

Large number of young people would benefit both themselves and the economy by acquiring non-academic vocational proficiency.

Recommendations for Technical and Vocational Education and Training in Egypt

Egypt Network for Integrated Development

Policy Brief 004

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Education and Employment

The Egyptian secondary school education system offers two main tracks: one that is academic and the other that is technical. The former typically leads to university via general secondary school, and the vocational route usually via technical secondary school level. Around 63% of those leaving basic education enter the latter system, the dead end label for those who are pushed away from general academic education on account of their lower test scores.

In either case, the Egyptian economy has not been able to create enough jobs for more than 2.5 million students currently attending university² or the more than 285,375 graduates of the Technical Vocational Education and Training (TVET) system in 2013. The unemployment problem in Egypt is hitting new heights, with a current estimate of 850,000 *new* entrants to the labor market per year, from a total labor force of 27.7 million in 2011. According to official figures, which are regarded by experts as substantially lower than reality, unemployment increased from 9.4% in 2009 to 13% in 2012. This unemployment is in large part a result of a wide skill mismatch between what is demanded by the labor market and what is provided by the education and training systems.

As a result of low labor market efficiency, poor education and training system performance, and misalignment between national economic development plans and priorities and labor force policies and practices, Egypt was 81st out of 133 countries in the 2010/2011 Global Competitiveness Index (GCI). It then declined 26 places in the 2012/2013 GCI due to the political events following the 2011 revolution.³

The reality is that neither TVET nor higher education have offered a critical level of skill enhancement that qualifies young people in the search for jobs in the formal economy.

Why the Focus on TVET?

Low status and low investment make TVET in Egypt incapable of supplying adequately skilled labor. The informal sector is perhaps a larger-scale employer that is more tolerant to the relatively poorer skills of those who frequently resort to TVET — the lower income brackets with lower academic abilities — but it generally offers lesser quality jobs that come with low salaries, greater job instability, available to those who cannot afford to remain unemployed or pursue university studies, to learn a trade and insert the labor market.

To date, the opportunity to make the most of the large number of young people who would benefit both themselves and the economy by acquiring non-academic vocational proficiency has not been grasped fully. The outcome of a survey illustrates these problems within some sub-sectors of manufacturing in Egypt. Here, vocations gaps are reflected primarily in electrical maintenance, mechanical maintenance, electronic maintenance technicians, electronic control

¹ This Policy Brief is based largely on the contribution of Dr. Amira Kazem of the World Bank, Cairo Office, in her Background Paper on TVET to the Egypt Human Development Report 2010 (UNDP/INP).

² World Bank. "Egypt: Workforce Development." SABER Country Report 2012.

³ Ibid

process technicians, workshops equipment operators, electrical welding technicians, and boiler maintenance technicians. These examples are illustrative of the potential range of opportunities available in the formal economy.⁴ According to Egypt's Work force Development SABER Country Report, Egypt's diversified and relatively balanced economy across established sectors, while providing potential for growth, remains crippled by structural deficiencies in its education and training system.

However, with globalization and the current pace of technological development and market shifts, TVET ceases to be an educational tool that targets youth associated with relatively lower academic performance or low socio-economic status. It has become a cornerstone for development. International experience indicates that TVET lies at the core of the lifelong learning approach that is so necessary in volatile economies and in a complex and competitive specialized environment. Technical and vocational training can also contribute to closing the gap between an unproductive traditional curriculum and school dropouts, and the increasingly technological skills necessary for market-driven youth employment.⁵

The Vocational and Training Paths

The Egyptian TVET system is completely bureaucratic with no single apparent authority. According to the SABER report,⁶ at present, basic technical and vocational education is provided through the Ministry of Education (about 1929 technical and vocational schools) and the Ministry of Higher Education (47 Middle Technical Institutes/Technical Colleges). The other involved ministries providing TVET services are Industry and Foreign Trade, Housing, Manpower and Migration, Agriculture, Health and Population, Culture, Tourism, Transportation, Electricity and Energy, Civil Aviation, Defense, Interior, Irrigation, Finance, Local Development, Endowment (*Awkaf*) and Social Solidarity. There are other governmental and para-governmental agencies that work on technical education such as, but are not limited to, the Supreme Council for Human Resources Development (SCHR), the National Authority for Quality Assurance and Accreditation in Education (NAQAAE), the sectoral Training Councils (Industrial, Building and Construction, Tourism) and the Social Fund for Development (SFD).

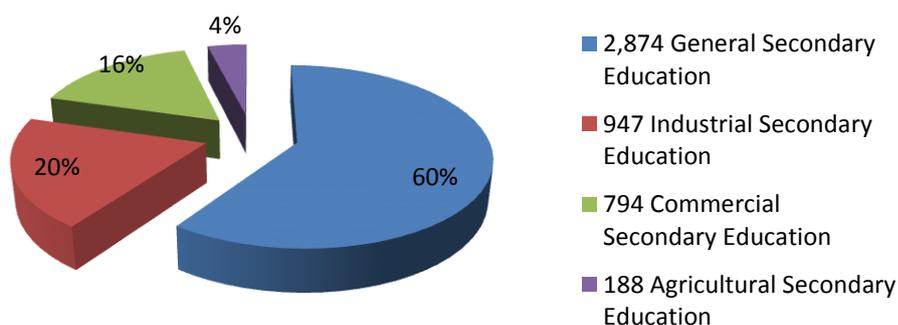
The system includes technical secondary schools and technical and vocational entities, a few of which offer 3 and up to 5 year diplomas, but most of which offer short term courses, such as technical colleges (currently placed within universities) and institutes. Although various ministries target different groups or have different focus areas, technical and vocational delivery often overlaps with little if any common ground in training standards or certification requirements. Further, the quality of the education offered is generally poor. Although TVET providers cover a wide scope of specialties, the focus has been on industry as it is the main sector that provides formal technical education through an apprenticeship system. It also holds the prospect of serving the vast majority of non-agricultural private sector employers. Two other focal areas are Agriculture proper and Commercial Studies.

⁴ Quoted In Egypt Human Development Report 2010, p 164, UNDP/INP, Cairo.

⁵ Op cit

⁶World Bank. "Egypt: Workforce Development." SABER Country Report 2012.

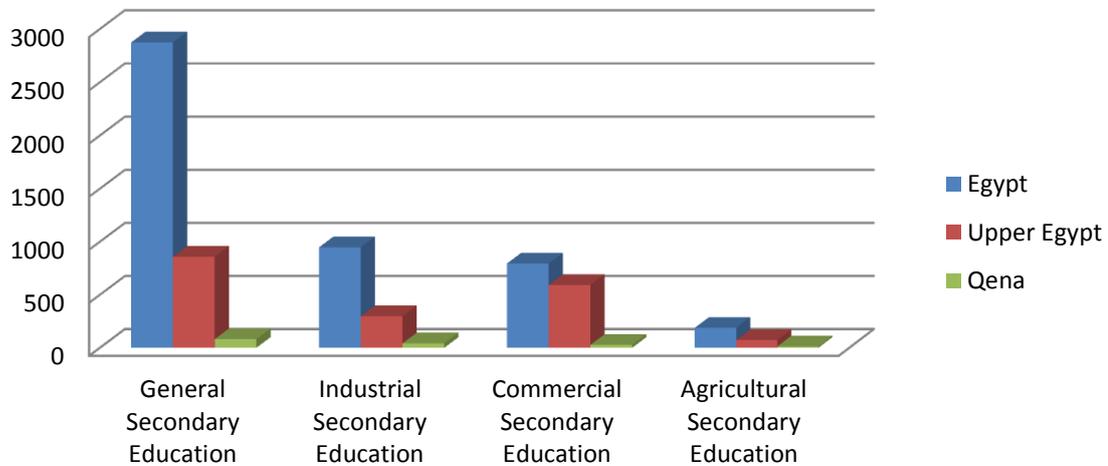
Figure 1: Distribution of Secondary Schools in Egypt



Source: The Statistical Summary of Pre-University Education 2012 - 2013

Most TVET initiatives fall under these three headings (see Figure 1). A yet very small initiative covers a promising public/private ‘Dual System’ whereby a combination of theory and hands-on practice with private sector establishments or industries are provided. Finally, Egypt has traditionally relied on an apprenticeship system offering exposure at a young age to ateliers and workshops. Owners of these informal establishments frequently ask for a fee in return for the intensive practical skill training they provide. In these cases, children or youth often have to forgo schooling, standards vary according to the skill level of employers or supervisors/senior workers in production lines, since factories apply some sort of apprenticeship/on-the-job training, and there is no formal certification.

**Figure 2: Distribution of MoE Secondary Schools by Region:
Total Egypt**



Source: The Statistical Summary of Pre-University Education 2012 - 2013

It is noted from Figure 2 that the distribution across Egypt favors General Secondary Schools, or the academic path to university education. This focus of educational resources ignores the potential of a well-developed TVET system that would contribute substantially to productive employment and help resolve the mismatch between practical skills and labor requirements. More disturbing is the very low availability of the TVET Agricultural component in Upper Egypt, a primarily rural and agricultural region.

The Formal Set-Up

With regards to the governance of the TVET system, a lack of clear leadership and institutional fragmentation of education and training has resulted in extreme complexity. Although the direct governance of the TVET sector is shared between the Ministry of Education and the Ministry of Higher Education, there are more than 22 ministries and authorities that are involved in technical and vocational training.⁷ The public system is disaggregated, such that ministries and government agencies operate largely in isolation of each other. Generally, skill output is poor. However, the creation of the 'Industrial Training Council' (ITC) in 2006 in the Ministry of Trade and Industry (MOTI) with a mandate to improve coordination and direction of all training-related entities, projects, and policies in the Ministry was an attempt to rectify the record. Two other councils were since created: The 'Tourism Training Council' and the 'Construction Training Council' but discontinued. Since the establishment of specialized councils, there is the view that the existing but limited SCHR D should be operationalized as the platform for all specialized councils.⁸ SCHR D is the only formal overall body and is being restructured since January 2013, while steps are being taken to establish a National TVET Authority (NTA) for the operational reform of TVET. There also exists the NAQAAE since 2007 to support education institutes. However, the revival of the Council and the establishment of the Authority appear stopped to

⁷Zaalouk, Malak, Analysis of Social Policies Affecting Egyptian Rural Communities, June 2013, Draft paper presented to the African Development Bank.

⁸Ibid,

date Finally, there is no formal role for employers from the private sector in the leadership of TVET.

The private sector offers a limited number of private sector technical and vocational training centers, which typically offer short-term training courses. Most of these centers offer courses that qualify firms for quality-related certification. The centers tend to be relatively well organized, with market driven curricula, trainers with reasonable technical and pedagogical capacity, and modular training courses.

Failings of the (Public Sector) TVET Programs

Several rounds of surveys have evaluated the TVET system in Egypt and arrived at similar conclusions. Most TVET institutions have the following profile:⁹

- They are publicly funded with no clear lines of accountability as annual budgets are a factor of the previous year's expenditure rather than a reflection of overall performance or enrolment rates or even drop-out rates during study years/training;
- They are disaggregated and lack clear standards for curriculum development and training delivery as illustrated in the obsolete equipment used, and neglect of the use of modern equipment that might be available;
- They lack practical 'hands on' training requirements and the few practical training workshops available are overcrowded and render such practical training virtually useless;
- They are supply- rather than demand-driven, thereby often presenting a mismatch with actual market needs. For example, there is a clear disconnect between the TVET system and industry, the major market place for the system's outputs;
- They are characterized by a failure of the educational and training programs to keep up with prerequisites of ongoing technological development, and have excessive dependence on the theoretical parts of the curricula;
- They exhibit shortages of modern and advanced specializations, discrepancies and disparities in the qualifications and in the use of trainers lacking proper technical, vocational and pedagogical qualifications;
- Budget allocations are rarely sufficient for equipment upgrade, for example, or in regard to upgrade or incentivization of teaching staff, or overall quality.
- Most of the sector's financing is through donors. Major donors are the EU, the World Bank, and several governments such as Canada, France, Germany and the USA.¹⁰

The Way Forward

There are two basic concepts that lie behind the paradigm shift necessary to turn around the current failures: Incentives and accountability:

- At every level of intervention, a clear set of incentives —be it upgraded curricula and equipment, cost-sharing for training and tax incentives to employers, or job openings —

⁹ op.cit., p 166

¹⁰Zaalouk, Malak, Analysis of Social Policies Affecting Egyptian Rural Communities, June 2013, Draft paper presented to the African Development Bank.

must be put in place to enable technical and vocational education and training to become a viable option for youth.

- Proper certification, based on recognized and preferably internationally-based standards of performance are needed. Such certification carries its own rewards in terms of promotion and mobility.
- The continued reluctance of many young people to forgo university for the perceived low status vocational or technical training calls for a review of Egypt's higher education system as a whole, as well as of the high value placed on this.
- A sizeable and dramatic national demonstration effect as to the career rewards and financial benefits of shifting to the vocational path.

In the meantime, the upgrade of TVET at the national level under clear policy directives and targets needs to be scaled-up. The urgency is such that individual initiatives should be subsumed under a plan that could contain the following elements:

- The promotion of close inter-linkages between TVET providers and employers, regardless whether the TVET providers are publicly or privately funded;
- An active involvement of employers via some form of incentive scheme;
- Greater involvement of manufacturers in the provision of curriculum content, equipment, and training of trainers;
- International branding of trainees for prospects of mobility;
- Employer-driven packages of training and training related services;
- An integrated system for quality assurance and certification.

TVET will likely remain mostly public-funded. But TVET institutions need to receive technical and financial support to develop their business model while giving them to authority to make financial and administrative decisions related to fulfilling their mandates. This will most likely trigger a legislative change to allow for income generation, and income retention at the level of the training center, acceptance criteria for students, recruitment policies, etc.

With regard private sector TVET providers, these are yet to see a viable business opportunity similar to that operating in sectors such as tourism or 'quality' training for the food industries. Unless some form of incentive is provided, they are likely to offer short-term training courses on-site to avoid significant capital investment and to minimize market entry and exit barriers.

Recommendations

To reform the TVET system in Egypt, action should be taken on several levels, based on the following recommendations:

- 1- Steps to reform the SCHR and establish the National TVET Authority (NTA) must be completed to supervise TVET reform. This should be accompanied with a unified development vision and strategy, a clarified role for relevant agencies, and a monitoring and evaluation mechanism to replicate and scale-up successful pilots. And to create a fully functional quality assurance system, a National Qualifications Framework (NQF) should encompass the insufficient National Authority for Quality Assurance and Accreditation in Education (NAQAAE) and the National Skills Standard Project (NSSP) to unify occupational standards and recognize all forms of skills acquisition. The NSSP

closed in 2006 yet it is currently under ITC, the Egyptian Tourism Federation and the Ministry of Housing.

- 2- It is essential that the management of TVET institutions is decentralized to exercise autonomy regarding admission policies that reflect their mission and capacities. TVET admission should work accordingly to each school to accommodate and link with employers within the proximity of service providers to be engaged in what programs to introduce/cancel and to involve employers in the curriculum development process. Employers should become a major partner to TVET institutions.
- 3- There is an urgent need to have a rationalization plan across types of providers within geographic areas within the geographic proximity of industries and to have a clear vision of the requirements of regional employers. There is a need to expand the number of TVET institutions and their specializations, to serve industrial areas and community needs.
- 4- The government should support the creation of international cooperation agreements and provide for awards and scholarships for students and teachers to study and train abroad.
- 5- What would seem more urgent is a rationalization plan across types of providers within geographic areas, areas within geographic proximity of industries, and a clear vision of the requirements of regional employers.
- 6- Employer engagement in workforce development should be promoted and institutionalized through appropriate legislation. For example, the establishment of sector-based Enterprise TVET Partnerships (ETPs), company-based technical schools and civil society led training initiatives should be supported institutionally and financially. They were established under the EU project and are in dire need of rigorous assessment to be replicated and/or expanded.

Two key initiatives are involved in relation to this framework:

- Piloting a demand-driven training funding mechanism, possibly a tax levy;
- Introducing a bottom-up approach to create public/private cost-sharing partnerships among stakeholders.

Some Model Partnership Successes

The implementation of a 'Dual System'¹¹ in Egypt in the Mubarak-Kohl (MK) Program has proven to be very successful and has become a best practice. The MK initiative was a result of a partnership between the Egyptian and German governments that began in 1994 and will last to 2014. The Egyptian government currently fully funds and owns the German Technical Cooperation unit (GTZ), whereas the German entity previously ran the MK program. The GTZ issued a report in 2009 detailing the results of the MK initiative: "22 out of 27 governorates in Egypt offer the MKI-DS option; 76 technical secondary schools participate (as of scholastic year 2008/2009); 1,900 companies accommodate and train students; There have been 20,000 graduates (13% of them female); Nearly 13,000 students are currently enrolled; 31 occupational profiles for service, industrial and construction sectors have been developed and implemented, including electrical technician, construction mechanic, cook, farm machinery mechanic, ready

¹¹ Students typically attend school twice a week and work on the shop floor of factories four days.

made garment worker, housekeeper, heavy equipment maintenance mechanic and general administration clerk; the growth rate of enrolment in the MKI-DS is rising exponentially per year. For the up-coming year(s) the development path is further influenced by the EU supported TVET Reform program with a variety of flexible cooperative training programs under sectorial ETPs.” The report also claimed that graduates of the MKI program had a near 100% success rate in finding work during the first year of graduation. The system depends on the private sector to provide “training employment” for students. Students combine experience in class with practical workshop training. One of the major advantages of the MK systems is that it allows factories and industries to create their supply of labor themselves, thus providing a demand-driven supply. On completion, graduates are better prepared to enter the labor market, and this is recognized in significantly higher employment rates than their counter parts from regular technical education. Further, it appears that a significant number of MKI graduates move on to university.¹² However, because of the limited absorptive capacity of Egypt’s formal private enterprises, it has been difficult to increase TVET beneficiaries of the MKI to more than 2%.

The Apprenticeship System (AS) model has been noticeably successful in curbing youth unemployment in the UK and elsewhere. The program is designed for adults who have finished their education, and the definition of Apprenticeship is “a real job with training so you can earn while you learn and pick up recognized qualifications as you go.” It is a challenge here in Egypt as the system lacks the capacity to recognize working experience in a systematic/credible manner. Conditions for joining AS in the UK is that applicants are residents, over 16 years of age, and not in full time education. Apprentices take between one and four years to complete their training, and the occupations cover 1,500 job roles in a wide range of industries, from engineering to financial advice, veterinary nursing to accountancy. The benefits of this system are numerous: employees/trainees get paid for learning on the job, acquire job-specific qualifications and gain skills. It is beneficial for the employer since they acquire below minimum wage labor, and beneficial for trainees since they get paid to train. This model also relieves the government from covering training costs.

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¹² To be confirmed.