ABBREVIATIONS AND ACRONYMS

AERI Agriculture Experts and Rural Incomes project
AFIS Agriculture Farm Income Survey
AMO Aromatic, medicinal, and oil plants
CAPMAS Central Agency for Public Mobilization and Statistics
CARE CARE International – Egypt
CDA Community Development Association
CEOSS Coptic Evangelical Organization for Social Services
CCCLS Consultative Group for Collaboration for Community-Level Services
DRC Domestic resource cost
FAO United Nations Food and Agriculture Organization
GOE Government of Egypt
GTZ German Technical Cooperation (Gesellschaft für Technische Zusammenarbeit)
HDI Human Development Indicators
HEICS Household Income and Expenditure Consumption Survey
HQ Headquarters
LE Egyptian pound
MALR Ministry of Agriculture and Land Reclamation
M&E Monitoring and evaluation
MISA Ministry of Insurance and Social Affairs
MOF Ministry of Finance
MOPLD Ministry of Planning and Local Developments
NCMC National Council for Motherhood and Childhood
NCW National Council for Women
NGO Nongovernmental organization
ORDEV Organization for the Reconstruction and Development of the Egyptian Village
PBADC Principal Bank for Development and Agricultural Credit
R&D Research and development
SFD Social Fund for Development
SMEs Small and microenterprises
TA Technical assistance
UNIDO United Nations Industrial Development Organization
UNDP United Nations Development Programme
USAID United States Agency for International Development
WUAs Water-user associations

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Background Papers
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Background Moursi, Tarek, Mai Mossallamy, and Rasha Reda. “Interspatial Discrepancy in Agricultural Productivity between Lower and Upper Egypt.” Paper # 2
Background El-Meehy, Tamer. ”The Myth and Reality of SMEs and Employment in Egypt.” Paper # 3
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EXECUTIVE SUMMARY

Poverty is worsening in rural Upper Egypt. In 2005, more than half of poor Egyptians lived in the region, which contains only one-fourth of the country’s population. Between 1995 and 2005, consumption expenditure fell in Upper Egypt, and the poverty headcount increased. During the same period, for the country as a whole, per capita expenditure for consumption grew at an annual rate of 0.8 percent, while the poverty headcount was stable, with just under 20 percent of the population falling below the poverty line. The 2005 Human Development Report of the United Nations Development Programme (UNDP) confirms that Upper Egypt’s governorates, with the exception of Giza and the “tourist” governorates of Luxor and Aswan, are consistently at the bottom of the scale of human development indicators. Why has rural Upper Egypt lagged behind?

Aware of the situation, the Government of Egypt (GOE) is keen to focus on the development problems and constraints faced by Upper Egypt, as evidenced by the increase in public investments earmarked for that region in the fifth five-year plan.

This work purports to explain why Upper Egypt has lagged behind the rest of the country and to help the GOE and stakeholders to define a framework for interventions to promote broad-based economic growth and human development that will reach the poor and improve welfare in rural Upper Egypt. To achieve this objective, the strategic framework for intervention proposed here has two dimensions. The first is to foster broad-based economic growth based on agricultural development and off-farm activities. The second is to enhance access to basic infrastructure and services by promoting local level planning and civil society engagement.

Upper Egypt’s Rural Economy

The agriculture sector accounts for 63 percent of rural employment in rural Upper Egypt and contributes to 40 percent of rural income. It is critical to the poorest rural Egyptians, landless men and women who, largely for lack of education, have limited access to nonfarm activities except in low-productivity jobs in construction or trade. Off-

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1 It is often difficult to draw a well-defined boundary between rural and urban. In Egypt, “rural” is used interchangeably with “village,” an administrative unit used in all statistics. In villages, which may be quite large, most households derive a share of their income from agriculture, although other sources may be more important, such as remittances or nonfarm services or manufacturing. Because of the definition, the number of people classified as rural is substantial: 75 percent in Upper Egypt, 73 percent in Lower Egypt (UNDP and Institute of National Planning 2005)
2 The classification of the governorates is as follows:
   Metropolitan: Cairo, Alexandria, Port Said, Suez.
   Lower Egypt: Damietta, Dakahlia, Sharkia, Qaliubia, Kafr El-Sheikh, Gharbia, Menufia, Beheira, Ismailia.
   Upper Egypt: Gize, Beni-Suef, Fayoum, Menia, Assiut, Sohag, Qena, Aswan, Luxor.
   Frontier: Red Sea, New Valley, Matrouh, North Sinai, South Sinai.
3 The poverty line is calculated as the cost of basic needs, both nutritional and nonnutritional.
farm activities contribute roughly another 40 percent to household income. However, the
off-farm private sector—the micro and small enterprises sector—is relatively weak in
rural Upper Egypt, in part because of weak demand for SME products, driven largely by
low rural incomes. Higher-paying tourism-related jobs are concentrated in Aswan and
Luxor. Other potential sites are not developed, essentially for security reasons, except for
a few sites for river boat cruises—in Qena, for example. There are a few large agro-
industries, mainly sugar cane and tomato processing.

The development literature tells us that rapid agricultural growth is central to
structural transformation and industrialization and thus has a strong effect on income
growth. A 2005 World Bank study (De Ferranti 2005) on the impact of the agriculture
sector on overall growth and poverty reduction in Latin America shows that on an
average, the effect of expanded agricultural activities on national growth is almost twice
as large as the agricultural sector’s share in GDP, thanks to the effects of backward and
forward linkages. Increased agricultural productivity reduces poverty in at least two
ways: first, earnings from agriculture account for most of poor rural incomes and, second,
the agriculture growth has multiplier effects that create jobs. Estimates from countries in
another the World Bank study suggest that agricultural growth accounted for between 40
and 70 percent of total poverty reduction. SMEs serving the rural areas and agro-
industries in particular benefit from a boost in agricultural production through linkages
and multiplier effects, which in turn increase employment and income.

The importance of agriculture and off-farm employment for rural Upper Egypt is
confirmed through an analysis of HIECS 1999/2000 data using the Sen welfare index,
which shows how welfare responds to exogenous changes in income from various
sources. The largest overall income- and equity-enhancing effects in Upper Egypt result
from increases in farm income from self-employment, followed by non-farm wages (El-
Laithy 2005).

Upper Egypt and Lower Egypt Compared

In Lower Egypt, agricultural production and related agribusiness activities
(transportation, processing and packaging, exporting and input servicing) explain in large
part the relatively strong growth observed during the period 1996–2005. One may
wonder why such development did not occur in Upper Egypt. On the basis of factor
endowments alone, Upper Egypt’s agriculture should be delivering higher incomes per
hectare than Lower Egypt’s. The soil is more fertile, as evidenced by higher land prices.
It has better-quality water. Upper Egypt’s crops can be harvested three to four weeks

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5 Welfare is a slightly broader concept than income. The Sen welfare indicator measures both the
income and distribution effect of a 1 percent increase in a source income.
6 World Bank and Arab Republic of Egypt (2004)
ahead of Lower Egypt’s, permitting access to off-season prices. Yields are higher, for traditional and even for some nontraditional crops, and labor is cheaper.

In an attempt to shed some light on these discrepancies, we will compare agricultural productivity in Lower and Upper Egypt, with respect to landholding, crop choices, and incomes. We also highlight some of the constraints faced by Upper Egypt’s farmers.

Landholdings in Upper Egypt are much smaller than those in Lower Egypt, with farms of less than one feddan comprising almost half of the landholdings. Another 35 percent are between 1 and 3 feddan (Moursi and other 2004). The fragmentation of holdings and the preponderance of small and very small farms, together with large families, greatly affect cropping patterns and farmers’ ability to invest. In addition, farmers with very small outputs are completely dependent on local traders. Larger farmers are able to bypass low-level traders, obtaining farm-gate prices 5 to 10 times higher than those earned by smallholders by selling to directly to wholesalers.

Land productivity is higher in Upper Egypt. Overall, Upper Egyptian farmers produce more per unit of land. This is thought to be the result of the extra care and effort taken by owners of very small farms and the higher quality of land and water. When disaggregating by type of crop, nontraditional crop productivity tends to be greater in Lower Egypt, while traditional crop productivity, and productivity of some nontraditional crops, is higher in Upper Egypt. In both regions, livestock contributes an important share of total farm income, more so in Upper Egypt. In both regions, there is an inverse relation between productivity and farm size.

Traditional crops comprise 93 percent of the cultivated area, which translates into less revenue per unit of output in Upper Egypt. Nontraditional crops—fruits, vegetables, and aromatic, medicinal, and oil plants—cover a very small percentage of the cultivated area (about 7 percent). Compared with Upper Egypt, Lower Egypt’s share of nontraditional crops is much higher (57 percent of lands under cultivation). Thus, Lower Egyptian farmers enjoy higher farm-gate prices per unit of output mainly because of crop mix (more acreage under nontraditional crop cultivation).

Upper Egypt’s geographic and infrastructural disadvantages

Upper Egypt’s advantages in production are more than offset by its disadvantages in market access, notably for perishable products that are highly sensitive to transport conditions. It is estimated that up to 20 percent of Upper Egypt’s fruit and 40 percent of its vegetable products are lost in transport to the wholesaler. Poor post harvest technologies and handling (e.g., proper cooling and packaging facilities) and transportation conditions are largely to blame—there are no functional fleets, for

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7 The term nontraditional refers to horticultural crops and aromatic, medicinal, and oil plants.
Traditional crops are cereals, fodder crops, sugar cane and cotton.
8 One feddan equals 0.42 ha or 1.038 acres.
9 Moursi and others (2004).
example, of refrigerated trucks. Road-based freight transport services are limited to an aged, poorly maintained fleet. This is by and large the result of the high tariffs on imported repair parts, a highly fragmented market supply, and weak regulation and enforcement. It is estimated, for example, that the informal sector transports 80 percent of Egypt’s road freight. The fact that operating costs for trucks are 30–50 percent higher in Egypt than Lebanon and Jordan puts Egypt’s peripheral farms at a particular disadvantage. Wholesale markets are thinner, meaning that farmers have limited price information and are selling under oligopsonic conditions. The weakness of post harvest marketing chains forces Upper Egyptian farmers to keep on growing low-value but easily marketed staple cereals, while their counterparts in Lower Egypt have been quicker to move into higher-value cropping.

Farmers in Lower Egypt have been able to capitalize on the growing demands in the international and domestic markets for nontraditional products for which Egypt has a comparative advantage (its secure access to water and early growing season). Livestock products (meat and dairy) also offer scope for growth to meet the domestic market demand and even for the international markets for some products (e.g., honey). Because of their high labor content and high return per unit of land, nontraditional crops and livestock products offer significant potential for increasing farm incomes in Upper Egypt. In addition, there are traditional crops—wheat, cotton, and legumes—for which Upper Egypt has a comparative advantage and for which efficiency gains could be obtained.

**A program of targeted interventions to support rural growth in Upper Egypt**

The production and marketing of high-value crops and livestock products is a high-risk, high-return business that requires substantial investments in physical and human capital. Before rural Upper Egypt can fully exploit these economic opportunities, the GOE will have to address a number of constraints on market access and market intelligence, productive infrastructure, agricultural credit, producer organization, business development, and R&D.

This report proposes areas of interventions that should enable rural Upper Egyptians to take advantage of emerging economic opportunities. The approach proposed to take advantage of these opportunities is one of partnership with local actors such as farmers’ associations and cooperatives, large-scale entrepreneurs and/or multinational firms, and clusters of SMEs. The main propositions are the following.

*Investments in post harvest technologies, transportation, and cooling and packing facilities.* Overall the region requires investment in transport services and road facilities. Facilities such as modern packing houses, cooling equipment, and processing industries are also needed.

*Access to credit for horticulture and livestock production.* Capital is more than twice as expensive in rural Upper Egypt as in the Delta governorates. Poorer

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entrepreneurs have a more difficult time gaining access to formal credit schemes. Lack of access to credit and insurance prevents farmers from engaging in activities with higher risks but also higher returns. One way to enhance credit access is to provide credit to a larger number and broader range of farmers in Upper Egypt through existing public sector banks. Another is to develop guarantee arrangements to achieve the same result through private sector banks. In-kind credit could be developed by promoting contract farming between small-scale producers and large-scale producers and exporters.

**Market access for inputs and outputs.** Access to inputs and commercialization of output in rural Upper Egypt is often controlled by a handful of actors, either public or private. This monopoly creates inefficiencies. Interventions in this area might include providing support for systems that disseminate market information to farmers on prices, required characteristics, quantities, and timing. On the supply side, policy interventions should seek to make government agencies more efficient and to regulate wholesalers' activities. In particular, Egypt will need to make fundamental changes in its cooperative policy and legislation to become compatible with the requirements of a market economy. Input/output access could be enhanced by promoting contract farming between small-scale producers and large-scale producers and exporters, which for small-scale farmers would, at the same time, solve the thorny issue of accessing credit.

**Farmers' organizations, capacity building, R&D, and technical advice.** Unorganized farmers with small and very small farms face enormous constraints if they attempt to enter the market in high-value products. For one thing, they have no leverage when negotiating contracts with buyers. For another, they cannot afford even the most basic modern equipment for post harvest sorting, grading, packaging, and cooling. Nor do they have access to private services and information. Upper Egyptian farmers need market information about products, quantities, timing, and prices. They also need technical information on (i) input quality (particularly seeds and pesticides) and input management; (ii) water management designed for horticulture; (iii) post harvest practices; and, (iv) quality requirements, norms, and standards, especially for the export market. Interventions could include information, R&D, technical advice, and capacity building provided through farmers' associations and cooperatives, which can reach a large number of farmers.

**Strengthening SMEs through business development services.** In general, Upper Egypt does not have a network of agriculture-related SMEs to support the development of supply chains in horticulture and animal products. SME development has faced several constraints, not the least of which is cumbersome administrative regulations. Under the new law, the Social Fund for Development (SFD) will establish one-stop shops for the licensing and registration of SMEs in various governorates. SFD also will identify investment opportunities; prepare feasibility studies; advise entrepreneurs on the risks they might face; assist them in obtaining input and machinery; provide and guarantee loans; advise entrepreneurs on production methods, accounting and finance; assist in marketing; and provide opportunities for accessing government contracts, among other things.
A program of public investment, decentralization, and civil-society involvement

The second dimension of the framework proposed in this report is *enhancing access to basic infrastructure and services* in disadvantaged areas through local planning and civil society engagement. This direct equity objective has an indirect impact on growth as well. Access to social services and infrastructure is associated with rising household incomes.

*Investing in basic infrastructure and social services.* Rural Upper Egypt suffers from development gaps in health, education, and basic infrastructure (water supply and sanitation, electricity, roads, and communication). Poverty alleviation comes with greater access to services (health and education) and improvements in basic physical infrastructure. These improvements also support economic development. Adequate infrastructure has long been considered key to a country's (or region's) ability to diversify production, take advantage of trade liberalization by allowing its export market to grow, cope with population growth, reduce poverty, and improve and protect the environment. Although the precise linkage between infrastructure and development is still open to debate, it is estimated that across countries, a 1 percent increase in infrastructure brings a 1 percent increase in GDP (World Bank 1994).

Investments in rural infrastructure lower transportation costs, reduce input and marketing costs, and enable farmers to shift land use from traditional crops to higher-value, perishable crops and dairy products. This in turn increases revenues on their limited assets. Expenditures on public goods create assets that complement private investment. For example, investments in education and basic infrastructure in rural areas enable enterprises to establish themselves in these regions. Therefore, an adequate provision of public goods is crucial for the productivity of private investments. Conversely, inadequate public investments may explain private sector reluctance to invest in a region.

*Public investments in Upper Egypt.* Analysis of GOE budgetary allocations reveals that, historically, Upper Egypt has been marginalized in the budgetary process—with the exception of the tourist areas. But recent trends, evidenced in the fifth five-year plan, show that the GOE is putting more emphasis on Upper Egypt, increasing allocations from LE 907 to LE 1,102 per capita—slightly more than allocated for Lower Egypt (LE 1,068 per capita), but still far less than for metropolitan areas (LE 2,233 per capita). One of the problems is that allocations are not calibrated to governorates’ poverty levels (Amin 2005). In addition, close to 90 percent of government transfers are absorbed by wages at the expense of infrastructure and equipment.

*More, and more efficient, per capita public investment.* The quality of infrastructure and services at the local level is poor in Upper Egypt, especially with regard to education and health. Thus, simply increasing public spending—without seeking improvements in the efficiency of that spending—is unlikely to reap substantial

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11 In Vietnam, for example, Deolalikar (2001) demonstrated that road investments in poorer provinces improve agricultural productivity and per capita industrial output.
benefits (World Bank 2004). Service quality and the manner in which investments are financed determine the effect of those investments on economic growth and household welfare. Resource transfers for investments are limited, and needs are great. Given these budgetary constraints, the GOE may want to emphasize improving the efficiency of public spending.

**Decentralization for more efficient use of resources and better-quality public services.** Efficient investments require the delegation of planning and budgeting to the governorate and district levels, where members of civil society can and should be involved in the decision-making processes. Decentralization and civil society involvement are not panaceas, but experience has shown that resource allocation may be more efficient (and investments more sustainable) in the presence of (i) *administrative decentralization*, which shifts decision-making authority to lower levels of government; (ii) *fiscal decentralization*, which provides some discretionary authority to local government for raising revenues and allocating resources; and (iii) *stakeholder participation in decision-making processes*.

Decentralization and participation offer important advantages: (i) closer relationships with the administered population lead to better-tailored investments; (ii) greater local participation and representation make investments more sustainable and decision making more accountable and transparent; and (iii) better coordination among stakeholders at every level improves synergies among sectors.

**Existing participatory mechanisms**

The GOE has a highly centralized administrative structure, leaving little room for decision making at the local level. Citizen participation is not in much evidence. However, with support from donors, the GOE established some programs to encourage local development and participation. Examples are the Shorouk program (and its Local Economic Fund for Development), the Social Fund for Development (SFD), and the Emergency Fund. These programs can be seen as innovators and demonstrators of approaches for decentralized participatory decision making and management.

**The Shorouk Program.** The National Program for Integrated Rural Development (Shorouk) and its Local Economic Fund for Development were established in 1994, their objective being to improve rural livelihoods and build stronger local community participation in the development process. The implementation of the Shorouk Program is based on the formation of committees at three levels (village, district, and governorate) comprising locally elected and traditional (or "natural") leaders, civil society members, and appointed officials. The Shorouk committees select the activities to be funded from the Shorouk Fund. In its original design, the program was expected to address all aspects of development: human, institutional, environmental, and economic. However, three-quarters of the funds have gone to infrastructure, mostly water supply and sanitation. The Local Economic Fund for Development was to implement the economic development component of the Shorouk Program. The fund supports productive projects at village level, through lending to individuals, civil society organizations, private companies, or juridical personalities, for: (i) commodity production projects, such as crop and animal
production and agro-processing; (ii) marketing of agricultural products; and (iii) other income-generating activities, such as repair and maintenance of agricultural machinery, irrigation services, and medical and veterinary clinics.

Despite the decentralized and participatory philosophy of the Shourouk program, it is widely acknowledged today that its implementation departed from its original design. This has happened for a number of reasons: (i) effective participation and proper popular representation is an issue; (ii) the committees have weak organizational and decision-making capacities; (iii) elite capture is not uncommon; and (iv) civil servants’ voice remains overtly dominant within these committees.

Still, the Shorouk program has made significant progress toward participatory, demand-driven approaches to local development. The program is, first, the only institutional mechanism that allows nongovernmental organizations (NGOs), women’s groups, and natural leaders to have a voice in the decision-making process. Second, it offers the greatest mechanism for rural development —both in reach and responsiveness; potentially meeting needs at the most remote villages and hamlets. Finally, it has 10 years of experience and has established itself firmly in the rural development scene.

_The Social Fund for Development._ One of Egypt’s major safety net programs, the SFD oversees a number of activities: (i) the Small Enterprises Development Program (71 percent of total budget); (ii) the Community Development Program (11 percent), creating income-generating employment opportunities for low-income groups and encouraging local participation in productive activities; (iii) the Public Works Program (10 percent), providing and improving essential infrastructure and services in low-income rural and urban areas; and (iv) the Human Resources Development Program (8 percent), responding to the training and employment needs of public sector employees whose agencies are being restructured.

Despite the requirements for civil society participation, it appears that the SFD has few if any mechanisms in place for true local participation. It has no clear-cut structure, for example, that would encourage civil participation in decision making. Under its Public Works Program, SFD deals with government authorities, such as the Ministry of Water Resources and Irrigation, the Ministry of Agriculture, and drinking water and sanitary drainage authorities. Civil society plays virtually no role in these public works projects.

Another constraint is the SFD’s urban bias. Its Community Development Program deals largely with well-established civil society associations that possess adequate financial and human resources. These groups tend to be most active in cities. Moreover, SFD regional offices at the governorate level operate in isolation from other stakeholders. As a result, complementary projects are carried out with minimal coordination.

_Iniatives in support of local development_

Although the present system is highly centralized, change is possible. With the elected popular councils, the existing Local Administration Law allows for greater civil
society participation in planning and decision making, which governors often do not use. Involving civil society representatives requires a significant change in the attitudes of governors and executive officials, who often are not aware of the potential gains from such participation. Also, the GOE appears to be moving toward greater decentralization and civil participation. The draft Local Administration Law, presently under review, may give the governorates more responsibilities. Toward this end, the Ministry of Planning and Local Development has already increased the governors’ discretionary fund from 7.8 percent to 16.7 percent of the budget.

Egyptian civil society is impressive across the board—in sheer numbers, in diversity, in aspirations. Yet the extent to which it can act at the local level in planning, setting priorities, and managing development projects remains unclear. It will depend on the local groups themselves, building their own capacity through a learning-by-doing process—with a crucial assist from the government and donors.

In some governorates, promising initiatives have emerged to promote better management of local services and to foster and institutionalize local resource-generation through greater citizen participation. In this respect, the Consultative Group for the Collaboration for Community-Level Services and the Qena governorate initiative are worth highlighting.

The Consultative Group for Collaboration for Community-level Services (CCLS) received support from USAID to articulate, design, test, and refine methods to improve the management of local services through enhanced participation while staying within the limits of the existing decentralization legal framework. In four pilot communities of Damietta, New Borg Al Arab, Tenth of Ramadan, and Naqada-Qena, efforts focused on creating collaborative mechanisms among stakeholders by:

- Facilitating citizen involvement in making decisions about services
- Mobilizing local resources
- Promoting relationships with the private sector and NGOs.

In Damietta, the initiative focused on furniture manufacturing. In New Borg El-Arab, it was a broad-based approach to identify and address all community needs. The Tenth of Ramadan began with a broad-based approach but soon refocused on a single service area (industrial linkages). Finally, in Naqada, the focus was on the production and marketing of traditional handicrafts. The CCLS pilot initiatives yielded some useful findings in terms of opportunities and constraints for promoting participatory approaches and improving local governance in different contexts.

The Qena Governorate. In Qena, a partnership developed between local government and the people, fostered with regular, two-way communication. The back-and-forth communication nurtured trust between the parties and created greater citizen engagement in development projects. The Qena experience demonstrates that under the

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strong local leadership (consistent with the decentralization framework), it is possible to promote civil participation, mobilize and retain financial resources for local initiatives, and raise matching donor and private funding.

A methodology for participatory economic development

The methodology proposed here for the promotion of rural economic development has two dimensions. The first is to encourage broad-based local economic growth, and the second is to secure for citizens greater access to basic social services and infrastructure—and to accomplish this at the local level by planning with and engaging citizen partners. A two-pronged methodology was tested in two governorates, Fayoum and Sohag, involving (i) a dynamic sub-sector analysis for local economic development planning at the governorate level, combined with (ii) participatory district planning for better access to services and basic infrastructure. The ultimate objective was to develop a methodology that the GOE could adopt and generalize for local development planning.
1 Background and Objectives

1.1 A lagging rural Upper Egypt

Poverty is growing worse in rural Upper Egypt. In 2005, more than half of poor Egyptians lived in the region, which contains only one-fourth of the country’s population. Between 1995 and 2005, consumption expenditure fell in Upper Egypt, and the poverty headcount increased. Per capita poverty grew to 19 percent in urban Upper Egypt (from a low of 11 percent), and in the countryside that figure increased from 29 to 39 percent. During the same period, for the country as a whole, the poverty headcount was stable, with just under 20 percent of the population falling below the poverty line (table 1.1). Per capita poverty fell in rural Lower Egypt and metropolitan areas, and grew slightly in urban Lower Egypt. Why has Upper Egypt, in particular rural Upper Egypt lagged behind?

In Upper Egypt, rural residents are twice as likely to be poor as city dwellers. In fact, of all the regions in the country, rural Upper Egypt is the most severely affected by poverty. The country’s poor are on average poorer, which is to say, intensely poor, in rural Upper Egypt than anywhere else in Egypt.

A comparison of two rural areas, those of Upper Egypt and Lower Egypt, confirms that the divide occurs not only along the usual rural-urban lines but also and primarily along regional lines (Table 1.2). It is striking to note the differences in regional trends. In rural Lower Egypt, per capita consumption expenditures grew at a rate of 1.6 percent per annum between 1995 and 2005, while rural Upper Egyptians’ consumption expenditure declined at a rate of 0.5 percent per year (Table 1.3).

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13 The classification of the governorates is as follows:
- Metropolitan: Cairo, Alexandria, Port Said, Suez.
- Lower Egypt: Damietta, Dakahlia, Sharkia, Qaliubia, Kafr El-Sheikh, Gharbia, Menufia, Beheira, Ismailia.
- Upper Egypt: Gize, Beni-Suef, Fayoum, Menia, Assiut, Sohag, Qena, Aswan, Luxor.
- Frontier: Red Sea, New Valley, Matrouh, North Sinai, South Sinai.

14 The poverty line is calculated as the cost of basic food and non-food needs: LE 1,423 per capita in 2005.

15 The data come from an analysis of a nationally representative Household Income and Expenditure Survey (HIECS) carried out by CAPMAS every five years. Among other things, the survey covers expenditure from July 1 to June 30. Income is equated to consumption expenditures.

16 It is often difficult to draw a well-defined boundary between rural and urban. In Egypt, “rural” is used interchangeably with “village,” an administrative unit used in all statistics. In villages, which may be quite large, most households derive a share of their income from agriculture, although other sources may be more important, such as remittances or nonfarm services or manufacturing. Because of the definition, the number of people classified as rural is substantial: 75 percent in Upper Egypt, 73 percent in Lower Egypt (UNDP and Institute of National Planning 2005)
Table 1.1  Indicators of poverty in Egypt, 1995/6 and 2004/5

<table>
<thead>
<tr>
<th>Regions</th>
<th>1995/6</th>
<th>2004/5</th>
<th>% variation 1995–2005</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Headcount</td>
<td>Gap</td>
<td>Severity</td>
</tr>
<tr>
<td>Metropolitan</td>
<td>13.10</td>
<td>2.61</td>
<td>0.80</td>
</tr>
<tr>
<td>Lower Egypt urban</td>
<td>8.34</td>
<td>1.25</td>
<td>0.26</td>
</tr>
<tr>
<td>Lower Egypt rural</td>
<td>21.53</td>
<td>3.48</td>
<td>0.89</td>
</tr>
<tr>
<td>Upper Egypt urban</td>
<td>10.82</td>
<td>1.81</td>
<td>0.46</td>
</tr>
<tr>
<td>Upper Egypt rural</td>
<td>29.32</td>
<td>5.39</td>
<td>1.50</td>
</tr>
<tr>
<td>All Egypt</td>
<td>19.41</td>
<td>3.39</td>
<td>0.91</td>
</tr>
</tbody>
</table>


Table 1.2 Uneven distribution of poverty across Egypt’s regions, 2004/5

<table>
<thead>
<tr>
<th>Regions</th>
<th>Incidence of poverty (percentage of poor people in each region)</th>
<th>Geographic distribution of the poor (percentage of total population)</th>
<th>Population distributiona</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metropolitan</td>
<td>5.7</td>
<td>5.4</td>
<td>18.7</td>
</tr>
<tr>
<td>Lower Egypt urban</td>
<td>9.0</td>
<td>5.6</td>
<td>12.1</td>
</tr>
<tr>
<td>Lower Egypt rural</td>
<td>16.7</td>
<td>26.2</td>
<td>30.8</td>
</tr>
<tr>
<td>Upper Egypt urban</td>
<td>18.6</td>
<td>11.3</td>
<td>11.9</td>
</tr>
<tr>
<td>Upper Egypt rural</td>
<td>39.1</td>
<td>50.7</td>
<td>25.4</td>
</tr>
<tr>
<td>All Egypt</td>
<td>19.6</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Same as for table 1.
a. Percentage of sample population that is representative of the total population

Figure 1-1: Incidence of poverty by Region, 2004-2005

Source: Table above
Table 1.3  Per capita income and growth rate in Egypt, 1995–2005

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Metropolitan</td>
<td>2,096.82</td>
<td>2,848.92</td>
<td>2,401.81</td>
<td>7.96</td>
<td>1.52</td>
</tr>
<tr>
<td>Lower Egypt urban</td>
<td>1,582.81</td>
<td>1,649.97</td>
<td>1,519.49</td>
<td>1.04</td>
<td>-0.45</td>
</tr>
<tr>
<td>Lower Egypt rural</td>
<td>1,123.08</td>
<td>1,257.62</td>
<td>1,291.67</td>
<td>2.87</td>
<td>1.56</td>
</tr>
<tr>
<td>Upper Egypt urban</td>
<td>1,529.47</td>
<td>1,450.05</td>
<td>1,391.31</td>
<td>-1.32</td>
<td>-1.05</td>
</tr>
<tr>
<td>Upper Egypt rural</td>
<td>912.03</td>
<td>900.00</td>
<td>870.47</td>
<td>-0.33</td>
<td>-0.52</td>
</tr>
<tr>
<td>All Egypt</td>
<td>1,407.72</td>
<td>1,599.30</td>
<td>1,509.25</td>
<td>3.24</td>
<td>0.78</td>
</tr>
</tbody>
</table>

Note: Per capita incomes are calculated at 1995 constant prices.

1.2 Objective and expected results

Overall, development in rural Upper Egypt is lagging; worse, the trends are clearly unfavorable. In view of the worsening situation, the Government of Egypt (GOE) is keen to focus its attention on the region, and the fifth five-year plan shows this in the increased public investments in Upper Egypt. But what strategy should the GOE adopt to ensure that these public projects and investments are effective? How can the increased public spending be most effectively used to promote growth? Does the process by which public resources are allocated have an impact of the overall efficiency of resource use? Will increased levels of public spending be enough to cut poverty and start a virtuous spiral of socioeconomic development? Are other measures needed? What are the drivers of growth, and how can economic opportunities be promoted?

To optimize efficiency and provide a roadmap for the many stakeholders—government, civil society, private sector, nongovernmental organizations (NGOs), and bilateral and multilateral agencies—the GOE might wish to design a development framework within which interventions for rural Upper Egypt could be conceived. The objective of this work is therefore to assist the government and stakeholders in defining such a framework. The ultimate goal is to promote broad-based economic growth in Rural Upper Egypt so that the welfare and livelihoods of the poor are improved.

Improved welfare is defined as the result of:

- Improved incomes and household food security.
- Better access to basic services such as health, education, drinking water and sanitation.
- Empowerment, through popular participation in decision-making processes that affect the lives of the poor.

1.3 A strategic framework for improving rural welfare in Upper Egypt

The proposed strategic framework is intended to complement the poverty reduction strategy elaborated in 2004 by the GOE and the World Bank. The strategy
focuses on education and social safety nets for the most deprived populations, as well as economic opportunities for the poor through poverty-oriented investments in Upper Egypt, ensuring the availability of critical inputs for micro and small businesses, reducing regulatory obstacles for the latter, and supporting agricultural development.

Building on the poverty reduction strategy and on the definition of welfare provided above, the proposed strategic framework for interventions has two dimensions:

- **Fostering broad-based economic growth.** The focus should be on broad-based local economic growth, which will be inclusive of the poorer households but not target only the poor. Disadvantaged households can benefit either directly or indirectly from broad-based economic growth.

- **Enhancing access to basic infrastructure and services** in disadvantaged areas through local planning and civil society engagement. This direct equity objective has an indirect impact on growth as well. Access to social services and infrastructure is associated with rising household incomes. Several recent studies (World Development Report 2006) show that providing opportunities to otherwise discriminated populations (notably poorer people and women) is not only valuable in itself, but is also associated with higher overall economic growth.

It matters how access to services and basic infrastructure is enhanced. There is a link between local planning and civil society engagement, on the one hand, and development, on the other. Local planning and participation are expected to improve responsiveness to local people’s needs and conditions—and therefore to enhance the efficiency of public resource allocation and use, promote ownership and accountability at the local level, and ensure the sustainability of investments. Local participation is also an end in itself: engaging the concerned population results in their empowerment now recognized as one of the key pillars of poverty reduction. It contributes to:

- Minimizing feelings of marginalization and alienation on the part of rural communities, which has proven to lead to passive attitudes and antagonism toward the state and its policies.

- Transforming civil society from passive recipient of services to active partner in development; thereby enhancing ownership and sustainability of projects.

- Motivating civil society as an active partner in development to engage in self-help initiatives that are essential for sustainable development (such as maintenance of tertiary irrigation and drainage canals, solid waste management, and so on).

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17 Analysis of data from 14 countries. In Brazil, for example, the states with higher levels of schooling have higher growth elasticities to poverty. In Uganda, households with access to electricity experienced income growth that was 6 percent higher than those households without access. See World Bank and others (2005).
The importance of participation in the development process was recognized by the GOE when it established the National Program for Integrated Rural Development (Shorouk Fund) in 1994, with a two-pronged objective: (i) improving the quality of rural livelihoods, and (ii) promoting the concept of local community participation. Following this earlier commitment to participation and local planning, Egypt's fifth national five-year plan (2002–7) emphasizes community participation in decision making. The strategic approach proposed in this report builds on these earlier steps.

1.4 Organization of the report

The next chapter analyzes in greater detail the constraints on, and opportunities for, broad-based economic growth in rural Upper Egypt, using, when relevant, comparisons with rural Lower Egypt. The third chapter describes services and basic infrastructure in Upper Egypt and emphasizes the need to devolve more public resources to Upper Egypt but with enhanced efficiency in resource allocation through decentralization of planning and budgeting and civil society participation. It reviews the lessons from a number of programs that purport to involve beneficiaries, such as the Shorouk program, the Social Fund for Development, the Local Economic Development Fund and the Emergency Fund, as well as initiatives such as the CCLS and Qena governorate. The chapter also looks at existing civil groups, their strengths and weaknesses. The final chapter presents the approach that the World Bank used in two governorates, Fayoum and Sohag, to encourage participatory local economic assessment and district planning, as part of this work. The objective was to develop a methodology and process that can be replicated in other governorates.

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18 The Shorouk program was defined as "a planned upgrading change process undertaken by local community residents to induce a comprehensive and integrated advancement in all life aspects of that community on the basis of a democratic methodology and cooperated with government aids."
2 Sources of Broad-Based Economic Growth in Upper Egypt

2.1 The effect of agriculture and off-farm activities on growth and poverty alleviation

The development literature tells us that agriculture growth is important for economic growth, employment, and poverty reduction. An analysis of data from 62 countries at various stages of industrialization shows that growth in output per worker in agriculture contributes heavily to overall productivity growth per worker (Gollin and others 2002). A recent study of the contribution of agriculture to overall growth and poverty reduction in Latin America showed that, on average, the effect on national growth of expansion in agricultural activities was almost twice as large as agriculture’s share in GDP, due to backward and forward linkages (De Ferranti and others, 2005).

The impact on poverty is even more telling. On the basis of a large, intertemporal, cross-national statistical analysis, Timmer (1997) showed that 84 percent of poverty decline was explained by agricultural growth. Irz and others (2001), performing a cross-section analysis using data from the World Bank’s World Development Indicators, demonstrated a strong statistical relationship between agriculture productivity and poverty reduction. They found that depending on the model and data set used, a 10 percent increase in crop yields reduced the number of people living on less than $1 per day by 6 to 12 percent. The study by De Ferranti and others of agriculture’s contribution in economic development demonstrated that in some countries, such as Chile, the elasticity of agricultural growth to poverty was very high due to the labor intensity of agricultural activities (such as horticulture postharvest activities) and the large indirect effects of agricultural growth on other sectors. In other countries, such as Brazil, agricultural expansion has less of an impact on poverty, probably as a result of the high intensity of land and capital in production, coupled with high land concentration and relatively low forward linkages (De Ferranti and others, 2005).

For Egypt, the likely contribution of agriculture to overall growth and employment has been the subject of two simulations. Using a computable general equilibrium model for Egypt, El-said and others (2001) examined the results of a set of policy options and showed that “agricultural demand–led industrialization” can produce the highest rate of growth of GDP. Another simulation of the Egyptian economy traced the effects of two possible rates of agricultural growth: a fast rate of 4.8 percent per year, and a sluggish rate of 2.7 percent per year. Under the first scenario, overall GDP would grow at 7.2 percent per year. Agriculture would account for 60 percent of the growth in employment, both within and outside the sector. Some 400,000 jobs would be created every year above and beyond the growth in the labor force; farm incomes would increase at the rate of 5 percent per year.

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19 For a review of the literature on agricultural growth and poverty reduction, see in particular Dorward and others (2004).

20 The simulation was carried out as part of the preparation of the USAID Agricultural Export and Rural Income (AERI) project (Mellor and Ranade 2002 and USAID 2002).
Under the sluggish agricultural growth scenario, GDP would grow at 6.3 percent per year, and the number of jobs created would barely keep pace with the growth in the labor force. Rural incomes would be stagnant, and approximately 330,000 fewer jobs would be created in the rural areas than under the first scenario, resulting in rural–urban migration on a massive scale. The difference in the two scenarios is not so much the impact on overall GDP as the impact on employment, due to the various direct and indirect linkage effects of agriculture. About half of the employment effect of agricultural growth occurs outside the agricultural sector (USAID 2002). The results of the simulation of the Egyptian economy are consistent with the findings of the analysis of the role of agriculture in Latin American economic growth, cited above.

In Upper Egypt, agriculture is important for the poorest rural residents, for the landless, and for women

In Upper Egypt, agriculture accounts for 63 percent of total employment (including unpaid/family workers) and 40 percent of total income (tables 2.1 and 2.2). Examining the contribution of farm income across different per capita expenditure quintiles indicates that the poorest segments of the population depend the most on agriculture: two-thirds of the bottom two quintiles are employed in agriculture, which provides 45 percent of their income.\(^{21}\) The poorest are most likely to be employed as agricultural wage workers. Across quintiles, the percentage of wage workers in agriculture declines steadily, while that of farm self-employment rises. Analysis of data from the Household Income and Expenditure Consumption Survey (HIECS) reveals that agriculture is the single most important source of employment for rural women (82 percent of rural women are employed in agriculture, compared to 43 percent of rural men).\(^{22}\)

\(^{21}\) The tables are derived from an analysis of Household Income and Expenditure Consumption Survey (HIECS) conducted by the Egyptian Central Agency for Statistics and Mobilization (CAPMAS) for two periods: 1995/6 and 1999/2000. The analysis was conducted on data from rural areas, further disaggregated between Upper and Lower Egypt. The analysis was carried out by Heba El-Laithy, Professor of Statistics at the Faculty of Economics of Cairo University.

\(^{22}\) For all rural areas of Egypt, not just Upper Egypt.
Table 2.1  Employment in rural Upper Egypt, 1999/2000

<table>
<thead>
<tr>
<th></th>
<th>Quintile</th>
<th></th>
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<tbody>
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<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Self-employed in agriculture</td>
<td>27.70</td>
<td>31.21</td>
<td>33.10</td>
<td>30.83</td>
<td>35.73</td>
</tr>
<tr>
<td>Wage worker in agriculture</td>
<td>13.21</td>
<td>8.78</td>
<td>6.76</td>
<td>5.70</td>
<td>3.54</td>
</tr>
<tr>
<td>Unpaid (family) worker in agriculture</td>
<td>25.30</td>
<td>26.78</td>
<td>22.69</td>
<td>23.21</td>
<td>17.37</td>
</tr>
<tr>
<td><strong>Subtotal, agriculture</strong></td>
<td><strong>66.21</strong></td>
<td><strong>66.77</strong></td>
<td><strong>62.75</strong></td>
<td><strong>59.74</strong></td>
<td><strong>56.64</strong></td>
</tr>
<tr>
<td>Self-employed in non-farm</td>
<td>7.76</td>
<td>6.73</td>
<td>9.02</td>
<td>10.15</td>
<td>11.87</td>
</tr>
<tr>
<td>Wage worker in private non-farm</td>
<td>13.79</td>
<td>11.89</td>
<td>13.17</td>
<td>13.53</td>
<td>13.87</td>
</tr>
<tr>
<td>Unpaid (family) worker, non-farm</td>
<td>1.89</td>
<td>1.06</td>
<td>1.34</td>
<td>1.40</td>
<td>1.29</td>
</tr>
<tr>
<td><strong>Subtotal, non-agriculture, private</strong></td>
<td><strong>23.44</strong></td>
<td><strong>19.68</strong></td>
<td><strong>23.53</strong></td>
<td><strong>25.08</strong></td>
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<tr>
<td>Wage worker, public sector</td>
<td>10.35</td>
<td>13.55</td>
<td>13.72</td>
<td>15.18</td>
<td>16.33</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
<td><strong>100</strong></td>
<td><strong>100</strong></td>
<td><strong>100</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>


Table 2.2  Income sources in rural Upper Egypt, by quintile, 1999/2000

<table>
<thead>
<tr>
<th></th>
<th>Quintile</th>
<th></th>
<th></th>
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<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Agricultural wages</td>
<td>9.74</td>
<td>6.15</td>
<td>3.86</td>
<td>3.14</td>
<td>1.49</td>
<td>4.69</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Farm self-employment</td>
<td>35.24</td>
<td>38.52</td>
<td>36.43</td>
<td>33.78</td>
<td>34.74</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td><strong>Subtotal agriculture income</strong></td>
<td><strong>44.98</strong></td>
<td><strong>44.67</strong></td>
<td><strong>40.29</strong></td>
<td><strong>36.92</strong></td>
<td><strong>34.74</strong></td>
<td><strong>39.98</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-farm self-employment</td>
<td>10.85</td>
<td>9.92</td>
<td>12.91</td>
<td>14.95</td>
<td>15.50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-farm wages in private sector</td>
<td>13.89</td>
<td>11.09</td>
<td>10.98</td>
<td>10.59</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>Subtotal, non-farm private income</strong></td>
<td><strong>24.74</strong></td>
<td><strong>21.01</strong></td>
<td><strong>23.89</strong></td>
<td><strong>25.54</strong></td>
<td><strong>23.76</strong></td>
<td><strong>23.78</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-farm wages in public sector</td>
<td>13.99</td>
<td>15.68</td>
<td>14.70</td>
<td>15.75</td>
<td>12.97</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income from rent</td>
<td>5.98</td>
<td>7.56</td>
<td>8.64</td>
<td>9.72</td>
<td>13.30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income from financial assets</td>
<td>0.01</td>
<td>0.13</td>
<td>0.11</td>
<td>0.12</td>
<td>1.66</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income from transfers</td>
<td>10.30</td>
<td>10.95</td>
<td>12.37</td>
<td>11.95</td>
<td>13.57</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Subtotal other income</strong></td>
<td><strong>16.29</strong></td>
<td><strong>18.64</strong></td>
<td><strong>21.12</strong></td>
<td><strong>21.79</strong></td>
<td><strong>28.53</strong></td>
<td><strong>21.75</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total income</strong></td>
<td><strong>100</strong></td>
<td><strong>100</strong></td>
<td><strong>100</strong></td>
<td><strong>100</strong></td>
<td><strong>100</strong></td>
<td><strong>100</strong></td>
<td></td>
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</tr>
</tbody>
</table>


But is agriculture the way out of poverty? Might off-farm employment offer better opportunities?

Varied activity, not agriculture alone, is key for poor rural households that own very small plots of land. Although some studies, as mentioned above, underscore the importance of agricultural development for the rural poor, a large body of recent literature argues that focusing on the development of non-farm economic opportunities may provide a better way of increasing the income and employment of the poorest. This would be especially true in land-constrained countries such as Egypt, since the poor are typically either landless or own very small plots.²³

²³ See, for example, De Janvry and Sadoulet (1993).
The analysis of HIECS data for all of rural Egypt (Table 2.3) shows that non-farm income is important for all quintiles (41.3 percent on average), but more so for the richest quintile, especially when rents and transfers are included (more than 70 percent of the income) than for the poorest quintile (55 percent). Agricultural income goes in the opposite direction: it constitutes 46 percent of the income of the poorest quintile and 30 percent for the richest. With regard to employment, the rural poor are more likely to be engaged in agricultural activities than are the non-poor. By contrast, non-farm activities provide 53 percent of employment for the richest quintile; 34 percent for the poorest. Non-farm employment also provides security. HIECS data shows that households with farm income only (or with only farm income and transfers) are the poorest and therefore most affected by the income fluctuations that come with agriculture.

### Table 2.3 Farm versus non-farm employment and income by quintiles, Lower Egypt and Upper Egypt, 1999/2000

<table>
<thead>
<tr>
<th>Percent</th>
<th>Quintile</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>All</td>
</tr>
<tr>
<td>Employed in agriculture only</td>
<td>65.9</td>
<td>62.8</td>
<td>58.3</td>
<td>54.5</td>
<td>46.6</td>
<td>57.0</td>
</tr>
<tr>
<td>Employed not only in agriculture</td>
<td>34.1</td>
<td>37.2</td>
<td>41.7</td>
<td>45.5</td>
<td>53.4</td>
<td>43.0</td>
</tr>
<tr>
<td>Agricultural income</td>
<td>45.6</td>
<td>44.1</td>
<td>39.7</td>
<td>38.5</td>
<td>29.5</td>
<td>36.8</td>
</tr>
<tr>
<td>Non-farm wages or self-employment</td>
<td>38.2</td>
<td>38.4</td>
<td>40.8</td>
<td>42.7</td>
<td>42.9</td>
<td>41.3</td>
</tr>
<tr>
<td>Transfers and rents</td>
<td>16.2</td>
<td>17.5</td>
<td>19.5</td>
<td>20.8</td>
<td>27.8</td>
<td>21.9</td>
</tr>
<tr>
<td>Total non-farm income</td>
<td>54.4</td>
<td>55.9</td>
<td>60.3</td>
<td>63.5</td>
<td>70.5</td>
<td>63.2</td>
</tr>
</tbody>
</table>


In wealthier rural areas a larger share of residents is employed in non-farm activities. In Lower Egypt, 47 percent of rural people are employed outside agriculture; in Upper Egypt, the figure is 36 percent.

The importance of nonagricultural income as a route out of poverty is also suggested by the observation that off-farm activities offer more productive, better-paid jobs. More than half of workers in agriculture are engaged in low-productivity jobs.24 By contrast, with non-farm activities, only 20 percent of workers are employed in low-productivity jobs. On average, wages in non-farm activities are 1.4 times the wages in agriculture.

**The poorest face constraints in accessing off-farm employment**

The data just cited indicate that those who hold non-farm jobs are less likely to be poor than those who do not. The problem for the poor in rural areas is access to non-farm employment. Table 2.1 shows that the percentage of people employed as wage workers in

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24 The distinction between low and high productivity is based on whether earnings fall below or exceed the average earnings of someone with agricultural wage labor as a primary occupation.
off-farm activities is the same in all quintiles. However, the richest are more likely to hold public service jobs (16 percent of the richest quintile) than the poorest (10 percent). They are also more likely to be self-employed in their own small and micro enterprises (SMEs). Less than 8 percent of the poorest quintile are self-employed in SMEs, in contrast to 12 percent for the richest (table 2.1).

The analysis of HIECS data, using a logistic regression model, shows that access to non-farm employment is a function of education (primarily), assets, and social status. Hence, the poor, many of whom have low education, few assets, and low social status, are not particularly well placed to benefit from the expansion of the non-farm sector (El-Laithy 2005). The illiterate, in particular, do not have many opportunities outside agriculture. In rural Upper Egypt, 92 percent of the illiterate are employed in agriculture; for 80 percent of them, agriculture is the only source of employment. In terms of starting one's own enterprise, the barriers to entry for the poor are very high, especially with regard to access to the initial assets required (financial resources and social capital).

Whether the poor are able to gain access to the non-farm sector thus depends on the extent to which those with better contacts, education, or wealth crowd them out. Logistic regression models confirm that the better-off are acquiring an increasing share of nonagricultural employment. Thus the share of nonagricultural employment captured by disadvantaged groups is falling (El-Laithy 2005).

With an emphasis on education, the next generation is likely to have greater access to more lucrative off-farm employment; however, for the present generation of poor rural adults, agriculture is still the main and often only opportunity to make a living, especially in a context where off-farm opportunities are limited, as we shall see below.

**Non-farm opportunities are limited in rural Upper Egypt**

*Upper Egypt's private sector is narrow, undiversified, and skewed toward micro-enterprises.* Only 19 percent of Egyptian enterprises are located in Upper Egypt; most are in Lower Egypt (42 percent) and in metropolitan areas (37 percent). In addition, Upper Egypt enterprises are remarkably less diversified than those in Lower Egypt; they cover only 5 of the 27 activities that are covered by enterprises in Lower Egypt. The vast majority (87 percent) of the enterprises in Upper Egypt are micro-enterprises, either individually owned or having only one employee (1.6 employees, including the owner, on average). In Lower Egypt, similar SMEs have 1.9 employees on average. Accordingly, the capitalization of the SMEs is also limited. For the entire country, 97 percent of the rural SMEs and 95 percent of the urban SMEs operate with a fixed capital of between LE 10,000 and 50,000.

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26 The analysis includes the urban areas of Upper Egypt, where enterprises are larger on average than in the rural areas. Therefore the figure of 1.6 employee per small enterprise is overestimated (El-Meehy 2004).
27 CAPMAS Economic Census data 2001/2, in El-Meehy (2004). The equivalent in U.S. dollars is about $1,600 to $8,000.
The off-farm private sector has been unable to absorb all of the growing active rural population. 73 percent of rural enterprises have added no capital since they were established (on average, 12–14 years ago). Those that did add capital added very small amounts, ranging from 1 percent annually for the home-based enterprises to 3 percent for SMEs. More than 75 percent of SMEs have experienced no growth at all since their creation (El-Meehy 2004).

Studies have shown that the SMEs’ employment elasticity is relatively low: more demand will not necessarily lead to higher employment, at least in the short term. An analysis from the 1998 CAPMAS survey indicated that 70 percent of the SMEs were not willing to expand their workforce if demand increased, due to generalized excess capacity. Nearly 70 percent reported that their workers were underemployed (working less than five days a week). With increased demand, SMEs are likely to first put in more hours or work more intensively before recruiting more labor (El-Meehy 2004).

These results suggest that there are not enough opportunities for off-farm employment for rural people. This is corroborated by the growing number of unpaid/family workers in agriculture. Between 1995/6 and 1999/2000, the percentage of unpaid workers in agriculture increased from 14 to 22 percent in southern Upper Egypt and remained stagnant in northern Upper Egypt.28 This may point to the fact that agriculture is a sector of last resort when other sectors stagnate, while the active rural population continues to grow. The no-growth tendency of SMEs may have been aggravated during the period 1996–2000, which corresponded also to a slowdown in the Egyptian economy that was due in part to the slowdown in tourism after the 1997 events in Luxor. Southern Upper Egypt and off-farm opportunities in that region were particularly affected.

Could tourism create more opportunities for rural non-farm employment? Tourism is concentrated in the major cities of Aswan and Luxor, though the region has other potential tourist sites that are not developed at the moment, primarily for security reasons.29 As a result, direct opportunities for rural employment related to tourism are relatively few and localized, and the near-term potential for development is limited. Nevertheless, tourism does create a market for quality horticulture and animal products, as well as handicrafts. The latter provides economic opportunities for women (handloom weaving, basket making, and other traditional handicrafts). At present, such opportunities are not fully exploited due to weak market access for rural producers.

What about the public sector? The public sector is an important source of non-farm employment and income, the largest share of non-farm employment in rural areas (41 percent). Government employment is important for all quintiles, but more so for the richest than for the poorest (respectively 16 and 10 percent of employment, table 2.1).

28 Northern Upper Egypt: Giza, Beni-Suef, Fayoum, Menia); Southern Upper Egypt (Assiut, Sohag, Qena, Aswan, Louxor). Lower Egypt (Damietta, Dakahlia, Sharkia, Qaliubia, Kafr El-sheikh, Gharbia, Menufia, Beheira, Ismailia)

29 An exception is the governorate of Qena: thanks to the dynamism of the Governor of Qena, a Nile Corniche for cruisers and a sound and light show at Dendara Temple were established.
But employment opportunities in this sector are likely to decline as the GOE continues its macroeconomic reforms. It cannot be expected to absorb additional labor, especially for the poorly educated.

**A framework for broad-based economic growth based on agricultural development, off-farm activities, and enhanced rural-urban linkages.**

Because of its forward and backward linkages, agriculture growth has important spillover effects on the rest of the economy. In addition, because of the large number of people it employs, a more productive and income-generating agricultural sector has an impact on other sources of income. This is further evidenced through an analysis of HIECS 1999/2000 data using the Sen Welfare index, which shows how welfare responds to an exogenous change in income from various sources.\(^3\)

The largest overall income and equity enhancing effects in Upper Egypt result from increases in farm income from self-employment, followed by non-farm wages (El-Laithy 2005). The equity effect is the result of the broad-based nature of agriculture. The income effect of agricultural growth, outside agriculture, is explained as follows:

- **A direct effect**—an increase in demand for goods and services necessary to produce, transport, process, and sell more agricultural products. These functions are usually provided by urban-based agro-industries, as well as SMEs, that cater to farmers by selling farm inputs, tools and machinery; providing repair services; and collecting, transporting, packaging, processing, and selling outputs.

- **An indirect effect**—as farmers' incomes increase from increased agricultural outputs and sales, they spend a large share of their income on locally produced goods and services. Here again, SMEs that provide construction and brick making, tailoring, household repair services, transportation, and various trading activities are likely to be stimulated.

Both the direct and indirect effects result in a boost to the off-farm sub-sector. Trade and construction activities are likely to benefit the most. These activities are very important for the poor, as they employ a large number of casual and unskilled jobs.

The expansion of the off-farm sub-sector can have a further impact on agricultural incomes in two ways: (i) directly, it creates alternative job opportunities for unpaid or poorly paid workers in agriculture, thus exerting an upward push on agricultural wages; (ii) indirectly, it can raise agricultural productivity, by virtue of the fact that many farmers (23 percent across all quintiles) earn part of their income from off-farm private activities. Expansion of the off-farm sub-sector can raise agricultural productivity in two ways. First, if there are several production technologies or crops, with higher average productivity being associated with greater variability in output, having an alternative secure source of income may make farmers more willing to choose the options that involve higher risk and higher return. (Wealthier farmers are often the first to adopt new

\(^3\)Welfare is a slightly broader concept than income. The Sen welfare indicator measures both the income and distribution effect of a 1 percent increase in a source income.
agricultural technologies). Second, in the absence of low-cost credit, additional income from outside farming facilitates the purchase of costly inputs.31

To conclude, the proposed framework for fostering broad-based economic growth in rural Upper Egypt is based on the development of agriculture and agriculture-related SMEs. In the sections that follow, we review the situation and potential for development of the agricultural sector and related SMEs in Upper Egypt, referring to Lower Egypt for purposes of comparison.

2.2 Characteristics and structure of the agricultural sector in Upper and Lower Egypt

During the period 1995–2005, rural Lower Egypt did quite well, better, in fact, than urban Lower Egypt, and much better than rural Upper Egypt (Table 1.2). Several studies pointed to agriculture as a key factor in the growth.32 This section examines differences in agricultural productivity, cropping patterns, and institutional setup that may explain why agriculture does not seem to be the engine for growth in Upper Egypt as it has been in Lower Egypt. We analyze the differences with respect to landholding, crop choices, input costs and utilization, and incomes.33

Size of landholdings

Arable land is limited in Egypt. In 2000 the average number of people per cultivated feddan was 8.4. Upper Egypt, with 13.6 persons per cultivated feddan, is much more dense than Lower Egypt, with 7.3 persons. The size of the average landholding also exhibits sharp regional differences.34 On average in rural Upper Egypt, the average landholding is 2.2 feddan, whereas it is twice as large in the Delta. Moreover, the distribution of landholdings indicates that small farms (those with less than three feddan) account for more than 82 percent of the farms in Upper Egypt, with farms of less than one feddan representing 47 percent (table 2.4). In comparison, farms of less than 3 feddan make up just 58 percent of the farms in the Delta region, and those of less than one feddan 27 percent (Moursi and others 2004). There are more large farms—those of more than five feddan—in Lower Egypt (28 percent) than in Upper Egypt (8 percent).

31 This argument has been made by a number of agricultural economists. See, for example, Lanjouw and Shariff 2000.
32 In particular, World Bank and Arab Republic of Egypt 2004.
33 The results are based on the analysis of the data of the Agricultural Farm Income Survey 2000/01 (AFIS) of the Ministry of Agriculture and Land Reclamation. AFIS is a stratified multistage random sample, representative of different agriculture landholding sizes in Egypt. The sample is composed of 3,441 farmers (who own land) drawn from eight governorates in Lower Egypt and seven governorates in Upper Egypt. The 1,986 farms in Lower Egypt and 1,455 farms in Upper Egypt were involved in both plant and animal production. The sample is drawn form the Old Lands, excluding the large, modern commercial farms of the Delta. The analysis was carried by Dr. Tarek Moursi (Department of Economics, Faculty of Economics and Political Science, Cairo University), with support from Mai El Mossallamy and Rasha Reda.
34 Landholding (in feddan) for each farm household equals area owned or rented less area rented out to other farms. It is therefore the size of the land cultivated by the family.
Table 2.4 Distribution of landholdings in Lower and Upper Egypt

<table>
<thead>
<tr>
<th>Region</th>
<th>&lt;1 (very small)</th>
<th>1 to &lt;3 (small)</th>
<th>3 to &lt;5 (mid-size)</th>
<th>≥5 (large)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower Egypt</td>
<td>27.09</td>
<td>30.70</td>
<td>14.32</td>
<td>27.89</td>
</tr>
<tr>
<td>Upper Egypt</td>
<td>47.22</td>
<td>35.05</td>
<td>9.62</td>
<td>8.11</td>
</tr>
</tbody>
</table>

Source: Moursi and others 2004.

Note: The classification—less than one feddan, between 1 to 3 feddan, 3 to 5 feddan, more than 5 feddan—is the standard Ministry of Agriculture classification. 1 feddan = 0.42 ha.

Such extreme fragmentation, the prevalence of small landholdings, and the large size of farm families obviously affect per capita farm income, farmers’ ability to invest, and yields and cropping patterns, which will be discussed below.

Landholding and crops

The relative dominance of small-scale farming in Upper Egypt is further confirmed by the distribution of farmers by the size of the area they have under selected crops. Table 2.5 shows that fodder crops tend to be cultivated on small and very small farms. This is especially true in Upper Egypt, where between 51 and 84 percent of the fodder crops are cultivated on very small farms, suggesting the importance of livestock for these households. Horticultural products and aromatic, medicinal, and oil plants (AMO) are cultivated predominantly on small and very small farms, with the exception of winter tomatoes, which are also cultivated on farms of more than 5 feddan. Farmers with smaller holdings play a pivotal role in the production of fruits, vegetables, and AMO in Lower Egypt. Farmers with larger landholdings (more than five feddan) concentrate on the cultivation of rice, cotton and barley.35

35 Cultivation of rice is officially confined to the rice-belt in Lower Egypt; thus, rice growers in Upper Egypt are evading the regulations.
Table 2.5 Crop production in Lower and Upper Egypt, by farm size

<table>
<thead>
<tr>
<th></th>
<th>Lower Egypt (feddan)</th>
<th>Upper Egypt</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&lt;1</td>
<td>1 to &lt;3</td>
<td>3 to &lt;5</td>
</tr>
<tr>
<td><strong>Traditional crops</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Fodder</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LS berseem</td>
<td>46.9</td>
<td>45.25</td>
<td>5.47</td>
</tr>
<tr>
<td>SS berseem</td>
<td>52.1</td>
<td>45.22</td>
<td>1.74</td>
</tr>
<tr>
<td>Summer maize</td>
<td>52.5</td>
<td>47.50</td>
<td>0.00</td>
</tr>
<tr>
<td>Nili maize</td>
<td>25.0</td>
<td>62.50</td>
<td>12.50</td>
</tr>
<tr>
<td><strong>Nonfodder</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barley</td>
<td>3.61</td>
<td>27.71</td>
<td>24.10</td>
</tr>
<tr>
<td>Chick pea</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Horse bean</td>
<td>25.0</td>
<td>57.29</td>
<td>9.38</td>
</tr>
<tr>
<td>Wheat</td>
<td>37.8</td>
<td>43.07</td>
<td>9.96</td>
</tr>
<tr>
<td>Cotton</td>
<td>45.3</td>
<td>48.10</td>
<td>4.84</td>
</tr>
<tr>
<td>Summer maize</td>
<td>44.7</td>
<td>43.04</td>
<td>7.94</td>
</tr>
<tr>
<td>Rice</td>
<td>46.0</td>
<td>44.91</td>
<td>5.83</td>
</tr>
<tr>
<td>Sorghum</td>
<td>62.0</td>
<td>34.48</td>
<td>3.45</td>
</tr>
<tr>
<td>Nili maize</td>
<td>57.1</td>
<td>14.29</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>Nontraditional crops</strong></td>
<td></td>
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<td></td>
</tr>
<tr>
<td><strong>Fruits</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grape</td>
<td>66.6</td>
<td>23.81</td>
<td>9.52</td>
</tr>
<tr>
<td>Guava</td>
<td>72.7</td>
<td>9.09</td>
<td>0.00</td>
</tr>
<tr>
<td>Lime</td>
<td>35.2</td>
<td>58.82</td>
<td>0.00</td>
</tr>
<tr>
<td>Mandarin</td>
<td>10.5</td>
<td>31.58</td>
<td>15.79</td>
</tr>
<tr>
<td>Mango</td>
<td>22.0</td>
<td>45.76</td>
<td>13.56</td>
</tr>
<tr>
<td>Olives</td>
<td>21.6</td>
<td>43.84</td>
<td>16.75</td>
</tr>
<tr>
<td><strong>Vegetables</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beet</td>
<td>0.00</td>
<td>50.00</td>
<td>50.00</td>
</tr>
<tr>
<td>Cabbage</td>
<td>66.6</td>
<td>33.33</td>
<td>0.00</td>
</tr>
<tr>
<td>Garlic</td>
<td>100.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Onion</td>
<td>50.00</td>
<td>37.50</td>
<td>8.33</td>
</tr>
<tr>
<td>Winter tomato</td>
<td>16.8</td>
<td>58.33</td>
<td>4.17</td>
</tr>
<tr>
<td>Dry French bean</td>
<td>100.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Eggplant</td>
<td>44.4</td>
<td>55.56</td>
<td>0.00</td>
</tr>
<tr>
<td>Okra</td>
<td>100.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Summer tomato</td>
<td>6.54</td>
<td>52.34</td>
<td>21.50</td>
</tr>
<tr>
<td>Potato</td>
<td>0.00</td>
<td>100.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Nili tomato</td>
<td>20.0</td>
<td>80.00</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>AMO</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peanut</td>
<td>19.7</td>
<td>40.66</td>
<td>19.78</td>
</tr>
<tr>
<td>Sesame</td>
<td>25.0</td>
<td>66.67</td>
<td>8.33</td>
</tr>
<tr>
<td>Sunflower</td>
<td>50.0</td>
<td>50.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>


AMO = aromatic, medicinal, and oil plants. "Nili" refers to the intermediate growing season (September–November).

"LS" versus "SS" berseem refer to long versus short berseem.
Crop input costs and utilization

Cost structures and input utilization also vary between the two regions. The average input costs per feddan in Upper Egypt are relatively high compared with those in Lower Egypt. According to Moursi and others (2004), total costs of production per feddan in Upper Egypt are LE 820.37, exceeding those in the Delta (LE 675.01) by 22 percent. Figure 2.1 compares the composition of agricultural input costs (factor shares in total costs) in Lower and Upper Egypt at the aggregate level. Table 2.6 reports indexes of prices and quantity of input utilized per feddan under crops in Lower and Upper Egypt. The discrepancy results from a difference in the input packages used in the two regions. The variation in inputs arises mainly because of differences in cropping patterns, quality and accessibility of land, and size of landholdings across the two regions.

![Figure 2.1 Shares of inputs in total agricultural costs in Lower and Upper Egypt](image)

Note: Hired labor only. The cost of family labor is not included in this figure.

Irrespective of cropping patterns, farmers employ labor-intensive techniques and make extensive use of household labor. On average, approximately 39 percent of farmers in Lower Egypt are family workers; participation of family workers in Upper Egyptian agriculture is even higher, representing 46 percent of the farm labor in the region. This is not surprising, given the larger size of rural families, higher (child) dependency ratios, and scarcer off-farm employment in Upper Egypt. Analysis of HIECS data indicates that, in Lower Egypt, 46 percent of the people employed in agriculture also work in other sectors, while in Upper Egypt; only 37 percent are also employed outside agriculture.

Both women and children participate in farming activities. They account for 36 percent and 28 percent of labor in Lower and Upper Egypt, respectively. The lower levels of participation by women and children in Upper Egypt may be due to social norms and cultural traditions that limit female participation in the labor market. In Lower Egypt, farms rely less on male members of the household and more on hired women and children in comparison with Upper Egypt (Moursi and others 2004).
Table 2.6 Price and quantity indexes for inputs and outputs in Lower and Upper Egypt

<table>
<thead>
<tr>
<th>Inputs</th>
<th>Lower (LE)</th>
<th>Quantity per feddan</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Lower</td>
</tr>
<tr>
<td>Capital (hours)</td>
<td>11.10</td>
<td>13.61</td>
</tr>
<tr>
<td>Labor (days)a</td>
<td>6.48</td>
<td>25.65</td>
</tr>
<tr>
<td>Adjusted labor (days)a,b</td>
<td>9.95</td>
<td>27.58</td>
</tr>
<tr>
<td>Animals (days)</td>
<td>10.51</td>
<td>0.96</td>
</tr>
<tr>
<td>Material (units)</td>
<td>28.67</td>
<td>26.44</td>
</tr>
<tr>
<td>Land (feddan)</td>
<td>61.95</td>
<td>11.98</td>
</tr>
</tbody>
</table>

Output

<table>
<thead>
<tr>
<th></th>
<th>Including by-products</th>
<th>Excluding by-products</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lower (LE)</td>
<td>Quantity per feddan</td>
</tr>
<tr>
<td></td>
<td>537.5</td>
<td>3.48</td>
</tr>
<tr>
<td></td>
<td>525.3</td>
<td>3.32</td>
</tr>
</tbody>
</table>

Source: Mourai and others 2004.

a. Includes hired (temporary and permanent) and family workers.
b. Imputing a value to family labor.
c. Adjusted acreage: see footnote 36.

Labor accounts for about 25 percent and 22 percent of total production costs in Lower and Upper Egypt, respectively (Figure 2.1). On average, the daily agricultural wage rate in Upper Egypt (LE 4.89) is 25 percent less than in Lower Egypt. Considerably more labor per feddan is employed in Upper Egypt (37.4 workdays) than in Lower Egypt (25.7 workdays). Hence, despite lower wage rates, because of the intensive use of labor in Upper Egypt, the cost of labor per feddan is higher in Upper Egypt than in Lower Egypt.

Although purchased inputs (materials) account for a sizeable share of total costs in both Lower and Upper Egypt (Figure 2.1), agricultural inputs play a more important role in the production process in Lower Egypt (48 versus 37 percent). The average unit price of purchased input in Lower Egypt is also 1.4 times the price in Upper Egypt, which reflects higher quality of inputs used in Lower Egypt. Upper Egyptian farmers spend more on farm machinery and agricultural equipment than those in Lower Egypt, due to higher rental costs for machinery and equipment, which reflect the scarcity of capital in Upper Egypt.

Productivity

Upper Egyptian farmers are more productive than those in Lower Egypt (Table 2.6). They produce higher levels of output per feddan, even when the acreage is adjusted for land quality. The last two columns of Table 2.6 present input use and outputs per Adjusted acreage for land quality and scarcity36.

36 Land is of better quality (and also more scarce in Upper Egypt), which is reflected in prices that are approximately 40 percent higher per feddan (averaging LE 36,347 and LE 50,524 per feddan in Lower Egypt and Upper Egypt, respectively). The adjustment for land quality entails dividing the acreage by the average price of land in each region. The adjustment leads to smaller adjusted land acreage in Lower Egypt,
Interspatial productivity for major crops. Differences in productivity are further analyzed using interspatial productivity indexes for 43 major crops (Table 2.7).  

### Table 2.7 Comparison of productivity between Lower and Upper Egypt for selected crops

<table>
<thead>
<tr>
<th>Crops</th>
<th>Lower</th>
<th>Upper</th>
<th>Crops</th>
<th>Lower</th>
<th>Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>All crops</td>
<td>xxx</td>
<td></td>
<td>Aromatic, medicinal, and oil plants</td>
<td>xxx</td>
<td></td>
</tr>
<tr>
<td>Nontraditional plants</td>
<td></td>
<td>xxx</td>
<td>Peanut</td>
<td>xxx</td>
<td></td>
</tr>
<tr>
<td>Fruits</td>
<td>xxx</td>
<td></td>
<td>Sesame</td>
<td>xxx</td>
<td></td>
</tr>
<tr>
<td>Grape</td>
<td>xxx</td>
<td></td>
<td>Sunflower</td>
<td>xxx</td>
<td></td>
</tr>
<tr>
<td>Guava</td>
<td>xxx</td>
<td></td>
<td>Traditional</td>
<td>xxx</td>
<td></td>
</tr>
<tr>
<td>Mango</td>
<td>xxx</td>
<td></td>
<td>Fodder</td>
<td>xxx</td>
<td></td>
</tr>
<tr>
<td>Olive</td>
<td>xxx</td>
<td></td>
<td>LS berseem</td>
<td>xxx</td>
<td></td>
</tr>
<tr>
<td>Citrus</td>
<td>xxx</td>
<td></td>
<td>SS berseem</td>
<td>xxx</td>
<td></td>
</tr>
<tr>
<td>Mandarin</td>
<td>xxx</td>
<td></td>
<td>Summer maize fodder</td>
<td>xxx</td>
<td></td>
</tr>
<tr>
<td>Lime</td>
<td>xxx</td>
<td></td>
<td>Nili maize fodder</td>
<td>xxx</td>
<td></td>
</tr>
<tr>
<td>Vegetables</td>
<td>xxx</td>
<td>xxx</td>
<td>Nonfodder</td>
<td>xxx</td>
<td></td>
</tr>
<tr>
<td>Beet</td>
<td>xxx</td>
<td></td>
<td>Barley</td>
<td>xxx</td>
<td></td>
</tr>
<tr>
<td>Cabbage</td>
<td>xxx</td>
<td></td>
<td>Chick peas</td>
<td>xxx</td>
<td></td>
</tr>
<tr>
<td>Garlic</td>
<td>xxx</td>
<td></td>
<td>Horse bean</td>
<td>xxx</td>
<td></td>
</tr>
<tr>
<td>Onion</td>
<td>xxx</td>
<td></td>
<td>Wheat</td>
<td>xxx</td>
<td></td>
</tr>
<tr>
<td>Winter tomato</td>
<td>xxx</td>
<td></td>
<td>Cotton</td>
<td>xxx</td>
<td></td>
</tr>
<tr>
<td>Dry French bean</td>
<td>xxx</td>
<td></td>
<td>Summer maize</td>
<td>xxx</td>
<td></td>
</tr>
<tr>
<td>Eggplant</td>
<td>xxx</td>
<td></td>
<td>Rice</td>
<td>xxx</td>
<td></td>
</tr>
<tr>
<td>Okra</td>
<td>xxx</td>
<td></td>
<td>Sorghum</td>
<td>xxx</td>
<td></td>
</tr>
<tr>
<td>Summer tomato</td>
<td>xxx</td>
<td></td>
<td>Nili maize</td>
<td>xxx</td>
<td></td>
</tr>
<tr>
<td>Nili tomato</td>
<td>xxx</td>
<td></td>
<td></td>
<td>xxx</td>
<td></td>
</tr>
<tr>
<td>Potato</td>
<td>xxx</td>
<td></td>
<td></td>
<td>xxx</td>
<td></td>
</tr>
<tr>
<td>Nili potato</td>
<td>xxx</td>
<td>xxx</td>
<td></td>
<td>xxx</td>
<td></td>
</tr>
</tbody>
</table>

Source: Moursi and others 2004.

Note: "Nili" refers to the intermediate growing season (September–November).

a. Includes traditional, nontraditional, and other crops.

b. With the exception of three traditional nonfodder crops (barley, wheat, and summer maize), the ranking of productive efficiency is independent of family labor cost adjustment. In the case of these three crops, after adjustment, lower Egypt becomes more productive which reflects the fact that relatively more family labor is employed in production in Upper Egypt.

but leaves the land input almost intact in Upper Egypt. According to Moursi (personal conversation), the quality effect is more important than the scarcity effect.

37 The indexes are Fisher-Tornqvist interspatial productivity indexes, calculated using a growth accounting procedure. Computations of the indexes are based on aggregating quantities and prices of output and of the five inputs—capital, labor, materials, animal labor, and land—for different crops in the sample. Whenever applicable, output includes by-products.
Considering all crops together, productivity per feddan is higher in Upper than in Lower Egypt. When disaggregating between traditional and nontraditional crops, farmers in Lower Egypt realize higher yields and net returns from growing nontraditional crops than do farmers in Upper Egypt. Upper Egypt is more productive in the cultivation of traditional crops. There are a few exceptions, however: productivity is higher in Upper Egypt for a few nontraditional crops such as grapes, mangos, limes, beets, tomatoes, and sunflower.

**Crop output and structure of net farm income**

In Upper Egypt, the main crop rotations are wheat and long berseem in winter, and maize, sorghum and cotton in summer. Some governorates (Aswan and Qena) specialize in sugar cane. Vegetables are mostly grown in the intermediate season (September to November), referred to as the *nili* season. Figure 2.2 shows the percentage shares of various traditional and nontraditional crops in the total cropped area of Lower and Upper Egypt. Traditional crops, covering almost 93 percent of the cropped area, are dominant in Upper Egypt. They are much less important in Lower Egypt, where they account for about 57 percent of total cropped area, with nontraditional crops and AMO covering 43 percent.

**Figure 2.2 Cropped area and net revenue shares of traditional and nontraditional crops**

![Bar chart showing cropped area and net revenue shares of traditional and nontraditional crops in Lower and Upper Egypt.](chart)

Source: Moursi and others (2004).

The structure of production is further reflected in the structure of net farm income. At an aggregate level, 58 percent of net farm income in Lower Egypt is generated by nontraditional crops. In Upper Egypt, nontraditional crops account for 12 percent of the

---

38 Nontraditional crops are vegetables, fruits, and aromatic and medicinal and oil plants (AMOs).
net farm income. The net revenue shares of non-traditional crops is higher than their share in the cropped area, reflecting higher net revenue per feddan for nontraditional crops.

**Livestock investments and income**

Most of the farms in Upper Egypt are involved in both plant and animal production (87 percent). 95 percent of livestock production comes from small farms, those less than three feddan in size, almost a quarter of which are cultivated by farmers who do not own their land. About 80 percent of livestock activities are conducted by women (Fawzy 2004). Upper Egyptian farmers invest more of their resources in livestock production than Lower Egyptian farmers do. As a result, livestock income contributes more to total farm income in Upper Egypt than it does in Lower Egypt (Table 2.8). Net income per feddan from livestock is 62 percent higher in Upper Egypt than in Lower Egypt.40

| Table 2.8 Livestock inputs and income in Lower and Upper Egypt |
|-----------------------------------|-------------------|-------------------|
| As percentage of total inputs and total farm income | Lower Egypt | Upper Egypt |
| Labor (percentage of total labor) | 17 | 19 |
| Other inputs (percentage of all other inputs) | 31 | 46 |
| Livestock income (percentage of agricultural income) | 25 | 34 |

Source: Moursi and others 2004.

**Interspatial productivity according to farm size**

Average output per feddan is higher on very small farms (those of less than one feddan) in both Lower and Upper Egypt (table 2.9), which is likely due to the careful growing practices of farmers with very small holdings, who must ensure that they get the most out of their small piece of land. The largest farms have the lowest output per feddan in Lower Egypt. In Upper Egypt, medium-size farms (3 to 5 feddan) have the lowest output.

Farmers with the smallest holdings in each region receive lower farmgate prices per unit of output. The lower prices reflect poorer commercial opportunities for smaller farmers, and the imperfect marketing channels with which they must deal. AFIS data reveal that the prices obtained by smaller farmers are consistently lower than those obtained by larger farmers.

Farmers in Lower Egypt earn higher prices per unit of land presumably because of difference in crop mix (the larger share of high-value crops in Lower Egypt). Stronger demand for output from Lower Egypt as a result of proximity to large consumption

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39 The net farm income shares presented in figure 2.2 are not adjusted for the value of family labor. But the findings are confirmed when adjusted for the value of family labor.

40 Net livestock income per feddan was 420 LE in Lower Egypt and 680 in Upper Egypt in 2001 (Moursi and others 2004).
centers and more fully formed markets may also result in higher prices obtained by Lower Egyptian farmers.

**Table 2.9** Price and average output indexes for farms in Lower and Upper Egypt

<table>
<thead>
<tr>
<th></th>
<th>Lower Egypt (feddan)</th>
<th>Upper Egypt (feddan)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&lt;1 1 to &lt;3 3 to &lt;5 ≥5</td>
<td>&lt;1 1 to &lt;3 3 to &lt;5 ≥5</td>
</tr>
<tr>
<td>Price (in LE per output unit)</td>
<td>316.920 460.361 395.965 587.628</td>
<td>186.521 204.535 221.097 222.982</td>
</tr>
<tr>
<td>Quantity/feddan (units)</td>
<td>5.505 4.131 4.948 3.038</td>
<td>12.203 10.781 9.478 10.819</td>
</tr>
</tbody>
</table>

Source: Moursi and others 2004.

Notes: Output is calculated with reference to cropped area. The categories (1 to <1 feddan, 1 to <3 feddan, etc.) refer to landholding area. Output includes by-products. Price is an average composite output price.

Looking at the Tables 2.6 and 2.9 together, we learn that the total output per unit of land is higher in Upper Egypt than in Lower Egypt, which may be due to a combination of several factors:

- Landholdings are much smaller in Upper Egypt, and small farms obtain a higher output per unit of land.
- The quality of water and soil is reputed to be better in Upper Egypt. The salinity and alkalinity of the soil appear to be increasing in Lower Egypt because of poor water quality and drainage problems.

**Interspatial productivity according to other farm characteristics**

Other characteristics of farms—access to farm loans, ownership of agricultural land, full-time involvement of the farm head in agriculture, sex of the farm head, and access to non-farm income—have differential effects on productivity in Upper and Lower Egypt (Table 2.10).

**Table 2.10** Interspatial efficiency indexes for selected farm characteristics in Lower and Upper Egypt

<table>
<thead>
<tr>
<th></th>
<th>Access to loans</th>
<th>Landowner</th>
<th>Other occupation</th>
<th>Female farm head</th>
<th>Non-farm income</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lower Upper</td>
<td>Lower Upper</td>
<td>Lower Upper</td>
<td>Lower Upper</td>
<td>Lower Upper</td>
</tr>
<tr>
<td>All crops</td>
<td>0.628 0.928</td>
<td>0.814 0.512</td>
<td>0.795 1.207</td>
<td>0.653 0.709</td>
<td>0.730 1.224</td>
</tr>
</tbody>
</table>

Source: Moursi and others 2004.

Note: An index of less than one indicates that farms with that particular characteristic are more efficient. Figures include a cost adjustment for family labor.

**Access to loans.** As a whole, farmers who have access to loans are relatively more productive in both Lower and Upper Egypt. Efficiency of farms with access to loans, however, varies between traditional and nontraditional crops. Farmers who cultivate traditional crops are usually poor. Hence, most of the loans obtained by those peasants
probably help confront imminent production bottlenecks (or even consumption problems) rather than contribute to farming efficiency. Hence producers of traditional crops in both Lower and Upper Egypt who have access to loans are less efficient. By contrast, loans raise the productive efficiency of Upper Egyptian farmers growing nontraditional crops. Such farmers may face a tight budget constraint given the paucity of financial resources available in Upper Egypt.

**Landownership.** Ownership of agriculture land raises productive efficiency in agriculture in general, and for most traditional and nontraditional crops in both Lower and Upper Egypt. This is not surprising. Aside from the superior agriculture experience of landowners, agricultural land that is rented year in and year out—particularly by an absentee landowner—may be neglected or even misused.

**Off-farm activity.** The index shows that farmers employed in jobs other than agriculture are more productive in Lower Egypt than in Upper Egypt, an indication that Lower Egypt’s farmers may invest part of their nonagricultural revenues in their farms. The positive correlation does not hold for poorer farm heads in Upper Egypt, who may be compelled to seek employment outside the farm to supplement insufficient farm income, leaving little, if any, left over for agricultural investments. Thus, for the poorest, the income earned from off-farm activities may not be reinvested in farming.

**Female farm heads.** Generally, farms headed by women are more efficient in both Lower and Upper Egypt. Female farm heads are frequently widowed or divorced women, supporting their children independently. They would have a strong incentive to increase their farm income through higher productivity. Additional evidence confirms this finding at the crop level, mainly for traditional crops in Lower Egypt, and particularly for fodder crops in Upper Egypt.

**Non-farm income.** Higher non-farm income raises cropping efficiency of all crops in Lower Egypt. However, as with off-farm activity, non-farm income is not associated with higher productivity in Upper Egypt, where farmers may have to seek extra resources from outside the farm just to survive, but not to invest in their farming activities.

**Conclusion**

Agriculture in Upper Egypt is dominated by small and very small landholdings, more so than in Lower Egypt. There are almost twice as many people per feddan in Upper Egypt as in Lower Egypt. In contrast to farmers in Lower Egypt, those in Upper Egypt tend to cultivate traditional crops. Upper Egypt’s farmers use less of the essential production factors, primarily capital and material inputs (especially quality inputs), than do Lower Egyptian farmers. To make up for that shortage, or perhaps because the opportunity cost of labor is low, Upper Egyptian farmers make more intensive use of human and animal labor. Overall, Upper Egyptian farmers produce more output per unit of land, presumably because of the extra care taken by farmers with very small holdings and because their land is of better quality.
Looking at productivity by type of crop, Lower Egyptian farmers are more productive when they grow nontraditional crops, while Upper Egyptian farmers are more productive with traditional crops. Lower Egyptian farmers enjoy higher farm gate prices per unit of output because of their crop mix (more acreage under nontraditional crops) and also presumably because of stronger demand for their products and better marketing channels. In both regions, livestock contributes an important share of total farm income, especially in Upper Egypt. Upper Egyptian producers invest more in their livestock, and livestock income represents a larger share of total net farm income than in Lower Egypt.

Finally, in both regions, there is an inverse relation between productivity and farm size. Productivity appears also positively associated with access to loans, land ownership, and whether a woman runs the farm. Access to non-farm resources is associated with higher agricultural productivity in Lower Egypt, but not in Upper Egypt.

2.3 Comparative advantage of major crops in Upper Egypt

Overall, Upper Egyptian farmers produce more per unit of land and labor than Lower Egyptian farmers, but because they grow fewer nontraditional crops than their Lower Egypt counterparts, they also receive less per unit of output. How could Upper Egyptian farmers increase their farm incomes? Should they include more nontraditional crops in their crop mix? Are there traditional crops for which efficiency gains could be obtained? This section examines the financial and economic profitability and competitiveness of the principal traditional crops in Upper Egypt, as well as some nontraditional crops, in order to identify those that should be emphasized for development.41

A comparative and competitive advantage for cotton, wheat, and short berseem42

Egypt has a strong comparative advantage in cotton, wheat, and short berseem, among the traditional crops, with domestic resource cost ratios below 0.7 (Table 2.11). These crops also show the highest return per unit of water. Maize, by contrast, makes poor use of water. Horticultural crops (here the traditional horticultural crops of winter tomatoes and summer potatoes) demonstrate the highest comparative advantage, and the highest returns per unit of water.

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41 FAO carried out the study on comparative advantage and competitiveness of major crops and crop rotations as an input into The Strategy of Agriculture Development in Egypt until Year 2017 (MALR and FAO 2003).

42 This section is based on chapter four of The Strategy for Agriculture in Egypt until Year 2017 (MALR and FAO 2003) and on USAID (2002).
Yields obtained by Egyptian farmers are high: 6 tons/hectare for wheat and 8 tons/hectare for maize), but still below the potential average yields of the currently grown varieties. The potential average yields are estimated at 7.2 tons/hectare and 9.8 tons/hectare respectively, calculated as 90 percent of the yields in research stations and the best farmers’ fields (MALR and FAO 2003). Also, when the yields of the best farmers are compared to world records, there is still scope for efficiency gains. Narrowing the yield gaps would require better-quality seeds, more mechanization, better soil and water management, and strengthened advice to farmers. Given these improvements, wheat production could keep up with or outpace population growth.

Cotton should have a key place in any agricultural growth scenario, not only because of its historical importance, but because of its future potential. Over the last 20 years, Egypt has lost its competitive edge in this crop, mostly due to various GOE policy and structural distortions. The “One Cotton” policy pursued did not work. That policy aimed to resolve the conflicting goals of producing fine cotton for the export markets while also producing ordinary cotton for the domestic industry by providing farmers with dual-purpose varieties. Many of Egypt’s competitors in the production of long-staple and extra-long-staple cotton varieties are now obtaining much higher yields, while Egypt’s yields have stagnated. According to the Egyptian Cotton Research Institute, the yield potential of Egyptian cotton varieties is more than 12 kentar per feddan, while the average yields harvested are on the order of 7 kentar per feddan (World Bank 2001). Marketing costs could be reduced, and lint and yarn quality could be improved. Though significant progress has been made in the liberalization of cotton marketing and the privatization of the public textile companies, the liberalization is not yet complete. The GOE still sets prices and quotas, allocates market shares, and determines which varieties are grown in which districts by controlling the seed market. Notwithstanding the problems that affect the sector, cotton is still regarded as the most profitable crop to grow in Egypt (Holtzman and Mostafa 2003).
Rice, sugar cane and sugar beet, have the lowest domestic resource cost ratio but also the lowest return per unit of water

For technical reasons (heavy soils and a saline water table), rice must be grown in the Delta. Because of its low return to water (table 2.11), it should not be grown in Upper Egypt, where it competes with cotton, a much more profitable crop. The GOE’s regulation prohibiting rice cultivation in Upper Egypt has been ineffective, partly because farm gate prices for rice benefit from the government’s interventions in the sector.43

Sugar cane, grown mainly in Southern Upper Egypt, is a very unprofitable crop, second only to sorghum. It consumes vast amounts of scarce water, about 50–60 percent more than the most profitable rotations in Upper Egypt (maize and wheat, short berseem and cotton, broad beans and cotton).

The complex problem of sugar cane has received considerable attention. Grown on 300,000 feddan, sugar cane is considered a “strategic commodity” and receives significant trade protection. The government-owned sugar cane factories of Upper Egypt generate employment and spin off several chemical production activities, in addition to commercial sugar. Because farmers supply the factories under contractual arrangements, substitution is not easily introduced. At the moment, the GOE is studying farm-irrigation improvements (gated pipe systems coupled with laser leveling) that would use 20 percent less water and increase yields by 20 percent.44 Those improvements would make it possible to reduce acreage in sugar cane by about 60,000 feddan without reducing the supply to the factories. The investments would generate a minimally adequate return. The private and social profitability of growing sugar cane would be improved. Sugar beets cannot be considered as a substitute: their domestic resource cost is high, and their return to water lower than that of rice.

If farmers in Upper Egypt were to switch to the more profitable crop rotations of short berseem and cotton, wheat and maize, and broad beans and cotton, they would save 1.3 billion cubic meters of water (out of a total of about 74 billion cubic meters that agriculture consumes every year) that could be used to bring new land into cultivation (MALR and FAO 2003).

Upper Egypt has a strong comparative advantage in fruit and vegetables

The supply. Egypt has a strong comparative advantage in nontraditional crops, because of its reliable water source, a climate that allows nontraditional crops to be grown in off-season periods when the international demand is high, a skilled and abundant agricultural workforce (essential for these commodities), and its closeness to export markets in Europe and the Gulf countries. Exploitation of this comparative advantage can be an important source of growth. Average net income per feddan of nontraditional crops is considerably higher than that of traditional ones (Table 2.12). In

43 The AFIS data show that many farmers evade the regulation.
44 Whether these irrigation improvements would enable to save water at the basin or global level is questioned by many researchers.
addition, horticulture crops generate many more jobs per unit of land than traditional crops do, especially at the harvest and post-harvest stage. The relatively important growth observed in the Delta governorates is due in part to the cultivation of fruits and vegetables for the national and international markets.

### Table 2.12 Comparison of small and medium-size holders' net revenue for selected traditional and nontraditional crops

<table>
<thead>
<tr>
<th>LE/feddan</th>
<th>Traditional crops</th>
<th>Net revenue</th>
<th>Nontraditional crops</th>
<th>Net revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cotton</td>
<td>1,197</td>
<td>Cut flowers</td>
<td>21,790</td>
<td></td>
</tr>
<tr>
<td>Wheat</td>
<td>686</td>
<td>Strawberries</td>
<td>20,772</td>
<td></td>
</tr>
<tr>
<td>Maize</td>
<td>499</td>
<td>Green beans</td>
<td>1,737</td>
<td></td>
</tr>
</tbody>
</table>


Upper Egypt has further advantages. Its soil and water are of better quality than those of Lower Egypt, and it is able to market its products earlier because the growing season is three to four weeks ahead of Lower Egypt's.45

**The demand side.** The value of Egypt’s horticultural exports has tripled from 1998 levels, making it one of the strongest agribusiness sectors in terms of investment, export value, and job creation (MALR and FAO 2003). In terms of demand, the international market for fruits and vegetables has been steadily growing, from US$9.2 billion in 1992, to US$15.5 billion in 2001 (Hallam 2004). As shown in table 2.13, nontraditional agricultural products grew faster than traditional ones between 1995 and 2003. Whereas the value of trade in most traditional crops stagnated or declined, most nontraditional crops saw the value of their trade increase over the period. For example, the overall value of international trade in grapes (which are grown in Upper Egypt with a higher productivity per feddan than in Lower Egypt) has increased by 60 percent within eight years.

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45 In a survey of the onion supply chain carried out for Sohag governorate, traders indicated that they start purchasing onions in Upper Egypt and, as the season progresses, they move their purchasing north. They also indicated that Sohag’ onions are of better quality than those of the Delta.
The market for nontraditional agricultural products, far from being saturated, shows higher price elasticity than the market for traditional crops, both internationally and domestically. On the international market, despite a large increase in supply over the past 10 years, most product prices have remained stable.

At present, Egypt exports a mere 5 percent of its fruit and vegetable production, mainly to the neighboring Gulf countries. Exports to Europe are negligible but could grow rapidly, especially to Eastern Europe, if quality were to improve. Export growth is estimated at 5 percent per annum. On the domestic market, the demand for horticultural

### Table 2.13 World export quantities and values of selected agricultural products, 1995–2003

<table>
<thead>
<tr>
<th></th>
<th>Exports quantities (1,000 metric tons)</th>
<th>Exports value (US$ millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Traditional</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barley</td>
<td>20,932.8</td>
<td>22,398.3</td>
</tr>
<tr>
<td>Cotton lint</td>
<td>5,815.8</td>
<td>6,794.6</td>
</tr>
<tr>
<td>Maize</td>
<td>78,245.0</td>
<td>87,584.1</td>
</tr>
<tr>
<td>Rice</td>
<td>22,509.6</td>
<td>27,537.2</td>
</tr>
<tr>
<td>Sorghum</td>
<td>6,660.7</td>
<td>6,099.3</td>
</tr>
<tr>
<td>Sugar cane</td>
<td>38.1</td>
<td>70.4</td>
</tr>
<tr>
<td>Sugar, refined</td>
<td>14,420.5</td>
<td>20,055.8</td>
</tr>
<tr>
<td>Wheat</td>
<td>101,857.9</td>
<td>110,073.4</td>
</tr>
<tr>
<td><strong>Nontraditional</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fruits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grapes</td>
<td>1,917.1</td>
<td>3,118.0</td>
</tr>
<tr>
<td>Lemons and limes</td>
<td>1,258.9</td>
<td>1,886.1</td>
</tr>
<tr>
<td>Mangoes</td>
<td>335.8</td>
<td>919.0</td>
</tr>
<tr>
<td>Olives</td>
<td>12.9</td>
<td>14.8</td>
</tr>
<tr>
<td>Vegetables</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beans, dry</td>
<td>2,524.7</td>
<td>2,795.4</td>
</tr>
<tr>
<td>Cabbages</td>
<td>876.0</td>
<td>1,112.1</td>
</tr>
<tr>
<td>Garlic</td>
<td>448.2</td>
<td>1,437.6</td>
</tr>
<tr>
<td>Onions</td>
<td>3,467.3</td>
<td>5,253.0</td>
</tr>
<tr>
<td>Eggplants</td>
<td>164.1</td>
<td>287.8</td>
</tr>
<tr>
<td>Okra</td>
<td>5.6</td>
<td>4.5</td>
</tr>
<tr>
<td>Tomatoes</td>
<td>3,453.4</td>
<td>4,365.8</td>
</tr>
<tr>
<td>Potatoes</td>
<td>7,426.3</td>
<td>9,096.0</td>
</tr>
<tr>
<td>AMO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sesame seed</td>
<td>548.6</td>
<td>799.9</td>
</tr>
<tr>
<td>Sunflower seed</td>
<td>3,345.9</td>
<td>3,732.7</td>
</tr>
</tbody>
</table>

**Source:** FAOSTAT.

AMO = aromatic, medicinal, and oil plants.
products will be sustained by a population growth rate of 2.1 percent per annum, rising incomes, and high income elasticities. The tourist industry (essentially Aswan and Luxor) is an important source of demand for quality horticulture, as well as for livestock products in Upper Egypt.

Livestock products also have a high potential for growth at sustainable prices. Egypt suffers from a discrepancy between production and consumption of milk and dairy products. Milk consumption has increased at a rate of 3.8 percent yearly, much higher than the population growth rate, reflecting a high-income elasticity of demand of 0.77 (USAID 2002).

Finally, Egypt has entered the export market for aromatic and medicinal plants. This market is difficult to assess, given the number of products involved. However, the World Health Organization estimates that world trade in these products will increase from US$1.4 billion to US$5 trillion in 2050.

But the competition in export markets is fierce. Despite strong comparative advantages, Egypt could lose out to new competitors. For example, China and India, the world’s two largest producers of fresh fruit and vegetables, are improving their production standards, reducing their production costs, and aggressively pursuing old and new market opportunities, not only in the newly expanded European Union, but in the Middle East and eastern Europe as well (USAID 2005).

Conclusion

In the long term, with costs of inputs such as land and water rising to reflect their scarcity, it will be very difficult for Upper Egypt to continue to grow low-value crops that do not maximize net returns per unit of land and water. Nontraditional crops and livestock products, for which there is growing demand both internationally and domestically, maximize such returns and probably represent the best way to increase farm income in a country of small farms and overabundant labor. Although they require complex technologies, nontraditional crops favor small producers: they are labor intensive and provide high returns to labor and land. Raising livestock, in particular, is key to increasing the income of small farmers, as it can be expanded without additional land. These considerations all point to a strategy of development based on the production, processing, and marketing, both domestically and internationally, of nontraditional crops and livestock products, complemented by efficiency gains for traditional crops for which Upper Egypt has a comparative advantage.

Constraints on the development of nontraditional crops and possible solutions

High-value crops and livestock products are a high-risk, high-return business that requires substantial investments in physical and human capital. Before Upper Egypt can turn its comparative advantage into competitiveness, it will be necessary to deal with constraints related to productive infrastructure, agricultural credit, market access and market intelligence, producer organizations, business development, and R&D.
Poor transportation conditions result in high costs, spoilage, and loss of quality

Upper Egypt faces important constraints in terms of market access, notably for perishable fresh products that are highly sensitive to transport conditions. It is estimated that up to 20 percent of the region’s fruit products and 40 percent of its vegetable products spoil during transportation from the farm to the wholesaler. Estimates of tomato losses are as high as 60 percent (Fawzy 2004).

Roads are the main channel for transporting Upper Egypt’s products. The GOE invested heavily to extend the road network over the last decade to address a backlog of investments. The network of paved roads grew from 15,000 km in 1981 to more than 48,000 in 2005 and now provides access to rural areas. But the expansion was done without sufficient attention to maintenance. Without proper maintenance, roads deteriorate rapidly, especially if the original construction was poor. The main arterial road linking Upper Egypt to the main cities in the Delta is aging and probably needs doubling, given the high rate of road accidents and growing traffic congestion. 46 Operating costs for trucks are estimated to be 30–50 percent higher in Egypt than in Lebanon and Jordan (World Bank and Arab Republic of Egypt 2004).

The condition of the road network, combined with poorly trained drivers, and older, poorly maintained trucks prohibits timely delivery of fresh produce from Upper Egypt. The reported delivery time for a refrigerated truck from Toshka to the Port of Alexandria is 36 hours, and, from Sohag, 24 hours (USAID 2005). These extended transit times reduce the shelf life of fresh produce, which in turns reduces their export marketability.

The previous 45 percent import duty on refrigerated trucks, which limited the purchase of new trucks, was lifted in 1998, but the new regulation only recently began to be applied. Current import duties for new refrigerated trucks range from 5 to 10 percent. However, whereas the fleet of refrigerated trucks in Lower Egypt is significant, Upper Egypt has fewer and smaller transport vehicles to cover larger production areas. Maintenance of refrigerated trucks is hampered by the cost and availability of spare parts, itself the result of high import duties for spare parts, and by the lack of trained mechanics. The impact of these constraints on the transportation of horticultural products is severe: A refrigerated shipment can be totally lost in six hours if the equipment is not repaired promptly (USAID 2005).

Access to national and international markets also requires enhanced long-distance transportation facilities for fresh products. Air freight is particularly important. Here again, such infrastructure is lacking in Upper Egypt. The main airports are Luxor and

46 Ministry of Transport and World Bank, Road Asset Management Policy Framework (draft 2005). The lack of quality is caused by a combination of factors—among them inadequate design/maintenance strategies, use of outdated standards and specifications, weak supervision, ineffective contract administration, and limited contractor capabilities (staff and equipment), as well as lack of effective competition traceable to the use of force account labor and public sector contractors with little or no incentives to improve performance.
Aswan in the South, and Assyut in Middle Egypt. However, these airports do not have cooling and packing facilities, although one is expected to be built in Luxor.

This situation may explain the slow development of nontraditional crops in Upper Egypt relative to Delta. Although the net income per feddan of nontraditional agricultural crops may be potentially higher in Upper Egypt, the overall price received by farmers may well be lower because of high transportation costs and high rates of spoilage. This may explain why only small farmers, probably catering to the local cities with limited volumes, have engaged in these activities. It is interesting to note that larger farms (with holdings greater than five feddan) exclusively cultivate traditional crops that are not perishable (except for winter tomatoes; see table 2.5). The production of large farms is dedicated to national and international markets, rather than local ones. If farm gate prices were more rewarding, and marketing could be improved, large-scale farms might consider producing the more profitable nontraditional crops.

An action plan to reduce transport costs for Upper Egypt's exports might include the following elements, among others:

- Expanding the road network into rural areas and doubling the width of the arterial highway.
- Reducing the high maintenance cost of refrigerated trucks by lowering taxes and duties on imported parts and offering training programs for mechanics.
- Improving truck productivity by reducing road congestion through better management of traffic, improved maintenance, lighter loads, and improved road safety.
- Facilitate the establishment of an information system linking road transport with cargo availability.
- Improving the adequacy and efficiency of air cargo facilities to reduce costs and eliminate delays.
- Expanding capacity during peak seasons and providing training in transportation logistics planning for exporters.
- Developing synergies in air cargo with the tourism industry.

**Inadequate post harvest handling practices and the lack of cooling and processing facilities compromise produce quality**

It is estimated that three-quarters of the retail price of foods is traceable to activities occurring after harvest. In Upper Egypt, improper harvesting practices, excessive handling, improper packaging, and unrefrigerated storage facilities all contribute to spoilage and quality loss, compounding the effects of poor transport. The
current practice of open air transportation in gunny sacks and wooden crates severely damages fresh produce.

In addition to reducing waste and loss through better post harvest practices, farmers could receive a much higher farm gate price if they were to grade, sort, and package their produce, rather than selling it in bulk. By simply packaging a common product, such as sweet peppers or dried garlic, the farm gate price could be increased by as much as 40 percent (USAID 2005). Packaging would require basic facilities at the farm or cooperative level, as well as proper training and information from wholesalers on established grades and standards.

Cold-chain systems are essential to maintain product quality from farm to market. Portable cooling equipment—such as trailer-mounted hydro-coolers, forced air cooling units and icing equipment—provides easily accessible, low-cost solutions for small-scale organized producers.

Processing is an alternative to marketing fresh produce. But despite recent additions, Upper Egypt lacks processing facilities. The existing drying, processing, and cold-chain facilities are as follows (Fawzy 2004).

- **Upper Egypt Southern region: Aswan, Luxor, and Qena.** Processing plants are few. However, there is growing interest in investing in new facilities. The El Wadi tomato paste factory recently opened, and the same investor is building a packing station with cooling facilities in Qena. The government and AFRICARE are building two packing stations and two precooling facilities in Wadi El Saida, through which frozen fruits and vegetables will be exported. Many of these facilities are or will be available to farmers’ associations and investors for a fee.

- **Upper Egypt Middle region: Sohag, Assiut, and Menya.** The region is in drastic need of infrastructure. In Assyut, several potato coolers can be adapted to drying other crops. One also finds a drying facility for onions; a pickle factory; extracting plants for jojoba, olive, and medicinal oils; and a tomato processor. Some additional processing facilities are being planned. In Sohag, a new plant for tomato paste was built, and the El Amar Company will bring in portable cooling units for green beans.

- **Upper Egypt Northern region: Beni Suef, Fayoum, and Giza:** This region enjoys a strategic location. It is close to Cairo international airport, most agricultural suppliers, and exporters. Numerous packing, processing, and cooling facilities and many sources of information on technical, marketing, and exporting issues are readily accessible. Finally, the region is close to major domestic markets, including high end segments. A number of exporters and large producers have expressed interest in establishing packing stations in Fayoum, which already has a dehydrating factory for onions, as well as other herbs and vegetables. A new dehydrating plant has opened in Beni Suef. Used now to export onions, it is equipped to dehydrate other vegetables, herbs, and spices.
**Water availability**

Water is becoming increasingly scarce. It is estimated that current use is about 74 billion cubic meters per year. Demand in 2017 is expected to reach 87.9 billion cubic meters. The present per capita availability, less than 1,000 m³ per capita, already represents “water stress” under international standards. The level may drop to 500 m³ per capita in 2025. Agriculture is the primary user of water. It is estimated that investments in canal improvements and better maintenance would save 20 percent of the water now used. Modern irrigation technology (use of sprinklers and drip irrigation) uses 45 percent less water than flood irrigation. Substituting low-water crops (such as wheat and pulses) for high-water crops (such as sugar cane) would save additional water. Fruit and vegetables, while not the lowest users of water per unit of land, produce the highest returns per unit of water due to their high unit value.

**Access to credit**

Access to credit for inputs will be particularly important in raising horticultural production and improving livestock production. Variable costs for horticulture are 90 percent higher than for traditional field crops (Environment Quality International 2003).

Upper Egypt is no exception to the classical credit-market failures that prevent the poor from gaining access to credit. Formal credit through banking institutions (including the Principal Bank for Development and Agricultural Credit, PBDAC) requires land ownership as collateral. Farmers who do not have registered title to their land cannot obtain the low-cost (7 percent) loans available from PBDAC. In addition, loan amounts are restricted. For example the maximum loan amount for a feddan planted in potatoes is LE 2,995, whereas the input costs are close to LE 4,500. Obtaining inputs through cooperatives also requires land titles. From AFIS 2000/1 data, less than 15 percent of the farmers in Upper Egypt obtained short-term (13 percent) or long-term (2 percent) formal credits. Rural credit often is informal. Rich farmers usually extend loans to poorer landowners and tenants in exchange for part of their output. Although limited for religious considerations, usury loans are also available on very short terms, mostly for consumption purposes. Most borrowers in such cases are extremely poor and find themselves unexpectedly in dire needs of financial resources, and must borrow, despite the very high cost.

Although more credit transactions occur in Upper Egypt, Upper Egyptian farmers receive on average smaller loans and at higher rates of interest than in Lower Egypt. Capital is more than twice as expensive in Upper Egypt than in Lower Egypt. This interest rate bias against Upper Egypt’s farmers may reflect differences in perceptions of Upper Egypt farmers’ ability to repay (Moursi and others 2004).

Credit to a larger number and broader range of farmers in Upper Egypt could be channeled through existing public sector banks, in particular the PBDAC. But PBDAC will need to complete its ongoing reform process. The challenge is to determine how best to use the PBDAC to meet the needs of Upper Egypt’s farmers (World Bank and Arab Republic of Egypt 2004). Private sector banks with supporting credit-guarantee
arrangements and financial intermediaries are another alternative. The European Union is financing a successful line of credit to small farmers through the Commercial International Bank (the CIB-ASD program), but the effort is still a limited experiment. Microfinance institutions do not represent a suitable alternative, given their high rates of interest and specific reimbursement requirements that do not fit the agricultural cycle, except for commercial operations such as livestock fattening.

Finally, contract farming between small producers and large producers, agro-processing industries, and exporters often entails the provision of inputs on credit (to be repaid against sales of output sale), usually with a sizeable markup. Uninformed and isolated farmers are often unable to negotiate a contract that includes transparent and fair prices.

**Specific issues relating to livestock products**

Small-scale farmers with one or two cows represent 90 percent of the livestock and dairy sector in Upper Egypt, a sector largely undeveloped compared with Lower Egypt. On the input side, the critical constraints and needed improvements are in the following areas: genetic improvement of the local (baladi) breed through artificial insemination; better animal feed and nutrition; and adequate access to quality veterinary services and inputs. The insufficient feed ratio and low feed quality result from farmers’ inability to purchase feed in adequate quantities or to grow sufficient feed crops on their land. In addition, the main state-owned mill in Upper Egypt produces low-quality feed. Because alternative supplies are more expensive, small farmers revert to buying concentrate from the state mill.

Regarding milk collection and processing, the main issues are the lack of cooling facilities and refrigerated transportation, and rudimentary processing with poor hygiene.

**Special considerations related to horticulture**

Horticultural cultivation requires more and better inputs than field crops. Agricultural inputs (seeds and chemical fertilizers) have traditionally been provided through state-created and operated cooperatives and village banks (such as the PBDAC). The liberalization process was expected to allow the private sector enter the market for inputs. To date, however, the state still allocates fertilizers in three equal segments: through the cooperatives, through PBDAC, and through the private sector. This system is a source of inefficiency and unfair competition between government-owned or controlled entities (PBDAC, the cooperatives) and private sector providers. Cooperatives have not always been able to meet farmers’ requirements, because of poor planning, resulting in either shortages or gluts at the local level, as well as untimely delivery (Fawzy 2004).

High-quality seeds and pesticides, among other dedicated inputs, are a must for horticultural production. Because of difficulties in accessing formal credit, and because cooperatives are less involved in the supply of these nontraditional inputs, most farmers obtain their horticultural inputs through traders as an advance on future crop sales. In addition to the convenience of this system, traders always deliver inputs on time.
However, farmers are often poorly informed about prices of inputs and outputs. They thus have little control over the hidden interest charged in the transaction. They also have little control over the quality and choice of inputs provided through these arrangements.

The fruit and vegetable market is controlled by a few traders, except in Fayoum and Giza, where the competition among traders is high. Often, traders make advance purchases for products. The purchase prices are based on estimated sale prices, which farmers cannot verify. In addition, farmers must pay the cost of handling, transportation, and disposing of unsaleable products.

The situation is especially detrimental for small farmers who, lacking access to information and not being organized to sell directly to wholesalers, have no choice but to sell to local traders. On average, it is estimated that large commercial farmers sell the same product at a price five times higher on urban markets and ten times higher on export markets, than the prices earned by small farmers selling to local traders.

**Specific requirements of the export markets**

The export market has specific and stringent requirements regarding quality. Products must meet the international sanitary and phytosanitary standards (*Codex alimentarius*), regional production norms (as established by EurepGAP,\(^\text{47}\) for example), and specific quality requirements set by importing wholesalers. Product traceability is becoming mandatory in many food-safety regulations, such as EurepGAP. Farmers need training on how to maintain records related to traceability. In the international market for nontraditional agricultural products, producers and exporters must innovate constantly in order to maintain their market share and unit value. To do so, new product lines need to be developed, such as high-care crops, specialty products, and exotic products. These specificities require investments in R&D, professional advisory services for farmers, market intelligence, and quality controls for both generic and specific quality norms and standards.

**Information and capacity building**

Upper Egyptian farmers seeking to introduce more nontraditional crops will require information and capacity improvements to take their places in profitable supply chains. The same is true of other actors in the supply chain. Upper Egyptian farmers need market information about product characteristics, quantities, timing, prices, and so on. They also need technical information on: (i) managing input quality (seeds and pesticides, in particular), (ii) water management for horticultural products, (iii) postharvest practices, and (iv) quality requirements, norms, and standards.

Who will provide this information? Public extension services are not very effective, for well-known reasons, including the low motivation of extension agents, their lack of accountability to producers, their limited means of operation and limited qualifications (only one in four extension agents holds a BsC degree) and their outdated

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\(^{47}\) EurepGAP stands for Euro Retailer Producer Good Agricultural Practices.
expertise, especially with regard to specificities of horticulture production and marketing (Fawzy 2004). In addition, the number of well-trained extension agents in new areas, such as nontraditional crops, is very limited. However, through public-private partnerships, some dynamism could be instilled in these services. Such partnerships could bring together processors or exporters, farmers’ associations, extension agents, and researchers around the promotion of a value chain or sub-sector. With support from the USAID-financed Agriculture Export and Rural Income project, the Faculty of Agriculture of Menya and the Agricultural Research Station in Mallawi are already giving technical assistance to groups of smallholders. Mass media and demonstration farms could disseminate information about potential new products, good agricultural practices, and required inputs and processing techniques. Various private service providers along the value chain could pass information on to farmers.

**The role of farmers’ organizations and contract farming**

The constraints to entering into the production and marketing of high-value crops are overwhelming for farmers with small or very small holdings. Smallholders have no leverage in negotiating contracts with buyers, nor can they acquire even the minimum equipment needed for postharvest sorting, grading, packaging, and cooling. They have little access to private services and information. Two options can be pursued, both with public sector support, to enable small farmers to meet the challenges and take advantage of the opportunities offered by new markets (international and domestic). The two options are farmers’ organizations (cooperatives or associations) and contract farming for larger producing entities.

**Agricultural cooperatives.** Agricultural cooperatives are widespread (6,000 cooperatives and 4.2 million members). The GOE established the cooperatives in the 1960s as instruments of the command economy and to distribute subsidized agricultural inputs. They are managed and staffed mainly by seconded civil servants. Though agriculture today is less subsidized than it was in the 1960s, agricultural cooperatives have retained their role in the distribution of inputs. They provide other services as well, such as marketing of agricultural produce and extension services, but on a limited scale. Most farmers still consider the cooperatives as state agencies. As a result they have limited ownership, and their performance is mixed. Their six-layer structure (primary, district, central, general cooperatives, Central Agricultural Cooperative Union, General Cooperative Union) is rather ineffective.

In the delivery of inputs, the PBDAC competes with the cooperatives. The Ministry of Agriculture and Land Reclamation (MALR), the owner of PBDAC, follows an ambiguous policy in supporting the organization, often in violation of its own reform strategy. PBDAC receives preferential quotas of inputs in short supply (e.g., fertilizer), and its distribution network is highly subsidized, creating an unfair environment for cooperatives.

A comprehensive restructuring process began recently to make agricultural cooperatives into an economic enterprise with a social return, based on optional membership and international cooperative principles, and representing the interest of
their members. The first steps in implementing the reform strategy have been limited to a few pilot cooperatives at the village, markaz, and governorate levels. Once the results of these pilot efforts are available, it should be possible to extend the reform process and make cooperatives member-controlled, efficient, and sustainable.

Farmers' associations. By contrast with cooperatives, farmers' associations are few in numbers (less than 100) and fairly recent: the oldest are no more than five years old. They have been promoted mainly in the context of donor-funded projects (such as USAID's AERI project) or by NGOs (such as CARE's EL-SHAMS project and the Coptic Evangelical Organization for Social Services, CEOSS). Farmers' associations are concerned mainly with providing their members with the services they need to better market their products. Some also play an advocacy role. For example, in collaboration with governorate-level authorities, some associations made recommendations to use locally available inputs to reduce costs in the production of animal feed. Farmers' associations have also been advocating to improve product quality through organic or safe farming, for example, or through improved environmental practices. In some cases, such practices, with NGO support, have enabled members to gain access to international markets.

Existing farmers' associations fall into two main categories:

- **Those with a membership of small farmers who produce and market horticultural products for export.** All such farmers' associations adopt compliance with EurepGAP, which purports to ensure environmental and quality standards from variety selection to harvest and postharvest handling. Fifteen farmers' associations in Sohag, Fayoum, and Qena have succeeded in producing organic products, adopting an integrated approach that promotes innovative safe-water and soil-management practices, reducing dependence on externally produced inputs, and experimenting with alternative environmentally friendly local resources. These associations have received support from CARE-Egypt or CEOSS. A recent evaluation of CARE-Egypt's Agricultural Reform Extension Project in Qena, Sohag, and Fayoum revealed interesting cases of successful farmers' association initiatives.

- **Those with a membership of medium-size and large farmers (subcontracting with small farmers) producing and marketing export-led organic agricultural and horticultural products.** Some cooperate with donor agencies, CARE, and other intermediary organizations.

Contract farming with larger farmers, exporters, and multinational firms. Some international success stories of local growth promoted by large-scale farmers, exporters, or multinational firms exist (Damiani 2002). Such actors are usually better able to manage national and international markets, due to economies of scale and their knowledge of the market. Under the contracts used in successful schemes, small farmers can access inputs or credit and technical assistance. Small farmers have greater leverage when entering such contracts if they are organized and well informed about the market (prices, product characteristics, quality requirements). The role of the public sector is to
provide information to organized small-scale farmers and help them to negotiate and enforce the contract. Policies to promote contract farming could be developed, with incentives for larger farmers and multinational firms to involve small farmers. Such incentives could take the form of fiscal incentives (free zones or tax credit). Long-term concessions on new lands that require important investments supported by the firm could be offered to firms that agree to engage in contract farming.

A potential scheme in support of smallholders entering high-value markets (exports and supermarkets).

The Agricultural Export and Rural Income (AERI) project supports small holders seeking to enter the export market. AERI, a USAID project targeting Upper Egypt, began implementation in 2004. AERI’s final evaluation will be conducted in 2007. Its efforts are already worth highlighting (Box 2.1).

Box 2.1 The Agricultural Export and Rural Income Project (AERI)

The Project AERI combines a number of activities in pursuit of the overall goal of increasing on-farm and agro-business jobs, agricultural employment and rural incomes:

- Interventions in production, to improve cultural practices, such as: the introduction of new and improved varieties, higher quality rootstock and other planting materials, improved production technologies, and more efficient harvest and postharvest handling practices; and

- Interventions in the supply chain, that are critical to the competitiveness of Egypt’s agricultural sector, such as: (i) assisting in the development of developing market intelligence, and meeting the quality standards of international importers; (ii) increasing the volume of high-quality products for exports by linking smallholder horticulture producers to larger producers and exporters; (iii) transferring improved technologies to these smallholders; and (iv) increasing the quality standards of smallholder livestock and dairy production producers for the domestic market. AERI places special emphasis on bridging skill gaps in the agricultural workforce and making government agricultural research efforts more responsive to private sector needs.

AERI has a limited coverage in rural Upper Egypt. Nevertheless, AERI can be considered as a pilot project that is preparing the ground for a more global wider intervention in support of nontraditional agricultural production and marketing.

Constraints facing small enterprises and providers of business services

SMEs will be essential for the development of the value chain in the horticulture and livestock sectors. In turn, they depend for their development on a thriving agricultural sector. Well-informed service providers will be needed in the following areas:

- Input supply (certified seeds, dedicated pesticides, drip-irrigation equipment, animal feed)
- Veterinary services and supply, including artificial insemination
- Greenhouse seedling production
• Market brokerage and intelligence
• Small laboratory testing services (soil, leaf-tissue analysis, pH, water quality to determine fertilizer amendments, as well as pesticide residue testing)
• Advisory services (for a range of advice to farmers concerning input use, soil and water management, use of drip-irrigation systems, quality requirements, traceability, and postharvest handling)
• Rentals of cold-chain equipment rental (portable cooling equipment, small refrigerated trucks) and farm equipment.
• Packing houses
• Milk collection and processing
• Computer and Internet services, equipment and vehicle maintenance and repair
• Business services, in particular technical and financial management.

From a 2000/1 survey, SMEs face four key constraints: (i) low demand (49 percent of urban and 38 percent of rural SMEs); (ii) capital/liquidity (19 percent and 22 percent); (iii) high tax rates (13 percent and 17 percent); and (iv) legal and regulatory constraints (13 percent and 11 percent) (Gavian and others 2003).

Lack of demand is the most salient constraint for 38 percent of rural SMEs. Most of these SMEs cater to local markets that are often impoverished and constrained by the relatively low purchasing power of their customers. They lack the resources (human, financial, and physical capital) and competitive products needed to penetrate external (non-local) markets. Supply-related constraints include difficulties in obtaining quality inputs at reasonable prices and accessing capital and adequately skilled and priced labor.

The development of SMEs is constrained by a heavy-handed bureaucracy and red tape. Starting a SME in Egypt takes between 13 and 91 administrative steps, representing between 52 and 232 days of work (Gavian and others 2003). To declare bankruptcy, 53 steps are required, involving 41 entities, absorbing up to 635 days. Both at entry and exit, bribes add 50 percent to the administrative costs. Other studies (Sala-i-Martin and Artadi 2002) estimate that Egyptian entrepreneurs spend close to 35 percent of their time solving problems related to government regulations.

Thus, important improvements can be obtained through enhanced flexibility and facilitation of the administrative process, especially for SMEs. Red tape tends to fall

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48 In the 2003 Arab Competitiveness Report, Egypt ranked last of 75 countries on the Red Tape Index, an index created by “averaging perceptions of the overall burden of administrative regulations together with an assessment of the amount of time that senior executive typically spend with government officials.”
The GOE recently simplified administrative procedures for small enterprises (under Law no. 141/2004), notably with regard to the cumbersome licensing and registration procedures. The Social Fund for Development (SFD), a new public entity, is to establish one-stop shops for the licensing and registration of SMEs in various governorates. Under the new law, a temporary license may be issued immediately to entrepreneurs who submit the required documents. Within 30 days, the SFD is to provide the entrepreneur with a permanent license.

If the one-stop shop is properly managed, it will constitute a significant improvement from the current situation. However, the extent to which the facility will be relevant for the micro-enterprises that prevail in Upper Egypt is moot. Lack of demand may impede their growth more than regulatory issues.

In addition to providing the one-stop shop, the SFD will also identify investment opportunities: prepare feasibility studies; advise entrepreneurs on risks; assist them in obtaining inputs and machinery; provide and guarantee loans; advise entrepreneurs on production methods, accounting and finance; assist in marketing; and provide opportunities for accessing government contracts, among other things. According to the latest CAPMAS census data, 99.7 percent of private nonagricultural enterprises fall within the purview of this law. This makes the SFD responsible for almost all aspects of private sector development in Egypt. Therefore, it is the likely instrument for providing support to the small enterprises needed to sustain agricultural growth in Upper Egypt.

**SME clusters**

By facilitating linkages and interdependence among firms (including suppliers and buyers), clusters of SMEs can play a significant role in a country's economy and growth. They can help firms overcome the weaknesses inherent in their smallness by providing supporting services (including financial services, information, and training) and promoting a network of firms engaged in production and sales of goods and services. Worldwide, examples of clusters in Europe, the United States, and India have prompted policy makers to provide various forms of support to clusters in their countries.

The United Nations Industrial Development Organization in Egypt recently mapped a sample of 109 clusters in Egypt. Most lack common facilities, including training facilities, measurement and control equipment, product testing laboratories, and equipment available on a pay-per-use basis. In addition, it is not uncommon to find clusters lacking adequate infrastructure, such as connection to electricity or gas, at an affordable cost. More fundamentally, according to the UNIDO report, “a striking feature is the low degree of inter-firm cooperation within clusters,” because of the low level of trust among entrepreneurs, and the horizontal nature of two-thirds of the mapped clusters, with little differentiation along the supply chain. This results in intense competition and lack of trust among SMEs within the clusters (Tardy and Thibault 2003).
Out of the 109 clusters mapped by UNIDO, only 15 were found in Upper Egypt, and most can be considered at an “embryonic” stage. Efforts to promote industrialization in Upper Egypt have not been followed with development of transportation facilities, financial services, or other supporting infrastructure, all of which impinges on the development of Upper Egypt clusters. In addition, SMEs in the Upper Egypt clusters lack marketing skills, adequately skilled labor, and up-to-date machinery (El-Meehy 2004).

Nevertheless, with appropriate support and infrastructure, some clusters could in the medium to long term enhance their competitiveness and play a larger role in generating employment. Clusters in Upper Egypt have to be mapped, their potential competitiveness assessed, and a development strategy developed and implemented. The services to be offered to clusters are essentially not different from those offered to private enterprises and SMEs in general. The difference is that due to geographic proximity services are provided in a more concentrated, specialized, and cost-effective manner. At this embryonic stage of development of most of the Upper Egypt’s clusters, the services they most need are: (i) improved infrastructure and services, (ii) financial services, (iii) facilitation of networking and linkages between firms, (iv) business development services, (v) information services, and (vi) support to start-ups.
3 Enhancing access to social services and basic infrastructure: The role of decentralization and civil society participation

3.1 Why is the provision of rural public goods important?

As mentioned earlier, rural Upper Egypt is lagging behind the rest of the country in the development of social services and public infrastructure. Access to health and education services and a basic physical infrastructure are essential, not only for poverty alleviation but also to support economic development. An adequate infrastructure has long been considered of key importance in measuring a country or region’s ability to diversify its production, take advantage of trade liberalization by allowing the growth of exports, cope with population growth, reduce poverty, and improve environmental conditions. The exact correlation between infrastructure and development is still open to debate. Across countries, a 1 percent increase in infrastructure is associated with a 1 percent increase in GDP (World Bank 1994). Cross-country econometric analysis has shown that government expenditures in basic infrastructure—especially transportation, telecommunications, and electrification—increase national growth rates.49

Investing in infrastructure in rural areas has clear effects on the livelihood of the rural poor. Lower transportation costs reduce input and marketing costs, and, as discussed earlier, enable farmers to shift land use from traditional crops to higher-value—though perishable—crops and dairy products, thereby increasing the revenues from their limited assets.50 Better transportation also increases labor productivity, as it reduces the household time required for many non-farm activities and allows for easier access to non-farm employment. Indeed, expenditures on public goods create assets that are complementary to private investments; therefore, an adequate provision of public goods is key to the productivity of private investments.

Better infrastructure services also affect human capital development: improving local transportation and building safer road networks increases school attendance and the use of health care facilities. In this regard too, the complementarities of public investments are important. For example, it has been demonstrated that access to education and basic infrastructure are positively correlated with rural non-farm employment opportunities (Reardon and others 2000). Together, transportation and the availability of power and communications enable the promotion of off-farm economic activities, as is evident from China’s success in promoting rural enterprises (De Ferranti 2005).

In what follows, we examine the situations and issues surrounding the provision of public goods in Upper Egypt.

49 See in particular, Canning 1999 and Sanchez-Robles 1998.

50 In Vietnam for example, Deolalikar (2001) demonstrated that road investments in poorer provinces have positive effects on agricultural productivity and the growth of per capita industrial output.
3.2 Less access to social services and basic infrastructure

Upper Egypt suffers from a developmental gap in the areas of health, education, and access to basic infrastructure (Table 3.1).

<table>
<thead>
<tr>
<th>Table 3.1 Social development indicators in Lower and Upper Egypt</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lower Egypt</strong></td>
</tr>
<tr>
<td>Life expectancy at birth (years)</td>
</tr>
<tr>
<td>Infant mortality (per 1,000)</td>
</tr>
<tr>
<td>Underweight below age 5</td>
</tr>
<tr>
<td>Infant mortality below age 5 (per 1,000 births)</td>
</tr>
<tr>
<td><strong>Education</strong></td>
</tr>
<tr>
<td>Primary school enrollment rate</td>
</tr>
<tr>
<td>Secondary school enrollment rate</td>
</tr>
<tr>
<td>Adult literacy rate</td>
</tr>
<tr>
<td><strong>Basic infrastructure</strong></td>
</tr>
<tr>
<td>Percent with access to sanitary drainage</td>
</tr>
<tr>
<td>Percent with access to drinking water</td>
</tr>
<tr>
<td>Percent with access to electricity</td>
</tr>
<tr>
<td><strong>Communication infrastructure</strong></td>
</tr>
<tr>
<td>Number of telephone lines (per 100) individuals</td>
</tr>
<tr>
<td>Number of post offices (per 10,000 people)</td>
</tr>
</tbody>
</table>


The differences in health indicators can be attributed, in part, to Upper Egypt’s relatively limited access to health services (measured by the number of nurses, doctors, and hospital beds per habitant). The relative lack of basic drinking water and sanitation infrastructures also plays a role. Thirty-six percent of the population has no access to pipe water, and 17 percent is without sanitary drainage. As is well known, the availability of such infrastructures has an important impact on health. There is a regressive correlation between poverty in Upper Egyptian communities and the availability of water and sanitation services (World Bank 2005). Lower per capita income translates into lower nutritional status and poor hygiene.

Table 3.1 also reports a lack of communication infrastructure (telephone lines and post offices) in Upper Egypt, as compared to the Delta governorates. In general, the region is characterized by inadequate or insufficient basic infrastructure, including communication, electricity, and roads.

3.3 Poor service quality

In addition to Upper Egypt’s lower level of access to basic infrastructure, the quality of available services is often questionable, as is the efficiency of service delivery.
The issue of poor road conditions and maintenance was mentioned earlier. Agricultural extension agents have also been cited for not being accountable to their clients, the farmers, and for not always providing the most relevant or the most up-to-date services. As for the quality and performance of the educational system—which affects poverty levels most—they are severely compromised by an overly centralized control system and widespread inefficiencies. In a nutshell, curricula are no longer relevant for today’s economic realities, so students acquire few work-related skills. The current system does not promote educational quality. Teachers are not properly evaluated; they receive salary increases based on years served, not on performance, and cannot be terminated. There is no incentive to encourage the professional renewal of staff, and teacher absenteeism is widespread. Resources are misallocated, with the largest share of expenditures going to administration instead of classroom teaching.

Educational quality is worse in rural areas than in urban, and worse still in Upper Egypt than in Lower Egypt. In Upper Egypt, 50 percent of public preparatory schools have pass rates below the national average (for the national end-of-stage examinations), compared to 27 percent in Lower Egypt and 3 percent in urban governorates. Upper Egypt also has the highest rate of dropouts: 73 percent of all children complete primary school, compared with 87 percent in urban and 82 percent in Lower Egyptian governorates, respectively (UNDP and Institute of National Planning 2004). In the health sector, the best and most qualified personnel are to be found in cities; highly trained doctors are seldom assigned to rural areas, nor would they readily accept such an assignment.

3.4 Revisiting public investments and fiscal transfers in Upper Egypt

Fewer per capita public investments, but the trend is changing. Upper Egypt has been receiving a smaller share of public investments, though the fifth five-year plan is redirecting some investments to the region. The lower level of social indicators and access to services in rural Upper Egypt is, in part, the consequence of lower public investment in the region compared to other parts of the country. As shown in figure 3.1, Upper Egypt—excluding the tourist governorates of Aswan, Luxor, and the governorate of Gize—had the lowest per capita public expenditures over the period 1997–2002, despite the greater need for social services and lack of basic infrastructure in the region. The fifth five-year plan has begun to attenuate the bias (Figure 3.1). Public expenditure allocated to Upper Egypt under the plan51 is LE 1,102 per capita, up from LE 907 per capita under the fourth five-year plan and slightly above the expenditure in Lower Egypt of LE 1,068 per capita.

51 Not counting the tourist governorates Aswan, Luxor, and Giza.
For various social services and infrastructure, the actual per capita disbursements for the first year of the fifth five-year plan reveal that investments are very modest but at least not less than per capita investments in the Delta governorates (table 3.2). For education and electricity, spending is actually higher in Upper Egypt, but it still lags behind Lower Egypt for health, drinking water, and sanitation.

Table 3.2  Per capita social services and infrastructure in Lower and Upper Egypt in the first year (2002–3) of the fifth five-year plan

<table>
<thead>
<tr>
<th></th>
<th>Health</th>
<th>Education</th>
<th>Electricity</th>
<th>Drinking water and sanitation</th>
<th>Other social services</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lower Egypt</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investment (LE 1,000)</td>
<td>44,177</td>
<td>108,976</td>
<td>6,303</td>
<td>243,644</td>
<td>21,806</td>
<td>364,502</td>
</tr>
<tr>
<td>Per capita (LE)</td>
<td>12.47</td>
<td>30.77</td>
<td>1.78</td>
<td>68.80</td>
<td>6.15</td>
<td>102.93</td>
</tr>
<tr>
<td><strong>Upper Egypt</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investment (LE 1,000)</td>
<td>25,989</td>
<td>16,724</td>
<td>8,511</td>
<td>145,764</td>
<td>17,429</td>
<td>314,406</td>
</tr>
<tr>
<td>Per capita (LE)</td>
<td>8.60</td>
<td>36.55</td>
<td>2.75</td>
<td>47.76</td>
<td>5.6</td>
<td>104.35</td>
</tr>
</tbody>
</table>

Should higher levels of per capita public investments be considered in Upper Egypt? Transfers from the center to Upper Egyptian governorates are potentially a key tool for narrowing the development gap between Upper and Lower Egypt. While allocations under the fifth five-year plan are beginning to correct some earlier imbalances, given the low level of public services to start with in the region, one may argue that Upper Egyptian governorates need more than an equivalent amount of spending to achieve similar levels of human development indicators. With the metropolitan areas receiving public investments of LE 2,233 per capita, the most noteworthy discrepancy is between the metropolitan areas and all the other regions of Egypt—though it is smaller in the fifth five-year plan than previously.

A policy bias favoring urban investments has been observed in other countries as well. The World Bank carried out a cross-country econometric study to understand the impact of concentrated urban investment on national growth. While low levels of urban concentration have a positive impact on national growth, excessive levels slow national growth and draw resources away from productive investments and innovation, especially harming nonagricultural sectors in rural areas—more so than agricultural (De Ferranti 2005). The GOE may thus consider diverting to the rest of the country (in particular to rural areas as well as secondary and tertiary cities) some of the public investments presently going to the large metropolitan areas.

A major issue: fiscal resource transfers are hampered by the weight of the wage bill. Only about 10 percent of fiscal transfers go to actual investments (table 3.3), as the wage bill represents a very large (close to 90 percent in 2003/4) and growing share of local government expenditure (up from 82 percent in 1994/5). Although this is a nationwide phenomenon, it is likely to be relevant in bridging Upper Egypt’s development gap, as it severely restricts governmental ability to reallocate fiscal resources to priority governorates and programs. However, there is a high political cost attached to the compression of the wage bill or to the reassignment of public employees.

<table>
<thead>
<tr>
<th>Year</th>
<th>Wages as share of current spending on local administration, 1995–2004</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percent</td>
</tr>
<tr>
<td>82.3</td>
<td>84.1</td>
</tr>
</tbody>
</table>

Source: People’s Assembly 2005.

Central government transfers are not based on poverty levels. In many countries the allocation of central transfers is formula-based, with the objective of either compensating for poverty (Indonesia, India), below-average GDP (EU cohesion funds), or narrow tax bases (Canada, Australia). In all cases, the formula compensates for the fact that, economically, the least developed territories have the lowest capacity to generate their own resources for public investments, thereby generating a vicious cycle of self-perpetuating poverty.
Similarly, one would expect that, in Egypt, those governorates with the worst poverty indicators and therefore the least access to own-source revenues would be receiving the most from central transfers to fund their expenditures. However, while there is a wide range of per capita GDP values across the governorates—from $2,245 to 3,693—there is no relationship between a governorate’s level of economic development and the amount of central transfers it receives (figure 3.2). In other words, the allocation of central transfers is not based on need. Econometric analysis by Amin (2005) suggests that the allocation is according to population, not poverty; moreover, the higher the human development status of a governorate, the higher the amount of transfers it obtains from the central government.

**Figure 3.2** Government transfers not related to poverty levels

![Graph showing government transfers not related to poverty levels](image)

3.5 Decentralization for more efficient resource use and better-quality public services

*Is increasing public investments per capita sufficient?* As highlighted above, the quality of infrastructure and services at the local level is poor. Simply increasing public spending—without seeking improvements in the efficiency of that spending—is unlikely to reap substantial benefits (World Bank 2004). Service quality and the manner in which investments are financed determine the effect of those investments on economic growth and household welfare. A study of the effects of infrastructure investments on economic growth in Mexico revealed that an increase in the efficiency of infrastructure services

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52 The frontier governorates and the most affluent (predominantly urban) governorates are excluded from the analysis (Port Said, Cairo, Suez, Damietta, Giza, and Ismaeliya).

53 This is a longstanding phenomenon. In 1986/7, average per capita expenditure in the frontier governorates was LE 305/year, in major commercial areas it was LE 94/year, in Delta governorates LE 59/year, and in Upper Egypt LE 49/year (Mayfield 1996).
(holding the stock constant) contributes approximately the same amount to economic growth as an increase in the stock of infrastructure (holding its efficiency constant) (De Ferranti 2005). Because resource transfers for investments are limited, and needs are great, the GOE may want to put a special emphasis on improving the efficiency of public spending.

Though the transfer of responsibilities to local governments and the increased involvement of civil society are unlikely to be panaceas, experience in a number of countries has shown that resource allocation may be more efficient and investments more sustainable when administrative and fiscal authority is decentralized and local communities become involved in decision-making processes.

Administrative decentralization shifts the decision-making authority over programming, budgeting, and service delivery to lower levels of government, and leaves policy making, the setting of standards, controlling, and monitoring to the center. It brings decision-making processes closer to stakeholders, improving the quality and time frame of responsiveness to local needs and conditions. It allows local people to participate in decision-making processes and makes the accountability of public services to their beneficiaries possible. It also reduces efficiency losses in bureaucratic procedures and allows for better coordination at the local level, whereas coordination between line ministries from the central level is nearly impossible. Stakeholder involvement in resource-allocation decisions promotes transparency in resource allocation and the accountability of public services. In education, for example, teachers’ accountability is increased with the participation of parent councils in school management. The ongoing decentralization of water management through water-user associations (tertiary canals) and water boards (secondary canals) is aimed at ensuring the fair distribution of water, as well as achieving more efficient use of water resources and improving maintenance. Finally, fiscal decentralization provides some discretionary authority to local governments for raising revenues and allocating resources. This provides a closer fit between local programs and budgets and local needs and priorities. Fiscal decentralization also makes it possible for local communities to contribute to costs and introduces user-cost recovery.

The following pages investigate the elements of a decentralized agenda and the potential for civil society participation in improving service delivery and the allocation of scarce public resources.

Egypt is presently highly centralized, leaving little room for participation and decision making at local levels. Annual development plans and their concomitant budgets are grounded in five-year plans for socioeconomic development, prepared by the Ministry of Planning and Local Development (MOPLD), which plays a leading role in this respect. The MOPLD holds key information on the development status of all sectors at the national as well as the governorate levels.54

54 More specifically, the key functions of the MOPLD include: (a) undertaking studies to determine national objectives of socioeconomic development; (b) determining the general framework of economic and social development plans; (c) preparing the five-year plans, within which capital investment budgets
The local administrative system is governed by Local Administration Law No. 43 of 1979. The country is divided into 26 governorates and one city (Luxor) with a special designated status. There are two types of governorates: (a) one-city governorates that are divided into urban quarters (such as Cairo and Alexandria); and (b) complex, multicity governorates that are subdivided either into markaz (local administrative units) and villages, or into cities and urban quarters. Under the present framework, there are five levels of local administration (figure 3.3)—governorate, markaz, city, urban quarter, and village—each of which represents a legally recognized “local unit.”

**Governor’s authority.** The governor is appointed by presidential decree to represent the government’s executive authority at the governorate level. He has full authority over staff in the service and productive units, departments, and directorates (branches of central ministries in governorates), as well as public utilities. The governor is, according to local administration law, also responsible for: (a) promoting agriculture and industrial production, (b) maintaining public security, and (c) supervising public utilities and governmental agencies. However, the governor has no authority over directorates’ policies or expenditure and revenue assignments, even though he is legally given financial and administrative authority over directorates with decentralized budgets. The governor lost authority to transfer budget allocations from one bab, or budget chapter, to another, or from one project to another (for example, from a school to a hospital) within a bab (World Bank 2005).

The exception is the expenditure of the governor’s diwan el-a’am, or private office, which typically only represents around 8 percent of total governorate spending. This budget includes the following sectors: industry (only mechanized slaughterhouses and factories for recycling solid waste into fertilizer), transportation (local bridges and road pavement), public utilities (surveying and drawing maps for utilities and means of transportation), services (traffic, civil defense, fire brigades, and utility police), and informal settlements (for drinking water, sanitary drainage projects, road pavement, street lighting, and tree planting). The governorate identifies needs and implements services. The central ministry in charge of local development is responsible for the governorate’s headquarters budget.

**Directorates of ministries and agencies.** The directorates are the branches of the central line ministries. The local administration law stipulates that “local administration units undertake—within the scope of the state general policy—the management of all public utilities falling within their respective areas, except for national utilities and those designated by Presidential Decrees as of particular nature.” These units cover the

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55 The term “local units” is used to describe the various levels of local administration.

56 Article (3) of the Local Administration Law No. 43 of 1979 and its Executive Regulations according to the latest amendments.
sectors of education, health, housing, social affairs, provision and supply affairs and internal trade, cultural affairs and information, youth and sports, electricity, industry, craft industries and cooperative production, and endowments (awqaf).

The budget of the directorates, which represents about 92 percent of the total annual budget of the governorate, is prepared and executed under the supervision of the central bodies with which the directorates are affiliated (ministries and public authorities). The responsibilities of local administration units are confined to supervising the implementation of government policies and plans at the local level. Decisions concerning project strategies and annual budgets are made at central-level ministries. However, the governor can influence the decision-making process at the central level by communicating directly with the concerned ministers or heads of various agencies.

Utilities that are not mentioned in the local administration law are centrally managed. These include agriculture, water resources and irrigation, interior affairs, mass media, finance, planning, tourism, administrative development, public business, and petroleum. The investment budgets of these utilities are prepared centrally.

The rigid hierarchical system of local administration obstructs horizontal-level coordination among the branches of central ministries (directorates) established at the governorate level. The allegiance of local officials is toward their ministerial headquarters, which manages rewards and sanctions and has total control over officials' careers.
Figure 3.3 The administrative system in Egypt

Central Administration

President of the Republic
Council of Ministers
Prime Minister
Governors' Council
Economic Regions
Ministry of Local Development
General Secretariat of Local Administration

Governorate
Governor
Governorate Local Popular Council
Governorate Executive Council

Complex Governorate
Markaz
Villages

One-City Governorate
City
City
Urban Quarters

Administration at Local Units
Planning and budgeting at the governorate level. Each local unit (governorate, markaz, city, village, or urban quarter) prepares its own budget, including estimated revenues to be collected and expenditures to be disbursed during the fiscal year. The preparation of investment budgets at the governorate level is supposed to be based on the identification and prioritization of needs by lower-level units. Nevertheless, in practice, ministries and central agencies determine the needs of local units, since it is believed that the latter do not have the technical capabilities to diagnose local communities' problems and identify appropriate solutions. Because of this, resource allocation is centralized (Figure 3.4).

Figure 3.4 The planning process in Egypt

People's Assembly (Parliament)

Central Agency for Organization and Administration, Ministry of Planning, National Investment Bank, and Ministry of Finance

Presentation of budget proposal for approval.

Ministry of Local Administration

Submission of budget proposal for discussion and approval.

Governor presents to Local Popular Council of governorate and to Higher Committee for Regional Planning

Compilation of budget proposals of all local units of governorates (markaz plans including villages, and cities’ plans including urban quarters).

Proposal and list of plans according to needs and priorities.

Local units
Villages and markaz (rural), or urban quarters and cities (urban)
Primary stakeholders in the planning process. The major stakeholders in planning and decision-making processes at the governorate level include:

- **The elected local popular council.** Members of local popular councils are "representatives of civil society." These councils are the legal bodies entitled (under the local administration law) to approve the annual plan of the local unit and certify the final accounts. Instituted by Law 52 (1975), the right of elected councils to question officials on spending was revoked by Law 43 (1979). After regional planning authorities and committees were instituted in 1979, the legal subordination of authorities to the Ministry of Planning has resulted in continued centralization and control by this ministry (El-Azzazi 2004). Hence there is no effective counterweight at the local level to the pressures that upward accountability places on local officials. Generally speaking, the extent to which the local popular councils can play the role that the law assigns them depends on the governor's approach to civil society participation. He can allow the local popular council exercise its power or not.

- **The executive council of the local units (governorate, markaz, city, or village).** These include managers of service directorates and officials responsible for small-scale projects directly financed and implemented by the governorate, as well as for the lower levels, representatives of service directorate managers, and representatives of governorate officials. The local administration law states: "It is not admissible for local units to add any projects or activities related to spheres of economic and social development which are not listed in the five-year plan of the State."

- **Fiscal centralization.** Law 43 (1979) allows governorates to retain 50 percent of revenues over target levels, but, in practice, the Ministry of Finance set the thresholds so high that the governorates cannot use this facility (UNDP and Institute of National Planning 2004). Governorates are permitted by law to hold special accounts for most services, subject to Ministry of Finance approval. In practice, the fiduciary concerns raised by these accounts have been disproportional to their value. Law 105 (1992) instituted mandatory ex ante Ministry of Finance audits, whereas the average value of the 5,564 special accounts in 2002 was as little as LE 255,000 (UNDP and Institute of National Planning 2004).

### 3.6 Existing participatory mechanisms and initiatives in support of local development

In this otherwise quite centralized and non-participatory environment, the GOE, with support from donors, established a number of programs to encourage local group initiatives and promote local development and participation: the Shorouk program and its Local Economic Fund for Development, the Social Fund for Development, and the Emergency Fund. These programs can be seen as innovators and demonstrators of approaches to decentralized, participatory decision making and management. This section
reviews the lessons to be learned from these mechanisms for the broader application of decentralization.

**The Shorouk program**

The National Program for Integrated Rural Development (Shorouk) was established in 1994 with the objective to improve the quality of rural livelihoods and promote local community participation in the development process. The program embodies a comprehensive concept of rural development, defined as: “a planned upgrading change process undertaken by local community residents to induce a comprehensive and integrated advancement in all life aspects of that community on the basis of a democratic methodology and cooperated with government aids” (Moharram 1997, p. 3). Development is expected to occur as a result of effective grassroots participation in designing, planning, and implementing local development activities through the mobilization of available local resources. Under the Shorouk program, participation is not just a means, but a goal in itself.

The objectives of the program are:

- Local environmental development through upgrading basic infrastructures to rationalize the use of natural resources and environment sanitation.

- Local economic development through enhancing the income levels of rural citizens, increasing job opportunities, and diversifying income sources.

- Local human development through upgrading the quality of social services such as family planning, and enhancing citizens’ social responsibility and participation in development through sensitization.

- Institutional development through promoting decentralized development processes and increasing reliance on local and popular participation.

- Responding to locally defined objectives for community development, including drinking water, sanitary drainage, roads, transportation, health, education, etc.

**Implementation mechanisms.** A participatory approach to planning and implementation involves the identification of needs and priorities by local communities, with the active involvement of civil society, as well as financial contributions to project costs (in cash or in kind). The program was designed to encourage, as much as possible, bottom-up development, thus contributing to the promotion of decentralized rural development.

The implementation of the Shorouk program is based on the formation of committees at three levels (village, markaz, and governorate) comprising locally elected

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57 The analysis of the performance of the Shorouk is based on Ida Christensen’s unpublished paper (2004).
and traditional (or "natural") leaders, civil society members, and appointed executive officials. Figure 3.5 illustrates the setup of the Shorouk structure.
Figure 3.5  Structure of the Shorouk program

(4.1) The Shorouk Secretariat (ORDEV) has 4 central Coordination Committees for:
- Committee for basic infrastructure.
- Committee for human development.
- Committee for economic development.
- Committee for development of rural woman.
(4.2) The Shorouk Technical Committee.
(4.3) The Shorouk Higher Consulting Committee.

- (4.1) Coordination Committees include participation from 6 ministries, government authorities and agencies as well as popular bodies.
- (4.2) Executive Committee includes 30 experts of various specialties.

Shorouk committee chaired by governor, includes 4 groups:
(3.1) members of local popular elected governorate council,
(3.2) Four representatives of each of the committees 2.1, 2.2, 2.3, and 2.4 below.
(3.3) Representatives from NGOs.
(3.4) Members of the governorate executive council (appointed).

(2.1) Committee of local popular elected district council
(2.2) Four representatives of Shorouk village committees.
(2.3) Members of district People’s and Shour’a Councils
(2.4) Members of district executive council (appointed).

Total no. of Shorouk committees in Administrative Centres: 185 committees with 6,735 members.

(1.1) Committee of Delegates
(1.2) Committee for development of rural women
(1.3) Shorouk committee at local unit composed of representatives of 4 groups: (a) Local elected popular village council (b) NGOs (c) members of executive council (appointed) (d) representatives of “natural leaders”.

- (1.1) Total: 1,130 committees with 32,117 members.
- (1.2) Total: 1,130 committees with 11,632 female members.
- (1.3) Total 1,130 committees with 33,746 members.

At the village level, committee delegates (both men and women) are drawn from volunteers in villages. They are the link between the community and the Shorouk committee at the local level. They mobilize citizens from satellite villages and hamlets to participate in the program, and collect their needs and priorities to be forwarded to the Shorouk committee at the mother village level.

The Shorouk committee at the village level concentrates on planning Shorouk activities, distributing financial resources to projects, and supervising community contributions (in cash or in kind) and the overall implementation of projects planned. The subcommittee for women is in charge of mobilizing women to participate in developmental activities.
At the district level, the Shorouk committee concentrates on distributing financial resources (government or foreign) to projects included in the program plans, as laid down by Shorouk committees at the village level.

At the governorate level, the Shorouk committee focuses on (a) distributing government and foreign financial resources available to the program at the governorate level, and (b) monitoring the implementation progress.

At the national level, the Organization for Reconstruction and Development of the Egyptian Village (ORDEV), under the ministry in charge of local development, is the technical secretariat for the Shorouk program. It draws general policies for the program through four committees, distributes financial resources to governorates—drawn from the state general budget—and monitors overall conformity with Shorouk mechanisms.

Main activities. In its original design, the program was expected to address all aspects of development: human, institutional, environmental, and economic. Activities were selected and approved through Shorouk committees for local units, with funding earmarked by the markaz- and governorate-level committees (Moharram 2003). The first phase, 1994–2002, was considered an establishment phase. By the end of 2002, the program was expected to have been implemented in all Egyptian villages.

Investments during the period 1994/95 to 2001/02 reached about $375 million (about LE 1,88 billion), including 29 percent from personal contributions. Most of the investments (almost 76 percent) went to infrastructure, mainly to rural water and sanitation (51.5 percent). The rest of the funding went to social development (16.3 percent) and economic development (7.8 percent) (Institute of National Planning 2003, p. 94). Funding source, in the same period included: (a) 56.8 percent financial resources drawn from the state general budget; (b) 33.5 percent beneficiary contributions (mostly in kind, e.g., the provision of labor); and (c) 2.6 percent foreign grants.

The economic component of the Shorouk program: the Local Economic Fund for Development. The Local Economic Fund for Development was created as an autonomous entity by Presidential Decree No. 310 of 1978. It is considered the economic development component of the Shorouk program. The fund supports productive projects at the village level through lending to individuals, civil society organizations, private companies, and juridical personalities. It funds the following activities under its loan program: (a) commodity production projects such as agricultural and animal production, agro-industrial, and small and medium-sized projects; (b) the marketing of agricultural products; and (c) other income-generating activities, such as the repair and maintenance of agricultural machinery, irrigation services, medical and veterinary clinics, etc.

The fund’s criteria for project selection include: (a) the net economic return must cover loan payment installments; (b) the project should create job opportunities for youth and women; and (c) the project is environment-friendly. Loan size is not to exceed 80 percent of the value of the investment required.
The term of loan payment ranges from two to four years and the grace period depends on the type of activity financed (e.g., the specific agricultural cycle). Collateral requirements include: (a) checks to be drawn on lenders for the value of installments and the due cost of lending; (b) material or project assets (real estate or land); or (c) a guarantor with proven ability to repay the loan.

Loan application and approval procedures are rather lengthy and complicated. The fund enters into a contractual agreement with the local unit, which in turn concludes a contract with the beneficiary. The fund holds the local unit responsible for the accuracy of data and, more importantly, the repayment of the loan.

**Shortcomings in implementing the Shorouk program.** Despite its underlying decentralized philosophy, it is widely acknowledged today that the Shorouk program has diverged from its original design as a vehicle for effective, participatory, and integrated rural development. Its major challenges have included the facts that:

**Representation in the committees is problematic.** Members are selected or confirmed by the head of the Village Executive Council, which is also the direct superior of many of the members. The quotas in the Shorouk committee guidelines—one-quarter community development associations (CDAs), one-quarter traditional leaders, one-quarter executive council, and one-quarter local council—is not followed. This results in an over-representation—whether in number, power, or both—of members of the Village Executive Council. Despite the program's requirement that the head of the local Shorouk committee be democratically elected from among nongovernmental members, most committee heads are appointed government officials. This raises concerns about the extent of rural Upper Egyptian participation and proper popular representation at the local level.

**Shorouk committees have weak organizational and decision-making capacities.** They are not institutionalized bodies, are not governed by internal statutes or bylaws, and have little transparency and low accountability. They are often too large and their mandate is unclear or unshared among their members. Members' roles are insufficiently defined in the processes of prioritizing needs and planning and monitoring community development projects. There is insufficient capacity to mobilize and lead locally driven initiatives in a truly participatory manner.

**Participation is limited and "elite capture" is not uncommon.** Shorouk committee membership is not sufficiently and frequently renewed. Influential committee members choose and prioritize the needs of the villages according to their knowledge of what can be feasibly funded (and often according to their own interests).

**The administration is heavy handed.** As a government program, the Shorouk deals with public funds in accordance with government rules and regulations. Hence, it is not spared the administrative complications and lack of credibility that characterize government programs in the country. Local communities often do not trust the program's capacity to deliver.
Despite its shortcomings, the Shorouk program has the potential to implement participatory, demand-driven local development. The Shorouk program's participatory principles have been somewhat distorted in its project implementation. However, given its context, it has made very important steps toward introducing participatory, demand-driven approaches to local development. This should by no means be underestimated. The Shorouk program: (a) is the only institutional mechanism that includes the voices of NGOs, women's groups, and natural leaders in a joint decision-making process alongside executives and local popular councils; (b) is the most far-reaching rural development mechanism, both in terms of national coverage (it is present in nearly every mother village) and in responding to the needs and priorities of people at the lowest levels of satellite villages and hamlets; and (c) has accumulated 10 years of experience and established itself firmly in the rural development scene.

Social Fund for Development (SFD)

SFD was established in 1991 by Presidential Decree No. 40 to protect and improve the status of the poor and the unemployed during a period of economic transition. It is one of Egypt's major social safety net programs and is focused on creating employment for vulnerable groups, especially in the rural non-farm sector. Target groups include new graduates, unemployed youth, displaced public workers, and female heads of households. It has been financed by the government of Egypt in cooperation with the World Bank, the European Union, Arab Funds, and other donors. The SFD is an autonomous governmental agency directly under the prime minister.

Objectives. The SFD's objectives are (a) the creation and implementation of a set of core programs to address the urgent needs of the target groups; (b) the provision of employment opportunities; (c) the channeling of additional public investments toward social services, with special emphasis on health and education; (d) the creation of mechanisms to protect vulnerable population groups and improve their living conditions; and (e) the support of civil society participation in the planning and implementation of projects serving target groups.

Activities. Its main activities include (a) the small enterprises development program (71 percent of total budget), promoting employment and income-generating opportunities in the small and micro enterprises sector; (b) the community development program (11 percent), creating income-generating employment opportunities for low-income groups and encouraging local participation in productive activities; (c) the public works program (10 percent), providing and improving essential infrastructure and services in low-income rural and urban areas; and (d) the human resources development program (8 percent), responding to the needs of public sector employees during and immediately after the restructuring of the firms that employ them.

Implementation mechanisms. SFD operates through 27 regional offices covering all of the country's governorates and performing the following tasks: (a) providing information about SFD objectives and ways to access and use SFD resources; (b) determining basic community needs; (c) identifying the appropriate governmental and nongovernmental organizations to act as sponsor agencies, and enhancing their technical
and managerial capacities to effectively play this role; (d) studying the needs of regional communities in the light of SFD program priorities; (e) promoting people’s participation and private initiatives in project planning and implementation; (f) monitoring and following up on project implementation and collecting loan installments from sponsor agencies; and (g) supervising and conducting field studies to assess the impact of SFD projects on beneficiaries.  

Regional SFD offices assist in the preparation of integrated project documents. Based on these, the SFD decides to finance proposed projects and proceeds to draw contracts with the implementing agencies. SFD identifies target groups and selects projects according to the criteria shown in Table 3.4.

58 More details on SFD’s administrative setup are available at http://www.sfdegypt.org/offices.htm.
Table 3.4  Target groups and selection criteria of the Social Fund for Development

<table>
<thead>
<tr>
<th>The program</th>
<th>Target groups</th>
<th>Selection criteria for projects</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Expanding employment and income-generating opportunities in the small enterprises sector. Utilizing appropriate technology. Providing marketing and quality control. Ensuring financial viability. Ensuring project sustainability. Assessing the managerial capacity of the sponsoring agencies.</td>
</tr>
<tr>
<td>Public works</td>
<td>Low-income families in rural and impoverished urban areas. The unemployed, particularly new graduates. Individuals living in unserviced areas. Small local contractors. Individuals working in the public work projects.</td>
<td>Promoting labor-intensive projects. Determining the environmental and social impacts of the projects. Encouraging the participation of the target groups in project implementation. Assessing the managerial capacity of the sponsoring agencies.</td>
</tr>
</tbody>
</table>

Shortcomings in implementing SFD programs. Despite the requirements of civil society participation in SFD, it appears that the structures and mechanisms in place do not allow for local participation in rural Upper Egypt. For example, there is no clear-cut structure or method to encourage civil society participation in making decisions about material contributions. Under its public works program, SFD deals with government authorities, such as the Ministry of Water Resources and Irrigation, the Ministry of Agriculture, and drinking water and sanitary drainage authorities. Civil society participation in these types of projects is very limited, if not absent.

Another constraint is the urban bias of SFD activities. In its community development program, SFD primarily deals with well-established civil society
associations with adequate financial and human resources. Such associations are mostly found in cities. Moreover, SFD regional offices at the governorate level operate very much in isolation from other stakeholders engaged in development projects, allowing for minimal coordination of activity.

**Emergency Fund**

Given the concern for the widening development gap between rural and urban areas in Egypt, the Emergency Fund (also known as the Urgent Plan) was established in 1998 upon the request of the prime minister. In addition to funds accessible through the Shorouk program, every village, regardless of its size or level of poverty, is allocated LE 250,000 per year under the Emergency Fund to implement projects of its choice, mainly to improve infrastructure, health, and education. In addition, each village has access to LE 1 million per year for micro-loans to poor households. This line of credit is administered by the Social Development Fund through NGOs. The decision on how and where to invest the funds is given to local units without interference from the central government.

The Emergency Fund has a number of advantages: (a) it provides opportunities to meet urgent needs in rural areas; (b) in some cases, it has more resources than the Shorouk program; and (c) it can finance projects that are not included in other plans. However, it is not without problems, including conflict in some areas with Shorouk program mechanisms. The Emergency Fund requires no beneficiary contribution for activities that might be identical to those for which the Shorouk program requests a community contribution. There is interference from some political leaders in the orientation and direction of the projects; cases of duplication of activities; and alleged inequity in the distribution of funds.

### 3.7 Civil society in Upper Egypt

The previous section reviewed promising mechanisms and initiatives for involving local groups and communities in decision-making processes. If civil society is to play a more important role at the local level in planning, setting priorities, and managing development activities, what is its scope? What are its strengths and weaknesses? Can its strengths be built upon?

**Civil society environment**

Civil society in Egypt is impressively large, diverse, and steadily expanding. It comprises a multitude of nongovernmental organizations (NGOs) including community development associations (CDAs), syndicates, federations, unions, and CDA–NGO networks. New types of NGOs have emerged during the last few years, such as farmer associations, Water-User Associations (WUAs), Water Boards (WBs), consumer associations, and human rights associations. For ease of reference, the term “NGO” will be used to refer to all of the above-mentioned types of civil society organizations. However, the bulk of our analysis of civil society will focus on the primary local-level CDAs, since they constitute the frontline organizations for rural and local development.

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The spectrum of associations can be categorized into three main groups, each with different functions and levels of activity:

**Primary, local-level community development associations (CDAs).** These include member-driven associations as well as service associations. Some member-driven CDAs focus on community-based development and social services (social CDAs) while others (productive CDAs) are involved in promoting productive and income-generating activities, including market-led agricultural production and water management, e.g., farmer associations; water-user associations and water boards; base-level cooperatives; and trade, professional, and business associations. Service associations are mostly social CDAs. Social as well as productive CDAs provide services directly to members or the public at large. They represent 95 percent of Egyptian civil society.

**Intermediary, regional or district-level civil society organizations.** These provide services and support—including catalytic and social mobilization functions—to local, primary-stratum, community-development associations (CDAs) and represent their interests in decision-making arenas at higher levels of governance. They represent about 2–3 percent of Egypt’s civil society.

**Tertiary civil society support organizations.** These include national organizations and federations of civil society organizations; formal networks and alliances of civil society organizations; private foundations; private, nonprofit think tanks and research institutes, and more specialized civic and good governance organizations that, inter alia, represent and give voice to citizen interests and civil society in national public decision-making arenas. These civil society support organizations provide specialized services to individuals as well as promote and defend broader sector interests. They represent about 1–2 percent of Egypt’s civil society.

**Strengths and weaknesses of CDAs**

Assessments of CDA efficiency and effectiveness show that only around 20 percent of them are active. In the Sohag Governorate, for example, around 100 out of 501 associations are considered active. In the Fayoum Governorate, there are 466 NGOs, out of which 93 are considered active. This corresponds to an average of nine active associations per markaz in Sohag and 15 in Fayoum (Abdel-Aal 2004). Active CDAs are often supported by international and intermediary organizations: USAID-funded NGO Service Centre and other intermediary and tertiary organizations such as CARE, CEOSS, the National Council for Women, the National Council for Motherhood and Childhood, and UNICEF.

**Productive CDAs.** Most productive CDAs are member-driven, with members paying regular fees. Member-driven CDAs are relatively more responsive to community-based, identified needs and initiatives. They have higher participation in planning and

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decision-making processes and are more transparent in their financial management, all leading to better ownership and higher prospects of sustainability.60

**Governance.** Some productive CDAs have been introduced to good governance practices through training and technical assistance as mentioned above. Nevertheless, in terms of governance structure, many still tend to follow a traditional governance pattern based on the principles of hierarchy and top-down decision-making rather than on board governance.

**Technical and managerial capacity.** A number of productive CDAs have received training and enhanced their skills through their links with government services and private sector and NGO networks. Farmers’ associations have also been similarly assisted through their links with donor agencies, exporters, and traders. They have proven most successful in attracting the interest of private sector investment. On the whole, productive CDAs continue to rely heavily on external assistance for technical and managerial skill development.

As a result of the training received, a number of productive CDAs in Upper Egypt are operating according to business management principles. They have diversified their productive activities with good risk management skills and have adopted cost-sharing principles with both members and communities. However, they respond slowly to changing production technologies, indicating inadequate access to appropriate information.

**Negotiation and strategic skills.** CDAs have limited negotiation and strategic skills, though training in this area is available. CDAs that run small productive units have been more self-motivated to acquire these skills, driven by their need to negotiate business deals. At the policy level, however, few CDAs have managed to develop strategic plans and to influence longer-term policy decisions. Community development associations have been able to influence decision making to a limited degree through some effective networking, although most operate locally with few links outside the community. Economic development associations, especially investor associations in new industrial communities, have had greater influence on governmental organizations and policy makers, but only in urban or semi-urban areas.

**Access to funding, efficiency of services, and representation.** In their attempts to meet these goals, the experiences of different types of productive CDAs are varied. Some farmers’ associations in Upper Egypt have prepared funding proposals and obtained external funds for their activities. However, their capacities in this area remain dependent on external support. Farmers’ associations in Upper Egypt have also introduced and implemented new approaches and methods in service delivery. As membership organizations, they have good representation of community members with similar needs and interests, as well as a good level of participation in planning and decision making. Membership of female farmers, however, remains low.

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60 Law 84/2002 has also given rise to some incidences (identified both in Sohag and Fayoum) of newly registered CDAs that act as vehicles for governmental/governorate organizations, public figures, or large investors to access funding and promote their sociopolitical interests.
Economic development associations are funded externally, and have managed to create revolving loan funds, raising revenues from the difference between the debit interest of the loans and the credit interest rates charged to clients. The CDAs involved in small and micro enterprise revolving loan funds have also introduced new approaches and methods in providing financial and non-financial services to unemployed men, women, and youth. Representation here is limited to loan recipients or clients of specific productive units.

**Social CDAs and women associations.** Social CDAs’ funding depends on local cash and in-kind contributions, financial assistance from the Ministry of Insurance and Social Affairs (MISA), and some intermediary and donor organizations. They have weak capacities in raising external funds. Ready-made proposals are submitted to donor agencies with little success of approval. They are generally seen as being unable to deliver what they promise unless they are closely associated with the first lady or other prominent figures from the public or private sector. These CDAs often understand representation to be the coverage (geographical and in terms of population) that will ensure their continued existence. They tend to be less concerned with the concept of representation that seeks to give voice to the needs and interests of its members and communities.

As for women’s associations, their services remain primarily limited to the traditional “women’s sphere” of home-based, income-generating activities, as well as to advocacy activities seeking for example to increase women’s participation in elections. Their capacities to access external funds are as limited as those of social CDAs, though they receive regular financial support from organizations such as national councils for women and mother and child organizations that are highly political bodies closely associated with the first lady. It seems (at least from experience in Sohag and Fayoum) that women’s associations have not received as much exposure to technical and managerial training as productive CDAs. In some Upper Egypt governorates (such as Sohag), women’s associations are clustered at the urban or semi-urban maraz level, while in others (like Fayoum), they are more evenly distributed and also benefit poor women in rural areas. Elite women’s associations (mostly urban-based with strong connections to the government) have had success in advocating women’s issues (such as participation in elections) among policy makers.

**Service CDAs.** Service CDAs are not member-driven. They include NGOs involved in social protection (of people with special needs, prisoners, senior citizens, etc.), consumer protection, culture and education, environmental protection, family planning and child care, as well as Muslim and Christian religious and charitable organizations. They meet social needs, offering subsidized services such as literacy classes, day care centers, the distribution of handouts to the poor (zakat), and donations in emergency situations. These service CDAs help maintain social stability and are most popular amongst the poorest and most vulnerable rural and urban populations. They have access to cash and in-kind donations from wealthy individuals and groups, as well as from MISA and the private sector.
Though these CDAs provide key services, they lack organizational and management capacities and operate with inadequate financial means. Their heavy dependence on political support (whether the central or local government) and external funding makes them vulnerable to outside decisions—often related to security—that they are unable to influence. These can lead to the sudden freezing of funds, suspension of certain activities, or the involuntary dissolving of a CDA.

**Institutional and policy constraints of NGOs**

Political, institutional, and security-related considerations have, in the past, led the GOE to exert considerable control over the activities of civil society. Legislation was passed to curb NGO activities while a number of tactics have been used to maintain tight control. Recently modified laws, however, such as NGO Law 84 of 2002, signal a gradual relaxation of government control. This has given rise to an increase in officially registered NGOs in Egypt over the past years—from around 14,000 to almost 17,000.

The Ministry of Insurance and Social Affairs (MISA) controls NGOs and ensures that they comply with the financial, administrative, and procedural guidelines of Law 84/2002. MISA’s original role was also to contribute toward building NGO capacity. Donor agencies are now taking over this function, providing funding, skill development training, and technical assistance. Since 2002, MISA has lost some of its control over NGOs because of the new law. For example, NGOs can now buy, sell, and lease assets subject to approval of their own general assemblies—no longer of MISA.

Over other aspects of NGO life, however, MISA is still very much in control. For example, NGOs that run revenue-generating, small training or production activities cannot decide what fees to charge. MISA makes the decision, generally without adequate consideration of market conditions. A similar issue has been identified among NGOs that implement credit programs. NGOs have been in conflict with MISA auditors and other authorities who seek to maintain static credit policies, procedures, and guidelines, while NGOs wish to make them more responsive to target group preferences and market needs. NGOs also appear limited by MISA’s rigid procurement guidelines. For example, the effective procurement of veterinary products to prevent high mortality in animal production requires flexibility. In particular, NGOs involved in poultry and beekeeping production mentioned that the rigid procurement guidelines imposed by MISA are a constraint.

**Opportunities for CDAs in Upper Egypt**

Among Egyptian government officials, there is clearly a favorable trend toward building upon NGOs’ strengths to provide services to the poorest and most vulnerable as well as to support economic opportunities. This is made evident by a more positive policy environment for productive and membership CDAs. Recent adaptations of legislative measures and procedures demonstrate that the importance of supporting such CDAs is

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61 This section refers to NGOs at the primary level (CDAs) and the intermediate level (civil society organizations).
recognized under new government policies. In addition, membership CDAs have a great opportunity for taking a central position in the ongoing and upcoming decentralization process. As they become more demand-driven, participatory, and transparent, they will also be in a better position to attract donor funds and to become more efficient, effective, and sustainable.

Service CDAs’ opportunities lie in the empowerment of the poorest and most vulnerable population groups. If strengthened—both strategically and organizationally—they can collaborate with productive CDAs and potentially serve as a vehicle for alleviating poverty and for bringing the poor over the poverty line into sustained, productive activity.

3.8 Moving toward decentralized planning and civil society participation

Opportunities

While Egypt is starting from a very centralized system, there are definite signs that the government wants to move toward decentralization and civil society participation. The fifth five-year plan (2002–7), for example, states that “in the frame of the next Five-Year-Plan, the Ministry of Planning searches for a dialogue with organizations of civil society and with representatives of the private sector, who will be the engine of development […] Participatory planning is an on-going consultative process. The pattern of allocation of public investment is to enable the private sector and civil society to contribute to common development objectives.”

A draft of a new administrative law currently under consideration would give the governor the power to authorize budgetary reallocations within and across budget lines. As noted above, however, governors are unable to exercise their existing powers. It remains to be seen whether the authority that would be given to the governors under this new law, when and if adopted, would amount to more than a simplified approval process for proposals emanating from line ministry directorates. One significant recent reform is the decision of the Ministry of Planning and Local Development to assign 16.7 percent of total public investment to governorates to allocate based on their priorities; this more than doubles the share of the budget that the governors had at their disposal until now.

Overall, the structures on which decentralized governorate and district-level planning can rely are already in place, which is definitively a plus. For an effective decentralized planning process, administrative decentralization, as defined earlier, is essential, and will have to include not only the decentralization of programming and budgeting, but also a change in human resources management criteria and procedures.

Existing administrative organization allows for a certain degree of civil society participation in the planning process through popular councils. However, at the moment, their role remains very limited—if not token—and subject to governor oversight. The administrative levels where civil society participation should be promoted are (a) the elected local popular council, which is the legal body entitled (under local administration law) to approve the annual plans of the local unit and certify the final account; and (b) the
executive council—both at the governorate and lower levels—which is in charge of identifying developmental needs.

Local communities appear willing and eager to work on issues and services that critically affect their livelihoods. There are a number of opportunities to enhance rural people’s involvement in local-level decision making beyond the formal local government structures using participatory approaches, particularly in service areas related to economic growth. The Shorouk program, in particular—with appropriate improvements, which may include enhanced transparency and effective participation, capacity building of Shorouk committees, and improved methods of budget allocation to villages (for example on the basis of HDI)—is one such mechanism.

**Promising pilot initiatives**

In some governorates, promising initiatives have emerged to promote the improved management of local services and to foster and institutionalize local resource generation through increased citizen participation. These include:

*The Consultative Group for Collaboration for Community-Level Services (CCLS).* This group received support from USAID to articulate, design, test, and refine methods of local service management through enhanced participation while staying within the limits of the existing decentralization legal framework (UNDP and Institute of National Planning 2004). In the four pilot communities of Damietta, New Borg Al Arab, tenth of Ramadan, and Naqada-Qena, efforts focused on creating mechanisms of collaboration among stakeholders through:

- Facilitating citizens’ involvement in decision-making processes related to services.
- Mobilizing local resources.
- Promoting relationships with the private sector and NGOs.

In Damietta, the initiative focused on furniture manufacturing. In New Borg El-Arab, it was a broad-based approach to identify and address all community needs. In the tenth of Ramadan, though the approach started as broad-based, it quickly became concentrated on one single service area: industrial linkages. Finally, in Naqada, the focus was on the production and marketing of traditional handicrafts. Box 3.1 summarizes the initiative in Damietta, which matured the furthest, yielding some key lessons.

The CCLS pilot initiatives yielded some useful findings on the opportunities and constraints of promoting participatory approaches and improving local governance in different contexts:

- It is most effective if the initiative concentrates on an issue that is widely recognized as vital by community stakeholders, in particular if the issue is related to economic growth and income generation. Citizens will become involved and public–private partnerships will form quite rapidly in this case.
Focusing on a single sector also generates quickly tangible results on the ground, and promotes further adhesion to the approach. In a single-sector context, needs assessment becomes more practical and is a powerful tool to engage stakeholders. It also helps identify a community on the basis of common interests, which is of key importance, first for building upon or developing social capital and, later, for the implementation and success of identified actions. It is also helps focus the efforts to improve the delivery of services. The New Borg El-Arab initiative's lack of success is, in part, due to lack of focus.

The pace at which local initiatives will develop depends upon the resources (financial, physical, and human) of the local communities. Initial social capital in particular is key to the success of local initiatives.

Existing governance structures such as elected popular councils may not be the most effective bodies to mobilize the community and encourage stakeholder participation. Working with local associations and ad hoc groups of people who have high stakes in the subject proved to be the most effective. The formation of an NGO, as was the case in Damietta, emerged as the preferred option for community organization.

Building the capacity of stakeholders is extremely worthwhile in areas such as democratic decision making, strategic thinking, resource mobilization, and the monitoring and evaluation of service delivery.
Box 3.1 Damietta’s experience in participation and community mobilization

Damietta’s economy is based primarily on furniture manufacturing. It’s a well-known entrepreneurial community, once quite flourishing, now faced with a number of problems related to product quality, diminishing markets, and aggressive global competition. The primary goal of the initiative was to bring all industry stakeholders together to analyze constraints and conduct a needs assessment. These included representatives of the governorate; relevant line ministries; NGOs; the elected popular councils; the Shaab and Shoura Councils; small, medium, and large furniture producers; exhibitors; exporters; and interested donor organizations. The stakeholders set up a formal umbrella organization under which they could start cooperating, the Committee for Upgrading the Furniture Sector, established by governor decree. The mandate of the committee was to identify and prioritize problems, develop action plans, enhance collaboration among stakeholders, and mobilize resources. Nine months after, the committee registered itself as an NGO: The Association for Upgrading the Furniture Sector in Damietta (AUFSD). From membership fees and other member contributions, AUFSD hired staff and is now covering its operating costs.

Accomplishments of AUFSD: (a) Creation of an internship program at Damietta’s factories; (b) creation of a manufacturers’ service center; (c) participation in international trade fair; (d) elaboration of a proposal to establish a database; (e) advocating the establishment of a Faculty of Applied Arts in Damietta in cooperation with the Mubarak-Kohl initiative for training and apprenticeship; (f) advocating local and central government changes that impact the furniture sector; (g) resource mobilization, including land infrastructure and loan facilities from the governorate; $100,000 from USAID to purchase wood-drying kilns; office equipment from the CCLS project; and in-kind contributions from local NGOs and the chamber of commerce; (h) demonstration of the value of collective actions that outweigh individual interests.

AUFSD contributed to the improvement of product quality and marketing, small producer income, export potential, and governance. With a growing number of members, AUFSD is operating according to formalized internal procedures, and works in a transparent manner to promote the economic interests of its members.


The Qena Governorate. The Qena experience is an interesting example of partnership between the local government and the people; regular, two-way communication in Qena has nurtured trust between executive officials and the people and resulted in citizen engagement. Under the strong individual leadership of the Qena governor, the Qena experience demonstrates that it is feasible, while remaining within the framework of the decentralization law, to promote civil society participation, mobilize and retain financial resources for local initiatives, and raise matching donor and private funding (see Box 3.2).

Potential for replication

The initiatives presented above indicate that it is possible to successfully involve citizens in decision-making processes, particularly in issues related to local economic opportunities and social services. Obviously, replicating such experiences on a larger scale would require a favorable environment. In particular, it would require a significant change in the attitudes of governors and executive officials who play a key role in creating links with civil society representatives. Executive officials often have an inadequate understanding of the advantages of civil society participation. They consider elected popular councils as lacking in essential technical knowledge and often view
council participation as an added burden to their workload. In addition, civil society organizations represent potential competitors for authority and status. A change in attitude would require increased understanding of the advantages of civil society participants—as partners in a mutually beneficial process, not as competitors for authority or status. Mechanisms would need to be developed for effective civil society participation without “bureaucratizing” the process and organizational incentives would need to be put in place to promote external accountability.

Overall, human capacities will be a constraint. Local administrative units do not have the skills required to carry out participatory planning at the levels of the mother village, district, and governorate. Local popular councils’ ability to participate in discussing, modifying and approving budget plans—as foreseen under the law of local administration—is limited as well. And finally, as discussed earlier, the capacities of NGOs and civil society organizations are also weak.

Before a framework for decentralization is adopted, the central government can allow and be responsive to local initiatives taken by civil society actors or executive officials as it was in the case of Qena. While the sum of these initiatives will not make up for a decentralization framework, it will allow the GOE to draw lessons in the design of a long-term strategy for decentralization.
Box 3.2 An experience in successful local development: the Qena governorate

In 1999, the governorate of Qena displayed all of the features of extreme poverty: agricultural land fragmentation, with 71 percent landowners owning less than one feddan; a dilapidated infrastructure; illiteracy among more than 50 percent of the adult population; and above-average mortality rates. The governorate had lost a key source of revenue when the city of Luxor was separated from it, and in spite of its many cultural sites, the entire governorate had only one run-down hotel.

In the space of only five years, the Qena governorate was transformed within the framework of a well-designed, long-term vision and strategy targeting quality public services for all and prioritizing vulnerable social segments. The governorate’s achievements reflect a comprehensive assault on the problems of poverty, environmental degradation, and the absence of community participation.

Qena’s experiment in administrative management has received the Dubai International Award. The governorate has also acquired the ISO 14001 for environmental management.

The elements of this success story are as follows:

- An integrated vision and plan. Including the reclamation of 352,000 feddan for poor youth and families, tourism development, and the promotion of water supply services, paved roads, and sanitation.

- Protection of the environment. In particular, the protection of agricultural land against urban encroachment through the creation of new villages for each old zone in the desert, an integrated solid waste management project, and awareness campaigns fostering public participation.

- Upgraded social services: In education, parent councils have replaced boards of trustees, school fees are retained to be invested in maintenance, and a plan for illiteracy eradication is in place through the recruitment of 6000 teachers from among Qena residents. In the health sector, fees from patients not covered by health insurance are collected and deposited in a service improvement fund. Physicians’ salaries have increased to LE 1,500 per month; each woman has been issued an identification card.

- Fiscal decentralization. There are 24 bases through which fees are collected, such as electricity, water counters, industrial licenses, vehicle licenses, fines paid for traffic violations, etc. An agreement was reached with the prime minister and the governorate popular council to avoid unconstitutional collection of such fees. Separate accounts have been established for every city and village in the local development fund.

Good governance. Including: (a) participation and consensus building; (b) rule of law—nobody is above the law in Qena and corruption is closely monitored; and (c) transparency and accountability—before making any decision, the governor and senior advisors meet with citizens and a round of consultation starts. Weekly public gatherings with the executive authority are open and televised.

4 A Methodology for Local Economic Development and Local Participatory Planning: The Example of Fayoum

This chapter details the methods that were tested in two governorates, Fayoum and Sohag, as well as two pilot districts, to define the interventions that are needed to enhance rural and local development: dynamic sub-sector analysis for local economic development planning and growth, combined with participatory district planning for enhanced access to basic social services and infrastructure. Some of the results from the tests in Fayoum and Tameya District are included. The ultimate objective was to develop a methodology that the GOE could adopt and generalize.

4.1 Governorate level: dynamic value chain analyses for local economic development planning

The objective was to first identify sub-sectors that offered promising development opportunities for the governorate. The methodology included data collection and analysis, as well as participatory approaches, which were intended to involve stakeholders in the selection of the most promising sub-sectors, analyses of constraints, and the identification of interventions that would be needed in order to take advantage of the opportunities within each particular sub-sector. The value chain of each sub-sector, defined as “all the firms that buy and sell from each other in order to supply a particular set of products or services to final consumers,” includes producers, processors, input suppliers, wholesalers, retailers, and service providers. The finished product or service that composes the value chain (such as wood furniture, tomato paste, or clothes) is referred to as a core product.

Methodology

The process of identifying strong sub-sectors was structured around four steps: (i) the review of secondary data and desk analyses; (ii) consultation with stakeholders; (iii) dynamic sub-sector analyses based on surveys of businesses in the promising sub-sectors; and, finally, (iv) strategy formulation based on analyses of businesses’ strengths, weaknesses, opportunities, and threats. Stakeholders at the governorate level and district level were involved throughout.

Step 1: Review of secondary data and desk analyses

The first step entailed reviews of the economic situation of Fayoum within the overall Egyptian economy, using existing knowledge and quantitative and qualitative data on structure and trends in production, employment, skills, and other resources. Collected secondary data included statistical information about the education, age, and gender of the population, and about the size, sector, and market orientation of businesses. Direct interviews and reviews of administrative files provided information about business environments, such as business networks, access to financial services, availability and accessibility to local government services, and availability of hard and soft infrastructure.

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62 Tameya and Fayoum for Fayoum Governorate, and Dar-es-Salam and Sohag for Sohag Governorate.
The information collected at this stage was general and inclusive for the whole governorate. The objective was to identify a shortlist of sub-sectors with potential for further development.

During the preliminary phase of this selection process, the focus was set on the analysis of the production and market trends of the core products. Statistical data, when available, was analyzed and compared throughout the period of the past five years at governorate, national, and international levels. The prime criteria for selection were the businesses' potential for growth and job creation. The following factors of each potential core product were analyzed:

- Trends in production
- Shares in the national production
- Trends in the shares in the national production
- Percentages of the total area cultivated (for crops)
- Prospects in employment generation

In the case of the industrial sector, additional criteria were also used:

- Number of enterprises per sub-sector in the Fayoum governorate compared to the countrywide total
- Shares in the number of employees in the Fayoum governorate compared to the total countrywide industrial workforce

From these initial analyses, a shortlist of seven promising sub-sectors was developed for further review, consultation, and verification with local stakeholders.

**Step 2. Consultation with stakeholders**

The consultations were conducted with individuals from a wide range of relevant governorate departments, Fayoum University, local nongovernmental organizations, and the private sector. Three sessions were held:

- During the first session of consultations, the stakeholders identified promising sub-sectors in the governorate based on their knowledge and professional experiences about trends and performances of the various economic activities.

- During the second round of consultations, the stakeholders provided feedback as to the validity of the sub-sectors in the shortlist that was established from the analyses of statistical data.

- During the third session, the stakeholders prioritized the three most promising sub-sectors based on the results of the previous meetings and further in-depth interviews with subject matter specialists.
Step 3: Dynamic sub-sector analyses based on surveys of promising businesses

In order to further study and survey the three selected sub-sectors, questionnaires were designed to assess the situations of the various businesses along the supply chain: (I) production of the core product; (ii) supply to the production; and (iii) purchase and or process of the core product. Two hundred-twenty businesses were studied for each sub-sector.

The purpose of the field surveys were twofold: (i) to provide deeper understandings of the constraints and opportunities faced by businesses within each sub-sector; and (ii) to understand the interactions between different actors in the supply chain and to provide indicators to assess the opportunities and constraints at different stages in the supply chain. Cross-analyzing the findings from the surveys with secondary data provided important clues on levels of competition and potential for growth.

Step 4: Strategy formulations based on analyses of businesses’ strengths, weaknesses, opportunities, and threats

Based on the initial selections of the promising sub-sectors, input from local stakeholders, and on the findings from the in-depth sub-sector surveys, specific consultations were then carried out with local officials in order to develop visions for further development of each sub-sector as well as strategies to reach these visions. The purpose was to establish entry points for possible interventions.

Summary results for Fayoum:

Step 1: Assessment of the local economy

The agricultural sector is, without question, the dominant economic sector in the governorate, and the largest employment provider (table 4.1). The vast majority of landholdings, 83 percent, are less than three feddan (Fayoum Human Development Report 2003).

Table 4.2 and Table 4.3 summarize the main findings of the local economic assessment. The governorate comprises six markaz. It is close to the Greater Cairo Area, and therefore not far away from major consumption centers, the international airport, agricultural suppliers and exporters, and numerous packing, processing, and cooling facilities. Compared to other governorates in Upper Egypt, Fayoum has relatively easy access to the Mediterranean and the Red Sea ports.

Table 4.1 Economic development and share of each sector in Fayoum and Egypt

<table>
<thead>
<tr>
<th></th>
<th>Fayoum (% of local labor force)</th>
<th>Egypt (% of local labor force)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural sector</td>
<td>46</td>
<td>30</td>
</tr>
<tr>
<td>Industrial sector</td>
<td>17</td>
<td>12</td>
</tr>
<tr>
<td>Service sector</td>
<td>37</td>
<td>58</td>
</tr>
<tr>
<td>GDP per capita (in 2003/4)</td>
<td>LE 2,708</td>
<td>LE 4,151</td>
</tr>
</tbody>
</table>
The institutional setup of the agricultural sector in Fayoum comprises the extension of the Ministry of Agriculture and the agricultural department of Fayoum, in addition of a number of other institutions, such as the local chamber of commerce and the Fayoum International Trade Point. There are a number of other associations and unions that specialize in the agricultural sector; however, the linkages between these are limited and there is little unified approach or strategy. In addition, there are also a number of specialized nongovernmental organizations targeting specific crops, but they do not work for a unified sub-sector approach; they tend to target export and/or specific products, such as organic farming.

Table 4.2 Natural resources in Fayoum

<table>
<thead>
<tr>
<th>Resources</th>
<th>Specifics</th>
<th>Comments</th>
</tr>
</thead>
</table>
| People                     | Population, growth rate, and education                                 | - Total population (in 2003): 2,400,000. ³ 39% were under the age of 15.³  
- Growth rate: 2.56% per year (2.07% live in urban areas; 2.62% live in rural areas). ³  
- Literacy rate: 50% of the population over the age of 15 is literate; 42% among women. [Does this mean that 42% of women are literate, or that 42% of the literacy population is women?]  
- Education: 20% of the population over the age of 15 had received secondary or higher education. |
| Agricultural land          | 93% of cultivated land is irrigated with water from the Nile. Fayoum receives 2.5 billion cubic meters of water annually. |
| Agricultural/ water resources | Youssef Sea and Hassan Wassef Sea                                       | Youssef Sea serves northern and central Fayoum. Hassan Wassef Sea serves the southern and western parts of the governorate.                                                                                     |
| Fish resources             | Fish farms/Karoon Lake/Wadi Al Rayan/Nile river tributaries/rice farms | Diversified crops similar to those at the national level. [[Please be more specific. Not sure what “similar to those at the national level” means.]] Due to good weather conditions and three growing seasons. Aromatic and medicinal plants are important, as is organic production. |
| Fish resources             | Fish farms/Karoon Lake/Wadi Al Rayan/Nile river tributaries/rice farms | Fayoum produces 12.8 thousand tons of fish from these different resources (in order of most productive to least).                                                                                     |
| Oil and its derivatives    | Oil wells/petrochemicals                                                | Oil wells are located around Karoon and Rayan lakes. Three thousand barrels are produced daily, and 5.6 million barrels are in reserve. Fayoum also has industrial Petrochemical plants. |
| Mineral resources (quarries) | Sand/dust/flint                                                         | Clay, white sand, pebbles, basalt, and limestone are available in Fayoum, and used in building industries inside and outside of the governorate.                                                           |
| Animal resources           | Cows/buffaloes/goats/sheep                                              | Fayoum’s farmers are interested in animal products—namely, milk, the production of which averages 143,000 tons yearly, accounting for 4.1% of the total production of milk in Egypt. |

a. UNDP and Institute of National Planning 2005, p. 228.
c. Fayoum Human Development Report 2003, p. 39
Table 4.3  Industry in Fayoum

<table>
<thead>
<tr>
<th>Resources</th>
<th>Advantage</th>
</tr>
</thead>
<tbody>
<tr>
<td>General information</td>
<td>Only 17% of the labor force works in the industrial sector, including trade and handicrafts, which include projects implemented through cooperatives and those financed through the Organization for Trades Industries &amp; Productive Cooperation in Fayoum.</td>
</tr>
<tr>
<td>Government initiatives/support of existing industries</td>
<td>Through the Organization for Trades Industries &amp; Productive Cooperation in Fayoum, three new centers were inaugurated—in the fields of plumbing, shoemaking, and clothing—in 2001. The organization also supported other projects, with a total of LE 2.2 million, which provided 1,026 employment opportunities (direct and indirect).</td>
</tr>
<tr>
<td>Development of new industrial areas</td>
<td>There are three new industrial areas in Fayoum: (i) Al Fath industrial city in Kom Ouchmeh, which includes 164 projects providing 12,187 employment opportunities, with a total investment cost of LE 910,250 in the areas of agro-food industries (number one in terms of job creation and number two in terms of investments), as well as medical, chemical, metal, building material, plastic, clothing, and electrical projects; (ii) Kols, which is located on the west side of Karon Lake; and (iii) New Fayoum City, which is expected to absorb the overpopulation of Fayoum.</td>
</tr>
<tr>
<td>Processed-foods industry</td>
<td>The processed-foods industry is the largest industry, with 46 establishments each employing more than three people; having a capital more than LE 5,000; and employing a total of 3,390 people (registered), that is, 36.25% of the industrial labor force. Registered workshops (3 people or fewer and with a capital of LE 5,000 or less): 861 workshops were involved in trades and handicraft activities related to the processed-foods industries, that is, 17.98% (registered) of the industrial labor force.</td>
</tr>
<tr>
<td>Paper industry</td>
<td>Sixteen establishments employed 2,170 people, that is, 23.2% of the registered industrial labor force. There were forty registered workshops in the trade and handicraft activities relating to the paper industry, that is, 1.3% of the registered labor force.</td>
</tr>
<tr>
<td>Spinning and weaving</td>
<td>Nine establishments; employing 16.35% of the registered labor force. There were 869 registered workshops relating to the spinning and weaving industries, accounting for 6.36% of the labor force.</td>
</tr>
<tr>
<td>Wood products</td>
<td>Six establishments; accounted for 10.42% of the registered labor force. There were 1,350 registered workshops, accounting for 13.87% of the labor force.</td>
</tr>
<tr>
<td>Engineering industries</td>
<td>Fourteen establishments; accounted for 7.81% of the registered labor force. There were 950 registered workshops, accounting for 53.79% of the registered labor force.</td>
</tr>
<tr>
<td>Construction and thermal material</td>
<td>Seventeen establishments; employing 1.99% of the registered labor force. There were 40 registered workshops, accounting for 2.04% of the registered labor force.</td>
</tr>
<tr>
<td>Chemical and petrochemical industries</td>
<td>Eight industries; employing 3.97% of the labor force. There were 90 registered workshops, accounting for 4.59% of the labor force.</td>
</tr>
</tbody>
</table>

Based on the 1996 Central Agency for Public Mobilization and Statistic establishment census, micro Enterprises in the non-farm sector represented 97.2 percent of the total number of enterprises. The majority was involved in trade activities primarily related to agricultural production; however, trade related to the retail of personal and household products were also significant activities among small enterprises.

Step 2: Identification and selection process of promising sub-sectors

During the first consultation meeting, participants were asked to identify growing and slowing sub-sectors based on their own personal perceptions (that is, without being presented with the statistical background and results of the secondary data analyses phase). A scoring mechanism was used to identify the most promising activities in the governorate within each sector (that is, crops, animal production, and industry).

Some views expressed during the meetings contradicted the analyses of the secondary data. For instance, participants thought the importance of blacksmiths, woodwork shops, and porcelain product workshops were growing. Their perception
stemmed from the fact that these activities were recently established in the Governorate, following the creation of the industrial zone. However, the data did not provide evidence that this sub-sector had much of a potential for growth, beyond the existing production volumes. Some participants mentioned “micro and small enterprises” in general as having potential for development, but without referring to any sub-sector in particular. Some other activities that yield relatively high revenues, such as farming fish, present high environmental risks and health hazards in Fayoum, and thus could not be short-listed as promising sub-sectors.

During the second consultative meeting, the stakeholders were presented with the results of the analyses of the secondary data. These were compared with the conclusions from the first meeting as well as with the results from a quick qualitative questionnaire carried out with key informants regarding the promising economic activities in the governorate. The qualitative questionnaire yielded the following sub-sectors as promising:

Agriculture
A—Crops
Export potential
Green beans
Onions and dried onions
Green peas
Garlic
Aromatic and medicinal herbs
Seed production in horticulture
Organic agriculture

B—Animal production
Dairy production
Skins and hides for potential tanning and the leather industry

C—Industry
Ceramics
Foods and beverages industry (including drying, pickling, and packaging food)

The second meeting helped verify and score the pre-selected economic activities and core products. Representatives from the industrial sector mentioned, for instance, that there was only one factory for ceramics in Fayoum, and even though it is the largest factory of its kind in the country, in terms of income and employment generation for the governorate, it is limited: most of the working material is imported from either abroad or from outside the governorate. Participants reached a consensus with the conclusion that agricultural-based sub-sectors were the most promising overall.

Prior to the third consultative meeting, the pre-selected sub-sectors were examined in detail, through further review of existing data, secondary material, and through individual discussions with local stakeholders. The promising sub-sectors were ranked based on their potential for growth and job creation, then presented with the background information during the meeting. The three highest ranked economic activities
were chosen for the in-depth analyses: aromatic and medicinal plants, dairy products, and organic agriculture.

**Table 4.4 Most promising sub-sectors**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aromatic and medicinal plants</td>
<td>10</td>
</tr>
<tr>
<td>Dairy products</td>
<td>10</td>
</tr>
<tr>
<td>Organic agriculture</td>
<td>9</td>
</tr>
</tbody>
</table>

**Step 3: In-depth analyses of three promising sub-sectors: The example of the dairy products**

In-depth analyses were carried out for the three top promising sub-sectors in order to identify the interventions that would support each sub-sector’s further development. The analyses were based on sub-sector surveys of the actors in the value chain.

In Egypt, there is a considerable gap between the production and consumption of milk and dairy products. Milk consumption has been increasing at a rate of 3.8 percent per year, due to population growth and increased per capita income (USAID 2002).

**Table 4.5 Milk production in Fayoum**

<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th>2002</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of heads</td>
<td>Net weight of milk production in metric tons</td>
</tr>
<tr>
<td>Cows</td>
<td>173,729</td>
<td>67,377</td>
</tr>
<tr>
<td>Buffalo</td>
<td>116,776</td>
<td>76,979</td>
</tr>
<tr>
<td>Sheep</td>
<td>162,429</td>
<td>0</td>
</tr>
<tr>
<td>Goat</td>
<td>123,673</td>
<td>4,449</td>
</tr>
<tr>
<td>Total</td>
<td>576,607</td>
<td>148,805</td>
</tr>
</tbody>
</table>

Small farms with few (one to three animals) represent the vast majority of the businesses in the dairy sector. Veterinary services are provided through the official channel of the Ministry of Agriculture and its regional extension services. The main beneficiaries of these services are the small and medium-sized farmers who cannot afford private veterinary services.

The marketing structure is related to the production structure: the few large-scale farmers market directly to the processing industry, while the small- and medium-scale
farmers sell their milk either to milk collection centers or collection point. The milk is then either sold to industrial processors, to cheese and yogurt producers, or to smaller, local retailers. See Figure 4.1.

Industrial processing requires that the milk is of “good quality,” which implies that the milk should be cooled immediately following its extraction. The competition between milk producers in Fayoum is high; high productivity and good transport conditions are critical.

**Figure 4.1 Structure of milk and milk products sub-sector**

Table 4.6 Difference in milk prices by type of milk, year, and place of sale

<table>
<thead>
<tr>
<th>Type of Milk</th>
<th>Average Price LE/Liter</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Farm gate</td>
</tr>
<tr>
<td>Buffalo milk</td>
<td></td>
</tr>
<tr>
<td>Cow milk</td>
<td>0.87</td>
</tr>
</tbody>
</table>

Despite the attempt to meet industrial processing requirements, inadequate milking practices and transportation prevail. In the absence of cooling tanks, milk is transported immediately following the milking, instead of being refrigerated, which results in a loss of nutritional value.
Figure 4.2 illustrates the different actors in the milk sub-sector.

**Figure 4.2  Actors in the milk sub-sector**

**Backward Linkages**
- Transportation
- Animal Feed
- Labor
- Animal Breeding
- Extension Services
- Veterinary Services

**Core Product**
- Large-Scale Producers
- Milk Production
- Small-Scale Producers
- Equipment
- Veterinary Services

**Forward Linkages**
- Transportation
- Peddlers
- Traders
- Wholesalers
- Retailers
- Domestic (Household) Consumption
- Export

**Domestic (Household) Consumption**

**Export**
Table 4.7 illustrates the strategy formulation based on analyses of the milk sub-sector’s strengths, weaknesses, opportunities, and threats.

Table 4.7 Strengths, weaknesses, opportunities, and threats in the milk sub-sector

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Production specific</strong></td>
<td><strong>Production specific</strong></td>
</tr>
<tr>
<td>- Raw material for animal feed and for the production of refined animal feed, as well as by-products from agricultural production, are abundant.</td>
<td>- Most producers are using traditional equipment for production.</td>
</tr>
<tr>
<td><strong>Market specific</strong></td>
<td></td>
</tr>
<tr>
<td>- Close proximity to the Greater Cairo Area.</td>
<td>- There is a low level of capacity and limited skills among workers, mainly in terms of animal treatment, feeding, and hygiene in processing.</td>
</tr>
<tr>
<td>- Demand for milk from existing manufacturers of dairy products is high.</td>
<td>- The small size of many farms leads to difficulty adhering to hygiene and sanitary standards.</td>
</tr>
<tr>
<td>- Businesses in the milk sub-sector are stable and expected to grow.</td>
<td>- Low milk productivity of animals is a risk.</td>
</tr>
<tr>
<td>- Businesses are expected to generate employment opportunities for workers.</td>
<td></td>
</tr>
<tr>
<td>- Those involved in the milk sub-sector witness a market expansion through increased employment, higher turnover, and assets. [[Is this ongoing, or in the past, or projected?]</td>
<td></td>
</tr>
<tr>
<td><strong>Enabling environment specific</strong></td>
<td></td>
</tr>
<tr>
<td>- The government is committed to continue assisting in horizontal expansion and the land-reclamation plan.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Production and market specific</strong></td>
<td><strong>Production specific</strong></td>
</tr>
<tr>
<td>- There is an existing and growing demand for milk because of a growing population and the growing per capita consumption of milk in Egypt.</td>
<td>- Skilled workers tend to leave the sub-sector.</td>
</tr>
<tr>
<td>- There is no need for high technological knowledge.</td>
<td>- Production costs—such as for feed, veterinary services, and equipment—are high.</td>
</tr>
<tr>
<td>- There is a large amount of by-products from the agricultural sector.</td>
<td></td>
</tr>
<tr>
<td><strong>Enabling environment specific</strong></td>
<td></td>
</tr>
<tr>
<td>- Several projects have started introducing nontraditional methods of animal feed production and genetic improvement.</td>
<td>- Imported milk products can be cheaper and of even poorer quality. [[Is “poorer” what was meant by “even quality”?]]</td>
</tr>
<tr>
<td>- Supporting directives from the government in Cairo reach Fayoum quickly, as compared to other Upper Egypt governorates.</td>
<td>- Milk farmers fail to reach major producers due to limited infrastructure.</td>
</tr>
<tr>
<td>- There is official support from the government for the sub-sector as a whole in terms of taxes, simplification of regulations, and facilitation for the establishment of new businesses.</td>
<td></td>
</tr>
<tr>
<td>- There is funding specific to the milk sub-sector.</td>
<td><strong>Market specific</strong></td>
</tr>
</tbody>
</table>

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Elaboration of a strategy

Objective: Within five years (by 2011), milk and milk products produced by small farms and sold outside of Fayoum will increase by 30 percent. The strategy to achieve this objective is presented in Table 4.8.

Table 4.8 Goals of the milk sub-sector by 2011

<table>
<thead>
<tr>
<th>Backward</th>
<th>Core product</th>
<th>Forward</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establish special units to manufacture animal fodder through small projects at the village level in a manner that achieves efficiency and productivity and increases production. Establish at least 30 units annually.</td>
<td>Increase milk production and productivity by 6% annually.</td>
<td>Operationalize and increase the milk collection centers at the village level. All villages should have one collection center within five years.</td>
</tr>
<tr>
<td>Organize the milk and cattle trade (for example, a cattle stock market) and establish a database and an information unit.</td>
<td>Upgrade all milk transportation facilities within five years.</td>
<td></td>
</tr>
<tr>
<td>Improve veterinary services (and artificial insemination), as well as extension services, through encouraging private and public sector partnership.</td>
<td>Develop and increase the number of high-quality milk-manufacturing units by 30% in five years in order to better meet national market requirements.</td>
<td></td>
</tr>
<tr>
<td>Increase and facilitate the use of loans for milk production by 30% within the coming five years by increasing the capital available for lending to small farmers and facilitating procedures that enable small farmers to access loans.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.2 Participatory district planning for enhanced access to social services and infrastructure

This methodology was designed as a companion to the dynamic value chain analysis for local economic development planning. The methodology is expected to help communities at the mother-village and district level identify and prioritize the interventions that are needed in order to improve their access to basic social services and infrastructure. It was tested in two districts of Fayoum, Tameya, Sohag and Dar-es-Salam. The results are given here for Tameya, which has the lowest Human Development Indicator of the six districts of Fayoum.

Step 1: Secondary data collection

The methodology began with the collection of the basic data available on the existing services and infrastructure, as well as existing local public, private, and nonprofit
organizations. An analysis of quantitative and qualitative information on the local economy was written up for consideration by the stakeholder committees.

**Step 2. Establishing stakeholder committees**

In the meantime, stakeholder committees at the mother-village and district levels were established in order to represent the views and needs of the local population. The basis was the existing Shorouk committees; their composition and functioning was reviewed to include all social and economic interests of the mother villages and districts. The revised Shorouk committees included (but were not limited to) representatives of the following bodies:

- Existing members of Shorouk committees at governorate, district and village levels
- Nongovernmental organizations
- Members of local popular councils at the district level
- Natural leaders
- Managers of handicraft workshops
- Businessmen
- Members of training institutions
- Officials of executive councils at the district level

Though the workshops included both men and women, focus groups were also established to facilitate discussions for women. Cultural and social values may hinder women from speaking up in the presence of men. In addition, women are unlikely to discuss women-related issues in the presence of men.

**Step 3. Formulating a prioritized three-year action plan for the district**

Consultations at the mother-village level were begun in order to form the stakeholder committees. They provided input for the stakeholder committees at the district level. A total of 26 workshops were conducted. Refer to Figure 4.3.
A matrix, from objectives to projects, was constructed with the stakeholder committees, using participatory techniques. For each project, the action plan laid out target groups, responsible parties, and financial resource requirements. The stakeholder committee prioritized the projects that should be implemented given the budget that was likely to be available.
Results for the Tameya District

Table 4.9 Priorities of the 10 mother villages of Tameya District

<table>
<thead>
<tr>
<th>Sector</th>
<th>Priority in district as a whole</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>First</td>
</tr>
<tr>
<td>Roads</td>
<td>First</td>
</tr>
<tr>
<td>Drinking water</td>
<td>Second</td>
</tr>
<tr>
<td>Sanitary drainage</td>
<td>Second</td>
</tr>
<tr>
<td>Covering open canals and water courses</td>
<td>Second</td>
</tr>
<tr>
<td>Others (that is, first-aid points, public water taps, fire extinguisher units, garbage collection cars)</td>
<td>Second</td>
</tr>
<tr>
<td>Lighting</td>
<td>Third</td>
</tr>
<tr>
<td>Health</td>
<td>Fourth</td>
</tr>
<tr>
<td>Services for youth</td>
<td>Fifth</td>
</tr>
<tr>
<td>Electricity</td>
<td>Sixth</td>
</tr>
<tr>
<td>Communication and postal services</td>
<td>Seventh</td>
</tr>
<tr>
<td>Social services</td>
<td>Seventh</td>
</tr>
</tbody>
</table>

Table 4.9 indicates the priorities of the problems identified for the ten mother villages of the Tameya District. Problems related to education and roads were of topmost priority, while problems pertaining to drinking water, sanitary drainage, and the need for covering open canals and water courses ranked lower on the scale.

The three-year development plan for Tameya District

Through the various workshops conducted with the stakeholders, a general consensus was reached on the development plan for Tameya District for the next three years, that is, 2006/7 through 2008/9. Table 4.10 shows examples of the projects included in the plan.
Table 4.10  Needs identified by civil society

<table>
<thead>
<tr>
<th>Objective</th>
<th>Target group</th>
<th>Local unit</th>
<th>Project</th>
<th>Cost in LE.</th>
<th>Sources of finance</th>
<th>Status</th>
<th>Potential donor</th>
<th>Project duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective</td>
<td>Target group</td>
<td>Local unit</td>
<td>Project</td>
<td>Cost in LE</td>
<td>Sources of finance</td>
<td>Stake funders</td>
<td>Project duration</td>
<td></td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>--------------</td>
<td>------------</td>
<td>-------------------------------------------------------------------------</td>
<td>------------</td>
<td>--------------------</td>
<td>---------------</td>
<td>-----------------</td>
<td></td>
</tr>
<tr>
<td>the district.</td>
<td></td>
<td></td>
<td>Pave the internal roads in villages within the boundary of the local unit, extending them two kilometers.</td>
<td>669,520</td>
<td></td>
<td></td>
<td>One year</td>
<td></td>
</tr>
<tr>
<td>depend on marketing their agriculture production in the main villages and cities. (Number of beneficiaries: 270,000 inhabitants in the Tameya District)</td>
<td></td>
<td></td>
<td>Pave the roads within the boundary of the local unit, extending them 15 kilometers.</td>
<td>3,124,750</td>
<td></td>
<td></td>
<td>Two years</td>
<td></td>
</tr>
<tr>
<td>Pave the roads of Kasr Rashwan-Tameya-Cairo, extending them eight kilometers.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kafr Mehfouz</td>
<td></td>
<td></td>
<td>Pave the roads within the boundary of the local unit of Kafr Mehfouz, extending them 10 kilometers.</td>
<td>3,335,000</td>
<td></td>
<td></td>
<td>Two years</td>
<td></td>
</tr>
<tr>
<td>Manshiat El Gamaal</td>
<td></td>
<td></td>
<td>Pave the roads and perform associated industrial works within the boundary of the local unit, extending the roads 10 kilometers.</td>
<td>3,710,000</td>
<td></td>
<td></td>
<td>Two years</td>
<td></td>
</tr>
<tr>
<td>Dar El Salam</td>
<td></td>
<td></td>
<td>Pave earthy roads within the boundary of the local unit, extending them 15 kilometers.</td>
<td>5,085,000</td>
<td></td>
<td></td>
<td>18 months</td>
<td></td>
</tr>
<tr>
<td>Sersena</td>
<td></td>
<td></td>
<td>Pave the roads within the boundary of the local unit, extending them 10 kilometers. Level and pave the roads within the local unit, extending them 6 kilometers (El Assaai-El Arbien)</td>
<td>3,335,000</td>
<td></td>
<td></td>
<td>18 months</td>
<td></td>
</tr>
<tr>
<td>El Alizia</td>
<td></td>
<td></td>
<td>Pave the roads within the boundary of the local unit, extending them five kilometers. Level, elevate, and pave the roads within the boundary of the local unit, extending them five kilometers.</td>
<td>1,889,003</td>
<td></td>
<td></td>
<td>One year</td>
<td></td>
</tr>
<tr>
<td>El Mazatly</td>
<td></td>
<td></td>
<td>Pave the roads within the boundary of the local unit, extending them 12 kilometers.</td>
<td>4,042,500</td>
<td></td>
<td></td>
<td>Two years</td>
<td></td>
</tr>
<tr>
<td>Increase the capacity of the electricity network to take up more</td>
<td></td>
<td></td>
<td>Replace and renovate the electric wires network within the boundary of the local unit with insulated wires.</td>
<td>279,972</td>
<td></td>
<td></td>
<td>Two years</td>
<td></td>
</tr>
</tbody>
</table>

(Number of beneficiaries: 270,000 inhabitants in the Tameya District)
<table>
<thead>
<tr>
<th>Objective</th>
<th>Target group</th>
<th>Local unit</th>
<th>Project</th>
<th>Cost in LE</th>
<th>Sources of finance</th>
<th>Stake Holder</th>
<th>Project duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>requests for electricity supply and connection for various purposes.</td>
<td>beneficiaries: 270,000 inhabitants in the Tameya District</td>
<td>Dar El Siam</td>
<td>Provide the local unit with two electric converters of 500-kilowatt power.</td>
<td>214,725</td>
<td></td>
<td></td>
<td>Two years</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>El Azizia</td>
<td></td>
<td></td>
<td>Replace and renovate the present electric wires network within the boundary of the local unit with insulated wires.</td>
<td>731,808</td>
<td></td>
<td></td>
<td>Two years</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Provide the local unit with six electric converters of 100-kilowatt power to serve Aziz El Sabaeen, Abou Ogaila, El Nokta, Farouk Laamy, and Abou Nassar El Sharky.</td>
<td>441,324</td>
<td></td>
<td></td>
<td>Two years</td>
</tr>
<tr>
<td>El Mazatly</td>
<td></td>
<td></td>
<td>Replace and renovate the electric wires network within the boundary of the local unit with insulated wires.</td>
<td>285,120</td>
<td></td>
<td></td>
<td>Two years</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Provide the local unit of El Mazatly with four electric converters of 100-kilowatt power</td>
<td>294,216</td>
<td></td>
<td></td>
<td>Two years</td>
</tr>
<tr>
<td>Village to be selected</td>
<td></td>
<td></td>
<td>Replace and renovate three electric networks (600 meters of insulated wires)</td>
<td>1,429,104</td>
<td></td>
<td></td>
<td>Two years</td>
</tr>
<tr>
<td>Village not specified</td>
<td></td>
<td></td>
<td>Procure 14 electric converters (eight Koisk K.V.A with branches).</td>
<td>1,029,756</td>
<td></td>
<td></td>
<td>Two years</td>
</tr>
</tbody>
</table>
Priorities within the Tameya District budget (allocated by the Central Ministries)

After identifying the three-year development plan, the representatives of the civil society and officials in Tameya District identified the priorities for the District for each of the first three years. Projects were prioritized using a base funding scenario which the budget is presently allocated by the central ministries, approximately LE 15,000,000 annually. The following table includes the priorities for the District for each of the first three years within this budget.
<table>
<thead>
<tr>
<th>No.</th>
<th>Mother Village</th>
<th>Project</th>
<th>Total Estimated Cost</th>
<th>1st Year</th>
<th>2nd Year</th>
<th>3rd Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Al Rodah</td>
<td>Sanitary drainage network in Karkas and El Robiat villages. (The land for the purpose of constructing a lift-pumping station exists).</td>
<td>8,000,000</td>
<td>2,600,000</td>
<td>2,600,000</td>
<td>2,800,000</td>
</tr>
<tr>
<td>2</td>
<td>El Gamhuria</td>
<td>Sanitary drainage network in El Gamhuria Village and its satellites in addition to a lift-pumping station and treatment plant. (The land for constructing a lift-pumping station and treatment plant exists).</td>
<td>16,000,000</td>
<td>5,300,000</td>
<td>5,400,000</td>
<td>5,300,000</td>
</tr>
<tr>
<td>3</td>
<td>Sersena</td>
<td>Sanitary drainage network in Sersena village and its satellites. (A study for this project was already carried out by the sanitary Drainage Company and there is a plot of land for this purpose).</td>
<td>16,000,000</td>
<td>5,400,000</td>
<td>5,300,000</td>
<td>5,300,000</td>
</tr>
<tr>
<td>4</td>
<td>Fanous</td>
<td>Preparatory education school in El Shaat Village. (A plot of land of 14 karrts was donated by inhabitants). There is a need for 18 classes.</td>
<td>1,980,000</td>
<td>660,000</td>
<td>660,000</td>
<td>660,000</td>
</tr>
<tr>
<td>5</td>
<td>El Azizia</td>
<td>Primary education school in Azbt Al Sabeen. (A plot of land of 12 Karrts was donated by inhabitants). There is a need for 8 classes.</td>
<td>880,000</td>
<td>295,000</td>
<td></td>
<td>290,000</td>
</tr>
<tr>
<td>6</td>
<td>El Mazatly</td>
<td>Service compound in El Mazatly Village. (A plot of land exists).</td>
<td>250,000</td>
<td>250,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td></td>
<td>43,110,000</td>
<td>14,305,000</td>
<td>14,255,000</td>
<td>14,350,000</td>
</tr>
</tbody>
</table>
References


