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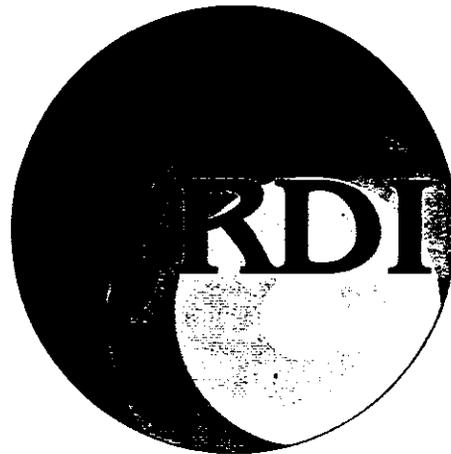
*Ministry of Agriculture and Land Reclamation*

# AGRICULTURE POLICY REFORM PROGRAM

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*Development Alternatives Inc. Group: Office for Studies & Finance, National Consulting Firm Development Associates, Cargill Technical Services, The Services Group, Training Resources Group, Purdue Universities, University of Maryland*

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*Report No. 165*

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**Agricultural Employment  
Policy: Towards a Solution  
of the Labor Mismatch  
Problem in the Egyptian  
Agricultural Sector**

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## Executive Summary

There is a severe unemployment problem in Egypt. The overwhelming majority of the unemployed are university-degree holders and secondary school graduates. Indeed, recent figures indicate that the unemployment rate for graduates of secondary technical schools is 73.45%, while that for university graduates is 16.49 %. Consequently, an enormous social and political pressure is being generated. Solving the unemployment problem is an urgent national priority.

This study posits that the unemployment problem in the agricultural sector in Egypt is characterized by a fundamental mismatch in the supply of and demand for labor. In particular, the graduates who are emerging from both technical schools and universities do not possess the skills demanded by the private sector. To compound this problem, the demand for labor is low compared to the available supply.

The study focuses on two tasks: to understand employment policy as it is implemented in the agricultural sector in Egypt; and to recommend strategies by which the mismatch for skilled labor in the agricultural labor market can be alleviated.

Key conclusions are as follows:

- Government sponsored employment creation schemes do not address the mismatch problem in the agricultural labor market. Thus, the schemes developed cannot contribute to a sustainable solution to this problem.
- Both the educational system and government-sponsored training schemes do not provide students with the skills needed to contribute to a modern export-oriented agricultural sector.
- The success stories in the area of training have been those programs that have explicitly responded to the needs of the market. Generally, such programs are characterized by a high level of public-private cooperation and are demand driven.
- The lack of a comprehensive coordinated employment policy at the national level has resulted in a series of interventions. The effectiveness of these interventions might have been enhanced by a consistent policy to guide their development.
- The best way for Egypt to generate meaningful employment is to revitalize economic growth, and to reform its educational system so students are prepared to contribute to a vibrant private sector.
- When programs (both employment generating and training) are directly linked to markets, they have a greater chance of success.
- The scale of schemes is key. Smaller, more targeted schemes are more effective rather than enormous projects that spread resources too thinly.
- Integrated programs, which combine high quality training, counseling, and credit have a greater probability of success.
- Secondary and university education should factor the skill demands of the market into their curricula.

- Education and training should emphasize practical and applied skills acquisition.
- When training is provided through a public-private partnership, it is more effective than when provided by the public sector alone.

Based on these conclusions, the study makes several recommendations that center on employment generation, education, and training. They can be summarized as follows:

- Expand high value, export-oriented horticultural production.
- Establish agricultural production and marketing centers.
- Reform the contracting system.
- Upgrade the university curriculum so students gain the skills they need to contribute to a modern agricultural sector.
- Develop a demand-driven training system led by private sector associations to train unemployed graduates.

## Acronyms

ACRONYM	DESCRIPTION
ACC	Agriculture Commodities Council
APRP	Agricultural Policy Reform Project
ARC	Agricultural Research Center
ATUT	Agricultural Technology Utilization and Transfer
AUC	American University in Cairo
CAPMAS	Central Agency for Public Mobilization and Statistics.
CEOSS	Coptic Evangelical Organization for Social Services
EAGA	Egyptian Agribusiness Association
EBT	Enterprise Based Training
ESAS	Egyptian Seed Association
GAPRAD	General Authority for Reclamation Projects and Agricultural Development
GOE	Government of Egypt
GTZ	German Development Agency
HEIA	Horticulture Export Improvement Association
HRDP	Human Resource Development Program
IFAD	International Fund for Agricultural Development
IRR	International rate of return
KADCO	Kingdom Agricultural Development Company
MALR	Ministry of Agricultural and Land Reclamation
MKI	Mubarak-Kohl Initiative
MLD	Ministry of Local Development
MME	Ministry of Manpower and Emigration
MOE	Ministry of Education
MWRI	Ministry of Water Resources and Irrigation
NGOs	Non-Governmental Organizations
NEM	Nucleus Enterprise Model
NSDP	North Sinai Development Project
NTP	National Project for Training of Graduates
PBDAC	Principal Bank for Agricultural Development and Credit
RDI	Reform Design and Implementation Unit
SEDO	Small Enterprise Development Organization
SFD	Social Fund for Development
SMEs	Small and Medium Enterprises
TVET	Technical and Vocational Education and Training

## INTRODUCTION

The final decade of the twentieth century ushered in tremendous changes in the political economy of Egypt. Egypt initiated a process of economic liberalization that aimed at transforming the state-led inward-oriented economy into a competitive market economy. This process entailed redefining the role of both the government and the private sector in the Egyptian economy.<sup>1</sup> Since the initiation of liberalization, the once vanquished private sector has taken on an increasingly dominant role in the economy.<sup>2</sup> The process of transitioning from a public-sector led economy to an economy where the private sector is expected to take the lead in both production and employment generation has exposed a fundamental mismatch in the supply of and demand for labor. This problem is especially salient in the agricultural sector, the main employer in the Egyptian economy.<sup>3</sup>

There is a severe unemployment problem in Egypt. The overwhelming majority of the unemployed are university degree holders and secondary school graduates. Indeed, recent figures indicate that the unemployment rate for graduates of secondary technical schools is 73.45%, while that for university graduates is 16.49 % (ARE Ministry of Planning 1999).<sup>4</sup> Consequently, an immense social and political pressure is being generated. This makes the task of solving the unemployment problem an urgent national priority.

Over the last two decades, the severe employment problem in Egypt has been the subject of much discussion within policy and academic circles alike. The government is cognizant of the problem and is preoccupied with the rate of job creation needed to absorb the labor surplus. Studies focused on the unemployment problem within the agricultural sector have tended to be preoccupied with determining the most efficient means of generating generic employment in the sector (Mellor 1962-2002). It is well known, however, that the overwhelming majority of the openly unemployed are university degree holders and secondary school graduates (i.e., skilled labor).<sup>5</sup> The traditional approach governments and scholars promote to create employment in the

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<sup>1</sup> This process, which began over a decade ago, is ongoing.

<sup>2</sup> Indeed, the government itself has on several occasions stated that it expects the private sector to act as the engine of economic development in Egypt.

<sup>3</sup> The agricultural sector employs approximately 34 percent of the labor force in Egypt. Agriculture's share of employment has demonstrated a secular decline since the 1970s when it accounted for 46.8 percent of total employment (World Bank 1999).

<sup>4</sup> While these figures refer to graduates in general and thus not specifically to graduates of secondary agricultural technical schools or university graduates from the faculties of agriculture, it is reasonable to assume that a similar situation holds among this sub-group of graduates.

<sup>5</sup> For the purposes of this study, graduates from technical secondary schools and university are considered skilled labor. By skilled labor we refer to those that work in managerial positions (be they low, middle, or high) or have the possibility of moving into a managerial position shortly after being hired or work as technical engineering staff. In other words, this group does not work as basic farm labor.

sector does not disaggregate the type of employment created by skill level. This study asserts that if the problem of unemployment in the agricultural sector is to be alleviated, attention must be given to the plight of skilled labor.

## **The Problem**

A full understanding of the unemployment problem in the agricultural sector has eluded academics and policymakers alike. The tendency has been to attribute unemployment to either a disparity in the skills possessed by labor and those required by the private sector (i.e. structural unemployment) or the worsening labor surplus. However, this study posits that the unemployment problem in the agricultural sector in Egypt is characterized by a fundamental mismatch in the supply of and demand for labor. In particular, the graduates who are emerging from both technical schools and universities do not possess the skills demanded by the private sector.<sup>6</sup> To compound this problem, the demand for labor is low compared to the available potential supply.<sup>7</sup> A recent study by the World Bank demonstrates that the supply of graduates emerging from secondary technical schools and universities exceed the demand by 400% (Gill and Heyneman 1997). This mismatch ultimately results in high levels of unemployment among skilled labor in the agricultural sector.<sup>8</sup>

Given this problem the question for policymakers becomes how can the mismatch in the labor market be corrected? In particular, how can more employment opportunities be created in the private sector? What can be done to ensure that new technical school and university graduates possess the skills demanded by a modern agricultural sector? How can the skills of those graduates who have not been employed be upgraded?

This study focuses primarily on skilled labor in the agricultural sector. We define skilled labor as those who have graduated from either the secondary, technical schools or university level and whose entry-level positions on medium- and commercial-size farms are generally low- to mid-level managers and engineers. This study focuses on skilled labor for two reasons: 1) the unemployment problem is most acute among this

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<sup>6</sup> Our interviews supported this point. In addition, Samiha Fawzy (2000) in her recent study interviewed over 100 businesspersons in Egypt and found that close to 55 percent of those surveyed reported that the lack of adequately skilled labor was one of the biggest impediments to growth they faced. Further, numerous studies of the educational system in Egypt have found that, in fact, the quality of education is such that graduates are not equipped with the skills needed to contribute to a modern market economy (Gill and Heyneman 1997, AHDR 2002, Galal 2002).

<sup>7</sup> In an interview, a prominent professor from the Faculty of Agriculture in Cairo University admitted that the university graduates from do not possess the skills demanded by the market. However, he added that even if each of the 300 graduates from the Faculty of Agriculture in Cairo University possessed the skills demanded by the private sector, a significant number of students would still not be employed due to the low level of demand for skilled labor.

<sup>8</sup> This study focuses primarily on skilled labor in the agricultural sector. In other words, the focus is on those who have graduated from either secondary technical schools or university. These graduates find employment as engineers or low- to mid-level managers.

group;<sup>9</sup> and 2) the TOR (see Annex 1) specifically called for the study to focus on skilled labor.

### **Purpose and Organization of the Study**

The purpose of this study is twofold: first, to examine employment policy as it is implemented in the agricultural sector in Egypt; and second, to recommend strategies by which the mismatch for skilled labor in the agricultural labor market can be alleviated. Toward this aim, the first section will examine existing agricultural employment policy. The next section will describe and analyze the active labor market policies (i.e., employment creation schemes, training initiatives, and employment services programs) implemented by the Government of Egypt (GOE), NGOs (Non-Governmental Organizations), and the private sector in an effort to alleviate the mismatch problem.<sup>10</sup> The final section will provide recommendations for improving existing schemes that demonstrate some promise and devising new approaches to addressing this problem and ultimately ensuring that this critical resource is capable of contributing to a competitive agricultural sector.

### **Method**

This study employs a number of methods to gather and analyze data. Information for this study is drawn from a variety of sources, including government documents, secondary literature, studies by the World Bank and ILO, and reports produced for USAID and local think tanks. Data are derived from the Central Agency for Public Mobilization and Statistics (CAPMAS) as well as the World Bank's World Development Indicators. In addition, the team conducted interviews of Egyptian government officials in the Ministry of Agriculture and Land Reclamation (MALR), Ministry of Water Resources and Irrigation's (MWRI), Ministry of Local Development (MLD), and the Ministry of Manpower and Emigration (MME). The team also conducted interviews of private sector farmers, owning small-, medium-, and commercial-size farms, graduates, faculty from the Faculty of Agriculture in various universities, representatives of the Social Fund for Development, Principal Bank for Agriculture Development and Credit (PBDAC), agri-business associations, and NGOs. Finally, the team went on a series of field visits to the Mubarak Graduate Program in Nubariyya and in Wadi El-Saayda; the Kingdom Agricultural Development Company (KADCO), a commercial farm in Toshka; and the North Sinai Development Project.

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<sup>9</sup> There appears to be a great unmet demand for *seasonal* unskilled and semi-skilled labor in the agricultural sector. Every private sector farmer interviewed, whether they owned small-, medium-, or commercial size farms complained of the shortage of this category of farm workers.

<sup>10</sup> In addition, relevant private sector and NGO initiatives in these areas will also be examined.

## EMPLOYMENT POLICY IN EGYPT

The GOE is highly cognizant of the existence of a serious unemployment problem. Indeed, it has frequently stated that in order to reduce unemployment the Egyptian economy must achieve 7 percent annual GDP growth. Yet, despite the glaring problem of unemployment in Egypt, the GOE has not developed a coordinated, systematic policy to address this issue. The lack of a national employment policy is problematic because what emerges is a series of ad hoc and inefficient interventions. A Supreme Council for Human Resource Development was established by Presidential Decree #102 in 2000, to develop a national policy and coordinate action in the area of human resource development and employment.<sup>11</sup> Until now, it has neither developed nor implemented a national employment policy that considers both job creation and education and training.<sup>12</sup> The Executive Committee for the Supreme Council is in the process of developing a national policy for job creation and human resource development (SFD 2002).

The absence of a coordinated employment policy is apparent in the agriculture sector where at least four ministries, including MALR, MWRI, the Ministry of Education (MOE), and the Ministry of Local Development have independently developed employment schemes and/or training programs to tackle the problem of unemployment. Indeed, the Ministry of Water Resources and Irrigation has, as part of their North Sinai Development Project, developed a program for graduates and small farmers modeled after MALR's Mubarak Graduates Program, yet it has not cooperated with the MALR or in any way taken advantage of the MALR's experience.

A study by Dar and Tzannatos (1999), evaluating more than 100 active labor market programs (e.g., employment creation schemes and training programs) in OECD and developing countries suggests that the results are mixed: many programs were assessed to have little or no impact on employability or earnings. This suggests that an employment policy that relies heavily on active labor market programs may not be *the* solution to the problem of chronic unemployment in Egypt. In this regard, it is useful to draw lessons from Egypt's recent past.

During the decades of the 1970s and the 1980s, unemployment was not a problem for the Egyptian economy. There are at least three reasons for this. First, the government

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<sup>11</sup> The Ministry of Manpower and Emigration was designated as the Chairman of the Supreme Council of Human Resource Development. Initially, the Council's work was hindered because it did not possess the technical capability needed and was also lacking an executive arm to implement its decisions (SFD 2002). An Executive Committee and Technical Secretariat was thus established to perform these tasks. In addition, the Prime Minister's Decree (#791 of 2000) establishes local councils on human resource development to implement the Supreme Council's policies, to provide the Supreme Council and Executive Committee with data, to evaluate programs developed by them, to recommend ways by which education and training can be linked to the needs of the local market, and to propose local training programs.

<sup>12</sup> It is interesting to note that the Presidential Decree 102 of 2000 tasks the Supreme Council with considering the status of demand for and supply of trained labor in the different sectors and proposing ways to coordinate the two (Article 2). This demonstrates the GOE's increasing awareness of the nature of the problem.

guaranteed employment for graduates and thus absorbed the lion's share of the non-agricultural labor force. Second, skilled labor was migrating to the Gulf; and third, the government was investing heavily in infrastructure such as rural electrification projects. Consequently, a tremendous number of jobs were generated in the economy.

By the early 1990s, domestic demographic and economic conditions as well as the political economy of the region changed dramatically. These changes resulted in an absolute increase in the supply of labor and a decrease in the capacity of the domestic economy and regional markets to absorb labor. In particular, the high population growth rate of the 1970s and 1980s resulted in a dramatic increase of the number of new entrants to the labor force, a trend that will continue for the next decade. In addition to the demographic shift, the supply of labor being absorbed in regional markets decreased after the Gulf War. Further, the GOE could no longer honor its policy of guaranteeing employment for all graduates. The GOE also drastically reduced its spending on infrastructure development in the 1990s. As a result of economic liberalization, the nascent private sector was increasingly responsible for production and employment generation. The private sector, however, was not (and still is not) sufficiently strong to absorb the increasingly large labor supply.

The policy implications that can be derived from this experience are as follows: first, government investment in public goods and infrastructure in particular creates jobs.<sup>13</sup> Second, given that it is incumbent upon the private sector to create employment, the most efficient means of ensuring that jobs are, in fact, created is to provide an enabling environment that supports private sector activities.

## **The Draft Labor Law**

### ***Background: Existing Labor Legislation***

Egypt's labor laws have been described as being "among the most restrictive in the world" (Fawzy 1998: 34). The complexity and rigidity of the current labor code is blamed for scaring away international investors (AMCHAM 1996). The major business associations in Egypt have voiced their opposition to the labor legislation and the unduly high level of protection that it affords labor.

The current law (Law 137 of 1981) prohibits employers from dismissing or laying off employees after they have completed a three-month probationary period without consulting a tripartite committee in which management, unions, and the Ministry of Manpower and Emigration are represented. The employee has the right to appeal the decision of the committee before bringing the matter before the courts, which have the power to require the employer to continue paying the worker until the case is settled (Pripstein Posusney 1995). This process renders dismissals an extremely costly and lengthy affair, as court cases can drag on for years. In effect, these provisions provide labor with lifetime job security (Fawzy 1998). In addition, labor legislation mandates that companies use government labor offices when hiring new workers.

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<sup>13</sup> It is important to consider the type of investment that is made by government. Some investments in infrastructure, such as rural electrification have a sustainable and dramatic (albeit indirect) effect on employment. Other investments may have only a temporary impact on employment levels and yet be costly.

According to Egypt's multilateral advisors, donors, and businesspeople the existing labor legislation acts as a strong disincentive to hire and train employees and hinders the efficient allocation of labor and other resources (AMCHAM 1996, World Bank 1995). Businesspeople specifically complain that the provision for job security denies them the flexibility to adjust to market conditions, thereby negatively affecting their competitiveness (EBA 1996). Another related complaint voiced by the business community is that the limited ability of firms to impose sanctions on labor for nonperformance results in low labor productivity (AMCHAM 1996). Moreover, they maintain that these regulations are an obstacle to relieving the unemployment problem because they give investors incentives to obtain labor saving machinery. Indeed, Egypt is a labor surplus country, yet the capital-labor ratio is extremely high in the formal economic sector.

### *The Draft Labor Law*

Work on the draft labor law began in 1991. Although a Draft Labor Law was drawn up years ago, the government has been reluctant to present it to parliament. For the past six years, the government has announced that it would introduce the draft law in parliament within the year and it has not. The Government of Egypt's (GOE's) reluctance to do so may stem from the fact that passage of the law may be politically risky because it eliminates many of labor's traditional protections and thus directly threatens the rank-and-file. None theless, there has been progress recently. The Draft Labor Law was recently approved by the Shura Council and is to be introduced in the People's Assembly shortly.

The draft labor law makes the following provisions: it grants both private sector employers and public sector managers the ability to hire labor directly. The draft labor law also gives employers the right to dismiss labor for grave mistakes, low productivity, or economic necessity. As a direct quid pro quo, labor is granted the right to strike, albeit under highly restrictive conditions. The draft labor law relaxes the conditions for temporarily or permanently laying off workers due to the closing of an enterprise that employs ten or more workers. Employers are given the right to shut down for economic necessities and lay off their workers or they can negotiate an agreement with the employees to reduce their salaries until the enterprise is reorganized or closed. This is a radical departure from the current law, which does not relieve employers of their contractual obligation with regard to their employees in the case of dissolution, liquidation, closure, or bankruptcy. The existing law states that temporary contracts are permissible. If employment is not terminated by the end of the temporary contract, then the employee automatically becomes permanent. The draft law does away with the permanent labor contract altogether.

The draft labor law removes many of the rigidities present in the current labor legislation. In particular, it provides for increasing flexibility of the labor market by making it easier for employers to adjust their labor force according to economic conditions and allowing them to hire employees directly. Because the draft law provides a mechanism by which employers can sanction employees, it might result in an increase in employee productivity. Further, by increasing the flexibility in the Egyptian labor market, the draft law may encourage employers to hire more labor. Thus, the capital-labor ratio may be reduced as a result.

While increasing flexibility in the labor market may increase an economy's competitiveness because it facilitates adjustments to the labor force, it also increases labor's vulnerability. As labor markets become more dynamic, the need for effective safety nets (especially unemployment insurance) to cushion the negative effects of a fluid labor market on labor becomes more acute. Targeted, well-designed safety nets should go hand in hand with an increasingly flexible labor market. In the absence of such safety nets, social dislocation and inefficient coping mechanisms emerge. Egypt currently lacks unemployment insurance and its safety nets are in desperate need of reform.

## **Labor Market Programs**

Two types of labor market programs have been used to address the unemployment problem in the Egyptian agricultural sector: 1) employment creation schemes; and 2) training programs.

### **Employment Creation Schemes**

Both the government and NGOs have implemented employment creation schemes in Egypt. These schemes can take many forms, from schemes to provide credit to graduates so that they can start their own businesses to schemes designed to give them an opportunity to own their own farm.

### ***Mubarak Graduates Program***

The Mubarak National Project for Developing and Promoting Young Graduates and Small-Scale Beneficiaries is the (GOE)'s primary employment-generating scheme in the agricultural sector. Since its initiation in 1987, 250,000 feddans have been distributed to approximately 50,000 secondary school and university graduates.<sup>14</sup> The principal objectives of the Mubarak Graduates Program are to create employment opportunities for young graduates, alleviate the high population density in urban areas, and increase the area under cultivation in Egypt.<sup>15</sup> To be eligible to participate in this program, graduates must be less than 30 years old, should not be employed by the government, and should have either completed military service or be exempted from it. Preference is given to those graduates who come from neighboring urban areas and have an agricultural background.<sup>16</sup>

This program, implemented by the General Authority for Reclamation Projects and Agricultural Development (GARPAD) provides the graduates with the following:

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<sup>14</sup> Thirty percent of all land reclaimed by the General Authority for Reclamation Projects and Agricultural Development (GARPAD) is to be allocated to the Graduates Program.

<sup>15</sup> While originally conceptualized as a program for young graduates, those farmers affected by the change in the tenancy law (Law No. 96 of 1992) were allocated land (usually, less than the graduates) and were provided with the same package of support that the graduates received.

<sup>16</sup> Other criteria used to select graduates are sex and marital status (i.e., males are preferred over females and unwed females over married females), age, and graduation year.

- 5 to 6 feddans of reclaimed land with basic infrastructure, including irrigation and electricity;
- a house;
- a monthly allowance of 50 LE for the first year;
- limited amount of inputs on a credit basis;
- food support provided by the World Food Program for four years;<sup>17</sup> and
- various training courses.<sup>18</sup>

In addition to providing the graduates with a support package, the Mubarak Graduates Program establishes new communities for the graduates. More specifically, a series of villages are built that contain basic services such as a health clinic, schools, post office, bakery, police station, and social club *inter alia*. Finally, the graduates are granted a four-year grace period during which they do not have to pay their mortgage. Afterward, they are required to pay approximately 11,000 LE over a period of 30 years. Graduates receive title only after paying in full and 30 years. Prior to that, they only possess usufruct rights to the land.

The Mubarak Graduates Program does not effectively respond to the mismatch in the labor market, in so far as it neither significantly upgrades skills nor does it create the conditions for meaningful and sustainable employment opportunities for graduates. Other obstacles which compromise the success of the program are: 1) lack of farming experience on the part of graduates; 2) poor planning and design of program; 3) poor quality of infrastructure provided by GARPAD; 4) inability to access credit because of lack of title to land; and 5) high program costs relative to benefits.

First, for the most part, graduates do not possess a practical knowledge of farming. This is especially problematic given that the majority of the programs are located in remote desert areas where conditions for growing are extremely difficult. Cultivating reclaimed desert land requires knowledge of specialized farming techniques and a relatively high level of technical competence, both of which graduates generally lack. While the MALR ostensibly provides graduates with training in agricultural techniques, the quality, and relevance of training provided is questionable. Anecdotal evidence suggests that a significant percentage of graduates leave the land shortly after having received it. In Wadi El-Saayda, a representative of Africare who works closely with the graduates and previously landless farmers estimated that as much as 80% of the graduates have left the land and a large portion of them are illegally renting it to farmers.<sup>19</sup>

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<sup>17</sup> Not all locations receive food support.

<sup>18</sup> GARPAD, a MALR agency, is responsible for reclaiming the land, building the infrastructure, graduate housing, service facilities and the communities. Once GARPAD has completed its tasks, then MALR provides training to the graduates and administrative support to the newly formed communities.

<sup>19</sup> Official estimates as to the number of graduates that have left the land are significantly lower, ranging from between 5 to 10 percent. While experience may vary, these figures suggest that graduates are facing significant challenges.

Second, insufficient planning compromises the success of the program. Since 1987, the project has been implemented in numerous areas throughout Egypt, yet GARPAD has not conducted a single feasibility study to justify these investments.<sup>20</sup>

Consequently, many of these projects are located in remote areas far away from local markets and urban areas. One of the lessons that has emerged from our field visits to various projects is that location matters. Indeed, it appears that the degree to which a project is successful is a function of its proximity to markets. The Graduate Project in Nubariyya, for example, while not devoid of problems, has been able to take advantage of its location between two sizeable markets: Alexandria and Cairo. In addition, relative proximity to urban centers raises the profile of these projects and raises the likelihood that donors and NGOs will also provide support to the graduates. This is exactly the case of Nubariyya, which has benefited from the activities and resources of institutions like IFAD and the AUC Center for Desert Research. Unfortunately, Nubariyya seems to be an exception and most sites are located far from markets. (See Annex 2 for list of project sites). Finally, related to the problem of poor planning is a lack of regular and formal evaluations of the programs.

In addition to poor planning with regard to location, the project designs do not account for local conditions. No matter the difference in climate, culture, and environment, the same plan has been imposed upon each of the different project sites. Housing that is appropriate for Lower Egypt is constructed in Upper Egypt where climactic conditions and cultural norms are different, resulting in housing that is nearly uninhabitable.<sup>21</sup> There are other examples of lack of attention to making simple modifications to housing in order to make it suitable to local conditions.

Third, the basic infrastructure provided by GARPAD and MWRI is sometimes of poor quality. Field visits to Nubariyya and Wadi El-Saayda revealed quality problems with basic infrastructure such as roads, canals, and irrigation systems. For example, in Wadi El-Saayda the irrigation canals, which were recently completed, were already falling into disrepair. The graduates in both Wadi El-Saayda and Nubariyya complained that the irrigation pumps regularly broke down and there were frequent shortages of water. The graduates in Nubariyya complained about housing. They mentioned that they brought their families to live with them only after they made significant modifications. Finally, the quality and level of services provided are inadequate. Poor quality of infrastructure, housing, and services, in addition to the harsh conditions, pose a significant challenge to graduates.

Fourth, graduates do not gain title to the land until after they have paid their mortgage in full and after 30 years. They thus cannot use the land they as collateral. This diminishes seriously their ability to obtain credit and invest in the land. This policy, on the national level creates a significant amount of dead capital.

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<sup>20</sup> In 1991, GARPAD did conduct its first feasibility study for the North Sinai project. However, MALR did not implement this project (MWRI is implementing it) and consequently GARPAD did not benefit from this feasibility study.

<sup>21</sup> Other complaints regarding the housing is that in Upper Egypt they were built without a fence surrounding the yard. This is problematic because women are then confined to the homes. Cultural norms in Upper Egypt are such that unless there is a fence around the yard, women are restricted from leaving the house.

Finally, these schemes are extremely expensive. GARPAD spends approximately LE 70,000 per graduate to provide five feddans of reclaimed land and a house, plus supporting infrastructure such as roads, irrigation infrastructure, and buildings for community services. The fact that a large number of graduates are leaving and the majority of those that stay to cultivate the land live in precarious economic conditions, Apart from Nubariyya, as a large number leave the projects and the majority the enormous cost undertaken by MALR to develop this scheme is not justified by the outcome in terms of employment creation for graduates, as a large number leave the projects and the majority. Nonetheless, it appears that those sites that have had additional support from donors has helped to turn around this situation, such as Nubariyya and Wadi El-Saayda, have benefited tremendously. Some of the sites are promising, but require technical assistance to realize their potential. It is on this basis that we suggest that USAID consider providing support to graduate farmers in targeted sites, using a similar model implemented by Africare (to be discussed below).

### ***North Sinai Development Project***

The North Sinai Development Project (NSDP) is a land reclamation and community development project administered by MWRI. Among the main objectives of NSDP are to establish a new community in the reclaimed area and to attract people from the high density Nile valley to settle in North Sinai. Unlike the MALR's Mubarak Graduates Program, there is no mention of employment creation as an explicit goal. Nonetheless, this project does try to attract small farmers and graduates by offering them a package of benefits similar to what the Mubarak Graduates Program offers graduates.

MWRI initiated the process of land reclamation in North Sinai in 1995. Since then, 125,000 feddans have been reclaimed. The distribution plan, as the Chairman stated early in implementation, allows for 50 percent of the land was to be sold at auction to large investors, 35 percent was to small farmers and graduates, and the remaining 15 percent would be sold to medium-size investors. To date, 75,000 feddans have been allocated. 31,500 feddans has been allocated to small farmers, 1,500 feddans have gone to graduates, and the remainder has been sold to medium- and large-size investors. Of the 75,000 feddans allocated a mere 1,300 are currently being cultivated.<sup>22</sup>

Graduates and small farmers are allocated 10 feddans each. The price of the land in North Sinai, however, is not as heavily subsidized as that in the Mubarak Graduates Program. In the Mubarak Graduates Program, graduates ultimately pay 1,000 LE per feddan, whereas in the NSDP the graduates pay between 3,000 LE and 7,000 LE per feddan, depending on the salinity level of the soil. In contrast to the Mubarak Graduates Program, NSDP requires the graduates to pay a 10 percent down payment once the land is allocated. Once the graduates pay this amount, water is allocated to them.

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<sup>22</sup> It is important to note that the majority of those cultivating the land in NSDP are not graduates.

Indeed, there are currently only a handful of graduates cultivating the land. While against MWRI policy, many of the large commercial farmers have established fisheries rather than cultivating the land.

In addition to allocating land to the graduates and small farmers, MWRI also provides them with infrastructure, including:

- irrigation and drainage infrastructure;
- pumping stations;
- roads;
- electricity;
- potable water; and
- sanitary drainage.

While NSDP provides infrastructure, it does not leach the soil. The graduates and small farmers must do this themselves. While soil salinity varies, it is generally so high in North Sinai that on average the land must be leached for approximately four years.

The NSDP also builds villages. Similar to the Mubarak Graduate Program, each village includes a mosque, local administrative building, hospital, veterinary hospital, police station, bakery, market, post office, agricultural development bank, kindergarten, and primary school. Small farmers and graduates are also allocated a plot of land within the village, measuring 200 square meters where they can build a house. Unlike the Mubarak Graduate Program, the MWRI's NSDP does not build housing.

Though loosely modeled after the Mubarak Graduates Program, the level of coordination between MALR and MWRI on NSDP is minimal. MALR provided some technical assistance in the initial reclamation phase, but did not assist MWRI with the design or implementation of the community development component of the program. Consequently, the probability that NSDP will face many of the same problems that the Mubarak Graduates Program faces is high. These problems are compounded by the fact that the farmers will not be able to export edible horticultural products because the water used to irrigate is 50 percent Nile water and 50 percent agricultural drainage water.

Because of poor soil quality, harsh conditions, and lack of easy access to affordable inputs, it is extremely expensive to cultivate the land. Transportation costs are also high as, NSDP is located a long distance away from the nearest market. We believe that producing high value horticultural crops is the only realistic option that NSDP farmers have if they want to succeed. However, these farmers may not be able to do (ornamental plants are an exception) so because drainage water is used for irrigating.

### ***Toshka***

Toshka is the GOE's mammoth land reclamation and community development project located in Upper Egypt that aims at reclaiming 540,000 feddans. Among the objectives of Toshka are to relieve population pressure in urban areas, increase the cultivated area, and increase economic activity in the depressed southern region of Egypt, and thus create employment opportunities.

In an effort to attract investors, the GOE has offered incentives such as a 20-year tax exemption and an exemption from tariffs on imports of capital equipment and

machinery. The GOE provides investors with the main canal and four sub-canals, main roads, and the electricity grid. Each investor has to provide whatever other infrastructure need for farm development such as secondary canals and on-farm irrigation. The enormous investment needed to provide infrastructure and the high cost of cultivating the land makes it impossible for small and medium size farms to succeed in Toshka. All farms will be commercial-size farms that will most likely produce high value export crops. Indeed, we visited the KADCO farm in Toshka. The KADCO farm is 120,000 feddans, but the company is currently working on an experimental farm of about 1000 feddans. KADCO is planning to cultivate high value horticultural crops for export.

If Toshka succeeds, it has the potential to generate employment for thousands of skilled laborers. In addition, to on-farm employment the remoteness of Toshka from any town or village means that communities will develop there with various economic activities and employment for all skill levels will be generated. Success will require an enormous investment on the part of the private sector. Because the commitment of the GOE to supporting the private sector is still in doubt, attracting the needed investment to fully develop Toshka may prove to be a difficult endeavor.

### *The Social Fund for Development*

The Social Fund for Development (SFD) was established in 1991 by the GOE with the cooperation of various donors. Originally designed as a social safety net, its mandate has since changed. Currently, the SFD aims at minimizing the risks associated with social exclusion, employment generation, and poverty alleviation. One of the main activities of the Social Fund is the Small Enterprise Development Organization (SEDO), which creates employment opportunities for unemployed (especially new graduates), low-income groups, women, and owners of existing small and medium enterprises (SMEs) through the promotion of small enterprise development. SEDO does this by providing access to credit, business services, and technical assistance.

All economic activities (with the exception of land reclamation projects) that create job opportunities are eligible for SEDO support. Preference is given to activities that create new and sustainable job opportunities at a reasonable cost; use labor-intensive technology; encourage the participation of women; and are located in rural areas. The agricultural and livestock sectors, are among the most important sectors for SEDO. Approximately 25 percent of the Social Fund's projects have been in these sectors.

The loans are granted in three tiers. The first is up to LE 50,000; the second tier of loans range between LE 50,000 to LE 200,000; and third tier loans range from a minimum of LE 200,000 to a maximum of LE 500,000. Interest rates vary with the size of the loan, but are between 7.5% and 13%. Average loan size in 2000 was LE 19,074 (SFD 2000). According SFD's Annual Report 2000, since 1992 SEDO has generated 311,804 jobs.<sup>23</sup>

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<sup>23</sup> Among SEDO's objectives is the creation of 130,000 jobs annually. The year 2000 was the first year that it surpassed its objective. Prior to that, job creation averaged approximately 52,444 jobs annually.

a laudable achievement. It is not clear, however, how many of these jobs have been sustainable and have resulted in meaningful employment for the beneficiaries.

Through its 26 field offices and affiliated NGOs, SEDO provides support to clients to prepare their business plans. It also provides various project profiles to clients for them to choose. Additionally, it provides frequent and regular monitoring of the enterprise throughout the life of the loan to see whether it is being used for its intended purpose and to identify problems. If needed, SEDO also provides managerial and technical assistance to clients after they receive the loans.

SEDO is in the process of developing a department specializing in business development and support. This department will be responsible for developing business support and services programs as well as establishing and managing a national network of Egyptian Small Business Development Centers (SFD 2000). These centers will provide SMEs with a package of integrated services that includes training, consulting, and marketing.

International experience has shown that those businesses that are assisted through substantial mentoring and business counseling are more likely to succeed (Betcherman et. al. 2000). Indeed, one of the main the weaknesses of SEDO's current program is that it does not provide adequate guidance and technical advice. The fact that over 25 percent of the projects funded this year were in the heavily saturated area of livestock and poultry production demonstrates that loan recipients received insufficient guidance in their choice of business. Further, because a significant number of beneficiaries do not have any business experience, they need training in basic business skills. SEDO only provides about a week of training to loan recipients. This is hardly sufficient. More guidance regarding the choice of enterprises that recipients will start, business training, and regular follow-up technical advice is needed to improve the probability of success. If the Small Business Development Centers are well designed and implemented, they will significantly increase the likelihood that these enterprises will succeed.

Although international experience has shown that SMEs are an important means of generating employment, it must be recognized that enterprise development programs are no panacea. This is especially true in the case of skilled labor. Globally, enterprise development schemes are associated with a high rate of business failure; typically, one-third to one-half of such businesses close down in the first year of operation (Betcherman et. al. 2000). In addition, enterprise development also generates displacement effects whereby small businesses not receiving assistance are disadvantaged relative to those that do. Finally, Assaad et. al. (2000) has shown that educated labor generally shuns self-employment. Thus, the effectiveness of this type of program for generating significant levels of employment for graduates is questionable.

### ***General Lessons Learned***

Government sponsored employment creation schemes do not address the mismatch problem in the agricultural labor market. Thus, the schemes developed cannot contribute to a sustainable solution to this problem. As they do not create meaningful and sustainable employment for the target group. Instead of developing high quality

well-targeted schemes the government seems to be preoccupied with the quantitative aspect of the problem (i.e., the fact that 700,000 jobs need to be created in order to absorb surplus labor). Limited resources are spread over a vast number of eligible graduates (and others). The programs are therefore not well targeted and to make matters worse they do not seem to understand those groups that are targeted.

Another significant problem with government employment creation schemes is that they have multiple goals. For example, they aim at decreasing population density in urban areas, increasing cultivated area, and increasing employment. These are all complex issues in their own right. As we have shown, trying to achieve all three with one scheme makes the objective of creating meaningful and sustainable employment for skilled labor difficult to achieve.

### **Training**

The Arab Human Development Report 2002 states that “A dependable, qualified workforce is essential for ensuring competitiveness, attracting investors, and meeting the needs of a demanding private sector both national and transnational” (UNDP 2002: 95). According to Gill and Heyneman (1997), “Today, high-quality training and technical education may be a more important contributor to growth than any other time in modern economic history” (18). Indeed, international experience has shown that investing in human capital is a key to increasing labor productivity, competitiveness, growth, and employment generation. In order for this potential to be realized in Egypt, however, the educational and training systems must be reformed. More specifically, the system must be upgraded, made flexible, and responsive to the demands of the market. Reforming the educational system is a long-term process. However, reform of training programs (especially those that are based on a high level of public-private cooperation) can be achieved in the short- to medium-term.

When considering educational and training reform it is important to keep in mind that two groups must be prepared to participate in a market-oriented modern agricultural sector as skilled labor: 1) secondary technical agricultural school students and university students; and 2) unemployed graduates.

### ***Secondary Schools, Technical Schools, and University-Level Education***

The educational system, and in particular secondary technical agricultural schools and the Faculties of Agriculture at the university level are among the main contributors to the mismatch problem in Egypt.<sup>24</sup> Gill and Heyneman (1997) found that “Even in unlikely optimistic scenarios, the supply-to-demand ratio for university and secondary

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<sup>24</sup> There are 13 Faculties of Agriculture in Egyptian universities, 90 agricultural schools (secondary technical public), one agricultural technical and vocational education and training school (i.e., Mubarak-Kohl Initiative). In addition, Gill and Heyneman (1997) report that “the Ministry of Manpower and Emigration provides short courses for the unemployed. These courses are intended to target the unemployed—largely the graduates of industrial, commercial, and agricultural secondary schools according to preliminary statistics—but few studies exist to determine their effectiveness. The ministry does estimate, however, that less than 5 percent of the unemployed even apply for these programs” (4).

school graduates are greater than 400 percent” (1).<sup>25</sup> In addition to the problem of supply of graduates exceeding the demand for graduates, the quality of graduates produced by the educational system is not adequate. Samiha Fawzy, in a recent survey of over 100 Egyptian businesspersons, found that close to 55 percent stated that the lack of skilled labor is among the largest constraints to growth they face. In addition, our interviews with private sector farmers (of all sizes) support this conclusion. Indeed, the private sector associations and commercial farmers complained about the short supply of qualified skilled labor and the fact that graduates do not possess the skills they demand.<sup>26</sup>

The educational system produces graduates for which there is no demand partly because it was designed to respond to the needs of a centrally-planned economy that guaranteed graduates permanent jobs whether they were qualified or not. Such a system renders practical knowledge largely irrelevant to obtaining or keeping a job. Practical training, absent in school curricula is, conversely highly relevant, in today’s market-based economy and is precisely the type of training that the private sector believes graduates need.

In order for the Egyptian educational system to produce consistently high quality graduates who possess skills demanded by the private sector, it must be reformed. An important aspect of reform will be to develop a mechanism by which the private sector has a voice in the development of curricula. Doing so would ensure that education is relevant to the market.

Currently, there exist few formal institutionalized channels for university-private sector interface. One of the means by which the private sector may influence the curriculum at the university level is through the Faculty Council.<sup>27</sup> Each of the Faculties of Agriculture has a Faculty Council that recommends curriculum changes to the Supreme Council. There must be at least two outside members on the Faculty Council (these are generally private sector representatives). In addition, there is a Supreme Council that represents all 13 Faculties of Agriculture and is charged with reviewing and approving any changes to the curriculum as well as coordinating the curriculum. There are private sector representatives on the Supreme Council as well.

In addition to these two formal channels for influencing curricula, are Faculties of Agriculture in the more prominent universities have recently begun to solicit the private sector’s advice on curriculum development. For example, at Cairo University

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<sup>25</sup> In 1998 alone, 56,624 students graduated from secondary technical agricultural schools, while 4,537 students graduated from the Faculty of Agriculture in the various Egyptian universities in 1997 (CAPMAS). If we look at the number of students registered at the secondary and university level, the trend over the period 1992-1997 is increasing by an average of approximately 11 percent for university students and four percent for secondary students (CAPMAS).

<sup>26</sup> Private sector employers also blamed cultural norms (i.e., the idea that Egyptians would rather have a secure job in the public sector working behind a desk than working on a farm) have as playing a role in creating the short supply of skilled labor. One obvious remedy for this is to offer skilled labor job security by ensuring that they have social security. Many firms in Egypt find ways to evade this tax.

<sup>27</sup> We were not able to find evidence of the existence of a similar council at the secondary technical school level.

there is a monthly meeting between the Dean, Vice Dean, faculty, and about a dozen prominent private sector commercial farm owners. This has resulted in some changes to the curriculum such as the addition of the English section, a course on Microsoft software as well as software used to manage commercial farms and post-harvest systems.

There are some other changes underway in a few of the more progressive Faculties of Agriculture:

- In an effort to provide more practical training to prepare its new graduates to participate in a modern agricultural sector, the Faculty of Agriculture at Cairo University began an on-farm training program in 1999. The program, which takes place on large commercial farms, offers a three-month completely applied training course to approximately 40 recent graduates. Faculty members train the recent graduates in areas such as cut flower production, green house vegetable production, and in raising rabbits and chickens. Approximately, 90 students have been trained through this program since its initiation. The cost of this program per student is approximately LE 500.<sup>28</sup> Additionally, the program offers students who complete the training course LE 20,000 to start their own project.<sup>29</sup>
- In 1998, Cairo University began hosting an annual job fair where private sector medium- and commercial-size farmers, poultry and livestock producers, and food producers are invited to meet their students and unemployed alumni. On average, about 155 students a year have found employment through the job fair.<sup>30</sup> The job fair is unique to the Faculty of Agriculture at the University of Cairo.<sup>31</sup> We suggest that support be given to expand this model to other universities and secondary technical schools. In addition, there is a need for effective employment services. These could be provided both by the universities and secondary technical schools (with donor support) and private sector companies.
- The Faculty of Agriculture at Al Azhar University is establishing a joint program with Walla Walla University from Washington State. The main focus of the program is to promote skills of the graduates through on-farm practical training. The training will take place in a university training center/farm in Fayoum.

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<sup>28</sup> This figure does not include the professors' salary.

<sup>29</sup> The loan is provided by PBDAC.

<sup>30</sup> This represents an average of about 11 percent of those that applied for jobs.

<sup>31</sup> It is interesting to note that the number of companies that participated in the job fair and the number of students that were hired in 2001 year was lower than in previous years. The private sector companies that did not come blamed poor economic conditions for their inability to hire new graduates. Yet, the number of graduates from the University of Cairo is increasing.

The Ministry of Education is in the process of reforming the curriculum of secondary technical agricultural schools with the aim of upgrading the quality of education and providing students with the tools to participate in a modern agricultural sector. While the goals are worthy, the Ministry of Education has only consulted the private sector once throughout the curriculum development process. Given that the private sector is the engine of growth and employment creation in the agricultural sector, it should be given an opportunity to participate in discussions regarding curriculum development.

Changing both university and secondary technical school curriculum is critical to increasing the productivity and thus competitiveness of Egyptian agriculture. The reform of the curricula is long overdue. Any reform to the educational system, if it is to be successful, must allow private sector participation.

### ***Mubarak-Kohl Initiative***

The Mubarak-Kohl Initiative (MKI), launched in 1991, is an attempt to improve technical education and vocational training in Egypt. It is administered jointly by the Ministry of Education and the private sector (through investor's/businessmen's associations) and targets those students who have successfully finished basic education and are eligible for secondary technical education. The broader motivation for this program is to help increase the competitiveness of the Egyptian economy and in so doing create better job opportunities for new graduates (MOE). More specifically, however, MKI aims at "[making] available well-trained skilled labor according to the demands of the labor market...[fulfilling] the needs of the different economic sectors of properly qualified personnel" (MOE).

The MKI applies the German dual system, which consists of a combination of technical and vocational education and training (TVET) provided by schools and employers, respectively. This system departs from the current system of technical secondary education in at least four ways. First, MKI emphasizes practical skills (acquired through apprenticeships) over theory. Publicly run and financed schools provide two days of theoretical training and firms provide four days of practical apprenticeships per week over three years.<sup>32</sup> A qualified training manager ensures that the students are receiving the training specified in the curriculum and supervises the apprenticeships.

Second, MKI is demand-driven. Unlike the traditional technical educational system, which does not formally consult the private sector in the development of its curriculum, the MKI system is designed to respond to private sector demands. Indeed, this is one of the explicit goals of MKI. Consequently, the private sector is involved in all phases of the development of MKI programs, including the determination of which applied trades to offer training in, the design and evaluation of curricula, the development and grading of examinations, and the implementation of the training component of the program.

Third, related to the previous point, MKI is based on public-private cooperation. The Ministry of Education is responsible for providing theoretical training, the schools,

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<sup>32</sup> It is important to note that once the students have graduated the employer is under no obligation to employ them.

equipment, labs, and paying the teachers' salaries and social insurance for the students. The private sector through investors' and businessperson's association, however, bears the lion's share of the costs, as it is responsible for all costs associated with practical on-the-job training. The private sector provides training, qualified trainers, raw materials and it also provides nominal wages for the students.<sup>33</sup> The private sector also finances the Regional Unit for the Dual System, which is a body that coordinates the in-company training and the technical education. Finally, GTZ provides technical cooperation in the form of training for teachers and trainers, assistance in curriculum development as well as incentives for both the teachers and trainers. GTZ also conducts evaluations of MKI schools.<sup>34</sup>

Fourth, there is an emphasis on the quality of training that students receive. The MKI school facilities are relatively better equipped than traditional technical schools. All of the schools are equipped with computers and students are trained in computer literacy. In addition, the teaching and administrative staff have been trained by GTZ and their training is regularly upgraded. The students also benefit from a qualified trainer who supervises their on-the-job training. Unlike the overcrowded traditional technical schools, the number of students in MKI classroom does not exceed 24.

Implementation of the Mubarak Kohl Initiative began in 1995, with three pilot schools. MKI has since expanded to 38 schools. Currently, there are 3400 students in MKI schools throughout the country and 1300 students have graduated. The number of companies participating in MKI increased from 65 in 1995 to 800 in 2002.<sup>35</sup>

Originally, the focus of MKI schools was preparing students to work in the manufacturing industry, but since its inception the MKI model has been applied to nursing, construction, etc.<sup>36</sup> Within the last year, an MKI school was established in Sadat City to train students in the field of mechanized agriculture.

The Sadat City School was established through the cooperation of Sadat City Investors, the Horticultural Export Improvement Association (HEIA), GTZ, and the Ministry of Education. This is the only MKI school that provides training in the area of agriculture. The Sadat City Investors conducted a training needs assessment which was translated into the agricultural mechanization curriculum currently being applied.

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<sup>33</sup> It is important to note that the private sector-trainee relationship is regulated by a contract that specifies the conditions under which the trainee will receive training. It specifies, for example, allotted vacation time, which is generally one month. The contract also indicates what the remuneration will be. On average first-year students receive 60 LE per month, second-year students receive 70 LE per month, and third-year students receive 80 LE per month. Finally, while the MKI graduate is ostensibly given priority in hiring, there is no stipulation in the contract that obligates the company to hire any of its trainees once they have graduated.

<sup>34</sup> It was estimated that the private sector foots approximately 75 percent of the cost for MKI, the public sector contributes a bit less than 25 percent, and the GTZ contributes less than one percent of total operating costs.

<sup>35</sup> In addition, there are also 280 construction companies that participate in this program.

<sup>36</sup> In the case of the MKI nursing program. Even after GTZ support was terminated, the program continued to function. This speaks to the issue of program sustainability in the absence of continued donor support.

By focusing on providing quality practical training in areas demanded by the market, the MKI system directly addresses one side of the skilled labor mismatch in Egypt. Indeed, the MKI schools' attention to the quality of training has resulted in graduates who possess a skill mix and level of skills that more closely approximates those desired by the private sector. This is evidenced by the fact that job advertisements for skilled labor are increasingly specifying a preference for MKI graduates.<sup>37</sup>

While the MKI has been widely applied to provide training in the manufacturing sector, its application in the agricultural sector has been limited to agricultural mechanization. There is therefore room for expansion of this model into such fields within the agricultural sector as irrigation technology, farm management, horticulture production, even EuroGap training.<sup>38</sup> Given that only one school has been established in the agricultural sector, there are still a number of medium- and commercial-size farms that can be incorporated into the scheme. Prior to expanding this model, however, some serious consideration should be given to the issues of the role of this model in the overall educational system, its sustainability and the costs associated with the program.

The MOE considers the MKI system to be complementary to the existing technical secondary school system. There is no plan to supplant the traditional technical schools with the MKI model.<sup>39</sup> Reliance on the private sector for financing and support precludes the MKI system from becoming the dominant TVET model. Expansion of the model is limited by the relatively small size of the private sector in Egypt.

Sustainability depends on the private sector and its commitment to MKI. Thus, the MKI system is vulnerable to both the health of the private sector and its whim. The large increase in the number of private sector manufacturing firms supporting the program, an increase of more than ten-fold over the last seven years indicates the private sector's keen interest in and willingness to finance the vocational training component of the dual system. This bodes well for the MKI system in Egypt. Nonetheless, it is important to ensure that a system is developed which acts to minimize the ability of the private sector to derail the MKI system.

A final consideration with respect to expansion of the system is the cost relative to the benefits. Dar and Gill have estimated the annual cost of implementing a dual system in Egypt at about US \$2350 per student, while the annual cost per student of the traditional technical secondary school at LE 500. While more expensive than traditional secondary technical school, the benefits are that it produces graduates whose skill level and mix more closely approximates that demanded by the private sector.

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<sup>37</sup> Gill and Heyneman (1997) report that of the 50 percent of MKI graduates who do not have to perform military service, more than half find private sector jobs in the areas in which they were trained.

<sup>38</sup> Given that the GTZ will only support activities that have some industrial component, their support for MKI schools in the agricultural sector is limited to areas such as agricultural mechanization.

<sup>39</sup> There is, however, currently a plan to reform the traditional schools. The objective of the reform is to upgrade the quality of training and make it less theoretical.

In conclusion, the MKI system is the only example of a system that has been able to successfully blend vocational training and technical education to fit the demands of the market.

### *The National Training Project for Graduates*

The National Project for Training of Graduates (NTP) is a government-financed program for training unemployed secondary school and university graduates and providing them with loans to fund small projects.<sup>40</sup> Launched in December 2001, the NTP is the product of a cabinet-level discussion on the problem of unemployment among graduates in Egypt.<sup>41</sup> The program is administered by PBDAC, which also disburses the loans.<sup>42</sup> The aim of this project, as articulated by the government, is to create jobs for youth in all sectors and to retrain graduates in an effort to reduce unemployment.

In the agricultural sector, MALR, research institutes, and universities cooperate with the PBDAC to provide training centers, trainers, and other needed facilities. There are currently 187 training centers throughout the country earmarked for use by NTP in the agricultural sector. MALR plans to use these training centers to train 120,000 graduates in the current year.<sup>43</sup> To date, 55,000 graduates have been trained and 32,000 have received loans of between LE 3,000 to LE 5,000.

The training courses cover 36 different areas. The determination of which courses to offer is based on the available expertise within MALR and the training centers as well as the interests of the students as indicated on their application form. Unlike the MKI system, which involves the private sector in the design of the curriculum and the training, the NTP did not consult the private sector during curriculum development nor is the private sector involved in training. Similar to the MKI system, the training courses are designed to emphasize practical skills acquisition. The courses last between two to four weeks and are open to graduates of any discipline.<sup>44</sup> As part of

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<sup>40</sup> Please note that this study considers the type of activities that can be supported from the credit that PBDAC allocates to the graduates as “income-generating” as opposed to “employment generating.” This distinction is important because the phrase “employment-generating” implies a sustainable activity that provides a certain basic level of income, while “income generating” may be a short-term, temporary activity that aids in merely smoothing existing consumption patterns.

<sup>41</sup> The Cabinet-level proposal is dated the 15<sup>th</sup> of January 2002.

<sup>42</sup> MALR, the Ministry of Military Production, the Information Center, the Ministry of Oil, Ministry of Electricity, and the Ministry of Labor all play a role in the implementation of this project. The Ministry of Finance and the Social Fund funds the loans.

<sup>43</sup> Initially, MALR and the Information Center (located in the Prime Minister’s office) developed a list of unemployed secondary school and university graduates. Based on this list, MALR determined that it would train 120,000 graduates in the current year at a rate of 10,000 per month. MALR then sent each of the graduates an application to participate in NTP and a letter from MALR, inviting them to participate in the program. Any graduate interested in participating in the program was asked to submit their application to the training center, specifying the areas in which they would like to receive training.

<sup>44</sup> During the training period, trainees receive nominal remuneration of approximately 5 LE per day for university graduates and 3.25 for high school graduates.

the training course, the trainees are taught how to prepare business plans that they will submit to PBDAC as part of their loan application.

Once the graduates complete the training course, they are eligible to apply for a loan from PBDAC to be used in a project related to the area in which they were trained. As mentioned previously, the amount of the loan varies between 3,000 LE to 5,000 LE and carries an interest rate of 7.5 percent.<sup>45</sup> PBDAC conducts follow-up visits to ensure that the loans are being used for the stated purpose. Also, if the graduates need technical assistance with their project after having received the loan, they can appeal to the training centers for this assistance.

The NTP as currently designed and implemented represents a feeble attempt on the part of the government to solve the problem of unemployment. The training and employment/income generating components of the project are severely flawed because the private sector does not have a stake in the program. The existing expertise in the training centers and in MALR as well as the interest of the graduates themselves guide the development of the curriculum with little if any consideration to markets or employability. The unemployed graduates do not obtain skills needed to compete in the market, nor is two to four weeks sufficient for them to obtain any usable skills. The resources used to train 120,000 graduates within a one year period, would be better spent on more intensive, demand-driven training courses for a significantly smaller number of graduates.

The loan amount appears to be insufficient to create a sustainable employment opportunity. It is well known that the highest annual internal rate of return (IRR) in Egypt is no higher than 25 percent on any project. Based on this, the annual return to a L.E 3000 investment will be 750 LE (monthly will be approximately L.E 62.50). This would put the loan recipient significantly below the poverty level. The sustainability of the employment is questionable and the benefit received relative to the effort is most likely insufficient to warrant continued effort.

There may be a moral hazard problem that emerges as a result of the loans guaranteed. While it is not clear how prevalent the practice is, we have heard of instances of the loans being used to smooth consumption patterns. The fact that the loans are disbursed in a lump sum and are insured increases the likelihood that the loan recipients will use the loans to smooth consumption patterns and not to invest in a productive activity. Finally, policies that attempt to create opportunities for self-employment among unemployed graduates by providing low-cost credit may be ineffective because a recent study has shown that educated workers generally shun self-employment (Assaad et. al. 2000).

In sum, although this project has not been implemented long enough to warrant a formal evaluation, the prospects for success are not high. This partly stems from the fact that it does not address the problem of the labor mismatch as we have defined it. More specifically, training is inadequate, and the employment-generating component is poorly designed.

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<sup>45</sup> Since the graduates generally do not possess anything that can be used as collateral, loan insurance is made available to them. In addition, they receive a one-year grace period.

### ***Social Fund for Development, Human Resource Development Program***

In addition to SEDO, the Social Fund for Development has also established a Human Resource Development Program (HRDP) the objective is to contribute to the reduction of unemployment by better preparing unemployed youth and redundant workers from public enterprises for the labor market. The program uses an integrated approach to human resource development. Among HRDP's main areas of emphasis are the following:

- retraining programs for unemployed youth;
- expanding entrepreneur training programs;
- improving the capacity of the training system to be more responsive to a dynamic labor market; and
- building the capacity of employment services.

HRDP uses two methods to provide training to unemployed youth. First, it uses a contract training method where an enterprise or group of enterprises that are interested in hiring new employees are assisted in the development of a customized training program. The enterprises can thus provide the trainees with an on-the-job training program that is specifically tailored to the needs of the business. The second method is to work with private sector business associations, chambers, or federations to determine the skill gaps. Once demand for a certain set of skills is identified, then a training program (with training generally provided through training centers) is developed that endeavors to provide the necessary training. This method, however, is not tied to any specific job opportunity.

Relative to SEDO, HRDP is a small program. It received a mere 8 percent of the SFD budget (while SEDO received 67 percent). HRDP provided limited training programs in the area of agriculture. For example, HRDP conducted a training course for postgraduates in Alexandria in the area of agricultural property management and they also provided a training course for 306 youth in the area of irrigation management.

The youth training program of HRDP is quite small. In addition, HRDP does not have a high degree of involvement in the agricultural sector. Nonetheless, the fact that it is designed to be demand-driven and that it values the private sector's input is a step in the right direction.

### ***Coptic Evangelical Organization for Social Services***

Established in 1952, the Coptic Evangelical Organization for Social Services (CEOSS) is a private voluntary organization, which focuses on literacy and economic and community development. In the mid-1990s, CEOSS converted its vocational training from a center-based system to an enterprise-based system (EBT) that provides on-the-job training.<sup>46</sup> CEOSS did so because of the dramatic rise in

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<sup>46</sup> The center-based system refers to a training program that is class-based and more theoretical than practical. In this system students would go to a center and could receive training in about a dozen standard trades such as carpentry and sewing.

unemployment (especially among youth) and the inability of the center-based system to respond adequately and cost effectively to this situation.

The EBT program emphasizes job creation and self-employment through apprenticeships. EBT consists of practical on-the-job training provided by cooperating firms. Because the training is exclusively on-the-job, EBT reduces the need for infrastructure (e.g., classrooms), formal training inputs, and institutional overhead so the cost per student (LE 700) is almost 50 percent lower than that of the center-based system. In addition, the EBT relies on cost sharing where the firm is responsible for training and providing the appropriate training materials, The trainee pays a modest fee, and CEOSS pays for administrative and other remaining costs.

The trainees are trained by entrepreneurs and their staff in more than 50 trades, including the repair and maintenance of appliances, automobiles, and farm machinery such as tractors, pumps, and harvesters. The EBT supervises each apprenticeship. The trainee begins with a one-week probationary period, if the trainee does well then a contract is agreed upon. Training ranges from several weeks to months. Once trainees complete the training session CEOSS monitors their progress for one year by having them submit quarterly reports.

The EBT program began in Minya in the mid-1990s and has expanded to include Greater Cairo. Since 1994, CEOSS has trained 2500 students using the EBT system. CEOSS found that the results of the first four years were encouraging. Indeed, 70 percent of those who were previously unemployed found employment within the first year of completing the training course (25 percent of these opted for self-employment). This is significant given that CEOSS found that the average employment rate of those that had graduated from its center-based training system was 21 percent. CEOSS is currently in the process of trying to standardize the EBT system so that it can be scaled up.

The strengths of enterprise based training are:

- It is flexible. Because there is no theoretical training, there is no need to develop a curriculum every time training is offered in a new trade.
- It is able to use a market-based mechanism to respond to labor market signals. Thus, training in new trades can be added as the market demands.
- It can offer training in a wide variety of trades; and
- It offers practical training with immediate application on the job.

The weaknesses of EBT are:

- It is limited in theoretical content.
- The pedagogical capacity of those in the workplace with training and supervisory responsibility varies.
- It is difficult to monitor and provide support for EBT.
- It is challenging to balance economic incentives and practical cost-sharing arrangements.

Because EBT is demand-driven, relies on a close relationship with the private sector, is flexible enough to respond to market needs, and is based on cost sharing, it offers a sound and sustainable model for training unemployed graduates. We recommend that USAID consider supporting the expansion of this model and more explicit application to the agricultural sector.

### *General Lessons Learned*

Both the educational system and government-sponsored training schemes do not provide students with the skills needed to contribute to a modern export-oriented agricultural sector. The success stories in the area of training have been those programs that have explicitly responded to the needs of the market. Generally, such programs are characterized by a high level of public-private cooperation and are demand driven.

## CONCLUSIONS AND RECOMMENDATIONS

Our focus in this paper is on unemployment among skilled workers, the sector of the population in which open unemployment is most widespread. The following are our general findings:

- **Employment schemes and initiatives have not addressed this basic problem and thus have not succeeded in reducing unemployment on a sustained basis.** We found that there exists a fundamental mismatch in the supply of and demand for skilled labor. The problem of structural unemployment (i.e., the skills possessed by graduates are not those demanded by the market) is compounded by limited demand relative to the supply.
- **The lack of a comprehensive coordinated employment policy at the national level has resulted in a series of interventions. The effectiveness of these interventions might have been enhanced by a consistent policy to guide their development.** Various ministries have tackled the issue of unemployment in the agricultural sector, each with their own diagnosis of the problem. As a consequence, inefficiencies have emerged and the effectiveness of the various schemes and initiatives in creating meaningful employment and imparting those skills required by the market has been compromised.
- **The best way for Egypt to generate meaningful employment is to revitalize economic growth, and to reform its educational system so that students are prepared to contribute to a vibrant private sector.** Although active labor market programs may, if designed properly and guided by sound policy, have a positive impact on employment creation and earnings, experience in OECD and developing countries with such policies has been mixed (Dar and Tzannatos 1999). A study by Dar and Tzannatos (1999) of one hundred countries found that the likelihood that these types of programs would be ineffective was higher in the absence of some level of economic growth. Thus, unless the economy is growing, active labor market programs may not have a positive impact on employment creation and earnings. Ideally, in the presence of economic growth, such programs might be used to fine tune labor market imbalances.

The specific lessons learned regarding the current employment creation schemes and the existing education and training system in the agricultural sector are as follows:

- Employment generation comes through economic growth. There is no substitute for growth.
- When programs (both employment generating and training) are directly linked to markets, they have a greater chance of success.
- It is important to understand fully the characteristics of a target group before developing schemes designed to assist them.
- The scale of schemes is key. Smaller, more targeted schemes are more effective rather than enormous projects that spread resources too thinly.
- Integrated programs, which combine high quality training, counseling, and credit have a greater probability of success.
- Programs that provide credit for graduates (or unemployed individual) to start SMEs (small and medium enterprise) should provide business development training. Investment choices should be based on market opportunities. Allocation of loans should be contingent upon the submission of a sound business plan.
- SME loan programs should be based on market studies to identify good opportunities. The loan institutions should assist applicants in determining which opportunities best fit their talent.
- The transfer of land title to graduates should be accelerated. Lack of title poses an obstacle to their ability to obtain credit and hinders investment in the land. This has negative effects on the ability of graduates to succeed.
- New schemes and initiatives should be piloted, evaluated, and then fine-tuned based on the evaluation. Then, if deemed beneficial, they should be scaled up. Many governmental programs, however, do not follow this formula. To their detriment, they omit the pilot and evaluation stages and go directly to wide-scale implementation.
- Regular monitoring and evaluation of schemes is critical.
- Demand-driven training is an effective way to ensure that the structural problem (i.e., the skills mismatch) is overcome.
- Secondary and university education should factor the skill demands of the market into their curricula.
- Education and training should emphasize practical and applied skills' acquisition.
- When training is provided through a public-private partnership, it is more effective than when provided by the public sector alone.
- Apprenticeships are an example of a labor market intervention that has been successful.

## Recommendations

Based on our definition of the unemployment problem, analysis of the agricultural employment policy in Egypt, and lessons learned we make the following specific recommendations in the areas of employment generation and training and education in the agricultural sector:

### *Employment Generation*

#### **Expand of high value, export-oriented horticultural production.**

One of the most direct ways in which employment for skilled labor can be generated in the agricultural sector is through the expansion of high value, export-oriented horticultural production, including value-added activities such as food processing. Export-oriented horticultural crop production is higher paid and is more labor intensive for all categories of labor (skilled, semi-skilled, and unskilled) than staple crops or those produced for the domestic market. However, because export standards are high, skilled labor is particularly demanded.<sup>47</sup>

Export-oriented horticultural production generates employment for all categories of labor from countless related input industries and post-harvest activities. For example, our preliminary estimates show that production of high-value, export-oriented horticultural crops requires approximately 35 percent more permanent on-farm labor and 50 percent more temporary labor than non-horticultural production. Such labor would be involved in the many steps of post-harvest production and in providing support for modern irrigation systems. In addition to the increased on-farm employment created, producing horticultural crops that meet export markets production standards also requires certain inputs such as fertilizer and pesticide, special varieties of seeds and/or seedlings, packaging, marketing, and technical assistance that produce a significant amount of off-farm jobs for skilled labor.

The establishment of more commercial size farms involved in export-oriented horticultural production should be promoted. While farms of this size may not need as much donor and government technical support as smaller farms, they do need an enabling legislative and regulatory environment that is supportive of their investment activities. In addition, associations can play an important role in fostering a productive public-private dialogue that assists in the development of a vibrant private agricultural sector. It is thus recommended that USAID continue its support to voluntary private sector agricultural associations, especially as these associations support the small- and medium-size farmers in the production and export of high value horticultural crops. Although small- and medium-size farms face more obstacles to producing export-quality horticultural crops, they can succeed at producing export quality horticultural crops. We recommend programs to support this. Africare's project in Wadi El-Saayda is a good example of how intensive initial

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<sup>47</sup> A study by the World Bank found that 3.4 percent of all workers employed in the agricultural sector were skilled labor. One reason the figure may be so low is because skilled labor is in short supply. Promoting the cultivation of high value export-oriented horticultural will significantly increase the demand for skilled labor and reforming the educational and training systems will ensure that the supply that exists is of the right quality.

technical assistance can have a positive effect on small- and medium-size farmers' integration into the export system.

Africare's work in Wadi El-Saayda (located in the Governorate of Aswan) provides a model for how to integrate successfully small- and medium-scale farmers into the horticultural export system.<sup>48</sup> The Africare project aims to assist farmers to produce and export high value crops, using modern agricultural techniques. Africare works on a limited scale (on average 30 farmers per year), providing intensive technical assistance (one agronomist per 10 farmers), extends credit to, and assists in linking farmers with domestic and export markets.<sup>49</sup> Africare assisted farmers in establishing sustainable direct marketing links with buyers in the U.K. and Italy. Over the span of two years, thirty farmers have successfully exported 60 tons of cantaloupes to Europe.

Each year Africare works with a different set of farmers. Because it provides intensive year-round technical assistance, farmers who have worked with Africare continued to produce and export high value crops even after technical assistance was terminated.

Africare found major constraints to exporting horticultural crops: lack of post-harvest facilities, especially cold storage facilities. Consequently, the Africare project recently built such a facility in the Wadi El-Saayda area for use by local farmers. This point leads to the next section, which discusses ways by which the constraints to high quality horticultural production faced by small- and medium-size farmers can be avoided. It also shows how integrating these farmers into the horticultural export system will create more employment for skilled labor in particular.

### **Establish agricultural production and marketing centers**

Establishing agricultural production and marketing centers is key to facilitating small- and medium-size farmers to produce and export horticultural crops. They represent an important means by which these farmers can overcome the obstacles they face in producing and exporting high value horticultural crops. They will also generate significant employment opportunities for skilled labor in the agricultural sector.

Small- and medium-size farmers face a number of difficulties in producing and export-horticultural crops. These include: the lack of appropriate commercial services and technical assistance; no access to post-harvest facilities; lack of marketing skills; limited access to credit; inability to capture export market opportunities that require large production quantities; and difficulty in achieving economies of scale in the purchase of inputs. A network of well-designed and adequately staffed for-profit agricultural production and marketing centers would help farmers overcome these challenges. The centers would provide an array of comprehensive services and appropriate facilities, including commercial, marketing, technical assistance, as well as post-harvest facilities. More specifically, they would provide the following:

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<sup>48</sup> Wadi El-Saayda is one of the Mubarak Graduates Program sites.

<sup>49</sup> While intensive technical assistance is provided for one year only, credit (in-kind) is extended to farmers for two to three years.

- Commercial services – Procure volume (high quality) inputs and provide at reduced cost. Provide timely and accurate market information.
- Technical assistance – Provide specialized technical assistance to aid small- and medium-scale farmers to improve productivity and to develop the capacity to export high quality horticultural crops. Provide training to members on specific topics of interest to the growers.
- Post-harvest facilities – Give small- and medium-scale farmers access to post-harvest facilities, which include receiving, sorting, cleaning, and grading; pre-cooling facilities; packaging; and cold storage.
- Marketing – Provide marketing services (for both domestic and export markets) and facilitate linkages for small- and medium- size farmers who generally lack the skills needed to market their crops.
- Quantity of product – Small- and medium-size farmers may not produce sufficient produce to export individually.
- Credit – Provide access to credit.

Although agricultural cooperatives in Egypt abound, their capacity to provide these services to farmers varies widely. In general, it can be said that the cooperatives in Egypt are not strong enough to provide the variety and quality of services needed to support the integration of small- and medium-size farms into a dynamic export-oriented sector. In order to establish effective centers either the existing cooperatives need to be reformed so that they operate more efficiently and according to market principles or private sector companies could be established to provide these services instead. Shareholders should include farmers, exporters, and other principal stakeholders. Financing for the centers should come from shareholders, with donors providing some of the initial capital such as what occurred in Wadi El-Saayda.

In sum, the benefit of establishing a network of agricultural production and marketing centers is that they will increase the capacity of small- and medium-size farmers to produce and export high value horticultural crops and thereby increase the demand for skilled labor.

### **Reform the Existing Contracting System**

Another means by which small- and medium-size growers can be integrated into the export system is through contracting or the use of the Nucleus Enterprise Model (NEM). The NEM refers to a system whereby larger agro-industrial firms contract with smaller farmers for a specified product and volume. In order to elicit product that meets the required export standards, the larger firm supplies the smaller farm with inputs and technical assistance. While not widespread, this model currently exists in Egypt. However, there are some problems with the application of this model in the Egyptian context. One of the main problems with the contracting system is that the risk associated with NEM is high for both parties. For example, the small farmers may not be able to produce the volume and quality specified (or they may “pole-vault” and sell their product to another buyer) in the contract, so the large agro-industrial firm is left not being able to supply the quantity committed to their buyers abroad. This can result in legal problems for the agro-industrial firm, not to mention

financial losses. The farmer also bears risk because given that contracts are difficult to enforce in Egypt, large firms may refuse to buy the small farmers crop and the small farmer would have no legal recourse. The efficiency of the contracting system would increase significantly if a solution were found to these problems.

Solving these problems requires the following: 1) developing a market information system that would enable both parties to be better informed when entering into the contract; 2) the establishing an insurance scheme to protect both the small farmer and the larger entity; 3) developing legislation that strengthens the contractual relationship; and 4) reforming certain judicial mechanisms such as the *mahkama mast'a'gila* ("the urgent court") or the dispute resolution courts so that they are capable of dispensing justice in an expeditious manner.

### **Improve the Quality of Skilled Labor by Upgrading Education and Training**

Studies have shown that the lack of qualified skilled workers is one of the main constraints to progress in the agricultural sector. According to the Agricultural Technology Utilization and Transfer Activity (ATUT) Evaluation, "This lack is particularly acute at mid-management, supervisory, and skilled and semi-skilled worker levels" (ATUT 2002: 17). As discussed earlier, The education system is the main culprit of the lack of talent at the skilled, mid-management, and supervisory levels.

One of the key lessons learned in the area of education and training is that they need to be linked to the needs of the market. That is not to say that the demands of the market should completely dictate the curriculum, but that they should be seriously considered in its development. One way by which this can be done is by establishing a formal channel through which the private sector associations regularly meet with decision makers in universities to keep them abreast of the changing needs of the market. Using private sector associations reduces the probability that particularistic interests might influence curriculum development.

Another lesson learned was that any curriculum change should ensure that more high quality practical training is provided to students. One of the major weaknesses of the current educational system is the lack of sufficient practical training.

The process by which curriculum change ultimately comes about is important. We propose the establishment at each university of a Curriculum Task Force. Composed of selected members of each Faculty of Agriculture, the Task Force should have the mandate to review and alter curricula to meet the requirements of a modern agribusiness sector. Through working papers and workshops, the Task Force would consult with the private sector associations on suggestions to improve the curricula.

**Expand the Mubarak-Kohl Initiative in the agricultural sector.** The Mubarak-Kohl initiative has overcome many of the problems faced by traditional technical secondary education system in that it is demand-driven and focuses on practical on-the-job training. Currently, only one school is using this model in the area of agricultural training (the training provided is in agricultural machinery). As this

model has proven to be relatively successful, we suggest that it be expanded to other fields within agriculture, and other areas from the country.<sup>3</sup>

**Develop a demand-driven training system led by private sector associations to train unemployed graduates.** We propose that private sector associations take the lead in providing practical enterprise-based training to unemployed graduates. The types of courses to be provided should be determined by the associations in consultation with their members. The duration of the courses will vary according to the subject matter; some subjects may require a long-term course that lasts more than six months, while others may be considerably shorter. Additionally, the private sector, universities, and research institutes should be involved in the development of the curriculum. The associations should develop a cooperative relationship with universities and research institutes, upon which they will rely to provide training staff. Training facilities should be provided by the private sector. An independent body should be established to provide monitoring and evaluation of the training. Finally, it is envisioned that funding will come from the students themselves who will be obliged to pay a fee for the training course.

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*Annex 1*

**Agricultural Policy Reform Project**  
**REFORM DESIGN AND IMPLEMENTATION UNIT**

**Proposed Terms of Reference**

**Agricultural Employment Policy Study**

*Justification for these terms of reference:*

Egypt needs to generate between 400,000 and 750,000 new jobs per year to accommodate its growing population. Though estimates of how many new jobs the country needs each year vary, it is clear that the country needs to do everything it can to create productive work to enable Egypt's youth to satisfy its aspirations for a comfortable life while contributing to the growth and prosperity of the nation. Studies throughout the world (Mellor, Revallion, Timmer, etc.) have shown that the agricultural sector generates jobs more quickly and at lower cost than any other part of the economy and that these jobs have a more dramatic multiplier effect than those created in industry, tourism, etc. Moreover, agriculture creates jobs in disadvantaged rural areas, such as Upper Egypt, which industry and tourism, for example, rarely touch. This contributes directly to the spread of the benefits of development to disadvantaged areas of the country and to disadvantaged groups such as rural women. Agribusiness, for example, generates employment for women at a rate far greater than most other industrial enterprises. This is particularly true when a country, such as Egypt, has a large textile and garment sub-sector based, at least in part, on domestic fiber production.

But agricultural employment is bi-modal in Egypt. The sector generates more unskilled jobs than can be filled at many times of the year. These jobs; manual field labor, temporary pack-house labor, hauling and transport; require little training and no formal education. Many farmers, both commercial growers and small-holders, complain of a lack of agricultural labor at peak periods. But wages are low and conditions generally harsh in this sub-sector of the agricultural economy. On the other hand, agricultural graduates of Egyptian technical institutes and universities often have trouble finding work. To date, agricultural education prepares students for typical government jobs: research, extension, agricultural public administration in general. The GOE has ended its policy of hiring all graduates and, as a result, un- and under-employment among new graduates is rampant. This situation can have serious political as well as economic consequences.

The most urgent need in the agricultural employment sector is to create opportunities in the private sector for new and recent graduates of institutions of higher agricultural education. One obvious key to this situation is generating investment in agriculture and agribusiness; another is providing government services to those who need work. The GOE has already taken a number of significant steps in this direction, including allocation of lands to new graduates, support from the Social Fund for Development to young entrepreneurs, and rural handicrafts centers. Some rural institutions, such as cooperatives and commercial farms have not yet played their full role in generating employment and providing services for entrepreneurs. This Terms of Reference calls for: a) a study to understand the full extent of schemes, initiatives and institutions

engaged in providing agricultural training; and b) to determine the most useful and practical policy options for the GOE in support of the objective of generating useful, productive and remunerative employment for qualified graduates.

This study should include a full description of all employment schemes and institutions, structure of these schemes to support university graduates and other technical training, and catalogue these schemes.

Ideas for examination should include:

Internship program for students at institutions of higher agricultural education with private farmers and agribusinesses, on the model of the Mubarak Program for Industrial Internships.

Joint private public committee to advise Universities and Technical Institutes on curricula and teaching methods for preparing students for productive careers in private sector agriculture and agribusiness;

GOE support for increased employment of graduates in private agriculture and agri-business, including investment promotion and tax incentives, land titling, training, loan programs, business advisory services;

Job information centers, based on those of the Ministry of Labor

Encouragement for the creation of agricultural Service Companies in rural areas, such as veterinary services, dairy herd management, food processing, feed milling, mechanization, pest management, marketing, eggs and poultry services, or composting.

***Objective of this short term assignment:***

The objective of this study is to:

Document the state of knowledge of schemes, initiatives and institutions associated with agricultural training;

Recommend strategies for bringing about an adequate supply of agricultural technicians with technical skills demanded by the private sector.

***Outputs:***

Report;

workshop

Recommendations

***Timing:***

July and August 2002

***Team and resources:***

Dr. Samira Salem, Employment Specialist, 18 days

Dr. Amr Moussa, Public Awareness and Advocacy specialist - 10 days

Dr. Hamdi Salem, 25 days for review of current GOE labor policies

Dr. Sayed Hussein, Resource Economist RDI

***RDI Unit Responsibility:***

Agricultural Sector Support Services; Marketing & Agribusiness

***Tasks:***

Review documentation on agricultural employment: structure, policies, laws; in Egypt

Arrange and conduct meetings with leading public and private sector organizations (ARC, MALR, HEIA, ACC, ESAS, EAGA, etc.) and individuals  
Review the structure, objectives and results of government employment schemes in the agricultural sector, especially the graduates program.

Prepare and conduct workshop to present findings

Based on the interviews and workshops, prepare a summary report with recommended policy options with implementation strategy and anticipated impact.

Prepare a report describing the schemes.

Brief USAID, MALR, private interested parties on the outcome of the study.

## **Annex 2**

## List of Mubarak Graduates Project Sites

1. Nubariyya
2. Ismailiyya
3. Suez
4. Port Said
5. Dakhaliyya
6. Kafr-El Sheikh
7. Fayyoun
8. Beni-Suef
9. Minya
10. Assiut
11. Aswan
12. El Sharkiyya

### **Annex 3**

**Table 1: Major Schemes and Interventions Implemented**

<b>Major Schemes/Interventions</b>
<b>Employment Creation</b>
Mubarak Graduates Program
North Sinai Development Project
Toshka
Social Fund for Development, Small Enterprise Development Organization
Coptic Evangelical Organization for Social Services
<b>Education/Training</b>
University, Faculty of Agriculture
Secondary Technical (Agricultural) Schools
Mubarak-Kohl Initiative, Sadat City
National Training Program for Graduates
Social Fund for Development, Human Resource Development Program
Africare
<b>Employment Services</b>
Faculty of Agriculture, Cairo University -- Annual Job Fair

## **Annex 4**

**Table 2: Selected Lessons Learned and Recommended Strategies for USAID**

Selected Lessons Learned	Recommended Strategies for USAID
<ul style="list-style-type: none"> <li>• When programs and activities (both employment generating and training) are directly linked to markets, they have a greater chance of success.</li> </ul>	<ul style="list-style-type: none"> <li>• Expand support to projects like Africare's in Wadi El-Saayda that provides graduates and small farmers from the Mubarak Graduates Program with intensive technical assistance in the area of horticultural crop production, marketing, and export. Target assistance to most promising sites.</li> <li>• Continue providing support to private sector agricultural associations so that they may play a role in effectively linking education and training to the demands of the private sector and also play a key role in the development of agricultural production and marketing centers.</li> <li>• Support the expansion of job fairs in universities and secondary technical schools throughout the country.</li> </ul>
<ul style="list-style-type: none"> <li>• Demand-driven training is an effective way to ensure that the structural problem (i.e., the skills mismatch) is overcome.</li> <li>• When training is provided through a public-private partnership, it is more effective than when provided by the public sector alone.</li> <li>• Education and training should emphasize practical and applied skills' acquisition.</li> </ul>	<ul style="list-style-type: none"> <li>• Support the expansion of the Mubarak-Kohl Initiative to other locations and into other areas within agriculture.</li> <li>• Support the development of a demand-driven training system led by private sector associations to provide enterprise-based training to unemployed graduates.</li> <li>• Support the creation of a joint university-private sector taskforce to inform curriculum reform.</li> </ul>
<ul style="list-style-type: none"> <li>• Integrated programs, which combine high quality training, counseling, and credit have a greater probability of success.</li> <li>• Programs that provide credit for graduates (or unemployed individual) to start SMEs (small and medium enterprise) should provide business development training, which includes</li> </ul>	<ul style="list-style-type: none"> <li>• Provide support for business development services for micro-, small- and medium-size rural enterprises.</li> </ul>

Selected Lessons Learned	Recommended Strategies for USAID
<p>guidance as to what activity to engage in prior to providing the loan. Allocation of loans should be contingent upon the submission of a sound business plan.</p>	
<ul style="list-style-type: none"> <li>• The production of high value, export-oriented horticultural crops create more jobs for skilled labor than traditional crops.</li> <li>• Small- and medium-size farms face obstacles to producing and exporting high value horticultural crops.</li> </ul>	<ul style="list-style-type: none"> <li>• Support the establishment of private sector agricultural production and marketing centers.</li> <li>• Support expansion in production of high value export-oriented horticultural (especially for small- and medium-size farmers) crops through technical assistance. The technical assistance should also provide assistance with marketing (both for domestic and export markets).</li> </ul>

## **Annex 5**

**Table 3: List of Stakeholders Consulted**

<b>Name</b>	<b>Title</b>	<b>Organization</b>
Dr. Samir Abdel Roos	Former Dean of the Faculty of Agriculture	Cairo University
Eng. Wael Rafea	Deputy Executive Director	HEIA
Dr. Osama Kheir El Din	President	ACC
Dr. Maher Amin Wally	Dean of Faculty of Agriculture	Al Azhar University, Cairo
Dr. Farouk Elshobaki	President	Dr. F. Elshobaki Trade, Export, Agencies and
Eng. Mustafa Al Sayyad	General Auditor of the Controller's Office,	Ministry of Agriculture and Land Reclamation, Bangar El Sukkar
Eng. Hamdy Al Guindi	Chairman of the Central Administration for Technical Education	Ministry of Education
Anthony J. Treen	IPM Specialist	GTZ, Cotton Sector Promotion Program
Dr. Mohamed Zaki Gomaa	Senior Advisor	EAGA
Eng. Samir Ibrahim Yacoub	First Under Secretary of State	Ministry of Irrigation and Water Resources, North Sinai Development Organization
Eng. Khairy Ibrahim Sherif	Under Secretary, General Coordinator for Agricultural Extension and Training	Ministry of Agriculture and Land Reclamation, Mubarak National Scheme
Eng. Ayad Thabet	Branch Manager, Luxor	RDI
Eng. Adel Sayed Ahmed	C.E.O.	ESAS
Nadia Sayyid		GARPAD
George Kondos	Project Coordinator	APRP Project Management Unit
Graduate (beneficiaries of Mubarak Graduate Program in Nubariyya)		
Eng. Mamdouh Saqr	Director General	Agricultural Statistics – MALR
Dr. Ibrahim Moharram	Chairman	Organization for Reconstruction and Development of the Egyptian Village (ORDEV)

Dr. Kamla Mansour	Director	Gender Activities in the Development Unit of MALR
Dr. Effat Abdel Hameed Ahmed	Senior Researcher	Agriculture and Local Development Research Institute
Dr. Ahmed El Beheiry	Agriculture Engineer	Agricultural Engineering Research Institute
Small farmer		North Sinai
Eng. Ahmed Mohamed Suleiman	Undersecretary	Ministry of Agriculture and Land Reclamation, Aswan
Millie Gadbois	Country Representative	Africare, Egypt
Group of 15 farmers (male)		Wadi El-Saayda
Group of 20 female farm workers		Wadi El-Saayda
Eng. Waleed Abdu Rasul	Agronomist	KATCO
Eng. Ali Al Menoufi	Manager	Ministry of Irrigation, Toshka
Eng. El Bedawi		Ministry of Irrigation, Toshka
Dr. Nabil El Sherbini	Vice Dean, Environmental and Community Affairs	Cairo University, Faculty of Agriculture
Dr. Nader El Awady	Manager, Human Resource Development	Social Fund for Development
Dr. Heba Handoussa	Managing Director	Economic Research Forum
Dr. Sami Fellali	Undersecretary of the State for Soils, Water & Environment	MALR
Dr. Kamal Soliman	Consultant	Social Fund for Development
Gen. Ali Ahmed Said		Mubarak-Kohl Initiative
Eng. Zakaria Ragheb	Director	Regional Unit for Dual System, Sadat City
Zeinab Hosny	Head of Financing	PBDAC
Ibrahim Makram	Director	Coptic Evangelical Organization for Social Services (CEOSS)
Nady Kamel	Head of Community Development, Cairo	CEOSS
Margrit Saroufin Mina	Head of Technical Support Departments	CEOSS
Dr. Adel Mustafa	Professor, Faculty of Agriculture	Al Azhar University
Eng. Moustafa Ali Taha Sekeen	First Undersecretary	MALR

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