newcastle (Australia)	programs, research, knowledge and training exchange		None	2016 (5 years)
6	Tallinn University of Technology (Estonia)	Student and staff exchange	None None 2017 (3 ye		2017 (3 years)
7	Université Lumiere LYON 2 (France)	Collaboration on bachelor's program in law and economics	ram in law and		2017 (5 years)
8	Université JEAN MOULIN LYON 3 (France)	Student exchanges and research, symposiums, master's program in Land Law	ms, (5 y		2017 (5 years)
9	Université de la Polynésie (Tahili)	Collaboration in education, student exchanges, and other programs	None	None	2017 (5 years)
10	Hiroshima University (Japan)	Establishing student and staff exchange, research	None	None	2017 (5 years)
11	Ubon Ratchathani University (Thailand)	Collaboration on student and staff exchange in commerce, management, law, international relations, and development studies	ons, and		2017 (5 years)
12	Texas A&M University School of Law (USA)	Establishing collaboration in education	None	None	2017 (2 years)
13	Southwest University of Political Science and Law (China)	Collaboration on establishment of bachelor's and master's degree programs	None	(RULE is responsible for expenditure on sending staff to teach at SWUPL)	2018 (12 years)
14	University of Malaya (Malaysia)	Providing information on legal documents for development of taxation system	None	None	2018 (termination based on will of both parties)
15	Warmadewa University (Indonesia)	Collaboration in education	None	None	2018
16	Université Lumiere LYON 2 (France)	Collaboration in master's program in economics	None	None	2018 (4 years)
17	Raoul Wallenberg Institute (RWI) (Sweden)	Establishing Center for Studying Humanitarian Law, promotion of student and staff exchange to attend workshops, conferences and other study-related activities in and outside the country	None	None None	2018 (3 years)

Source: Compiled by authors with data provided by RULE 2019.

Over the past three years, RULE's faculty members and staff have, to an extent, benefited from support for capacity building from its international networks and collaborators. There were four doctoral scholarships and 62 participants in the short- and medium-term (up to six months) non-degree training

that was supported, in part or in full, by its 25 collaborators and networks. Notably, only four projects with a total of four awards focus on training toward a PhD degree, while the remainder are non-degree training. There is no coverage for specialized post-doctoral fellowships. As shown in Table 6.7, the focus is almost entirely on short- and medium-term capacity building, especially in research skills and teaching methodology, and to a lesser extent, library management and quality assurance. The support of each project covers only a few people, with many involving as few as one or two participants.

Table 6.7: Capacity Building Opportunities Provided by RULE's Partners and Collaborators

No.	Funding source	Budget	Development area	# of Post- doc Fellowship	# of Doctor/ PhD	# of Master's	# of Bachelor's	# of Non- degree	Others
1	IKID, Horizon 2020, EU project		Economics	0	1	0	0	0	2017 -18
2	Monash Graduate Scholarship (MGS)	\$26,288/ per year	Law	0	1	0	0	0	2016 -19
3	Queen Elizabeth Scholar (QES- AS)		Law	0	1	0	0	0	2017– present
4	Southwest University of Political Science and Law		Law	0	1	0	0	0	2016
5	Can Tho University & RULE	(cost sharing)	Librarian training	0	0	0	0	4	2018
6	SEAMEO RIHED		Quality assurance training	0	0	0	0	1	2018
7	Northwest University of Political Science and Law		Belt and Road International Cooperation	0	0	0	0	3	2018
8	RMIT University, Vietnam		Assessment in the Water and Natural Resources Management	0	0	0	0	1	2018
9	National Legal Institute Ulaanbaatar		Law	0	0	0	0	1	2018
10	AUN–QA and RULE		Quality Assurance	0	0	0	0	2	2018
11	JICA		Project on Development of Legal and Court Systems	0	0	0	0	8	2017 -18

12	China Law Society under Southwest University of Political Science and Law		Law	0	0	0	0	2	2017
13	AUN	(cost sharing)	Health promotion	0	0	0	0	2	2017
14	Swedish Government		Law (Intellectual properties) WIPO-PRV- Sida Advanced Training	0	0	0	0	1	2018
15	Raul Wallenberg Institute of Human Rights (Sweden)		Increasing quantity and strengthening quality of research and teaching methodology	0	0	0	0	12	2018
16	Demeter Gender, Land, and Right to Food Project		Increasing quantity and quality of research	0	0	0	0	2	2018
17	Vam Project		Increasing quantity and quality of research	0	0	0	0	2	2018
18	DOCKSIDE		Increasing quantity and strengthening quality of research and teaching methodology	0	0	0	0	1	2018
19	International Federation of Library Associations and Institution (IFLA)		Strengthening librarians' capacity in library management	0	0	0	0	1	2018
20	Horizon 2020		Increasing quantity and quality of research	0	0	0	0	1	2018

21	Centre for Human Rights, Multiculturalism, and Migration (CHRM)	Increasing quantity and quality of research	0	0	0	0	2	2018
22	Raul Wallenberg Institute of Human Rights (Sweden)	Increasing quantity and strengthening quality of research and teaching methodology	0	0	0	0	6	2017
23	Horizon 2020	Increasing quantity and quality of research	0	0	0	0	2	2017
24	Raul Wallenberg Institute of Human Rights (Sweden)	Increasing quantity and strengthening quality of research and teaching methodology	0	0	0	0	7	2016
25	International Red Cross and Red Crescent	Increasing quantity and strengthening quality of research and teaching methodology	0	0	0	0	1	2016

Source: Compiled by authors with data provided by RULE 2019.

Note: IKID = Institutions for Knowledge Intensive Development, EU = European Union, SEAMEO RIHED = Southeast Asian Ministers of Education Organization Regional Center for Education and Development, AUN-OA = ASEAN University Network Quality Assurance

6.5 Impact of Study Abroad

The positive impact of overseas graduates on different aspects of institutional development is, while varying from department to department, well evidenced, according to the senior manager. Perhaps the key impact is on educational academic program development and improvement in curriculum development, teaching pedagogy and quality management. That the courses in the International Relations Department are taught in English, for instance, was initiated by a former graduate from Japan; the Department of Financial Economics and the Department of Accounting Management were initiatives of graduates from France. With the knowledge and experience gained from studying abroad, returning staff can occasionally share their knowledge and experience, such as quality management and curriculum development, with other staff members as well. The impact on institutional research programs—including initiation of or collaboration on research projects with international partners and strengthening the research centers—may be minimal, although some overseas graduates have managed to publish individually.

There is evidence of overseas graduates promoting university social services, especially community services and voluntary activities. The Graduate Program, chaired by a graduate from Japan, is reportedly

one of the most active in organizing community services and engagement. The Land Traffic Club, run by graduate students under the program, has been organizing workshops for high school students at selected high schools for the past two years to share student knowledge about traffic laws. In recent years, the Graduate Program has also organized study trip-cum-charitable activities to various locations in Cambodia. In 2019, for example, it organized a study trip to a community in Kampot Province to plant mangrove trees and distribute study materials to students in a primary school. The contribution in the form of consultancy and advisory services through the university has been more limited.

Overseas graduates have organized international partnerships too. This can include partnering with their alma mater as well as other HEIs through their participation in conferences, workshops and meetings. This has increased institutional partners and benefited the institution, for example, by bringing in international experts and partner programs, as well as benefiting students and staff, especially in the form of student and staff exchanges. Partnership in joint research has been much more limited.⁷²

Overseas graduates have positive impacts beyond their institution, both in the public sector and private sector—an issue that was not fully explored in the interview. Public institutions such as the Ministry of Justice, Ministry of Land Management and Urban Planning, and Royal School of Administration, for instance, have occasionally requested speakers from RULE for their workshops or technical meetings. Private institutions have also benefited from individually arranged consultancies or teaching services provided by staff members.⁷³

In terms of career trajectory, a number of overseas graduates have been promoted to take up management positions within the university, ranging from the rectorship to departmental chair and administrative offices. Like almost all public HEIs, promotion to academic positions in the professoriate is yet to take place. Many former staff members of the university have left the university and served in various positions in the government at both the national and sub-national levels.⁷⁴

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⁷⁰ RULE. Summary Report on Community Activities of the Graduate Program: "Dissemination of Land Traffic Law" at Boeung Trabek High School. Phnom Penh: RULE, 2019.

⁷¹ RULE. Notification [on Study Tour to Kampot Province]. Phnom Penh: RULE, 2019. Interview with senior manager, May 11, 2019.

⁷² Interview with senior manager, May 11, 2019.

⁷³ Interview with senior manager, May 11, 2019.

⁷⁴ Interview with senior manager, May 11, 2019.

7 Concluding Remarks

This report provides a bird's eye view of the impact of studying abroad at both the national and institutional levels in Cambodia. The following are some broad observations that can be drawn from this study, as well as the authors' knowledge and understanding of the sector:

First, although there are more staff with local degrees, the number of staff members with overseas education at the four HEIs is quite large and has been increasing over the years. Such opportunities for overseas education and training are funded by bilateral and multilateral scholarship programs, with the exception of RUA, which also has a relatively large number of staff receiving scholarships from its partners' direct support and partners' projects implemented by RUA. The figure for overseas graduates nationwide is not available. The top five destination countries for Cambodians nationwide are Australia, France, USA, Thailand, and Viet Nam. For the four HEIs, the top destination countries for faculty members are selected EU and ASEAN countries, Japan, and Australia. This is understandable, given the availability of scholarships and projects funded by these countries. Notably, the pool of graduates from Russia, the former Soviet Union and other Eastern Bloc countries is small at the four HEIs as well as nationwide.

Significantly, there is no permanent national scholarship scheme or national fund for overseas education and training for HEI staff, although there are some ad hoc project interventions, notably HEQCIP and HEIP, which managed to send more than 200 HEI and MoEYS staff for overseas education toward a degree and a few hundreds for shorter-term training. Likewise, at the institutional level, the four HEIs allocate very little or none of their "own budget" for HRD—for both education toward a degree and shorter-term training and other professional development. At the national and institutional levels, there are no separate master plans or policies for HRD for the sub-sector and higher education internationalization, although the sub-sectoral and less so sectoral plans/policies and institutional strategic plans have some stipulations on human resource development and management and internationalization. In this regard, staff's capacity building and professional development are ad hoc and done at the availability of donors' funded projects and bilateral and multilateral scholarships and other funding schemes. Without the overarching national and institutional guiding policies and more importantly strategic financial investment, HRD in and for the sub-sector as well as for each institution takes a natural course.

In the absence or inadequacy of investment in staff development at the national and institutional levels, international assistance and investment (both bilateral and multilateral) to each HEI plays an important role in HRD for the sub-sector, both through the central government and in the form of scholarship programs. Such support and investment should be applauded and credited for higher education quality improvement (e.g., through filling in the gaps resulting from the government's limited investment). However, this also comes with its own shortcomings and costs, which may include uneven human resource investment across HEIs and across disciplines. For example, STEM-related majors and majors related to human rights and democracy for some scholarship programs and HEIs or programs offering STEM degrees or conducting STEM-related research are more likely to receive more funding; prioritization of human resource investment based on donors' agendas and interests, and the absence of nationwide prioritization of human resource investment to serve the long-term interest and needs of Cambodia (see also Un and Sok, 2022, Mak et al. 2019a).

At the institutional level, international partners, collaborators and support are numerous and highly diverse. Some come with large-scale and/or long-term investments, while others are short-term and/or small-scale. Understandably, in financial terms, ITC is the institution that receives the most support, RULE the least, and RUA and RUPP somewhere in between these two. At the national level, the World Bank has been the most significant and largely sole partner for higher education investment, although some other potential donors may want to and should consider investing in this sub-sector in the future.

The nationwide figures indicate that foreign staff remain limited in number and vary from HEI to HEI, while the figure for the total inbound faculty members on staff exchange is not available. At the four HEIs, perhaps with the exception of RULE, the number of foreign staff is still very small and variable.

The number of inbound faculty on staff exchanges is still low as well.

There have been quite a large number of overseas graduate alumni networks/associations, but seemingly only a few of them are "socially active and engaged" and publicly visible. Among the most notable are perhaps JAC, AAA-C, and FUSAAC. These alumni networks/associations mainly provide opportunities for networking among members, while some carry out frequent social engagement and charitable activities. Financial sustainability is apparently an ongoing issue for most of them. Their impact on society and national development is unknown but is perhaps limited. A similar conclusion may be reached regarding their impact on higher education development.

There are few publications on the impact of studying abroad at the national level as well as higher education development. According to the study sponsored by the Department of Foreign Affairs and Trade (DFAT), the impact of graduates sponsored by the Australian government on Cambodia's national development and the development of institutions has generally been positive, even though challenges remain. At the four HEIs, the impact of study abroad on institutional development, as well as career development and advancement, is perceived to be generally positive. While the number of PhD-holding faculty members at the four HEIs remains relatively small, the growth is significant and remarkable given the history of Cambodia. In absolute terms, ITC is notable for having the highest number of PhD-holding faculty members and for the clear strategic plan to increase the number of its PhD-holding faculty members within a specific time frame. Post-doctoral fellowships are notably absent at the four HEIs.

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