

## Chapter 2

# Arab Republic of Egypt

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### Introduction

Egypt, cradle of civilization and a beacon for science, genius of history and location, is the heart of the whole world. A site where civilization and cultures meet together and mix, the crossroads of maritime transport and communications. The head of Africa overlooks the Mediterranean, and the mouth of the greatest river, the Nile. Over thousands of years, Egypt has made important contributions to the development and progression of human societies and has been a pioneer in the field of scientific discoveries and innovations.

The ancient Egyptians held education in high regard and saw it as a privilege. “O’n” is the oldest university in history (Ain Shams University 2015). “O’n” University was established about 5000 years ago, and it had a wide fame as a centre of knowledge and learning, especially in astronomy, engineering, and medicine. Perhaps a perfect example of the knowledge and skill of “O’n” teachers is Imhotep, who was the chief priest, minister, and architect. In 2700 BC, he designed the first large structure of stone known in history, Zoser’s Step Pyramid in Sakkara (Ain Shams University 2015). About 250 BC, while Alexandria Lighthouse was emitting light to guide ships into the harbour, Alexandria Library emitted the light of science and knowledge to the whole world.

Al-Azhar University, founded by the Fatimids in 970 AD, is one of the oldest operating universities in the world. Initially, the system of study in Al-Azhar was similar to the modern education credit hour system. “Al-Sheikh”, equivalent to today’s professor, would sit on his chair giving lessons in his specialisation, and students chose which teacher they would like to join for learning. It is believed that today’s University Academic Chair has its origins in the “Al-Sheikh” physical chair.

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In the beginning of the nineteenth century, Muhammad Ali Pasha ascended to power in Egypt and his aspiration was to build a modern state. For this aim, he sought to transfer knowledge from the West to Egypt through three methods, which were schools, academic missions, and translations. Some of the schools established at that time turned out later to be faculties in modern universities such as Qasr Al-Aini Faculty of Medicine in Cairo University and Al-Alsun “Languages” Faculty in Ain Shams University. Through donations by the Egyptians, the first national Egyptian university, Cairo University, was founded in 1908. In 1919, American citizens founded The American University in Cairo, a not-for-profit university. It was the first private university in Egypt and stayed as the only one for a long time. To meet the increasing demand for higher education, the government established Alexandria University in 1942 and Ain Shams University (in Cairo) in 1950. In 1957, Assiut University, the first university in Upper Egypt, was founded. The policy of expansion in higher education started in the sixties. Today, there are 23 public universities in major cities across the country.

Higher education in Egypt was only for the elite, who could afford to pay university fees and expenses. In 1962, a governmental decree provided free tuition for all education from basics to higher education. That allowed a large number of different social categories to go into higher education. The government used to provide all funding needed for education. However, with increasing demand for higher education and need for enough funds to guarantee the quality of higher education, universities were allowed to provide some tuition fee programmes and encouraged to provide paid services to community and industry. In addition, in 1992, Egypt allowed the establishment of private universities. Studies started in the first four for-profit private universities in 1996. Today, there are 23 private universities. These private universities are under strict monitoring by the Ministry of Higher Education to guarantee quality of their programmes. In the academic year 2013/2014, the total number of students in these private universities was only slightly more than 110 thousand students, which is less than 7 % of the total number of students in the public universities and Al-Azhar university. However, they are considered a good addition to the higher education system, providing good quality non-traditional education programmes and easing the government burden of financing the free education in public universities. By law these private universities are obliged to offer certain number of free scholarships to distinguished students unable to pay fees.

## **Political System: General Overview**

Since Muhammad Ali Pascha seized power in Egypt, it stayed as a monarchy, which was inherited and ruled by members of his family until the 1952 revolution led by Gamal Abd El Nasser and the Free Officers Movement. In 1956, Nasser

became president, and his ruling was unchallenged until his death in 1970. Nasser reoriented Egypt away from the West towards neutrality. In 1965, Nasser nationalised the Suez Canal to fund the Aswan High Dam, after Britain and the United States withdrew financing. In the 1960s, Egypt had a leading role among Arab States and was a founder of the Non-Aligned Movement, currently joined by 120 members and 17 observers' countries. Nasser helped many countries, especially in Africa, to have their national independence and to end colonialism.

Internally, Nasser adopted socialist policies, including the nationalisation of industry and an ambitious welfare programme. However, he did not allow his opposition any power and suppressed his opponents from the leftist and Ikhwan (Muslim Brotherhood), the group formed in 1928 by Hassan al-Banna. The Ikhwan was initially aimed simply to spread Islamic morals and good works, but soon became involved in politics, and has always been involved in clashes with the authorities. There was a radical change in the Ikhwan ideology when its prominent member Sayed Kotb advocated the use of jihad (struggle) against jahili (ignorant) societies, which were both Western and so-called Islamic societies. He argued that these societies were in need of radical transformation. His ideas, which were developed in 1964, inspired the founders of many radical Islamist groups, including Islamic Jihad and al-Qaeda.

In 1967, Israel launched a preemptive attack and defeated Egypt, controlling the whole of Sinai up to the Suez Canal. However, Egypt never surrendered and Nasser started to rebuild the broken army. Nasser died in 1970 and was then succeeded by the Vice-President Anwar Al-Sadat. He continued the work for restoring occupied lands. In 1972, Sadat expelled Soviet advisors and reoriented Egypt towards the West. In 1973, Egypt went into a war to restore Sinai, which was fully restored through negotiations following the war and President Sadat's historic visit to Israel, which was the beginning of the process that led to the peace treaty in 1979. Many of the Arabic countries refused this treaty. Egypt was suspended from the Arab League until 1989 and Islamist extremists assassinated Sadat in 1981. Vice-President Hosni Mubarak succeeded him. President Mubarak re-imposed a State of Emergency, restricting political activity, freedom of expression, and assembly. During the last years of Mubarak's 30 year presidency, there was a growing alliance between authority and businessmen. There were preparations for his son, Gamal, to be the coming president, succeeding his father. Although the Egyptian economy was developing well, it was only for the benefit of the alliance of wealth and authorities, while the poor people were getting poorer.

Since 1992, Gama'a al-Islamiyya (Islamic Group) began five years of terrorist attacks on government and tourist targets, culminating in the killing of 62 people at the Luxor historic site in 1997. The Ikhwan was politically prohibited, but has continued to work underground, reaching people through charities and religious activities. Through this, it managed to win with a record of 20 % of seats by standing as independents in the 2005 parliamentary polls. The 2010 Parliamentary

polls, in which the Ikhwan failed to win a single seat, was followed by protests against alleged vote rigging. Protests and demonstrations culminated on 25 January 2011. Although Ikhwan did initially announce they were not going to share in the 25th activities, after its initial success, they joined on the 28th of January 2011.

In February, President Mubarak stepped down and handed power to the army council. The following three years saw the rise of the Islamists—the most organised group in the country at the time—to a backdrop of frequent outbreaks of violence. They did win a majority of the January 2012 elected parliament and their candidate, Mohamed Morsi, was elected president with a very narrow win in June 2012. The Ikhwan stayed in power for one year, during which they committed many faults (El-Sherif 2014; 9 Bedford Row 2015) and was seen by the majority of Egyptians as preoccupied with establishing political control rather than tackling economic and social problems. Things quickly got worse and on 30 June 2013, the Egyptians had their second revolution in less than three years when millions demonstrated across the country calling for Morsi to quit. The German Chancellor Angela Merkel in a press conference on 3 June 2015 stated that “30 million people demonstrating in Egypt shows it is a country that wants to find its own identity” (Merkel 2015).

The Ikhwan refused to accede to power and the country moved to the verge of a civil war. The Egyptian army supported the people’s decision to overthrow Mohamed Morsi and developed a roadmap, which was presented by the General Commander of the Armed Forces Abdelfatah Al-Sisi, in the presence of political and party representatives and of the Grand Imam of Al-Azhar and of the Head of the Coptic Church. That was followed by another wave of clashes and violence. In August, hundreds were killed as security forces stormed pro-Morsi protest camps in Cairo and some 40 Coptic churches were destroyed in a wave of attacks (BBC News 2015; State Information Service 2015a). Two from the three main landmarks of the roadmap were achieved. The new constitution represented different factions of the Egyptian society in January 2014, and Al-Sisi was elected as the president with an overwhelming majority in May 2014. What remained was to elect a parliament before the end of 2015. In the year following the election of Al-Sisi, many achievements were accomplished and the situation in the country has largely improved.

Some lessons have been learnt. If power and business are two sides of a triangle, corruption will be the third. The mix of money and politics is dangerous, and mixing politics with religion is very dangerous. In the absence of democracy, the nation is at risk. However, democracy is not just about elections. Ignorance and poverty would make democracy void. Therefore, to guarantee real democracy, good education is inevitable.

### ***Current Political and Security Situation***

Egypt has always been one of the safest locations for both inhabitants and visiting tourists. Cairo is known as the city that never sleeps and people used to walk safely

across its streets any time in the day and night. However, in January 2011 unknown assailants killed officers and soldiers and stole weapons. Simultaneously these individuals attacked police stations and prisons, allowing prisoners to escape. This had a very bad effect on the security and safety situation in the country for many years. Another source of security threat was the situation in border countries allowing the presence and infiltration of terrorists groups into the country. Security situations have much improved during the last year because of authority's stability, police empowerment and army blows at terrorists in Sinai and borders. Increasing numbers of tourists are a good indicator for security situation improvement. According to the official United Kingdom (UK) governmental foreign travel advice, "over 900,000 British nationals visit Egypt every year. Most visits are trouble-free" (Gov.UK 2015).

## Socioeconomic Background

The Egyptian economy is one of the Middle East's most versatile economies, which the sectors of agriculture, industry, tourism and services are engaged in comparable proportions in its basic configuration. According to 2010 estimates, the average number of the work force in Egypt is about 26 million, which is distributed on the service sector (51 %), agriculture sector (32 %), and the industrial sector (17 %) (State Information Service 2015b). Egypt's economy depends mainly on agriculture, petroleum imports, natural gas, tourism, culture and media production, as well as remittance from more than three million Egyptians working abroad, mainly in Saudi Arabia, the Gulf States, United States of America (USA), and Europe.

In the late 1990s, economic reform was introduced to meet the requirements of international institutions, lenders, and donors. The reform included greater incentives to the private sector in all economic activities. The result was an improvement in the economy. The average gross domestic product (GDP) growth over the period 2000–2010 was 4 %. However, Egypt's gains from annual growth rates benefited the rich, and failed to reduce poverty, which increased to some 50 % in 2011, leading to socioeconomic and political instability and the Arab Spring popular Revolution on 25 January 2011. Because of the following unrest, Egypt has experienced a drastic fall in both foreign investment and tourism revenues. Unemployment, total (% of total labour force), has increased from 9 % in 2010 to 12.7 % in 2012. GDP has dropped to just 2 % in 2011 and stayed that low for the following two years and only started to recover in 2013, after the second popular revolution on the 30 June 2013, with an expected big jump to 2.9 % in 2014 and forecast to approach the 4 % level in 2016 (World Bank 2015d).

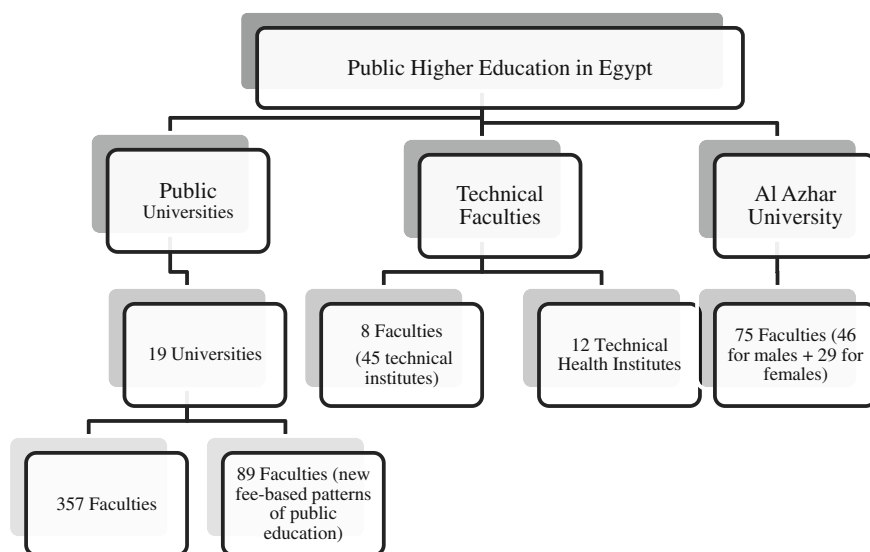
The key challenges for the government are addressing delayed long-standing structural challenges, corruption fighting, high unemployment reduction, and social justice achievement.

## Higher Education

### *Structure of Higher Education*

For students to join higher (Tertiary) education in Egypt, they have to pass a National General final examination (Thanawya Aama) or its equivalent, after spending 12 years of formal school education. Students have the option to join public or private education. Both are supervised by the Ministry of Higher Education, which is the main regulatory body for higher education. A third option is to join Azhar University, which is also a public university, but has its own governing system.

Figure 2.1 shows the structure of public higher education in Egypt. Besides Al-Azhar University, students can either join one of the 23 public universities located in main cities across the country or continue into vocational training institutes (2–4 years of study). The study period in universities is standardised in all universities, which is four years for most disciplines, five years for engineering, and six years for medicine. The Supreme Council of Universities (SCU), headed by the Minister of Higher Education is composed by public university presidents and up to five members from civil society. This council is responsible for supervising as well as setting out general policy and regulations for public higher education. It is also



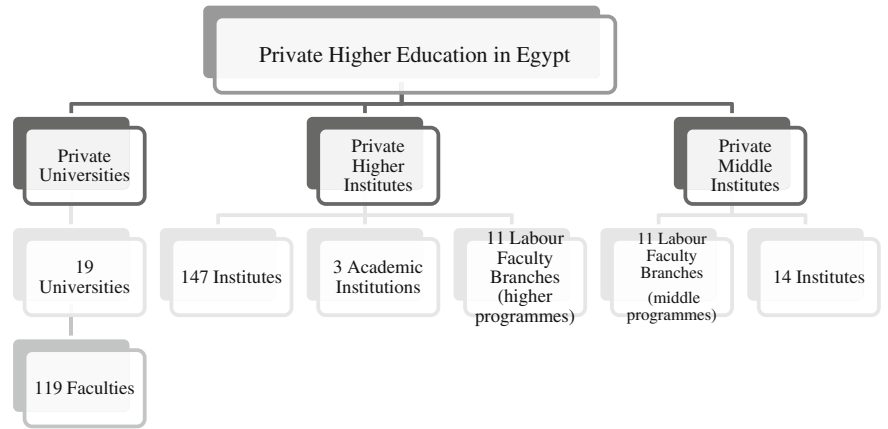
**Fig. 2.1** Structure of public higher education in Egypt. *Source* Strategic Planning Unit(SPU)/Ministry of Higher Education (MHE) (2013)

responsible for coordination between universities. In addition, it sets annually the number of students allocated to join each faculty. The SCU has a section that is responsible for equivalence of degrees attained outside Egypt to those obtained from Egyptian universities. In addition to first degrees, universities also award masters and doctorate degrees. Three vice-presidents assist the university president. For education and student affairs, postgraduate studies and research, as well as community services and environment development. In each faculty, the three similar vice-deans assist the faculty dean.

Figure 2.2 shows the structure of private higher education in Egypt. Currently (April 2015) there are 23 private universities in addition to the American University in Cairo. The Supreme Council for Private Universities—also headed by the Minister of Higher Education—is analogous to the SCU although private universities have more autonomy than public universities. Technical education is supervised by the Supreme Council for Technical Education, also headed by the Minister of Higher Education. The Central Administration of Al-Azhar Institutes supervises Al-Azhar University.

Annually about half a million students join higher education in Egypt, and the average number of students registered in higher education institutions is about two and half million students (SPU/MHE 2013). The gross enrolment ratio as defined by United Nations Educational, Scientific and Cultural Organization (UNESCO) Institute for Statistics has increased from 29 % to about 34 % during the period of 2003–2010. During the same period gross graduation ratio increased from less than 23 % to about 26 % (World Bank 2015a).

Challenges facing higher education in Egypt would be met by achieving Egypt’s higher education strategy objectives shown in Fig. 2.3.



**Fig. 2.2** Structure of Private Higher Education in Egypt. *Source* SPU/MHE (2013)



**Fig. 2.3** Egypt's higher education strategy objectives

### ***Higher Education Regulatory Framework***

The Ministry of Higher Education is the main regulatory body for higher education in Egypt. The ministry sets policies, oversees implementation, as well as supervising and coordinating all tertiary education. Three supreme councils, each headed by the Minister of Higher Education, aid the ministry, namely, the Supreme Council of Universities, the Supreme Council of Private Universities and the Supreme Council of Technical Institutes. The Central Administration of Al-Azhar Institutes governs Al-Azhar University. These councils are responsible for harmony between degrees offered by different universities and institutes.

The system for public universities is highly centralised, in particular regarding finance. However, universities enjoy more decentralisation regarding other aspects, such as administrative regulations, scientific research, and community service. In recent years, the system has allowed universities to offer fee-based programmes. The Supreme Council of Universities is at the top of governing bodies for public universities. Its roles according to the law are to set out the general policy for higher education in Egypt and link it to the needs of Egypt, as well as set up a general coordination policy between universities with respect to study periods, the academic year, examinations, and so on. Moreover, it is to coordinate between equivalent faculties and departments at different universities, set frameworks for internal by-laws of the universities and their faculties, and approve them. A new higher education by-law is under preparation. It will be a unified one for all types of higher education in the country and will provide autonomy, including financial autonomy, for different universities, as well as to allow for diversity.



## ***Gender in Higher Education***

Unlike many countries, higher education in Egypt does not have the problem of gender disparity. The interesting thing is that while there is a very slight disparity in favour of males in enrolment, the slight disparity is in favour of females upon graduation (World Bank 2015a). Not only is the graduation rate for females better than that of males, but in recent years females have achieved progressively better graduation grades and have occupied more advanced graduation ranks. This is reflected in the higher number of female assistant teaching staff relative to males. For the academic year 2011–2012, the number of male and female teaching staff in higher education was 35,303 and 18,757 respectively, while the number of male and female assistant teaching staff was 18,952 and 20,573, respectively (SPU/MHE 2013).

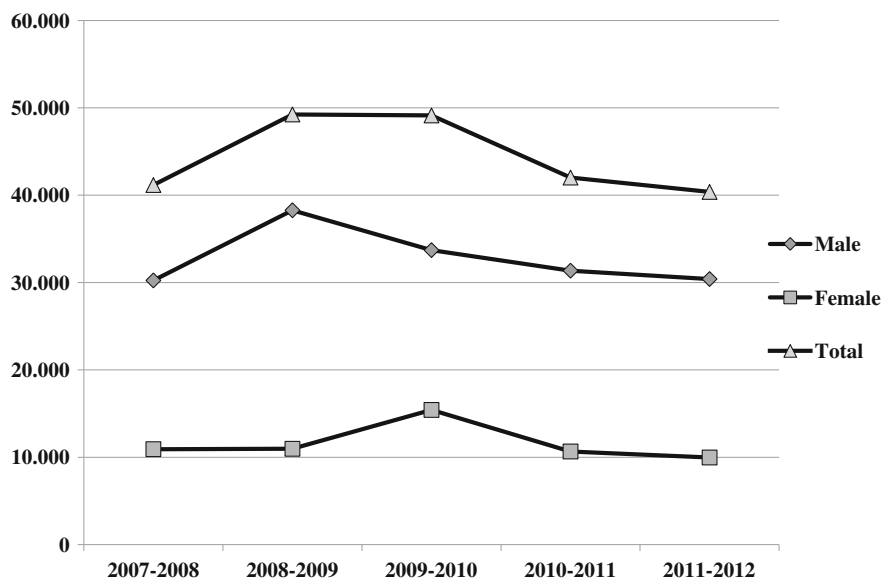
Sohair Al-Qalamawy was one of the first female students in Cairo University. In the early forties, she was the first woman to earn her masters and doctorate degrees, as well as, appointed as a lecturer in the university and later, the first head of department. Since then, hundreds of females have carried out their responsibilities as heads of departments, vice-deans, deans, and university vice-presidents in the Egyptian universities. Only as recently as 2009, Prof. Hind Hanafy, Alexandria University, became the first female university president in Egypt. She proved to be a very successful leader, where under her leadership, the research funding of Alexandria University increased more than five times, from about 8.7 million Egyptian pounds in 2007 to about 46.8 million in 2011 (Hind Hanafy, former president, Alexandria University, personal communication, March 6, 2015).

## ***Internationalisation of Higher Education***

Higher education in Egypt has had an embedded spirit of internationalisation for hundreds of years. Students from around the world, and particularly from Asia and Africa, would travel to Egypt to study in Al-Azhar University. In addition, staff members of Al-Azhar would regularly visit universities around the world to teach Islamic principles and the propagation of Islamic religion and culture. In the sixties, during the Nasser era, Egypt was generously offering scholarships for students from African, Arabic, and Islamic countries. Many of them became rulers and high officials in their countries in the following years.

QS Top Universities provides the answer to the question: Why study in Egypt?

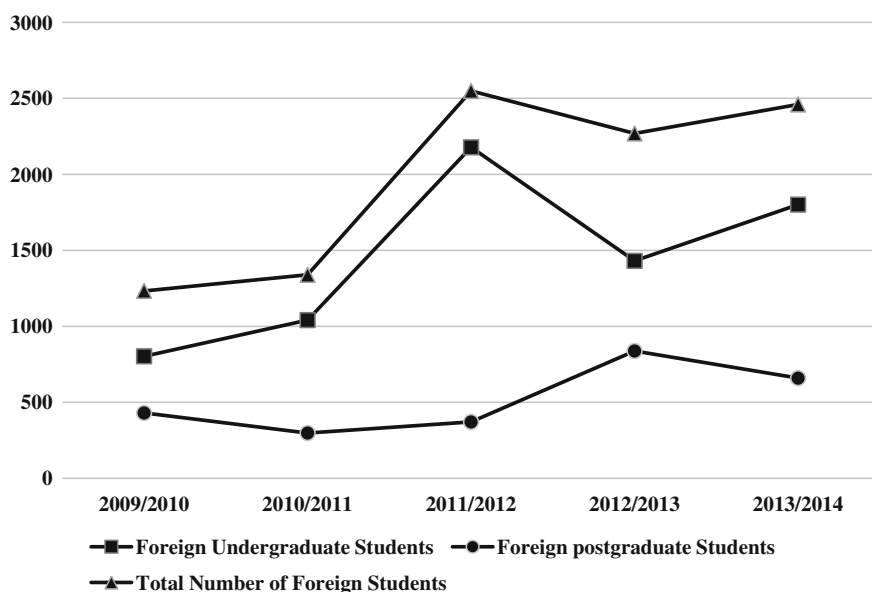
The relatively low cost of living is certainly a major factor for students thinking of studying in Egypt. Cairo received the highest score for “affordability” in the 2012 QS Best Student Cities, with only Mexico City coming close in this respect. However, while costs are an increasingly important issue for many students there is more to Egypt’s appeal as a destination for higher education, including five universities in the 2014/15 QS World University Rankings. (QS Top Universities 2015)



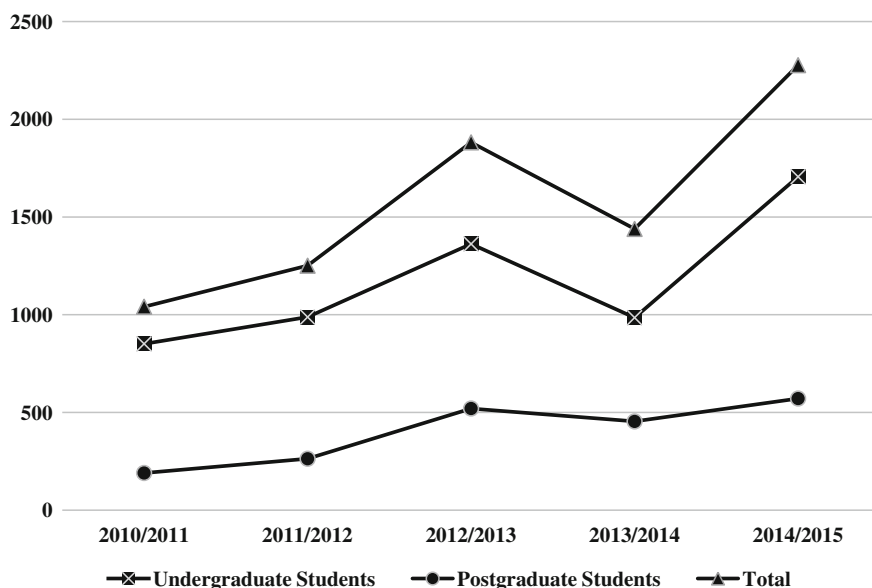
**Fig. 2.4** Number of foreign students in higher education in the academic years from 2007–2008 to 2011–2012. *Source* SPU/MHE (2013)

Figure 2.4 gives the number of foreign students in higher education in the academic years from 2007–2008 to 2011–2012. The number of female students is 20–25 % of the total number. The majority of foreign students are distributed nearly equally between Azhar University, Governmental Public Universities, and Private Universities (SPU/MHE 2013). The Ministry of Higher Education’s plan is to attract more foreign students to study in Egypt, targeting the number of foreign students to reach 200,000 in three years’ time (Al-Wafd 2015). Recently, a decree to restrict number of foreign students within any public higher education institution not to exceed 10 % of registered students was abolished (Youn7 2015). Many universities have programmes or specialised centres for Arabic learning for non-native speakers like the one in Mansoura University (Mansoura University 2015).

Changes in number of foreign students in Alexandria University (established 1942) and Zagazig University (established 1974) are shown in Figs. 2.5 and 2.6. The general trend in both the old and relatively recently established universities is the monotonic increase in numbers of foreign students from 2009 followed by a decrease in numbers, which is attributed to the unstable situation following the Arab Spring. The following situation improvements are reflected in the subsequent increase in numbers. The average number of countries of origin for foreign students in Alexandria University is more than 50 countries, indicating large diversity (Rouchdy Zahran, President, Alexandria University, personal communication, 20 March 2015).



**Fig. 2.5** Number of foreign students in Alexandria University during the academic years of 2009/2010–2013/2014. *Source* Rouchdy Zahran (President, Alexandria University, personal communication, March 20, 2015)



**Fig. 2.6** Number of foreign students in Zagazig University for the academic years of 2010/2011–2014/2015. *Source* Ashraf Al-Shihy (President, Zagazig University, personal communication, March 17, 2015)

The Central Administration for Foreign Students Affairs is the Ministry of Higher Education body concerned with offering foreign students educational, social, cultural, and recreational care (MHE 2015a). Egyptian universities welcome and encourage expatriate staff members for participation in teaching and research. Most of the Egyptian universities have their own Bureau for expatriate services.

As mentioned earlier, sending academic missions to Europe was one of the three methods of Muhammad Ali Pasha for the transferring of knowledge aiming in order to establish a modern state. Currently, Egypt is sending academic missions to many developed countries around the world to pursue postgraduate studies and do research. Some missions are supported fully by Egypt; others are supported by grants from the hosting country, fully or partially. Egyptian and foreign professors academically jointly supervise some missions. Table 2.1 indicates the progressive increase in number of Egyptian students in the United States of America in the years from 2005 to 2013.

General Administration for Missions and Academic Supervision is the Ministry of Higher Education body that prepares and implements the plan of overseas missions and study according to the needs of the country development plan (MHE 2015b).

Another feature of internationalisation of Egyptian higher education is the universities' branches abroad. Cairo University has had a branch in Khartoum, Sudan since 1955. Ain Shams University announced the beginning of the study in its University branch in Dubai at the beginning of September 2015. For many years, Alexandria University has had a branch in Beirut, Lebanon and currently has two African branches in N'Djamena, Chad and in "Tong" City in "Warrap" State—South Sudan. With the current increasing demand for higher education, opening branches for international universities that provide quality education in Egypt will be encouraged and welcomed. Such branches would attract many students from Egypt and other countries, particularly from the Arab region.

Institutes and departments dedicated to the study of international affairs are very important contributors to the internationalisation of higher education. The examples include the Cairo university centre for Languages and Arabic Culture, and its Institute of African Studies, as well as Research in Cairo University. Zagazig University hosts the Institute of Asian Studies and Research and the Institute of Near East Civilization as well as Fayoum University, which hosts the Institute for Research and Strategic Studies of Nile Basin Countries. The joint degrees programmes with international highly reputable universities are present in public and private universities and their number is increasing at a high rate.

In its effort for developing and modernising higher education, Egypt is cooperating, getting support, and actively participating in activities of International Organisations and Programmes, such as UNESCO, OECD, USAID and Fulbright of USA, TEMPUS, ERASMUS MUNDUS and ERASMUS+ of EU, DAAD of Germany, British Council UK, and JAICA of Japan. Egypt is cooperating with Arab countries through the Arab League Educational, Cultural and Scientific Organisation (ALECSO), and with Islamic States through the Islamic Educational, Scientific and Cultural Organisation (ISESCO). Egypt is actively participating with other African countries in TUNING AFRICA, an initiative that is part of the

**Table 2.1** Number of Egyptian students in United States for the years 2005–2013

Year	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Number	1509	1664	1766	1915	2271	2181	2201	2608	2832

Source: Institute of International Education (2014)

Africa-EU strategic partnership. This uses an internationally established methodology to enhance degree comparability, graduate mobility, and employability (Hahn and Teferra 2012).

There are 29 Egyptian Education and Culture Offices (EECO) in countries around the world, from Tokyo and Beijing in the east to Washington and Montreal in the west, as well as from Moscow and London in the north to Sanaa and Kano in the south. These offices are offering programmes, information, and support in all aspects of knowledge, culture, and education regarding Egypt and its international cooperation and relations.

### *Development of Higher Education in Egypt*

With the beginning of the current millennium, a national conference for the development of higher education held in February 2000 and national strategic vision for the development identified in the “leading role of higher education in the knowledge society, excellence and competitiveness, the base for innovation and creativity, locomotive for development” (Programme of Continuous Improvement and Qualifying for Accreditation [PCIQA] 2010). From the conference, 25 projects for development have emerged that include all development axes through legislative reform, institutional restructuring, the creation of an independent quality assurance mechanisms and the development of monitoring, as well as performance evaluation systems to be carried out in phases from 2000 to 2017.

Conducting a reform process is very similar to growing plants or fruits. You have to go through phases. Preparing the ground, weeding and removing pests phase, then the plants watering and fertilising phase before coming to the harvesting or picking fruits phase. I call the first phase of higher education reform in Egypt the “Quality Phase”. It took place in the period 2002–2007. The second phase was the “Accreditation Phase” in the period 2007–2012 and the third phase, the “Excellence and Internationalisation Phase” planned in the period 2012–2017.

For the first phase 2002–2007, national strategic themes included: meeting the demand for higher education quality and quantity, introducing quality assurance in higher education, getting maximum benefit of communications and information technology in higher education, establishing advanced research and postgraduate studies, capacity building and continuous development of human resources and leaderships, and integrative build up of higher education student capabilities academically, socially, and culturally within a developed environment of systems and regulations.

Priority areas (at the time) were identified and six major projects were launched. These six major projects are as follows:

1. Faculty and Leadership Development Project (FLDP)

This project aims to improve the institutional and professional capacity of institutions of higher education and the development of skills and competencies

of faculty members and leaders in particular, to enable them to keep up with the changes, cope with the competitive environment, and raise the efficiency of higher education outputs through improvements in the institutional and professional capacity of human resources in universities and institutions of higher education, upgrading capacity and self-development abilities of faculty members and their assistants to support the continued development of higher education institutions, enhancing leadership and management skills of academic and administrative leaders, so that they can achieve targeted change and continuous development and good preparation for academic staff assistants to pursue their academic and administrative careers successfully.

2. Information and Communication Technology Project (ICTP)

The second project targeted development of information and communication infrastructure, improving efficiency and automation of work in the departments of higher education institutions to take advantage of the information revolution and access information quickly and efficiently, as well as to link universities to the network of Egyptian universities and the national scientific research network along with the preparation of the university community to deal with the information technology revolution through upgrading and efficiency enhancement for the Egyptian Universities Information Network and universities local networks, implementation and use of management information systems in the universities and establishment of a Management Information Systems and Decision Support Center for the Supreme Council of Universities, developing new patterns of education, such as e-learning and distance learning to keep up with the pace of the international developments and meeting the growing demands for higher education, providing access to electronic information resources of books and research publications to all students and faculty members at Egyptian universities, raising the capabilities and skills of academic and administrative staff, in higher education and scientific research institutions to deal with the information and communication and multimedia technologies.

3. Quality Assurance and Accreditation Project (QAAP)

The third project aims to enable higher education institutions establish quality assurance systems, prepare, and qualify to apply for accreditation from the National Authority and ensure the quality of education through introduction and development of quality assurance and accreditation concepts in higher education institutions in Egypt, preparation for the establishment of the National Authority for Quality Assurance and Accreditation, dissemination of the culture of quality in higher education institutions, development of mechanisms to ensure the quality and competitiveness of the graduates of Egyptian universities on national, regional, and international levels, creation of national academic reference standards and means of measuring consistent with international standards and building institutional capacity of the faculty members to ensure the continuity of quality development in higher education.

#### 4. Faculty of Education Project (FOEP)

This project aims to guarantee good quality of students entering higher education through comprehensive development for faculties of education adopting international scientific and professional standards, while observing national and regional specific characters of each faculty. The development is a systemic one based on quality teaching and learning and total quality approach. To create an environment for development, the basis of which is a new vision for the faculties of education adopted by these faculties mission and its conceptual framework, to reform the preparation process for teachers in all its aspects, linking the reform process with technology and training, enhance professional development for faculty staff and their assistants, upgrade the infrastructure for faculty laboratories, ensure quality of education in faculties, link project activities with public schools education, and to establish a system for monitoring and evaluation.

#### 5. Enhancement of Technical Colleges Projects (ETCP)

The fifth project aims to develop technological colleges to prepare and qualify technical personnel in many disciplines serving economic sectors. Moreover, to become certified training centres serving diverse sectors of production and services, as well as young people, who wish to develop their skills and get license to practice the profession in different disciplines. There are also various aims, such as to develop the organisational structure of medium technical institutes and assemble these institutes in eight technological colleges, improve the performance of technical institutes by developing programmes, curriculum, faculty members' quality, workshops, and laboratories, improve the quality of graduates and equip them with the skills needed for the labour market, and to introduce channels for distance learning and continuous training for faculty members.

#### 6. Higher Education Enhancement Projects Fund (HEEPF)

This is a totally decentralised competitive project that allows staff members to participate in the development of their institutions and education process by applying their own ideas for development. The project develops the competitiveness of higher education institutions and supports decentralisation and administrative autonomy to enhance the quality, efficiency, and effectiveness of the system and institutions of higher education. This project aims to create a competitive environment for the development of higher education institutions (departments/faculties/universities), encourage decentralisation and autonomy of educational institutions and the continuity of the self-development of the educational process, improve the capacity of academic institutions to develop, as well as create, modern and innovative scientific disciplines, strengthen cooperation and integration between higher education institutions and industry, develop management information systems (MIS), and to upgrade infrastructure, laboratories, and workshops.

The Ministry of Higher Education established the central Projects Management Unit (PMU/MHE) to be responsible for all technical, administrative, and financial aspects of the development process, mainly financed through a loan from the International Bank for Reconstruction and Development (IBRD) with co-finance



from the Egyptian government. As outcomes of the development first phase and to guarantee sustainability and continuous improvement, many permanent bodies were established to be part of the higher education system. Similar to the central projects management unit (PMU/MHE), each public university had its own projects management unit (PMU) to oversee, monitor, evaluate, as well as assess all education enhancement projects and activities running within the university. It also aims to integrate those activities and support and promote more activities and funds.

The Ministry of Higher Education Strategic Planning Unit (SPU/MHE) had the task of planning based on real data and forecast for the future. It also had the responsibility of performing studies about higher education, as well as making results available for the decision-maker and the stakeholder community at large. The Ministry also established a central unit for training and human resources capacity building, Faculty and Leadership Development Center “FLDC”, established within the ministry of higher education and internationally certified as a training centre. In parallel with it, a similar centre for training and skills development was established in each public university, some of which were also internationally certified.

For assessment and evaluation research and activities, the Ministry established a central unit through the Egyptian National Centre for Measurement and Assessment Project (ENCMA). The centre played a major role in Egyptian participation in the OECD programme for Assessment of Higher Education Learning Outcomes (AHELO). For sustained and continued developments in the information and communication technology component, a dedicated unit was established in each university. These units are also the link between the university and the central units in the ministry and the supreme council of universities.

It is important to note that impact of these development initiatives was not limited to Egypt, but was transferred to higher education in the whole region. Nearly all the quality assurance systems that were later established in the Arab countries benefited from the Egyptian leading experience and got help and technical support from Egyptian experts in the field. Professor Nadia Badrawi, from Cairo University, is the founder and first president of the Arab Network for Quality Assurance in Higher Education (ANQAHE).

## *Quality Assurance and Accreditation*

For sustainability and continuous development in quality assurance, a centre for quality assurance and accreditation in each public university and dedicated units for the same purpose in nearly half the faculties were established. These units were responsible for all activities related to education quality and accreditation within the university and faculties.

By the end of 2007, the independent National Authority for Quality Assurance and Accreditation of Education (NAQAAE) was established as an accrediting body for all Egyptian educational institutions (higher education that embraces faculties, academies, in addition to higher, middle institutes and technological faculties, pre-university, and

Al-Azhar education) according to law No. 82 for year 2006. In year 2007, the Presidential decree number (25) was issued to declare NAQAAE's executive by-laws.

NAQAAE, the first accreditation agency in the region, is an independent governmental entity under the Prime Minister's governance and not affiliated to any ministry. Its board involves selected members from educational experts, businesspersons, and entrepreneurs. NAQAAE's main role in the evaluation and accreditation of higher education institutions is to verify their fulfilment of criteria covering various areas of the activities of higher education institutions, including teaching and learning, research, as well as community service. This assessment is based on institutional mission within two main areas: Institutional Capacity and Educational Effectiveness against pre-set standards. These 16 standards allow for the comprehensive self-evaluation of the educational institution.

Eight standards for institutional capacity are as follows: 1-Strategic Planning, 2-Organisational Structure, 3-Leadership and Governance, 4-Creditability and Ethics, 5-Administration, 6-Resources, 7-Community Participation, and 8-Quality Systems Management. Eight standards for educational effectiveness are as follows: 1-Students and Graduates, 2-Academic Standards, 3-Educational Programmes, 4-Teaching, Learning, and Resources, 5-Academic Staff, 6-Scientific Research, 7-Postgraduate Studies, and 8-Continuous Assessment.

The evaluation process depends on documents and evidence. Surveys are conducted to recognise the opinions of students, teaching staff, employees, and community parties and are a fundamental part of the evaluation process. NAQAAE shows interest in the sustainability of the evaluation process during the accreditation validity period through the annual reports of institutions and monitoring visits to assure the sustainability of the institutions' right to gain the society's trust.

## ***The Second Phase of Development of Higher Education in Egypt***

Evaluation and impact assessment for the first phase of higher education development were performed both by the strategic planning unit of the Egyptian Ministry of Higher Education (SPU/MHE) and by the World Bank. The results were encouraging to continue in the development process through the second phase.

The second phase of the strategic plan (2007–2012), had the strategic objective of:

to establish the basis for a value added higher education system. The system would drive and meet the development requirements, which were competitive and dependent on internal capacity for continuous improvement through the achievement of high efficiency of the system with a variety of funding sources, and real quality in the educational process components based on national standards compatible with international standards. (Abdellah 2010)

The specific objectives of this phase of development were to achieve an appropriate level of developed governance system for higher education system in Egypt, ensure the independence and flexibility in the performance of higher

education institutions, to coordinate with pre-university education system, to achieve the desired quality in the academic and institutional performance as well as obtain local accreditation and international recognition, to establish effective research base in higher education institutions that have a role in the national growth and development, contribute to quality education, and let Egypt have an advanced scientific rank on the regional and international level, to achieve societal aspirations in financing higher education and agree on the scientific actual formulation for the cost of higher education, to improve the competitiveness of higher education institutions locally, regionally, and internationally. In addition, to highlight areas of excellence to attract foreign students and utilise across the borders education, to harmonise and coordinate with higher education areas in the world, to achieve high technical education that meets the development requirements and labour market needs, to develop the faculties of science, arts and education to be a base for developed education and scientific research, and to create integrate approach for students' support that develops their personalities.

These objectives would be achieved by continuing human resources capacity building through the central and universities' Faculty and Leadership Development Centres. The information and communication technology project (ICTP) will continue the developments in networks and data centres, managing information systems, e-libraries and automation, e-learning, as well as university websites, gates, and training. The support for faculties of education and technical colleges would continue to achieve targeted development objectives. The primary focus will be on quality, continuous improvement, and qualifying for accreditation.

In the second phase of Higher Education Reform Strategic Plan (2007–2012), the Programme of Continuous Improvement and Qualifying for Accreditation (PCIQA) was the main component. PCIQA projects were executed in public Egyptian higher education, which institutes the mission of reaching a self-activated institutional ability capable of carrying out continuous improvement, as well as achieving academic and institutional quality assurance with high competitive ability and qualifying for accreditation. Specific objectives for PCIQA were attaining effectiveness and sustainability of the first phase (2002–2007) quality assurance established systems, establishing and implementing the internal QA system in all public higher education institutes, applying the academic standards system for undergraduate and postgraduate educational programmes in all public higher education institutes, qualifying public higher education institutions for accreditation within the general framework of continuous improvement, raising the efficiency and gaining international accreditation of a number of laboratories as well as scientific and research centres in public universities, upgrading the faculties and institutional capacities in basic sciences sectors, developing academic programmes in fields of priority, and developing the student assessment systems and increasing the educational efficiency within higher educational institutions.

These objectives were accomplished through the set of competitive projects and awards listed in Table 2.2.

PCIQA is funded totally by the Egyptian government by one thousand millions Egyptian pounds over five years. The principle of co-financing by universities,

**Table 2.2** Competitive projects and awards of the programme of continuous improvement and qualifying for accreditation (PCIQA)

Number	Names of projects and awards	Objectives
1	Sustainable follow up of quality assurance and accreditation project phase I	To guarantee sustainability, effectiveness and improvement of outcomes of the development first phase
2	Internal quality assurance and auditing system project—phase II (QAAP2)	To achieve establishing internal quality systems in all public higher education institutions
3	Continuous improvement and qualifying for accreditation project (CIQAP)	To support institutions' preparation for applying to NAQAAE for accreditation, within the framework of continuous improvement concept
4	Developing academic programmes for accreditation project (DAPAP)	To support academic programmes' preparation for applying to NAQAAE for accreditation, within the framework of continuous improvement concept
5	Higher education institutions' labs accreditation project (HLAP)	To support measurements laboratories serving industry, research and community for international accreditation from an international accrediting body (e.g. The American Association for Laboratory Accreditation (A2LA) or The Egyptian Accreditation Council, EGAC) according to the ISO 17025. This implies that measurements of this laboratory are internationally accepted
6	Development of student assessment systems project (DSASP)	To establish the centres for assessment and evaluation research, innovation and activities in universities
7	Infrastructural quality related projects (IQRP)	To support university or faculty infrastructure for priority sectors
8	Monitoring and evaluation of new programmes project (MENPP)	To monitor and evaluate the new experimentation fee-based academic programmes within public universities
9	Quality assurance students' projects (QASP)	To achieve active participation of students in their institutions' development. Students' ideas for development are translated by them into complete projects applications with logical framework matrix of objectives, outcomes, indicators, activities, responsibilities, time frame, and budget. Successful applications are funded and the project is run and administered exclusively by the students
10	Quality assurance centres' support projects (QACSP)	To provide support for quality assurance centres in universities to achieve development plans for their university

(continued)

**Table 2.2** (continued)

Number	Names of projects and awards	Objectives
11	Applied scientific research project (ASRP)	To enhance research serving the needs of industry and service-providing organisations. The problem definition is in collaboration with the beneficiaries who participate in funding
12	Excellence in scientific publication awards (ESCPA)	To provide awards for the best scientific publications in the country over the year. The evaluation criteria is the periodical “Eigen Factor” and number of citations reported in ISI Web of Science and/or Scopus. Half the value of the award is given to the authors and the other half is for upgrading the research laboratory facilities and its needs provision
13	Innovation in teaching and learning awards (INTLA)	To provide awards for the best-applied innovative ideas in teaching and learning. We adopted The World Bank concept of “Inclusive Innovation” that is cost-effective innovation that brings a vast amount of benefits to a large number of people for very little cost. Half the value of the award is given to the staff members, who suggested and successfully implemented the innovative ideas and the other half is used for upgrading the faculty or department infrastructure and its needs provision. The good ideas are disseminated for application in other institutes

where projects are running, was introduced to increase the ownership. All PCIQA projects are competitive. Faculties submit implementation action plans aiming at specified development based on the annual progress reports, the peer-reviewing reports and the SWOT analysis, as well as, at the same time, complying with a specific strategic plan for improving the faculty. PCIQA sets the submission and application regulations, as well as the evaluation criteria for the submitted work plans from the faculties. PCIQA sets monitoring and evaluation mechanisms for the accepted work plans, which are complying with specific strategic plans for improving the faculties. In addition, PCIQA makes available databases and pre-studies, as well as conducting regular progress reports and conducts impact assessment studies on faculty, university, and higher education system level. PCIQA took the initiative to develop an improvement monitoring tool to be used by institutions for self-improvement monitoring. The Balanced Scorecard (BSC) approach was used for developing this tool (Radwan and Eltobgy 2012). Projects were very successful in producing tangible improvements in all aspects of higher education in universities across the country.

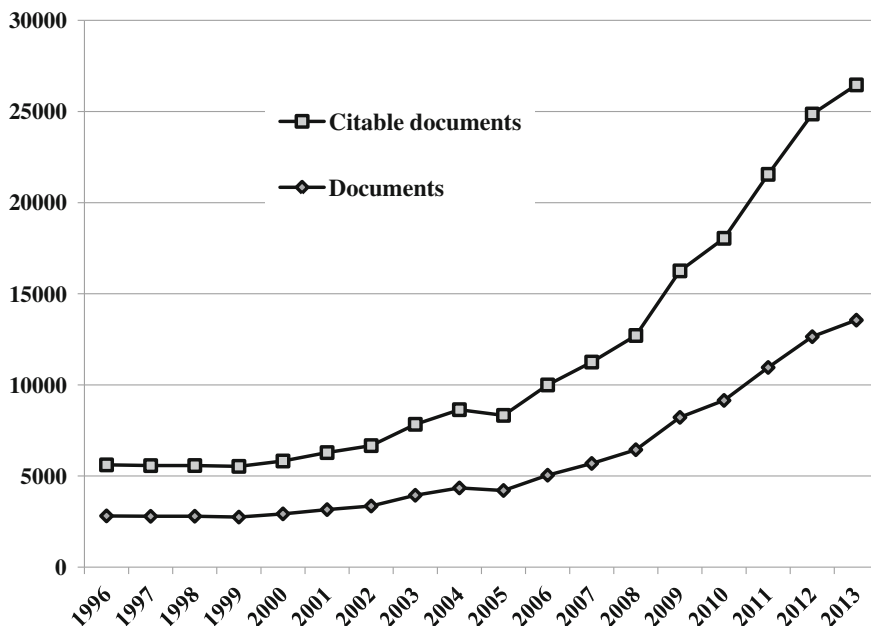
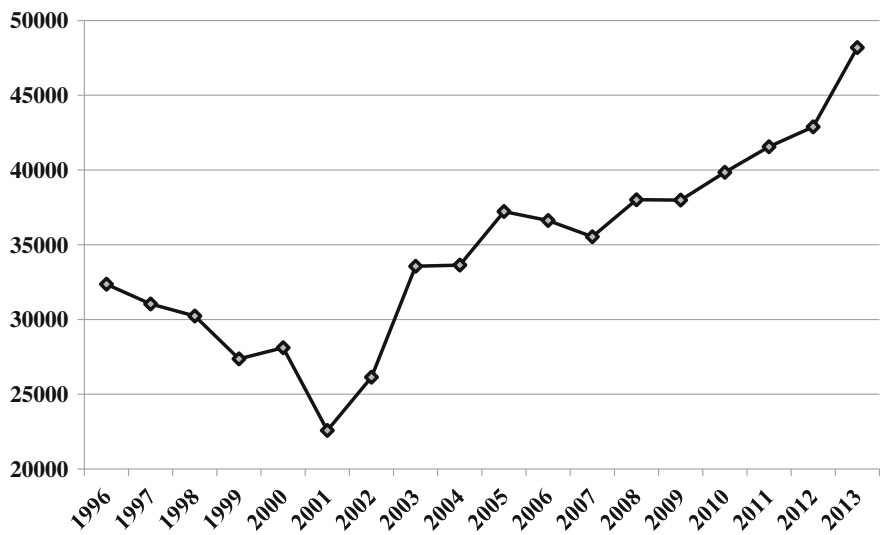


Fig. 2.7 Number of Egypt published and citable documents. *Source* SCImago (2007)

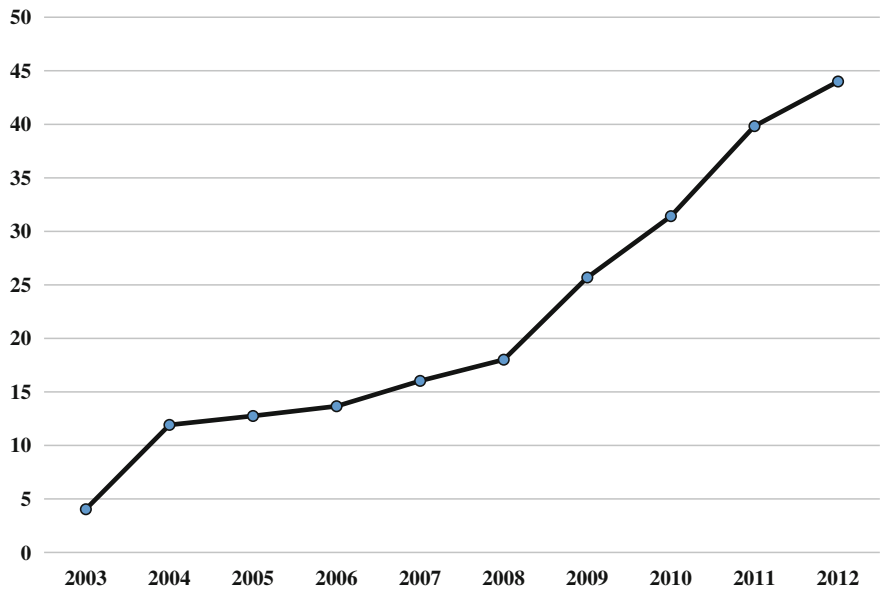
Figure 2.7 shows development of number of Egypt published and citable documents. The continuous increasing rate starting with the beginnings of the higher education development process is remarkably clear. Not only the number of documents published was continuously increasing, but also as shown in Fig. 2.8, there was a parallel increase in the rate of international collaboration, especially from 2001 onwards. Prior to that, there was lack of support or interest for scientific research in universities.

The impact of the higher education development has extended to the Egyptian society and economy. At the time of beginning of education development projects, early in the 2000, there were only few providers for internet connections in Egypt and the service cost was relatively high and not affordable to an average income family. At that time and through development projects, infrastructure for connecting universities to the internet was funded, computer laboratories were established within universities, as well as, free connection to the internet was available to hundreds of thousand students and staff members in all universities across the country. That was the beginning of a growing culture and the growth of internet users (per 100 people) in Egypt concurrent with the higher education development process as shown in Fig. 2.9.

Moreover, through development projects, many computers and general and specialised software programs were provided to universities, and students received free training for using them. All that together with the expansion in faculties of computer science and informatics provided the skilled manpower that, helped by



**Fig. 2.8** Number of Egypt published documents through international collaboration. *Source* SCImago (2007)



**Fig. 2.9** Internet users (per 100 people) in Egypt. *Source* World Bank (2015a)

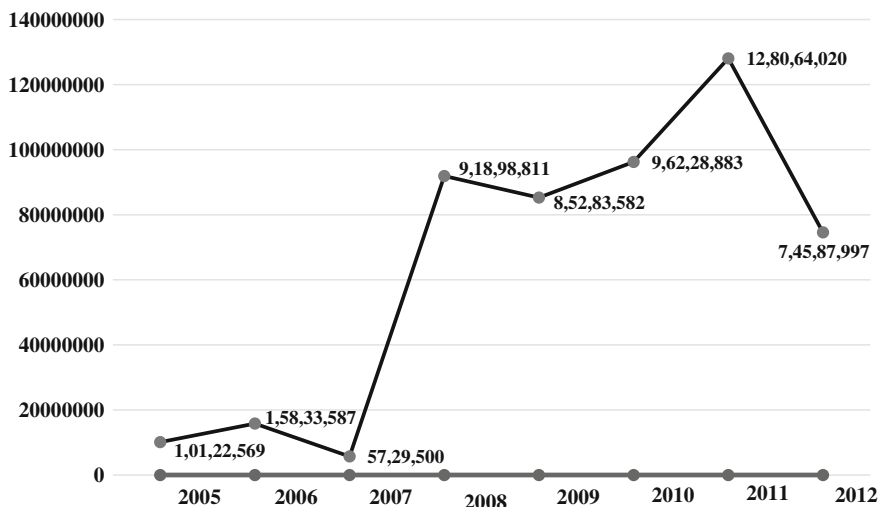


Fig. 2.10 Egypt high-technology exports. Source World Bank (2015b)

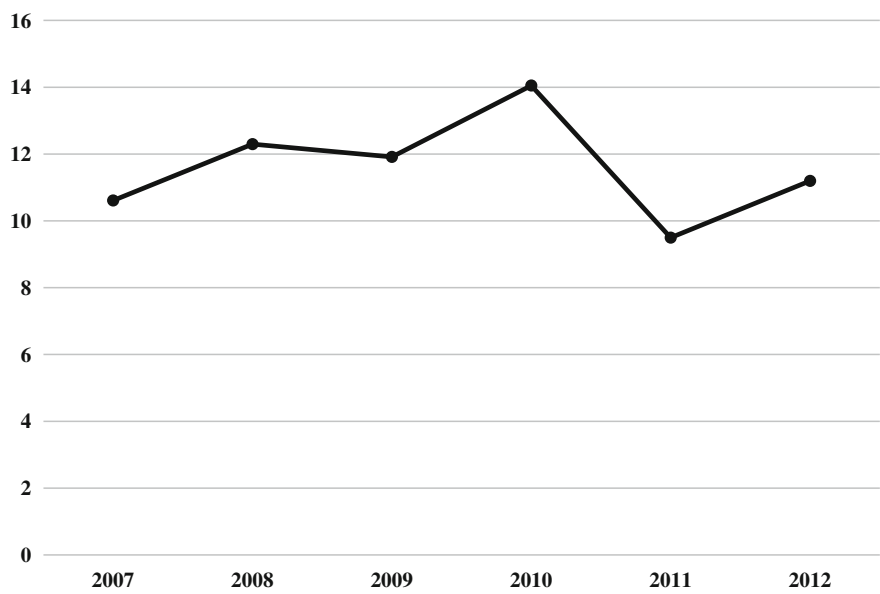
successful supporting government policies, were behind the growth in the high-technology industry and the enormous continuous rise in Egypt high-technology exports starting in 2007 shown in Fig. 2.10.

### ***Arab Spring and Higher Education***

In the beginning of 2011, while evaluating the higher education development process and in preparation for the third phase, was the Arab Spring when large masses of Egyptians, most of whom were youth (students and graduates), went to the streets on 25 January 2011 upon a call on the internet, demonstrating and shouting “bread, liberty, and justice”. However, importantly, the higher education developments in the previous years leading up to the Arab Spring were one of the main enablers of crucial influence for the uprising in two aspects. First, the concepts introduced and implemented for the first time of students evaluating programmes, courses and professors’ performance within the quality assurance, as well as accreditation procedures, encouraged the young people to start questioning and evaluating the ruler and government performance. Second, the unprecedented developments in the information and communication infrastructure and training within universities, as well as the availability of the internet and social media programmes for students to connect, discuss, and exchange ideas and plans. No wonder the uprising is called “The Facebook Revolution” (Iskander 2011).

Exactly like when a gardener is preparing to cultivate his crops and is surprised by unpleasant weather conditions, the Arab Spring turned out to be a windy one (BBC News 2015). As a result, it was not only higher education development that





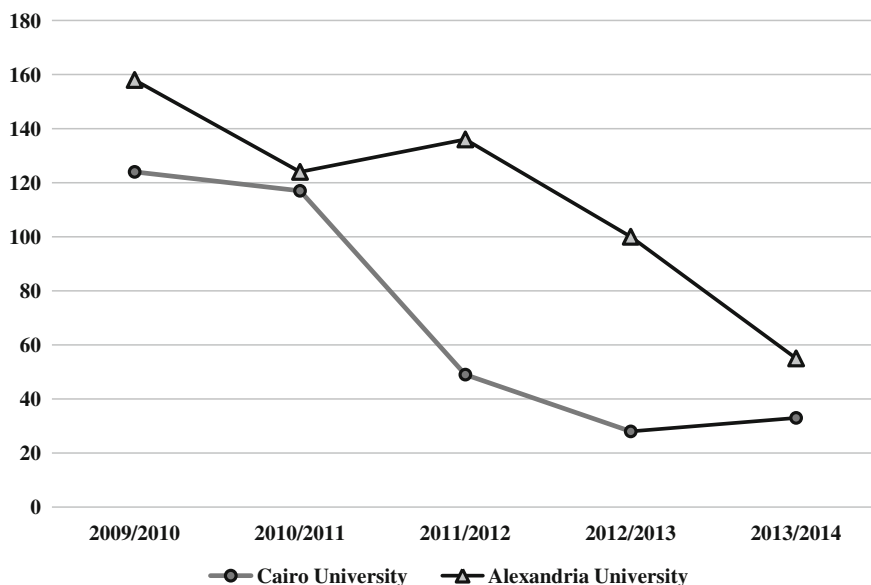
**Fig. 2.11** International tourism, number of arrivals to Egypt during the period of 2007–2012. *Source* World Bank (2015c)

was adversely affected in the short term, but almost nearly every other aspect of development in Egypt as well.

Figure 2.11 shows how the number of tourists arriving to Egypt has dropped drastically in 2011, hitting one of the most important income resources for the country and badly affecting millions of people in the tourism industry. Figure 2.10 shows the drop in Egypt high-technology exports in 2012.

In terms of higher education, there is a drastic decrease in the number of foreign students and visiting scholars in Egyptian higher education, as shown in Fig. 2.4 and now, in Fig. 2.12.

The good thing is that the higher education development achievements were not lost during this critical period in the history of Egypt, coinciding with a prolonged period of political instability, tension, and security risks. This is attributed mainly to the devotion and cooperation of many individuals, whom I call “development champions”. It proved that the competition process not only resulted in funds allocated to the best ideas and proposals, but also to those champions who had the ownership attitude. Despite instability, projects and developments have continued and importantly contributed to the creation of a resilient Egyptian society. Up until June 2015, 66 faculties have been accredited by the National Agency for Quality Assurance and Accreditation in Education (NAQAAE) and 22 laboratories in universities across the country have been internationally accredited and their measurements are internationally accepted. More faculties and laboratories are in the process of being accredited.



**Fig. 2.12** Number of visiting professors at Cairo University and Alexandria University during academic years 2009/2010–2013/2014. *Source* Hany Gohar (Director, Quality Assurance Center, Cairo University, personal communication, February 27, 2015); Rouchdy Zahran (President, Alexandria University, personal communication, March 20, 2015)

## Conclusion

Currently, higher education, and actually, the whole of Egypt are at a crossroads. Egypt is facing conflicts to win the battle against terrorism, which is hitting across the world, and threatening Egypt from inside and outside (The Cairo Post 2015; MacGregor 2015; New York Post 2015; Reuters 2015). It then needs to regain the momentum and start developing and continue enlightening the world, as it has done for thousands of years, or lose the battle and breakdown facing the fate of neighbouring countries like Syria, Libya, and Yemen. However, there are a number of reasons to be optimistic about the future. The gradual tangible improvement in security and stability across the country over the last year has reflected in the increase in the number of tourists arriving in Egypt and in the rise of the number of foreign students studying in some Egyptian universities starting in the academic year 2013–2014 (see Figs. 2.6 and 2.11).

The world will support Egypt and will have confidence in its economy. In March 2015, BP signed a USD12 billion energy deal in Egypt calling it a “vote of confidence” in the country (The Telegraph 2015). The deal was signed in the Sharm El-Sheikh Egyptian resort during a large investor’s summit attended by 22 heads of states and 3500 delegates from about 100 countries. The conference had netted USD36.2 billion in investments. That was a great show of support from investors

and world leader (U.S. News 2015). Recently there was a rise in Egypt's credit rating and an expectation that recent improvements in Egypt's growth performance and macroeconomic stability will be enduring by the international economic rating agency Moody (The Daily Telegraph 2015).

Government acknowledges that the current demographic structure in Egypt, where half of the 90 million population is under 25 years old, is an opportunity, once they are provided with knowledge and skills, that allows them to contribute effectively in the country's development and have a share in the international labour market (Bermingham 2014). Education is declared by the current Government as Top Priority and the allocation of at least 4 % of GDP to education as per the country's new Constitution. A USD5.87 billion higher education strategic plan was announced—to run in two phases from 2014 to 2022—building on previous development achievements (Sawahel 2014). The system of University or Faculty leadership selection was changed into a criteria- and standards-based one. This should result in good governance.

Recently, a new cabinet portfolio for Ministry for Technical Education and Training was introduced, to be responsible for all aspects of technical and vocational education and training at all levels. Moreover, the National Authority for Quality Assurance and Accreditation in Education (NAQAAE) is revising its standards and procedures for improvement. It is also developing a National Qualification Framework (NQF) integrating all formal and informal education and training levels. That would allow recognition of qualifications as well as add transparency and flexibility to the higher education system. In addition, it will provide attractive career paths and lifelong learning opportunities for technical and vocational education graduates. This would improve the social image of this type of education and help to bridge the gap between skills attained through education and training and labour market needs.

Personally, I am also optimistic about the future of Egypt and believe in the quotation from Dalai Lama XIV: "Choose To Be Optimistic, It Feels Better".

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