

# Reviewing Work-Based Learning (WBL) Programmes for Young People in Egypt



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# Reviewing Work-Based Learning (WBL) Programmes for Young People in Egypt

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This report, a UNESCO initiative, examines Work-Based Learning programmes for young people in Egypt. The information collected and research conducted follows the methodology and guidelines of UNESCO for the national reports on reviewing work-based learning programmes for young people in the Arab region. This report aims to support partners in the design and implementation of relevant Technical and Vocational Education and Training (TVET) policies that can contribute to youth employment.

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## Foreword

Work-based learning (WBL) has become a key issue in the international debate on human capital development. In line with UNESCO's TVET Strategy (2016-2021), UNESCO promotes TVET as an integral component of education, which is a human right and a building block for peace-building and inclusive sustainable development. With its humanistic and holistic approach to education, UNESCO strives to enhance inclusive education systems where all individuals benefit from meaningful and lifelong learning, delivered through multiple formal and informal pathways.

This case study seeks to inform policymakers and practitioners in Egypt, including private sector and civil society about how to design and manage effective work-based learning programmes targeting young people.

In Egypt, TVET's landscape is changing fast, as new programmes and new roles are emerging. Changes in TVET are the result of political and structural changes in the overall education and training system. They are also the result of external social, political and economic factors, notably youth unemployment, demographic developments, and labour market trends driven by technological and work processes and organizational changes, as well as geopolitical turmoil in the region.

In this context, WBL is a powerful driver for expanding and improving the relevance of TVET. However, realising the potential of WBL requires policymakers and social partners to engage in partnerships and in close cooperation.

In addition, this case study seeks to provide current information on the state of WBL in Egypt by examining the national context, the nature and extent of WBL, policies and legislations, employer and employee organizations, resources to improve the quality of WBL programs, funding, and data on performance of WBL on employment, productivity, growth, and sustainable development. The report also examines WBL as a vector for access to TVET for disadvantaged groups including young women.

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## SECTION ONE

# THE NATIONAL CONTEXT

### 1.1 Introduction

To understand the Technical and Vocational Education and Training (TVET) landscape and Work-based learning structures and initiatives, and to assess their importance and potential for improving Egypt's competitiveness and economic development, one must look at the overall political, socio-economic, and labour market context as well as the complex structures in which they operate.

The revolutions of January 2011 and June 2013 changed the political landscape and social system of Egypt. There were numerous motivations for the first uprising: societal frustrations towards its government system, in particular towards corruption and the violation of human rights, and the aspirations of the society for effective democracy. In addition, economic factors like the growth and relatively good economic functioning that Egypt had enjoyed in the few years before the first revolt (because of deep restructuring and changes since 2004) led to wealth concentration in certain segments of the society, excluding middle and lower levels. Small Medium Enterprises (SMEs), who represent more than 90% of the employment in the country, had not managed to benefit from the same developments as larger companies. With a large population living below the threshold of poverty, the wide regional differences (among Governorates, but in particular also between cities and rural environments), the unequal distribution of wealth and the high youth unemployment all triggered the final stream of protests.

The recent political dynamics are both opportunities and challenges for democratic, economic, and social progress. The revolution period was characterised by a great degree of uncertainty and instability: political tensions (e.g. terrorist attacks), but the revolution also led to economic and social developments, having an impact on major government policies, such as the integrated Vision 2030 for sustainable development including education reform and employment promotion initiatives. These changes have also put great emphasis on social equality and youth empowerment in all aspects of society. Successfully tackling youth unemployment remains one of the most urgent challenges of the country and a high priority on the political agenda.

### 1.2 The Economic Perspectives

From the mid-2000s to 2011, the Egyptian economy grew at a rapid pace. Yet, this economic performance has not significantly improved the country's overall competitiveness<sup>1</sup>, nor has this growth provided more jobs to the Egyptian population. In 2004, the government of Egypt embarked on a structural reform program of liberalization and privatization, which, combined with high oil prices, booming economies in the Gulf countries, and strong global economic growth, led to real GDP growth of over 7% per year between FY06 and FY08. The subsequent global financial, food, and fuel crises dampened economic growth in Egypt to an average of 5% in FY09 and FY10,

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<sup>1</sup> Despite this economic growth, Egypt remains modestly competitive, according to the 2009/2010 Global Competitiveness Index (GCI), ranking, it ranked 70<sup>th</sup> out of 133 countries and further declined to 115<sup>th</sup> out of 138 countries in the GCI for 2016/2017. This poor ranking is mainly owing to low scores for macroeconomic environment (134<sup>th</sup> out of 138 countries) labour market efficiency (135<sup>th</sup> out of 138 countries) and for education and training at all levels (112<sup>th</sup> out of 138 countries). The Egyptian labour market also receives low rankings in the GCI, primarily as a result of over-regulation. (sources from Global Competitiveness Index Report 2016/17).

a strong performance according to international standards. However, between 2011 and 2014, the macroeconomic picture deteriorated due to unresolved political tensions and policy inflexibility. However, despite the continuing economic and security challenges, since 2014, the government embarked on implementing a bold and transformational reform program, aimed at spurring the economy, enhancing the country's business environment and staging a balanced and inclusive growth. The first wave of reforms package focused on rebalancing the macroeconomic aspects, which included difficult policy choices; such as the VAT Law, reducing energy subsidies, containing the high growth of the wage bill, and the liberation of the Egyptian Pound. The second wave of reforms targeted improving governance and investment climate, which includes the Civil Service Reform Law of October 2016, in addition to a set of undergoing reforms that seek to remove investment barriers and attract local and foreign investments, such as the Industrial Licensing Law, the Investment Law, and the Company Law<sup>2</sup>.

This reform program is widely endorsed by key development partners, including the World Bank, IMF, and the African Development Bank. The implementation of reforms along with the gradual restoration of confidence and stability are starting to yield positive results. The economy is gradually improving with annual rates of GDP growth reaching 4.3% in 2015/2016, up from an average of only 2% during the period 2010/11-2013/14. The overall budget deficit declined in the first half of FY17 to 5.4% of GDP, down from 6.4% in the same period last year<sup>3</sup>. Following the floatation of the local currency, the exchange rate has initially displayed some volatility, but has subsequently started to strengthen, notably with strong foreign investor demands for local debt instruments.

To alleviate the adverse effects of the economic reforms on the poor and vulnerable, the government adopted a package a social safety net to mitigate measures and intensify its effort to move away from inefficient and generalized subsidies to more efficient and better poverty targeted social safety nets<sup>4</sup>.

Egypt and its current government will need to build on the future economic strengths and diversity of the country to come out rapidly of the present macroeconomic situation. There will be a need to balance short-term remedies to address urgent social problems with long-term sustainable and strategic development and economic stimulation. In March 2015, the government organised a successful and high profile international economic development conference attracting a large number of domestic and foreign investors. The conference unveiled plans for a number of mega projects that may lead to new job opportunities in sectors like construction, logistics, energy, tourism, manufacturing, and retail within the next 15 years. If these plans materialize, a big focus will be education and training in general and TVET in particular, in order to prepare youth for these new opportunities. We will look at the challenges of the TVET sector later in this chapter, after a sub-section on the current characteristics of Egypt's demography and labour market.

### **1.3 Demography and Labour Market Characteristics**

With a population of more than 90 million in 2016<sup>5</sup>, Egypt ranks as the most populous among the Arab countries<sup>6</sup>. With an estimated annual growth rate of more than 2.4%, it has one of the fastest growing populations in the world. Around 60% of the total population is under 30 years of age. At

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<sup>2</sup> <http://www.worldbank.org/en/country/egypt/overview>

<sup>3</sup> <http://www.worldbank.org/en/country/egypt/overview>

<sup>4</sup> <http://www.worldbank.org/en/country/egypt/overview>

<sup>5</sup> [www.capmas.gov.eg](http://www.capmas.gov.eg)

<sup>6</sup> [http://en.wikipedia.org/wiki/Central\\_Agency\\_for\\_Public\\_Mobilization\\_and\\_Statistics](http://en.wikipedia.org/wiki/Central_Agency_for_Public_Mobilization_and_Statistics) (March 2015)



the end of the fourth quarter 2015, the labour force was about 28.4 million, compared to approximately 23 million in 2005<sup>7</sup>. It will continuously grow, with approximately 850,000 new entrants to the labour market each year<sup>8</sup>. Since the 2011 Revolution, the unemployment rate has been constantly growing: from 9% in 2010 to 12% in 2011, rising again to 12.7% in 2012 and reaching 12.5% by mid-2016. This rate represents about 3.5 million jobless Egyptians. However, according to labour market experts, actual unemployment is probably substantially higher than reported by official figures and underemployment (population working less than full time, involuntarily) has also dramatically increased.

Unemployment mostly affects youth (between 15-30 years) and women. Compared to the overall official unemployment rate, the average women's unemployment rate reached almost 23%, exceeding even 60% for the group of young women between 15-25 years old<sup>9</sup>. Compared to other countries, Egypt has a high unemployment rate among highly educated job seekers, followed by those who completed their middle and above-middle education (especially graduates of TVET). Almost 44% of highly educated people, being less than 30 years old and 38% of graduates of technical education are unemployed<sup>10</sup>. In contrast, those with lower educational achievements face relatively fewer problems in finding a job, but work for the (more vulnerable) informal sector.

For those who succeed in finding employment, transition from education and unemployment to employment usually takes a long time. Approximately half of the male graduates have to wait between two and seven years before they can find their first job. For female graduates, the situation is even worse (about 16% only), especially taking into account that in the end only one out of four female graduates ever succeeds in finding a job. The consequences are severe, especially for those who have no other choices than to work for their family network free. Furthermore, the low labour market participation rate gives an indicative number of people Not in Education, Employment and Training (NEET) sectors: labour market participation rate for 15 to 19-years-old is 17%, 52% for 20 to 24-years-old and 62% for 25 to 29-years-old. Consequently, many young men and even more young women completely withdraw from the labour market.

In Egypt, the employment challenge is due to the low number of jobs and their specific characteristics. Especially in the formal sector, despite expectations, there are limited job opportunities. This is primarily the consequence of the current structure of the Egyptian economy. Investments in dynamic sectors (mainly petrochemicals, cement, gas, and telecommunication) have been capital-intensive and have resulted in a decrease in labour utilization. Some of the main economic activities (Suez Canal, petroleum and gas) only create few jobs. It is estimated that only 10% of the labour force are employed in the modern sectors, vis-à-vis 90% in traditional and government sectors, this also presents even further challenges for the education and training sector to introduce and expand work-based training and apprenticeship initiatives as these companies are less motivated to do so than the larger companies. In the last few decades, there have been some efforts for job creation, but most of these jobs are in the informal sector and have low productivity as well as low job quality (not decent work, low pay etc.<sup>11</sup>). The Oxford Business Group estimated that almost 75% of the jobs created between 1998 and 2006 were in the informal

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<sup>7</sup> [www.capmas.gov.eg](http://www.capmas.gov.eg)

<sup>8</sup> El-Ashmawi, A., TVET Profile – Background Paper on Assessing Responsiveness of Education and Training Systems to the Demand for Skills, World Bank, 2011

<sup>9</sup> ENCC/TVET Reform Programme/ETF, Building a Competitiveness Framework for Education and Training in Egypt, 2010

<sup>10</sup> According to the Minister of TVET in a TV interview on March 25<sup>th</sup> 2015 on CBC Channel.

<sup>11</sup> Almost one third (30%) of unemployed youth refused a job because it did not match their level of qualification; GIZ EPP Evaluation report (2015) unpublished.

sector. In 2006, about 58% of those employed in the private sector were in the informal sector<sup>12</sup>. In addition, only one-third of total youth in paid jobs have legal contracts<sup>13</sup>, of which those having a social or medical insurance represent only 30% and 21% respectively. Furthermore, only 15% of them are members of a labour syndicate or a union and just 23% are entitled to paid holidays and sick leave.

## 1.4 Culture and Society

There are strong and negative attitudes within Egyptian society towards manual blue-collar work and technical education (including WBL and apprenticeship). This type of work and education is a last resort option for students and parents, preferring academic streams, university degrees, and government or desk jobs even if the demand for some of these disciplines in the labour market is limited. Despite the increasing need for more technical and vocational skills, TVET careers are not attractive for both social and economic reasons, and students with high grades opt for general and academic education rather than vocational or technical streams. The unattractiveness of TVET is due to the poor image of technical and vocational careers, the wages and working conditions, and the expectations that young and unemployed people have regarding wage levels and professional careers.

Furthermore, there is a vicious cycle of negative image, low quality and low self-esteem related to TVET, its students and even its teachers in the Egyptian society and culture. This phenomena, is well documented and acknowledged; however, very little is being done to create awareness to change this. Deficiencies regarding adequate guidance and counselling opportunities, since there is no placement service provided within the education and training system and there are no adequate placement services for the unemployed. In the past, stakeholders and policy makers assumed education and training were most likely to solve the problem of youth unemployment. However, there is a growing understanding of the importance of addressing labour market imbalances such as greater employer engagement in TVET reform and consistent, reliable and institutionalised labour market information systems in the framework. The information system must provide suitable analysis and disseminate results to relevant policy makers and practitioners for TVET planning and reform purposes. Furthermore, there is a lack of communication and collaboration involving public, private, and civil society stakeholders, because of the complex and fragmented TVET structure.

## 1.5 Education and TVET

Basic compulsory education in Egypt extends for a total duration of nine years (primary stage (6 years duration) + preparatory stage (3 years duration)). Students passing the primary end of level exam move on to preparatory school, while those who do not pass after two attempts move to vocational preparatory or withdraw from education. Based on their performance in the preparatory level exams, students may go to general secondary, technical secondary, private sector technical secondary schools, PVTD, or withdraw from formal education. Graduates from general secondary schools may be eligible to enter university, depending on their scores on the secondary

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<sup>12</sup> Said (2014) even assumes a large increase in irregular work since 2006, and more: First jobs are dominated by informal private wage work!

<sup>13</sup> It is reportedly also common practice in many private enterprises to force their new job applicants to sign their resignation beforehand in order to be able to dismiss these workers any time and deny them their legal rights.

end-of level exams; while almost all technical secondary graduates enter the workforce, (the top 5% only may attend higher institutions or university for further training).<sup>14</sup>

### 1.5.1 Technical and Vocational Education and Training (TVET)

Technical and Vocational Education and Training (TVET) is widely recognised as a major challenge before the country's efforts to reduce unemployment, create social equality, and enhance the country's global competitiveness. To understand the low quality and relevance of the TVET system, one must first look at the system as a whole, and understand its complex and malfunctioning governance structure. This section will trace the policies and activities that highlight the tensions and often contradicting functions of TVET. The functions of TVET: (1) a traditional instrument to address the failure of general education and provide a less than favourable alternative to social inclusion and the more modern function of (2) foster a knowledge-based economy and improve the competitiveness and dynamism of enterprises.

TVET in Egypt is a term understood in a life-long learning perspective. It encompasses technical education at preparatory, secondary, and post-secondary technical education levels, vocational education, vocational training, continuing training and retraining. However, there is a traditional separation between the concept and system of technical and vocational education and that of vocational training. In 2009, there was an attempt to bridge this separation through the development of a TVET strategy by all key stakeholders, which applied to all sub-sectors. However, the strategy lacked approval and most of the dichotomy between education and training still subsists<sup>15</sup>. Subsequently, this separation in direction and vision was apparent by the launch, in September 2011, of the Ministry of Education's strategy for technical education. In this same period, the EU funded "TVET Reform Programme" drafted a comprehensive National Strategy for TVET reform in Egypt and there was little evidence of any link or synergy between the work that was done on both ends. In early 2014, a strategy for Pre-university Education 2014/2030 including technical education was set, as well as a decree to establish an Executive Council for TVET under a new National Council for Human Resource Development, under the leadership of the Prime Minister; however, these initiatives are still not functioning. In March 2015, Egypt established a new Ministry of Technical Education and Training (MoTET). The Ministry was working with international partners like the EU<sup>16</sup>, World Bank, and UNESCO to develop a comprehensive TVET strategy. In September 2015, the government disbanded the Ministry and its technical education functions re-integrated within the Ministry of Education and vocational training back to the different ministries.

At present, the most important feature that characterises the Egyptian TVET system is its extreme complexity. The lack of clear leadership and high fragmentation of the institutional framework for education and training, with more than 30 institutions involved in TVET, leads to a high degree of miss-coordination and ineffectiveness of the allocation and management of limited resources. This includes the two Education Ministries (MoE and MoHE), as well as around 17 Ministries active in vocational training. In addition, there are several other agencies operating in this sector, like the recently cancelled Supreme Council for Human Resource Development (SCHRD), the National Authority for Quality Assurance and Accreditation in Education (NAQAAE), the sectoral Training Councils (Industrial, Building and Construction), the Social Fund for Development (SFD), etc.

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<sup>14</sup> Net education enrolment ratios amount to 95.8% in primary, 77.6% secondary and 30.4% tertiary. Yet, a substantial number of primary school age children are out of school (198.836 children) feeding informal apprenticeship and child labour. Primary completion rate is 98.5%, but quality is questionable. Youth (15-24) literacy rate is 84.9% and school life expectancy, Primary to Tertiary, is 11.7 years. (Badawi, Apprenticeship Review, 2012)

<sup>15</sup> ETF, Torino Process Report- Egypt, 2010

<sup>16</sup> Through the EU-funded TVET II reform project.

There is also no formal role occupied by employers from the private sector, although they are occasionally involved in boards or committees at all levels. The system looks as if it has all the elements and components of an effective TVET landscape, yet at the implementation level there is little coordination, almost no evidence-based impact assessments, and most pilots (including those related to WBL and apprenticeships) remain as such, with no attempt to mainstream successes.

### 1.5.2 TVET System: Provision, Organisation and Stakeholders

By absorbing more than 58%<sup>17</sup> of young people at the secondary level, the technical secondary education pathway and its agricultural, industrial, commercial, and dual system streams (three- and five-year programmes) represent a large part of the Egyptian education system at this level. The Ministry of Education (MoE) is by far the largest TVET provider in the system, administering around 1,300 industrial, commercial, agricultural, and dual system Technical Secondary Schools (TSSs) with more than 1.8 million students enrolled in three-year technical diploma or five-year advanced technical diploma tracks<sup>18</sup>. Most TVET graduates are obliged to enter the labour market and have limited (around 5%) opportunities to access higher education.

Since the 1950s, although not under the MoE, but under the Productivity and Vocational Training Department (PVT) of the Ministry of Industry (MoI)<sup>19</sup> there exists a formal apprenticeship scheme. At the end of this three-year-long scheme, students receive a diploma, recognised by the MoE and equivalent to the TSS diploma. There are 22,000 students enrolled in around 45 VTCs across the country. In addition to this long-term programme, considered a type of vocational education, the PVT also offers short courses for public and private sector employees and job seekers. Furthermore, it recognises the need to expand its marketing department, in order to create more awareness regarding its services, traditionally provided to the declining public sector.

In higher education, 45 middle technical institutes became part of eight regional technical colleges, administered by the Ministry of Higher Education (MOHE). The TVET system also includes four Industrial Education Colleges (IECs), supervised by the MOHE, offering four-year-long programmes to train technical teachers for technical secondary schools. The IECs accept graduates from technical secondary schools (both three and five-year systems) and graduates from industrial technical institutes. Institutes of postsecondary vocational education in Egypt belong to eight different categories. All of the PVE institutes have two-year programmes sanctioned by a diploma; an exception is the faculties of IECs, with four-year programs sanctioned by a Bachelor's degree.

Graduates from the 5-year programme (under the MoE) of the technical secondary education (also called Secondary Vocational Education SVE) have the same degree and level as graduates from technical colleges (under the MoHE). However, both ministries do not synergise or coordinate the curricula and requirements. Figure 1.1 illustrates the education and training structure in Egypt.

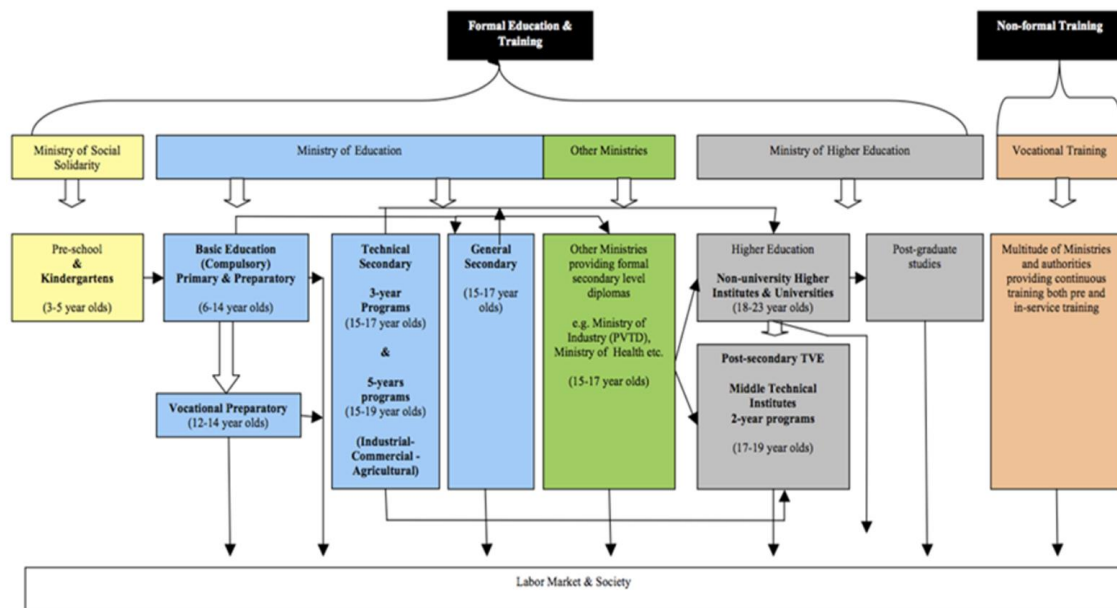
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<sup>17</sup> Egypt Country Report for the 2014 Ministerial Conference on Youth Employment, 2014

<sup>18</sup> MoE, Technical Education Strategy Report, September 2011

<sup>19</sup> In May 2015, the affiliation of the PVT was transferred to the new Ministry of Technical Education and Training and then in September 2015 transferred back to the Ministry of Industry.

**Figure 1. Pathways through Formal Education and Non-formal Training System by Responsible Ministry**



Source: World Bank SABER (2014) Workforce development report- Egypt.

While technical education provided by the Ministry of Education is the most prominent, in terms of number of students and schools, it is at the same time the most inefficient in terms of outputs. It mainly (with some exceptions) focuses on the social inclusion function of TVET, rather than its quality. TVET encompasses other middle-level technical institutions, affiliated to other ministries, providing technical education and training specific to their sector. Other forms include training through industry attachments or cooperative education (e.g. dual system and apprenticeships schemes under the PVTI), in-service training and re-training of both employed and unemployed workers in the labour force. Entry-level vocational training is provided to around 480,000 trainees a year in about 823 (600 public and 223 private or semi-private, owned by NGOs and regulated by the Ministry of Social Solidarity) vocational training centres (VTCs), managed by several, sectoral ministries<sup>20</sup>.

The 600 public sector VTCs and institutes are divided into 317 formal or systematic training centres offering long training programmes (minimum one year) issuing technical diplomas, and 283 non-formal training centres offering short technical courses (less than one year). During the academic year 2009/10, these centres served around 69,500 trainees in formal training and 359,500 in non-formal vocational training<sup>21</sup>.

The 223 private sector VTCs include 219 non-formal training centres and around five formal training centres and schools. In 2010, they provided training to around 700 trainees in formal programs and 51,500 in non-formal courses<sup>22</sup>. Most of these short courses target disadvantaged

<sup>20</sup> El-Ashmawi, A., TVET Profile – Background Paper on Assessing Responsiveness of Education and Training Systems to the Demand for Skills, World Bank, 2011.

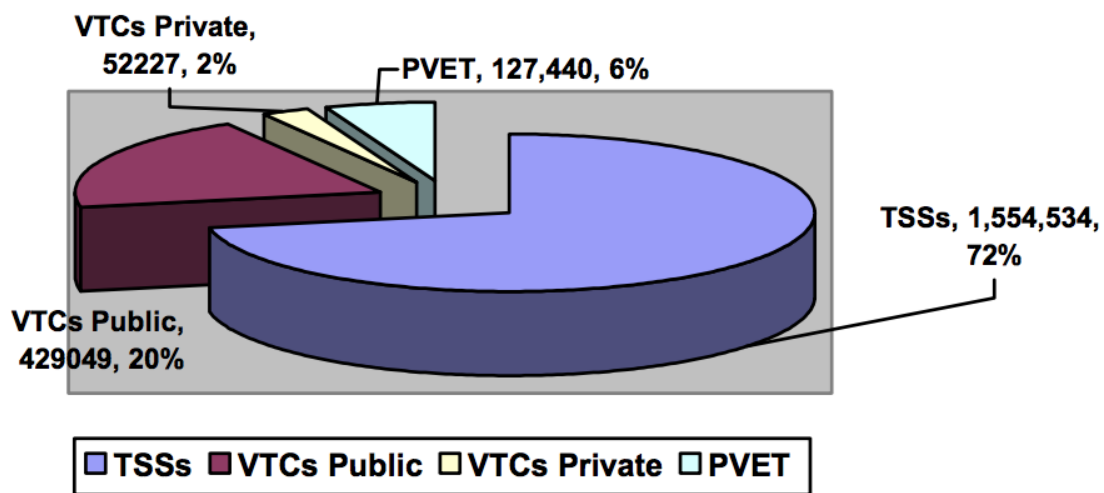
<sup>21</sup> PVET in Egypt Country Background Report, 2011

<sup>22</sup> PVET in Egypt Country Background Report, 2011

groups, particularly women, disabled, and unemployed youth. The courses occur within community-based centres, designed to meet community development needs.

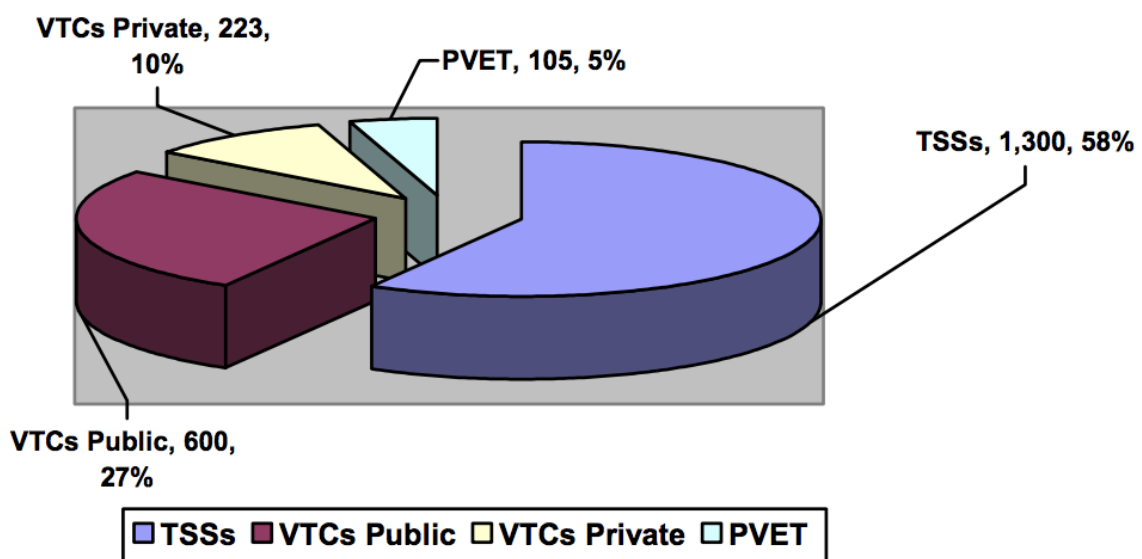
Figures 1.2 & 1.3 below summarise the numbers and percentages of students and trainees enrolled in all the different types of TVET mentioned so far, as well as the number and percentage of schools and training centres for 2009/10. To conclude, the largest number in terms of students and schools are the MoE TSSs with 72% of all students and 58% of all schools. Private sector VTCs have the lowest number of students: 2% of students training in 10% of centres.

**Figure 2. Number & Percentage of Students Enrolled in All Types of TVET (2009/10)**



*Source: various sources, including MoE Technical Education Strategy and PVET Country Background Report, 2011*

**Figure 3. Number & Percentage of Schools & Training Centers in All Types of TVET (2009/10)**



*Source: various sources, including MoE Technical Education Strategy and PVET Country Background Report, 2011*

Given that the majority of TVET providers are from the public sector, considerable investments are key to achieve the required reforms. Given the large expenditures on wages<sup>23</sup>, the key challenge is the few resources available to cover developmental expenses and investments in reform initiatives (teaching and learning materials, equipment and infrastructure status). Without sustained additional mid-term funding, there will be no option but to put in most of the available budget into recurrent expenditures (wages) with almost no budget left for development of programmes to offer quality mainstream education. As a result, schools will continue to be under-financed, which will affect quality and equity. Another challenge for the Egyptian system is to use funds in a cost-efficient way. There is reason to say that the running of the education system as a whole costs more than necessary. The available capacity is far from being fully used due, to the management and pedagogical organisation structure, the official working hours of school, etc<sup>24</sup>.

### 1.5.3 Quality of TVET Programmes

- Although the figures above may indicate a positive trend in terms of diversity and number of TVET schools, the fact is that the quality and relevance of the TVET system at large is low
- TVET has traditionally made an implicit choice for access rather than quality. TVET, being considered as a second choice option (in relation to general education, which paves the way for university), fell in a vicious circle of low esteem, low quality, low results, which is not yet completely overcome. In addition to working on its image and status, the system needs to have:
  - A unified National Qualifications Framework;
  - A well-developed well communicated standardisation, accreditation and certification framework;
  - Standardised methods of updating and reforming curricula and teaching methods, more practical learning;
  - Rationalising of the number and type of specialities;
  - Investments in upgrading the capacity of teachers, trainers, and managers as well as their career conditions;
  - Upgraded infrastructure and equipment.

The establishment of the National Authority for Quality Assurance and Accreditation in Education (NAQAAE), as an independent quality assurance and accreditation body with administrative and financial autonomy linked to the Prime Minister, shows greater emphasis on accreditation mechanisms and processes, aiming at improving the delivery of education. NAQAAE focused on quality assurance in education covering technical schools as well as general education ones. Currently, it does not cover vocational training centres affiliated to other ministries, including the PVTD.

NAQAAE started its operations in 2005 and by the end of 2009 accredited 200 schools out of 270. This means that around 30% of schools did not meet the requirements. In the academic year 2009/2010, about 800 schools applied for accreditation<sup>25</sup>. This body has the potential to contribute to the overall quality assurance and accountability framework within which schools can achieve increased substantive and procedural autonomy. The accreditation framework developed and adopted by NAQAAE is in line with international benchmarks. There are nine areas covered by the Quality Assurance Framework:

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<sup>23</sup> The share of wages and salaries in total sector expenditure has steadily increased, from 71% in 2000/01 to 83% in 2006/07. At the same time the share of other recurrent expenditure (mainly student-related and school operation-related expenditure) has declined to 12% in 2006/07.

<sup>24</sup> ETF, Torino Process Report, Egypt, 2010

<sup>25</sup> NAQAAE, Education in Egypt. Downloaded from [www.naqaae.org](http://www.naqaae.org) 2010.

1. Vision and mission of the institution;
2. Leadership and governance;
3. Human and financial resources;
4. Civil society participation;
5. Quality improvement and accountability;
6. Learner;
7. Teacher;
8. Curriculum;
9. Education environment. Every area has specific criteria and set of indicators<sup>26</sup>. This indicates that there is a political commitment to support the quality assurance system and the institution leading this process. A clear evidence is the decision taken in 2010 by the Prime Minister to entrust NAQAAE in leading the work on the development of a national qualifications framework (NQF), although some stakeholders have expressed concerns regarding the absence of a participatory approach and the limited dissemination of information adopted by NAQAAE regarding NQF.

Taking into account the time and policy pressures, the lack of resources and expertise, there is a risk that NAQAAE will not be able to conduct more than a cursory investigation on most institutions, given the number of education and training institutions in the country. For example, in its report on education in Egypt, NAQAAE mentions as main challenges for its operations: legislative constraints, resistance of academic staff to change the quality assurance concepts and regulations, shortage of financial resources, and lack of engagement of NGOs and civil society organizations on education outcomes. Another major weakness of NAQAAE institutional role concerns the organizational setup of NAQAAE and the lack of transparency of its reporting systems: reports on the accreditation of institutions are not publicly published, nor shared with the MoE and schools. In this way, best practices and overall progress is not available to other education institutions and stakeholders.

Furthermore, there is an on-going lack of clarity about roles and responsibilities on assessments and awarding of qualifications. In most cases, accreditation and quality assurance mechanisms are not based on outcomes-based qualifications or competency standards, and have a far greater focus on more traditional aspects, which have come to be known as ‘inputs’, such as curricula and duration, qualification of staff, and so on. This is the case for higher education and secondary education including TVET. Development of quality assurance has no links to changes in qualifications development and validation, certification, and assessment systems. In fact, certification currently happens through ministries, with separate systems for each awarding ministry, and this is likely to continue. There is only a unified certification system for secondary vocational education issued and organized by the Ministry of Education, which also approves the three-year diplomas issued by Don Bosco and PVTD.

In Egypt, the number, diversity, and complexity of the qualifications offered is wide. This arises from historical attempts of ministries and other institutional bodies to respond to the needs of a broad range of learners (for example school dropouts, low achievers, job seekers, adults, etc.). This diversity in qualification levels leads to inconsistencies that reduce quality, confidence, and trust. The bodies offering the qualifications are also diverse and this leads to weaker cooperation between them. The following table lists the key players within the Egyptian qualifications system, dealing with Technical education, vocational training or both:

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<sup>26</sup> ETF, Review of Secondary Education in Egypt, July 2010



**Table 1. Key Institutions and Functions in the Egyptian Quality Assurance Landscape**

Name of Organization/Initiative	Function(s)	Remarks
National Qualifications Framework (NQF) <b>under NAQAEE</b>	Describes all qualifications and other learning achievements and defines the relationships between these in a coherent way	Still not extensively implemented, only in a few sectors and not very participatory.
National Authority for Quality Assurance and Accreditation in Education (NAQAEE) <b>under the Prime Minister</b>	Provides quality assurance and accreditation for all elements of the formal educational process (TSS, etc.)	Important institution however lacks resources to cover its mandate and its transparency is questionable. Does not extend its function to vocational training institutions, just technical education
National Skills Standards Project (NSSP) <b>Under ITC (Mol)</b>	Develop standards, catering for workers' certification referring to their abilities and competencies; transferable credits that carry students across education/training routes; and objective independent assessment mechanisms and accreditation procedures	Despite the great effort exerted in this project and the current initiatives in involving chambers and expanding these standards into PVTD and MoMM, there are still differences in terms of achievements in the different sectors. Some sectors have official recognition although they have been benchmarked with the SQA.
National Council for Vocational Accreditation (NCVA) under establishment <b>under MoMM</b>	<ul style="list-style-type: none"> <li>○ Approves and issues National Skill Standards</li> <li>○ Approves and issues standards for jobs, occupations, trainers, exams, as well as licenses for testing regulations</li> </ul>	Not adequately functioning.
Sectoral Chambers ( <b>under the Federation of Egyptian Industries</b> )	Identifies the needs of industry in terms of jobs and occupations, as well as the requisite skill levels for each.	Only involved if ITC pays them, otherwise they are not effective or active.
Enterprise-TVET Partnership (ETPs) <b>under Mol</b>	<ul style="list-style-type: none"> <li>○ Provides work analyses and develops Job &amp; Occupational Profiles</li> <li>○ Currently establishing certification units to certify personnel working in certain occupations in specific sectors of industry. EGAC, as a certifying body will accredit ETPs.</li> </ul>	The ETP concept as a link between industry and TVET providers linked with the chambers is a sound and needed function in the system. During the implementation process, ETPs must clarify roles and responsibilities. The certification units, although needed, have still to be agreed

Name of Organization/Initiative	Function(s)	Remarks
		upon by most stakeholders especially the training councils.
Egyptian Accreditation Council (EGAC) under MoI	Provides accreditation (based on ISO standards) for bodies that certify training workshops and personnel.	EGAC is the only Egyptian body mandated to accredit any national certification body. Although it has a good record of accomplishment in these activities, it is still in the process of receiving international recognition, in order to extend them to HR-related fields.
Technical Secondary School & VTCs under MoE and many other ministries.	Implements all the education and training process (formal, non-formal and informal)	These are ministry-specific awards, not subject to accurate or external validation processes (with the exception of MoE).

*Source: Adopted from the table on Egyptian Institutions involved in Standardization, Accreditation and Certification from the TVET Reform Programme's study on National Occupational Standardization, Accreditation and Certification System, 2011*

Table 1.1 above, outlines the number of institutions affiliated to the different stakeholders, one can only again conclude that the TVET system has all the components, yet it lacks coordination and clarity in determining the responsibilities and mandates of all its players.

## 1.6 Key Messages of this Chapter

- **Key message 1:** Since the 2011 revolution, Egypt has been facing political and economic challenges, however these changes have put great emphasis on the reform of education and training to better address the miss-match between the supply and demand of skills within the growing labour market;
- **Key message 2:** The TVET landscape in Egypt is complex and highly fragmented with many players. The Ministry of Education has the responsibility for the largest number of TVET schools, 1.8 million students, while vocational training is divided between a multitude of ministries and authorities;
- **Key message 3:** There are existing but weak links between TVET institutions and employers and other social partners, something that makes the expansion of WBL even more challenging;
- **Key message 4:** There is a historic disconnection and there are only weak linkages between (i) general education and technical education (with the latter having a less favourable image in society) on one hand and (ii) technical education and vocational training on the other hand;
- **Key message 5:** The TVET quality assurance system in Egypt is fragmented and thus weak, with many of the features like accreditation, standard setting, and certification still underdeveloped and uncoordinated.

## SECTION TWO

# The Nature and Extent of Work-Based Learning Programmes, Including Apprenticeships

Egypt has a long history of providing apprenticeship and work-based learning schemes both informal and formal and is currently providing a variety of models mostly for young learners with limited pilots for adult apprentices. This section will highlight the nature and extent of WBL and apprenticeship schemes in Egypt. The section will also look at the informal/traditional apprenticeship system and other models of formal and non-formal WBL schemes with highlights of some recent innovative models that may represent good examples for other countries in the region.

## 2.1 The Informal/Traditional Apprenticeship System

Countries with well-established apprenticeship systems tend to be better at managing school-to-work transitions for youth, as well as adults already in the labour market looking to upgrade their skills or change careers, and enjoy lower ratios of youth unemployment rate to adult unemployment rate, and generally have lower unemployment rates. However, “export” of apprenticeship systems to developing countries has in most cases failed<sup>27</sup>. In countries like Egypt with large informal economies, the learning of new skills occurs by means of informal/traditional apprenticeship. A young person learns a trade at the workplace from an experienced worker, usually a master craftsman, under agreed conditions;<sup>28</sup> however with limited or no connection with a recognized training or education institution offering the necessary underpinning knowledge and understanding about the occupation being acquired by the apprentice.

For many decades, Egypt’s informal/traditional<sup>29</sup> apprenticeship system has played an important role in bridging the gap between the skills needs of the labour market and the outcome of the formal education system as well as supplying the largest amount of workers to the labour market. Then in the 1950s the Government of Egypt attempted to formalize Egypt’s traditional apprenticeship model, by embarking on the establishment of a network of public vocational training centers (now known as the PVTD affiliated to the Ministry of Industry) offering theoretical and practical vocational training programmes with on-the-job training attachments in large public sector companies at the time<sup>30</sup>. Currently, despite the government’s efforts to formalize apprenticeship, the informal apprenticeship continues to be a main mechanism for skills development (ILO 2012). This trend is due to the large size of the informal economy and its ability to absorb new entrants to the labour market, in addition to the limited capacities of the formal education and training systems and their apprenticeship schemes. The data available on the conditions, extent, and size of WBL compared to all learners is rather scarce and unreliable especially in the informal/traditional apprenticeship sector. However, numerous reports (El-Ashmawi 2011, ILO 2012, El-Mahdi, 2012 and others) including interviews from the Ministry of Education estimate that the percentage of formal WBL schemes to be between 2% to 4% of all

<sup>27</sup> ILO 2013, updated 2017.

<sup>28</sup> See ILO Policy brief: Upgrading informal apprenticeship systems [http://www.ilo.org/wcmsp5/groups/public/---ed\\_emp/---ifp\\_skills/documents/publication/wcms\\_167162.pdf](http://www.ilo.org/wcmsp5/groups/public/---ed_emp/---ifp_skills/documents/publication/wcms_167162.pdf)

<sup>29</sup> The informal/traditional apprenticeship is intended for a wider range of apprentices; for technical school graduates as well as illiterates, schools drop-outs at different educational attainment levels, children (10 years and even younger), more mature (up to 30 years old), source: ILO 2012 report.

<sup>30</sup> Currently most of the PVTD on-the-job learning takes place in private sector companies during the third and final year of study ending with a diploma recognized by the Ministry of Education (El-Ashmawi 2011).

learners in the formal TVET system. Specifically, there are 40,000 to 65,000 learners of the 1.8 million learners enrolled in the formal secondary technical education and vocational training programmes.<sup>31</sup> A study conducted by El-Mahdi in 2012 on the performance of Micro and Small Enterprises (MSEs) on the National Economy, tried to estimate the number of apprentices in the informal apprenticeship scheme. Schemes with no direct link with education are around 3.3% of the total labour force based on a sample of 3000 MSEs, which means there are around one million informal apprentices in the system, the majority of whom are male. El-Mahdi also noted that compared to a similar survey conducted in 2006, the number of informal apprentices dropped from 8% of employees to 3.3% in 2012, illustrating the decreasing trend.

The workplace as a learning space generally tends to be undervalued in the Egyptian society (ILO 2012) as parents want formal certificates for their children especially in higher education, yet some occupations (predominately; handicrafts, auto mechanic maintenance, ready-made garments, metal work and carpentry) have preserved a learning culture by way of informal apprenticeship. This traditional form of skills acquisition happens with an agreement between a young learner, an apprentice, and an experienced craftsman, a trainer, to train for an occupation while working and learning side-by-side in the craftsman's business. Social norms and values of a community of practice embed the apprenticeship agreement and ensures skills transmission from one generation to another. While under pressure for a variety of societal and political reasons, informal apprenticeship still constitutes an important source of skills acquisition and provides an accessible path to technical and vocational skills development for disadvantaged youth (ILO 2012).

According to an interview with Christine Hofmann, Skills Development Specialist, at the ILO examines informal apprenticeship in micro and small enterprises. The following are the main characteristics of the informal apprenticeship system in Egypt:

- There are various vocational training institutions and technical education schools which belong to the formal government institutions, such as the ministries of Education, Industry, and Manpower that provide apprenticeship schemes, however, the number of students graduating (around 2%) from them is very limited to cover the needs of the labour market.
- Due to lack of sufficient on-the-job training and thus relevant skills in the remaining 98% of the technical schools graduates and training facilities, trainees usually acquire those skills through on-the-job informal training, whether in micro, small, medium-sized or large enterprises. The informal training system acts as the main training provider for the different workers and employees in the private sector.
- The skills of trainers or enterprises' owners/ managers/master artisans determine the informal training system. If their skills are of a high level, and they adopt a well-planned training programme, then young apprentices receive a better training. However, if their skill level is not advanced and their equipment is not modern to match the international requirements, the outcome would be apprentices with low levels of skills.
- Data reveal that the training of apprentices varies from one workshop to another. Still most apprentices receive an acceptance after an oral agreement between their parents and enterprises' owners/ managers. Most trainings are free. In addition, trainees receive a minimal wage by the end of each week's training. The training agreement includes wages, holidays, and meals during work, working hours...etc.
- The highest frequency of apprentices completes their training between one to two years or more. However, 48% of the apprentices who completed their training in more than two years.

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<sup>31</sup> This is excluding the number of adults who are working full time but decide to register for the exams of the technical secondary schools to get the formal certificate, described later in the report, as this is not really considered WBL.

- Trainees do not take an exam at the end of training and receive no certificates.
- The informal apprenticeship system is not for technical schools graduates alone, but for illiterates and schools dropouts at different educational attainment levels. The age of the apprentice varies from 10 to over 30 years old.

## 2.2 Formal and Non-Formal WBL

Currently, the Egyptian formal WBL including apprenticeship system includes a number of well-established schemes that comply with the ILO definitions for apprenticeship (ILO 2013, updated 2017). Table 2.1 below outlines the nine different WBL schemes available in the Egyptian TVET landscape with some basic information on each. The following sub-sections describe each in more detail as well as annexes highlighting some of the most innovative and progressive examples within some of these schemes which highlight greater private sector engagement and investment and could be considered good practice at least in the Egyptian context of WBL. Five of the schemes identified (A to E) and presented below are offered to students completing basic compulsory education, which is guaranteed, by the constitution, to all Egyptian children within the age 6 to 15 years old others are provided to adult apprentices.

**Table 2. Overview of Formal and Non-formal WBL Schemes**

	A- Dual system under the Ministry of Education	B- PVTD industrial apprenticeship scheme	C-Integrated TVET scheme under the Ministry of Education in collaboration with public and private companies (Joint School Initiative)	D-Alternance Training Scheme introduced by the EC funded TVET Reform Programme	E- Ministry of Manpower and Migration (MoMM) apprenticeship legislation under which apprentices can be registered (El tadarrug el meheni)	F- Private sector Technical schools (e.g. German Hotel School in El Gouna)	G- Industrial apprenticeship scheme governed by the Industrial Training Council under the MoTI	H- Schooling from home for students above 18 years with affiliation to an employer (Oumal System).	I- Non-formal schemes by NGOs
Legal status of scheme	Minister of Education Decree No. 162 of 2011, complementing Ministerial Decree No. 62 of 2007 for “Regulating and Developing Procedures and Controls for the dual education and training system in secondary technical education three years”.	Presidential Decree 1470 dated 20/4/1964.	Implemented according to protocol agreements between the Ministry of Education and individual private and public companies.	Implemented according to a protocol agreement between the Ministry of Education and the EU funded TVET Reform Programme (phase 1) between 2008 and 2013	Ministerial Decree No. 175 of the Year 2003 Concerning the Rules and Procedures Regulating Vocational Apprenticeship	License for a private school form the Ministry of Education	Implemented, under a memorandum of understanding developed among the Industrial Training Council (ITC), British Council and private sector companies.	Minister of Education decree No. 562 of 2014.	Based on the NGO’s license with the Ministry of Social Solidarity in which the services include training activities.
<b>Estimated number of Learners (2017)<sup>32</sup></b>	42,000	22,000	8,000	1000 until it was discontinued	4,000	750	Pilot include 15 learners	300,000	350

<sup>32</sup> It should be noted that getting accurate and verified data is very difficult even from different people in the same ministry or institution, therefore these figures should be taken and estimates and are in line with sources in different documents in recent years.

Legal Status of Learner	Learner is considered apprentice	Learner is considered apprentice	Learner is considered student	Learner is considered apprentice	Learner is considered apprentice	Learner is considered apprentice	Learner is considered apprentice	Learner is considered student	Learner is considered trainee
Status of learner during off-the-job training	Student	Student	Student	Student	If provided, apprentice	Student	Apprentice as per the MoU	Student	trainee
<b>Duration of Scheme</b>	3 years	3 years	3 years	3 years	Between 1 and 3 years	3 years	4 months	3 or 5 years	Between 1 and 6 months
<b>Intermediary between the apprentice and the enterprise</b>	The Regional Units for Human Development, RUDS affiliated to the Egyptian Federation of Investors Associations (EFIA)	The PVTD Training Centre plays an intermediary role between the apprentice and the enterprise.	The Ministry of Education to a limited degree	The Sectoral Enterprise TVET Partnerships ETPs	Labour offices administered by MoMM.	The school	Industrial Training Council (ITC)	None	The NGO
Contractual Arrangements	Quad partite agreement between (1) Apprentices (or guardian), (2) the company, (3) the RUDS and the (4) school (on behalf of MoE) sign a contract devised by NCHRD and approved by the MoE.	Apprentices sign a training contract devised by the PVTD, to which the employer and the training center are also signatories.	No mention of contractual arrangement between the apprentices and the public companies, but there is a contractual arrangement in the case of private companies.	Apprentices guardians sign a contract devised by the ETP and signed by the ETP and the employer	According to article 2 of the decree, a “Vocational Apprenticeship Agreement” is drawn up in three copies between the workers (or guardian), the employer, the Labour Office.	Agreement between school and company	No mention of contractual arrangement between the apprentices and the companies.	Learner must get a letter form the company he is working in to be admitted by the school.	No mention of contractual arrangement
Occupations or sectors offered	47 different occupations and specializations under industry, commerce, tourism and agriculture	40 occupations in the industrial sector (engineering occupations, ready-made garments, automotive,	Different occupations based on the company needs but most are in the ready-made garments,	Occupations related to job opportunities and skills gap identified by ETPs in sectors like engineering	A wide range of occupations included in the MoMM list of occupations available for occupational licences.	Depending on the market needs, this particular example in in the hospitality industry	Maintenance of Household Appliances Level 1 EVCQs Other occupations may be considered based on the	occupations and specializations under industry, commerce, tourism and agriculture	Based on local labour market needs.

		printing, leather just to mention a few)	engineering, agriculture and food processing.	industries, food processing, building material and furniture.			employment needs of companies.		
Assessment, Test at end of each stage	Successful completion is assessed on the basis of a national examination that includes both theoretical and practical work	Successful completion is assessed on the basis of a national examination that includes both theoretical and practical work.	Successful completion is assessed on the basis of a national examination that includes both theoretical and practical work.	Successful completion is assessed on the basis of a national examination that includes both theoretical and practical work.	The employer shall submit to the labour office a report at the end of each stage indicating whether or not apprentices have passed the stage.	Successful completion is assessed on the basis of an examination that includes both theoretical and practical work.	At the end of the training cycle the training provider conducts the final assessment of the apprentices.	Successful completion is assessed on the basis of a national examination that includes both theoretical and practical work.	Not specified
Certification and occupational level	At the end of the three years, graduates receive a certificate from NCHRD, the business association, and a diploma from MoE for level 3 Vocational' workers, but usually referred to as technicians to improve the image and encourage enrollment	At the end of the three years, graduates receive a diploma recognized by MoE and is equivalent to TSS diploma level 3 vocational worker	At the end of the three years, graduates receive a technical education diploma certificate from MoE (level 3) and a practical experience certificate from the company.	At the end of the three years, graduates receive a certificate from the employer and a diploma from MoE (level 3)	Apprentices receive a certificate from the training centre equivalent to level 1 or 2 vocational worker.	In the German Tourism School receive a diploma recognized by MoE and is equivalent to TSS diploma level 3 vocational worker as well as a certificate from the German chamber of Commerce and Industry recognized internationally	A certification holding the logo of ITC-NSSP, training provider, the industrial company, UK awarding body and shall be endorsed by the ITC-NSSP.	At the end of the three years, graduates receive a technical education diploma certificate from MoE (level 3) and at the end of 5 years a TSS certificate level 4.	Not specified
Further educational opportunities	A chance to enter middle technical institutes and, in	A chance to enter middle technical institutes.	A chance to enter middle technical institutes and,	A chance to enter middle technical institutes and,	Further apprenticeship programmes or the schooling	A chance to enter middle technical institutes and,	Further apprenticeship programmes.	A chance to enter middle technical institutes and,	Furrher training progarmmes



	case of 5% best achievers, an opportunity to enter university.		in case of best 5% achievers, an opportunity to enter university.	in case of best 5% achievers, an opportunity to enter university.	from home option in Technical secondary schools	in case of best 5% achievers, an opportunity to enter university.		in case of best 5% achievers, an opportunity to enter university.	
Allowance/Wage	Apprentices receive monthly pocket during each year of study starting with 300 LE (17 USD) 400 LE (22 USD) and 500 LE (28 USD) during the third year Companies pay 40 LE (2.27 USD) per student per month administrative fees to the Regional Unit and some cover transportation.	Apprentices are paid a small allowance, perhaps 15%–25% of the wage of an adult worker, to help them with transport and food costs.	The minimum allowance is the same as the Duel system, however some companies pay more than that.	The minimum allowance is the same as the Duel system, however some companies pay more than that.	Apprentices receive transportation and meal allowance, with the wage being specified in the contract in 3 phases, and increasing over time.	Not specified	Competitive salaries, transport cost, meals and insurance.	None, only the salary if he is a full time employee studying at the same time.	Not specified
Status and qualification of on-the-job mentor/tutor	Company employee or supervisor with no specific training or qualifications in training	Company employee or supervisor with no specific training or qualifications in training	Company employee or supervisor with no specific training or qualifications in training	Company employee or supervisor with no specific qualifications receiving limited ToT by the ETPS	Company or workshop employee with no specific training or qualifications in training	Company employee or supervisor with no specific training or qualifications in training	Dedicated company employees	N/A	Company or workshop employee with no specific training or qualifications in training
Minimum and maximum age for admission	Apprentices enter after successfully completing compulsory education,	Apprentices enter after successfully completing compulsory education,	Apprentices enter after successfully completing compulsory education,	Apprentices enter after successfully completing compulsory education,	Apprentices should be 13-18 years old.	Apprentices enter after successfully completing compulsory education,	Apprentices' age is between 18 and 35 years old.	Must be adults above 18 years old.	Usually adults

	typically at the age of 15.	typically at the age of 15.	typically at the age of 15.	typically at the age of 15.		typically at the age of 15.			
Social protection of apprentices (including accident, health and pension)	Normal student insurance, and in many RUDS they are covered with private insurance against work-related injuries.	Normal student insurance	Normal student insurance	Normal student insurance	According to article 12 of ministerial decree No. 175: insurance against work accidents according to the social insurance law number 79 of the year 1975 and its amendments.	Normal student insurance	Not specified	Insurance from the employer.	Not specified

### 2.2.1 A-Dual System under the Ministry of Education

Formally known as the Mubarak Kohl Initiative (MKI-DS)<sup>33</sup>, the Dual System (DS) was introduced to Egyptian technical secondary schools in 1994, with the support of the German Federal Ministry for Economic Cooperation and Development, through a bilateral Egyptian-German technical cooperation programme, which provided technical assistance until 2007. It is highly influenced by the German model of dual system and it is the largest formal WBL scheme in Egypt in terms of number of students and schools. The Dual system in Egypt combines two days of formal schooling at the school with four days of in-company training, giving the students the necessary theoretical understanding<sup>34</sup> and the hands-on experience demanded in the market. Today, the DS is a fully integrated scheme within the Egyptian education system, with both corporate and public sector institutions responsible for its governance and outcomes. Twenty-four out of twenty-seven governorates in Egypt offer the three-year apprenticeship scheme, with 21 dedicated DS schools and 198 DS classes within traditional technical secondary schools<sup>35</sup>. Around 4000 companies (out of 25,000 registered companies) accommodate and train students every year, with 34,000 graduates so far. In 2017, 42,000 students enrolled in 47 different occupations (covering the four main sectors: industrial, commercial, tourism, and agriculture).

The programme encourages collaboration between business and education. Private companies (mainly medium and large) join an investors' association that participates in the implementation of a technical education programme through the Regional Units of the Dual System (RUDS). Participating companies are responsible for the practical training component, during which students spend four days a week in factories/enterprises and two at school. Apprentices receive a monthly allowance of around EGP300 (USD 17) during the first year, EGP400 (USD 22) during the second year and EGP500 (USD 28) during the third year of study. Companies pay administrative fees to the RUDS (up to EGP40- USD 2.27) per student per month, and many also cover apprentices' transportation. Tuition is free; students only pay minimal registration fees as in other public schools.

At the end of the three years, the graduates receive a certificate from National Centre for Human Resource Development (NCHRD) affiliated to the Egyptian Federation of Investors Associations (EFIA) and a diploma from the Ministry of Education<sup>36</sup>. Over 56% of the trainees have jobs in companies involved in their training; however, DS students are generally better performers than their counterparts are in the traditional technical secondary school system. The majority (around 80%<sup>37</sup>) opt to bridge to middle technical colleges and universities thus exiting the blue-collar labour market or pursuing university degrees outside their original specializations. According to the 2009 tracer survey conducted by CID consulting for GiZ, 56.8% of the sample were pursuing further studies with a high percentage of those doing this while working. The discrepancy between figures indicates the lack of systematic data collection and analysis.

According to a number of focus group sessions conducted by the author of this current report for the World Bank in 2011 between students and graduates of the DS and the traditional technical secondary school system with no WBL components, it was clear that the DS yielded better results. The results include:

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<sup>33</sup> The name was changed after the January 2011 revolution that was considered an uprising against President Mubarak and what he represented.

<sup>34</sup> In addition to compulsory cultural subjects like Arabic and some English languages, religion and social studies

<sup>35</sup> Source: Interviews with Deputy Ministry of Education for Technical Education and the Head of the Dual System at the Ministry of Education.

<sup>36</sup> Successful completion is assessed on the basis of a national examination that includes both theoretical and practical work.

<sup>37</sup> Based on the interview with the Deputy Minister of Education for Technical Education, October 2017

1. better links with labour market needs;
2. better character building for students who were more confident and had a better idea what they wanted for their careers and addressing their needs even within the workplace;
3. companies were more content with the skills of DS students;
4. DS graduates had better work opportunities as well as further learning options;
5. Better understanding by DS students and graduates of work ethics and conditions (El-Ashmawi 2011).

However, the system is not perfect and has its limitations. Firstly, the number of participants remains quite small compared to the total number of potential students (representing only 1.9% of all secondary technical education students), which raises questions about the critical mass of the programme and the feasibility of extending it to the rest of the system. An assessment in 2010<sup>38</sup> projected that an increase to cover 60,000 students should be possible until 2020, however there are no indications that this will happen despite the MoE's plans to expand this system by 50% (around one million students by 2025)<sup>39</sup>. Secondly, there are historic and on-going tensions between the MoE and the RUDS in managing the system, not enough sharing of information for planning and in most cases, enterprises do not welcome MoE assessors and supervisors. Thirdly, there are question about the assessments taking place at the enterprises, no unified system. Fourthly, there are no established qualifications and training on in-company tutors and mentors despite the agreement on standard curricula. Finally, some companies do not comply with the agreed study plans and durations sometimes asking students to undertake tasks outside the agreed curricula.

Annex 1 of this report provides a case study of one of the positive examples of the Dual system where three schools are dedicated to Americana, a major group of companies in the food processing and fast food restaurant business. The agreement provided the company with the flexibility to develop a unique curriculum with the support of the UK awarding body City and Guilds, to determine the optimum way to divide the time between school and enterprise, and a process of student selection. This example has also proven very successful and appealing to students and parents because apprentices are almost guarantees a job in one of the company's 1400 restaurants in Egypt and the Gulf region.

### **2.2.2 B-Productivity and Vocational Training Department (PVTD) Administered by the Ministry of Industry**

The Ministry of Industry, through enterprise-based work and training within the industrial sector, created one of the main Egyptian apprenticeship schemes, the Productivity and Vocational Training Department (PVTD). The presidential decrees of 1956 and 1964 cover the operation of the PVTD. In Arabic, its title is *Talmaza Sina'eyah* (closest translation to apprenticeship) but now known as the organizing department PVTD. These 45 centers, geographically distributed among 17 governorates across the country, seek to meet the needs of large public enterprises, from the industrial sector. However, since the private sector started to gain ground as an important employer, it has also been able to participate in these schemes.

Young people entering the programme, typically at the age of 15<sup>40</sup>. The programme lasts for three years. During the first two years, the training occurs in the vocational training center and training during the third year occurs mostly in the enterprise with one or more days a week spent in a

<sup>38</sup> Adams. 2010. The Mubarak Kohl Initiative-Dual System in Egypt. An assessment of its impact on the school to work transition, GIZ.

<sup>39</sup> Presentation of Deputy Minister of Education for Technical Education at a GiZ conference in Cairo on October 2017.

<sup>40</sup> According to Child law No. 126, the minimum age for work is 15.

training center (the number of days vary according to vocation). The content of the programme is heavily vocational and practical, with roughly one-third of the total time represented by enterprise-based work and training, one-third by practical work in the training center, one-fifth by vocational theory, and slightly less than 10% being general education. Apprentices sign a training contract devised by the PVTD<sup>41</sup>, to which the employer and the training center are also signatories. Apprentices receive a small allowance, around 15% to 25% of the wage of an adult worker (negotiated between the PVTD and the employer), to help them with transport and food costs. PVTD covers off-the-job costs.

The 3-year program is divided into institution-based learning and training for the first two years and company-based training in the 3rd year. Off-the-job learning, offered by the training center, consists of theoretical and practical learning (513 hours of theory in the first year and 864 hours of practical, 405 hours theory and 864 hours of practical in the second year and 216 hours theory during the third year). The first year of work-based training includes one day of theory in the training center for 36 weeks. Company training lasts for 44 weeks, each for 5 days. PVTD and the training company design and monitor the training. Curriculum covers general subjects, general technology and occupation-specific technology (Badawi, 2012). PVTD organizes its own annual examination for all third year apprentices over its 45 centers. Although the Ministry of Education does not administer the programme, it still leads to a certificate issued by the PVTD that has equivalent legal status to a technical secondary school certificate. Thus, it can qualify a small percentage of best performers in the final exam for higher education, and it can shorten the duration of military service and lead to defined pay grades in the civil service. Passing the national examination that includes both theoretical and practical work will ensure successful completion of the program.

The capacity of the Productivity and Vocational Training Department is slightly over 22 000 participants (10% female<sup>42</sup>), representing around 1% of all students in upper secondary vocational education, which remains a very small programme in the Egyptian context. PVTD offers 40 occupations in the industrial sector (engineering occupations, ready-made garments, automotive, printing, leather, etc.) and it has its own staff-training institute. In the past (until the mid-1980s), all instructors were formally required to have a minimum of three years practical experience in industry, although still articulated in the regulations, this is no longer applied at the recruitment phase. Today, when positions for instructors are announced, the selection is done centrally. Once appointed, instructors undertake pedagogical and aptitude assessments at the Staff Training Institute (STI) affiliated to PVTD. If they are unsuccessful in the assessments, they do not become instructors and are given an administrative position. Successful appointees then undertake a series of pedagogical and technical trainings before they assume their position<sup>43</sup>. There is a general shortage of qualified trainers as the most qualified are on long-term leave working in the private sector or abroad and government recruitment is limited. In some of the governorates where industry is limited, the student attachments is difficult to guarantee and is compensated for in the PVTD training centers (El-Ashmawi 2016).

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<sup>41</sup> Although training contracts are signed between the apprentice and the training company in the 3rd year of study, the role of PVTD in organizing this process makes it more of a placement than a contract as classified by Smith 'in training-provider-based apprenticeships, on- the-job training takes place in work placement rather than as a formal employment contract' (Smith, 2010).

<sup>42</sup> Badawi, 2012

<sup>43</sup> El-Ashmawi, TVET College Lecturer Education-Egypt, IBF consulting, 2016

### 2.2.3 C- Integrated TVET Scheme under the Ministry of Education in Collaboration with Public and Private Companies (Joint School Initiative)

The Integrated TVET Scheme, also now known as the “School within Factory” has protocols and collaboration agreements drafted between MoE and individual private or public companies, where joint schools are established within the premises of the cooperating company or as a part of the company-training center. Although this type of WBL models started in 1972, with a limited number of public sector<sup>44</sup> companies and then in 2008 the private sector was introduced through one of the largest ready-made garments companies, by 2012 there were 12 private sector agreements and in 2017 there are around 50 schools in factories teaching around 8,000 learners (6% female<sup>45</sup>).

The number of trainees is matched to the needs of the participating company, which limits the enrolment capacity of the initiative compared to that of TSSs. Joint schools are usually three years leading to a TSS diploma, level 3 or 5 years level 4. The training is, in most cases, organized following the dual system model (4 days in the company and two days in school), yet the company-based training is not governed by the RUDS, but by ETPs, construction and building authority, power stations, water stations, or the individual employer. As all other secondary school programmes, admission is limited to students who have successfully completed the 9-year basic education. MoE and the company/body jointly design and implement the specializations and curriculum. Students gain practical experience through training in various company workshops and sites, as part of their educational offer, and, according to their programme, sit for national diploma examination before graduation with a 3-year diploma. When graduating, students receive a diploma certificate from MoE and a practical experience certificate from the company. Students sign contracts with the company for the full duration of the programme and, in many cases, almost all graduates receive a contract from the same company.

Financing arrangements are also similar to those of the dual system. The training company covers the cost of their on-the-job training and that of the trainee, while MoE (the school) covers other costs. In some cases where the training company does host the school on its premises, they also cover its costs, not including salaries of staff that must be provided by the MoE like general subject teachers and the school principle, however some companies top-up these salaries.

Contracts are signed for the total duration of the programme (3 or 5 years), yet learners are considered students rather than apprentices, and receive at minimum the same as Dual stem students but some companies pay more per month.

When this model was introduced to the private sector in 2008, it was a natural transition from the dual system as most of the companies involved were involved in the DS but were not able to get the number of students needed so they decided to establish their own schools in cooperation with the MoE. This has benefited the companies a lot in sourcing the needed workers with the required skills, however there are some challenges mentioned through interviews, these are:

- The need to reduce the time between any initial theory input and starting to undertake practical work for students
- The fact that in Egypt you cannot delay going to higher education for secondary school students. If they do not take up their place at the time it is offered, which is age related, they lose the chance and have to apply/qualify again. It would be better if the system allows

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<sup>44</sup> the first was the Ministry of Transportation (railways and river transportation occupations) and extended to a number of public sector companies and governmental bodies.

<sup>45</sup> Badawi, 2012

for a delay in higher education to allow trainees to gain practical experience.

- There is no culture of acquiring a range of skills in Egypt. Examples in Germany show trainees experiencing a number of technical disciplines but students in Egypt resist this so currently they are moved only on a yearly basis to a new discipline e.g. from welding to elsewhere. Students' reluctance to move is because they do not want to switch supervisors/trainer and because once they are skilled in one trade, they can get a job in that area outside of the company.
- There is a need for a quality assured education certificate.
- On-the-job training is not a familiar concept to Egyptians and trainers are not skilled in this area; there is a need to provide training to the trainers so they can offer a systematic learning process for the tasks required.

Annex 2 provides a case study for a company that is involved in this model, EL Sewedy Electric in the electric cables manufacturing industry is one of the latest companies to join the scheme with a state-of-the-arts school and a plan to expand this to nine other schools even if outside their own industry.

#### **2.2.4 D- Alternance Training Scheme Introduced by the EC Funded TVET Reform Programme**

In 2008, the Ministry of Trade and Industry signed a protocol agreement with the Ministry of Education to reform 100 Technical Secondary Schools (TSSs). The first phase of this project was implemented in partnership between the Industrial Training Council (ITC), the Technical Education unit within MoE and the EU funded TVET Reform Programme (TVET 1). This initiative included the introduction and implementation of Alternance education and training (modeled after the French experience) where TSS students would alternate in modules or blocks between the schools and employers. The first phase targeted 41 schools in five main industrial sectors (RMG, engineering, food processing, building materials and furniture production) in 12 governorates where there are strong concentrations of industry related to these sectors.

This initiative represents one of the first projects where industry would be closely involved in all aspects of the reform, starting from selecting the schools, developing curricula, training teachers/instructors, and specifying the type of equipment used. Industry was involved through the work of the ETPs in these five sectors. The objective of the initiative included the following:

- Improve the quality of TSS graduates entering the labour market according to the current and future needs of Industry;
- Reduce unemployment & improve the employability of Egypt's youth by creating a multi-skilled labour force;
- Link the new TSS curricula with Egypt's National Occupational Standards that were being developed at each sector;
- Introduce and evaluate the Alternance training system as a new and innovative method of education that not only links the student to industry but also gives the student a structured set of modules that cover certain skills recognized by industry and can be utilized by the student any time during his/her career;
- Introduce and evaluate the concept of sectoral TSSs;
- Involve the private sector & highlight the experiences of this pilot initiative for the purpose of replication.

The main features of Alternance education include

- Strong partnership between employers, school, students and the ETPs both at the local and sectoral level. This partnership is regulated through a tri-partite contract signed by

- the school, company, parent and administrated by the ETPs;
- The block or modular nature gives the students the opportunity to complete modules related to specific jobs both at school and at the workplace and at the end of each module the student gets a certificate from the ETP and the respective chamber. In this way if students drop out of school at least they have a certificate approved (not accredited) by a body representing industry. When they complete the 3 years they have a number of these certificates in addition to the diploma issued by MoE.
  - The process extends for 3 years; year 1 requires 20% in factory 80% in school; year 2 requires 40% in factory and 60% in school; year 3 requires 60% in factory and 40% in school.
  - Students are paid a stipend of on average of EGP500 (USD 28) per month during their time at the enterprise;
  - The program tried to avoid many of the defects of the Egyptian Dual system, by encouraging students to continue at the companies instead of pursuing further education by introducing favorable compensation even during training, strong monitoring from teachers and ETPs during the time where the student is in the factory, early career guidance and counseling for students;
  - Close involvement of employers during curricula development, which is administrated by ETPs in collaboration with highly specialized international and local experts in different sectors financed by the TVET Reform Programme. Also in addition to training teachers and instructors, there was special training for the in-company tutors that were responsible for the students at the factories, a feature that was lacking in the existing Dual system in Egypt.

The industry well received the first graduates of these programs. However, there are some problems associated with the initiative:

- The initiative did not proceed beyond phase one due to change of strategies and funding from ITC who stopped supporting the project;
- The required new equipment was not purchased for all schools again due to financial constraints from ITC;
- No system was in place to motivate teachers to join students at the factories, some teachers were even discouraging students to go to the on-the-job training part;
- Some of the 41 schools are still adopting the system but there has not been any actions taken by MoE to evaluate and institutionalize the system of alternance education and address all the pending issues;
- The factories were usually far from the residential areas of the students which made the commute and timing very difficult especially for female students;
- No structures and systematic quality assurance process as with DS and conventional technical education.

Since the scheme relied on external funding provided under the EU TVET I project, the scheme discontinued after the end of the project in 2013, there were about 1000 students involved in this initiative.



### 2.2.5 E- Ministry on Manpower Apprenticeship Programme (El tadarrug el Meheni)

The Ministry of Manpower and Migration (MoMM) administers around 37 VTCs, distributed all over Egypt, offering a wide range of training in various specializations, mainly short-term training programmes.

The Ministry also regulates apprenticeship (called *tadarrug el meheni*) through the ministerial decree No. 175 of the year 2003 concerning the rules and procedures regulating vocational apprenticeship. An updated decree in 2015 changed two provision of the former decree, namely increasing the minimum age of apprentices from 12 to 13 and decreasing the minimum period of apprenticeship from 2 years to 1 year.

Under this scheme, through the Central Department of Vocational Training supported by the labour offices, and according to an agreement between the worker or his guardian and the employer (specifying a progressive wage).<sup>46</sup> Apprentices (ages 13 to 17 years old) engage with employers to learn a certain vocation during a specific period (1 to 3 years divided into 3 stages). Apprentices cannot work in vocations not suitable for children according to a ministerial decree issued in this respect. The Department of Inspection for Child Labour supported by the Directorates of Manpower monitors these efforts.

The scheme is currently only workplace-based, so no involvement for a training institute. A technical cooperation project implemented by the ILO in partnership with WFP and UNICEF piloted an upgraded system in agriculture-related trades adding off-the job learning to apprentices. Annually around 4000 (30% female) apprentices enroll in this programme.

### 2.3.6 F- Private Sector Technical Schools (e.g. German Hotel School in El Gouna)

Although there are some private technical training centers operating in Egypt, very few offer apprenticeship schemes. The German Hotel School El Gouna founded in Egypt in 2002, as a joint venture of Orascom Holding and the Egyptian German Academy for Economics and Technology, an affiliated association of the Academy of Economics Dr. P. Rahn & Partner Ltd. After completion of the founding stage, the school transferred to ORASCOM by the Egyptian German Academy and comes now under the authority of the German Society for Education. It offers very high quality dual education according to German curricula and standards but also recognized by the Egyptian MoE. The fees are quite high relative to other TSSs (LE 11,000- USD 650 in 2011) but most of the students earn scholarships from various public and private institutions and foundations.

The aim of the school is the implementation of the Dual Training System for the hotel industry on the Red Sea. Egyptian and international trainees acquire a professional education in the hotel sector. At the end of the training period, the German Chamber of Industry and Commerce conducts the examination of the trainees. If the trainees are successful, they receive the German diploma of the Chamber of Industry and Commerce. Student train 4 days of the week in the hotels in El Gouna resort city.

A special aspect of the school in El Gouna is the fact that lessons in all hotel specific subjects take place in German. Extensive instruction in the German language in the first year forms the base of further successful schooling for all Egyptian students.

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<sup>46</sup> According to a progress report posted on the Ministry Website, the MoMM Apprenticeship scheme included 2300 trainees from 1/7/2012 till 31/12/2012. The joint ILO/WFP/UNICEF project on Combating worst forms of child labour supported the signing of 3500 apprenticeship contracts from 2012-2014.

A highly qualified body of Egyptian and international teachers ensure the professional training of the students. Years of subject related experience alongside with formal requirements are mandatory for the entire teaching staff. Classes are limited to a maximum of 24 learners. The school houses spacious classrooms, a modern computer lab with internet access, a fully equipped kitchen with an adjacent restaurant, a sample hotel room for training purposes, an American cocktail bar as well as a hotel reception desk.

### **2.3.7 G- Industrial Modern Adult Apprenticeship Scheme Piloted by the Industrial Training Council under the Ministry of Industry**

In 2012, the Industrial Training Council (ITC), in partnership with the British Council led the pilot initiative by providing technical support in implementation and benchmarking opportunities with the UK adult apprenticeship model. The pilot focuses on the industrial sector with the perspective of replicating it for other sectors.

ITC implemented the pilot project under a memorandum of understanding<sup>47</sup>, outlining the scope of work and roles of responsibilities of each party. It takes into account different parameters and dynamics of locally implementing the new apprenticeship model, which involves a relatively short period (1 to 6 months). The apprenticeship is outside the formal education system, yet a joint training programme between the training centers and the workplace, targeting young and adult jobseekers (between 18 and 35 years old), adhering to European-benchmarked National Skills Standards found in Egyptian Vocational Competence-Based Qualifications (EVCQs) and accredited by SQA. With the support of the British Council, the project aims to attain UK accreditation of the programmes, and endorsement by UK Awarding Organizations, as well as acknowledgment of training providers by UK institutions.

As a pilot project, it only started with one private sector company and one training provider, a limited number of apprentices (15 job seekers), and a single occupation (Maintenance of Household Appliances Level 1 EVCQs) with the potential to extend to other occupations.

Throughout the training cycle (on the job and off the job), the apprentices received “competitive” salaries to cover transport cost, meals and insurance. At the end of the training programme, apprentices received a certification endorsed by the ITC-NSSP, holding the logos of ITC-NSSP, training provider, the industrial company, and the UK awarding body.

### **2.3.8 H- Home Schooling for Students above 18 Years with Affiliation to an Employer (Oumal System)**

In 2014, the Oumal System was created as an opportunity for workers who have not enrolled in secondary education and would like to enhance their skills or improve their level of education. It allows these workers to enroll in secondary education and allows them to be working at the same time. To accommodate this situation, the system does not oblige the incoming working student to attend any of the school hours; working students do not have attendance. Instead, working students can study from home and go to school at the end of each year to write both their theoretical and practical exams. Completion of the program depends on passing these exams.

This system requires students to be above 18 years old, and obliges them to provide the school with a letter from their employer indicating that the concerned student is working in their company/facility. Incoming students will also have to provide a proof of insurance (from their employer) as will not obtain a “normal student insurance.” According to labour laws, if they are already working then they should have an insurance.

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<sup>47</sup> A memorandum of understanding developed among ITC, British Council and private sector companies

The course duration is similar to that of any other technical student regularly attending school; it is either a three-year program or a five-year program, depending on the specialization the student chooses. If any of the working students failed in one of the years, he/she has two opportunities to re-take the courses and pass the year. However, if they failed in these two trials, they will have to re-apply to the school and start over as first-year students.

The school does not have any connection with the employer or with the company that the incoming student is working at. The school considers the enrolled person as a working student and not as an apprentice. In addition, the school does not require the student to specialize in the same field where he/she works. Working students usually choose a specialization that conforms to their field of work, but it is not a requirement from the school to specialize in a similar field. However, if students choose a specialization different from their field of work, it is their responsibility to learn both the theoretical and practical skills on their own. Currently, there has been discussions in MoE around amending the ministerial decree to include a clause obliging working students to attend some school hours, preferably the practical hours. This is for the school to share the responsibility of teaching the required curriculum and to guarantee that these students receive some practical training on the required skills for their specific specialization.

When students graduate, they get a certified diploma from MoE stating that they have successfully completed secondary education with a specific specialization. If students graduate with a score of 60% or above, they have an opportunity to join private technical institutes or public universities. According to the MoE, there are 300,000 such students in the system; however, they are not apprentices.

### **2.3.9 I- Non-Formal Schemes by NGOs**

There are thousands of NGOs working in the field of training for employment, however almost none applying apprenticeship programme. One example is the Coptic Evangelical Organization for Social Services (CEOSS), which is a Coptic organization set up by law and Presidential decree in 1984. They work in most parts of Egypt and have a paid staff of 500 plus 5,000 volunteers. They undertake fieldwork in the squatter areas dealing with 1.5m citizens, produce intercultural publications and support intercultural activities in Egypt and they have a business for profit section to generate income. This generates 25-40% of their total budget of \$6 million. They have businesses in carpentry and furniture, plywood and agricultural seedlings. The projects are all over Egypt.

Their fieldwork programmes involve capacity building, gender, and environment. They have good governance and governorship is by election from the field. They have developed a very interesting apprenticeship programme for young job seekers who train on-the-job within existing small businesses. They used to have vocational training centers but they closed them down in 1990s because they were costly, less technical and less socially integrated than their current scheme. They run 300-400 apprenticeships a year. They get applications, screen them and then follow them up. They operate mainly with people between the ages of 18 and 35. They have job allocation via a job for youth center, which assesses demand and supply using intermediaries and the 140 NGOs in the squatter areas and large factories. They have a strong system of follow up but about 20% drop out. Volunteers and staff make regular visits in the first 3 months. New entrants have a 15-day trial period after which they are tested and if they fail, they leave. They do not have any specific educational requirements for entry but prefer reading and writing and they have another programme, which can support literacy. Trainees find out about the programmes via the fieldwork

and volunteers. They have 400 small employers delivering training of between three months and one year and one third of trainees are employed after training. The average cost is EGP 1,000 (USD 57) and the trainee has to fund 25% of this with the remainder coming from CEOSS and the employer. They believe this will foster commitment.

Many who apply are not eligible for a number of reasons including their attitude, or they may decide not to continue. Some lack entrepreneurship skills/ambition. They have a good administrative system to screen applicants through a self-appraisal process by the applicant.

### 2.3 Key Messages of this Chapter

- **Key message 1:** Clearly there are many examples and pilots of WPL including apprenticeship in Egypt following different international models;
- **Key message 2:** The percentage of apprentices is very limited relative to students in the TVET system as well as the size of the labour market.
- **Key message 3:** Not much reliable data and monitoring of the informal apprenticeship system that takes place in the informal economy despite the agreement that it is the biggest source of skills development;
- **Key message 4:** The quality assurance system especially during on-the-job training is weak and very few apprenticeship models involve the training on in-company tutors and mentors;
- **Key message 5:** Clearly WBL is perceived as a positive model by employers and students despite the negative perceptions surrounding TVET in general;
- **Key message 6:** There are good examples especially among the “school in factory” model, which other countries can replicate.
- **Key message 7:** There will be challenges in Egypt regarding how the government will achieve the scaling-up of WBL from the current 3% to 50% of the system.

## SECTION THREE

# Policies, Legislation, and Regulation

This chapter focuses on the legal aspects that govern WBL including apprenticeship in Egypt. Most of the findings are based on a legal review of existing apprenticeship schemes in Egypt conducted by the ILO office in Cairo in 2013 and updated in 2017, in addition to interviews with key stakeholders. The second part of this chapter briefly looks at some of the future policies announced by the government in terms of expanding WPL and apprenticeship in the attempt to bridge the gap between supply and demand for skilled workers.

### 3.1 The Legal and Regulatory Base for Formal Apprenticeship

Like the overall structure of the TVET sector in Egypt with all its fragmentation and inconsistency in quality and relevance, the laws, bylaws governing TVET in general, and apprenticeship in particular is also fragmented and decided between several laws and ministerial decrees. The creation of a TVET Ministry in 2015 sparked hopes for more concerted action on unifying TVET in Egypt and plans for a draft TVET law commenced as well as, a National Conference on Strengthening Apprenticeship was held in this spirit. However, after the ministry dissolved, stakeholders had to reposition themselves, yet holding on to a joint vision for more coherence. The current strategy of the Ministry of Education foresees an increase in dual system education to 50% of all schools by 2025 (this will be discussed further in the next sub-section). A new TVET law would provide a unique chance to unify legislation on apprenticeship, foster tripartite dialogue and agree on incentives for both employers and young people to participate in a collaborative spirit; however, currently there seems no champion or leader in the government willing to spearhead the drafting and approval of the TVET law.

To meet the legal requirement for awarding a certificate equal to the technical secondary schools TSSs certificate, the duration of most formal apprenticeship schemes (including those run by education and industry ministries as detailed earlier) are three years after passing the basic preparatory school certificate (9-years). Some as an alternative to secondary schools and a possible back door entry to tertiary education perceive modern apprenticeship. Other than some professional occupations, like physicians and lawyers, there is no mandate to complete work-based training to be eligible for employment in any of the skills' fields.

At present, in Egypt, apprenticeship means<sup>48</sup>:

**“Vocational apprenticeship means engaging the apprentice in the stage of (12-18) years of age with the employers for the purpose of learning a certain vocation during a specific time period according to an agreement to be concluded between the worker or his guardian and the employer for that purpose. It shall be prohibited to engage the apprentice to learn the vocations that the children are prohibited to work therein, according to the ministerial decree issue in this respect.”**

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<sup>48</sup> Decree No. 175 of the year 2003 (article 1), concerning the rules and procedures regulating vocational apprenticeship.

Currently, the legal base for Egyptian apprenticeship<sup>49</sup> is derived from a number of documents valid for different conditions and circumstances under the broad term of apprenticeship, these including:

- **Presidential Decrees 1956 and 1964** covering the operation of the Productivity and Vocational Training Department, (Mol), which runs one of the main formal apprenticeship programmes in Egypt.
- **Ministerial Decree no. 162 of 2011**, complementing Ministerial Decree No. 62 of 2007 for “Regulating and Developing Procedures and Controls for the dual education and training system in secondary technical education three years”
- **The Labour Law no. 12 of 2003**, and the **Ministerial Decree No. 175 of the Year 2003** Concerning the Rules and Procedures Regulating Vocational Apprenticeship, which refers to apprenticeship and the relationship between apprentices and employer, with the intent of regulating formal apprenticeship.
- **The Child Labour Law no. 126 of 2008**, Amending Provisions of the Child Law no. 12 of the year 1996.
- In addition to a number of **protocol agreements** issued between a number of stakeholders with the purpose of implementing and/or piloting an apprenticeship scheme.

There seems to be a high level of coherence between the Labour Law (sections on apprenticeship and Infants Employment) and the Child Labour Law in terms of employment:

- Age: both laws define child/infant as being below 18 years of age (complying with ILO C182)
- Prohibiting employment of children below 15 years of age (complying with ILO convention C138), but an exception is allowed in the child law to those reaching 12 years of age provided that a special permission is acquired from the governor.
- Prohibiting making children/infants work overtime, during holidays or at night.
- Prohibiting making children/infants work in a job that would put the health and safety or morals of the child in danger or in any of the worst forms of work for children (Complying with ILO C182).
- Insuring the child/infant on the job.

On the other hand, the Child Law does not mention apprenticeship, and does not have specific regulations pertaining to apprenticeship.

Finally, some variations exist between the two laws that generates incoherence and leaves some for those responsible for managing apprenticeship programmes to interpret this according to their understanding and reference, these are outlined below and some are compared against stipulations in ILO instruments:

- The minimum age for training (apprenticeship) in the labour law is 12, while in the child law it is 13 years of age (training). ILO C138 specifies 14 years of age for apprenticeship if carried out in accordance with conditions prescribed by the competent authority and as a part of an approved training programme.
- Child Law requires medical examination prior to employing a child but not Labour Law.
- The Child Law stipulates seven extra days of leave for children, while the Labour Law does not clarify whether this applies to apprentices.
- The Labour Law limits a maximum of eight working hours per day for apprentices while the Child Law limits it to six.

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<sup>49</sup> Apprenticeship was introduced to Egypt with the establishment of the Productivity and Vocational Training Department and centres in 1956 by a Presidential Decree, then introduced in the Labour Law 91 of the Year 1959. In the same year, the Ministry of Social Affairs and Labour issued the decree 197 for the formulation of a National Committee for Apprenticeship, followed by decree 112 for the year 1961 establishing the Supreme Council for Industrial Apprenticeship and Vocational Training.

This report predominately looks into WBL and apprenticeships within the technical and vocational pre-university sector, however table 3.1 below, highlight the differences between apprenticeship and internship as outlined by the ILO and reflects the common understanding in Egypt especially between blue-collar and white-collar students and graduates/workers. However, as outlined in chapter 2, there are exceptions to this understanding.

**Table 3. Internships versus Apprenticeships**

Internships	Apprenticeship
Tend to be for university graduates or students	Tends to be for craft or trade, but also exists in services
Can be paid or unpaid	Usually paid
Work experience in a working environment	Training system consisting of work experience and institution-based learning
Does not lead to a qualification	Leads to a qualification (usually tested in bi- or tri-partite final exams)
Not formally overseen by the government or another competent authority	Formal apprenticeship is formally overseen by a competent authority
Time frame shorter/limited (typically 3-6 months)	Long term (typically 1-4 years)
On the job	Combines on the job with institution-based training
Tends to be more-white collar	Tends to be more blue-collar
Costs covered by the individual and/or firm	Costs covered by individual, firm and government
Benefit to employer coincidental	Benefit to employer tangible

*Source: ILO. Quality apprenticeship toolkit.*

## 3.2 WBL Policies

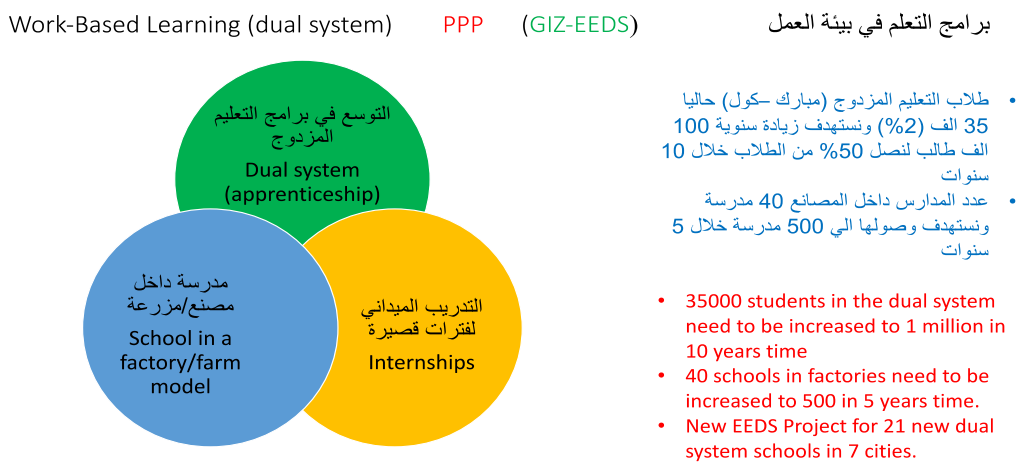
There is no TVET law that incorporates apprenticeship or WBL; however, there are many separate draft strategies led by different authorities and stakeholders within the system. The most prominent of these are the Ministry of Education Strategy 2014-2025, which includes clear plans for technical education however, it does not include vocational training. There is also Egypt's Sustainable Development Vision 2030, which places great emphasis on TVET and the involvement of the private sector and in talking responsibility for part of the education and training provision. There are also numerous strategies led by donor-funded projects like the EU-funded TVET Reform Programme (TVET 2). All these policy related documents although not yet nationally endorsed by the government place WBL as a priority for TVET reform.

The Ministry of Education, which is the largest provider of technical education including WBL, has announced ambitious targets to expand the Dual System from its current 2% of learners to 50% (1 million students) in 10 years. The Ministry also seeks to increase the number of schools in factories from 50 to 500 in 5 years (please see figure 3.1 below from a presentation by the Deputy Minister of Education during a conference in September 20 2017). The question is what are the practical plans in place to achieve these targets? According to the Deputy Minister, the MoE instructed all local education authorities to expand DS enrolment by 100,000 learners every year, however there

are no additional resources allocated in terms of labor, financial resources, equipment or incentives for employers. It is important to note that 20 years since the introduction of the DS, Egypt was able to reach 35,000 learners within 4,000 of the largest companies. However, how will the ministry expand this effort to one million learners and motivate smaller companies in only 10 years without clear incentives like tax reliefs, salary subsidies or even commencing a campaign to improve the image of TVET and WBL within society and the business community. Furthermore, an assessment of DS conducted by GIZ in 2010, estimates that realistically Egypt could expand the system to 60,000 students by 2020 (Adam, 2010).

Figure 4. MoE targets for expanding WBL in Egypt

اتاحة تعليم فني وفق معايير الجودة العالمية يحقق تنافسية الخريجين والمؤهلات محليا واقليميا وعالميا  
**Quality and Accessible TVET Education according to International Standards**  
 Private – Public – Partnership (PPP)



2017 الجيوشي algeushey

Source: Deputy Minister of Education Presentation, September 2017

The quantitative expansion must be parallel to huge investments in improving the quality of the system in terms of on-the-job assessments, training of in-company tutors, developing a NQF to facilitate recognition of prior learning for adult apprentices. The task is challenging in the short to medium term.

The attractiveness of any apprenticeship depends on the type of occupation: tourism, catering, electronic, industrial, and construction ranked in order of attractiveness. It is widely believed that introducing Long-life Career Guidance (LLG) would indeed assist in mitigating many of these cultural obstacles that hamper enrollment in apprenticeship. Several studies on introducing LLG have been conducted, along with capacity building of officials and other stakeholders. In 2010, a policy paper was introduced, but the January 2011 revolution forced the postponement of many developmental activities, including career guidance<sup>50</sup>.

<sup>50</sup> Badawi, 2012



### 3.3 Key Messages of this Chapter

- **Key message 1:** Despite the government's explicit acknowledgement of the importance of WBL and apprenticeship in its policies there is still a high degree of ambiguity and practical operational plans and formal legislation to expand them;
- **Key message 2:** Some of the laws and legislation are not aligned and there is no unified law for apprenticeship (as part of the TVET law) in Egypt;
- **Key message 3:** To expand WBL, there must be clear and practical plans and incentives for both learners (and their parents) as well as employers;
- **Key message 4:** Laws on regulating WBL and its assessments must be clarified and in most cases imposed.

## SECTION FOUR

### Employers and Employee Organizations

The general ineffectiveness of the Egyptian education and training system and the long-lasting mismatch between supply and demand has been the drive for the initiation of a number of cooperation initiatives between education and training on one hand and the business community on the other. The existing modes and methodologies of cooperation include both long-established initiatives that have become a normal part of the country's technical education and training system, and other relatively recent, small initiatives that, in many cases, are still in the piloting phase.

International donor programmes, among them notably the German “Mubarak –Kohl initiative” (MKI), the EU Technical, Vocational Education and Training (TVET) Reform Programme, have provided platforms of experimentation for these initiatives and with their “bottom up approaches” have contributed to prove that reform of the education and training system cannot be carried out without the active participation of the private sector. In parallel to this, programmes promoted by the Egyptian Government (such as the National Skills Standard Project or bilateral agreements between Ministries and private sector, for instance), have also contributed to improve the cooperation between education and business.

In order to understand the extent and nature of employer and employee organizations in Egypt and their involvement in WBL and apprenticeship, one must first understand the structure of the economy in terms of the formal economic sector and its parallel informal structure and the extent of employment in each.

Since the 1990s, the government has introduced economic liberalization policies for private sector expansion through privatization and new business development activities. In 2004, a series of macroeconomic reforms helped support a favorable external economic environment. These efforts increased GDP for four successive years (from 3.2% in FY04 to 7.2% in FY08) and offered an enabling environment for doing business. Egypt's economy showed a solid level of resilience to the 2008 international economic crisis; GDP growth reached 4.6% in FY09 and an average of 5% for FY 2009 and FY 2010. Moreover, throughout the crisis, the banking sector remained strong. During that period, many employer organizations were developed and others established in many of the priority sectors as well as in the expanding industrial cities around the country. These organizations for formal registered businesses are organized as sectoral chambers at the national level affiliated to one of the main federations in industry, construction, tourism and commerce, and then there are geographical investors associations that have members in different sectors, but are linked due to their geographical affiliation. In addition, there are trade-specific associations or bilateral business associations (like the American Chamber of Commerce, British Egyptian Business Associations, etc.). Only the central federations require by law that all registered businesses must be members, the other associations are optional memberships.

The economic situation since 2011, however, has been a different story. The disruption to commercial activity and the prolonged closure of the stock market in 2011 undermined investor confidence: GDP growth for FY2011 came in at 1.8%, which is much lower than the 7% forecast of the Ministry of Planning. According to the Central Bank of Egypt (CBE), 2012 GDP growth was 2.5%,

while the 2013 forecast was 3.5%, picking up recently to surpass the 4% in 2016. Tourism revenues fell in 2011 by more than 33% according to the Ministry of Tourism; FDI dropped to US\$900 million in 2011 and, according to the CBE, international reserves fell sharply to the extent that, by early 2012, reserves were sufficient for only three months of imports, which is less than half of what was available before January 2011.

Although Egypt continues to face significant economic challenges, its diversified economy offers a range of policy options for decision makers. The economy has diversified sectors across agriculture (14.5% of GDP in 2012; industry (37.4%) and a significant services sector (47.9%). There are key potential growth sectors including agriculture and food processing, manufacturing, pharmaceuticals, information technology and communications, energy and renewable energy, financial and business services, transport and logistics, as well as the wholesale/retail sector. The construction and tourism sectors are well established, but are more volatile to economic and political shocks, both nationally and internationally (World Bank SABER report 2014).

However, all studies reveal that the size of the informal economy has increased over the past three decades, and that it represents an important segment of the Egyptian economy. Informal employment represents a substantial part of total employment and has been growing during the last decades. According to El-Mahdi (2012), the number of informal workers went up from 2.3 million in 1988 to 3.3 million in 1998 and reached 4.4 million in 2006. Currently, in Egypt, there are 8.2 million people employed without formal contracts. Of those, 68% are engaged in informal enterprises, 22% in legal enterprises, and 10% in street vending activities and the like<sup>51</sup>. This represents 67% of total private non-agricultural wage work. The wages of informal workers are extremely low, especially among females.

In addition, the estimated numbers of all Micro and Small Enterprises (MSEs) increased by 4.7% annually from 2.5 million economic units to 3.5 million economic units in 2006, which is by far a higher growth rate compared to that of the period 1988-1998, where it grew by 1.6% annually. Out of all MSEs, 82% are informal units. Moreover, the MSEs are the major training providers to young apprentices who join these enterprises. Extensive informal training takes place in MSEs, and this helps in endowing new young entrants to the labour market with new skills. The newly acquired skills go through different levels of proficiency, starting at an apprentice level and moving upwards until reaching master of the trade level (El-Mahdi 2012). However, these informal enterprises do not have affiliations with employers or employee organizations (Hofmann, 2014).

## **4.1 Employer Organizations**

Most of the above mentioned formal employer federations and associations are involved in one way or the other in skills development initiatives in general to support their members and often their representatives are members of high-level councils or committees working in the TVET sector, however only a few are specifically responsible for WBL or apprenticeship programmes. This subsection of the report highlight some of the most prominent employer organizations managing apprenticeship programmes.

### **4.1.1 The National Centre for Human Resource Development (NCHRD)**

In 2004, the National Centre for Human Resource Development (NCHRD) was established under the umbrella of the Egyptian Federation of Investors Associations (EFIA). It has a major role in the

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<sup>51</sup> <http://www.eces.org.eg/MediaFiles/events/7045dd66.pdf>

application of the Dual System (described in section 2.2.1 above) in technical and vocational education (TVET) in Egypt initiated by the Mubarak Kohl Initiative (MKI) within the context of the partnership with the Ministry of Education (MOE). The Egyptian Federation of Investors Associations (EFIA) is a non-governmental representative of the private sector. Elections form the EFIA and it encompasses more than 45 Investors Associations (IA) in Egypt. NCHRD is the recognized entity for the 30 Regional Units for Dual System (RUDS) in technical and vocational education (TVET) which are present in 24 governorates across Egypt to supervise more than 42,000 apprentices training in 47 different trades/professions and deals formally with all related governmental bodies. The activities and objectives of NCHRD are cooperating with Investors Associations in raising awareness of the member enterprises concerning offering training places for the DS students. Standardizing rules and procedures in managing and assuring the quality of the Dual System in conformity with the ministerial decrees and related agreements. Strengthening the capacities of Investors Associations and the RUDS to provide specialized technical training to the member enterprises. Strengthening the capacities of the Investors Associations to have an active role in providing information on the local labour market. Contributing to the raising of awareness of society and the Egyptian youth on the value of work and the importance of the quality of production. Supporting entities concerned with TVET as well as employment in developing their services to meet the needs of enterprises of skilled labour (developing curricula, training of trainers, building Labour Market Information Systems (LMIS), career guidance, counselling, etc.). The NCHRD and the EFIA have been the predominate private sector partner for the DS, constituting almost a monopoly on the system, until this year when the MoE expanded this to include the Federation of Egyptian Industries (FEI) in their attempt to expand the DS enrolment and training places in enterprises.

#### **4.1.2 Sectoral Enterprise TVET Partnerships (ETPs)**

The EU-funded TVET Reform Programme (TVET 1) which started in 2006 and currently in its second phase established 12 ETPs as independent sectoral bodies to link employers and education providers with the main objectives of bridging the gap between the supply of and demand for skilled workers in the different priority sectors. The ETPs were directly linked by the relevant chambers and covered different industries (Engineering, RMG, Furniture, Food processing, Building materials, Leather, Printing, and Chemicals), Tourism (two ETPs) and Construction (two ETPs). The ETPs were modeled after the British sector Skills Councils and their boards were composed by two-thirds private sector including the Chairperson all nominated by the relevant chamber and one-third from the public TVET providers appointed by the relevant Minister.

Their main role included supporting the development of TVET providers to meet the needs of employers in the sectors through providing labour market information, training of trainers, participation in setting standards, qualifications and curricula development. Part of their functions also included support in managing the apprenticeship programme known as the Alternance Programme described earlier in section 2.2.4.

## **4.2 Employee Organizations**

While government ministries in Egypt have historically refused to recognize any unions other than those affiliated with the state-controlled Egyptian Trade Union Federation (ETUF), after the revolution of 2011, there were signs that the situation for independent trade unions in Egypt would change. Some government officials signaled a more liberal embrace of independent unions, workers formed hundreds of unions unaffiliated with ETUF, and the 2014 constitution expressed explicit support for union organizing and collective bargaining.

In 2016, however, ETUF reacted to these developments by filing a court case asserting that independent unions are illegal in Egypt. While the case continues, the Ministry of Interior invalidated the use of independent union stamps on official documents. The ILO has determined that this decree effectively revokes the fundamental right to negotiate and publish collective bargaining agreements, and exposes union leaders to the risk of dismissal or arrest. In a letter to the president of Egypt, the ILO Director-General called for the repeal of the recent ban on official recognition of independent unions<sup>52</sup>.

While unions have their own structural challenges, there was no documents and interviews that indicated a significant role for trade unions and other employee organizations in skills development and TVET policy and operations in general or apprenticeship in particular. There are also rarely represented on high-level councils or committees related to TVET reform although numerous donor-funded initiatives are constantly asking for this to be changed. Perhaps one of the main reasons why unions are not involved in apprenticeship programmes is that most of the programmes are targeting school-aged students and thus not considered employees even during on-the-job training.

### 4.3 Key Messages of this Chapter

- **Key message 1:** Despite the increase in the engagement of private sector organisations in the reform of TVET in the past decade or so, it is not yet adequately institutionalised in the system and very few employer organisations are involved in the management and operation of apprenticeship programmes;
- **Key message 2:** Insufficient involvement of employee organisations and trade unions in issues related to policy, management or operation of apprenticeship programmes.

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<sup>52</sup> <http://www.fairlabor.org/report/independent-trade-unions-egypt>

## SECTION FIVE

# Resources to Support and Improve the Quality of Apprenticeship and Work-Based Learning

This chapter describes the (non-financial) resources that are available to support apprenticeship and enterprise-based learning schemes and to improve their quality. Table 2.1 in chapter 2 provides the basic information for each of the major WBL and apprenticeship programmes offered in the Egyptian context in terms of skills level offered, split between off the job and on-the job training, assessments and tests, certification and qualifications of in-company tutors. Here we summarize some of the other details as well as highlight some of the donor-funded projects that offer support to the TVET system as a whole (including WBL) to improve quality and focus on a couple of technical assistance projects that focus solely on the support of apprenticeship schemes.

## 5.1 Training Content

Most of the formal apprenticeship schemes outlined in chapter 2 and end up with a formal diploma from the MoE have official and documented study plans that accurately articulate in detail the requirements of the programme in terms of the following:

- Occupational standards and skills levels (although not yet nationally unified or recognized, but approved by the relevant ministry that issues the certificate);
- Division in percentage and number of hours between general subjects, off-the-job theoretical and practical content and on-the-job training requirements;
- Assessments and tests both theory and practice and those undertaken at the workplace are well articulated and developed;
- Equipment requirements are well analyzed and articulated at each stage (although not always available at the schools and centers or outdated or not enough to provide the required time for each student due to the large number of students in relation to the equipment);
- It is documented how curricula should be developed and updated based on best practice especially at the start of any initiative with support of donor projects including the involvement of employer representatives and private sector, however this is not consistent especially when donor project end.

Although the above activities are well documented and endorsed by the Minister himself, the implementation phase lacks financial and human capacity most of the time. As for non-formal apprenticeship, the situation is less structured and there is no evidence that it happens this way.

## 5.2 Delivery of Training in the Workplace

As outlined in chapter 2, workplace learning happens within the formal apprenticeship programmes in a variety of ways, including on-the-job using the factory equipment or through dedicated training facilities or simulations (as in the El Sewedy example, Annex 2). As explained the structure of the learning is well documented however not all employers comply and may change the sequences according to their production plans.

Supervision occurs through intermediary employers' organizations just as the RUDS in the DS or the ETPs in the alternance training or the MoE teachers in the school in factory scheme. In most cases, these are student logs to monitor the learning of the apprentices that is led by the employer in cooperation with the intermediary partner.

The MoE through the intermediary employer organization also assesses the workplace learning facilities and operations to ensure that they are adequate. They sign an agreement to comply with the full learning programme of the learner; however, this is strict because the MoE wants to expand the quantity of employers involved in WBL. Quality plays a less significant role in the qualifications and competencies of those involved in mentoring or training apprentices on-the-job. During the contract implementation, periodic inspections take place by the RUDS or the ETPs, but again these are often not very detailed.

Few programmes through donor projects (GiZ and EU TVET Reform) offer on-going training and orientation to in-company trainers and supervisors responsible for learners. This issue requires focus from the national level and requirements for precipitation in WBL programmes.

Most of the active WBL programmes are suitable for the Egyptian context; however, specific types of programmes may be more suited for some industries rather than others. For example, ready-made garment manufacturers prefer the school in factory model because they can easily provide real life training on production lines while heavy machinery industries that have also high cost production may prefer simulation equipment that could be available in off-the-job centers part of the time. Adult apprenticeship programmes like the one piloted by the ITC and the British council still needs to be extensively tried to have a clear assessment, however it could be a good potential to absorb the large number of unemployed in a practical setting however it needs to be linked to formal certification and accreditation like the student-based schemes. There is also a government planning challenge that hinders the adequate implementation of apprenticeships, most of the large industrial cities were established in relatively remote areas away from highly populated residential communities which makes the model of alternating training between school or home to factory very challenging and transport and working hours difficult for younger students. These companies have the potential to absorb a large number of apprentices. Some companies provide living quarters or transportation to employees, but this is not a good option for young learners' especially young female learners for cultural reasons.

### **5.3 Delivery of off the Job Training in Schools or Vocational Training Centers**

Most of the formal WBL schemes include an off-the-job training component whether at the school outside the workplace (e.g. DS, PVTD and Alternance training) or in the schools located in the workplace in the school in factory scheme. The proportion of this typically varies from 20% to 60% and it covers both theory, general education and in some cases like PVTD practical training.

As discussed earlier the percentage of WBL compared to traditional technical education is very limited between 2% and 3% of learners. The other bigger percentage are rarely exposed to workplace training and thus are less acquainted with practical working conditions and have less confidence and lower skills when they enter the workforce and employers are less satisfied with their outputs.

## 5.4 Assessments and Certification

As mentioned several times in this report and in Table 2.1 in Chapter 2, almost all formal apprenticeship programmes require and include assessments and tests administered by the body that awards the certification (MoE, MoI and MoMM).

The employee with the support of the intermediary organization often administers work-based assessments; however, the relevant ministry grants the formal diploma.

## 5.5 Human Resources

In-company tutors and mentors are usually experienced supervisors, engineers or production specialists depending on the occupation at hand, however almost in all cases companies do not have specialized trainers nor are they formally qualified or certified trainers. Only very few exceptions exist, like in the El Sweedy School where some of the theoretical trainers are professional experts and the company also employs a German expert to overlook the technical aspect of the school and provides training for the in-company practical instructors.

The situation for technical and practical teachers and instructors in the TSSs (include dual system instructors) and PVTD responsible for off-the-job training is not very structured and sometimes unclear. These teachers and instructors can receive their initial education from different sources like University (e.g. Faculties of engineering, agriculture, tourism, commerce...), the four Industrial Education faculties or from technical education five-year programmes. It is not clear whether they fulfil the one-year intensive education diploma as in the case for general or core-subject teachers (El-Ashmawi 2016).

Trainers have thus a varied range of qualifications, sometimes with little or no specialist trainer training. The main qualification does not appear to be a (pedagogical) trainer competence, but rather the possession of an academic degree, often in a subject not necessarily related to the one taught<sup>53</sup>. Stakeholders interviewed in the framework of this study suggest that Egypt should create more teaching positions for top graduates or experienced professionals.

## 5.6 Information and Advice System

Promoting WBL and apprenticeship schemes and providing the necessary information and advice to both students and their parents as well as employers is unstructured and inconsistent.

For students, information is available to them through posters and in-person Q&A. The best promotional tool they use is the information about learning and earning at the same time. There are no national campaigns about WBL despite the government intent to expand it. The RUDS who are responsible for managing the on-the-job part of the Dual system and finding placements in companies do promotional work and place posters in their communities and they go and visit the companies and advice both students and employers on the benefits of the Dual system.

Companies that operate schools in factories also do some promotion and information sessions and make good use of social media to attract students and their parents.

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<sup>53</sup> Innovative Practices in Teacher and Trainer Training in the Mashrek Region, ETF (2003)



Donor-funded projects that support WBL also print promotional material and create videos on YouTube. In 2012, the EU funded a twinning programme between the PVTD and a Finnish TVET institute and the cooperation and technical assistance focused on developing the PVTD's marketing tools including its website. USAID also supported the MoE to establish School-to-work transitional units at some schools (not necessarily the Dual system schools) and these units provide both information to employers and to students on apprenticeship schemes and are currently developing career guidance tools through the support of GiZ.

## 5.7 Current Donor-Funded Support to WBL

For over 20 years, TVET reform has been high on the agenda for international donors supporting Egypt. While the reform does not solely focus on WBL and apprenticeship; however, most projects address some aspects of WBL through the technical assistance provided to the institutions responsible for managing this type of TVET delivery.

More recently, the period following the revolutions in Egypt marked an increasing attention by donors to be more active in TVET and employment promotion. Currently several large-scale projects are active. The largest of which is the EU funded TVET II (117 million Euros as cost-share between the EU and GoE with 67 million and 50 million respectively). USAID's workfare development project (WISE) worth \$25 million started in 2015, and a large loan negotiated with the World Bank will also include a technical assistance component. This is in addition to other smaller projects by the Germans, Italians, UNESCO, and the IOM. The activities under all these projects include:

- Support to the TVET governance structure
- Support to developing a sector-wide TVET strategy
- Improving quality assurance and the development of a National Qualifications Framework
- Curricula development
- Teacher training
- Transition to work
- Labour market information
- Active labour market programmes
- School-based reform
- Reform and expansion of the Dual system
- Changing the image of TVET

The above-mentioned donor interventions requires exceptional coordination from the Egyptian government, which is currently not happening.

More specifically projects that target WBL include:

- The GiZ Enhancement of the Egyptian Dual System (EEDS)- a 10 million Euro project that started in 2015 and will end in 2020 with the following main areas of support:
  - Policy advice for the enhancement of the Egyptian Dual System
  - Increasing the number of students and enhancing the quality of teaching and training;
  - Capacity building for school management, teachers, in-company trainers and coordinating bodies;
  - Introducing inter-company training concept

- **Combating Child labour:** The apprenticeship component of the multi-donor initiative will help combat child labor and will succeed in designing and putting in place a practical scheme that is sustainable without donor funds. The initiative is implemented by three UN Agencies (ILO- UNICEF and WFP), building on a previous project implemented by the same three UN agencies. The previous project lasted for 5 years, but its apprenticeship component started too late and while it led to a good foundation, it did not reach the objectives. The current initiative also covers more governorates and larger numbers of children with the Ministry of Manpower and Migration (MoMM) the national counterpart in the project (Badawi 2012).
- **PVTD reform-** The Ministry of Industry (Moi) is currently in preparation for a project that will restructure the PVTD apprenticeship programme. It is still in the pipeline and not enough information was provided on which donor will be supporting this initiative.

## 5.8 Key Messages of this Chapter

- **Key message 1:** There is not yet an endorsed NQF or a unifies procedure for curricula development and training of trainers
- **Key message 2:** Not enough training for in-company tutors and instructors is offered
- **Key message 3:** Not enough marketing and promotion of WBL is provided to students and employers;
- **Key message 4:** The support provided to WBL and apprenticeship is ad hoc and not consistent in terms of quality and sustainability especially after donor projects end.

## SECTION SIX

# Funding Work-Based Learning Programmes, such as Apprenticeship Learning

This Chapter looks at the funding of WBL and apprenticeship programmes in Egypt: both from the employers' side as well as the government, which is the main provider of the off-the-job trainings. However, it must be noted that obtaining accurate information on the government spending on apprenticeship in isolation of the total budgets for technical educational and vocational training is quite difficult and often not updated so the mechanism of funding TVET in general will be outlined rather than the values.

### 6.1 Contributions of Employers in WBL and Apprenticeships

As illustrated in Table 2.1 in chapter 2, most employers involved in formal WBL programmes pay a stipend/wage for apprentices while they are training on-the-job. The range is from EGP300 (USD 17) to EGP650 (USD 37) per month during the time they are in the company. These amounts progress from year to year during the formal apprenticeship programmes of 3 years and less than the official minimum wage for workers of EGP1200 (USD 68) per month. As stated some of the employers pay more for students especially in the school in factory schemes and it is left up to their discretion however the basic stipend is set by the MoE with advice from the RUDS for example in the case of the Dual System<sup>54</sup>. In the PVTD scheme, the apprentice receives between 15% and 20% of the minimum wage per month during the third year. According to Badawi (2012) apprentices may also receive other benefits (but not by all companies), such as transportation, work uniforms, recreation, social and sportive events. In addition to covering wages for students in the Dual system, PVTD, alternance and school in factory models employers cover the cost of on-the-job training in terms of salary of in-company instructors, training material and equipment used and in some very rare cases mentioned some employers donate old equipment to the schools to be part of the off-the-job training.

In the Dual system model, employers also pay the RUDS a small amount (EGP40) for every apprenticeship per months to cover the cost of the RUDS in managing the process with them.

Employers who manage schools in factories are responsible for covering the cost of establishing the classrooms for the theoretical and general subjects and while the MoE covers the basic salaries of the school principle and general subject teachers, most employers top-up these salaries to motivate these government staff and to cover part of the transport costs.

Currently, there is no legislation in place where the government provides incentives for employers especially the private sector in participating in WBL schemes like tax incentives, wage subsidies, etc. However, companies mention the value they get in terms of better skilled workers trained according to their needs and thus directly affecting their financial bottom line. However, this is the case for larger companies who see the value of training and being involved, the challenge is convincing smaller employers of the value of WBL.

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<sup>54</sup> There is no evidence that other employer organizations or trade unions are involved in setting these wages or of any systematic process of how they are set.

## 6.2 Funding Off-the-Job Training within WBL

The government covers the cost of off-the-job training at schools or in the case of the PVTD at their training centers. As mentioned above, this is part of the financing of TVET in general and it is difficult to differentiate the WBL part of the budget, therefore we outline here the funding of TVET including WBL based on the 2014 World Bank Saber assessment of the funding of TVET.

Public institutions enroll 93% of pre-university education students, rendering the government the main source of financing for education and TVET at large. Public expenditure on education<sup>55</sup> reached EGP 33.7 billion (USD 5.02 billion) in FY08, representing 12% of total public expenditure. The ratio of public education expenditure to GDP decreased from 5.3% in 2000 to almost 3.7% in the two years before the revolution. Average public expenditure per student in Egypt in purchasing power parity terms was estimated to be (constant 2005 international dollars) 282, 405, 394, and 902 in primary, preparatory, secondary, and tertiary education, respectively, all of which are below corresponding values in comparable countries in the region or with similar demographic or developmental characteristics<sup>56</sup>. The real expenditure on education may almost double this figure of EGP 33.7 billion by including private tutoring expenditures paid by families. Estimates suggest that the combined private tutoring costs may equal the budget of the MOE.<sup>57</sup> However, not all families have financial resources to pay for private lessons, introducing a potential source of inequality in access to education and jobs related to family income.

Technical secondary education (including apprenticeship) receives a lower level of expenditure per student compared to general secondary education. The lower expenditure is despite the greater costs associated with technical education, given the equipment, maintenance, raw materials, and lower student-teacher ratios usually required for technical courses. Table 6.1 below describes expenditure differences between technical and general education. However, they are both much less than the private sector, the average cost per student in German Hotel technical school in El Gouna is around EGP 11,000 per year. The bias towards general secondary education is also evident in the quality when comparing numbers of students per school. There are around 6000 general secondary schools serving 862147 students and 1300 technical secondary schools serving 1,554,534 during the academic year 2009/10.

**Table 4. Comparison between Expenditure in Technical and General Secondary Education<sup>58</sup>**

	*Total Budget (2005/06) LE (billion)	Percentage of Secondary education budget	**Total # of Students (2005/06)	Average expenditure per student (LE)	Percentage of students (2005/06)
Technical Secondary	2.743	60%	1,974,391	1,389	62%
General Secondary	1.828	40%	1,239,189	1,475	38%

Sources: \*Education for All: Mid-term Evaluation 2000-2007, \*\*PVET in Egypt, Country Background Report, 2011

<sup>55</sup> The 2014 Constitution, Article 19 states that "The state commits to allocating a percentage of government spending that is no less than 4% of the GDP for education. It will gradually increase this until it reaches global rates."

<sup>56</sup> Countries include Chile, India, Jordan, Malaysia, Peru, and the Philippines.

<sup>57</sup> ENCC/TVET Reform Programme/ETF, Building a Competitiveness Framework for Education and Training in Egypt 2010.

<sup>58</sup> Although the data is not updated but the analysis is still valid, according to interviews with MoE officials for this report, the proportion of Technical School students has decreased slightly to 58% of all secondary school students.

The Labour Law of 12/ 2003 sets up the National Training Fund to raise contributions from employers (1% of net profit) for financing continuing training. However, shortly after it started collecting revenues, the issue of potential unconstitutionality of the Fund was brought forth, which interrupted its operations. The Ministry of Manpower and Migration (MoMM), its umbrella ministry has recently studied mechanisms and solutions for making this Fund more effective in collaboration with the EU TVET Reform Programme. The programme commissioned an international expert who after consultations with groups of employers from different geographic and sectoral backgrounds made a proposal for a change in the law. The proposal seeks to make the Fund based on a certain percentage of the payroll that 80% of the allocated budget is for training in the same proportion of the sectors that paid them, and the remaining 20% will be for crosscutting initiatives. In 2010, the MoMM saw the proposal, but due to the political unrest, no decisions happened. While this proposal would improve the situation and encourage employers to contribute, it requires legislative reform, which will take time, but a law is currently under review by parliament that will restructure the National Training Fund.

Additionally, line ministries, most notably the Ministries of Tourism, Industry, and Housing, subsidize numerous training initiatives through training councils, while non-governmental organizations (NGOs) also subsidize employment initiatives. Funding for workforce development in Egypt is mostly based on historical expenditure data, with no links to performance and no consideration of national socioeconomic priorities. In general, there are no formal reviews of the impact of funding on training program beneficiaries. Additionally, there is limited investment by the private sector in workforce development at the national level. However, some recent positive developments include: (i) increases in education and training budgets; (ii) efforts to decentralize the management of budgets to the governorate level; and (iii) several ministry-driven efforts to fund training in partnership with sector federations and in alignment with market needs. An example is the Ministry of Tourism, which has been funding training in the sector over the past 10 years. The Egyptian Tourism Federation manages this initiative and trains 140,000 workers (including limited apprenticeship schemes). There are no regular and timely formal reviews of the impact of funding on the beneficiaries of training programs. As a result, public TVET providers in Egypt fall into a vicious cycle of low quality and low esteem because employers do not associate these public providers with good quality services, while providers continue to provide supply-driven programs. In the absence of the necessary tools, the government is unable to assess performance, and thus cannot justify increases in the limited financial resources for such programs and improve their quality.

### 6.3 Key Messages of this Chapter

- **Key message 1:** Employers pay stipends for apprentices, however there is no set level of stipends during on-the-job training although the MoE and other government bodies try to set these levels differently and it is usually much less than the minimum wage for starting employees;
- **Key message 2:** Employers who manage schools in factories are responsible for the cost of setting up classrooms and equipment and the government pays the basic salary for the school principle and general subject teachers;
- **Key message 3:** Some employers provide other benefits to apprentices such as transport and uniforms but it is not consistent for all employers;
- **Key message 4:** Off-the-job training is covered by the government, however, information and analysis is not widely available specifically for WBL;
- **Key message 5:** Employers receive little if any incentives to participate in WBL. If the government is to expand formal WBL, it must develop incentives like tax reductions and wage subsidies.

## SECTION SEVEN

### Evidence, Data, and Research

While government bodies and intermediary employer organizations engrained in managing WBL and apprenticeship schemes do collect regular data and statistics on active schemes, this is highly inconsistent and often the information is not readily available for researchers<sup>59</sup> or even decision makers in the same organizations. In most cases, local offices that monitor apprenticeships on the ground and provide the needed data are not connected through an electronic network together or with the central departments and sending the data is often inconsistent and delayed. For example, the Executive Director of the NCHRD responsible for the 30 RUDS responsible for Dual system apprentices while at the employers expressed his frustration of not being able to receive data from all RUDS consistently or in a timely manner to make appropriate decisions for planning. The same is the case between the NCHRD and the MoE where the relationship is not very strong and often RUDS bypass the NCHRD and deal with the MoE directly.

Different bodies collect data on:

- Assessment and exam results (perhaps the most accurate as it has to be sent to the MoE to issue certificates)
- Number of students and apprentices;
- Number, type and sector of employers involved and their locations;
- Information of wages and stipends;
- Information on completion and drop-outs;
- Information on gender and age of apprentices;
- Information on annual applicants in these programmes and how many are accepted and how many are rejected;
- Information on number of teachers and staff in off-the-job settings.

Annual statistics are only available on the number of students who pass and fail each year. There is no analysis of the data collected to help support decision making and planning.

The situation within informal and non-formal apprenticeship schemes is even more challenging when it comes to evidence-based research and gathering data because the institutions involved are less developed (NGOs, MOMM etc.) and the employers are often very small or part of the informal economy.

No national body conducts regular surveys on the performance of WBL and apprenticeship in Egypt. Studies that evaluate the performance and impact of WBL as well as tracer studies of graduates are rare and led by international organizations and donor-funded projects. Annex 3 of this report provides a list of and links to the most recent studies conducted by international organizations like GiZ, ILO and ETF.

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<sup>59</sup> Information can be obtained through strong personal connections or through agreements with international organizations active in the TVET sector however the information is often not validated or reliable. The author of this report got different data from different people in the same government organization.

## 7.1 Key Messages of this Chapter

- **Key message 1:** While data and statistics are collected by different bodies responsible for WBL, they are often inconsistent and unavailable for researchers and are not adequately analysed and presented to decision makers and planners;
- **Key message 2:** Cooperation between the different partners at the local and central level is not strong when it comes to collecting and sharing information on WBL;
- **Key message 3:** International organizations and donors are the most active in conducting studies and surveys on WBL with no evidence of an existing national body responsible for this.
- **Key message 4:** Limited information and analysis is available on a regular base.

## SECTION EIGHT

# Conclusions and Ways Forward

In this final chapter, we provide conclusions on the main findings and key messages from all the previous chapters in the form of a SWOT analysis of WBL and apprenticeship provision in Egypt and then we list the main recommendations as provided in both documents and interviews for improving and expanding WBL in Egypt.

### 8.1 SWOT Analysis of WBL

The benefits of WBL in skills development in Egypt is well documented and acknowledged despite the weakness of evidence-based research to confirm this. These benefits include the following:

- Sharing the responsibility of skills development between the government and employers especially those in the private sector and bridging the gap between the demand for and supply of needed skills in the labour market;
- In a middle-income country like Egypt, WBL reduces public expenditure on updated equipment and raw material where these are substituted for in the training that takes place at the workplace;
- WBL facilitates the transition from school/unemployment to employment providing learners with the needed skills and experiences required in the labour force and provides the needed mindset to adopt better to professional and technical responsibilities.
- WBL fosters stronger loyalty and trust between employers and apprentices and future employees, something that is very important within the Egyptian context where the turnover of blue-collar workers is very high;
- WBL provides employers with an effective and constant supply of skilled workers for recruitment, thus reducing long-term recruitment costs and improves selection procedures;
- WBL provides learners from low-income families with the opportunity to learn and earn at the same time, thus also improving the negative perceptions associated with TVET especially if parents can see that their children will most likely be guaranteed a job after school;
- WBL provides better links between employers and employer organizations on one hand and between employers and training providers on the other although there is room for improvement in this area in Egypt.

There are also defects in the current system of WBL in Egypt including:

- The complexity and fragmentation of the TVET system as a whole does not allow for unified strategies for implementing WBL with low coordination, low quality assurance mechanisms and weak information and analysis for adequate planning;
- The structure of the Egyptian economy with a large proportion of employers either very small or informal makes it very difficult to convince these employers of the benefits of WBL and thus the low numbers of apprentices compared to learners in solely center-based TVET;
- Monitoring learners during on-the-job training is weak and inconsistent and requires a lot of self-discipline on part of the employer especially in complying with the agreed study plans.



The following table provides more details of the WBL system’s strengths, weaknesses, opportunities and threats based on the findings of this report.

**Table 5. WBL SWOT Analysis**

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>• Long history of WBL and apprenticeship which makes it well established in the system</li> <li>• High-level government commitment in expanding WBL</li> <li>• Many different examples and pilots that if studied well could provide a good base for selecting an Egyptian national model</li> <li>• WBL is available at both formal and informal schemes and for both young learners and adults</li> <li>• Dedicated technical support by international donors for WBL</li> <li>• Existence of employer organizations with experience in WBL and many others willing to support</li> <li>• Some employers already investing in establishing schools within their enterprises, which is a good example of employer engagement in TVET.</li> <li>• WBL learners are better performers than their counterparts in the traditional technical school system which means better image of WBL especially with the fact that students also have a better chance to proceed in the education pathway and to earn while they learn</li> </ul>	<ul style="list-style-type: none"> <li>• No TVET or WBL law in place and exiting legislation is fragmented and sometimes contradicting, this lack of regulations for a national system leaves current WBL schemes as isolated Islands</li> <li>• Proportion of WBL compared to school-based TVET is very low</li> <li>• Systems need to be developed to better ensure consistency in quality. The quality assurance and accreditation system is weak and affects the implementation of WBL</li> <li>• No structure for training in-company tutors and instructors</li> <li>• Not enough impact assessments as well and surveys conducted on a regular bases by national bodies to improve decision making</li> <li>• Not enough structured marketing and promotion of WBL exists for both learners and employers</li> <li>• Employer engagement in issues like curricula development is not consistent</li> <li>• Relationship and cooperation between government bodies responsible for delivering off-the-job and employer organizations responsible for monitoring on-the-job training is weak</li> <li>• The assessment system in general and within the on-the-job part needs restructuring</li> <li>• Funding mechanisms are not clear and inconsistent</li> <li>• No specific plans for expanding WBL according to the ambitious targets declared by government</li> <li>• No financial or non-financial incentives offered to employers to participate in WBL</li> <li>• The sustainability of WBL programmes that were initiated by donors is weak and questionable and many changes occur or initiates are terminated once these</li> </ul>

	<ul style="list-style-type: none"> <li>projects end.</li> <li>Often teachers responsible for off-the-job training discourage students from going to the on-the-job training and thus need much for awareness and motivation to support WBL</li> <li>The proportion of female apprentices is relatively low.</li> </ul>
Opportunities	Threats
<ul style="list-style-type: none"> <li>Support to TVET by the current government and donors is high</li> <li>TVET reform is on-going which should benefit WBL</li> <li>Foreign direct investment, mega project as well as exports has increased in the past couple of years, if this continues there will be need by employers to invest in skilled workers and thus WBL</li> </ul>	<ul style="list-style-type: none"> <li>The current political and economic stability is affected which will in turn discourage employers from investing in skills development through WBL</li> <li>The government realizes that the targets set for WBL is unrealistic and loses momentum in expanding WBL</li> <li>The government continues to establish industrial and business parks far away from populated communities which makes it difficult for young apprentices to go to these workplaces for training</li> <li>Learners and parents continue to value academic tracks rather than TVET and WBL</li> <li>Donor coordination remains weak leading to duplications in some areas and neglecting others in the process of TVET reform including the provision of WBL and apprenticeships.</li> </ul>

## 8.2 Recommendations on the Way Forward

Based on the above SWOT analysis and the documents reviewed for this report as well as the interviews with key stakeholders, the following recommendations are for Egyptian policy makers to improve and expand the provision of WBL and apprenticeships.

1. Draft and finalize a TVET law and strategy that includes explicit and clear articles on governing the system including WBL and apprenticeship provision limiting the fragmentation and creating an umbrella organization that provides the necessary leadership and supervision of the system. The law and strategy development should include all stakeholders especially employers from the private sector and employee organizations.
2. Reforming the quality assurance and accreditation system, creating coherence and clear procedures in areas related to developing standards and qualifications, developing and updating curricula, administrating assessments, training of trainers and recognizing prior learning. This should also include the acceleration in developing the National Qualifications Framework (NQF) that has been a work in progress for a long time. All this will also include the provision of WBL and apprenticeship especially within on-the-job training and within schools in factories.

3. The relevance of TVET to the labour market needs can be improved by institutionalizing employer engagement at all levels of the system as well as establishing sustainable and regular information through labour market information systems, which is quite underdeveloped in Egypt.
4. Restructuring the funding mechanisms for TVET including WBL and apprenticeships both within the school-based training structure and within the employer side. This will require allocating budgets within public TVET providers based on performance and impact (and allowing more financial and management autonomy for schools and centers), restructuring and reactivating the National Training Fund (training levy) with clear quotas for WBL, and providing financial and non-financial incentives for employers to be engaged in WBL. International and regional good practice in countries similar to Egypt can help look at incentives for the private sector.
5. The Ministry of Education should draft a realistic operational plan with clear indicators and timelines for the targets set to expand the Dual System from the current 2% to 50% of all technical school students by 2025 and increasing the number of schools in factories from 50 to 500 in the next five years. The challenge here will be the structure of the Egyptian economy with the overwhelming majority of enterprises small and informal. How will the government incentivize this segment of employers to take apprentices? The current system relies on larger companies taking on average 10 apprentices per year or those with financial means to establish their own schools enrolling on average 160 students per year. The key here will be to provide financial incentives like tax reductions or wage subsidies (and other means according to international good practice). Furthermore, the new GiZ project, Enhancement the Egyptian Dual System (EEDS) will start soon experimenting the idea of “Inter-company training concept” which will pilot the idea of forming clusters of small enterprises to share in the training of apprentices. Learners will rotate among these enterprises to gain the skills required for a complete occupation, something that most individual small companies may not be able to do individually because they do not have the range of skills as in larger companies. Employers in that scheme will also share the cost of wages for apprentices. It will be interesting to see the results of this and the government should play a leading role in monitoring and evaluating this pilot and assess the feasibility of mainstreaming the pilot if successful.
6. More attention to setting clear and standardized qualifications for in-company tutors and mentors responsible for the in-company training of apprentices. Furthermore, consistent and regular training for these tutors should be established and not left in its current ad hoc status. These qualifications should be part of the agreements drafted between the government and employers.
7. More advanced and regular evidence-based research, data collection, and monitoring and evaluation tools at the national level with networks at the local level for TVET in general and WBL in particular. The objectives should include analysis of the system, best practices, shortcomings, and used as a tool for informed decision-making. The central government body like the Ministry of Education or the new TVET umbrella authority can manage this process and receive donor funding to start but it is crucial that sustainable measures are in place from the beginning. Crucial to understanding the extent and nature of WBL better is to have better information on informal/traditional apprenticeship schemes where information is almost none existent.
8. More structured information on and promotion of WBL for all students, parents, jobseekers, employers, intermediary employer organizations, and employee organizations. This will also require establishing effective life-long career guidance and counseling services at early age during school, in employment service offices and other relevant settings.

9. Intermediary employer organizations should receive capacity-building classes to manage the process of WBL especially at enterprises. In addition, the relationship between government bodies and these employer organizations needs to improve at the operational level with more cooperation and alignment in the overall objectives of WBL. Employer organizations should also develop orientation programmes within enterprises for off-the-job teachers and trainers in order for the links to be stronger between school and enterprise and this will be for the benefit of the learner, especially that most practical instructors at schools have not had specialized training or trainers and technical qualifications in the subjects they teach. The government should also involve trade unions in the reform and planning of WBL as this is really rare despite that they do serve on the boards of some institutes like the PVTD for example.
10. The government should take more responsibility in coordinating donor activity in TVET reform in general and WBL in particular. The priorities and activities where technical support is needed from donors is set by the relevant government body to make sure all support areas are covered and to avoid duplication and fragmentation especially in introducing too many models from different countries without having an agreed Egyptian model for WBL.
11. Apprenticeship are a link in the life-long learning chain, opening channels with other and higher types of education (Badawi, 2012) and expansion of adult apprenticeship for jobseekers, despite some small-scale pilots, the current WBL system is focusing on school-aged learners. There is a lot of room to learn for the British experience in this area.
12. Off-the-job apprenticeship in well-established training centers at local areas should complement traditional informal training system.
13. Public-private partnerships can further strengthen the traditional informal training system. The MoMM could play a leading role in this respect via enacting a three-year contract between the family of the apprentice and the workshop owner. The MoMM would also ensure that the joining enterprises would take into account occupational health and safety requirements. The enterprises applying to such a system have to regularize their situations accordingly, entering the formal economy. During the three years, the enterprise has to determine the apprentice's level, whether low, medium or high skilled worker. After completion of the on-the-job and off-job training, the MoMM will test the apprentice and award a certificate. This way the certified worker would be entitled to register for employment services and would be eligible for regulated migration schemes by the ministry. In return for the enterprises' joining this scheme and participating in organized training of apprentices, the MoMM could choose from either offering financial support to these enterprises to help them cover their expenses, or alternatively may provide them with loans in order to upgrade their machinery and equipment (EL-Mahdi 2012).
14. The need to introduce specializations, which may be more culturally suited for female apprentices.
15. The government, in partnership with all stakeholders is required to implement an integrated campaign to change the image of TVET in general and WBL in particular. This should include untraditional tools like social media, messages within drama and reality show competitions addressing the target group.

## List of Abbreviations

Acronyms and Abbreviations	Meaning
CAPMAS	Central Agency for Public Mobilization and Statistics
CEOSS	Coptic Evangelical Organisation for Social Services
CID	Community and Institutional Development
DS	Dual System
EEDS	Enhancing the Egyptian Dual System
EFIA	Egyptian Federation of Investors Associations
EGAC	Egyptian Accreditation Council
EGP	Egyptian Pound
ENCC	Egyptian National Competitiveness Council
EPP	Employment Promotion Programme
ETF	European Training Foundation
ETP	Enterprise TVET Partnership
ETUF	Egyptian Trade Union Federation
EU	European Union
FEI	Federation of Egyptian Industries
EVCQs	Egyptian Vocational Competence-Based Qualifications
GCI	Global Competitiveness Index
GDP	Gross domestic product
GIZ	Gesellschaft für Internationale Zusammenarbeit
GoE	Government of Egypt
IEC	Industrial Education College
ILO	International Labour Organization
IOM	International Organization for Migration
ITC	Industrial Training Council
LLG	Long-life Career Guidance
LMIS	Labour Market Information Systems
MKI	Mubarak-Kohl Initiative
MoE	Ministry of Education
MoHE	Ministry of Higher Education
Mol	Ministry of Industry
MoMM	Ministry of Manpower and Migration
MoTET	Ministry of Technical Education & Training
MTI	Middle Technical Institute
NCHRD	National Centre for Human Resource Development
NAQAEE	National Authority for Quality Assurance and Accreditation in Education
NCVA	National Council for Vocational Accreditation
NEET	Not in Education, Employment and Training

Acronyms and Abbreviations	Meaning
NGO	Non-Governmental Organizations
NQF	National Qualifications Framework
NSSP	National Skills Standards Project
PAT	Professional Academy for Teachers
PVE	Postsecondary Vocational Education
PVET	Postsecondary Vocational Education and Training
PVTD	Productivity and Vocational Training Department
RMG	Ready-made Garments
RUDS	Regional Units for the Dual System
SCHRD	Supreme Council for Human Resources Development
SFD	Social Fund for Development
SMEs	Small and Medium Enterprises
SQA	Scottish Qualifications Authority
STA	Sewedy Technical Academy
STI	Staff Training Institute
SVE	Secondary Vocational Education
TC	Technology Collage
TOT	Training of Trainers
TSS	Technical Secondary school
TVET	Technical Vocational Education and Training
USAID	United States Agency for International Development
USD	United States Dollar
VAT	Value Added Tax
VET	Vocational Education and Training
VTC	Vocational training centres
WB	World Bank
WBL	Work bases learning
WFP	World Food Programme

## List of Interviewees from some of the Stakeholders

Organization	Name (s)	Position (s)
Ministry of Education	Dr. Ahmed El-Geyoushy	Deputy Minister for Technical Education
Ministry of Education	Ms. Habiba Ezz	Advisor to the Minister for Technical Education Reform
Ministry of Education	Mr. Mahmoud Abdel Latif	Head of the Dual System
PVTD (Ministry of Industry)	Mr. Ahmed Taha,	Former Chairman
Ministry of Manpower and Migration (MoMM)	Mrs. Samia Ayoub	Head of Vocational Training Department
Industrial Training Council (ITC)- Ministry of Industry	Mr. Ehab El Gabass	Head of Operations
Ministry of Higher Education	Dr. Ahmed El Assal	Executive Director of the Technology Projects
Building and Construction ETPs	Mr. Sameh Gameldin	Executive Director of Civil Engineering ETPs
Building Materials ETP	Mr. Sameh El Kashef	Executive Director of Building Materials ETP
Americana	Mr. Abdel Hakim Hussein	HR Director
El Sewedy Technical Academy	Mr. Ahmed NAbil	General Manager
International Labor Organization (ILO)	Ms. Christine Hofmann	Senior Skills Specialist
GiZ Enhancement of the Egyptian Dual System (EEDS)	Mr. Lars Fiechel	Head of Project
National Center for Human Resources Development (NCHRD)	Mr. Mohamed El Khashab	Executive Director
ILO, CIDA, ETF	Mrs. Ghada Amin	Senior TVET freelance Consultant

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### Annex 1. Americana Group Good Practice Case Study in the Dual System

Americana Group was established in Kuwait in 1964 and currently employs more than 55,000 employees in 1400 restaurants in the Middle East and North Africa with around 300 in Egypt. Its business in Egypt is worth LE 2.5 billion (USD 142 million). The organisation's longer term strategy is to bring more brands into the group. Currently these include KFC, Pizza Hut, Hardy's, TGI Fridays, Fusion and Costa Coffee. They also want a better market share in Caspian Sea and North Africa. They are a conglomerate of industries ranging from the raw commodities required (agriculture - chicken farming and potato growing) through to their fast food restaurants. The company itself has a philosophy around being part of society and whatever is wrong with that society, and so addressing the needs of both the country and the sector are of vital importance to them.

They have therefore translated their current industry training practice to address the following challenges:

- **Challenge 1:** Quality of student – youths are dependent on their parents, lack discipline, de-motivated, see no opportunity and are not self-starters. They are bored with school and so a 2-day school/4-day work approach will not work, and also there would be no unity of command;
- **Challenge 2:** Facilities in schools/colleges/universities are not up to date and reflecting current industry standards. They require a demonstration room for 12 students with workstations, and a commercial kitchen and a training restaurant and this doesn't exist in Egyptian technical schools;
- **Challenge 3:** Current technical training facilities need upgrading and interventions are very expensive, which limits the numbers;
- **Challenge 4:** The training facility will have to be maintained (Renewal and Replacement model) which is not in the Egyptian MoE mentality;
- **Challenge 5:** Teachers are generally not from industry and so lack skills required.

Solutions identified by the company to these challenges:

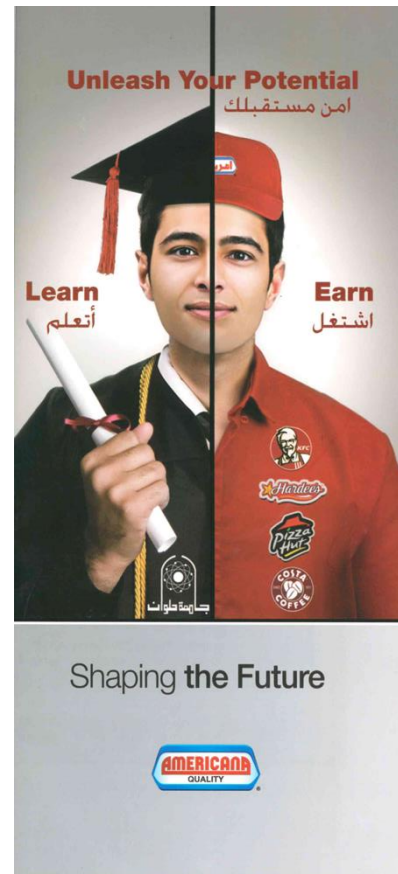
- Established a reciprocal arrangement: Take training out of schools, let schools do the theoretical and Americana do the practical training in their restaurants. Americana through their brands have solid operations systems, good internal/certification systems and this would make a good partnership;
- Commercial technical/secondary schools are unproductive, as they take students who cannot go anywhere else. Therefore, they have set up a pilot scheme that started in 2011, taking over three schools in their restaurant recruitment areas and enrolled 569 students in year 1 (September 2011). In 2012 they started to advertise and recruit specifically to this, as they are now actively marketing this approach in preparatory feeder schools. In 2017 they have more than of 3800 apprentices in the three levels of apprenticeship programmes (the other two programmes are mentioned below).

How this programme works:

- Americana cares about behaviours and attitudes, not marks, so this is offered 3 years after preparatory (15/16 years old) when students have the right to choose their education, but parents still have a say. Americana adopted the same selection process as for their own

recruitment, but also included parents in the process by providing awareness sessions and one-day orientation and observation by restaurant managers for students in the retardants as part of the selection process;

- The first year is a pilot for them. 1<sup>st</sup> year and 1<sup>st</sup> semester of 2<sup>nd</sup> year is off-the-job study at the school, a new curriculum focusing on requirements of Hospitality Industry, written by joint committee of Ministry of Education, Americana and Dean of Hotel Management College and benchmarked with City and Guilds UK standards;
- Students then do one year on-the-job training (with no summer vacation) that is paid: LE 550 per month for 6 months and LE 600 for remaining 6 months.
- Americana pay the school LE75 per student per month to cover extra/different teacher activities e.g. transport, as the school does monitoring visits.
- Americana have strict internal processes for monitoring the student: keep student logs their training schedule of what they learn when; who trained them; who certificated them.
- Student counter signs everything throughout with date, as does trainer/verifier and the school nominee
- This is verified and agreed by Americana HR department.
- The final semester is when students sit theoretical exams, receiving a Technical Education Diploma accredited by Ministry of Education and Americana
- Americana has sufficient employment for all those who are successful after their 3 years either in Egypt of abroad. They will also guarantee male students a position after the Army National Service.



They have set themselves what they saw at first to be an impossible mission due to bureaucracy and inflexibility of the Egyptian education system: to develop an Open Education Programme - a curriculum that offers a full progression from entry level to this degree, or allows potential students to enter at any of the three points from both technical and secondary schools. They are therefore looking to link together their education and career paths. They have also succeeded in developing a similar programme within the post-secondary Technical collages (2 years Advanced Technical Diploma) and Helwan University (4years for a joint WBL Bsc. degree in restaurant management and operation), they are currently looking at expanding their cooperation with Ministry of Education to include their production business in food processing to include apprenticeship through the dual system.

## Annex 2. El Sewedy Group Good Practice Case Study in the School in Factory Model

El Sewedy Electric is one of Egypt's largest industrial conglomerates producing integrated electrical solutions with over LE 3.3 billion aggregated gross profits, with 30 production facilities across 14 countries including Egypt. The company currently employs more than 10,000 employees.

Since 2011, the company had an agreement with the Ministry of Education to establish a secondary technical school within its premises in the industrial city of 10<sup>th</sup> of Ramadan west on Cairo. After its success and through the El Sewedy Foundation, in September 2016 the company established the state-of-the-arts Sewedy Technical Academy (STA) with 400 students, also changing the name from school to Academy to improve the image of technical education in Egypt as well as improving the quality of provision.



STA is planning to acquire the Quality Management Certificate ISO 29990 by the end of 2017. ISO 29990 is an international standard for training providers. This standard is intended to assure that the performance of the educational programme is meeting the international standards. Learning at STA is based on a full scholarship programme. Students are sponsored with uniform, learning material, electronic learning devices, transportation and on-the-job training during their three-year course of study, in addition to financial support in the form of a monthly stipend of LE 650 during the first year, already more than double what the MoE has set for the first year in the Dual system.

### Programme Overview

STA programme offers customized technical education and training for the major industries following the latest international standards. Currently the technical curricula cover the fields of "Energy Components", "Industrial Electronics", "Mechanics, Maintenance and Repair" and "Logistics".

All training programmes reflect a "dual approach", following the German system of technical education and training, which is a combination of two complementary learning & training tracks that take place in the school and in the factory. The curriculum of STA is a competency-based curriculum aiming for a holistic approach that combines on-the-job training and regular school learning to empower the students with the necessary knowledge, skills and attitude.

In order to provide a comprehensive programme, STA offers cultural/general subjects and topics concerning key qualifications, cost reduction and soft skills. This training programme is approved by the Egyptian Ministry of Education (MOE) and is considered one of the most developed programmes in Egypt. STA also employs a German Technical manager in the school who is responsible for making sure that the system operates well and also provided training for the teachers and instructors.





At STA they believe that the growing role of information and communication technologies must be reflected via modern technical training called SMART learning. Beside the dual approach of the training programmes, they embrace SMART learning to gain the maximum benefit of the technological advantage they provide. SMART Learning is a synonym for the intelligent or smart mix of teaching and learning modes, taking into

consideration that the regular teaching and learning process which takes place in the classrooms or workshops, and which is based on the one-to-one support, will not be replaced by the e-learning. The teaching or learning mode will be selected according to the respective desired learning outcomes in the areas of knowledge, skills and attitudes. E-learning and blended learning are more than just new forms of learning. One of the first steps to introduce e-learning and blended learning was the installation of a virtual learning environment, which reflects the structure of courses and subjects of all training programmes. Classroom sizes at STA are around 16 students per class which provides an ideal learning environment especially when you compare that to the traditional technical education at the ministry schools.

El Sewedy guarantees a job for successful students who complete the requirements of the Diploma accredited by the MoE after the three years and they also intent to establish 8 more academies by 2021 even entering new sectors like cement logistics and ready-made garments.



A promotional video about STA can be found in the following link:

<https://www.youtube.com/watch?v=7g03vifrdxl>



### Annex 3. List of some of the WBL Surveys and their Links

The following are some of the surveys and tracer studies (in chronological order) conducted or commissioned by International organizations working in Egypt. There were no surveys found that were conducted directly by the Egyptian government.

- Graduate Tracer Study and Attitudes of Youth: Towards the Labour Market in Context of the Wider Landscape of TVET in Egypt. Track II. Overview of TVET in Egypt, CID Consulting for GiZ, 2009, [http://www.ikn-network.de/lib/exe/fetch.php/themen/berufsbildung/bb-weltweit/aegypten/grunwald\\_becker\\_2009\\_mki.pdf](http://www.ikn-network.de/lib/exe/fetch.php/themen/berufsbildung/bb-weltweit/aegypten/grunwald_becker_2009_mki.pdf)
- Education and Business Study- Egypt, European Training Foundation (ETF), 2010, [http://www.etf.europa.eu/webatt.nsf/0/88A82E26E3A48905C12579130031E714/\\$file/Educating%20and%20Business%20Study%20-%20Egypt.pdf](http://www.etf.europa.eu/webatt.nsf/0/88A82E26E3A48905C12579130031E714/$file/Educating%20and%20Business%20Study%20-%20Egypt.pdf)
- The Mubarak Kohl Initiative- Dual System in Egypt. An Assessment of School to Work Transition, GiZ, 2010, <https://www.dropbox.com/home/UNESCO%20shared%20docs/Readings?preview=2010+Adams+The+Mubarak+Kohl+Initiative-Dual+system+in+Egypt.docx>
- Informal Apprenticeship in the Micro and Small Enterprises (MSEs); Alternative Approach, ILO, 2012 [http://ilo.org/wcmsp5/groups/public/---ed\\_emp/---ifp\\_skills/documents/publication/wcms\\_213126.pdf](http://ilo.org/wcmsp5/groups/public/---ed_emp/---ifp_skills/documents/publication/wcms_213126.pdf)
- Towards a Model Apprenticeship Model: A Comparative Analysis of National Apprenticeship Systems, World Bank and ILO, 2012 [http://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---sro-new\\_delhi/documents/publication/wcms\\_234728.pdf](http://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---sro-new_delhi/documents/publication/wcms_234728.pdf)