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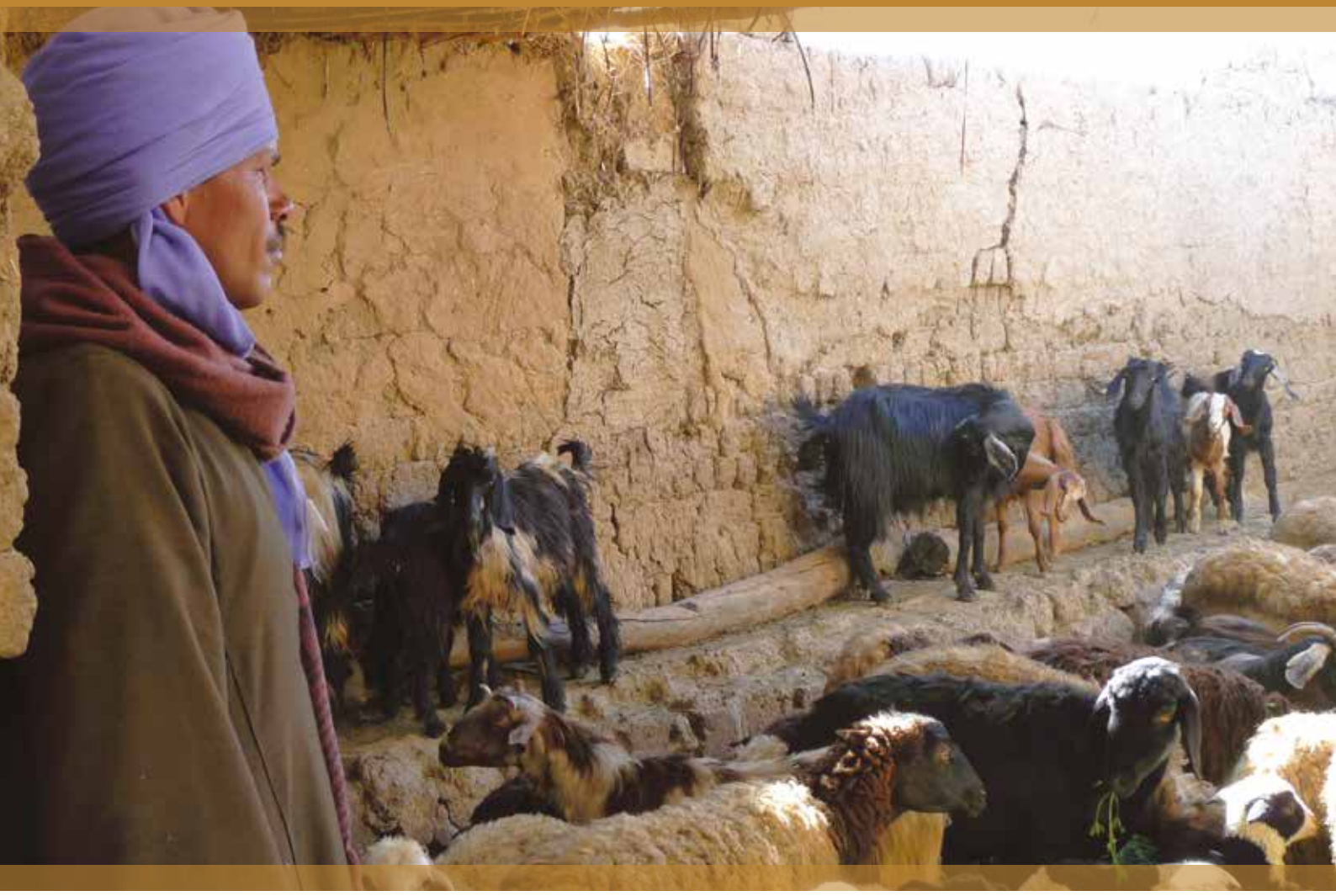

STUDY ON

SMALL-SCALE FAMILY FARMING IN THE NEAR EAST AND NORTH AFRICA REGION

FOCUS COUNTRY

Egypt

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This publication is the national study on small-scale family farming in Egypt, produced by the FAO Regional Office for Near East and North Africa (FAO-RNE) in collaboration with CIRAD (France) and CIHEAM-IAMM (France). The study was carried out in 2015 -2016 with the aim of producing a comprehensive assessment of the situation of small-scale family farming (characterisation, context in which it operates, support it receives), as the essential starting point to more effectively guide FAO's activities and improve the support given to government by the various stakeholders.

The study was coordinated at country level by A. Aboul Naga, assisted by I. Siddik and W. Megahed and additional national experts on socio-economics and biology. The overall supervision of the study was by Alfredo Impiglia, FAO Delivery Manager for the Small-Scale Family Farming (SSFF) Initiative, Regional office for the Near East and North Africa of FAO.

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PREFACE

The 2014 International Year of Family Farming (IYFF) focused global attention on the important role of family farming in providing food and nutrition security and enabling sustainable development. The celebration of the IYFF also significantly raised the profile of family farming, which was included in the Second International Conference on Nutrition (ICN2) in 2014, and in the United Nations Post-2015 Development Agenda, adopted in September 2015. In the new Agenda, smallholders and family farmers were placed at the centre of many of the 17 Sustainable Development Goals and 169 targets (notably, the goals of No poverty [SDG1]; Zero hunger [SDG2]; Gender equality [SDG5]; Decent work and economic growth [SDG8]; Responsible consumption and production [SDG12]; Climate action [SDG13] and Peace, justice and strong institutions [SDG16]), thus recognising the central role of smallholders and family farmers in combining economic, social and environmental sustainability and food security.

Small-scale family farming (SSFF) is considered one of the most important factors in agricultural and rural development in Egypt. This is especially so because of the growing phenomenon of land fragmentation and its negative impact on agricultural production, efficiency in the use of natural resources and food security, as well as on the living conditions of small farmers and their families .

In this context, FAO in collaboration with CIRAD (France), and under the FAO's Regional Initiative on Small-Scale Family Farming (SSFF), have conducted a study in the Near East and North Africa (NENA) region through in-depth studies in six focus countries. The overall objective of the study is to undertake a review of small-scale family farming in order to generate a medium term action plan to catalyse the sustainable and inclusive development of SSFF in the region.

The national study in Egypt was conducted in by a national team comprising A. Aboul Naga, two highly experienced agricultural economists, I. Siddik and W. Megahed; and five recognized scientists with experience in socio-economics and biology.

The study relies on national data and accessible documents, including academic and non-academic literature and documents from development projects. Additionally, interviews were conducted with key stakeholders to identify and analyse their experience with regard to the current and past state of affairs of public policies in support of SSFF. The final report draws conclusions and makes recommendations for future plans for sustainable development of SSFF in Egypt.

We hope that this publication will significantly help FAO and its partners in Egypt to more directly respond to the needs of small-scale farmers, better target policies, identify research priorities, propose more fitting strategies and activities and suggest ways of bolstering and supporting farmer's associations and other stakeholders, with the ultimate goal of contributing more effectively to reducing rural poverty through the sustainable and inclusive development of the whole NENA region.

Hussein Gadain
FAO Representative in Egypt

Adel M. Aboul Naga
Head of Egypt National Team

ACRONYMS

ADC	Agricultural Development Cooperatives
ARC	Agricultural Research Centre
ARL	Agrarian Reform Law
AVCD	Agency of Village Construction and Development
BASADC	Bangar Al Sukkar Agricultural Development Cooperative
CAPMAS	Central Agency for Public Mobilization and Statistics
CDA	Community Development Associations
CIRAD	Centre International de Recherche Agronomique pour le Développement (International Centre for Agriculture Research for Development)
CLOA	Central Laboratory of Organic Agriculture
CUWW	Cooperative Union of Water Wealth
DRC	Desert Research Center
EAL	European Accreditation Centre for Laboratories
EGP	Egyptian pound
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FFS	Farmer Field Schools
FMA	Farmers' Marketing Association
FMD	Foot and Mouth Disease
GAP	Good Agricultural Practices
GDP	Gross Domestic Product
GMP	Good Manufacturing Practice
HACCP	Hazard Analysis Critical Control Point
HEIA	Horticultural Export Improvement Association
HIECS	Household Income, Expenditure and Consumption Survey
IEA	International Energy Agency
IFAD	International Fund for Agricultural Development
ISO	International Standards Organization
LDF	Local Development Fund
LR	Large Ruminants
LRL	Local Rural Leaders

MALR	Ministry of Agriculture and Land Reclamation
NGO	Non-Governmental Organization
NRL	New Reclaimed Lands
OIE	Office International des Epizooties (World Organisation for Animal Health)
ORL	Old Reclaimed Lands
PBDAC	Principal Bank for Development and Agricultural Credit
PPU	Poultry Producers' Union
QCAP	Central Laboratory of Residue Analysis of Pesticides & Heavy Metals in Food
RADCON	Rural and Agricultural Development Communication Network
SADS	Sustainable Agricultural Development Strategy
SARD	Sustainable Agricultural and Rural Development
SFD	Social Fund for Development
SFP	Small Farmer Project
SMS	Subject Matter Specialist
SR	Small Ruminants
SSFF	Small-scale Family Farming
SSF	Small-scale Farms
UPEHC	Union of Producers and Exporters of Horticultural Crops
VACSERA	Vaccines and Serum Authority
VERCON	Virtual Extension, Research and Communication Network
WB	World Bank
WFP	World Food Programme
WTO	World Trade Organization

EXECUTIVE SUMMARY

IMPORTANCE OF SSF

Small-scale family farming (SSFF) was and still is considered one of the most important factors in agricultural and rural development in Egypt. This is especially so because of the growing phenomenon of land fragmentation and its negative impact on agricultural production, efficiency in the use of natural resources and food security, as well as on the living conditions of small farmers and their families.

DEFINITION

There is no common agreement on the definition of small-scale family farming, or small farm holders, among the stakeholders in Egypt. Such a definition should not be limited to the **farm size** alone. It should consider the criteria of **economic scale** and **productive efficiency** in use of the **natural resources** as well as **income** generated from land and herd/flock and its adequacy to the needs of the family members and to keeping them out of **poverty**. In light of these considerations, it can be said that small farms, including the land and other productive assets, constitute the source of revenue for the landholder and his family, particularly for those living at or near the national poverty line.

Accordingly, farm **holders with less than three feddans (1.26 ha),** and landless farmers, fall within the category of "small-scale holders" and are part of the SSFF system. (Egyptian law exempts holders of less than three feddans from real estate taxes on agricultural land, considering them low-income.)

GENERAL CHARACTERISTICS

The various forms of small-scale family farming share several common characteristics:

- Traditional patterns of production technologies and marketing systems, which are remarkably less developed than large scale farming.
- The absence or weakness of regulatory frameworks which would enable them to claim their rights, defend their interests and participate in the formulation of economic, social and political policies.
- Reluctance of the younger generation to participate in agricultural activities and increased reliance on older people.

- Inequalities between men and women as landholders. The percentage of female landholders decreased from 9.8 percent in 1990 to nearly 4.3 percent in 2010, despite the fact that they represent more than 50 percent of Egyptian population.
- High rates of illiteracy among small-scale farmers (32 percent), compared to 22 percent for large scale farmers.
- Nearly half smallholders work only in **agriculture**, and have no additional source of income Smallholdings comprise about 35 percent of all **agricultural land in the country** and smallholders produce around 47 percent of field crops, 61.3 percent of **large ruminants**, 59.3 percent of **small ruminants** and a smaller portion **horticultural crops**.
- Small-scale family farming and is **labour intensive**, requiring 3 labourers per feddan, compared to 0.7 labourers per feddan for the medium and large scale farms. This reflects low labour productivity and high rates of disguised unemployment in SSF.

CURRENT POLICIES RELATED TO SMALL FARMERS

- Small farmers, as well as **other vulnerable groups,** receive different types of direct support, such as subsidized bread, ration cards for subsidized food commodities and subsidized energy. The greatest single **benefit** for farmers holding less than three feddans is the **exemption from agricultural land tax**.
- Subsidized loans and fertilizers represent another type of direct subsidy provided to small farmers and to farmers in general.
- The pricing policy of wheat (which is usually priced higher than the international price), and the role of the government as the last resort buyer of the wheat produced, represent two more forms of support to small-scale farmers.
- Small-scale farmers receive **indirect support** in the form of agricultural extension, veterinary services and soil conservation and improvement services.
- Some of the most important achievements of the recent administration in support of small-scale farmers have been the implementation of **health insurance** programs for farmers, the creation of a legal framework for **contract farming**, the establishment of a farmers' **pension scheme** and the enactment of **agricultural insurance** laws.
- Most of the people interviewed reported that state policies during the period of the early 1950s through the 1980s favoured small farm holders. On the other hand, the introduction of liberalization and structural adjustment policies in the early 1990s marginalized and negatively affected the small farm holders.
- The percentage of **public investment** allocated to the agricultural sector has been reduced from 13 percent in the mid-1990s to 2.7 percent in 2013. At the same time, the agricultural sector received only 2 percent of the total amount of government loans, compared to 35 percent for industry and 25 percent for the services sector.

- Small-scale farmers have been subjected to the negative impacts of the implementation of structural adjustment and **economic reform** policies in the 1980s and 1990s, without any sort of intervention by the government to offset these effects.
- **Agricultural cooperatives** were subjected to severe government intervention and their role was limited to distributing subsidized fertilizers. The recent amendment of the cooperative law (2014) will play a vital role in strengthening these associations for the benefit of their members.

STRENGTHS AND OPPORTUNITIES

Despite problems and obstacles facing small-scale farmers, this category still has strengths and opportunities that can contribute in the improvement of their livelihood and enhance their participation in sustainable rural and national development, such as:

- endogenous **knowledge** and experience in agriculture and risk mitigation;
- high level of crop **intensification**;
- integration between family and farm business;
- **integrated** crop-livestock farming system;
- the new constitution of 2014, which includes a number of articles emphasizing the need to give more attention to agriculture, and to small farmers in particular (for example, Articles 18, 27, 29, 30 and 42);
- endorsement of vision, mission, programs and policies of the **Sustainable Agricultural Development Strategy 2030**, which mainly focus on poverty alleviation and improving the livelihoods of rural inhabitants;
- the government's intention to allocate one fourth of the **new reclaimed land** (NRL) project for **landless and jobless** persons;
- new laws which benefit small farmers, i.e. farmers' **health insurance**, small farmers' **pension law**, the amendment of the **agricultural cooperative law** and **contract farming**.

CHALLENGES

Small-scale family farming and its actors face several challenges which hinder their active participation in sustainable agricultural development. These challenges include:

- severe land fragmentation;
- high rate of converting land to non-agricultural purposes (change in land use);
- continuous and rapid increase in input prices and land rent value;

- limited access to credit, especially for the landless;
- inefficient marketing system, especially for perishable crops, and shortage of appropriate marketing infrastructure;
- inefficient system of technology transfer;
- low quality of irrigation water.

RECOMMENDATIONS

There is no doubt that there is a strong interdependent linkage between the critical issues of small-scale family farming, rural poverty, rural unemployment, agricultural production efficiency and food insecurity in Egypt.

Accordingly, small-scale family farming should be tackled from a **multi-dimensional perspective**, including social, technical, economic and political interventions, through an integrated package of policies, development programs and projects. Such multi-dimensional action should include the following considerations:

- applying collective cropping patterns and crop rotation;
- developing and enhancing small farmers' agricultural associations;
- designing and applying a package of direct and indirect supporting policies tailored and targeted specifically toward smallholders, including social protection policies;
- developing and enhancing agricultural supporting services, research, extension, marketing and information;
- allocation of resources to agriculture sector development, research and extension;
- giving more attention to the development of rural infrastructure and basic services;
- creating and promoting new types of off-farm jobs and small enterprises at the village level, especially for women and youth, including activities connected with agriculture;
- developing an adequate credit policy and system for SSF in specific production systems.

Small-scale farmers are an essential component of the structural composition of the agricultural sector in Egypt. Thus, recognition of the characteristics of this category of farmers, including social, economic, cultural and other aspects, is very important in designing supportive policies and programs.


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Introduction

The importance of agriculture in the Egyptian economy

Agriculture is a key pillar of the Egyptian economy because of its multiple roles. It is a major source of national income, contributes largely to commodity exports, provides work opportunities for a large proportion of the national labour force and plays a major role in national food security.

Agriculture GDP

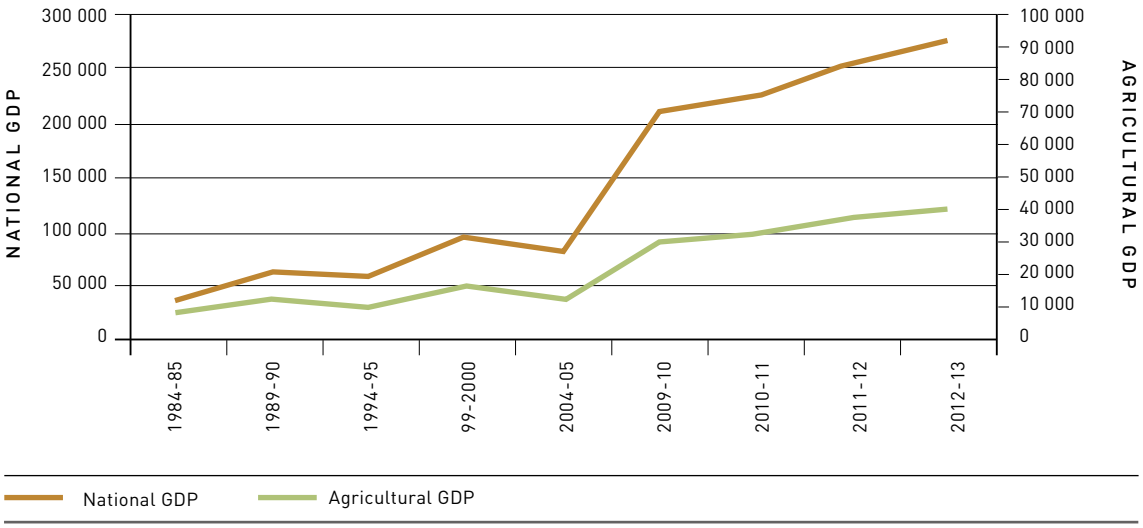
The data in Table (I.1) and Figure (I.1) demonstrates that the contribution of agriculture to GDP declined from 21.2 percent in 1984-85 to 14.5 percent in 2012-13, despite the increase in agricultural GDP from 7 506 million dollars in 1984-85 to about 40 158 million dollars in 2012-13, an increase of more than fivefold in 28 years.

Table I.1 **Evolution of agricultural GDP and total GDP (1984-85 and 2012-13)**

Years	Million EGP		Million US$		% of agricultural contribution
	Agricultural GDP	National GDP	Agricultural GDP	National GDP	
1984-85	6 380	30 080	7 506	35 388	21.2
1989-90	17 735	91 535	11 823	61 023	19.4
1994-95	32 050	191 535	9 426	56 334	16.7
1999-2000	52 854	315 667	15 545	92 843	16.7
2004-05	75 291	506 511	11 951	80 399	14.9
2009-10	160 970	1 150 590	29 267	209 198	14.0
2010-11	190 159	1 309 905	32 786	225 846	14.5
2011-12	218 216	1 508 527	36 986	255 683	14.5
2012-13	243 355	1 677 352	40 158	276 791	14.5

Source: Ministry of Planning, Data Base

Figure I.1 **National and agriculture GDP value during the period 1984–85 to 2012–13 (in US$ million)**



In Table I.2, data indicates that the agricultural sector has achieved positive growth rates ranging from a minimum of 2.8 percent in 2002-03 to a maximum of 3.5 percent in 2009-10, compared to 2.6 percent for the Near East and North Africa, 2.5 percent for South Asia, 2.7 percent for East Asia (excl. China) and 0.3 percent for developed countries as a whole during the period 1990–2007 (FAO, 2012). It should be noted that the annual growth rate of the agriculture sector has been characterized by a high degree of **stability**, while other sectors, such as mining and industry, have fluctuated widely. This may explain the minor effect of the global economic crisis on the agriculture sector and the importance of domestic demand on this sector.

Table I.2 **Annual growth rates of GDP (%) for major sectors (2002–03 to 2012–13)**

Years	National GDP	Agriculture GDP	Mining and Oil	Industry GDP
2002-03	3.1	2.8	2.9	2.3
2003-04	4.2	3.4	2.4	1.8
2004-05	4.6	3.3	0.6	4.4
2005-06	6.9	3.2	20.8	5.8
2006-07	7.1	3.7	3.9	7.3
2007-08	7.2	3.3	4.0	8.0
2008-09	4.7	3.2	5.9	3.7
2009-10	5.1	3.5	0.9	5.1
2010-11	1.9	2.7	0.6	-0.9
2011-12	2.2	2.9	0.1	0.7
2012-13	2.1	3.0	-2.7	2.3

Source: Central bank of Egypt, Economic bulletin, various volumes

Agriculture exports

Data in Table I.3 shows that value of agricultural exports has increased from 946.2 million US dollars in 2003-04 to about 1 768 million in 2012-13. However, the ratio of agricultural exports to other non-oil exports decreased from 27.1 percent in 2003-04 to 20.5 percent in 2012-13, this at a time when the value of non-oil exports (including agricultural exports) had increased from 3 493 million US dollars in 2003-04 to 8 604 million in 2012-13. We must take into consideration that a large part of non-oil exports, such as processed food, textiles and garments, leather and other agro industries, are dependent on agricultural raw materials.

Table I.3 **Agricultural and non-agricultural export values (million US$) from 2003-04 to 2012-13**

Years	Agricultural exports	Non-oil exports	Oil exports	Total exports	Agricultural exports / non-oil exports
2003-04	946.2	3 492.7	3 910	7 403	27.1
2004-05	1 047.1	4 562.7	5 299	9 861	22.9
2005-06	847.3	4 262.0	10 222	14 484	19.9
2006-07	1 198.0	6 778.1	10 108	16 886	17.7
2007-08	1 439.6	9 186.8	14 473	23 659	15.7
2008-09	1 276.8	8 937.3	11 005	19 942	14.3
2009-10	1 594.6	8 674.8	10 259	18 933	18.4
2010-11	1 855.0	10 097.0	12 136	22 233	18.4
2011-12	1 461.9	8 512.1	11 225	19 737	17.2
2012-13	1 767.5	8 603.5	12 006	20 610	20.5

Source: Central Bank of Egypt, Economic bulletin, various volumes

Agriculture labour force

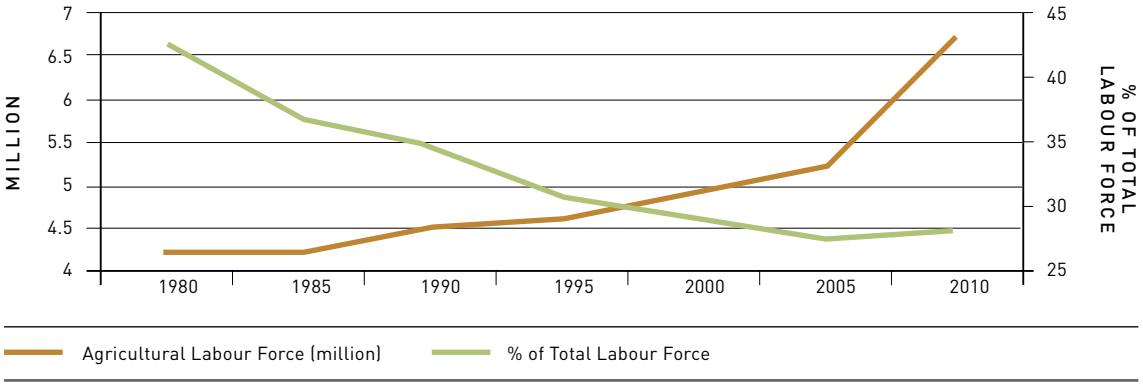
In addition to the above considerations, the agriculture sector **labour-intensive** and, therefore, it absorbs a large proportion of the national labour force. According to the data in Table I.4 and Figure I.2, the agricultural labour force has increased from about 4.2 million people in 1980 to about 6.7 million in 2010, an increase of about 59.5 percent in thirty years, mainly due to the mega-program of **land reclamation** which added about 2 million feddans of agricultural land. However, despite this increase in the agricultural labour force, the relative share of the total labour force has decreased from about 42.9 percent in 1980 to about 28.2 percent in 2010, primarily due to the large population increase. (The size of the total labour force in 1980 was 9.8 million, which increased to 23.8 million in 2010, an increase of 143 percent.)

Table I.4 **Evolution of the agricultural labour force from 1980 to 2010**

Years	Total labour force (million)	Agricultural labour force (million)	% of agricultural labour force of total labour force
1980	9.8	4.2	42.9
1985	11.4	4.2	36.8
1990	13	4.5	34.6
1995	14.9	4.6	30.9
2000	17	4.9	28.8
2005	19	5.2	27.4
2010	23.8	6.7	28.2

Source: Central Agency for Public Mobilization and Statistics (CAPMAS), Statistical Year Book, various volumes

Figure I.2 **Total labour force and agricultural labour force from 1980 to 2010 (in millions)**



Agriculture and food security

In addition, the agriculture sector plays a vital role in achieving high rates of **food security** for the Egyptian population. It achieves full self-sufficiency in **horticultural crops** with a surplus for the export market in some vegetables and fruits, such as potatoes, onions, citrus and grapes. In 2013, orange exports reached 1.08 million tons, approximately 31.3 percent of the total horticultural production. Potato exports amounted to 815 thousand tons, 18.78 percent of total production; grape exports amounted to about 65 thousand tons, 5 percent of total production and onion exports reached about 491 thousand tons, 21.3 percent of total production. The bulk of the production of medicinal and aromatic plants is mainly for export. As for wheat and corn, the **self-sufficiency rate** is about 51 percent and 53 percent, respectively. The estimated self-sufficiency percentage of sugar is about 75 percent and about 81.5 percent for fava beans. Vegetable oil is the main food product which registers a large deficit in production, covering less than 31.9 percent of the national requirement. In animal products, Egypt is almost self-sufficient in poultry, eggs and fish, while the estimated rate of self-sufficiency of red meat is about 83 percent. (Table I.5).

Table I.5 **Ratio of self-sufficiency of some food commodities as of 2013**

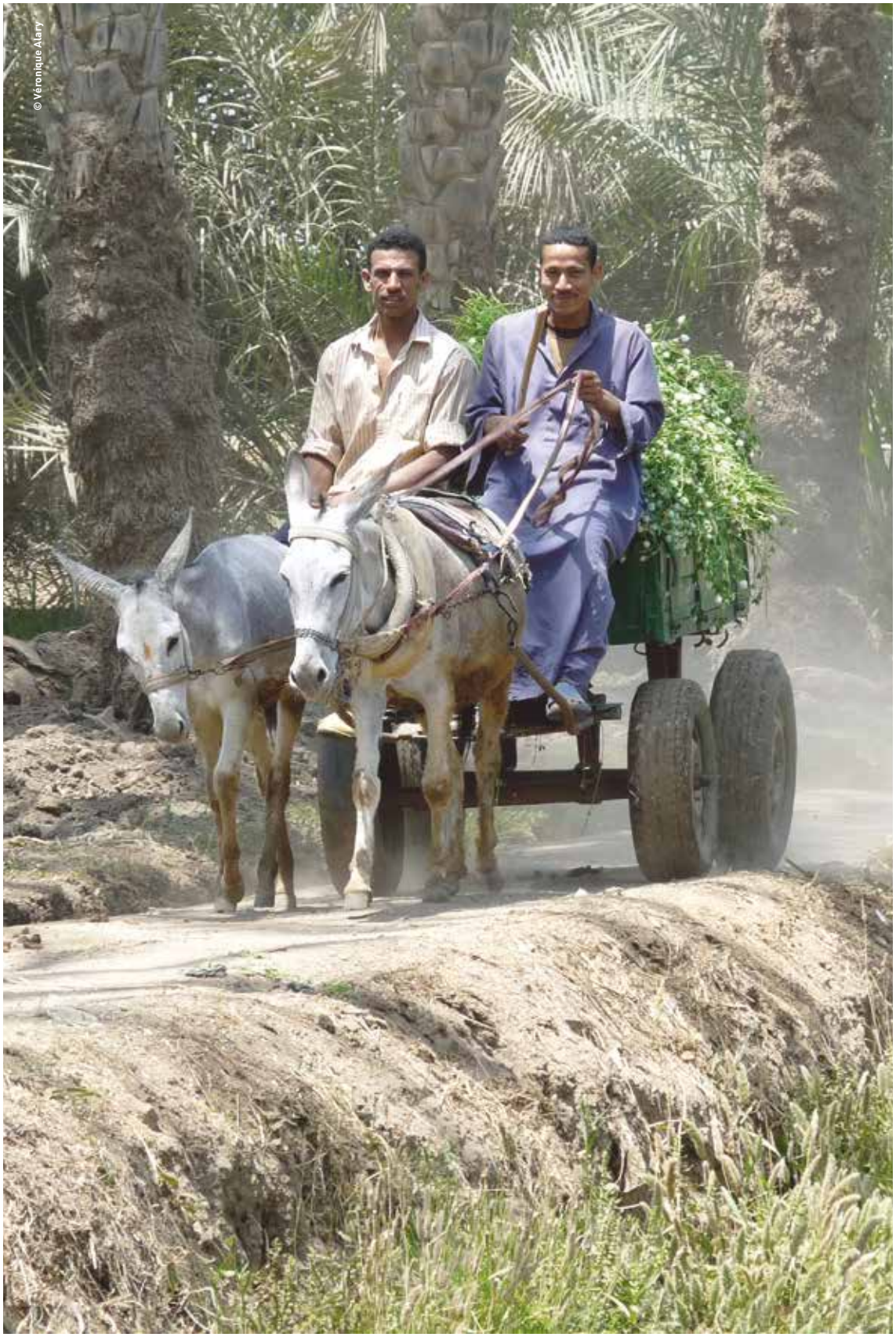
Commodity	Production	Imports	Exports	Inventory Change	Consumption	Self-sufficiency %
	(Thousand Tons)					
Wheat	8 407	8 247	180	2	16 476	51.0
Maize	6 876	6 121	91		12 906	53.3
Rice	3 785	124	43	-177	3 689	102.6
Sugar	2 120	892	178		2 834	74.8
Fava Bean	101	23			124	81.5
Vegetable Oil	394	1 076	221	-12	1 237	31.9
Red Meat	978	196			1 174	83.3
Poultry	888	36	2		922	96.3
Fish	1 046	2			1 048	99.8
Egg	305	2	2		305	100.0
Citrus	3 426		1 075		2 351	145.7
Grapes	1 321		65		1 256	105.2
Potatoes	4 338		815		3 523	123.1
Onion	2 304		491		1 813	127.1

Source: Compiled and collected from: FAO, FAOSTAT

It is worth noting that Egypt has many programs designed to increase self-sufficiency in the production of various agricultural products that include adopting incentive pricing policies for certain crops, rationalizing their consumption, reducing post-harvest losses and expanding the cultivation of strategic crops in the **new reclaimed lands**.

The Egyptian government has adopted a **Sustainable Development Agriculture Strategy** through 2030 that aims to:

- Improve the living conditions of the rural population and reduce rural poverty rates;
- promote the sustainable use of natural and agricultural resources;
- maximize the agricultural productivity by land and water units;
- achieve a higher degree of food security for strategic food commodities;
- strengthen the competitiveness of agricultural products in domestic and international markets;
- improve agricultural investment conditions.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SECTION ONE

Small-scale family farming

1.1 Existing typologies of small-scale family farming

1.1.1 Defining small-holder farmers

Many terms are used to refer to small-scale farmers, including smallholder and family farmer, but there is no unique and unambiguous definition of smallholder farmers. There are an estimated 450 million small-scale farms worldwide, defined by IFAD as farms with two hectares or less of land (IFAD, 2008). These 450 million farms are thought to support a population of roughly 2.2 billion people (Singh, 2009) and they represent roughly 85 percent of the world's farms.

Different indicators have been identified to define small-scale farmers. Land ownership is one of them. Limited access to land is the most common feature used to identify smallholders in literature or elsewhere. The limit of the size of land most frequently takes the form of a threshold that is usually determined on an ad hoc basis (two hectares mean or median land size). Yet while the size of a land holding as a proxy for small-scale production is useful, it is not an all-encompassing definition. In any given rural area, there are smaller and larger farms. Depending on their local or national context, a small farm might mean a dairy herd of 40 cows in Bavaria, or a corn and soybean operation of 500 or even 1 000 acres on the U.S. prairie. These farms dwarf the vast majority of farms in most developing countries. Moreover, small-scale production does not necessarily require land ownership. For example, dairy farming in India includes a large landless population as well as many marginal and small landholders. A definition based on landholding alone leaves out important groups of small-scale farmers (Murphy, 2012).

Across countries, the distribution of farm size depends on many other factors, such as agro-ecological and demographic conditions and economic and technological factors. A range of other dimensions are important attributes of scale in defining small holder farmers. Among these attributes, geographical attributes, access, use and ownership of capital, livestock and inputs (including credit) are crucial. Moreover, other attributes such as land fragmentation or differentiation between land ownership and use are important characteristics that affect scale in agriculture (Jayne *et al.,* 2003).

FAO proposed the following definition of family farming: "*a means of organizing agricultural, forestry, fisheries, pastoral and aquaculture production managed and operated by a family and predominantly reliant on family labour, both women's and men's. The family and the farm are linked, co-evolve and combine economic, environmental, social and cultural functions*" (FAO, 2014). In the literature from developing countries, the term "family farming" is often used interchangeably with that of "smallholder farms" (FAO, 2014). In South Africa for example, small-scale family farming is the production of crops and livestock on a small piece of land

without using advanced and expensive technologies. Though the definition of the size of these farms is a source of debate, it can be argued that farming on scattered farms, on traditional lands and on smallholdings located in the peri-urban areas fall in this category (Kutya, 2012).

Egyptian agriculture is characterized by two main types of farms. The first is **individual landholdings**, which represent nearly 92.1 percent of the total area of agricultural land and 99.95 percent of the total number of farms; while the **corporate farms** represent only 7.88 percent of total cultivated area (Table 1.1). Small farms represent the dominant farm type, with nearly two thirds of total farmed area comprising farm units with less than 10 feddans. The Egyptian agricultural census does not differentiate between family farms and other farms. Officials and scientists focus their interest on the small farms and consider them family farms. The criterion used to identify small farms is mainly land area. Some studies consider small farms those that have less than 5 feddans while others consider them less than 3 feddans (based on the production of substantial crops to satisfy the consumption needs of family members).

This type of farming is usually characterized by intensive labour and, in most cases, by the use of animals for draft power and limited use of chemical fertilizers. Such farms generally supply most of their production to the **surrounding markets**. Unlike large-scale commercial agriculture, small farming plays a dual role of being a source of household **food security** and a source of **income** from sale of surplus. Economically, small-scale family farming enhances local economic development as a **source of employment** and keeps most of the income at the local level. Socially, small-scale family farming contributes significantly to feeding household members, thereby contributing to family food security (Siddik, Kandeel and Asar, 1980).

1.1.2 Legal entity of holdings in national statistics

According to the latest agricultural census (2010), farm holdings have **six legal forms of tenure**, including individual holdings and **five corporate holdings**, **(namely companies, cooperatives, agrarian reform, government and other entities)**.

Individual holdings constitute an area of 8 965 million feddans, compared to 766 thousand feddans for corporate holdings, of which around 626 thousand feddans are comprised by companies and around 43 thousand feddans are comprised by cooperatives. Government farms occupy around 86 thousand feddans. Table 1.1 shows that private holdings account for around 92.13 percent of total holdings while cooperatives and companies account for only 7.87 percent. Table 1.2 and Figure 1.1 show that the vast majority of individual agricultural holdings are smallholdings: 38.1 percent of individual holdings are farms with less than three feddans (about 1.25 hectares), 51.1 percent are of less than five feddans (about 2.1 hectares) and approximately 66.74 percent are farms of less than ten feddans (about 4.2 hectares).

With the prevailing agricultural system in Egypt, the income generated from farms of less than three feddans (from different farming activities and utilizing family labour) does not meet the poverty line of US$1.25 per day per capita (the United Nations poverty line[1]).

[1] A poor person is defined as someone who consumes about $1.25 a day, but after considering the purchasing power parity (PPP), it amounts to less than LE 11.2 per day in 2013, according to CAPMAS.

Therefore, holders of less than three feddans are considered by many experts to be the **most vulnerable category of farmers** in Egypt and therefore, in this study, this threshold is used for the definition of the SSFF category in Egypt.

Table 1.1 **Number and area of holdings according to legal status in 2010**

Item	Individuals	Corporate					
		Companies	Cooperatives	Agrarian reform	Government	Other entities	Total
No. of holdings	5 401 432	587	1203	153	857	163	**2 963**
% of total holding	99.945	0.011	0.022	0.003	0.016	0.003	**0.055**
Area (fed.)	8 964 832	626 745	43 224	0	86 189	9 793	**765 951**
% of total area	92.129	6.441	0.444	0.000	0.886	0.101	**7.871**

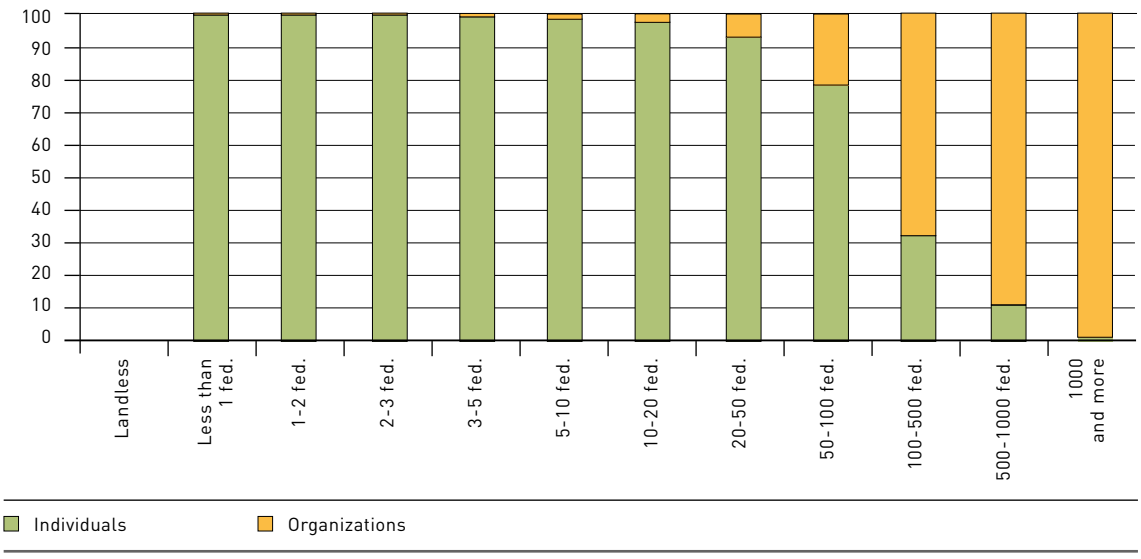
Source: Ministry of Agriculture and Land Reclamation, consolidated results of 2010 Agriculture census

Table 1.2 **Distribution of landholding (%) 2010 census**

Area Category (feddans)	Individuals	Organizations	Area Category (feddans)	Individuals	Organizations
Landless	0	0	**10-20**	12.777	0.254
← 1	10.302	0.007	**20-50**	10.655	0.757
1-2	14.747	0.012	**50-100**	3.620	0.981
2-3	13.138	0.013	**100-500**	3.923	8.076
3-5	12.861	0.034	**500-1000**	0.927	7.197
5-10	15.698	0.111	**→1000**	1.352	82.559

SOURCE: Ministry of Agriculture and Land Reclamation, consolidated results of 2010 Agriculture census 2010

Figure 1.1 **Percentage of individual farms vs organizations farms in 2010**



1.1.3 Farm holding fragmentation

In addition to the fact that Egyptian agriculture is characterized by smallholdings, the most important phenomenon that negatively affects sustainable agricultural production is **fragmentation** of holdings. The data in Table 1.3 shows the distribution of small-scale farm categories (of less than 10 feddans) according to the number of plots. Nearly one third of the small farm holdings are divided into two or more plots. Farms consisting of **two plots** represent 9.48 percent of farms with less than one feddan, 38.73 percent of farms with two to three feddans and 24.5 percent of farms with five to ten feddans. Farms with three plots represent nearly 16.9 percent of farms with two to three feddans and 21.14 percent of farms with three to five feddans. Farms with more than three plots are more prevalent in the categories of farms with more than three feddans.

Table 1.3 **Distribution of small-scale farms by holding size and number of plots (%)**

Landholding	One plot	Two plots	Three plots	More than three plots
← 1 feddan	90.22	9.48	0.29	0.01
1-2 feddan	57.02	34.96	7.40	0.62
2-3 feddan	41.79	38.73	16.89	2.59
3-5 feddan	38.89	33.85	21.14	6.12
5-10 feddan	52.02	24.52	15.79	7.67
Total	70.02	22.09	6.54	1.36

Source: Ministry of Agriculture and Land Reclamation, consolidated results of Agriculture census 2009-10

Small farmers with more than one plot will have greater difficulty using modern technologies. Land fragmentation leads to the inability to carry out sustainable crop management, including pest control and efficient water use. Land fragmentation is one of the most important structural obstacles facing the country in organizing agricultural production services and applying collective agricultural rotation, which is a necessary condition for conserving natural resources. Furthermore, it is a major obstacle to the development of organized value chains and marketing systems,

1.1.4 Land tenure in Egypt

Land tenure in Egypt has seen remarkable changes since the Revolution of 1952, when agrarian reform laws were issued. The law enacted in 1961 established the **maximum land ownership** of 100 feddans per family and 50 feddans per person. Additionally, in the new reclaimed lands (NRL), the government distributed agricultural lands (2.5 – 5 feddans) to landless people and social groups among the poorer classes. The most significant indicators resulting from this change in land tenure was the declined of farm size from 6.13 feddan in 1950 to almost 3.80 feddan in 1960, and to 2.2 feddan in the last agricultural census of 2010. (Table 1.4 and 1.5 and Figure 1.2)

Table 1.4 **Evolution of percentage (%) of land holders and area according to farm size (1929-2010)**

Farm size	Item	1929	1939	1950	1960	1980	1990	2000	2010
< 1		36	37.4	21.4	26.4	32.3	36.1	43.5	48.3
	Area	2.8	2.5	1.8	3.4	6	6.5	8.1	9.5
1-5		47	43.2	57.1	57.1	57.7	53.8	46.9	43.5
	Area	16.4	16.2	21.3	34.4	46.5	42.4	39.1	37.5
5-10		2.1	10	12.2	10.4	7	6.8	6.3	5.2
	Area	9.9	11.3	13.3	17.7	16.6	15.9	16.1	14.5
10-20		4.4	5	5.2	3.4	1.9	2.1	2.2	2
	Area	9.5	11.4	11.5	11.9	9.2	10.1	11.8	11.8
20-50		2.3	2.8	2.6	1.4	0.8	0.9	0.9	0.8
	Area	10.9	13.8	12.9	11.1	8.9	9.8	10.3	9.9
50-100		0.7	0.9	0.8	0.4	0.1	0.2	0.2	0.1
	Area	7.7	10	9.4	6.9	2.9	3.7	4	3.4
≥ 100		0.6	0.7	0.6	0.2	0	0.1	0.1	0.1
	Area	42.8	37.7	29.7	14.6	9.8	11.6	10.5	13.4

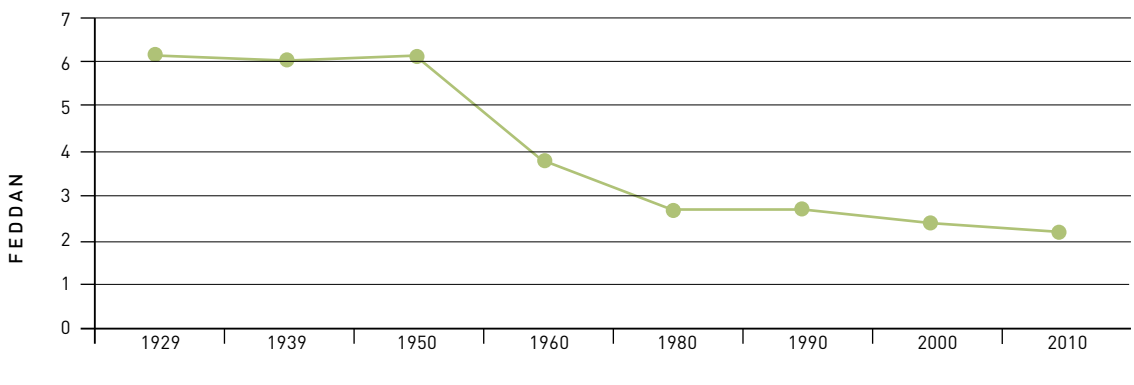
Source: Compiled and computed from: MALR, Results of Consolidated Agricultural Censuses, various issues

Table 1.5 **Changes in the average farm size during the period 1929-2010**

Farm size (feddans)	1929	1939	1950	1960	1980	1990	2000	2010
< 1	0.474	0.41	0.522	0.486	0.502	0.483	0.447	0.431
1-5	2.148	2.256	2.29	2.263	2.16	2.126	1.003	1.893
5-10	6.64	6.84	6.69	6.47	6.34	6.28	6.15	6.09
10-20	13.29	13.65	13.43	13.1	13.13	13.03	12.86	12.65
20-50	29.5	30.1	29.89	28.96	28.78	28.22	27.48	27.07
50-100	67.77	68.74	68.94	67.19	62.74	63.91	62.65	61.48
≥ 100	448.5	308.2	281	129.4	722.2	568.6	348.6	450.1
Average	6.13	6.04	6.13	3.79	2.69	2.7	2.4	2.192

Source: Compiled and computed from: MALR, Results of consolidated Agricultural Censuses, Different issues.

Figure 1.2 **Average area of agricultural land holding (feddans), 1929-2010**



According to this data, the large landowner category (50 feddans or more) declined from about 40 percent in 1950 to about 21 percent in 1960 and continued to decline to 16.8 percent in the 2010 census (Table 1.4). On the other hand, the number of landholders with less than 5 feddans has increased from about 877 thousand in 1950 to 1.4 million in 1960, and to around 4.1 million in 2010, representing around 92 percent of all landholders. Also, the percentage of agricultural land held by this group increased from 23.2 percent in 1950 to 38 percent in 1960 and to 52.5 percent in 1980, and declined slightly to about 47 percent in 2010.

1.1.5 General conditions of small-scale farms of less than three feddans (SSF)

The small-scale farm category includes two main groups:

Group I: Landless: This group comprised around 565 000 farmers in 1990 (1989-90 census) and rose to about 965 thousand in 2010 (2009-10 census). This group made up 16.3 percent of all landholders in 1990 and increased to 17.9 percent in 2010[2].

Group II: - small agricultural land holders: This group includes about 2.3 million holders in 1990; their numbers have risen by 60 percent to about 3.7 million holders in 2010. Table (1.6) and

Table 1.6 **Number and area of holdings within the SSF class (<3 feddan)**

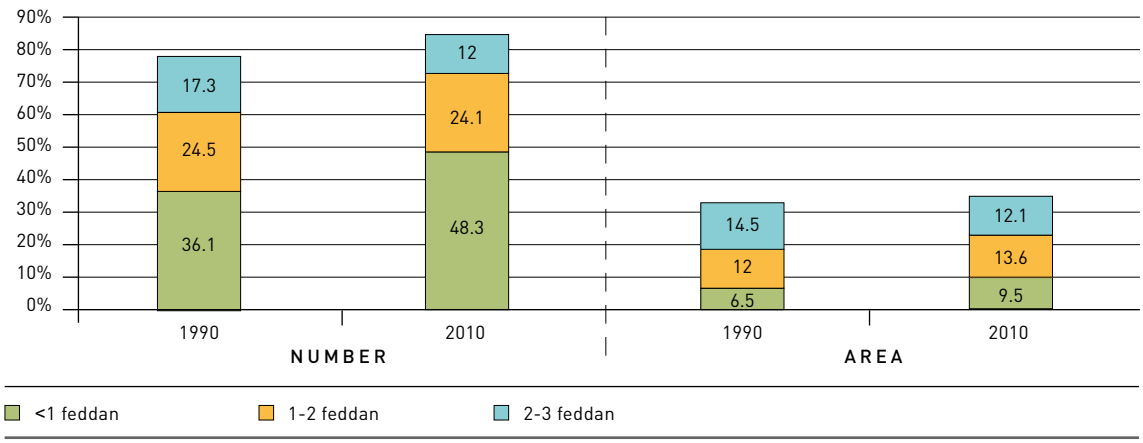
Holding size (feddans)	1990					2010				
	Number (1 000)	%	Area (1 000 Fed)	%	Average area (Fed)	Number (1 000)	%	Area (1 000 Fed)	%	Average area (Fed)
<1	1 050.9	36.1	508.1	6.5	0.48	2 143.9	48.3	923.6	9.5	0.43
1- 2	713.8	24.5	941.1	12	1.32	1 068.6	24.1	1 322.1	13.6	1.24
2-3	502.1	17.3	1 137.4	14.5	2.27	531.5	12	1 177.9	12.1	2.22
SSF	2 266.8	77.9	2 586.6	33	1.14	3,744	84.3	3 423.6	35.2	0.91
Grand total	2 910.3	100	7 849.2	100	2.7	4 439.5	100	9 730.8	100	2.19

Source: Compiled and calculated from: MALR, Consolidated Results of Agricultural Censuses of 1990 and 2010.

Figure 1.3 shows the evolution of agricultural land holder within this category over the twenty years (1990-2010).

[2] Year 1990 refers to the agriculture census (1989–90), and year 2010 refers to the agricultural census (2009–10)

Figure 1.3 **Number and area of holdings within the SSF class**



The following comments can be drawn from the table:

The **relative importance of smallholders** (< 3 feddans) compared with the total number of holders in Egypt had been **increased from 77.9 percent to 84.3 percent,** while the **average holding area was declined from 1.14 feddans to 0.91 feddan** between the two agriculture census of 1990 and 2010.

The holders of **less than one feddan** (very small farmers' category) represented the largest bulk within the small holders' category. Their proportion has risen from 36.1 percent in 1990 to 48.3 percent in 2010; thus their numbers have increased during that period by nearly 33.8 percent, while their landholding area had been increased by only 82 percent, which led to a decline in the average of land tenure area from about 0.48 feddans in 1990 to about 0.43 feddan in 2010.

In conclusion, *small-scale holdings in Egypt (less than three feddans) are increasing in number and their size continues to decline. This is a growing phenomenon, which has a negative impact, from the perspective of technical and economic efficiency and economies of scale in the Egyptian agriculture sector, as well as negatively affecting the farmers' living conditions and increasing poverty rates.*

1.2 Characteristics of small-scale family farming (SSFF)

The farm is the agricultural production unit. It is considered a **set of assets** invested by the holder (including land, livestock, machinery, equipment and other assets) and managed by one technical and economic management unit, which generally is the family. The holder makes the **decisions** concerning the farm (as owner or renter of the land) and is financially and administratively **responsible** for the farm unit.

The aggregate output of the agricultural sector is determined by the structure of the sector and the characteristics of its units (farms). These two features significantly affect the efficiency and competitiveness of the sector as well as the economic conditions and living standards of the families of farm holders.

As mentioned previously, small-scale farmers are an essential component of the structural composition of the agricultural sector in Egypt. Thus, recognition of the characteristics of this category of farmers, considering different aspects (social, economic, cultural, etc.) is very important in designing supportive policies and programs.

1.2.1 Cultural characteristics

In spite of the social, economic, cultural and technological developments that have occurred in recent years, farmers in Egypt still maintain the following characteristics that formed their cultural and social composition over a long period of history, including:

- Preservation of their traditional heritage and a conservative attitude regarding change or development.
- Easily satisfied and limited interest in risk aversion.
- Increasing dependence on the government and local officials or leaders at the village level
- Decline in community spirit and teamwork.

Some studies indicate that some of these values have changed in rural societies over the last few decades. The most notable changes are: (i) growing consumption patterns at the expense of production, (ii) a tendency of the youth to look for non-agricultural activities/ job opportunities and (iii) weak participation in rural development efforts at the local level, leading to migration to urban areas or abroad.

1.2.2 Family size

Traditionally, rural society in Egypt was characterized by the sovereignty of the **composite family system**, and by relatively large families, and relatively high rates of population growth. Since the middle of the last century, both family size and population growth have declined, with population growth rates down to 2percent and the extended family divided into smaller family groups. The average size farm families was about 5.25 in 2010, compared to 5.95 in 1990. (Table 1.7)

Table 1.7 **Average size of landholder families in 1990 and 2010 censuses**

Holding size	Average family size		% of families		Average family size/ feddan	
	1990	2010	1990	2010	1990	2010
Landless	5.21	4.85	14.21	16.46	--	--
< 1 feddan	5.42	4.99	27.57	37.66	11.21	11.57
1–2 feddans	6.02	5.44	20.81	20.49	4.57	4.40
2–3 feddans	6.41	5.75	15.58	10.78	2.83	2.60
SSF	5.83	5.23	63.96	68.93	5.11	5.71
≥ 3 feddans	6.18	5.32	11.84	14.61	1.64	1.40
Total	5.95	5.25	100	100	2.90	2.92

Source: Compiled and calculated from agricultural censuses of 1990 and 2010

According to the 2009–10 agricultural census, the population among farming families is nearly 28.4 million, which is 38 percent of Egypt's total population and two-thirds of the rural population. Families of holding areas **less than one feddan** are the largest group, comprising about 37.7 percent of the agricultural population. The population **within the SSF** category (<3 feddans) is about 69 percent of the total family farming population, landless represent 16.5 percent of the total family farming population in 2010. The remaining landholders (with three feddans or more) represent only 14.5 percent of the total agricultural population in Egypt.

It is important to note that the average agricultural population load per feddan for the small farmer group tends to increase from year to year. It was 5.11 persons per feddan in 1990 and reached 5.71 persons per feddan in 2010, which reflects an increase in the disparity between farm size and the size of farming families. This difference increased significantly in the smaller land tenure categories, where it was 11.57 persons per feddan for those with less than one feddan compared to 5.71 persons per feddan for SSF (< 3 feddans) and 1.4 persons per feddan for medium and large holdings (three feddans and more).

1.2.3 Family labour

According to the censuses of 1990 and 2010, the **number of family labourer** has increased from 3.48 to 3.60 million permanent labourers. This number has doubled for **temporary family labourers** (from 5.62 to 11.12 million). Among the permanent and temporary family labourers, **women's share** was estimated at 14.4 percent of the total permanently employed labourers and 40.9 percent of the total temporarily employed labourers in 2010. (Table 1.8)

Table 1.8 **Number of family labourers working in their own holdings (thousands, 2010)**

Holding size	Permanent			Temporary		
	M	F	Total	M	F	Total
Landless	95.2	33.1	128.4	1 089.3	831.9	1 921.1
SSF	2 206.1	374.0	2 580.2	4 598.8	3 128.1	7 726.9
↗ 3 feddans	795.7	115.8	911.2	887.9	582.3	1 470.3
Total	3 097.0	522.9	3 619.8	6 576.0	4 542.3	11 118.3

Source: Compiled and calculated from 2010 agricultural censuses.

M= male
F=female

SSFF is the category that provides most of the permanent and temporary employment opportunities for families. In 2010, this category represented 71.3 percent of total permanent family employment and about 69.5 percent of total temporary family employment, despite the fact that agricultural land held by this category represents only 35 percent of the total land area. In spite of the absolute numerical increase in the involvement of family labour, some negative indicators can be identified:

- If the medium and large farms (more than three feddans) are taken as a basis for comparison, the average (permanent and temporary) labour per feddan of this category was about 0.72 persons per feddan in 1990 and 0.70 in 2010. The corresponding figure for SSFs is about **three labourers per feddan.**

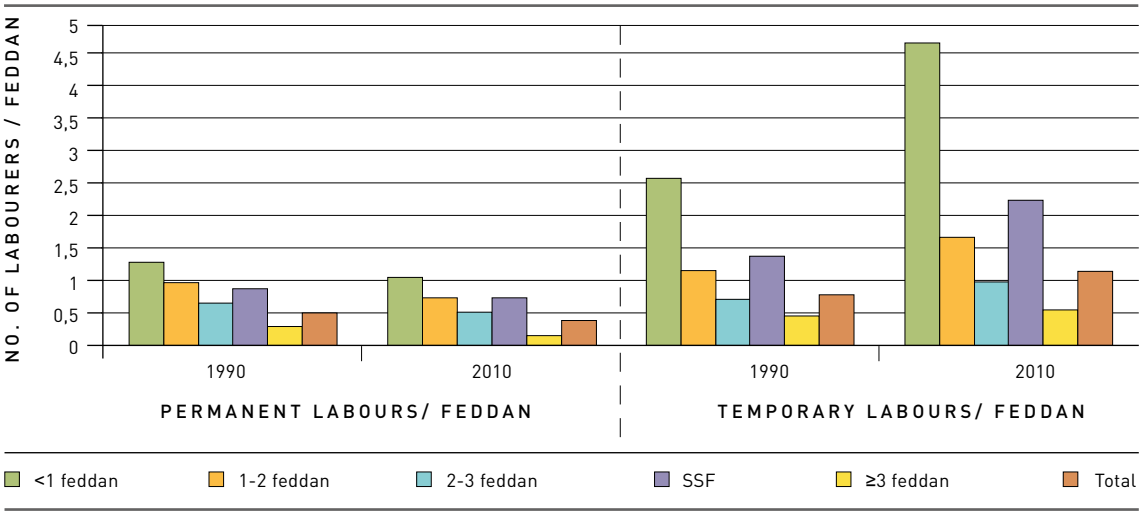
- This number increases considerably in the very small or dwarf farms category (less than one feddan), at **5.8 labourers per feddan**. This demonstrates a significant reduction in the efficiency of human resources on small farms and a decline in the level of productivity/ unit of labour. (Table 1.9 and Figure 1.4)

Table 1.9 **Family labourers per feddan for each farm size in 1990 and 2010 censuses.**

Holding size	Permanent labourers/feddan		Temporary labourers/feddan		Total labours/feddan	
	1990	2010	1990	2010	1990	2010
< 1 feddan	1.29	1.06	2.61	4.72	3.90	5.78
1 2 feddan	0.93	0.74	1.18	1.69	2.11	2.43
2 3 feddan	0.66	0.53	0.72	0.96	1.38	1.49
SSF	0.88	0.75	1.37	2.26	2.25	3.01
≥ 3 fed.	0.26	0.16	0.46	0.54	0.72	0.70
Total	0.49	0.37	0.79	1.14	1.28	1.51

Source: Compiled and calculated from agricultural censuses of 1990 and 2010

Figure 1.4 **Family labourers by farm size in 1990 and 2010 censuses**



- The rate of **permanent family labourers/feddan** is declining, both overall and within the different categories of land tenure, especially SSFs. Agriculture is no longer attractive to family members as a form of permanent work (assuming that smallholders do not employ permanent workers outside the family, which is generally the case). Members of farming families, especially young family members, prefer to move towards non-agricultural activities as permanent work whenever such opportunities exist.

- There is a clear **increase in temporary labourers/feddan** among the different categories of land tenure, especially among SSFs. There were no significant changes in crop structure or technological methods in Egyptian agriculture between 1990 and 2010 that would justify this significant increase in the rate of temporary labourers per feddan. Other factors come into play, among which are low interest of family members in agricultural work and the attractiveness of other off-farm activities, such as government jobs, which provide income security, and private sector jobs which provide higher income.

1.2.4 Educational Status

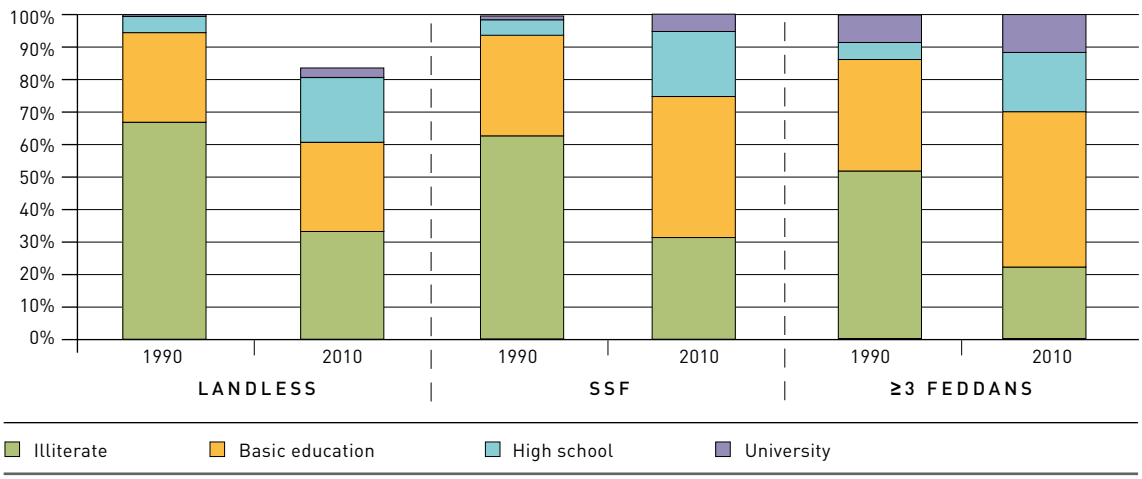
During the period between the 1990 and 2010 censuses, there is a noticeable positive change with regard to the overall educational status of agricultural landholders and their families. Their **illiteracy rate** decreased from 61.6 percent to 30.6 percent and the proportion of landholders within the different educational levels rose. (Table 1.10 and Figure 1.5)

Table 1.10 **Landholders by educational status (%)(1990 and 2010 censuses)**

Holding Size (Fadden)	Illiterate		Basic education		High school		University degree	
	1990	2010	1990	2010	1990	2010	1990	2010
Landless	66.58	33.26	27.52	44.02	4.85	19.46	1.02	3.27
< 1feddan	62.64	30.36	30.25	42.85	5.32	21.65	0.05	5.17
1 2 feddan	62.78	32.32	30.81	44.04	4.61	18.08	1.77	5.56
2 3 feddan	62.76	34.14	31.08	43.59	4.25	16.35	1.89	5.91
SSF	62.71	31.45	30.61	43.29	4.86	19.88	1.00	5.39
≥ 3 feddan	51.68	22.44	34.37	47.80	5.30	17.83	8.64	11.92
Total	61.56	30.62	30.98	44.00	4.97	19.54	2.40	5.85

Source: Compiled and calculated from agricultural censuses of 1990 and 2010

Figure 1.5 **Educational status of landholders (%)**



The improvement of the **educational conditions** of farming families follows the same trend in all categories of land tenure. However, there is a significant increase of the number of holders who obtained pre-university certificates and **university degrees**. For SSF, the proportion of holders with **high school certificates** increased from 4.9 percent to 19.9 percent between 1990 and 2010. This is close to the **average educational level** in the medium and large holdings category (about 17.8 percent in 2010). The percentage of smallholders who have university degrees also increased, from 1 percent to 5.4 percent. (Table 1.11)

At the family level, the **educational status of female holders** is still significantly lower than male holders. In 2010, the illiteracy rate was 69.7 percent among female holders within the SSFF category versus 29.8 percent for males. This percentage was higher for female landless farmers, at 74 percent, versus 31.8 percent for males. However, it is worth noting that the gap in educational levels between female and male smallholders drops in terms of higher education in the larger landholder categories. For example, the proportion of females with university degrees in the 2–3 feddan landholding category was about 4.7 percent, versus 5.9 percent for males in the same group. (Table 1.11 and Figure 1.6)

Table 1.11 **Distribution of landholders according to educational status of males and females (2010)**

Holding Size (Faddens)	Illiterate %		Basic education %		High school %		University %	
	M	F	M	F	M	F	M.	F
Landless	31.80	73.96	44.89	19.53	19.95	5.61	3.35	0.90
< 1 feddan	28.24	70.57	44.03	20.13	22.39	7.38	5.34	1.93
1–2 feddan	31.08	69.21	44.80	21.63	18.57	6.20	5.65	2.96
2–3 feddan	33.10	65.02	44.26	23.96	16.69	6.33	5.96	4.69
SSF	29.75	69.67	44.29	20.87	20.47	7.01	5.52	2.45
≥ 3 fed	21.98	38.84	48.24	35.72	17.93	10.61	11.85	14.83
Total	29.11	67.40	44.90	23.96	20.05	6.33	5.95	4.69

Source: MALR, Results of consolidated Agriculture census 2010

M= male
F= female

1.2.5 Age structure of smallholders

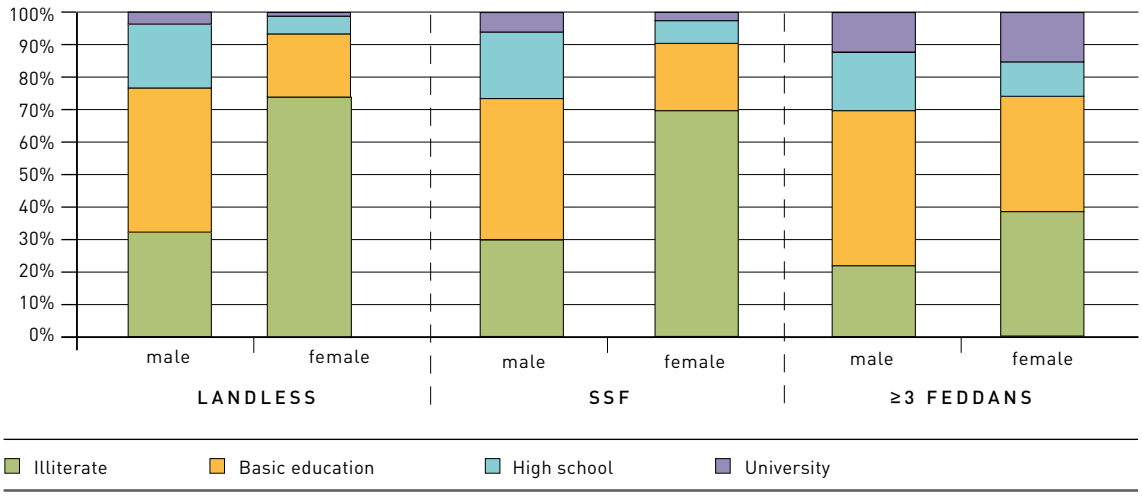
Table 1.12 presents the age structure of agricultural holders as per the agricultural censuses of 1990 and 2010 for SSFF, landless farmers and the overall community of the landholders of different categories. The most noticeable observation is that the **categories of landholders below 45 years of age** tends to decrease among all types of landholders, while the categories of landholders above 50 years of age tend to increase. This reflects a high ratio of farmers in adulthood and old age and a decline in the proportion of young landholders, that is, those who have greater ability to obtain and perform alternative types of work.

Table 1.12 **Age distribution of landholders (1990 and 2010 censuses)**

Age Category	Total holders (%)		Landless holders (%)		Holders < 3 Feddan (%)	
	1990	2010	1990	2010	1990	2010
<25	0.59	0.52	0.99	0.87	0.53	0.43
>25	2.53	1.89	4.12	3.20	2.17	1.71
>30	4.97	3.56	7.79	5.53	4.14	3.34
>35	12.71	8.95	17.94	12.36	12.30	8.63
>40	14.20	11.97	17.24	14.56	14.20	11.84
>45	20.56	20.02	21.02	21.24	20.91	19.96
>50	15.63	17.59	12.88	16.45	16.10	17.84
>55	12.15	14.61	8.49	13.05	12.44	16.62
>60	16.41	19.23	9.18	12.84	15.87	19.60
< 45	35.00	26.77	48.08	36.52	33.34	25.95
45 & more	64.75	71.45	51.57	63.58	65.32	74.02

Source: MALR, Results of consolidated census of 1990 and 2010

Figure 1.6 **Distribution of landholders according to educational status of males and females (2010)**



Therefore, the ratio of older farm holders is increasing, versus a decline in the ratio of younger holders who are more able to work actively and perform different agricultural and non-agricultural activities. With regard to the SSFF category, holders who are over 45 years of age represent about three-quarters (74 percent) of the farm holders in this category, whereas in 1990 they were approximately 66 percent of the category. In contrast, the proportion of holders under 45 years of age decreased from 33.6 percent to 25.9 percent between 1990 and 2010. This could a result of little interest on the part of young generations in agricultural activity as well as the improvement of living conditions, especially life expectancy.

1.2.6 Gender composition of the holders

Tables 1.13 and 1.14 and Figure 1.7 show that women are a minority in Egyptian agriculture as land holders. They represented around 8.23 percent of all land holders in 1990, but that figure dropped significantly in 2010 to just 3.94 percent. This decline was not only as a decline in the proportion of women landholders, but also in the actual numbers of women holders, which dropped from 285.8 thousand to 212.8 thousand between 1990 and 2010 (a decline of 25.5 percent). Three-quarters of these women are SSF. Additionally, the percentage of women landholders in the medium and large scale farms dropped from 5.26 percent in 1990 to 3.23 percent in 2010.

Table 1.13 **Number of male and female holders (in thousands) in 1990 and 2010 censuses. Holding size (feddans)**

	Male (thousands)		Female (thousands)		Total	
	1990	2010	1990	2010	1990	2010
Landless	536.91	930.06	25.79	33.31	562.70	963.37
< 1	930.33	2 036.74	119.83	106.98	1 050.16	2 143.72
1–2	651.24	1 033.69	62.43	34.86	713.66	1 068.56
2–3	461.81	514.09	40.17	17.31	501.98	531.41
SSF	2 043.38	3 584.52	222.43	159.15	2 265.80	3 743.63
≥ 3	1 141.68	1 604.13	63.32	53.63	1 205.01	1 657.74
Total	3 185.06	5 188.65	285.75	212.78	3 470.81	5 401.43

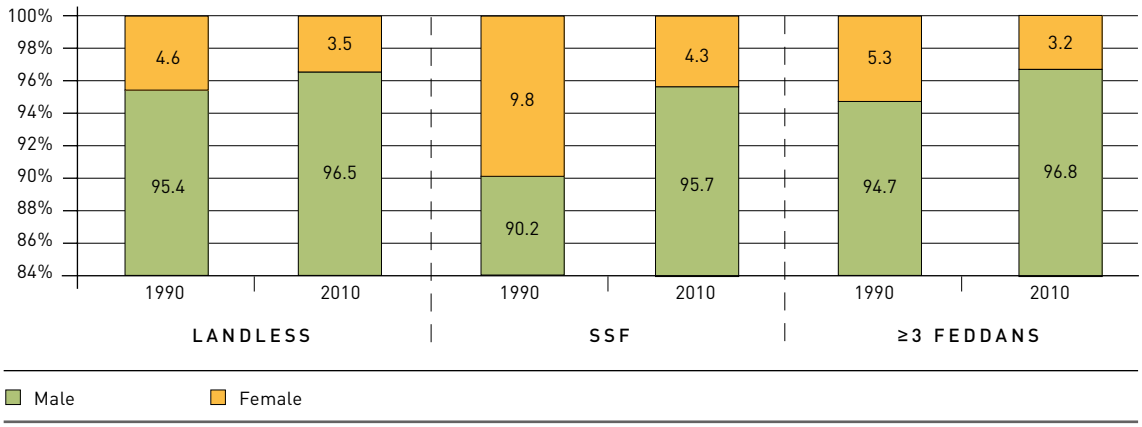
Source: MALR, Results of consolidated 1990 and 2010 censuses

Table 1.14 **Percentage of holders (male/female) in 1990 and 2010 censuses**

Holding size (Feddans)	Male (%)		Female (%)	
	1990	2010	1990	2010
Landless	95.42	96.54	4.58	3.46
< 1	88.59	95.01	11.41	4.99
1–2	91.25	96.74	8.75	3.26
2–3	91.99	96.74	8.01	3.26
SSF	90.18	95.75	9.82	4.25
≥ 3	94.74	96.77	5.26	3.23
Total	91.77	96.06	8.23	3.94

Source: MALR, Results of consolidated census of 1990 and 2010

Figure 1.7 **Percentage of holders (male/female), 1990 and 2010 censuses**



Although, Islam provides for the protection and respect of female rights with regard to inheritance, some negative cultural traditions against women remain the most important challenges facing women in many rural areas. This trend is more obvious in Upper Egypt where men prefer to keep the land in the family and, as such, **do not want to register inherited land in the women's names**. Sometimes the woman is either compensated in cash or in kind for the value of the land, and, through this process, the land remains in the family patrimony of the father, ensuring also the family prestige of land ownership.

> *"The low ability of women to own and inherit land properties in certain areas, particularly in Upper Egypt, due to some of the prevailing norms which violate laws and contradict with the various guidance of religions, prevent the inheritance of agricultural land for females and this reflects negatively on the economic and social empowerment of women."* (National Council for Women, 2015)

Finally, it is also of note that the 14 percent of permanent workers are women, while women make up 40 percent temporary workers. This situation demonstrates a form of bias against females with regard to their involvement in agricultural activity.

1.2.7 Legal forms of land tenure

The prevailing legal **forms of land tenure** in Egypt are: **owned land, cash rented and share rented**. Table 1.15 and Figures 1.8a and 1.8b show that there has been a significant increase in owned landholdings between 1990 and 2010. The number of owned farms rose from around 67.6 percent in 1990 to 91 percent in 2010. This was accompanied by an increase in the land area of owned farms from 64.8 percent to 85 percent, respectively. These changes are mainly due to **new legislation** deregulating the relation between **land owners and tenants** (Law No. 6, 1992).

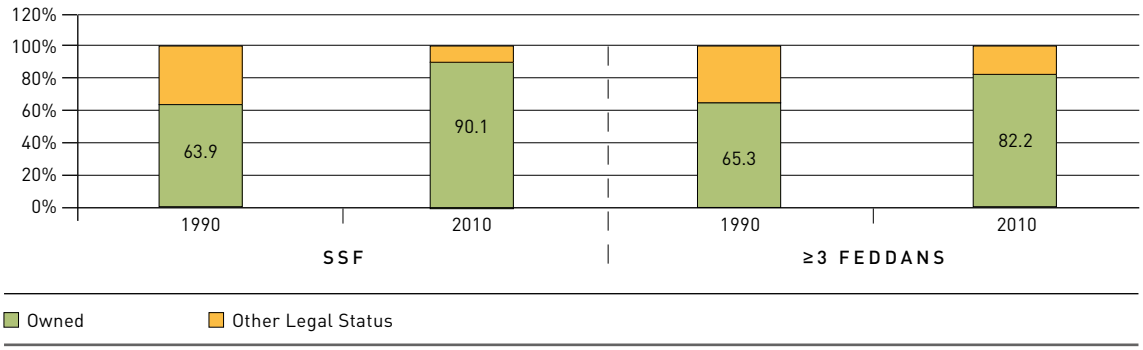
Table 1.15 **Land Holdings by Legal Status (1990, 2010)**

Holding Size (feddans)	Owned %				Other Legal Status %			
	Number		Area		Number		Area	
	1990	2010	1990	2010	1990	2010	1990	2010
< 1	77.1	94.3	74.3	93.7	22.9	5.7	25.7	6.3
1–2	63.0	90.3	62.1	90.1	37.0	9.7	37.9	9.9
2–3	61.1	87.3	60.8	87.2	38.9	12.7	39.3	12.8
SSF	69.1	92.2	63.9	90.1	30.9	7.8	36.1	9.9
≥ 3	62.4	84.7	65.3	82.2	37.6	15.3	34.7	17.8
Total	67.6	91.0	64.9	85.0	32.4	9.0	35.2	15.0

Source: MALR, Results of consolidated census of 1990 and 2010

Figure 1.8a **Number of landholdings by legal status (%) (1990, 2010)**

Figure 1.8b **Area of landholdings by legal status (%) (1990, 2010)**



This **increase of land ownership** is clear in SSFF where the number of owned holdings increased from 69 percent to 92 percent over this period, and the land area owned increased accordingly from 63.9 percent to 90.1 percent. Furthermore, owned holdings become the prevailing legal form of land tenure in Egypt.

One of the major factors that explains this change is the law, enacted in 1992, concerning the relationship between landowners and tenants, which relaxed the constraints imposed by the agrarian reform laws.[3] The new law gave landowners the right to terminate contractual relationships any time and liberalized the mechanism for determining rent values, based on market forces. Thus, large numbers of agricultural lands shifted from **renting tenure status to ownership tenure**.

1.2.8 Cropping patterns in smallholding

Egyptian agriculture shows a trend towards an increase in the cultivation of cash crops, mainly horticultural crops (vegetables and fruits) at the expense of traditional field crops (cereals, legumes, sugar crops, oilseeds and forages). Horticultural crops are considered cash yield crops, and they can be valorized on the international market. In this context, the crop area used for the production of vegetables in Egypt increased from 2.7 percent in 1952 to 9.1 percent in 1990, and reached 14 percent in 2013. During the same period, the crop area used for fruit production increased from about 1 percent in 1952 to 6.3 percent in 1990 and reached 11 percent in 2013. Farmers in the **smallholder** category grew mainly traditional **field crops** (90.3 percent) whereas horticultural production (fruit and vegetable) represented only 9.7 percent of their crop area, according to the 1990 census (Table 1.16 and Figure 1.9). In 2010, field crop production represented 91.4 percent of their crop area and horticultural crops decreased to 8.6 percent. Field crops are always subsistence food for family farming communities, used primarily for family consumption, with the surplus being sold at the nearest market.

For **medium and large farm holdings**, field crop cultivation constitutes 81.9 percent of crop area, compared to 18.1 percent for horticultural crops. In this category, field crops fell to 71.4 percent in 2010 while horticultural crops increased to 28.6 percent.

Table 1.16 **Cropping pattern changes between 1990 and 2010 censuses (%)**

Holding size classes (Feddans)	Field crops		Vegetables		Fruits	
	1990 (%)	2010 (%)	1990 (%)	2010 (%)	1990 (%)	2010 (%)
< 1	91.8	93.5	5.5	4.6	2.7	1.9
1 2	85.9	91.6	10.0	5.99	4.1	2.4
2 3	91.8	89.5	5.9	7.0	2.3	3.4
SSF	90.3	91.4	6.9	6.0	2.8	2.6
≥ 3	81.9	71.4	10.1	13.9	8.0	14.7
Total	84.6	79.6	9.1	10.6	6.3	9.7

Source: MALR, Results of consolidated census of 1990 and 2010

[3] The first agrarian reform law issued in 1952. It prevented the landowner from evicting the tenant and gave the right of inheritance of the rented land to the sons of the renter (father) who work in agriculture. As such, rented land remained in the possession of tenants by force of law and at a low rental amount which was unfair for the landowner.

Figure 1.9 **Cropping pattern changes in small holdings between 1990 and 2010**

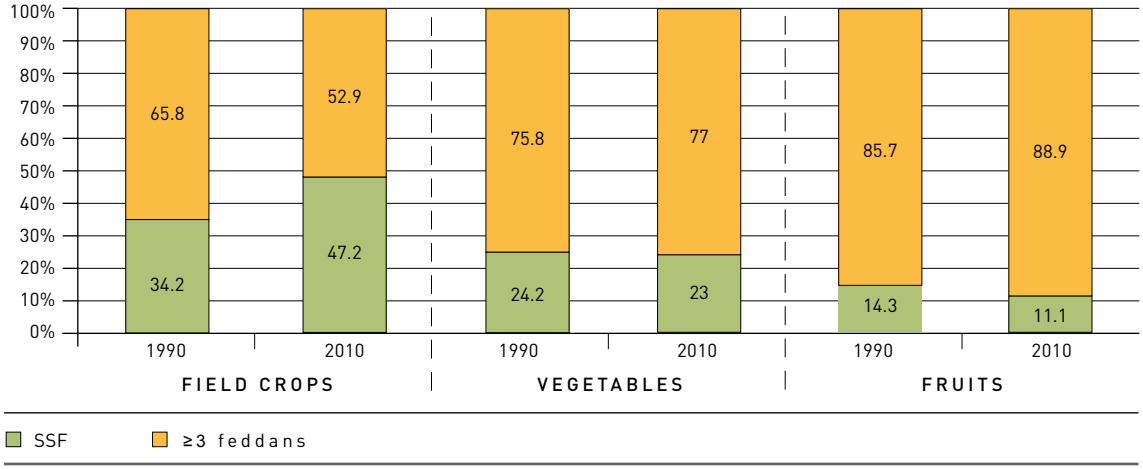
Thus, it is clear that small-scale farmers are more inclined toward the traditional cultivation of field crops as subsistence commodities (Table 1.17 and Figure 1.10). Other factors driving this tendency are the weaknesses of their **financial capacity** and the lack of innovative **technical knowledge** for managing horticultural crops. Furthermore, the prevailing marketing systems do not promote the cultivation of horticultural crops among small-scale farmers and even limit their selling power in this regard.

Table 1.17 **Share of holding categories by crop category (% of total crop area)**

Holding size classes (Feddan)	Field crops		Vegetables		Fruits	
	1990 (%)	2010 (%)	1990 (%)	2010 (%)	1990 (%)	2010 (%)
<1	8.09	13.28	4.54	4.90	3.14	2.25
1–2	8.13	18.32	8.97	8.96	5.28	3.94
2–3	17.78	15.55	10.68	9.14	5.88	4.89
SSF	34.18	47.15	24.19	23.00	14.30	11.08
≥ 3	65.82	52.85	75.81	77.00	85.70	88.92
Total	100	100	100	100	100	100

Source: MALR, Results of consolidated censuses of 1990 and 2010

Figure 1.10 **Share of holding categories by crop category (% of total crop area)**



1.2.9 Animal production

The traditional Egyptian farming system is based on a **mixed and integrated crop-livestock system**. Table 1.18 shows that about 70.5 percent of agricultural holders in 1990 had large ruminants (cows and/or buffalo), while 48.7 percent of them had small ruminants (sheep and/or goats). In 2010, holdings with large and small ruminants dropped to 70.5 percent and 48.3 percent, respectively (Table 1.19 and Figures 1.11 and 1.12).

The main reasons for the decline of animals on farm holdings are: (i) the outbreak of some epidemic **diseases** such as foot-and-mouth disease (FMD) and (ii) the increasing cost of animal **feed**, especially of imported feed such as maize, grains and soybeans. However, Tables 1.19 and 1.20 indicate that animal production remained high for the **landless group**: In 2010, 81.3 percent of landless holdings had large ruminants and 54.8 percent had small ruminants. These percentages were less in the SSF category, at 68.5 percent for large ruminants and 47.3 percent for small ruminants.

Table 1.18 **Percentage of holdings with and without large ruminants and number of large ruminants per farm (1990, 2010 censuses)**

Holding Size (Feddans)	Large ruminant on holdings (%)				Average number of large ruminants heads /holder	
	1990		2010		1990	2010
	with	without	with	without		
Landless	87.71	12.29	81.31	18.69	2.04	2.12
< 1	65.41	34.59	63.02	36.98	1.74	1.98
1–2	79.49	20.51	75.87	24.13	2.24	2.61
2–3	82.38	17.62	75.84	24.16	2.72	3.12
SSF	73.60	26.4	68.51	31.49	2.15	2.35
≥ 3	77.44	22.56	66.22	33.78	4.47	4.60
Total	76.61	23.39	70.50	29.5	2.57	2.59

Source: MALR, Results of consolidated census of 1990 and 2010

Figure 1.11 **Percentage of holdings with and without large ruminants, for each farm size (1990, 2010)**

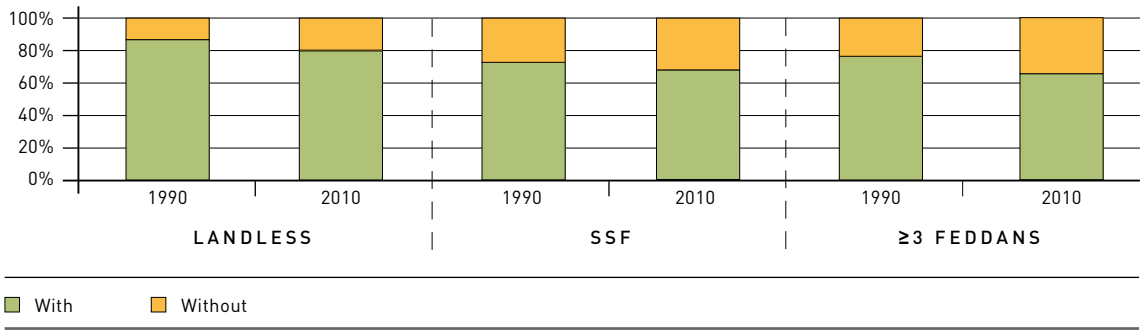
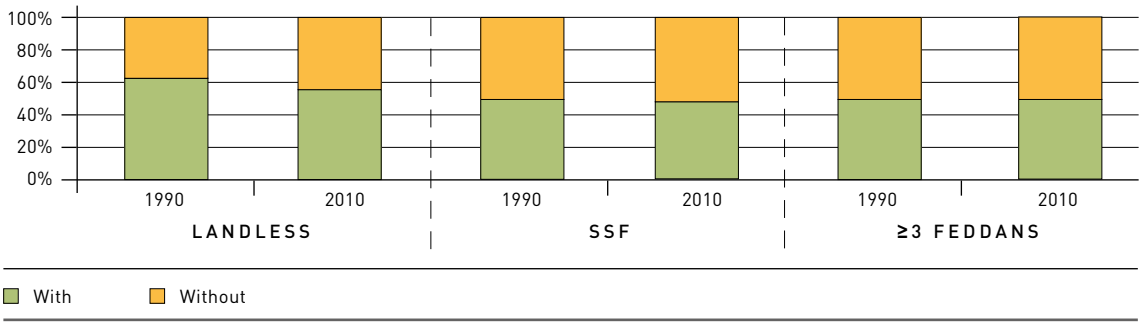


Table 1.19 **Percentage of holders with and without small ruminants and number of ruminants per farm for each farm size (1990, 2010 Censuses).**

Holding Size (Feddans)	Small ruminant on holdings (%)				Average number of small ruminant heads/ holder	
	1990		2010		1990	2010
	with	without	with	without		
Landless	61.20	38.8	54.79	45.21	6.87	6.69
< 1	45.18	54.82	45.12	54.88	4.45	4.82
1–2	50.25	49.75	50.11	49.89	4.74	5.16
2–3	51.54	48.46	50.33	49.67	5.24	4.80
SSF	48.19	51.81	47.28	52.72	4.74	4.96
≥ 3	48.02	51.98	48.10	51.9	8.89	5.62
Total	50.27	49.73	48.73	51.27	5.90	5.62

Source: MALR, Results of consolidated census of 1990 and 2010

Figure 1.12 **Percentage of holdings with and without small ruminants**



The number of animal heads per holding was 2.12 for large ruminant and 6.7 for small ruminants in the landless category, and 2.4 heads of large ruminants and 5.0 heads of small ruminant for SSFs.

Small-scale farmers proved to have a higher density of animals per feddan compared with medium and large holders. This density (or feddan capacity) is about 1.77 heads of cow or buffalo for SSF, compared to 0.34 head for medium and large holdings. Sheep and goat density was 2.6 per feddan in SSF compared to 0.39 for medium and large holders. This reflects the **importance of livestock activities** for the economy and livelihood of smallholders.

1.2.10 Full-time agricultural activity

Multiple economic, social, cultural, technological and demographic factors combine to explain the decline of the proportion of agricultural holders who work full time on their farms. Table 1.20 shows that the percentage of full-time farm work has declined significantly from 70.1 percent in 1990 to 50.2 percent in 2010.

Table 1.20 **Percentage of holders who only depend on agriculture (1990 and 2010)**

Holding size (Feddans)	1990	2010		
	Total (%)	Total (%)	Males (% total male)	Females (% total female)
Landless	41.28	30.21	28.25	84.91
< 1	63.20	40.48	37.99	87.83
1–2	80.24	61.51	60.52	90.80
2–3	84.55	70.14	69.42	91.63
SSF	73.30	50.69	48.99	88.89
≥ 3	63.76	49.07		
Total	70.05	50.22	48.67	88.04

Source: MALR, Results of consolidated censuses of 1990 and 2010

Over the last year (2014–15), approximately 2.7 million holders did not have **any activity other than agriculture**, either by choice or because there were no alternative job opportunities. On the other hand, there are a similar number of farm holders who do work in other sectors, whether permanently or occasionally. The majority of the latter are under 45 years of age and are educated. SSF was the most dynamic group in terms of working in other types of activities, with full-time agricultural workers decreasing from 73.3 percent to 50.7 percent between 1990 and 2010. Medium and large farm holders are the least diversified systems of the sector, with full-time agricultural work decreasing only around 8 percent, from 83.8 percent to 75.4 percent over the period. This category still represents the highest rate of full-time agricultural workers. **Agricultural income** seems to be sufficient to cover family needs in those categories, while that is not the case for SSF who have to seek other sources of income.

By looking at the nature of **other professions practiced** by part-time farm holder (Table1.21), it can be concluded that most smallholders (60 percent) are involved in activities which do not require full-time work, such as occasional work in agriculture and livestock activities, sales and service businesses. SSF and their family members are the major source of employment in many seasonal or temporary occupations (non-permanent). Small-scale farmers with other jobs are mainly engaged in activities related to the agricultural sector such as animal and poultry rearing, services and sales, agricultural machine services and craft workers.

Table 1.21 **Percentage of holders according to primary occupations in 2010**

Occupation	Landless	<1 fed.	1–2 fed.	2–3 fed.	SSF	≥ fed.	Total
Agriculture as primary occupation (%)	30.2	40.5	61.5	70.1	50.7	75.4	50.2
Having other primary occupation, specifically:	69.8	59.5	38.5	29.9	49.3	24.6	49.8
Senior officials and managers	0.2	0.9	1.0	1.1	0.9	2.0	1.0
Scientific occupations	4.6	6.9	6.8	6.7	6.9	8.7	6.7
Technicians and associates	2.3	3.2	2.4	2.1	2.8	1.8	2.6

Occupation	Landless	<1 fed.	1–2 fed.	2–3 fed.	SSF	≥ fed.	Total
Clerks	2.9	4.0	3.3	3.0	3.6	2.4	3.3
Service & sales workers	12.2	10.8	7.9	6.3	9.4	5.0	9.3
Animals & poultry rearing	21.6	15.9	6.7	3.4	11.5	0.7	11.9
Craft workers	18.2	11.7	6.7	3.8	9.0	2.0	9.7
Machine operators	5.4	4.5	3.3	2.6	3.9	1.6	3.9
Elementary workers	1.1	0.9	0.5	0.6	0.7	0.1	0.7
Fishing workers	0.9	0.3	0.2	0.2	0.2	0.1	0.3
Military force	0.2	0.5	0.3	0.2	0.4	0.2	0.3

Source: MALR, Result of the consolidated agricultural census 2010

Almost 27 percent of medium and large farm holders have another permanent job, mainly working as managers, in professional occupations as technicians, etc. In this case, their agricultural activity is often limited to administrating and supervising their farms and/or renting their land to others. This has become one of the dominant systems, not only for the urban holders (who do not reside in rural areas), but also for some holders residing in rural areas and for those who prefer the rent revenue (crop leasing or seasonal renting) and engage in other activities at the same time.

1.2.11 Irrigation and drainage systems

The last census of 2010 shows that about 94.8 percent of SSFs and 80.02 percent of medium and large farm holdings depend on the Nile water for **irrigation.** (Table 1.22 and Figures 1.13a, b and c). Only 5.0 percent of the SSFs depend on other irrigation sources such as underground water, agricultural drainage water, blended water or rain. This percentage rises to 20 percent among medium and large farms. This may be due to the fact that the vast majority of small farms are located in the Delta and Nile Valley, while large holdings are mainly found in the new reclaimed areas outside the Valley and Delta. Considerable numbers of these farms depend on groundwater.

Table 1.22 **Distribution (%) of holdings that use different water sources and irrigation and drainage systems 2010**

Item	SSF (%)	≥ 3 feddans (%)	Total (national level) (%)
Source of water:			
Nile water	93.20	66.81	76.71
Groundwater	3.89	21.93	15.16
Drainage water	0.51	1.14	0.90
Mixed water	2.13	5.88	4.47
Rain	0.18	3.95	2.54
On farm irrigation system:			
Traditional (flood)	96.88	73.07	82.66
Modern (drip and sprinkling)	1.11	22.82	14.67
Non-classified	2.01	4.11	2.67

Item	SSF (%)	≥ 3 feddans (%)	Total (national level) (%)
Drainage:			
Open public	11.35	20.67	17.18
Tile drainage (under surface)	76.65	42.00	55.00
Without drainage	12.00	37.33	27.83

Source: MALR, result of the consolidated agricultural census 2010

Figure 1.13a **Sources of water irrigation (2010)**

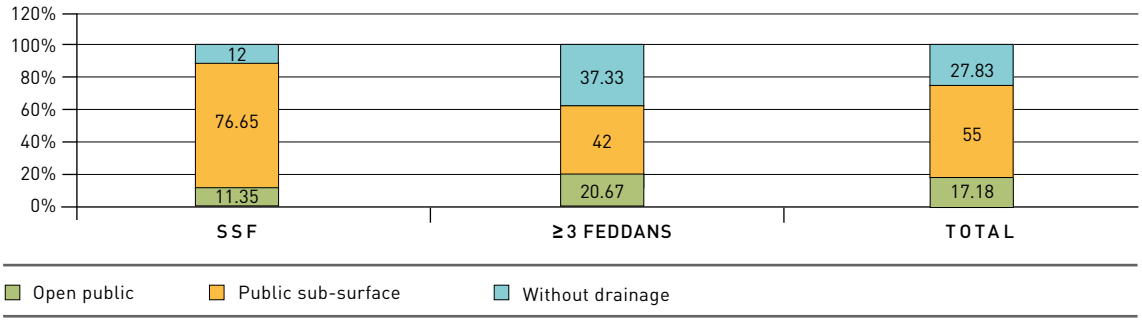


Figure 1.13b **Type of irrigation systems (2010)**

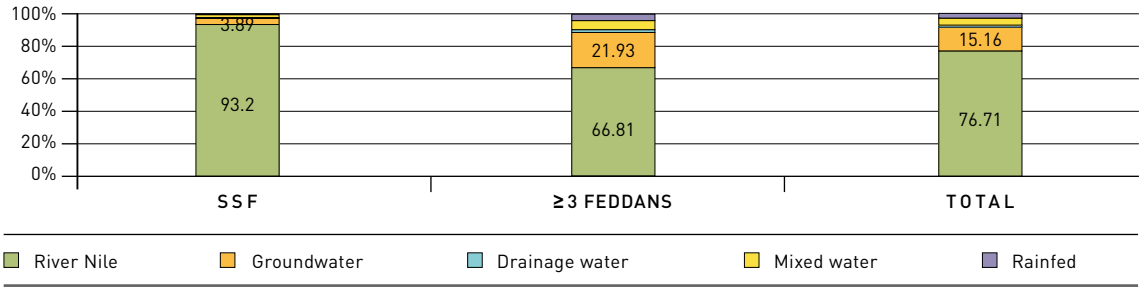
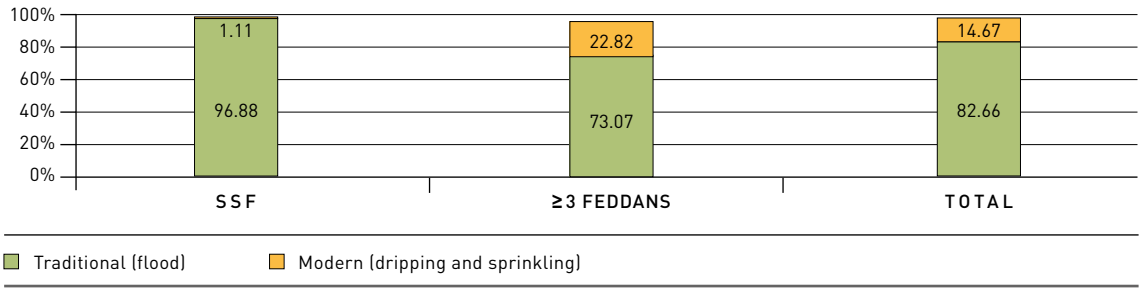


Figure 1.13c **Types of Drainage System (2010)**



As Table 1.22 indicates, SSFs have the advantage over large holders, as they are covered with drainage systems. The percentage of smallholders who are using **tiled drainage systems** is about 88.13 percent, compared to 56.79 percent for medium and large holders mainly located

in the new reclaimed lands (NRL). In fact, most drainage projects are located in the Nile Valley and Delta areas, where the majority of SSFs are located.

Regarding irrigation systems, 96.88 percent of the SSFs continue to apply the traditional **flood irrigation system**, which is the least efficient means of water use, where irrigation efficiency is estimate at nearly 50 percent. Only a small percentage of SSFs applies modern on-farm irrigation systems, particularly **sprinkler or drip irrigation**. This percentage increases to 22.8 percent among the medium and large holdings.

Of course, the determining factor in this regard is the financial capacity of the holder as well as other factors such as crops being produced, awareness of the feasibility of implementing irrigation systems and even the public awareness of the national interest in rationalizing water use.

1.3 Economic and social contributions of SSFF

From the national point of view, smallholders (including the landless) represent the most important type of agricultural holders in Egypt. According to the last agricultural census of 2010 there were 4.7 million smallholders, representing around 87.2 percent of all agricultural holders in Egypt. They control the management and economic productivity of almost 35.2 percent of the agricultural land in Egypt. According to the 2010 census, the total population of smallholders (including the landless) and their families is estimated to be about 24.23 million, nearly 57 percent of the total rural population and about 32 percent of Egypt's total population.

1.3.1 Contribution of small holders to agricultural work

Table 1.2 shows that nearly 46.8 percent of **landless** holders' families and 57 percent of the family members of SSFs, are involved in permanent or temporary work on their respective holdings. In general, the members of these families constitute the largest **pool of temporary labourers** in the rural areas. The number of agricultural temporary labourers among the smallholders is estimated to be 7.73 million, 4.6 million males (59.5 percent) and 3.13 million females (40.5 percent).

Table 1.23 **Contribution (%) of permanent and temporary family labour on their own holdings (1990 and 2010)**

Holding size (feddans)	Permanent		Temporary		Total	
	1990	2010	1990	2010	1990	2010
Landless	1.80	2.75	32.28	44.13	34.08	46.88
< 1	11.53	9.12	28.55	40.80	40.08	49.92
1–2	20.37	16.89	25.76	38.45	46.13	55.34
2–3	23.41	20.38	25.51	36.94	38.92	57.32
Average SSF	17.30	13.19	26.90	39.50	44.20	52.69
≥ 3	16.06	11.79	27.86	38.46	43.92	50.25
Total average	16.85	12.75	27.44	39.18	44.29	51.93

Source: MALR, Results of consolidated census of 1990 and 2010

Despite this contribution of the smallholder families in agricultural work, the data of the last agricultural censuses (1990 and 2010) indicates clearly the reluctance of the new generation of members of farming families, SSFs in particular, to work in agriculture. This is especially so among youth and those who have some degree of education. This could be explained more by the weak opportunity for productive work than by the relatively low wage in the agricultural sector.

1.3.2 Contribution of smallholders to plant and animal production and to food security

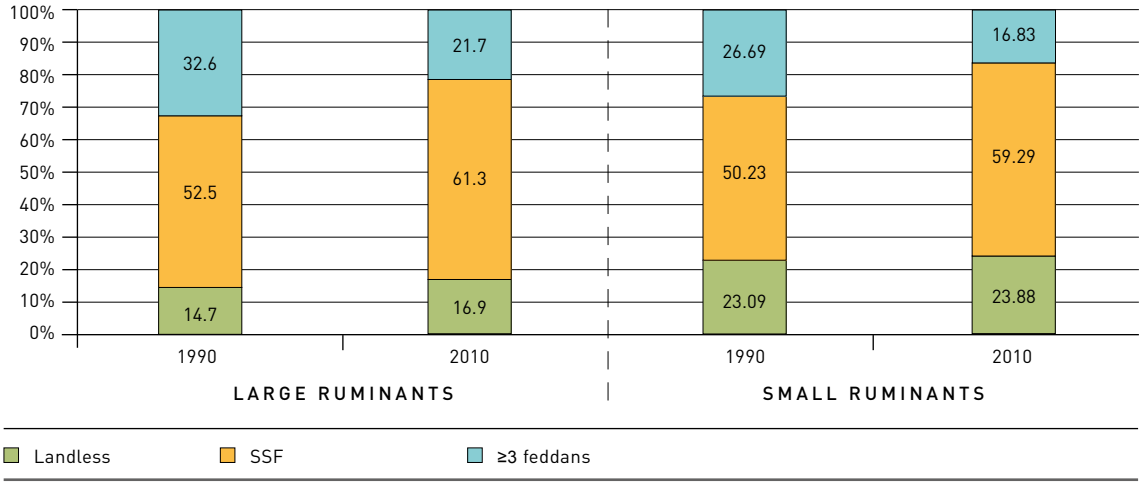
SSF is a major and growing contributor in the production of the main field crops (cereals, legumes, oil crops and fibers) as well as in animal production. The relative importance of this holding category in crop production rose from 34.2 percent in 1990 to 47.2 percent in 2010, versus a decline in the importance of the medium and large farms from 65.8 percent to 52.9 percent. (Table 1.19) In the area of **livestock production**, the contribution of SSF has risen from 52.6 percent to 61.3 percent for cows and buffaloes, and from 50.2 percent to 59.3 percent for sheep and goats, compared to the decline in the contribution of the medium and large farm category in each of these areas. (Table 1.24 and Figure 1.1).

Table 1.24 **Percentage of livestock population in each holding category in 2010**

Holding size	Cow and buffaloes (%)		Sheep and goats (%)	
	1990	2010	1990	2010
Landless	14.79	16.91	23.09	23.88
<1	17.48	27.14	20.54	30.16
>1	18.65	21.42	16.52	18.66
>2	16.46	12.76	13.17	10.48
SSF	52.59	61.32	50.23	59.29
>3	32.63	21.76	26.69	16.83
Total	100	100	100	100

Source: Ministry of Agriculture and Land Reclamation, Agriculture census 1990 and 2010

Figure 1.14 **Percentage of livestock population in each holding size**



The picture is different for **fruit and vegetable crop areas**, where the contribution of SSF is low and declining. The crop area for vegetable production among SSF declined from 24.2 percent to 23 percent, and the crop area for fruit production dropped from 14.3 percent to 11.1 percent; compared to a large increase in **cash crop production by** medium and large farms.

In general, smallholders and their smallholdings are the primary producers of the main **food and fodder crops** for domestic consumption. According to the 2010 census, about 50.5 percent of the total land area of wheat production, 56.4 percent of the land area of rice production, 55.0 percent of the land area of maize production, 53.8 percent of the sorghum land area, 54.2 percent of the clover land area and 46.7 percent of the cotton land area are cultivated by smallholders who cultivate only 35 percent of the total agricultural land (Table 1.25).

Table 1.25 **Major field crops cultivated, by (%)**

Crops	1990	2010
Wheat	42.25	50.47
Maize (corn)	49.00	55.00
Sorghum	47.66	53.80
Cotton	41.44	46.66
Clover	43.75	51.33
Green fodders	31.50	32.00
Total field crops	90.30	91.40

Source: MALR, Consolidated results of 1990 and 2010 agricultural censuses

1.3.3 Contribution of smallholders to exports

No precise, reliable data used to quantify the contribution of SSF to agricultural exports is available. However, related indicators show that the vast majority of agricultural exports, especially horticultural products - the most important export products, are produced by large, specialized farms practicing integrated export-oriented production.

The contribution of small-scale holdings to **horticulture production** is reduced because the financial and technical knowledge required to produce commodities for the competitive export market is not available to them. They are also limited by weak transaction skills, post-harvest quality issues and general food safety requirements. Nevertheless, in rare cases, some export or manufacturing companies establish **contractual relationships** with SSF to produce export crops or processed food products.

1.3.4 Contribution of small-scale farmers to rural development

At present, the situation in the rural areas of the country is entirely in the hands of the national government, which makes all decisions related to the sector, enacts legislation and is responsible for policy development and implementation of development projects. This situation resulted from the weakness of private initiatives, individually or collectively, in the areas of interest to the public at the local level and weak capacity for collective action.

Agricultural cooperatives are the dominant type of **organization** in the countryside. They are almost exclusively oriented to the supply of agricultural inputs for traditional crop production activities. Their role in the era of economic and rural reforms has dramatically declined and is almost non-existent in the field of comprehensive rural development. In addition to the agricultural cooperative, some forms of civil society organizations, such as **community development associations**, **social welfare associations** and **youth centres**, are found in some villages.

In all cases, the insufficient participation of small-scale farmers in these organizations or on their boards of directors is noted. In most cases, the organizations are dominated by "big" rural families of medium or large holdings or by local or national senior government officials.

The weak role of smallholders extends to **environmental protection** activities, where the culture environmental preservation and rational use of national resources is almost absent within that category. This is clear in the prevailing use of traditional inefficient irrigation and a weak interest in preserving **soil characteristics** and conserving agricultural land. In addition, smallholders pay little attention to good agricultural practices, are not motivated to cultivate good quality produce and have weak post-harvest processing and transformation activities. This can be explained by external factors such as the near absence of **extension services** and the lack of marketing information, in addition to the weak bargaining power of smallholders who generally act individually.

1.4 Market access and connections

1.4.1 Description of the variety of marketing systems

There are **two prevailing systems of marketing** for agricultural products in Egypt.

1. *Developed marketing systems:* Production is the main driver within the value chain system in these marketing systems. The systems represents between 15 and 20 percent of agricultural production. They include mostly the category of large farm holders, whose common characteristics include:
   - specialized production, especially horticultural products (vegetables; fruits; cut flowers and ornamental, medicinal and aromatic plants);
   - used of modern technical methods in production and post-harvest and concern for quality standards (mainly in the production of safe products);
   - integrated system from production to marketing, with facilities for marketing services (especially market information), transport, storage and cooling, grading and packaging;
   - trend towards exporting products, either fresh or processed, for external markets, with remaining products marketed locally through non-traditional marketing channels.
2. *Traditional marketing system:* These systems have not evolved significantly for decades. Production represents the weakest link in the value chains. The systems include about 80 to 85 percent of the agricultural production. They include most of the smallholders, the

vast majority of medium holdings and some large holdings. The common features of these traditional marketing systems are:

- Market information is not available to farmers, and is the main determinant in decision-making regarding production.
- Relationships between the different partners in the value chain are not win-win relationships. The system is dominated by the monopolistic behaviour of the stronger partner (especially wholesalers), who aim to maximize their benefits regardless of or at the expense of other links in the chain.
- Agricultural producers represent the weakest link in the value chains of their products, and have little bargaining power. They get low prices for their goods, while the middle men (brokers) and traders earn high profits.
- There is an absence of proper marketing services especially for storage, transport and packaging, and therefore, a high ratio of loss and damage to products and by-products.
- Local markets are the main destination for the sale of the products, be they fresh or processed. A limited portion is exported, on an irregular basis.

The prevailing marketing systems for the smallholder products are Traditional marketing systems, where sales are carried out through one or more of the following paths:

- *Contractual supply*: This system is used for the sale of **sugar cane and sugar beet crops**, where sugar factories are the only buyer. Cultivation takes place based on contracts with the manufacturing companies that provide certain types of seeds or some guidance for pre and post-harvest practices. Prices are determined by the manufacturing companies (the buyers).
- *Optional supply to governmental agencies*: This system is followed particularly for **wheat crops**. It is implemented by agricultural corporations in accordance with pre-announced prices, to encourage farmers to grow these crops in order to secure the strategic amounts needed for domestic consumption and food security.
- *Direct sales* to export or manufacturing companies: This is done with no prior agreement and without pre-announcing prices, especially for **cotton and rice**. The success of transactions within this system depends on market conditions, export opportunities and price levels at harvest time. However, fluctuation of these factors from one season to another exposed these crops to repeated crises and fluctuations.
- *Sales to traders and middlemen in local market*: This is the traditional marketing system and is common to many **different kinds** of agricultural products (horticultural crops, field crops and animal products). The system is linked mainly to small and medium holdings. In this marketing system, wholesale traders constitute the strongest and most influential link in the value chain and in determining the price of the products. There are a large number of brokers at the village level who deal directly with the farmers at the peak of production and when prices are lowest.

1.4.2 The marketing margins of SSF

The marketing margins of the various partners within the market chains for agricultural products depend on two main factors. The first is how much each partner adds to the **value** of the product in the form of benefits and services, and the second is the degree of **risk** faced by each partner in accordance with the nature of the commercial activity or technological process the partner carries out.

Generally, the literature agrees that small farmers are the most vulnerable partners in the marketing chains due to lack of information, where the rest of the intermediaries receive most of the final market value. The farmers' share of the consumer price of some vegetable crops has been estimated at between 18 and 41 percent. (Table 1.26)

Table 1.26 **Estimated farmer share of consumer price (%) in 2012**

Item	Farmer's share (%) of the consumer price
Tomatoes	41
Green beans peas	38
Courgettes	34
Carrots	28
Other Vegetables	18–20

Source: Sustainable Agriculture Development Strategy 2030

1.5 Producers' organizations and their respective role in supporting small farmers

There are **4 types of institutions** working in the agricultural sector:

- governmental institutions represented by the Ministry of Agriculture and Land Reclamation (MALR) and its subsidiary bodies;
- cooperative organizations;
- cooperative water wealth unions (CUWW);
- civil society associations interested in rural development.

1.5.1 Governmental institutions

MALR provides services to all farmers, especially small farmers through several administrative units, either at the central or at the provincial level. Such services includes: extension, provision of some inputs, conservation and improvement of national resources, veterinary care and policy formulation and implementation. Sometimes, the **monopolistic position** of the MALR as a service provider inhibits the participation of the private sector. The MALR has several public entities providing services to small farmers;

- **Direct service providers:**
  - Principal Bank for Development and Agricultural Credit (PBDAC);
  - agricultural extension sector;
  - veterinary services organizations;
  - soil preservation and amelioration organizations;
  - farm machinery services department;
  - central administration for plant protection;
  - central administration for seed production;
  - animal and poultry production sector.
- Indirect service providers:
  - Agriculture Research Center (ARC);
  - Desert Research Center (DRC);
  - agricultural economic sector;
  - Agrarian Reform Authority.

The Principal Bank for Development and Agricultural Credit (PBDAC) was established in 1930. Its network includes more than 1 200 branches and outlets. The greatest distance between any village and bank branch is 5 km. The bank has storage facilities for inputs and outputs throughout the country. The PBDAC is the main source of agricultural financing for the small farmers. In addition to its financial services, it plays an important role in the procurement of some **inputs** (nitrogenous fertilizers) and in **wheat marketing**. The bank also provides specific types of **loans** for production and marketing of different crops, livestock and poultry; farm machinery, and farm and rural development activities.

1.5.2 Cooperative organizations

In spite of all problems and obstacles facing agricultural cooperatives, they are considered one of the major players in rural and agricultural development. There are two types of cooperative: cooperatives for farming activities and cooperatives for fishing activities. The hierarchical system of the farmers' agricultural cooperatives has **four levels**:

At the national level, the Central Agricultural Cooperative Union represents the apex of the agricultural cooperative movement. This union consists of four types of general cooperatives: the General Agricultural Cooperative for Land Reclamation, the General Agricultural Cooperative for Agrarian Reform, the General Agricultural Multipurpose Cooperative and the General Specialized Agricultural Cooperatives (12 associations at the national level).

At the governorates level, the system consists of 138 central cooperatives, 23 central multipurpose cooperatives, 19 central agrarian reform cooperatives, 14 land reclamation cooperatives and 82 specialized cooperatives.

At the district (county) level, the system consists of 227 associate cooperatives, of which 136 are multipurpose cooperatives, 70 are agrarian reform cooperatives and 21 are land reclamation cooperatives.

At the village level, the system consists of 6 304 local cooperatives, of which 4 259 are multipurpose cooperatives, 691 are agrarian reform cooperatives, 592 and land reclamation cooperatives and 762 are specialized cooperatives.

Cooperatives at the national and governorate levels plan and **formulate policy** as well as coordinating between cooperative movements and other governmental and non-governmental organizations. Recently, in 2010, these cooperatives became the only entity responsible for procuring and distributing subsidized fertilizers to farmers. Cooperatives at the village level provide different services to their members, including the **provision of fertilizers, seeds and insecticides**. The cooperatives also play an integral role in **marketing wheat** to the private sector and to the Ministry of Supply. Some of the cooperatives, especially agrarian reform and specialized cooperatives, provide **collective loans** to their members. The most important obstacles facing cooperatives in Egypt can be summarized as follows:

- the weakness of the financial positions of many of the cooperatives;
- lack of managerial competencies;
- limited services provided to members, especially marketing services;
- the uneconomic size of the associations (at the village level);
- internal governance issues.

A **new amendment** of the cooperative law was issued in 2014, including 19 articles. The most important novelty of the amendment is that it allows associations to establish cooperative **joint-stock companies**, whether among themselves or in partnership with the private sector. The contribution of the private sector should not exceed 25 percent of the capital of the company. The amendment also includes the promotion of cooperative autonomy and reduces the intervention of the state in their decisions. It allows the merging of small and inactive cooperatives and the reorganization of specialized cooperatives based on their function rather than the commodities they produce. It is expected that such amendments will enable cooperatives to participate actively in agricultural development and to provide better and more appropriate services to small farmers who make up more than 80 percent of the board of directors of any cooperative.

1.5.3 Cooperative Water Wealth Union (CUWW)

The CUWW was established in 1985 to collaborate with the government and other research bodies in the conservation of fishery resources and in defence of the interests of producers and the development of fish production. The CUWW includes in its membership one general cooperative, 84 local associations and 5 fish farming associations.

The CUWW carries out several activities, including: participating in the cooperative movement of water wealth planning in Egypt, providing training services to local cooperative members, proposing legal and policy changes, looking after the interests of fishermen in and outside Egypt and coordinating activities with other cooperatives especially consumer and agricultural cooperatives.

1.5.4 Civil society organizations

There are number of civil society organizations interested in the agricultural sector. These include the Union of Producers and Exporters of Horticultural Crops (UPEHC), the Poultry Producers Union (PPU) and the Horticultural Export Improvement Association (HEIA). Many of these community development associations are not associated with MARL and are registered under the umbrella of the Social and Solidarity Ministry. They have achieved positive results in the field of organizing and creating different farmer's communities.

a. **Union of Producers and Exporters of Horticultural Crops (UPEHC):** This organization was established in 1971. According to its bylaws, the Union has the right to carry out trade export and import activities of that support the production of horticultural crops. The membership of the union includes individuals and legal entities that are engaged in the production and export of horticultural crops as well as inputs suppliers and providers of services related to the production and marketing of such crops. The most important services provided by the union are the following:

- providing production inputs;
- promoting the application of the **Good Agricultural Practices** (GAP) for horticultural crops;
- providing technical assistance related to production, post-harvest and marketing;
- coordinating production and export operations;
- providing of the means for international transport of freight, by air and sea.

b. **Poultry Producers Union (PPU):** The PPU was under Law No. 96 of 1998. The membership of the Union includes all persons and legal entities engaged in poultry production and processing and related activities. Membership is open to the private sector, cooperatives and public sector entities. The mission of the PPU is to look after the common interests of its members, protect and increase the poultry stocks, encourage investment in related activities and promote the use of methods of production and processing that are in accordance with international standards. The main activities of the PPU are the following:

- operate an information centre for collecting and analysing data and information related to poultry activities and conduct market surveys and studies;
- provide raw materials, feed, medicines, vaccines and other inputs for poultry production;
- propose terms and conditions required for obtaining governmental licenses to engage in poultry production and related activities;
- operate an arbitration system to resolve disputes between members;
- coordinate with the specialized funding agencies for the provision of loans and grants in the poultry industry.

c. **Horticultural Export Improvement Association (HEIA):** Established in 1996, the HEIA has expanded in a very short time to a current membership of 500 producers, exporters, suppliers of horticultural products, and companies working in agricultural packaging of material supply. In 2003, HEIA established its perishables terminal (PT) at the Cairo

International Airport. HEIA encompasses a group of highly qualified and recognized agricultural specialists and experts as well as offering a wide range of services, such as:

- strengthening the Egyptian horticultural industry with highly skilled and knowledgeable, technicians, and managers;
- fostering the implementation of modern technology, practices, international certificates and standards (including Global Gap, HACCP, GMP, etc.);
- improving and developing the Egyptian horticultural industry in order to promote and improve the export of Egyptian horticultural products worldwide.

d. Shams Associations: The Shams Association was established in 2002 in Middle and Upper Egypt, with the purpose of coordinating of small farmers' efforts on a voluntary basis and providing technical and marketing expertise in production, marketing and processing of non-traditional crops. Some 109 member associations have been established, in accordance with the law of non-governmental organizations, with following objectives:

- supporting institutional capacity-building for small farmer organizations;
- establishing linkages between associations and exporters of non-traditional crops;
- promoting women's participation in the management of farmers' associations;
- training members in technical capacities related to marketing and negotiating for better prices;
- promoting the practice of contract farming between producers, exporters and agro-industrial companies.

Shams associations have been able to achieve unprecedented success as small farmers' associations. They have generated a revenue increase of 160 million Egyptian pounds (EGP) over the last four to five years, and the value of their exports amounts to 75 million EGP in the same period. As a result of their activities in non-traditional crops, demand for agricultural labour, particularly for women, has increased. Their membership now stands at approximately 12.5 thousand versus their target of 10 thousand members.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SECTION TWO

Trajectory and dynamics of structural change in the agricultural sector

2.1 Demographic dynamics

In 1917, nearly a century ago, Egypt's population was about 12.7 million people. The number has risen nearly sevenfold to 88 million people in 2015. This number is roughly three times what it was 50 years ago (1966), when the population was about 30 million (Table 2.1).

Table 2.1 **Population dynamics, 1882 – 2015 (in 1000's)**

Census year	Males	Females	Total	Male/ Female (%)	Annual growth rate	Rural population (%)
1882	3 345	3 367	6 712	99.3	NA	NA
1897	4 914	4 755	9 669	103.3	2.43	NA
1907	5 617	5 573	11 190	100.8	1.46	81.0
1917	6 369	6 349	12 718	100.3	1.28	79.2
1927	7 058	7 120	14 178	99.1	1.09	73.6
1937	7 667	7 954	15 921	100.2	1.16	72.3
1947	9 392	9 575	18 967	98.1	1.75	67.0
1960	13 118	12 967	26 085	101.2	2.34	62.6
1966	15 176	14 900	30 076	101.9	2.52	59.6
1976	18 648	17 978	36 626	103.7	1.92	56.2
1986	24 709	23 545	48 254	104.9	2.75	56.1
1996	30 351	28 961	59 312	104.8	2.08	57.4
2006	37 219	35 579	72 798	104.6	2.02	57.8
2015	44 880	43 083	87 963	104.2	2.12	57.3

Source: Compiled and computed from CAPMS, Population Statistical Bulletin, various issues.

The Egyptian population increased steadily, with annual growth rates less than 2 percent until the middle of the last century, when it reached its maximum level of 2.75 percent (between 1976 and 1986). After that, population growth declined steadily to around 2 percent. At a projected growth rate of around 2 percent per year, the population in 2030 will be around 118 million people and around 176 million in 2050.

2.1.1 Population distribution by gender

Until the middle of the last century, the Egyptian population was distributed almost equally between males and females. Since the middle of the last century until now, statistics indicate that the male/female ratio has increased from 101.2 percent in 1960 to 104.9 percent in 1986, and to 104.2 percent in 2015. This means that, over the last fifty years, the male population has remained slightly higher than the female population.

2.1.2 Urban/rural population distribution

In the early years of the twentieth century, the majority of the Egyptian population consisted of rural citizens, who comprised 81 percent of the total population in 1907. (Table 2.1) As a result of economic, social and cultural factors, the proportion of the rural population declined significantly, against an increase in the urban population. In mid-seventies (1976), the rural population comprised 56.2 percent of the total population. Since that period, the proportion of the **rural population** increased slightly to 57.8 percent in 2006. Over the last three decades, several factors explain the relative break in the growth trend of the urban population. Among these factors are the following:

- In the early sixties, different economic and social policies favoured urban areas, resulting in an unexpected and random expansion of the cities. Accordingly, several slum areas around the main cities, especially Cairo and Alexandria, developed to absorb the huge migration from rural areas. This expansion of the urban areas brought about acute social, economic and environmental problems in the cities.
- Massive overcrowding in the cities as a result of cumulative migration from rural to urban areas has led to cruelty towards the newcomers, difficult living conditions and difficulty in accessing housing due to rising housing costs.
- At the same time, and as a result of the significant increase in the housing costs, considerable numbers of urban residents have moved to satellite villages around the cities, reversing the direction of migration.
- In recent years the government has given more attention to the development of rural areas, especially in terms of infrastructure, such as roads, and basic services such as water, electricity, transportation and communication. As a result of this change and of the high unemployment and shortage of new jobs opportunities in the cities, urban areas have lost their demographic attractiveness.

With the urbanization of rural zones it is expected that the rural population will **not decline significantly** in the coming years. It may remain around 55 percent of the total population.

2.1.3 Age distribution of the population

Table 2.2 and Figure 2.1 show the age distribution of the Egyptian population through different periods. The following can be noted:

- The proportion of youth (persons under 20 years of age) has significantly declined, from 50.9 percent in 1976 to 40.9 percent in 2015.

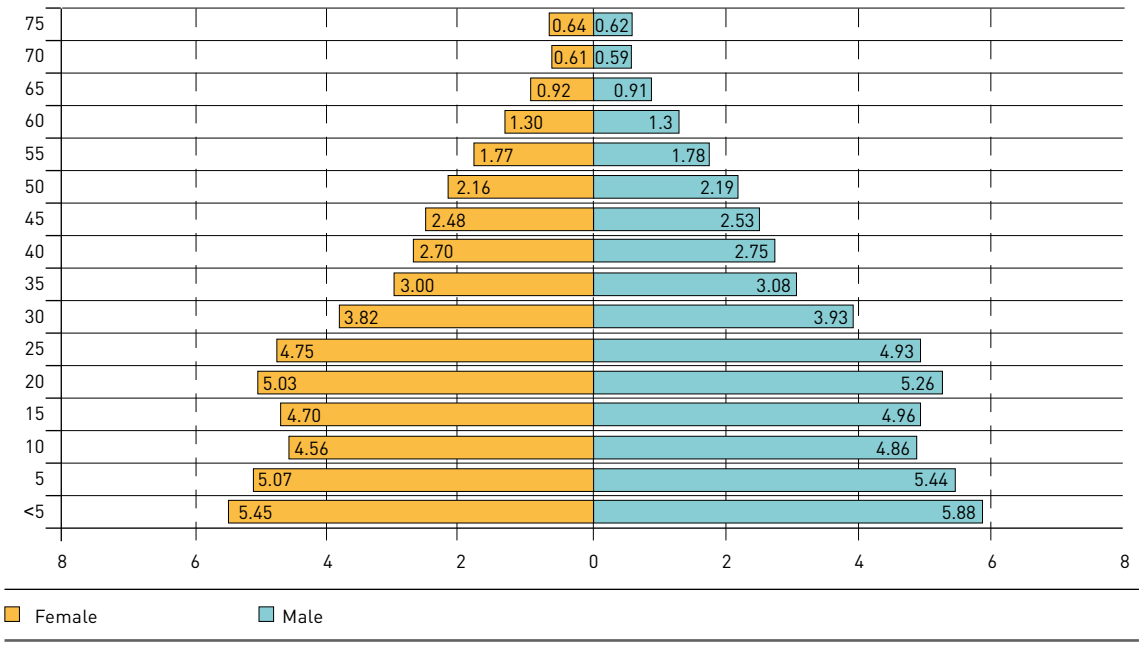
- On the other hand, the proportion of those of middle age (between 20 and 39 years of age has increased noticeably from 27.1 percent in 1976 to 33.8 percent in 2015. This means that Egypt has large youth population which will continue growing.
- The population between 40 and 60 years of age has increased slightly from 15.4 percent to 15.7 percent between 1976 and 2015.
- The percentage of older persons (60 years and more) has increased slightly from 6.3 percent in 1976 to 6.9 percent in 2015.

Table 2.2 **Population age structure (%)**

Age groups	1976	1986	1996	2006	2015		
					Males	Females	Total
<5	13.8	15.3	11.6	10.6	5.88	5.45	11.32
5-10	12.8	13.2	12/9	10.5	5.44	5.07	10.51
10-15	13.4	11.6	13.3	10.6	4.86	4.56	9.43
15-20	10.9	10.6	11.6	11.8	4.96	4.70	9.66
20-25	8.4	8.9	8.6	10.8	5.26	5.03	10.29
25-30	7.3	7.7	7.4	8.8	4.93	4.75	9.67
30-35	5.8	6.4	6.7	6.5	3.93	3.82	7.75
35-40	5.6	6.1	6.5	6.4	3.08	3.00	6.08
40-45	5.1	4.4	5.3	5.6	2.75	2.70	5.46
45-50	4.2	4.0	4.5	5.1	2.53	2.48	5.01
50-55	4.0	3.5	3.4	4.2	2.19	2.16	4.35
55-60	2.4	2.6	2.5	3.1	1.78	1.77	3.55
60-65	2.7	2.4	2.4	2.3	1.30	1.30	2.60
65-70	1.4	1.4	1.6	1.6	0,91	0.92	1.83
70-75	1.2	1.1	1.0	1.1	0.59	0.61	1.21
≥75	1.0	0.8	0.8	1.0	0.62	0.64	1.26

Source: Compiled and computed from CAPMAS, Population Statistical Bulletin, various issues and from CAPMAS, Egypt in Figures, Special Bulletin, 2015

Figure 2.1 **Egypt population pyramid (2015)**



2.1.4 General characteristics of the rural population

Urbanization is not only characterized by the geographical distribution of the population in terms of being rural or urban areas. It is associated with the vast development in the fields of communication, information systems and cultural and knowledge convergence. These changes have reduced the gap between the different regions and communities regarding lifestyles, consumption patterns and other economic, social and cultural characteristics of the population.

However, there are still many **aspects of differentiation**, not only between rural and urban residents, but among communities and population centres, particularly with regard to cultural and social characteristics. These aspects are usually slow to change, as are values, traditions, customs and beliefs. In this regard, the rural population is still generally more inclined to tradition and heritage and less responsive to renewal and development. In spite of government efforts to improve the livelihoods of people in rural areas and to reduce the gap in services and infrastructure between rural and urban areas, development indicators still reflect contrasting figures between the two areas, particularly with regard to conditions of poverty, education and living standards of the population in general. Examples of this are:

2.1.4.1 Proportion of the population below the poverty line

In 1990,[4] the percentage of the population living below the **poverty line**, set at US$1.25 per day per capita (UNICEF, 2014) was 24.3 percent. In 2012, it rose to 26.3 percent. However, estimates indicate that the population living below the poverty line differs significantly among the **different provinces.** In rural Upper Egypt, for example, it is over 50 percent. In general, the percentage of the population living below the poverty line is significantly higher in rural areas than in urban areas. Some estimates indicate that rural areas comprise nearly 70 percent of the total poor population in Egypt.

2.1.4.2 Proportion of illiterate population

The illiteracy rate in Egypt declines from year to year, but it is still high compared to many other countries. The rate declined from 36.6 percent in 2002 to 29.2 percent (2014). The illiteracy rate is high among women, estimated at around 38.1 percent of the total female population, compared to 20.5 percent for males in 2014. Illiteracy rates also vary between the different age groups. Among older adults (60 years old and over), the illiteracy rate is 63.2 percent, while it is only 7.9 percent among youth (15-24 years) 2014 (CAPMAS, 2015).

In rural areas, the illiteracy rate was 33 percent in 2013, compared to 18 percent in urban areas. Illiteracy rates among agricultural holders was 30.6 percent, according to the 2010 census, which nearly equalled the illiteracy rate among the rural population in general.

[4] A poor person is defined as someone who consumes about $1.25 a day, but taking into consideration purchasing power parity (PPP), it amounts to less than 11.2 EGP per day in 2013, according to CAPMAS.

2.1.4.3 Basic services and general living conditions

Table 2.3 shows the comparison between the rural and urban population with respect to certain economic and living conditions and access to some utilities and public services:

Table 2.3 **Some indicators of rural /urban socio-economic gaps**

	Rural	Urban	National Average
Adult literacy rate (15+)	62.0	79.1	70.4
Households with access to piped water (%)	96.7	99.8	98.0
Households with access to sanitation (%)	37.5	89.8	56.5
Households with access to electricity	99.3	99.6	99.6
Households with televisions	92.8	96.8	94.7
Physicians per 1 000 people (MOH)	2.1	13.1	6.9
Nurses per 1 000 people (MOH)	8.9	21.6	14.3
Children breastfed (%)	96.1	95.2	95.8
Pregnant women with prenatal care (%)	66.9	85.0	73.6
Birth attended by health personnel (%)	63.6	85.5	71.7
Children (12–23 months) fully immunized (%)	90.5	93.7	91.7
Underweight (below 5 years of age) (%)	6.0	6.0	6.0
Population growth rate (1996–2006)	2.0	2.0	2.0
Unemployment rate	7.0	11.7	8.9
Income share of lowest 40%	26.0	20.7	22.3
Highest 20% to lowest 20% of income share	3.1	5.1	4.4
Gini coefficient	0.22	0.34	0.31
The poor as % of total population	28.9	11.6	21.6
The ultra poor as % of total population	8.5	2.6	6.1
Age average of females at first marriage	19.4	22.2	20.6

Source: Egypt, Human Development Report 2010

It is clear from these figures that there are better conditions of urban areas over rural areas in respect to various **human development indicators**, except breastfeeding and the unemployment rate, which is lower in the countryside than in urban areas. However, this rate does not reflect the real situation of **unemployment** in rural areas, where most agricultural labourers experience seasonal unemployment.

2.2 Structural changes in the Egyptian economy

2.2.1 Changes in the contribution of the main sectors to GDP

Since the 1980s, the Egyptian economy has experienced many changes and developments, passing through the stage of "economic liberalization", followed by structural reform in which changes were made in financial and economic policies. As a result of these policies, the economy moved from a central planning model toward a market economy.

The privatization policy was introduced as the most important measure of structural reform. All economic and financial policies were developed to encourage the private sector to take the lead in economic development. Through these policies, several actions have been taken to merge the Egyptian economy into the world economy and implement the requirements of the World Trade Organization (WTO). This led to the complete abandon of all forms of non-tariff restrictions and the reduction of tariffs for many imports.

Changes in the structure of the recent Egyptian economy can be divided into 2 stages. The first stage lasted from 1983 to 1998 and the second stage lasted from 1998 to 2013 (Table 2.4). The first stage saw a decline in the contribution of the commodity production sectors[5] to the GDP from 49.9 percent in 1983 to 47.89 percent in 1998. The situation was reversed in the second phase, when the contribution of the commodity sectors to the GDP increased to 53.3 percent of GDP in 2013. The production services sector[6] went in the opposite direction, with its contribution increasing from 30.3 percent in 1983 to 33 percent in 1998. The ratio declined during the second stage to 26.3 percent in 2013. The social services sector[7] maintained its share of the GDP at a level of about 20 percent throughout the whole period.

Table 2.4 **Contribution of different sectors to GDP, 1983-2013 (%)**

Sectors	1983	1988	1993	1998	2003	2008	2013
Commodity sectors:	49.86	47.8	49.79	47.98	51.59	50.75	53.33
Agriculture	19.94	18.96	16.71	17.11	16.34	13.22	14.51
Industry and Mining	12.85	17.74	16.71	18.29	17.83	15.73	14.88
Oil	11.14	4.42	9.51	5.82	11.51	16.15	18.11
Electricity	0.63	1.15	2	1.6	1.63	1.35	1.27
Construction	5.3	5.53	4.86	5.15	4.28	4.3	4.58
Production service sectors	30.34	31.81	32.89	33.01	28.49	29.56	26.28
Social service sectors	19.8	20.39	17.33	19.02	19.92	19.69	20.39
Grand Total	100	100	100	100	100	100	100

Source: Compiled and computed from the Ministry of Planning database.

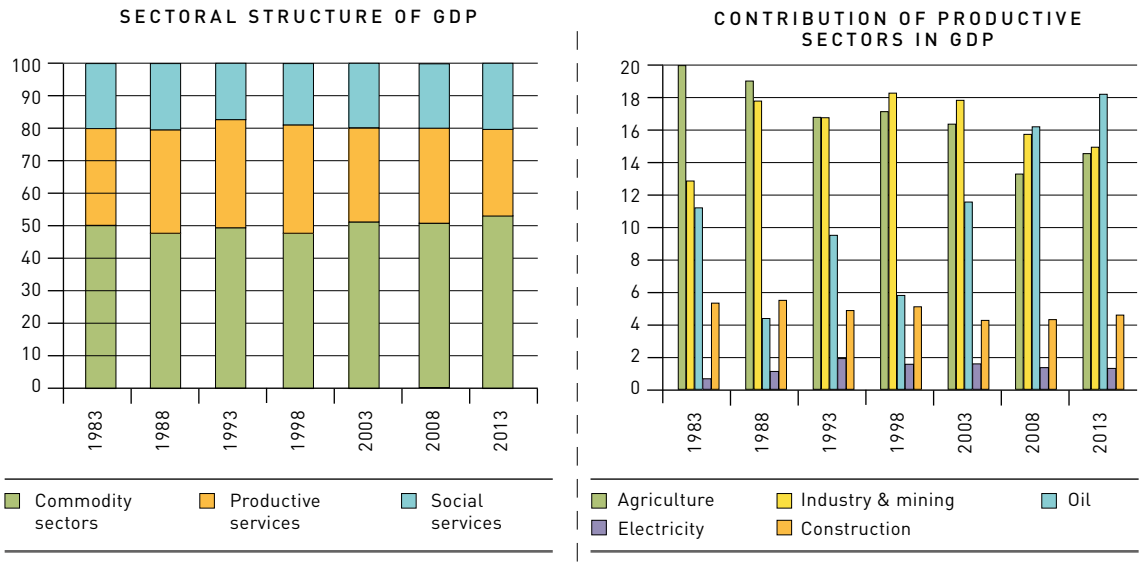
The data in Table 2.4 indicate that agriculture's share in GDP has declined continuously from 20 percent in 1983 to 14.5 percent in 2013; while the share of oil and its derivatives fluctuated broadly, dropping from 11.4 percent in 1983 to 5.8 percent in 1988 and rising again to 18.1 percent in 2013. The fluctuations in the contribution of the oil sector are due to the sharp decline in oil and gas production in the first period and the sharp increases in oil prices on the world market as well as the increase in oil production in the second period. The contribution of the mining industry increased during the 1980s and 1990s from 12.9 percent in 1983 to 18.3 percent in 1998, then declined to 14.9 percent in 2013.

[5] Including agriculture, industry, mining, petroleum and petroleum byproducts, electricity and construction.

[6] Including transport, storage, communications, Suez Canal, trade, finance, insurance and restaurants and hotels.

[7] Including housing, public utilities, social insurance and social and government services.

Figure 2.2 **Development of sectoral structure of GDP**



2.2.2 Changes in the structure of employment distribution between sectors

The distribution of employment between sectors shows clear changes over the last two to three decades. The percentage of workers in the agriculture and public utilities/government services sectors decreased from 33.7 percent and 25.4 percent, respectively, in 1990–91 to 28 percent and 22.2 percent in 2012–13. On the other hand, the percentage of workers in the construction and transportation sectors more than doubled since 1990–91, increasing from about 5.3 and 3.5 percent, respectively, to 11.3 and 7.1 percent in 2012–13. At the same time, the percentage workers in the trade, finance and insurance sectors increased from 8.6 percent in 1990–91 to 11.8 percent in 2012–13. Finally, the percentage of workers in the manufacturing sector increased from 11 percent in 1990–91 to 12.3 percent in 2001–2, and declined to 10.7 percent in 2012–13, as a result of political unrest since 2011 which has led to the close of many factories. However, it is expected that with the return to political and security stability, the industrial sector will recover, especially when the government is able to provide the sufficient energy for the factories.

Table 2.5 **Employment Distributed by Economic Sectors (%)**

Sectors	1990–91	2001–2	2012–13
Agriculture	33.7	28.4	28
Manufacturing	11	12.3	10.7
Construction	5.3	7.8	11.3
Transportation	3.5	3.9	7.1
Trade & Finance	8.6	9.5	11.8
Public Utilities & Gov. Services	25.4	26.4	22.2
Others	12.5	11.7	8.9

Source: CAPMAS, Statistical Year Book, various issues

2.2.3 Changes in the structure of agricultural domestic product

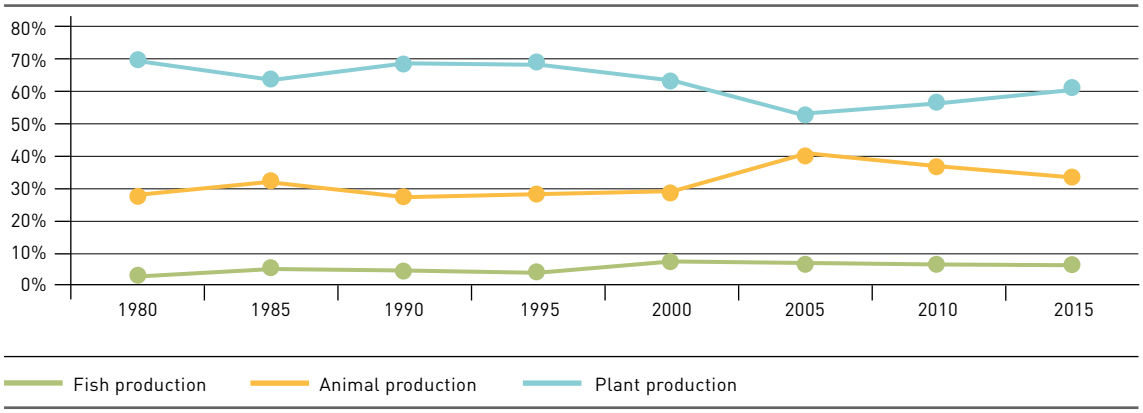
The changes in agricultural policies that took place since 1980 changed the relative importance of the income generated by the agricultural production subsectors. The contribution of **crop production** declined from 69.1 percent in 1980 to 52.75 percent in 2005 and then rose to 60.1 percent in 2012. (Table 2.6) The relative importance of the **animal production** sector increased from 28.1 percent in 1980 to 40.6 percent in 2005 and then declined to 33 percent in 2012. The contribution of **fish production** to the agricultural output increased from 2.8 percent in 1980 to between6.6 and 7.5 percent during the following years, as a result of the leap in the aquaculture sector during this period.

Table 2.6 **Contribution (%) of sub-sectors to the value of agricultural production**

Years	Plant production	Animal production	Fish production
1980	69.10	28.11	2.79
1985	63.44	31.88	4.68
1990	68.15	27.41	4.44
1995	67.66	28.07	4.28
2000	63.20	29.28	7.52
2005	52.75	40.60	6.65
2010	56.11	36.96	6.92
2012	60.13	33.27	6.60

Source: Compiled and computed from MALR, Economic Affairs Sector, Estimate of agricultural income, Annual bulletin and selected issues.

Figure 2.4 **Contribution of different subsectors to the value of agricultural production**



2.2.4 Changes in cropping patterns

As Egyptian agriculture is mainly **irrigated agriculture** and climate conditions are suitable for production throughout the year, the land is cultivated more than once per year using a system of **crop rotation** to preserve soil fertility (cultivation cycle). As such, Egypt's crop

area is greater than its land area: the total land area in 2013 was 8.95 million feddans, while the crop area amounted to 15.5 million feddans, with an agricultural intensification ratio of approximately 173 percent.

The cropping pattern of Egyptian agriculture seems to be very dynamic, reflecting changes in price policy, trade policy, new technologies and the increase in reclaimed lands outside the Valley and Delta. It is well known that agriculture in the reclaimed areas consists mainly of the production of cash crops, is capital-intensive and depends greatly on modern agricultural technologies. As such, we can clearly distinguish **two types of farming**.

A significant portion of the farms in the **reclaimed areas** are commercial farms and apply modern technology, while farms in the **Valley and Delta** are traditional farms and generally produce strategic crops. Table 2.7 shows the continuous increase in the percentage of land area allocated for the production of fruits, vegetables, cereals and sugar crops, while the land area of fibre and fodder crop production decreased. The ratio of land area allocated to fruits and vegetables has increased from 2.4 percent and 8.5 percent, respectively, in 1980, to 11 percent and 13 percent of the total crop area in 2013. The vast increase in crop area for the production of fruits and vegetables occurred in the reclaimed lands. Likewise, grain and sugar crop land area increased from 41.7 percent and 2.4 percent, respectively, in 1980, to 50.4 percent and 5.1 percent in 2013. The increase in both **grain and sugar crops** is mainly due to the price policy that has encouraged greater production of those crops, in line with a governmental policy to increase grain and sugar **self-sufficiency**.

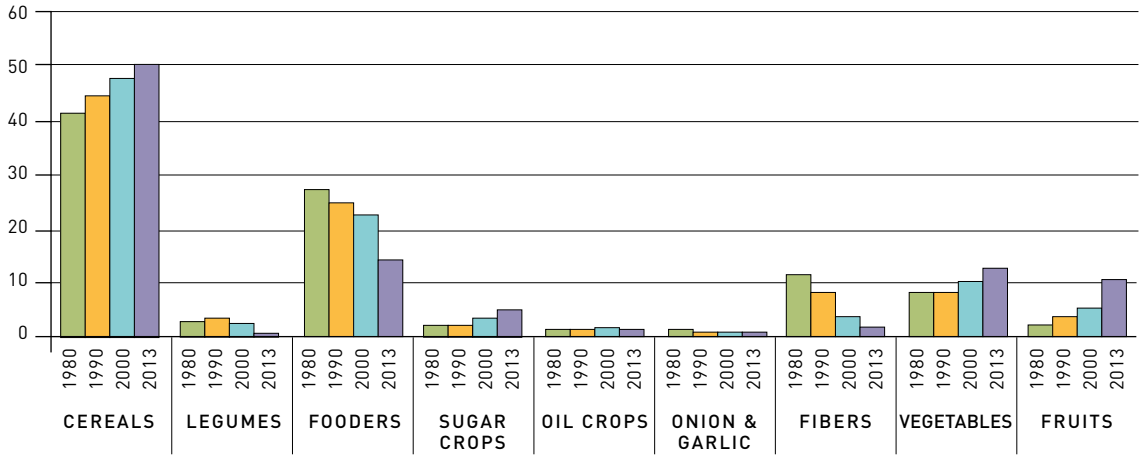
Conversely, the percentage of land area of **fibre crops** declined from 11.6 percent in 1980 to 1.9 percent in 2013. The severe reduction in the area allocated to cotton production is due to the state phasing out from cotton marketing and export. Accordingly, farmers make decisions based on the relative profitability of the different crops, with cotton cultivation being less profitable. The area of **fodder production** has also decreased from 27.35 percent in 1980 to 14.7 percent in 2013 and is remaining stable at an average of 3 million feddans.

Table 2.7 **Percentage of area allocated to different groups of crops (%)**

Group of crops	1980	1990	2000	2013
Cereals	41.68	44.84	47.98	50.37
Legumes	3.03	3.60	2.88	0.81
Fodders	27.30	25.05	22.45	14.70
Sugar crops	2.37	2.47	3.47	5.10
Oil crops	1.43	1.68	1.86	1.58
Onion and garlic	1.42	1.29	1.01	1.07
Fibres	11.62	8.39	3.88	1.87
Other crops	0.13	0.09	0.09	0.19
Medicinal plants	0.15	0.13	0.15	0.40
Vegetables	8.49	8.56	10.46	12.84
Fruits	2.39	3.91	5.78	11.07

Source: Combined and computed from MALR, Sector of economic affairs, Agricultural statistical bulletin, selected issues.

Figure 2.5 **Evolution of cropping pattern, 1980-2013**



2.3 Social policy in rural context

2.3.1 Pensions for small farmers and the landless

For the first time in the contemporary history of Egypt, the new Constitution of 2014 refers to the eligibility of small farmers and the landless to have a **pension**. Article 17 states that "*The State shall endeavour to provide pensions suitable for the small farmers, agricultural workers, fishermen, and non-organized workers according to the law*" (Government of Egypt, 2014). In light of this constitutional provision, the Ministry of Agriculture has prepared a draft law for **farmers insurance against retirement, disability and death.**

Social categories covered by the law are:

- temporary agricultural workers;
- agricultural labourers in old land, orchards and new reclaimed land;
- livestock and poultry labourers;
- agricultural landholders with less than three feddans (SSF).

The premium required to fund the insurance is 25 percent of the farmer's insured wage, and is funded from the following sources: 5 percent from the insured person, 10 percent from the state treasury, 3 percent from MALR service funds and 7 percent from the Central Agricultural Cooperative Union and agricultural cooperative associations. The value of the pension is 80 percent of the insured's wage.

It is, therefore, clear that the farmer or agricultural worker will contribute only a small percentage of the subscription amount of the insurance. The law was indorsed by the House of Parliament in January, 2016.

2.3.2 Quality of public services in rural contexts as compared to urban areas

As shown in Table 2.3, there are different socio-economic gaps between rural and urban areas. All the indicators included in the table reflect relative shortages in **infrastructure** and public services in rural areas in general, and in the areas of **health and education** in particular. The most significant gaps are in the indicators related to the allocation of physicians and nurses of the Ministry of Health (1 to every 10 000 people) and the poverty ratio indicator.

On the other hand, only few indicators reflect a better status in rural areas (unemployment rate, Gini coefficient, income share of lowest 40 percent and ratio of children breastfed).

> *Beyond human development indicators, there are many other gaps between rural and urban areas (social, economic, institutional and political) that need to be given more attention in the national strategic plans, and studied further, to achieve socioeconomic equity between rural and urban areas.*

2.3.3 Rural and small farmer populations in the context of political and legal developments

During the second half of the twentieth century, important developments occurred in Egypt, in the political and legislative arena, that affected the rural population in general, and small-scale farmers in particular. The most important of these developments were the following:

2.3.3.1 Representation of farmers in the parliament:

The first constitution issued after the Revolution of 1952, guaranteed that **representatives of the farmers and labourers** must hold at least 50 percent of parliamentary seats. The definition of farmers in the constitution was: landholders having less than **25 feddans.** This was later amended to landholders having less than **10 feddans**, in order to empower the membership of smallholders in parliament. The farmers' representatives held 20 to 40 percent of the seats in each parliament from 1957 till 2010.

In reality, rich and large landholders with social and economic clout in the countryside hold the greatest portion of parliamentary seats. In fact, the farmers' representatives in the parliament all had than 10 feddans, but farming was not their primary job. As such, they did not embrace political, economic and social issues in favour of SSF or the rural poor in general. In 1971, when farmers' representatives in parliament held around 20 percent of the seats, the parliament issued legislation regarding economic liberalization,

In view of there having been no real representation of labourers and farmers in successive parliaments, the requirement of 50 percent representation of these sectors in parliament has been abrogated in the recent 2014 Constitution.

2.3.3.2 Legalization of maximum ownership of agricultural land

The Agrarian Reform Law (ARL) of 1952 limited the upper limit of ownership of agricultural land to 100 feddans per family and to 50 feddan per individual. The main purpose of this

law was to favour the redistribution of agricultural land, broaden the base of land ownership and reduce the domination of large landholders of agriculture wealth. The law has led to the **increase of holdings of five feddans or less,** from 78.5 percent of all agricultural landholdings in 1950 to 84.1 percent in 1960, and to an increase in the land area of this category, from 23.1 percent of all agricultural land to 37.8 percent. In contrast, landholdings of more than 50 feddans decreased from 39.1 percent of all agricultural landholdings to 21.5 percent, in the same period. Overall, the average area of a single landholding declined from 6.13 feddans to 3.79 feddans and land tenure fragmentation increased in the following years (Annex A4).

2.3.3.3 Regulating the Relationship between the owner and the tenant of agricultural land:

The ARL of 1952, overprotected the rights of renters of agricultural land (whether cash or share rent) and prevented the land owner from ending the leasing contract. Even in case of the death of the tenant, the rental contract transferred automatically to his family members. Furthermore, the law fixed the rental value at seven times the tax of the lands, which remained unchanged for more 40 years. As a result of this law, the tenants' position become more powerful than that of the owner causing a severe **distortion in the land market**, unfair distribution of benefits from land cultivation and an imbalance in the rights and obligations of the two parties of the contract.

As mentioned in section one, a new law regulating the relationship between land owners and tenants was issued in 1992. The new law corrected the market distortion in determining the rental value of agricultural land. As a result, there was a significant decline in leased land from 33 percent in 1990 to 9 percent in 2010. This has led to significant increases in the rental rate and sales prices of agricultural land in recent years.

2.4 Agricultural projections

2.4.1 Sustainable agricultural and rural development (SARD)

Enhancing SARD as a means to reduce poverty and food insecurity in view of the expected climate changes and volatile world food prices is a prerequisite for sustainable social and economic development and hence is considered a social and political priority for Egypt. Agriculture in Egypt is not only recognized as a way of life, but as crucial for national socio-economic development and as a potential engine for economic growth.

For a country like Egypt with a **high poverty rate** (26.3 percent in 2012–13), there is a strong link between poverty and food insecurity. Most of the poor are either under-nourished or food insecure. Lower income households spend a large share of their income to purchase food. Under-nourishment is also a constraint to economic growth. Thus, paying due attention to SARD, with emphasis on enhancing on- and off-farm employment and income generating activities, is a high priority in order to reduce poverty reduction and achieve food security in rural Egypt.

Egyptian agricultural and rural development faces several problems and obstacles, such as:

- land fragmentation;
- limited agricultural investments and inflexibility of credit policies;
- limited action to analyse and formulate supporting policies;
- weak coordination among agricultural institutions operating under different authorities;
- imbalance between the development of production and improvement of marketing services and quality control;
- poor information systems and weak linkage between agricultural exporters, or traders in general, and SSF.

The institutional framework and key legislation governing the agricultural sector need to be reviewed to support small farmers, enhance their productivity and improve their management of the market and of different risk factors.

However, despite wide recognition of the importance of agricultural and rural development in poverty alleviation, investment allocated for agricultural development decreased from 13.24 percent of total investment during 1998–2002 to nearly 2.89 percent during 2007–2012 and to 2.41 percent in 2013 (Table 2.8).

The new constitution of Egypt considers agriculture an engine for economic development, as stated in Article 29: "*Agriculture is a basic pillar of the national economy*". The State is committed to protect, conserve and increase cultivated area. It is also committed to the development of rural communities, to raising the living standards of its population and to protecting them from environmental hazards. It encourages and supports the development of agricultural and livestock production and related industries. The State is committed to "ensuring the provision of agricultural and livestock inputs and to purchasing strategic crops at fair prices to achieve reasonable profit margins for the farmer, in agreement with unions and agricultural associations."

Table 2.8 **Investment allocated to agricultural sector, 1983–2013 (Million EGP)**

Years	Agriculture Sector	All Sectors	% of Agriculture Sector
1983-87	625	11 243	5.56
1988-92	1 991	26 805	7.43
1993-97	3 707	48 427	7.65
1998-02	8 500	64 183	13.24
2003-06	7 444	103 040	7.22
2007-12	6 776	242 077	2.80
2013	8 384	347 585	2.41

Source: Ministry of planning database

Several policies had been developed through presidential decrees to support and facilitate agricultural and rural development including:

- **contract farming** policy;
- **agricultural insurance** policy;
- **farmer's pension** policy;
- farmer's **health insurance** policy;
- **agricultural cooperative** enhancement policy;
- policy of **intellectual property rights** in agriculture.

2.4.2 Long term strategic vision

The Ministry of Agriculture and Land Reclamation (MALR) has recently formulated a **Sustainable Agricultural Development Strategy towards 2030 (SADS 2030). Due to its importance, the** vision and mission of the Strategy are cited below:

Vision

"To achieve a comprehensive economic and social development based on a dynamic sector capable of sustained and rapid growth, while paying attention to help the underprivileged social group and reduced rural poverty".

The mission

"Modernized Egyptian agriculture based on achieving food security and improving the livelihood of the rural inhabitants, through the efficient use of development resources, the utilization of the geopolitical and environmental advantages and the comparative advantage of the different agro-ecological zones."

The main objectives of the SADS 2030 are the following:

1. sustainable use of natural agricultural resources, including increasing water use efficiency in agriculture; increasing reclaimed land area; maximizing sustainable return from rain-fed agriculture and soil conservation and protection;
2. Improving agricultural productivity per unit of land and water, including the improvement of crop productivity; improving productivity per animal unit and guidelines for fisheries development;
3. supporting the competitiveness of agricultural products at the local and international levels and working towards main guidelines to support competitiveness capabilities and achieve high levels of food security in strategic commodities;
4. developing markets, including identifying opportunities and elements of competitiveness, to achieve high levels of food security in strategic commodities; improve food consumption

patterns to improve nutritional levels; reducing market loss; improving quality and safety of food commodities and developing a social security network;

5. improving the agricultural investment environment:

6. improving the livelihoods of rural inhabitants, especially small-scale farmers, with emphasis on employment opportunities and on the main elements for improving living conditions of rural inhabitants.

Proposed implementation mechanisms for SADS 2030:

a. Institutional reform:

- governmental agricultural institutions;
- civil society organizations;
- agricultural cooperatives.

b. Reviewing and developing agricultural policies:

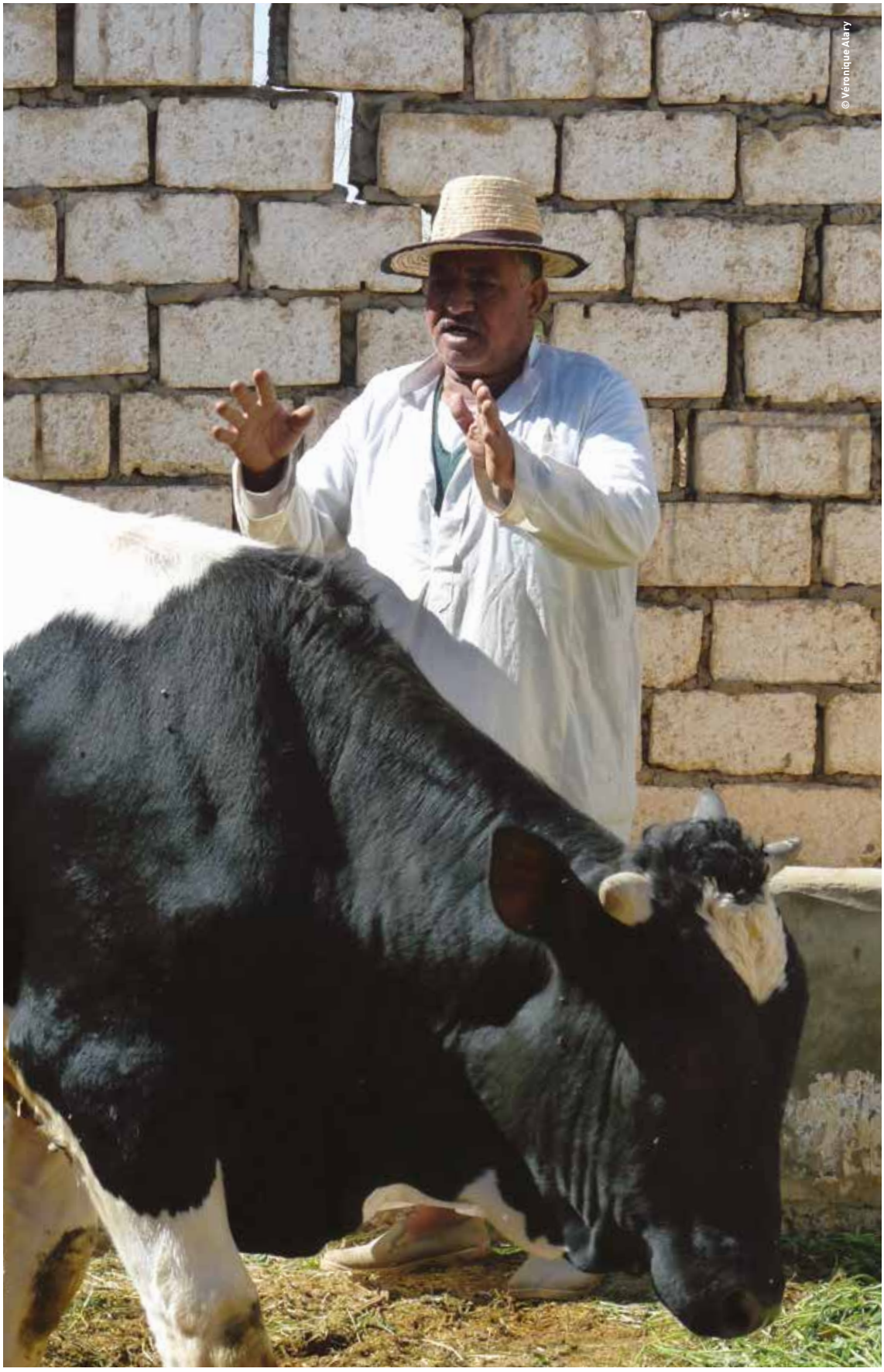
- rationalization of water resource use;
- protection and maintenance of agricultural lands;
- developing fisheries and aquaculture policies;
- contract farming policy;
- food safety policy;
- rationalization of food consumption support policies;
- agricultural finance policy;
- improving agricultural opportunities.

c. Development of national programs:

- national programme for land reclamation based on groundwater and water saving through on-farm water management,
- national programme for on-farm water management, on 5 million feddans in the Nile Valley and Delta;
- national programme for maintaining and upgrading productivity of agricultural land;
- national programme for improving productivity of main field crops;
- national programme for improving productivity of horticultural crops;
- national programme to develop animal production;
- national programme for socio-economic development of rural areas;
- national programme to develop and modernize marketing and agro-industry;
- national programme for agricultural research extension and technology transfer;
- national programme of capacity building to improve the skills of those working in agriculture;
- national programme for promoting the role of communication and IT in agricultural development.

The preparation of SADS 2030 was based on five mechanisms:

- wider stakeholder participation: 90 experts were involved in the preparation of the document, with the full participation of 4 000 stakeholders from different agro-ecological regions, and three international organizations (FAO, IFAD, WB);
- adopting a comprehensive approach in preparing the strategy and objective analysis, learning from cumulative lessons learned;
- careful identification of implementation mechanism and preparation of periodical business plans;
- objective identification of the role of both the public and the private sector and civil society.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SECTION THREE

Socio-economic policies and small farmers

3.1 Historical modalities for gradually supporting SSF

Before 1952, Egyptian agriculture was characterized by heavy concentration of agricultural land ownership, with 0.4 percent of the landowners acquiring 33 percent of the land area and 94.3 percent of landowners having only 36.5 percent of the land (Table 3.1). About 72 percent of the smallholders with less than one feddans owned only 13 percent of the total land area in 1952. The average farm size for small farmers was 0.4 feddan while 2 000 large scale farmers owned about 1.1 million feddans, with average land tenure of 558.5 feddans/farm. Accordingly, **leasing property** was the prevailing type of land tenure for smallholders during this period and rented lands constituted 61 percent of the total cultivated area.

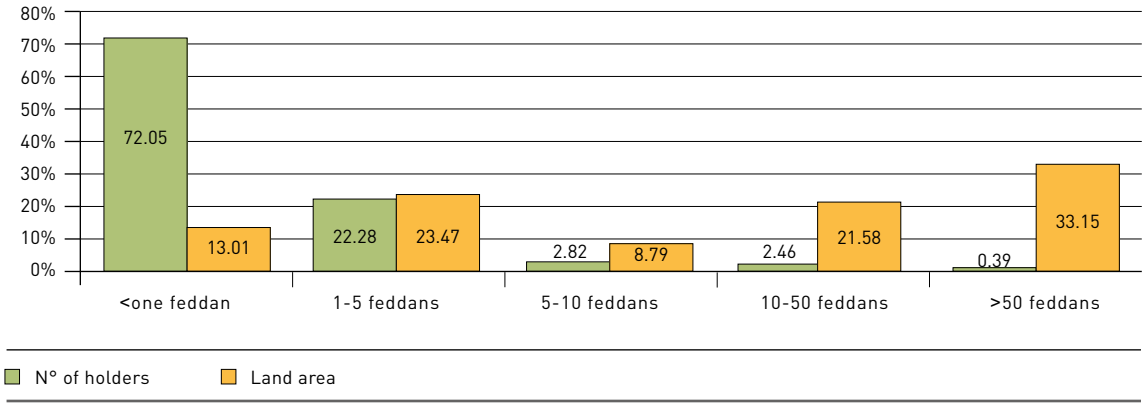
Table 3.1 **Structure of agriculture holdings in 1952**

Holding category	No. of holders		Land area		Average farm area (Feddan)
	Number(1000)	%	Feddan (1 000)	%	
< feddan	2 018	72.05	778	13.01	0.39
1–5 feddans	624	22.28	1 404	23.47	2.25
5–10 feddans	79	2.82	526	8.79	6.66
10–50 feddans	69	2.46	1 291	21.58	18.71
50–100 feddans	6	0.21	429	7.17	71.50
100–200 feddans	3	0.11	437	7.31	145.67
> 200 feddans	2	0.07	1 117	18.67	558.50
Total	2 801	100.00	5 982	100.00	

Source: I. Siddik *et al.* (1980).Agricultural exploitation and farm management.

In September 1952, the **Agrarian Reform Law** (ARL) introduced radical changes to the agricultural structure through the redistribution of lands and wealth. The law created a wide layer of smallholders and recast political and social power in Egypt in favour of the smallholders and the landless, converting many renters into owners. The number of households in the old land (Delta and Valley) which benefited from the ARL, including landless who become landowners, increased from 47 800 families in 1952 to 342 000 families in 1970, and the redistributed land area, which totalled 16 400 feddans in 1953, increased to 818 000 feddans in 1970.

Figure 3.1 **Distribution of land area and number of holders, 1952**



In addition to **land distribution**, as a result of the ARL, the beneficiaries were organized in **cooperatives**, which provided their members with production inputs and also marketed their crops. Agrarian reform cooperatives represented a successful model of agricultural cooperatives at that time. Their mandate included: land allocation between different crops, provision of cash and in kind loans required for field crops production and livestock and marketing agricultural products. The cooperatives succeeded in establishing and managing several productive projects, including poultry farms, cattle feedlots, rice milling units and fertilizer processing plants.

The ARL also established the rental value of agricultural land, equivalent to seven times the property tax of the land; and thus cancelled any speculation on land rent at that time. The law also guaranteed the non-eviction of tenants, unless the tenant violated the terms of the contract.

In 1956–57, the government began a pilot project for **land consolidation** and organizing **crop rotation** in two villages. The principle was to assemble small plots of contiguous areas into one plot on which a **single crop** would be cultivated collectively, without regard to individual ownership. The government provided the farmers with extension services, but did not interfere in the daily farm operations. Based on the successful results achieved in the two experimental villages, in the 1960s the project was applied in two governorates (Beni-Suef and Kafr Elsheikh) and then scaled up throughout the country. This project had been relaxed with the introduction of a structural adjustment program in the 1980s, which eliminated governmental intervention in determining cropping patterns.

In 1961, the government applied a new policy to enable small farmers to cover their financial needs more easily, by obtaining loans on the basis of **crop guarantees**, instead of **land collateral**. The lending operations were no longer associated with any personal or properties guarantees, and thus lending became associated with production activity. Seasonal loans for crop production were, and still are, given at subsidized **interest rates** below 5.5 percent. The government bears the difference between the **subsidized rate** and the prevailing interest rates in the banking market.

A further law in support of SSF was issued in 1997. The law exempted landholders with less than three feddans from **property tax.** This law is still in force. In addition, the state issued ministerial decrees, on an ongoing basis, to **cover the default loans** of small-scale farmers, or at least exempt them from a large portion of the accrued interest on non-performing loans. The available data indicate that the latest of these initiatives, issued in 2013, resulted in tax concessions granted by PBDAC in the amount of 200 million EGP, which represented 90 percent of the accrued interest on debts less than 10 thousand EGP.

3.2 Policy Legal Framework

3.2.1 Land tenure policy

As mentioned in the first part of this section, Egyptian policy on the possession of agricultural land has undergone a number of significant changes. In the first half of the last century, there were no restrictions on land ownership and possession. As a result, large areas of agricultural land were in the hands of a limited number landowners. According to the agricultural census conducted in 1929, large holders (50 feddans or more) represented 0.13 percent of the total number of holders, while their holdings represented nearly half (50 percent) the total land area. In contrast, the percentage of holders with less than five feddans, represented 83 percent of the total number of landholders, while their holdings represented only 19.2 percent of the total land area.

Table 3.2 **Development of agricultural landholding (1929-2010)**

Category		1929	1939	1950	1960	1980	1990	2000	2010
<5 feddans	No. %	82.94	80.60	87.42	84.10	90.05	89.92	90.37	91.75
	Area %	19.23	18.79	23.16	37.84	52.52	48.89	47.22	47.03
5-50 feddans	No. %	16.93	17.80	11.18	15.30	9.85	9.78	9.33	8.05
	Area %	30.27	36.51	47.74	40.66	34.78	35.81	38.28	36.17
50 feddans and more	No. %	0.13	1.6	1.4	0.6	0.1	0.3	0.3	0.2
	Area %	50.50	44.70	39.10	21.50	12.70	15.30	14.50	16.80
Average area of landholdings (feddans)		6.13	6.04	6.13	3.79	2.69	2.70	2.40	2.19

Source: Compiled and calculated from MALR, Economic Affairs Sector, consolidated results of consecutive agricultural censuses during the period 1929-2010.

Agrarian reform laws enacted in 1952 established an **upper ceiling for the ownership** of agricultural land of 100 feddans per family and 50 feddans per individual. The application of these laws freed up large areas of agricultural land to be redistributed to landless farmers and poor social groups. This led to significant changes in the structure of the acquisition of agricultural land. As a result, the percentage of land area within the larger holdings category (50 feddans or more) dropped from 50.5 percent in 1929 to 12.7 percent in 1980. On the contrary, number of holdings with less than five feddans increased from 19.2 percent in 1929 to 52.5 percent in 1980 (Table 3-2).

3.2.2 Area limits of land tenure

Under current Egyptian law, the limits of ownership of agricultural lands are as follows:

a. In the delta and valley areas:

- 100 feddans per family (husband, wife and dependent children),
- 50 feddans per Individual.

b. In the new reclaimed lands:

- 200 feddans per individual,
- 300 feddans per family,
- 10 000 feddans for cooperative associations, with a maximum of 30 feddans per member.
- 50 000 feddans for shareholding companies.

3.2.2.1 Relations between land owners and tenants

As mention before in other sections, the new law controlling the relationship between tenants and land owners had established a fair basis for the relationship, leaving the determination of **rent value** to **market** forces. As a result, large areas of cash-leased land returned to the owners and the proportion of owned holdings increased from 67 percent in the 1990 census and to 91 percent in 2010. The market value of agricultural land increased steadily, especially for land adjacent to housing areas and major cities, where there was a strong demand for land for **non-agricultural use**. The area of agricultural land transformed to housing use was estimated at 30 000 feddans per year from 1984 to 2007 and increased to 40 000 feddans per year through 2010 (Sustainable Agriculture Land Use Committee, 2007, 2010).

3.2.2.2 Future trends in the acquisition of agricultural land

In light of the growing imbalance between population growth and limited available agricultural land, exacerbated by the impact of inheritance laws, **land fragmentation** has increased.

One of the positive impacts of the new law governing the relationship between owners and tenants is an increase in the percentage of land area of farms consisting of a single plot from 38.4 percent in 2000 to nearly 54.9 percent in 2010. At the same time, the land area corresponding to small farms consisting of a single plot increased from 44.4 percent in 2000 to nearly 58.1 percent in 2010 (Table 3.3a). On the other hand, data presented in Table 3.3b indicates that the number of small farmers increased from 3.01 million in 1999–2000 to nearly 3.74 million in 2009–10, and the size of small farms decreased from 2.4 feddans to 2.22 feddans during the same period (Table 1-5). The number of dwarf (very small) farms increased from 43.46 percent of all farms in 2000 to nearly 48.3 percent in 2010.

Table 3.3a **Relative distribution of holdings area according to farm size and number of plots as of 1999–2000 and 2009–10 (%)**

Farm Size (feddan)	1999–2000			2009–10		
	One plot	More than one plot	Total	One plot	More than one plot	Total
< 1	79.23	20.77	100	85.99	14.01	100
1–2	40.10	59.90	100	53.83	46.17	100
2–3	26.85	73.15	100	41.11	58.89	100
SSF	44.44	55.56	100	58.13	41.87	100
>3	35.34	64.66	100	53.16	46.84	100
Total	38.39	61.61	100	54.91	45.09	100

Source: MALR, Consolidated results of the 1999–2000 and 2009–10 agricultural censuses

Table 3.3b **Number of holders and average farm area according to farm size as of 1999–2000 and 2000–10**

Holding size feddans)	2000			2010		
	Number		Average farm area (feddans)	Number		Average farm area (feddans)
	(1 000)	%		(1 000)	%	
< 1	1 616	43.46	0.44	2 144	48.29	0.43
1–2	881	23.70	1.27	1 069	24.08	1.24
2–3	517	13.91	2.23	531	11.96	2.22
SSF	3 014	81.07	0.99	3 744	84.32	0.91
Grand total	3 718	100.00	2.40	4 440	100.00	2.19

Source: MALR, Consolidated results of the 1999–2000 and 2009–10 agricultural censuses

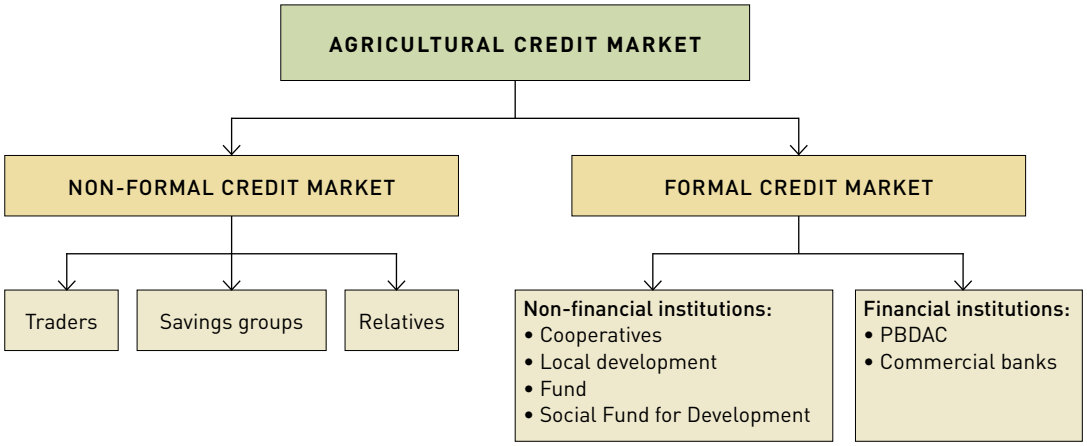
One of the most important policies for reducing **poverty and unemployment** and empowering the rural poor is the land allocation policy of the newly reclaimed areas. In the **new land reclamation projects**, the trend is for 30 percent of the land area to be allocated to smallholders from various social classes. Some advocate the distribution of land to those groups in the form of agricultural shareholding companies, where every new settler has specific shares equal to the value of the land allocated to him. This new mechanism of land allocation will keep land consolidated and avoid fragmentation.

To improve the allocation and increase the **efficiency of irrigation** water, almost five million farmers in the Delta and Valley were organized in **water user associations** and a national program for modernizing on farm irrigation systems was introduced and implemented on an area of about 300 thousand feddans in the Delta and Valley.

3.2.3 Agricultural credit policy

The agricultural credit policy in Egypt passed through several stages and showed remarkable development towards providing access to credit for small farmers. This had been reflected in the full coverage of the credit needs of farmers of different scales, in all geographical areas, for all types of agricultural activities, including farm related activities, and all types of **loans** required for agricultural production.

The Principal Bank for Development and Agricultural Credit (PBDAC) is the main provider of agricultural credit in Egypt. Besides the PBDAC, some credit facilities for agricultural and rural development activities are also provided by commercial banks, the Social Fund for Development (SFD), cooperatives and agricultural associations. Some other unofficial sources also provide **credit services.** These include agricultural commodities' traders, mainly in the wholesale markets of vegetables, fruits and fresh milk. Those traders charge higher interest and sales commissions and a succession of different types of discounts. Generally, the traders supply the farmers with agricultural inputs on credit such as fertilizers, pesticides and seeds as well as supplying poultry farmers with chicks and veterinary care. Another **non-formal** source of **credits**, which works successfully in many communities, are the farmers' savings groups. In this type of social credit community, each month all the members pay in a certain amount of cash, and each month, on a rotating basis and taking into consideration the emerging needs of the members, one member receives the total amount paid in.



3.2.3.1 Development of loans provided by the PBDAC:

The PBDAC provides **seasonal loans** for field crops and vegetable production and investment loans for other activities. Table 3.4 shows seasonal loans increased from 2.59 billion EGP in 1997 to nearly 6.69 billion EGP in 2011. Seasonal loans represent nearly 40 percent of total loans provided by PBDAC during this period. The data indicates that the total value of the investment loans has decreased from 7 billion EGP in 1997 to 6 billion EGP in 1998, as a result of financial policy reform pursued by the government. This was followed by a gradual increase in the total volume of loans granted by the bank to 11 billion EGP in 2008. However, the bank followed a conservative lending policy during 2009, aiming to rid its credit portfolio of all forms of fictitious or bad loans. This resulted in a decline in the total volume of loans down to 6 billion EGP in 2010. However, by 2011, the total volume of the Bank's loans had increased to 8.6 billion EGP.

3.2.3.2 Main Elements of the PBDAC Credit policy

1. Loan targets

Each year, the PBDAC determines its credit target, its allocation between different types of loans (short, medium and long term) and the distribution of these loans between different activities, taking into consideration the credit risk for each activity, and the characteristics of the credit customers. Keeping the balance between the liquidity and profitability of each type of loan is a very important factor in allocating loans between the different activities and maturity dates.

2. Terms of loans

The PBDAC provides four types of loans

a. *Seasonal agricultural loans:* for funding various **crop production** activities, with durations of less than one year. These loans are provided at a **subsidized** interest rate of 5.5 percent per year;

b. *Short-term loans:* for other activities (livestock, poultry, agricultural mechanization, farm related businesses, etc.) for a duration of less than one year. These loan are granted at the prevailing **market** interest rate.

Table 3.4 **Seasonal loans and investment loans provided by the PBDAC, 1997–2011**

Year	Seasonal loans		Investment loans		Total million EGP
	Million EGP	%	Million EGP	%	
1997	2 589	26.8	7 060	73.2	9 649
1998	2 589	29.9	6 073	70.1	8 662
1999	2 701	28.1	6 923	71.9	9 624
2000	3 263	30.3	7 514	69.7	10 777
2001	3 425	29.6	8 149	70.4	11 574
2002	3 337	26.8	9 127	73.2	12 464
2003	5 292	38.6	8 434	61.4	13 726
2004	6 424	43.1	8 467	56.9	14 891
2005	6 179	39.9	9305	60.1	15 484
2006	5 792	36.4	10 101	63.6	15 893
2007	5 336	33.1	10 799	66.9	16 135
2008	5 490	33.2	11 024	66.8	16 514
2009	5 401	45.6	6 455	54.4	11 856
2010	6 354	51.3	6 025	48.7	12 379
2011	6 688	43.8	8 570	56.2	15 258
Average	5 484	39.9	8 268	60.1	13 752

Source: Mohamed Hassan, Economic and financial efficiency of PBDAC, Ph.D. thesis, Menoufia University, 2013.

c. Medium-term loans: to finance the acquisition of agricultural productive assets for a period of less than five years. These loans are granted at the prevailing market interest rates.

d. Long term l*oans:* for financing **land reclamation** activities, with durations not exceeding 10 years. These loans are granted at the prevailing market interest rates.

3. Interest rates

Based on the prevailing market interest rates and the cost of different sources of financing, the Board of Directors determines the bank interest rates for different types of loans, except for seasonal crop production loans where the rates are determined by the government based on the support it provides for this purpose.

4. Loan repayment policy

For seasonal loans the bank follows a repayment policy based on the **harvest dates** of various crops. The bank does not encounter any problems collecting this type of loan since delinquent borrowers are not eligible to receive new loans for the next cultivation season and thus lose the advantage of inexpensive financing. On the other hand, for other types of loans (investment

loans), the Bank suffers regularly from bad debts. Table 3.5 shows that the repayment ratio of investment loans declined from 90 percent in 2002 to 91 percent in 2011. Based on media reports, the situation is getting worse as a result of unrest since 25 January 2011.

Table 3.5 **Repayment ratio of investment loans, 2002–2011**

Years	Repayment ratio	Years	Repayment ratio
2002	89.86	**2007**	87.58
2003	90.45	**2008**	87.38
2004	89.96	**2009**	82.22
2005	88.9	**2010**	82.02
2006	87.54	**2011**	91.37

Source: PBDAC, Records of investment loans repayment, unpublished data

3.2.4 Insurance policy

Despite the importance of **agricultural insurance** to mitigate the risks faced by agricultural producers, the prevalence of this service is still limited and is fraught with many difficulties. Agricultural insurance services vary for the different types of risks associated with each production activity.

- The main institutions that provide insurance services for the agricultural sector are: The **Egyptian Association for Cooperative Insurance:** This institution provides **specialized insurance programs** for small businesses and private enterprises financed by the Social Fund for Development (SFD). It also provides insurance for bank loans with a guarantee funds up to 80 percent of the loan value.
- The **Credit Guarantee Corporation***:* This is a joint stock company which is considered a risk company under the Companies Act No. 159 of 1981. Several credit banks have signed contracts with the company for risk guarantees. The company has developed several programs for small and medium enterprises and can also facilitate bureaucratic formalities for loans and credit facilities offered by the banks to encourage small and medium enterprises and micro-sector. Such type of insurance is applied by PBDAC for investment loans.
- The **Livestock Insurance Fund**: This is a parastatal enterprise founded in 1959, affiliated to the MALR. It offers services through veterinary service centres throughout Egypt, with the objectives of:
  - insuring livestock loans for PBDAC;
  - compensating farmers for insured livestock in cases of loss due to mortality, forced slaughter, disease, fire, accidents, robbery and dishonesty;
  - providing veterinary care for insured animals;
  - cooperating with different agencies interested in maintaining and developing animal wealth. One of the most important examples of this is the collaboration with the Vaccines and Serum Authority (VACSERA) in establishing pathogen-free egg farms for producing vaccines.

- The **Agricultural Solidarity Fund**: This fund was created recently, in 2015, within the MALR, to provide compensation in cases of natural disasters and insurance for agricultural crops, and as agricultural risk fund. The objectives of the fund are the following:
  - compensate the beneficiaries in cases of loss due to agricultural risks, in accordance with the criteria and mechanisms determined for different cases;
  - build capacity in the field of agricultural risk management;
  - promote modern agricultural technologies to reduce agricultural risk and control losses;
  - encourage and support the insurance companies to work in the field of agricultural insurance.

In spite of the fact that the presidential law establishing this fund was issued more than one year ago, its by-laws have not yet been prepared and, consequently, the fund is not yet functioning.

3.2.5 Pricing policies

In the early 1990s, Egypt applied a wide range of economic reforms and macroeconomic structural adjustments. The agricultural sector led the way in applying policy reform and structural adjustment actions. This was a turning point between two stages: (i) the first stage, in which the state played a major role, either directly or indirectly, in **pricing** the vast majority of goods and services, and (ii) the recent stage, in which the role of the state is declining significantly, leaving **market** mechanisms and the balance between supply and demand to determine the prices of the different goods and services.

3.2.5.1 Agricultural pricing policies in the pre-reform stage

Before the economic reform, the state determined the prices of most agricultural products, either for the producer or the consumer. The government also determined how much land area would be used to cultivate the main strategic crops, in an obligatory system. The government's aim was to achieve **food security** in those strategic goods, particularly wheat, and ensure the supply for the consumers at affordable prices. This was also the case with some industrial crops, such as cotton and sugarcane, and some **export** products such as rice, onions, potatoes and citrus. The prices of these products were generally less than the prices on the global markets. These policies resulted in a passive attitude on the part of the agricultural sector.

Additionally, the state was committed to providing most of the agricultural inputs: seeds, fertilizer, machinery services and agricultural loans at subsidized prices, below the free market prices.

3.2.5.2 Pricing policies in the post-reform stage

In the post–reform stage, which still prevails, the state abandoned the mandatory land area for producing strategic crops, the obligatory marketing of such crops and the fixing of farm gate prices. Accordingly, it has reduced its obligation to provide farming **inputs** at subsided prices. The market prices are not administered or determined by the government. The current situation is as follows:

- *For strategic crops,* especially **wheat**, and to some extent **maize**, the state announces **indicative prices** prior to the planting season. These prices are close to or sometimes higher than the prices on world markets, in order to encourage the cultivation of these crops. The government is committed to purchasing the farmers' production according to these indicative prices without any obligation regarding the quantity to be delivered, and farmers are free to sell their production on the open market if they find higher prices. (That is, the government is considered the last resort.)
- *For manufacturing crops,* such as **sugar cane** and **beets**, prices are determined according to **pre-contracting** between the factories and the farmers, so these crops are cultivated according to a contracting farming system.
- *For the vast majority of the agricultural products*, the farm gate price and the prices along the value-chain are determined by free market mechanisms, and, to some extent, by the monopoly of some stakeholders in the commodity chains, such as wholesalers, exporters and brokers.
- *For production inputs*, the market prices are moderate for the vast majority of the inputs, without government intervention. However, the government always gives some support to the production of chemical **fertilizers** by providing **natural gas** at subsidized prices. Farmers receive nitrogenous fertilizers at subsidized prices and seasonal loans for some crops at subsidized **interest rates**.

3.2.5.3 Pricing policies and smallholders

Under the current pricing policies for agricultural inputs and products, smallholders are the group most affected by those policies, due to many considerations:

- The weak quality control system of the specifications and validity of input supplies leads to many cases of **commercial fraud** with consequences in terms of costs and productivity.
- Smallholders, especially those who **rent** farmland, do not have any access to subsidized loans from the PBDAC, and therefore must get short–term loans at the prevailing interest rate.
- With the absence of strong **small farmer associations** to provide marketing services, small farmers generally get unfair prices for their products at the farm level. They don't have the power to negotiate nor the facilities to diversify their outlets; so they are obliged to accept low prices for their products.
- According to the prevailing supply chain system, farmers, and smallholders in particular, are generally considered the weakest link in the chain, and there are few (or no) integrating relationships between them and the other stakeholders. This exposes them to unfair terms set by big players with monopolistic practices. Small farmers are also more severely affected in case of exposure to any kind of crisis.

As a direct result of this situation, smallholders are less concerned about achieving high product quality or applying **good agricultural practices** or post-harvest operations. In

addition, smallholder make decisions in the absence of sufficient market **information**, which makes them subject to wide fluctuations and frequent marketing crises.

3.2.6 Direct support policies for farmers

Social and economic policies include a range of actions designed to support poor families. Rural households represent the largest proportion of families that benefit from these policies, as these families represent the largest proportion of the population (about 57 percent) and due to the relatively high rates of poverty in rural areas. Among the most important policies designed to support poor families are the following: -

3.2.6.1 Rationing Card Policy for subsidizing basic food commodities:

This system of providing **basic commodities** through a rationing system had been applied since World War II. The number and quantity of commodities included on the cards varied from period to period, based on the political and economic situation of the country. Holders of ration cards are entitled to buy set quotas of specific commodities, detailed below in Table 3.6, including sugar, cooking oil, rice and tea. Wheat flour is also distributed in some governorates.

Table 3.6 **Subsidized commodity entitlements available through ration cards**

Commodity	Quota per person		Quota per family (4 persons)		Additional quota per person		Additional quota per family (4 persons)	
	Kg	US$	Kg	US$	Kg	US$	Kg	US$
Sugar	1 kg	0.16	4 kg	0.64	1 kg	0.16	4 kg	0.64
Oil	½ kg	0.188	2 kg	0.75	1 kg	0.375	4 kg	1.5
Rice					2 kg	0.375	8 kg	1.5
Tea (50g package)	1 pack	0.081	4 packs	0.325				

Source: WFP, The status of food poverty and food security in Egypt, May 2013.

The number of households benefiting from these policies was estimated at about 11.8 million in 2010- This increased to 18.6 million households in 2013, or about 67 million people, approximately 83.7 percent of the total population.

The government allocated EGP 13.5 billion in the 2014–15 budget for subsidizing such commodities. As such, the per capita subsidy through this system amounts to nearly EGP 200, equivalent to around EGP 725 per family (US$91).

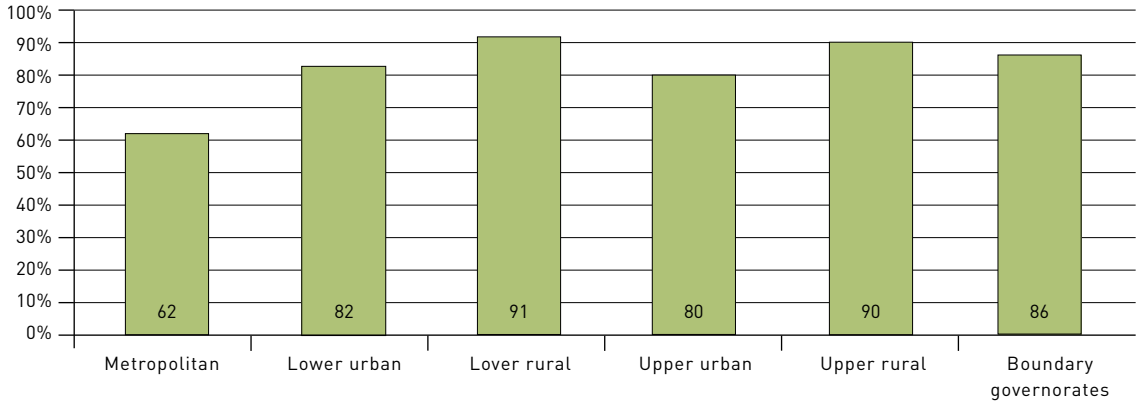
According to the 2008–09 Household Income, Expenditure and Consumption Survey (Table 3.7) the share of households in the poorest quintile holding ration cards is higher than any other group. Figure 3.2 shows that almost 90 percent of rural families hold ration cards as of 2013, compared to almost 80 percent for the urban families and 62 percent for families in metropolitan areas, such as great Cairo and Alexandria. Recently the subsidy system, through rationing card mechanism, developed significantly with regard to the quality and number of commodities, which increased to nearly 15 foodstuffs. The new system allocates a certain value of subsidy per person and gives the household the right to choose the commodities they would like to buy.

Table 3.7 **Share of households holding ration cards, by region and expenditure quintile (percent of all survey households)**

Region	Expenditure quintile					Average
	Poorest Q	2nd Q	3rd Q	4th Q	Richest Q	
Metropolitan	51.7	52.5	53.1	53.6	49.1	50.8
Lower Urban	74.9	70.0	68.3	64.9	57.1	63.5
Lower Rural	79.9	78.0	78.2	77.7	75.3	77.6
Upper Urban	69.9	65	64.1	59	50.2	59.6
Upper Rural	78.4	76.3	74.5	72.1	71.0	75.6
All Egypt	76.0	73.3	71.5	67.7	57.4	67.6

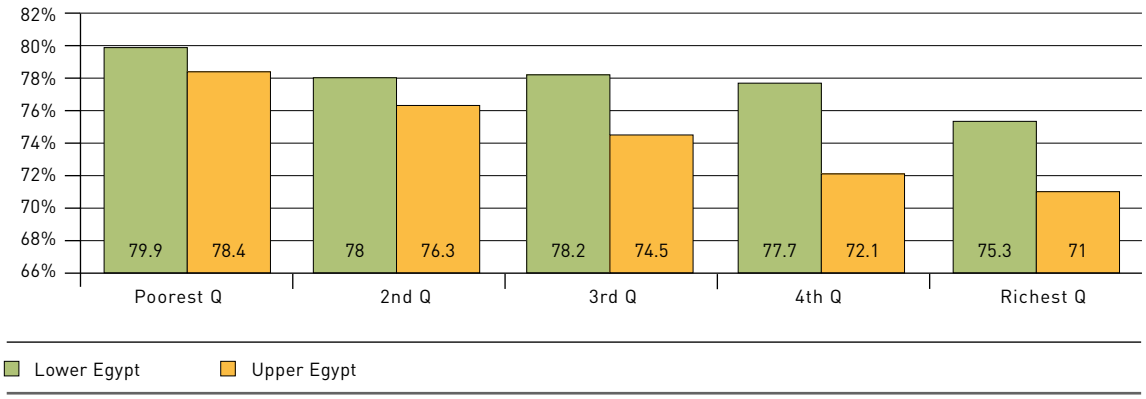
Source: World Bank, Egypt's Food Subsidies: Benefit Incidence and Leakages, Social and Economic Development Group, September 16, 2010.

Figure 3.2 **Percentage of households which have commodities rationing cards**



Source: The General Authority for Information, Fact Sheet 2013 - Egypt

Figure 3.3 **Families holding ration cards in rural areas**



3.2.6.2 Bread subsidy policy

Egypt has a long history (since the 1960s) of subsidising bread. Reforms to the bread and rationing system were introduced, including changing the subsidy from flour to the finished product, in an effort to counter corruption and inefficiencies in the subsidized flour market. Simultaneously, the government sought to encourage households to reduce wasteful consumption by using a smart-card reward system that allows savings to be used to purchase other subsidized items. Under this policy, the state gives the right to all families holding food rationing cards to buy bread at a very low price (0.6 cents per loaf). The amount allowed is five loaves per person per day. The system applies to all regions of Egypt. Households that consume less bread can use the remaining amount of the subsidy, estimated at nearly 5 cents per loaf, to buy other foodstuffs. The value of the bread subsidy is estimated at 18.5 billion EGP in the 2014–15 budget (276 EGP per capita).

3.2.6.3 The policy of providing social solidarity pensions

One of the major social solidarity polices is the provision of pensions for ultra poor families. The number of families benefited with the program increased rapidly to two million in 2013–14, and the program is expected to reach three million families in 2014–15. The pension for single person families is US$45 per month, compared to US$50 per month for two-person families of, US$52 per month for three-person families of and US$60 per month for families of four persons and more.

The new government has shown interest in expanding the **social-protection system** to include the most deprived segments of the population. The Ministry of Social Solidarity in 2015 targeted cash pensions for poor families conditional on their children's school attendance. This will apply exclusively to governorates with the highest poverty rates, mostly concentrated in Upper Egypt. The current government plans on introducing a revised and upgraded universal **health insurance program** that will also be piloted in Upper Egypt, and later expanded to cover the whole country.

3.2.6.4 Poverty geographical targeting policy

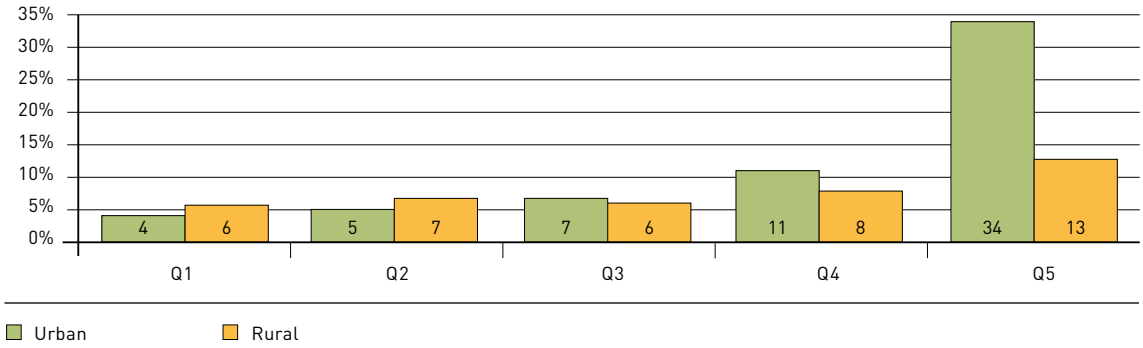
The 2014–15 economic and social development plan directs the largest part of governmental investment to improve the livelihood conditions of citizens in the countryside and the poorest areas. This program is focusing on Upper Egypt and bordering governorates through investment in **infrastructure** and public **utilities**, including roads, sewage services, education, public health and rural development.

3.2.6.5 Petroleum products subsidy policy

The largest segment of Egypt's subsidy spending is directed toward **energy** and food. The International Energy Agency (IEA) estimates the subsidy rate on domestic fuels in Egypt to be very high, over 50 percent, amounting to nearly US$13.5 billion in 2012. Subsidies of petroleum products represent almost three quarters of the total spending on subsidies. The largest proportion of fuel subsidies is channelled toward **diesel oil**, which is used in commercial **transport**. The second most important item on the fuel subsidy bill is liquefied petroleum **gas**, which is distributed in bottles to the population and used for **cooking**.

Egypt's energy subsidies are very regressive. As Figure 3.4 illustrates, in both urban and rural areas, the top 20 percent of households (Quintile 5 in Figure 3.4, measured by expenditures) receives, by far, the largest share of the total subsidy spending, and the share of benefits received by other households decreases with their wealth, determined by household expenditures. This discrepancy is stronger in urban areas, where it is likely driven by multiple-car ownership among wealthiest households. In urban areas, the top quintile of the income distribution receives eight times as much in energy subsidies as the bottom quintile. Unsurprisingly, the gasoline subsidy is the most regressive.

Figure 3.4 **Distribution of petroleum subsidies by expenditure quintiles in urban and rural areas**



Sources: Soheir Abouleinein, Heba El-Laithy, and Hanaa Kheir-El-Din, *The Impact of Phasing Out Subsidies of Petroleum Energy Products in Egypt*, Working Paper No. 145, Egyptian Center for Economic Studies (2009); Central Agency for Public Mobilization and Statistics (CAPMAS), *Household Income, Expenditure and Consumption Survey, 2004/2005*, CAPMAS (2006).

3.2.7 Indirect support policies for rural and agricultural development

In addition to the role of the MALR and its affiliated bodies in the field of agricultural and rural development, other institutes and entities play a supportive role in these areas. The Agency of Village Construction and Development (AVCD) and the Social Fund for Development (SFD) are key institutions supporting rural development at the national level.

3.2.7.1 Agency of Village Construction and Development

This agency was established in 1973 with the following responsibilities:

- general planning and implementation of **village development**;
- **coordinating** different ministries, state agencies and local administrative bodies for the implementation of public policies for developing villages economically, socially, culturally and administratively;
- conducting different **studies** related to social and economic development of the villages, with the relevant authorities and experts;
- preparation and implementation of **training programs** needed for the village development plans at the village and district levels;

- providing **pilot models** for non-traditional activities to optimize the utilization of local environmental resources;
- providing **concession loans** from the Local Development Fund (LDF) to youth and women;
- implementing developmental intervention in the poorest villages through the Geographical Poverty Targeting Program.

3.2.7.2 Social Fund for Development (SFD)

The SFD was created in 1991 as a **social safety net**, to mitigate the negative effects of the economic reform and structural adjustment program. The SFD mobilizes national and international resources to invest in the social development of poor areas, with a focus on **job-creation** through **small and microenterprises** and by improving the quality of life of low-income people. The SDF finances the following actions for rural development:

- coverage of sewage canals located inside the residential areas of the villages;
- cleaning and lining drainage canals;
- establishing sewage networks in the countryside;
- implementing the national literacy program in collaboration with the General Authority for Literacy and Adult Education, as well as NGOs interested in this area;
- establishing community schools for basic education serving rural communities, with the participation of the local community;
- constructing one-room schools for girls in remote and disadvantaged areas, which also provide training for the girls on income-generating activities;
- work with NGOs to improve the level of primary healthcare services through financing and implementation of primary healthcare programs;
- provide specialized training for rural women leaders in family planning, especially in poor villages and hamlets.

According to SFD statistics, funds for such programs increased from about EGP 317.5 million in 2013 to nearly EGP 411.5 million in 2014. The impact of such programs on job creation and poverty alleviation needs to be assessed.

3.2.8 Agricultural extension policies

The **extension** system is a key component of the MALR mandate which now covers research, policies and quality control. The general function of extension is to link farmers and agricultural research centres for transferring **technical recommendations** to farmers, and to take farmers' problems to the research centres for appropriate solutions. This is achieved through a vast central structure that reaches all the villages and is in close contact with the farmers.

Transferring new technologies and results of applied research to farmers includes four steps:

a) Training subject matter specialist (SMS):

The SMS are trained in different areas and activities of plant and livestock production. The training is provided in the MALR training centres, called extension centres of which there are about 198 in all, as well as in four media support centres affiliated to the Extension and Training Departments. Senior researchers and professors take the lead in providing the training in specialized areas.

b) On the job training of agricultural extension workers:

On job training programs are designed and implemented periodically to improve the knowledge and skills of **extension workers** in the villages. The SMS are utilized as trainers in this regard, to transfer the knowledge and experience they have gained to the field extension workers. These training sessions are usually conducted at the **agricultural cooperatives**, while practical training is provided through **field visits** during the different stages of crop cultivation, growth and harvesting.

c) Training local rural leaders (LRL):

Local leaders from rural areas are selected by field extension workers, according to their farming skills, their leadership relationships with other farmers and their ability to persuade others to adopt modern technology. The SMS provide training to these local leaders in various fields in order to increase their ability for transferring knowledge and skills to their farmer peers.

d) Farmer Field Schools

Farmers Field Schools (FFS) employ participatory learning processes to enhance the capacities of rural communities to improve food production and livelihoods, tailored to local needs. FFS were initiated in Asia over 25 years ago in the context of FAO and government-led efforts in Integrated Pest Management (IPM), but have since developed and evolved in many other countries, including Egypt, and regions. They have been adapted for other content, with support from different actors, and have become a widely used approach for education, community development and capacity building.

There is increasing interest and demand for FFS on the part of Egyptian authorities, civil society, academia and donors, as a means to enhance capacities for sustainable food production, by building resilience and empowering vulnerable communities to cope with emerging challenges such as climate change.

Through FFS, extension workers and local leaders experiment and develop proper crop and pest management practices enabling the participating farmers to improve their productivity and profit, while preserving the fragile natural environment. This means that knowledge, information and skills transferred from extension services to farmers and from farmer to farmer help speed up the adoption of new sustainable agricultural practices among small-scale farmers. FFS sessions and meetings are also held during the entire cycle and stages of

the crop. FFS need more support and attention from the authorities since they have proven to be a valid participatory extension tool for transferring know-how to farmers.

Other extension programs are also implemented through a variety of mechanisms including:

- national campaigns for improving specific crops;
- demonstration fields;
- harvesting days;
- extension newsletters and magazines;
- mobile audiovisual facilities;
- seminars in communities with high levels of illiteracy.

However, despite the efforts made by MALR and its affiliated centres, including the Agricultural Research Center and Agricultural Extension and Training Departments, there is a wide gap between yields achieved at the research stations and demonstration fields and those achieved in farmer's fields. In some cases, this gap is estimated at 30 to -50 percent of the potential yield. This implies the need for more effort in transferring the technologies to farmers from the different institutions. Furthermore, the Egyptian extension system is suffering from an increasingly ageing pool of local extension workers, due to the government policy of stopping new government employment for 15 continuous years (1995–2010). The MALR should develop extension messages and heavily use new communication techniques to broadcast knowledge and information to farmers, especially smallholders.

In the last 10 years a good initiative, promoted by FAO, in number of villages, the Virtual Extension of Research Communication Network (VERCON), instituted the use of the ICTs in the dissemination of knowledge and information to the farmers. Additionally, the Rural and Agriculture Development Communication Network (RADCON) was established in 1 000 locations (96 extension centres, 19 agriculture directorates, 44 research stations, 8 faculties of agriculture, 11 research institutes, 3 NGOs and 50 SSF communities). According to FAO reports, the achievement rate exceeded the target, at 146 percent. The government plan is to expand the system to different agro-ecological areas in the country.

3.2.9 Quality control polices

Quality control of agricultural inputs is one of the major mandates of the MALR, where it shares the responsibility of quality control of the agriculture products with the Ministry of Health (for food commodities) and the General Organization for Export and Import Control.

3.2.9.1 Central Laboratory of Organic Agriculture (CLOA)

This Laboratory was established in 2002 as a result of the high demand in the global market for organic products and the willingness of the MALR to promote organic farming technology for producing healthy and safe foods and to increase exports of agricultural products. The mandate of this laboratory includes the following:

- Promote the organic production of various crops, especially vegetables, fruits and medicinal and aromatic plants, according to internationally accepted standards. This is intended to increase Egypt's export at premium prices and reduce the volume of pesticides used in the Egyptian agriculture;
- Organize training courses for private and public enterprises in organic farm management, including plant nutrition, soil fertility and plant protection;
- Register certification and inspection offices working in Egypt to ensure professionalism and impartiality, with a view to enhancing Egypt's competitiveness in the niche market of organic products;
- Provide effective alternatives to agro-chemicals (fertilizers and pesticides) to help promote organic farming;
- Register all accredited organic farms to protect their businesses and provide them the necessary information on sustainable organic production;
- Publish extension materials for the benefit of organic producers;
- Train personnel in organic agricultural production, with a view to creating organic agricultural service offices through to the village level.

3.2.9.2 Central Laboratory of Residue Analysis of Pesticides and Heavy Metals (QCAP)

This laboratory is the main output of the collaboration between the Finnish and Egyptian governments through the Quality Control on Agricultural Products project. The laboratory was established in 1995 and has been authorized to issue an official certificate for all types of analysis within its mandate. In 1996, the laboratory was awarded the International Accreditation Certificate for all analyses by the Finnish Branch (FINAS) of the European Accreditation Centre for Laboratories (EAL) on basis of ISO 45001, updated in 1999 to ISO/IEC 17025. The laboratory is the first laboratory in Egypt and the Middle East which awards this kind of certificate. In 2002, the laboratory was reaccredited under the new international quality system, ISO 17025, including the accreditation of 29 different methods of analysis for chemical and biological pollutants in food.

The objectives of the laboratory are the following:

- analyse samples from shipments of agricultural products prior to export and issue accredited certificates with results;
- analyse samples from specific imported food and agricultural products in order to prevent foods that do not comply with the **standards** of contaminants from entering the country ;
- monitor the status of chemical and biological contamination in food and agricultural products in the local markets through the National Monitoring Program;

- conduct risk assessment on pesticide residues in food and agricultural products;
- collaborate with the different research institutes in the national sectors, including environment, irrigation, health, universities, agricultural research projects, organic agriculture, international inspection offices, export and import companies, farmers and consumers.

Since 1995, the laboratory has analysed more than 500 000 samples. This reflects the interest of the government in food safety and in the growth of the exports of Egyptian agricultural products. The laboratory was also awarded accreditation in dioxins analysis which requires high-level technology and specially trained analysts. This type of analysis is limited throughout the world.

Of note is that the laboratory has controlled the high pesticide contamination levels found in **potatoes**. Many pesticides were used during storage. The laboratory monitored the different levels of contamination to identify the lot, which led to lowering the contamination levels. The laboratory succeeded in having the EU ban on peanut exportation due to aflatoxin contamination lifted. Now, the EU mission requires that every peanut consignment have a certificate of aflatoxin analysis from the laboratory.

3.2.9.3 General Organization for Export and Import Control

This authority was established in 1999, as a part of the Ministry of Industry and Foreign Trade. Its mandate includes:

- inspection of all imported commodities, subject to laws regulating ionized radiations and their risk prevention. (As regards commodities imported through the Temporary Admission System, the **inspection** is limited to passing the microbial and blight tests);
- inspection of all export commodities, subject to laws regulating ionized radiations and their risk prevention;
- overseeing inspection of exported and imported commodities, subject to rules governing censorship of literary works and the repression of fraud and cheating;
- participation with the Egyptian Organization for Standards and Quality (EOS) in the amendment of specifications related to imported foodstuffs and industrial goods.

3.2.9.4 Agricultural quarantine

Continual development of the new global economic system, sustainable development transportation systems and new international trade movements have led to the international flow of plant consignments and plant products, along with the risk of carrying plant pests from infected areas to pest free areas. Egypt began applying the concept of plant quarantine in 1904 and has continuously developed the concept to comply with new pests, treatments and phytosanitary measures.

a) Egyptian plant quarantine responsibilities:

- inspection of plant component of exports, imports, items in transit, passenger luggage and post packages, and apply necessary quarantine regulations in each case;
- reporting the occurrence of quarantine pests and regulated non-quarantine pests;
- regulation of plant and plant product exports in ensure compliance with phytosanitary requirements of importing country;
- application of post entry quarantine procedures when necessary;
- monitoring of pest occurrence in the country;
- coordination and cooperation with international and regional organizations and relevant scientific institutions to remain abreast of updates in the phytosanitary field;
- inspection and certification of packing stations and heat treatment units.

b) Animal quarantine

The animal quarantine is mainly responsible for protecting livestock from infectious and epidemic transboundary diseases, including common diseases among animals and humans. It applies inspection and testing quarantine measures on imports and exports to ensure their safety. Such quarantine measures are applied in both the country of origin of imported livestock products and inside Egypt. These measures include:

- assessing the epidemiological situation in exporting countries to ensure that the country is not among the countries with epidemic and infectious diseases according to declarations and instructions of the World Organization for Animal Health (OIE);
- sending specialized missions to study the epidemiological situation of some countries on the ground before imports take place;
- coordination with other authorities responsible for safety of food imports;
- institute precautions and preventive measures in case of suspicion of contagious epidemic diseases in imported commodities;
- participate in the examination of imported live animals, meat and offal;
- follow-up sampling of live animals to confirm they are free from infectious and epidemic diseases and common diseases among animals and humans;
- vaccination of imported animals according to specific program.

3.3 Case studies of some development projects targeting small farmers

3.3.1 Small farmer project (SFP)

Project name	**Small farmer project (SFP)**
Financing agencies	USDA- GOE
Implementing agency	Principal Bank for Development and Agriculture Credit (PBDAC)and Ministry of Agriculture and Land Reclamation (MALR)
Period	1980–1987
Target groups	Small farmers (less than 5 feddans and landless) in three governorates (Sharkia, Qalubia and Assuit)
Objectives	Increase productivity of small farmers and improve their livelihoods.
Scope of work	To ensure a high degree of integration between extension, credit and research services in the agricultural sector. Linking agricultural research and extension was been achieved by creating Subject Matter Specialists (SMS), who were in charge of training the field extension workers monitoring of the implementation of the technical packages and transferring the farmers' feedback to the research centres. The subsidized credit quota system was changed to a demand-driven credit system, responding to the farmers' financial needs and the prevailing market interest rate. Different credit lines were developed based on technical recommendations regarding packages for different activities and different locations. This meant giving a high degree of flexibility for each geographical area to determine their lending roles in accordance to the technical and economic conditions prevailing in the region.
Activities	The main measures applied by the project were: • optional participation of farmers in the project; • granting loans according to the actual needs of the farmer; • granting loans without the traditional collateral guarantee, based on the economic viability of the activity; • simplifying the procedures for granting the loans; • linking credit with the outcomes of agricultural research; • providing credit to farmers at market interest rates; • close monitoring and follow-up of lending and extension activities;
Impact	• targeted number of beneficiaries increased to about 81 thousand farmers; • loan repayment rate increased to 99 percent; • crop yield per feddan different crops in the project areas increased by 30 to 50 percent; • farmers in the project areas obtained better prices as a result of quality and marketing system improvement.

3.3.2 Resettlement and development of the High Dam lake community project

Project name:	**Resettlement and development of the High Dam lake community project**
Financing agencies	WFP and GOE
Implementing agency	MALR
Period	Three stages: 1992-2002, funded WFP; 2002-2012, funded by WFP and MALR and 2012 till now, funded by MALR.
Target groups	Poor rural families in Upper Egypt families, including the landless and family headed up by women.
Objectives	Create a new community around the High Dam Lake, providing the families with job opportunities and agricultural infrastructure to improve their living conditions.
Activities	• establishing infrastructure for the targeted communities; • allocating small plots of agricultural lands to each family (5 feddans); • providing the new settlers with needed agricultural tools and inputs; • providing the new settlers with agricultural extension and veterinary services; • providing the settler families with food aid.

Impact	• four new villages established: Bashair el-Khair 1, Bashair el-Khair 2, New Kalabsha, New Thomas and Afia;
	  • 2 250 feddans allocated to 450 families;
	  • physical assets provided to improve the livelihoods of the communities in the areas, including health services, electricity, social building, agricultural cooperative, schools, sanitation system and drinking water services, local development unit, shops and a bakery;
	  • livelihoods of the new settlers improved;
	  • fragile community groups strengthened through support for their organizations and by encouraging their self-reliance.

3.3.3 West Noubaria rural development project

Project Name	**West Noubaria rural development project**
Financing Agency	IFAD and GOE
Implementing agency	MALR
Period	2006 until now
Target groups	New settlers, including graduates and beneficiaries (small farmers who emigrated from the valley).
Scope/objective	Improving livelihoods of the target populations in the new settlement areas, enhance their productivity and improve their socioeconomic conditions.
Activities	• community development and technical assistance for crop and livestock production, water management, marketing support ,credit facilitation and enterprise development; • Development Community Associations (CDA) with a total membership of 1 412 members. They identify their community needs (health centres and clinics, schools, mosques, social halls, etc.). The CDAs were entrusted with the operation and maintenance of these facilities; • improving extension services for production of crops, fruits and livestock and provision of better seeds and livestock; • development of on-farm water management, from flood to drip irrigation; • innovative approach of linking farmers to markets through training and technical supporting for area farmers and their organizations;
Impact	• upgrading of 3 748 settler housing units, establishment of 15 clinics/health centres, 19 schools, 18 nurseries, 16 social halls, 2 youth centres, 10 mosques, 3 water wells, 15 handicraft workshops and food processing units; • 1 192 farmers were obtained GAP certification and their products found exported; • Operating an animal production farm for sheep production, calf fattening, milk production and dairy processing unit; • rectify defects in off-farm primary and secondary irrigation system on an area of 8 292 feddans; • 56 000 feddans converted to drip irrigation and 1 941 feddans equipped with fixed sprinklers; 117 WUAs registered with 5 764 members, covering an area of 19 712 feddans; • diversification of agricultural production and significant increase in crop yields (maize +80 percent, potatoes +200 percent, beans +70 percent, cucumbers +20 percent); • increase in farm gate prices led to significant improvement of household food security and family nutritional status; • partnerships established between FMAs and private processors: 63 contracts with private companies, covering 8 crops with a total cultivated area of 12 696 feddans and 52 greenhouses; • approaching financial self-sufficiency of 6 marketing associations by engaging them in the sales and procurement of inputs and products of their members.

3.3.4 Success stories

1. Al-shams associations

In 2002, the Al-Shams nongovernmental organization was established as a form of civil society organization working in the field of agricultural development in Middle and Upper Egypt. The aim of the Al-Sham associations is to organize small farmers in those regions on a voluntary basis and provide them technical, managerial and marketing advice for the production of nontraditional cash crops. A total of 109 associations have been created in different villages under the law of NGOs and civil association. The most important services provided by these associations are:

- strengthening the institutional capacity of the SSF associations through training;
- creating linkage between the SSF associations and exporters of horticultural crops;
- focusing on women's participation in the associations' activities and management;
- building the capacity of the technical cadre of the association to improve their skill in marketing and negotiation for non-traditional cash crops;
- contractual marketing of crops, to export and agro-processing companies.

Al-shams associations have been able to achieve unprecedented successes compared to other small farmers associations. It was originally expected that these associations would generate an income of EGP120 million for their members, over a period of four years. They have actually generated EGP160 million, surpassing the target by 30 percent in 2015. The total annual value of exports amounted to EGP75 million in 2015. As a result of their activities in non-traditional crops, the demand for agricultural labour, particularly women labourers, has increased. Furthermore, Al-Shams associations have been able to establish more than 860 contracts with exporters and agro-industrial companies. Their present membership stands at approximately 12.5 thousand, compared to their target of 10 thousand members.

2. Bangar Al Sukkar Agricultural Development Cooperative (BASADC)

This agricultural development cooperative is one of the 14 agricultural development cooperatives (ADCs) receiving loans from the West Noubaria Rural Development Project. BASADC was established in 1989 to serve a total land area of 3 036 feddans. Currently, it has 488 members, all with landholdings of 2 to 4 feddans.

The members of BASADC plant tomatoes, watermelon and sesame in summer and wheat and fava beans and fruit trees in winter.

Since its inception, BASADC has worked with its members to support the work of the World Food Program in the purchase of agricultural inputs for its members. The cooperative has also extended loans to its members to purchase cattle and pesticides, and to market wheat.

During the last five years, major improvements were made in the cooperative's activities, followed by the election of an active board of directors. The cooperative obtained loans from different sources and was able to utilize these loans to extend in-kind loans to its members in terms of seeds, fertilizers and different inputs, in order to exploit the maximum competitive advantage in wheat production. BASADC has also provided loans for planting table grapes.

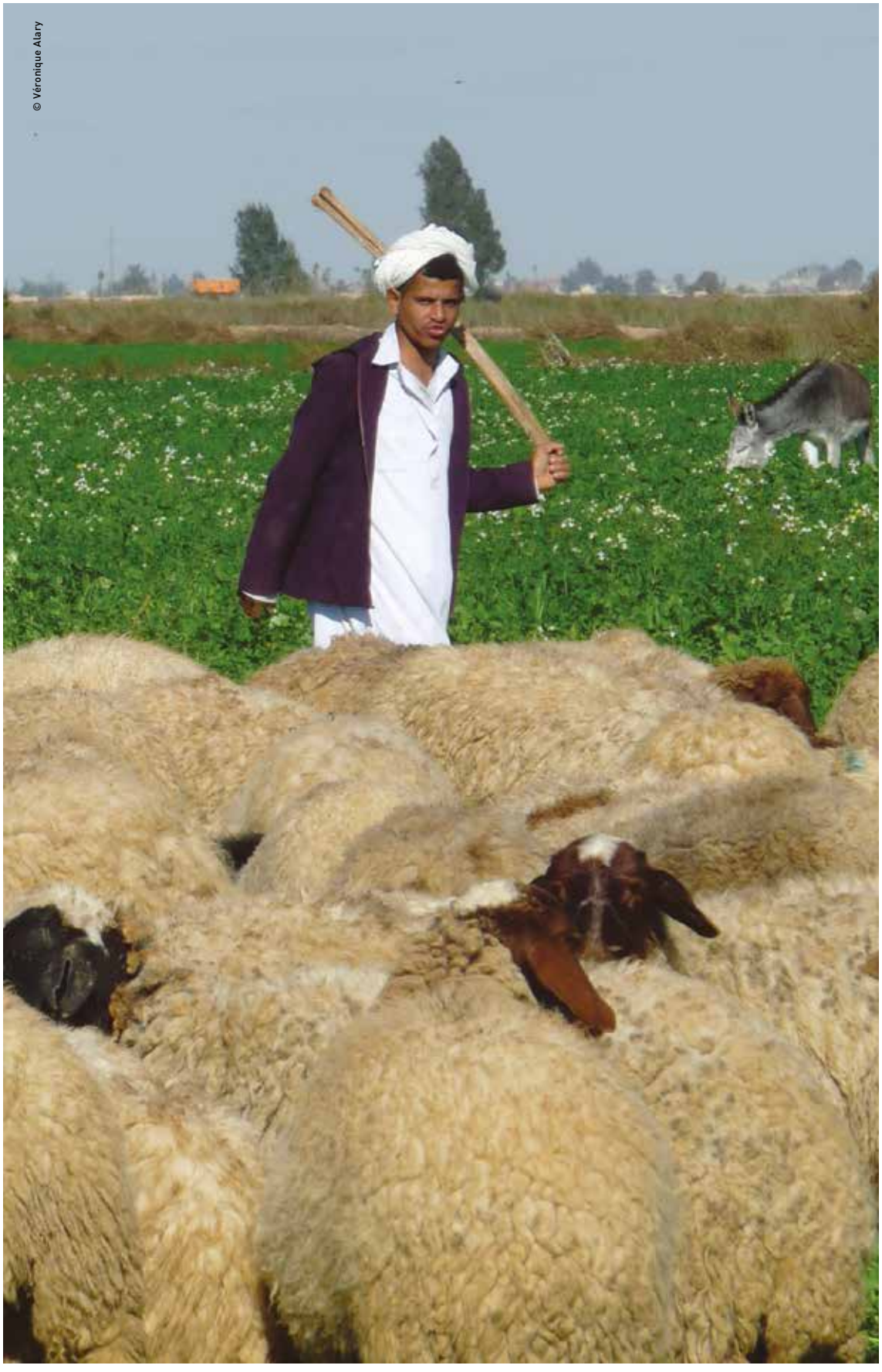
BASADC obtained loans in 2011 for EGP 2 million, paid the loans and received another loan in 2012 for EGP 4 million, which it is also paying back in full. BASADC and other cooperatives are considered the corner-stones of development in the newly reclaimed area, and they are considered the best possible venue for disbursing loans to the small farmers.

3.4 Perception of key stakeholders regarding small farmers in Egypt

First issue: Definition of SSFF and main characteristics	Landholding	Animal holding	General characteristics of holder
	• One feddan or less; less than three feddan or less than five feddans in the old land, and less than 20 feddans in the newly reclaimed land.	• One head of cattle and/ or two head of sheep or goats, with domestic poultry	• Traditional production systems • Farm is the main source of income • Depend on family labour • Illiterate or low level of education • Low income and modest standard of living • Weakness of marketing orientation and decision-making • Limited opportunities in access to local and export markets • Weakness of political interest and influence • Relatively large family size (six persons or more)
Second issue: Evolution of SSFF status	**Positive elements**	**Negative elements**	**Elements that are both positive and negative**
	• Significant interest in agricultural sector and small farmers since ARL in 1952. • The Cooperative Societies perform supportive roles in providing inputs at affordable prices as well as marketing services. • Trend towards cultivation of high yield varieties as well as nontraditional crops, especially horticultural and cash crops.	• Concerns with SSFF having declined significantly since the 1970s. • Numbers of smallholders increased continuously. • The problem of land fragmentation exacerbated, along with its negative impact on farmers' and national economy. • Significant increase in rental value after issuing the law that liberated the land owner-tenant relationship in 1997. • Significant increase of production inputs, higher than the product prices. • Marketing problems and price instability for most agriculture crops.	• Economic liberalization in the 1980s resulted in the lifting obligatory crop rotation and government marketing of main crops, however, input prices increased.

<table>
<tr><td rowspan="2">Third issue:
Negative and positive trends of SSF status</td><td>Negative impact</td><td>Positive impact</td></tr>
<tr><td>• Weakness and rigidity of role of agricultural cooperatives.
• Poor performance of agricultural marketing with low prices for small farmers, and high percentage of crop losses.
• Increase in the problems of fragmentation of holdings.
• Irrational use of fertilizers and chemical pesticides.
• Growing trend to sell agricultural land for non-agricultural uses.
• Inadequacy of the credit policy in the agricultural sector in general, and for SSF in particular.</td><td>• Farmers become more aware of improved at Good Agricultural Practices.
• New legislation covering issues such as contract farming, modification of Cooperatives Law, health insurance and farmers pensions.
• Trends of practical application of contract farming with SSF - as in the cases of sugar cane, sugar beets, tomatoes and potatoes for the manufacturers, and vegetables for exportation.</td></tr>
<tr><td rowspan="2">Fourth issue:
Supportive and non-supportive policies</td><td>Supportive policies</td><td>Non-supportive policies</td></tr>
<tr><td>• Provision of some inputs with subsidized prices
• Setting encouraging prices for some crops (mainly wheat and maize) before cultivation
• SSF exemption from land tax.
• Exempting some imported agricultural inputs from taxes and customs fees.</td><td>• Absence of suitable policies for the distribution of seeds and fertilizers, and incremental increase in their prices.
• Absence of suitable pricing policies for main crops such as cotton and maize.
• Absence of policies or legislation to regulate the market of agricultural products and inputs.
• Delay in the implementation of policies issued
• (Contract agriculture and amendments to Agricultural Cooperatives Laws).
• Absence of supporting policies targeting smallholders vs. large scale agricultural producing and exporting companies.
• Inadequacy of current credit policies and terms of loans for smallholders.
• Exclusion of smallholders from agricultural export business and benefits.</td></tr>
<tr><td>Fifth:
Prospects of SSF and its role in agricultural development</td><td colspan="2">• Designing and application of appropriate policy and mechanisms to increase agricultural exploitation and deal with land fragmentation, and to benefit from the advantages of large scale farming.
• Support and develop the role of agricultural cooperatives, in order for them to exercise a real and effective supporting role for small-scale farmers.
• Encourage the creation of smallholder unions, associations, civil societies or other entities to encourage collective work and empower their sociopolitical position.
• Development of the prevailing traditional marketing systems and linking small farmers to markets through more efficient and fair value chains.
• Promoting small off-farm enterprises that are related to and integrated with agricultural activities in order for youth (male and female) to improve incomes of SSF families.</td></tr>
</table>

Sixth: **Proposed interventions to support SSF**	• Applying cropping patterns and crop rotation. • Strengthening partnership between SSF and the private sector in marketing and processing agricultural commodities. • Reviewing and improving old and inadequate agriculture-related legislation. • Restructuring of agricultural cooperatives and empowering them to exercise their role in serving smallholders. • Maximizing added value of the agricultural products and by-products for the benefit of smallholder families, through processing and manufacturing. • Development of marketing systems of agricultural products, through contractual farming or other systems that promote farmer/market linkage through modern value chains. • Implementation of health insurance and pensions for smallholders to improve their social conditions. • Development of agricultural extension and information systems, utilizing new telecommunications technology. • Expanding improved seed production and active control system for input trading and quality assurance.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SECTION FOUR

Synthesis of national workshop

4.1 Outputs and recommendations of the national workshop (17 November 2015)

Main comments and recommendations of the workshop participants can be summarized in six points, as follows:

- **Improve statistical instruments, methodologies and evidences to better understand, characterize and measure the contribution of SSFF.**
  - Improve the methodology of the agricultural census in light of the experience of developed countries.
- **Improve strategies to professionalize small-scale family farming, to promote entry into the sector of a new generation of young farmers, to facilitate trans-generational transfer of farms and to enable farmers to exit the agricultural sector.**
  - Promote and support small farm enterprises for the benefit of rural youth and women.
- Improve infrastructure in the rural area and generate off-farm activities to control immigration of youth and women to urban areas. **Improve productivity and efficacy of small-scale family farming, policies, options and interventions**
  - Consolidated and applied crop pattern based on community needs.
- **Improve local food systems, small farmer links to markets and value chains, policies, options and interventions**
  - Organize SSF in a value chain system, strengthening exchange of knowledge between small-scale farmers and other stakeholders.
  - Add value to agricultural products through processing and better utilization of by-products.
  - Develop agricultural extension and information system to help small-scale farmer apply good GAP.
  - Improve the food system and apply changes in different districts of the main marketing hubs.
- **Improve institutions (public, private and mixed), and governance adapted to SSFF**
  - Reformulate agriculture policies and regulations in support of the SSFF.
  - Finalize the bylaws of the amendment of the Agriculture Cooperatives Law to disseminate them and put them into action.

- Implement health insurance, contract agriculture, crop insurance and farmers pension laws which were issued in 2015.
- Revisit the credit policy for the benefit of SSF.
- Encourage the government to allocate enough investment for agriculture and rural development.
- Strengthen NGOs working in rural development and supporting SSF.
- Investigate the sustainability of the national subsidies of the bread card (commodity rationing card system) and energy to decrease it within the prevailing socio-economic condition of the country.

- **Improve SSFF's resilience and adaptation to climate change and the reinforcement of policies and interventions**
  - Enhance research and extension activities related to the resilience and adaptation capacities of SSFF to the expected global and local climate changes.

4.2 Agenda for National Workshop on Small-scale family farming in Egypt, 17 November 2015

09.30 – 10.00	**Registration**
10.00 – 10.20	**Opening** Dr. A. Aboul-Naga (National coordinator) Dr. Pascal Bonnet (CIRAD) Dr. Pasquale Steduto (FAO) Prof. Saad Nassar (MALR)
10.20 – 11.30	**Presentation of the National Report** **Chairman: Pascal Bonnet** Siddik W. Megahed Aboul-Naga E. Salah Sahar Ahmed Q & A
11.30 – 12.00	**Tea break (and pray)**
12.00 – 14.30	**Comments and discussion session** **Chairman: Prof. Saad Nassar** • Reporter A. Aboul Naga • Comments of key stakeholders • Floor discussion
14.30 – 15.00	**Concluding remarks and future perspectives** **Speaker: Dr. Alfredo Impiglia**
15.00 – 15.30	**Lunch**

Venue: Conference Room, Animal Production Research Institute, Dokki, Giza, Egypt.

4.3 List of Participants

Key Stakeholders	
1. H. E. Saad Nassar	8. Saed Zayed
2. H. El-Sheiaty	9. Zeinat Hashem
3. Ibrahim Rihan	10. Gamal Fathi
4. Hamdy Salem	11. Kamal Reiad
5. Hassan El-Foli	12. Younis Abdel-Maola
6. Assem Shaltout	13. Yehia Zahran
7.Sami Sabri	
International organizations	
Ismail Faramawy	(Italy– Egypt Collaboration)
Chiara Morini	(Italy– Egypt Collaboration)
Matteo Rongione	(Italy– Egypt Collaboration)
Zakaria Burk	(France – Egypt Collaboration)
Marawan Owaygen	ICARDA
Pasquale Steduto	FAO-RNE
Alfredo Impiglia	FAO-RNE
Mohamed Yacoub	FAO-Egypt
Mohamed El-Ansary	FAO-Egypt
Ana Pizarro	FAO-RNE
Flavia Lorenzon	FAO-RNE
CIRAD	
Pascal Bonnet	Deputy director of ES Department, CIRAD
Annabelle Daburon	PhD Student
Vincent Martin	Assistant researcher
National Team	
1. A. Aboulnaga	5. Ehab Salah
2. I. Seddik	6. Dalia Yassin
3. W. Megahed	7. Rania M. Nageeb
4. Sahar Ahmed	8. Mona Abdelzaher
Invited Experts	
1. Mohamed Abel Aziz	3. Ferial Abdel-Rasoul
2. Faten F. Abo-Amo	4. Ibrahim Daoud

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ANNEX A

National Socio-Economic Data

ANNEX A1

Number of landholdings by classes of farm size (10 000 unit)

	1929	1939	1950	1960	1979–80	1989–90	1999–2000	1999–2010
< 1 feddan	436.9	373.7	214.3	434.2	796.4	1 050.9	1 615.6	2 143.9
1–4	569.9	432.4	572.5	947.0	1 427.5	1 566.1	1 744.5	1 929.7
5–9	111.0	100.1	122.4	170.0	173.2	198.9	234.4	231.3
10–19	53.2	50.5	52.5	56.7	46.7	60.9	81.6	90.7
20–49	27.5	27.7	26.5	23.8	20.6	27.3	33.6	35.5
50–99	8.4	8.8	8.4	6.4	3.1	3.5	5.7	5.4
100 and more	7.1	6.8	6.5	4.0	0.9	1.6	2.7	2.9
Total	1 213.9	1 000.1	1 003.3	1 642.2	2 468.4	2 910.3	3 718.0	4 439.5

Source: Agriculture censuses (various volumes)

ANNEX A2

Percentage of landholdings by farm size

	1929	1939	1950	1960	1979–80	1989–90	1999–2000	1999–2010
< 1 feddan	36	37.4	21.4	26.4	32.3	36.1	43.5	48.3
1–4	47.0	43.2	57.1	57.7	57.8	53.8	46.9	43.5
5–9	9.1	10.0	12.2	10.4	7.0	6.8	6.3	5.2
10–19	4.4	5.0	5.2	3.4	1.9	2.1	2.2	2.0
20–49	2.3	2.8	2.6	1.4	0.8	0.9	0.9	0.8
50–99	0.7	0.9	0.8	0.4	0.1	0.2	0.2	0.1
100 and more	0.6	0.7	0.6	0.2	0.0	0.1	0.1	0.1

Source: Agriculture censuses (various volumes)

ANNEX A3

Area of landholdings by farm size (1 000 feddan)

	1929	1939	1950	1960	1979–80	1989–90	1999–2000	1999–2010
< 1 feddan	207.0	153.2	111.8	211.2	399.4	508.1	722.3	923.6
1–4	1 224.2	975.4	1 311.0	2 143.3	3 084.2	3 329.5	3 493.7	3 653.2
5–9	737.3	684.9	818.4	1 100.7	1 098.2	1 250.0	1 441.6	1 408.2
10–19	706.8	689.1	705.3	742.6	613.3	793.7	1 049.6	1 147.3
20–49	811.4	833.9	792.1	689.3	592.9	770.4	923.2	961.0
50–99	569.3	604.9	579.1	430.0	194.5	287.6	357.1	332.0
100 and more	3 184.7	2 095.5	1 826.3	905.9	650.0	9-9.8	941.1	1 305.4
Total	7 440.7	6 036.9	6 143.9	6 222.8	6 632.5	7 849.2	8 938.5	9 730.8

Source: Agriculture censuses (various volumes)

ANNEX A4

Percentage and area of landholdings by farm size

	1929	1939	1950	1960	1979–80	1989–90	1999–2000	1999–2010
< 1 feddan	2.8	2.5	1.8	3.4	6.0	6.5	8.1	9.5
1–4	16.4	16.2	21.3	34.4	46.5	42.4	39.1	37.5
5–9	9.9	11.3	13.3	17.7	16.6	15.9	16.1	14.5
10–19	9.5	11.4	11.5	11.9	9.2	10.1	11.8	11.8
20–49	10.9	13.8	12.9	11.1	8.9	9.8	10.3	9.9
50–99	7.7	10.0	9.4	6.9	2.9	3.7	4.0	3.4
100 and more	42.8	34.7	29.7	14.6	9.8	11.6	10.5	13.4

Source: Agriculture censuses (various volumes)

ANNEX A5

Average of holding area (feddan) in each class of farm size

	1929	1939	1950	1960	1979–80	1989–90	1999–2000	1999–2010
< 1 feddan	0.474	0.410	0.522	0.486	0.503	0.483	0.447	0.431
1–4	2.148	2.256	2.290	2.263	2.160	2.126	2.003	1.893
5–9	6.64	6.84	6.69	6.47	6.34	6.28	6.15	6.09
10–19	13.29	13.65	13.43	13.10	13.13	13.03	12.86	12.65
20–49	29.50	30.10	29.89	28.96	28.78	28.22	27.48	27.07
50–99	67.77	68.74	68.94	67.19	62.74	63.91	62.65	61.48
100 and more	448.5	308.2	281.0	129.4	722.2	568.6	348.6	450.1
Total	6.13	6.04	6.13	3.79	2.69	2.70	2.40	2.192

Source: Agriculture censuses (various volumes)

ANNEX A6

Landholding by legal status, type of holding and size of holding, at national level

Holding size (feddans)	1989–90				1989–90	
	Total of holding		Individuals		Others(1)	
	Number	Area	Number	Area	Number	Area
Landless	565 223	0	562 695	0	2 528	0
< 1 feddan	1 050 900	508 144	1 050 156	507 937	744	207
1–2 feddan	713 808	941 139	713 664	940 967	144	172
2–3 feddan	502 061	1 137 402	501 976	1 137 218	85	184
SSF	2 266 769	2 586 685	2 265 796	2 586 122	973	563
Total	3 475 502	7 849 173	3 470 813	7 120 183	4 689	728 990

Source: CAPMAS, Statistical yearbook, 1989–90

(1) Companies and cooperatives

ANNEX A7

Number and area of holdings by legal status, type of holding and size of holding, at national level

Holding size (feddans)	2010				2010	
	Total holdings		Individuals		Others	
	Number	Area (feddans)	Number	Area (feddans)	Number	Area (feddans)
Landless	964 863	0	963 367	0	1 496	0
< 1 feddan	2 143 888	923 638.9	2 143 716	923 585	172	53.9
1–2 feddans	1 068 634	1 322 103	1 068 557	1 322 008	77	95
2–3 feddans	531 455	1 177 899	531 408	1 177 796	47	103
SSF	3 743 977	3 423 640.9	3 743 681	3 423 389	296	251.9
Total	5 404 395	9 730 785	5 401 432	8 964 832	2 963	765 953

Source: CAPMAS, Statistical yearbook, 2010

ANNEX A8

Owned and rented land holdings, 1989–90

Holding size (feddans)	Total holdings		Completely owned		Completely cash rented		Completely rented by partnership		Completely by other forms	
	Number	Area (feddans)	Number	Area (feddans)	Number	Area (feddans)	Number	Area (feddans)	Number	Area (feddans)
< 1 feddan	1 050 900	508 144	810 387	377 526	173 130	87 335	8 090	4 253	3 076	1 121
1–2 feddans	713 808	941 139	449 934	584 131	107 130	138 353	12 818	15 911	2 790	3 325
2–3 feddans	502 061	1 137 402	306 787	690 976	63 839	140 742	11 132	24 091	2 969	6 266
SSF	2 266 769	2 586 685	1 567 108	1 652 633	344 099	366 430	32 040	44 255	8 835	10 712
Total	2 910 279	7 849 173	1 968 371	5 089 851	387 160	677 067	44 473	103 660	37 648	488 198

Source: CAPMAS, Statistical yearbook, 1989–90

ANNEX A9

Owned and rented landholdings, 2009–10, Total

Holding size (feddan)	Total of holding		Completely owned		Completely cash rented		Completely rented by partnership		Completely by other forms	
	Number	Area (feddans)	Number	Area (feddans)	Number	Area (feddans)	Number	Area (feddans)	Number	Area (feddans)
< 1 feddan	2 143 888	923 638	2 021 626	865 359	93 788	42 352	6 646	3 209	4 687	1 742
1–2 feddans	1 068 634	1 322 103	964 633	1 191 425	45 658	53 702	8 937	10 543	4 752	5 500
2–3 feddans	531 455	1 177 899	464 173	1 027 225	24 556	55 046	5 186	11 084	4 541	9 493
SSF	3 743 977	3 423 640	3 450 432	3 084 009	164 002	151 100	20 769	24 836	13 980	16 735
Total	4 439 532	9 730 785	4 039 509	8 270 143	187 234	398 844	25 248	51 679	50 856	529 026

Source: CAPMAS, statistical year book, 2009–10

ANNEX A10

Owned and rented landholdings, 2009–10 (Males)

Holding size (feddans)	Total holdings		Completely owned		Completely cash rented		Completely rented by partnership		Completely by other forms	
	Number	Area (feddans)	Number	Area (feddans)	Number	Area (feddans)	Number	Area (feddans)	Number	Area (feddans)
< 1 feddan	2 036 735	880 845	1 918 120	824 235	90 808	41 056	6 628	3 200	4 537	1 694
1–2 feddans	1 033 693	1 278 317	931 805	1 150 357	44 653	52 473	8 921	10 523	4 616	5 344
2–3 feddans	514 094	1 139 092	448 250	991 740	23 782	53 229	5 184	11 079	4 417	9 230
SSF	3 584 522	3 298 254	3 298 175	2 966 332	159 243	146 758	20 733	24 802	13 570	16 268
Total	4 258 593	8 691 750	3 867 355	7 351 176	182 025	358 611	25 207	51 619	49 821	512 256

Source: CAPMAS, Statistical yearbook, 2009–10

ANNEX A11

Owned and rented landholdings, 2009–10 (Females)

Holding size (feddans)	Total of holding		Completely owned		Completely cash rented		Completely rented by partnership		Completely by other forms	
	Number	Area (feddans)	Number	Area (feddans)	Number	Area (feddans)	Number	Area (feddans)	Number	Area (feddans)
< 1 feddan	106 981	42 740	103 337	41 072	2 978	1 294	18	8	149	47
1–2 feddans	34 864	43 691	32 753	40 976	1 004	1 227	16	20	135	155
2–3 feddans	17 314	38 704	15 879	35 387	774	1 817	2	4	121	256
SSF	159 159	125 135	151 969	117 435	4 756	4 338	36	32	405	458
Total	179 472	273 082	170 801	253 972	5 152	7 468	41	60	986	5 905

Source: CAPMAS, Statistical yearbook, 2009–10

ANNEX A12

Number and area of landholdings by number of plots, 2009–10

Holding size (feddans)	Total of holding			1 parcel	
	Number of holdings	Number of plots	Area (feddans)	Number of holdings	Area (feddans)
← 1 feddan	2 143	2 360 251	923 638	1 934 220	794 248
1–2 feddans	1 068 634	1620 312	1 322 103	609 309	711 707
2–3 feddans	531455	961591	1177899	223071	484262
SSF	3 743 977	4 942 154	3 423 640	2 766 600	1 990 217
Total	4 439 532	6 273 070	9 730 785	3 083 613	5 343 141

ANNEX A13

Small landholders by educational status, 1989–90

Holding size (feddans)	Illiterate		Read or read and write		Below medium level	
	Number	Area (feddans)	Number	Area (feddans)	Number	Area (feddans)
Landless	374 656	0	150 303	0	4 547	0
< 1 feddan	657 797	319 217	305 625	148 616	12 009	5 317
1–2 feddans	448 067	589 531	214 314	283 928	5 596	7 333
2-3 feddans	315 046	710 916	152 850	348 386	3 159	7 197
SSF	1 420 910	1 619 664	672 789	780 930	20 764	19 847
Total	2 136 752	3 618 907	1 045 052	2 488 935	30 270	59 834

ANNEX A14

Smallholders by educational status, 2009/10

Holding size (feddans)	Illiterate		Read or read and write		Below medium level	
	Number	Area (feddans)	Number	Area (feddans)	Number	Area (feddans)
Landless	320 392	0	412 027	0	12 034	0
< 1 feddan	650 642	284 705	882 819	383 251	35 502	14 391
1–2 feddans	345 345	428 342	458 636	566 826	12 000	14 935
2–3 feddans	181 415	402 958	226 609	501 985	5 052	11 191
SSF	1 177 402	1116 005	1 568 064	1 452 062	52 554	40 517
Total	1 653 670	238 227	2 302 111	4 064 302	74 455	142 847

2 parcels		3 parcels		4 parcels		5 parcels	
Number of holdings	Area (feddans)	Number of holdings	Area (feddans)	Number of holdings	Area (feddans)	Number of holdings	Area (feddans)
203 174	124 942	6 293	4 321	201	0	0	0
373 616	488 537	79 125	112 372	6 574	10	100	14
205819	455010	89782	206150	12822	961	7248	2296
782 609	1 068 489	175 200	322 843	19 597	971	7 348	2 310
987 585	2 663 666	299 442	1 251 664	55 278	13 614	94 849	152 008

Source: CAPMAS, Statistical yearbook, 2009–10

Medium certificate		Above medium certificate		University degree and over		Total	
Number	Area (feddans)	Number	Area (feddans)	Number	Area (feddans)	Number	Area (feddans)
23 394	0	3 901	0	5 762	0	562 695	0
47 181	21 878	8 703	4 197	567	8 672	105 0156	507 937
27 603	36 180	5 290	6 974	12 631	16 804	713 664	940 967
17 865	40 725	3 488	7 993	9 486	21 816	501 976	1 137 218
92 649	98 783	17 481	19 164	22 684	47 292	2 265 796	2 586 122
145 630	326 201	26 812	56 445	85 553	568 441	3 470 813	7 120 183

Source: CAPMAS, Statistical yearbook, 1989–90

Medium certificate		Above medium certificate		University degree and above		Total	
Number	Area (feddans)	Number	Area (feddans)	Number	Area (feddans)	Number	Area (feddans)
175 447	0	11 997	0	31 470	0	963 367	0
431 894	179 456	32 102	13 820	110 757	47 960	2143367	923 585
177 667	218 373	15 490	19 336	59 419	74 193	1068557	1322008
79 182	174 629	7 724	17 140	31 426	69 891	531 408	1 177 796
688 743	572 458	55 316	50 296	201 602	192 044	3743332	3 423 389
977 679	1385409	77 653	123 806	315 864	1 334 505	5 401 432	8 964 832

Source: CAPMAS, Statistical yearbook, 2009–10

ANNEX A15

Small landholders by educational status 2009–10 (Males)

Holding size "feddans"	Illiterate		Read only or read and write		Below medium level	
	Number	Area (feddans)	Number	Area (feddans)	Number	Area (feddans)
Landless	295 758	0	405 657	0	11 898	0
< 1 feddan	575 146	254 372	861 801	374 866	34 986	14 188
1–2 feddans	321 215	398 110	451 240	557 591	11 856	14 751
2–3 feddans	170 158	377 666	222 569	493 039	4 943	10 955
SSF	1 066 519	1 030 148	1 535 610	1 425 496	51 785	39 894
Total	1 510 263	1 792 279	2 256 284	3 978 202	73 397	139 668

ANNEX A16

Smallholders by educational status, 2009–10 (Female)

Holding size (feddans)"	Illiterate		Read only or read and write		Below medium level	
	Number	Area (feddans)	Number	Area (fed.)	Number	Area (fed.)
Landless	24 634	0	6 370	0	136	0
< 1 feddan	75 496	30 332	21 018	8 384	516	202
1–2 fed.	24 130	30 232	7 396	9 234	144	184
2–3 fed.	11 257	25 291	4 040	8 945	109	235
SSF	110 883	85 855	32 454	26 563	769	621
Total	143 407	121 680	45 827	86 100	1 158	3 179

ANNEX A17

Smallholders by age, 1989–90 (Total)

Holding size (feddans)	Distribution by age			
	up to 20 years	21 - 25 years	26 - 30 years	31 - 35 years
Landless	5 550	23 204	43 859	100 942
← 1 feddan	6 466	25 830	55 122	146 435
1–2 feddans	3 376	14 192	20 352	80 795
2–3 feddans	2 201	9 116	18 355	51 386
Total	20 429	87 853	172 618	441 084

Medium certificate		Above medium certificate		University degree and over		Total	
Number	Area (feddan)	Number	Area (feddans)	Number	Area (feddans)	Number	Area (feddans)
173 749	0	11 827	0	31 171	0	930 060	0
424 650	176 746	3 1454	13 555	108 698	47 114	2 036 735	880 845
175 733	215 931	1 6263	19 050	58 386	72 882	1 033 693	1 278 317
78 220	172 504	7 590	16 848	30 614	68 077	514094	1 139 092
678 603	565 181	55 307	49 453	197 698	188 073	3 584 522	3 298 254
963 875	1 362 008	76 285	121 503	308 649	1 298 087	5 188 653	8 691 750

Source: CAPMAS, Statistical yearbook, 2009-10

Medium certificate		Above medium certificate		University degree and over		Total	
Number	Area (fed.)	Number	Area (fed.)	Number	Area (fed.)	Number	Area (fed.)
1 698	0	170	0	299	0	33 307	0
7 244	2 709	648	264	2 059	846	106 981	42 740
1 934	2 442	227	286	1 033	1 311	34 864	43 691
962	2 124	134	292	812	1 814	17 314	38 704
10 140	7 275	1 009	842	3 904	3 971	159 159	125 135
13 804	23 400	1 368	2 302	7 215	36 418	212 779	273 082

Source: CAPMAS, Statistical yearbook, 2009–10

Distribution by age					Total
36 - 40 years	41 - 45 years	46 - 50 years	51 - 55 years	60 years and over	
96 982	118 296	72 491	47 776	51 657	562 695
163 537	224 644	160 219	116 938	148 166	1 050 156
96 002	148 056	119 607	94 127	126 488	713 664
62 268	101 025	84 988	70 783	100 827	501 976
492 896	713 503	542 531	421 546	569 668	3 470 813

Source: CAPMAS, Statistical yearbook, 1989–90)

ANNEX A18

Smallholders by age, 2009–10 (Total)

Holding size (feddans)	Distribution by age				
	Less than 20 years	20 years	21 - 25 years	26 - 30 years	31 - 35 years
Landless	301	8 053	30 806	53 240	119 106
< 1 feddan	296	11 184	43 896	84 279	211 600
1–2 feddans	112	3 644	14 333	29 220	78 692
2–3 feddans	50	1 524	5 651	11 676	32 900
Total	848	26 658	102 290	192 588	482 656

ANNEX A19

Smallholders by age, 2009–10 (Males)

Holding size (feddans)	Distribution by age				
	Less than 20 years	20 years	21 - 25 years	26 - 30 years	31 - 35 years
Landless	288	7 958	30 364	52 417	116 609
< 1 feddans	288	10 890	42 972	82 212	205 567
1–2 feddans	109	3 597	14 185	28 823	77 287
2–3 feddans	49	1 502	5 580	11 530	32 395
Total	820	26 145	100 542	188 863	471 362

ANNEX A20

Smallholders by age, 2009–10 (Female)

Holding size (feddans)	Distribution by age				
	Less than 20 years	20 years	21 - 25 years	26 - 30 years	31 - 35 years
Landless	13	95	442	823	2 497
< 1 feddan	9	294	923	2 067	6 033
1–2 feddans	2	47	148	397	1 405
2–3 feddans	1	22	71	146	505
Total	28	513	1 748	3 725	11 294

ANNEX A21

Number of permanent and temporary workers by holding size, 2009–10

Holding size (feddans)	No. of holding	Household members	Permanent workers		
			Total	Men	Women
Landless	963 367	4 671 133	128 350	76 594	29 933
< 1 feddan	2 143 716	10 687 405	974 911	669 673	146 732
1–2 feddans	1 068 557	5 815 523	982 203	682 655	122 949
2–3 feddans	531 408	3 058 015	623 076	415 303	75 953
SSF	374 3681	19 560 943	2 580 190	1 767 631	345 634
Total	5 401 432	28 378 590	3 619 854	2 444 629	477 386

Distribution by age					Total
36 - 40 years	41 - 45 years	46 - 50 years	51 - 55 years	60 years and over	
140 245	204 637	157 432	125 764	123 783	963 367
278 606	445 927	37 570	329 378	364 980	2 143 716
114 658	205 423	197 205	191 671	233 599	1 068 557
50 019	96 060	97 112	101 169	135 247	531 408
646 588	1 081 611	950 057	789 199	1 038 937	5 401 432

Source: CAPMAS, Statistical yearbook, 2009–10

Distribution by age					Total
36 - 40 years	41 - 45 years	46 - 50 years	51 - 55 years	60 years and over	
136 393	197 925	150 540	120 011	117 555	930 060
268 106	426 731	353 370	308 964	337 635	2 036 735
111 935	199 989	190 466	184 410	222 892	1 033 693
48 918	93 158	94 063	97 498	129 401	514 094
626 846	1 043 978	909 363	838 137	982 587	5 188 653

Source: CAPMAS, Statistical yearbook (2009–10)

Distribution by age					Total
36 - 40 years	41 - 45 years	46 - 50 years	51 - 55 years	60 years and over	
3 852	6 712	6 892	5 753	6 228	33 307
10 500	19 196	20 200	20 414	27 345	106 981
2 723	5 434	6 739	7 261	10 708	34 864
1 101	2 902	3 049	3 671	5 846	17 314
19 742	37 633	40 694	41 062	56 340	212 779

Source: CAPMAS, Statistical yearbook (2009–10)

Permanent workers		Temporary workers				
Children		Total	Men	Women	Children	
Males	Females				Males	Females
18 624	3 199	1 921 154	897 647	802 168	191 650	29 689
149 064	9 442	4 360 989	1 737 133	1 633 913	883 778	106 165
165 826	10 773	2 236 190	733 270	824 952	579 939	98 029
123 622	8 198	1 129 692	355 955	404 135	308 714	60 888
438 512	28 413	7 726 871	2 826 358	2 863 000	1 772 431	265 082
652 337	45 502	11 118 317	4 211 958	4 162 233	2 364 023	380 103

Source: CAPMAS, Statistical yearbook (2009–10)

ANNEX A22

Landholders with and without other occupations, 1989–90

Holding size (feddans)	No other occupations		Having other occupations	
	Number	Area	Number	Area
Landless	232 301	0	330 394	0
< 1 feddan	663 708	336 402	386 448	171 534
1–2 feddans	572 609	758 456	141 055	182 511
2–3 feddans	424 444	961 334	77 532	175 884
SSF	1 660 761	2 056 192	605 035	529 929
Total	2 431 437	5 674 620	1 039 376	1 445 563

Source: CAPMAS, Statistical yearbook (2009–10)

ANNEX A23

Landholders with and without other occupations, 2009–10 (Total)

Holding size (feddans)	Holders having no other occupations		Holder s having other occupation	
	Number	Area (feddans)	Number	Area (feddans)
Landless	291 035	0	672 332	0
< 1 feddan	867 712	398 816	1 276 004	524 769
1–2 feddans	657 218	819 688	411 339	502 320
2–3 feddans	372 732	826 681	158 676	351 115
SSF	1 897 662	2 045 185	1 846 019	1 378 204
Total	2 712 483	6 201 310	2 688 949	2 763 522

Source: CAPMAS, Statistical yearbook (2009–10)

ANNEX A24

Landholders with and without other occupations, 2009–10 (Males)

Holding size (feddans)	Holders having no other occupations		Holder s having other occupation	
	Number	Area (feddans)	Number	Area (feddans)
Landless	262 755	0	667 305	0
< 1 feddan	773 756	360 964	1 262 979	519 880
1–2 feddans	625 562	779 999	408 131	498 317
2–3 feddans	356 867	791 183	157 227	347 909
SSF	1 756 185	1 932 146	1 828 337	1 366 106
Total	2 525 147	5 964 806	2 663 506	2 726 944

Source: CAPMAS, Statistical yearbook (2009–10)

ANNEX A25

Landholders with and without other occupations, 2009–10 (Females)

Holding size (feddans)	Holders having no other occupations		Holders having other occupation	
	Number	Area (feddans)	Number	Area (feddans)
Landless	28 280	0	5 027	0
< 1 feddan	93 956	37 851	13 025	4 888
1–2 feddans	31 656	39 688	3 208	4 002
2–3 feddans	15 865	35 498	1 449	3 206
SSF	141 477	113 037	17 682	12 096
Total	187 336	236 504	25 443	36 577

Source: CAPMAS, Statistical yearbook (2009–10)

ANNEX A26

Number of large ruminants within each small holding category, 2009–10

Holding size (feddans)	No. of holdings (heads)	No. of Cow (heads)	No. of Buffaloes (heads)
Landless	784 520	949 433	718 878
< 1 feddan	1 351 057	1 407 591	1 269 924
1–2 feddans	810 742	1 155 449	957 710
2–3 feddans	403 063	706 526	552 266
SSF	2 564 862	3 269 566	2 779 900
Total	3 809 956	5 528 950	4 335 817

Source: CAPMAS, Statistical yearbook (2009–10)

ANNEX A27

Number of small ruminants within each small holding category, 2009–10 (2009/10)

Holding size (feddans)	No. of holdings (heads)	No. of Sheep (heads)	No. of Goats (heads)
Landless	528 703	1 979 091	1 559 481
< 1 feddan	967 293	2 384 249	2 085 180
1–2 feddans	535 531	1 566 771	1 198 699
2–3 feddans	267 468	908 907	643 889
SSF	1 770 292	4 859 927	3 927 768
Total	2 633 572	8 168 980	6 651 916

Source: CAPMAS, Statistical yearbook (2009–10)

ANNEX A28

Landholdings by main cultivated crop categories, 2009–10

Holding size (feddans)	Winter crops		Winter vegetables	
	No. of holdings	Area	No. of holdings	Area
< 1 feddan	1 950 003	836 173	89 102	25 393
1–2 feddans	988 530	1 159 199	79 727	46 574
2–3 feddans	485 395	983 213	58 739	50 558
SSF	3 423 928	2 978 585	227 568	122 525
Total	4 008 264	6 495 431	347 144	621 606

ANNEX A29

Smallholdings having agricultural machines (owned or shared), 2009–10 (Number of machines)

Holding size (feddans)	Total no. of holdings	Tractors			Irrigation machines		
		Less than 25 HP	From 25 to less than 75 HP	75 Hp.	Less than 6 HP	6 Hp. To less than 16 HP	16 Hp. and above
Landless	17	0	0	0	0	0	0
< 1 feddan	462 124	1923	10 930	3 757	189 325	225 499	225499
1–2 feddans	489 713	2094	16 862	4 920	189 045	258 851	258851
2–3 feddans	292 543	1751	15 643	4 467	107 820	149 773	149773
SSF	1 244 380	5768	43 435	13 144	486 190	634 123	634123
Total	1 689 341	15464	106 180	33 662	610 093	860 080	68554

ANNEX A30

Landholdings by main source of irrigation, 2009–10

Holding size (feddans)	Cultivated land		Used Nile water		Used groundwater	
	Number	Cultivated area (feddans)	Number	Cultivated area (feddans)	Number	Cultivated area (feddans)
< 1 feddan	2 137 028	919 580	2 054 965	883 405	68 816	28 160
1–2 feddans	1 068 106	1 316 904	1 002 998	1 232 309	48 696	52 161
2–3 feddans	530 398	1 171 203	484 063	1 060 397	28 962	52 230
SSF	3 735 532	3 407 687	3 542 026	3 176 111	146 474	132 551
Total	4 421 810	9 082 531	4 091 195	6 967 283	226 233	1 376 953

Summer crops		Summer vegetables		Fruits		
No. of holdings	Area	No. of holdings	Area	No. of holdings	Area	Total number of trees and palms
1 972 839	857 276	185 085	58 100	93 476	35 165	7 758 761
997 035	1 177 864	155 086	106 171	65 323	61 558	12 619 965
491 146	1 000 343	102 900	105 227	47 114	76 280	14 581 320
3 461 020	3 035 483	443 071	269 498	205 913	173 003	34 960 046
4 025 833	6 260 707	633 043	1 082 652	348 617	1 560 793	273 312 346

Source: CAPMAS, Statistical yearbook (2009–10)

Electric irrigation motor	Threshing & winnowing machine	Rice threshing machine	Combine	Spraying motor		Dusting motor	Hoeing machine	Others
				Back	Motors			
0	0	0	0	7	10	0	0	0
6 029	6 832	1 918	176	27 825	2 453	577	4 432	10 779
7 208	10 253	2 452	301	35 965	4 836	831	5 760	8 871
14 452	10 316	2 193	336	26 581	5 190	712	4 418	4 657
27 689	27 401	6 563	813	90 371	12 479	2 120	14 610	24 307
75 400	69 149	14 107	2 723	154 486	54 628	7 852	32 640	31 270

Source: CAPMAS, Statistical yearbook (2009–10)

Used agric. drainage water		Used mixed water		Used rain		Other sources	
Number	Cultivated area (feddans)	Number	Cultivated area (feddans)	Number	Cultivated area (feddans)	Number	Cultivated area (feddans)
2 786	1 337	11 857	5 587	1 658	565	1 598	524
4 491	5 203	20 949	24 664	1 688	1 741	1 044	823
4 962	10 817	19 686	42 495	2 368	4 345	685	916
12 239	17 357	52 492	72 746	5 714	6 651	3 327	2 263
21 145	81 949	101 009	406 326	29 850	230 561	6 094	1 9457

Source: CAPMAS, Statistical yearbook (2009–10)

ANNEX A31

Landholdings by method of irrigation, 2009–10

Holding size (feddans)	Cultivated land		Flood irrigation		Non – traditional irrigation	
	Number	Cultivated area Fed.	Number	Total of irrigation area Fed.	Number	Total of irrigation area Fed.
< 1 feddan	2 137 028	919 580	2 130 162	917 209	4 156	1 315
1–2 feddans	1 068 106	1 316 904	1 061 536	1 309 239	4 982	5 137
2–3 feddans	530 398	1 171 203	514 901	1 134 810	13 583	31 247
SSF	3 735 532	3 407 687	3 706 599	3 361 258	22 721	37 699
Total	4 421 810	9 082 531	4 320 156	7 507 876	79 790	1 332 680

Source: CAPMAS, Statistical yearbook (2009–10)

ANNEX A32

Landholdings by drainage system, 1989–90

Holding size (feddans)	Total holdings with cultivated land		Open drainage		subsurface drainage		Without drainage system	
	Number	Area (feddans)	Number	Area (feddans)	Number	Area (feddans)	Number	Area (feddans)
< 1 feddan	1046 244	505 925	190 804	91912	596 362	293 839	266 850	120 173
1–2 feddans	713 597	937 258	178 176	221917	410 275	537 211	143 996	178 129
2–3 feddans	501 924	1 130 920	373 020	344637	275 537	613 606	82 217	172 675
SSF	2 261 765	2 574 103	742 000	658466	1 282 174	1 444 656	493 063	470 977
Total	2 903 128	7 325 690	803 508	2512667	1 547 280	2 950 721	637 952	1 862 300

Source: CAPMAS, Statistical yearbook, 2009–10

ANNEX A33

Landholdings by drainage system, 2009–10

Holding size (feddans)	Landholdings with cultivated land		Open drainage		Subsurface drainage		Without drainage system	
	Number	Cultivated area (feddans)	Number	Area (feddans)	Number	Area (feddans)	Number	Area (feddans)
< 1 feddan	2 137 028	919 580	165 923	70 562	1 663 890	720 257	321 280	128 761
1–2 feddans	1 068 106	1 316 904	113 140	134 031	837 535	1 031 959	127 761	150 914
2–3 feddans	530 398	1 171 203	85 079	182 288	392 899	859 684	62 151	129 230
SSF	3 735 532	3 407 687	364 142	386 881	2894 324	2 611 900	511 192	408 905
Total	4 421 810	9 082 531	514 788	1 560 008	3 284 052	4 995285	670 003	2 527 237

Source: CAPMAS, Statistical yearbook (2009–10)

ANNEX A34

Number of urban and rural population, 1990– 2013 (millions)

Years	Urban population	Rural population	Total
1990	22 519	29 392	51 911
1991	22 908	30 077	52 985
1992	23 366	30 716	54 082
1993	23 804	31 397	55 201
1994	24 276	32 068	56 344
1995	24 709	32 933	57 642
1996	25 053	33 782	58 835
1997	25 578	34 475	60 053
1998	26 104	35 192	61 296
1999	26 559	36 006	62 565
2000	27 132	36 728	63 860
2001	28 118	37 064	65 182
2002	28 512	38 019	66 531
2003	29 106	38 802	67 908
2004	29 657	39 656	69 313
2005	30 228	40 520	70 748
2006	30 671	41 541	72 212
2007	31 720	41 924	73 644
2008	32 249	42 945	75 194
2009	33 083	43 842	76 925
2010	33 833	44 895	78 728
2011	34 489	46 041	80 530
2012	35 373	47 177	82 550
2013	36 213	48 416	84 629

Source: CAPMAS, Statistical yearbook (various volumes)

ANNEX B

Consolidated Results of Agricultural Censuses

ANNEX B1

Total and agricultural GDP, 1980–81 and 2011–12 (million EGP)

Years	National GDP	Agriculture GDP	% of Agriculture GDP
1980––81	30 113	5 069	16.8
1981–82	35 178	5 613	16.0
1982––83	25 412	5 066	19.9
1983–84	30 080	5 722	19.0
1984–85	35 638	6 380	17.9
1985–86	41 433	7 669	18.5
1986–87	48 741	10 111	20.7
1987–88	58 630	11 116	19.0
1988–89	73 170	14 395	19.7
1989–90	91 535	17 735	19.4
1990–91	110 011	19 110	17.4
1991–92	131 057	21 680	16.5
1992–93	146 160	24 427	16.7
1993–94	162 967	27 500	16.9
1994–95	191 010	32 050	16.8
1995–96	214 185	36 968	17.3
1996–97	247 028	41 882	17.0
1997–98	266 757.7	45 652	17.1
1998–99	282 578	48 935	17.3
1999–2000	315 667	52 845	16.7
2000–2001	332 543.8	55 065	16.6
2001–2002	354 563.8	58 369	16.5
2002–2003	390 619.4	63 822	16.3
2003–2004	456 322.4	69 252	15.2
2004–2005	506 511	75 291.2	14.9
2005–2006	581 144.1	81 766.2	14.1
2006–2007	710 387	99 953.1	14.1
2007–2008	855 302	113 103.8	13.2
2008–2009	994 055.1	135 464.6	13.6
2009–2010	1 309 905	190 159	14.5
2010–2011	1 508 527	218 216	14.5
2011–2012	1 677 352	243 355	14.5

Source: CAPMAS, Statistical yearbook (various volumes)

ANNEX B2

Crop and cultivated land area, 1980–2011 (million feddans)

Years	Cultivated area	Crop area	Cultivated area, per capita (feddan)
1980	11.14	5.87	0.14
1981	11.26	5.88	0.14
1982	11.16	5.83	0.13
1983	11.14	5.85	0.13
1984	11.03	5.83	0.12
1985	11.18	5.98	0.12
1986	11.14	6.00	0.12
1987	11.13	5.97	0.12
1988	11.33	6.18	0.12
1989	11.53	6.27	0.12
1990	12.18	6.92	0.13
1991	12.41	7.02	0.13
1992	12.49	7.12	0.13
1993	12.78	7.18	0.13
1994	13.00	7.17	0.12
1995	13.81	7.81	0.13
1996	13.71	7.56	0.13
1997	13.83	7.73	0.13
1998	13.86	7.76	0.13
1999	13.94	7.85	0.12
2000	13.92	7.72	0.12
2001	14.03	7.95	0.12
2002	14.35	8.15	0.12
2003	14.47	8.11	0.12
2004	14.55	8.28	0.12
2005	14.91	8.39	0.12
2006	14.92	8.41	0.12
2007	15.18	8.42	0.11
2008	15.24	8.43	0.11
2009	15.50	8.78	0.11
2010	14.33	8.74	0.11
2011	15.36	8.65	0.11

Source: MALR, Agriculture economic bulletin (various volumes)

ANNEX B3

Total and agricultural labour force, 1980–2013 (million feddans)

Years	Total	Agriculture	Agriculture %
1980	9.8	4.2	42.9
1981	10.0	4.2	42.0
1982	10.5	4.1	39.0
1983	10.8	4.1	38.0
1984	11.0	4.2	38.2
1985	11.4	4.2	36.8
1986	11.7	4.3	36.8
1987	12.0	4.3	35.8
1988	12.3	4.4	35.8
1989	12.7	4.4	34.6
1990	13.0	4.5	34.6
1991	13.4	4.5	33.6
1992	13.7	4.5	32.8
1993	14.0	4.6	32.9
1994	14.4	4.6	31.9
1995	14.9	4.6	30.9
1996	15.3	4.7	30.7
1997	15.8	4.7	29.7
1998	16.1	4.8	29.8
1999	16.6	4.9	29.5
2000	17.0	4.9	28.8
2001	17.3	5.0	28.9
2002	17.7	5.0	28.2
2003	18.1	5.1	28.2
2004	18.5	5.2	28.1
2005	19.0	5.2	27.4
2006	19.5	5.3	27.2
2007	20.1	5.4	26.9
2008	20.8	5.5	26.4
2009	23.0	6.8	29.6
2010	23.8	6.7	28.2
2011	26.5	6.8	25.7
2012	27.02	6.4	23.7
2013	27.62	6.7	24.3

Source: (CAPMAS), Yearly bulletin of labour force (various volumes)

ANNEX B4

Area of reclaimed land, 1952–2013 (1 000 feddans)

Years	Reclaimed area	Yearly average
1952–1967/68	1 278	79.875
1967/68–1970/71	87.1	43.55
1971/72–1978/79	3.45	0.43
1978/79–1980	4.76	4.76
1980/81–1982/83	145.0	48.3
1983/84–1987/88	189.8	38.0
1987/88–1991/92	850.3	170.1
1992/93–1996/97	584.4	116.9
1996–1997	24.5	24.5
1997–98	27.9	27.9
1998–99	40.7	40.7
1999–2000	22.0	22.0
2000–2001	12.7	12.7
2001–2002	28.7	28.7
2002–2003	18.0	18.0
2003–2004	23.5	23.5
2004–2005	14.5	14.5
2005–2006	38.8	38.8
2006–2007	231.6	231.6
2007–2008	95.2	95.2
2008–2009	22.0	22.0
2009–2010	14.7	14.7
2010–2011	15.5	15.5
2011–2012	39	39
2012–2013	22.9	22.9
Total	3 835.01	

Source: CAPMAS, Yearly bulletin on reclaimed land (various volumes)

ANNEX B5

Total and agriculture investment, 1980–81 and 2010–11 (million EGP at current prices)

Years	Total investment	Total agricultural investment	Public agricultural investments	Private agricultural investments
1980–81	4 950	574.2	368.1	206.1
1981–82	5 939.3	505	323.7	181.3
1982–83	8 375.9	392.8	265.8	127.0
1983–84	9 255.2	525.4	406.4	119.0
1984–85	10 738.1	605.7	378.7	227.0
1985–86	13 121.0	860.2	610.2	250.0
1986–87	14 723.2	741.2	504.2	237.0
1987–88	21 022.3	1 481.8	701.8	780.0
1988–89	23 997.8	2 088.7	728.7	1 360.0
1989–90	26 152.2	1 718.4	854.4	864.0
1990–91	30 449.3	2 043.8	1 084.8	959.0
1991–92	32 403.3	2 622.3	1 223.3	1 399.0
1992–93	32 732.2	2 298.4	1 573.4	725.0
1993–94	40 014.8	3 178.1	2 325.1	853.0
1994–95	46 021.2	3 381.4	1 863.4	1 518.0
1995–96	54 888.3	4 484.4	2 072.4	2 412.0
1996–97	68 480.8	5 192.2	2 469.2	2 723.0
1997–98	61 348.6	8 157.3	4 351.3	3 806.0
1998–99	64 023.9	8 419.1	3 895.1	4 524.0
1999–2000	64 448.8	8 133.5	3 212.5	4 921.0
2000–01	63 581.8	8 197.3	2 888.3	5 309.0
2001–02	67 511.5	9 593.5	3 695.5	5 898.0
2002–03	68 103.1	6 403.6	3 220.3	3 183.3
2003–04	79 556.0	7 559.0	3 559.0	4 000.0
2004–05	96 456.4	7 420.2	3 170.1	4 250.1
2005–06	115 740.9	8 043.8	2 799.7	5 244.1
2006–07	155 341.9	7 791.2	2 433.7	5 357.5
2007–08	1 260 112.6	8 072.5	2 849.5	5 223.0
2008–09	2 510 970.0	6 862.3	2 743.3	4 119.0
2009–10	5 011 201.9	6 743.1	2 878.1	3 865
2010–11	10 009 282.8	6 833.7	3 275.7	3 558

Source: Ministry of Planning Data, Central Agency for Public Mobilization and Statistics, Statistical book (various volumes)

ANNEX B6

Value of investment loans from PBDAC according to different agricultural activities

Years	Livestock	Poultry	Fish	Agricultural mechanization	Reclamation	Other activities
1995–96	1 518.3	223.5	6.3	277.4	5.1	2 194.8
1996–97	1 932.2	247.4	8.3	344.3	3.2	2 529.2
1979–98	2 594.3	279.9	12.9	371.1	5.4	2 989.0
1998–99	3 231.2	288.4	8.9	291.4	2.7	3 110.4
1999–2000	3 881.5	284.8	4.7	201.2	1.7	3 354.4
2000–01	4 140.5	259.0	5.1	181.8	1.1	3 561.9
2001–02	4 625.8	270.3	4.9	172.6	1.2	3 377.8
2002–03	4 985.2	244.3	4.1	155.2	1.5	3 480.0
2003–04	4 504.3	237.1	4.9	120.1	6.9	3 590.0
2004–05	4 957.4	192.1	4.6	166.8	15.1	3 800.0
2005–06	5 023.6	150.2	8.3	171.2	14.6	4 360.0
2006–07	5 989.6	29.4	6.7	284.5	1.6	4 488.6
2007–08	6 477.4	33.8	7.1	269.2	6.8	4 229.2
2008–09	4 270.9	16.5	6.4	108.9	2.1	2 050.7
2009–10	4 504.0	13.9	1.4	79.0	1.7	1 463.7
2010–11	5 807.5	71.3	5.1	188.6	10.9	2 582.4

Source: PBDAC, unpublished data

ANNEX B7

Consumer price index numbers, exports and imports index (2005=100), and exchange rate (EGP/US$) 1980–2012

Years	Price index	Value of exports index	Value of imports Index	Nominal exchange rate (EGP/US$)
1980	8.2	112.2	57.3	0.7
1981	8.9	127.2	63.2	0.7
1982	9.7	125.8	68.4	0.7
1983	11.3	117.7	64.7	0.7
1984	12.4	106	60.3	0.7
1985	14.1	102.7	59.3	0.7
1986	16.5	83.5	56.1	0.7
1987	18.7	70.8	66.8	0.7
1988	23.7	76	86.5	0.7
1989	30.1	76.1	88.6	0.78
1990	35.2	86.6	94	1.55
1991	41.5	99.6	87.2	3.14
1992	46.5	102	89.7	3.32
1993	50.5	102	86.3	3.35
1994	52.8	98.8	88.6	3.39
1995	56.2	102.6	97	3.39
1996	60.8	104	105.2	3.39
1997	63.4	111.1	110	3.39
1998	64.3	107.2	113.8	3.39
1999	64.8	97.6	107.1	3.4
2000	66	111.3	119.5	3.47
2001	66.7	113.7	115.7	3.97
2002	70.9	101.4	100.1	4.5
2003	81.1	100	100.4	5.85
2004	95	98.3	98.8	6.2
2005	100	100	100	5.78
2006	107	97.6	95.3	5.73
2007	117.7	97	99.1	5.64
2008	142.6	102.7	108.6	5.43
2009	134.5	105.3	125.5	5.54
2010	151.5	107.6	124.2	5.62
2011	173.8	107.7	117	5.93
2012	178.1	106.6	122.8	6.06

Source: World Bank databases, 2014

ANNEX B8

Livestock population, 1980– 2012 (1 000 head)

Years	Buffaloes	Cows	Camels	Sheep	Goats	Donkeys	Horses	Mules	Pigs
1980	2 347	1 912	84	1 593	1 451	1 706	12	0.7	21
1981	2 370	1 852	100	2 100	1 475	1 741	9	0.7	21
1982	2 393	1 826	167	2 650	1 498	1 775	9	0.7	23
1983	2 322	1 772	196	3 153	1 520	1 810	9	0.7	22
1984	2 414	1 743	225	3 472	1 542	1 844	9	0.7	22
1985	2 429	1 709	215	3 576	1 563	1 879	9	0.7	24
1986	2 443	1 855	150	3 683	1 583	1 879	9	0.7	25.7
1987	2 454	2 300	82	3 793	1 650	1 900	9	0.7	22
1988	2 464	2 780	128	3 908	1 818	2 000	10	0.72	21
1989	2 549	2 721	136	3 481	2 000	2 158	10	0.73	23
1990	2 897	2 618	126	3 364	2 400	2 380	20	0.74	24
1991	2 994	2 973	147	3 084	2 820	2 530	25	0.8	24.3
1992	3 165	2 970	160	3 385	2 755	2 750	30	0.85	27
1993	3 250	2 977	110	3 707	3 017	2 950	35	0.9	27
1994	2 920	2 989	133	3 924	3 079	3 100	39	0.95	27
1995	3 018	2 996	131	4 220	3 131	3 112	42	0.98	27
1996	2 907	3 107	131	4 220	3 131	2 980	41	1	27
1997	3 096	3 117	128	4 260	3 187	2 990	43	1.05	28
1998	3 149	3 217	125	4 352	3 261	2 995	45	1.1	29
1999	3 330	3 418	134	4 391	3 308	3 000	48	1.15	29
2000	3 379	3 530	141	4 469	3 425	3 050	45	1.15	30
2001	3 532	3 801	134	4 671	3 497	3 100	53	1.15	30
2002	3 717	4 081	127	5 105	3 582	3 100	62	1.15	30
2003	3 777	4 227	136	4 939	3 811	3 150	62	1.15	31
2004	3 845	4 369	135	5 043	3 889	3 150	62	1.15	31
2005	3 885	4 485	142	5 232	3 915	3 200	62	1.15	30
2006	3 937	4 610	148	5 385	3 960	3 274	54	1.16	31
2007	4 105	4 933	84	5 467	4 211	3 319	66	1.16	31
2008	4 053	5 023	107	5 498	4 473	3 363	66	1.16	37
2009	3 839	4 525	137	5 592	4 139	3 350	66	1.16	11
2010	3 818	4 729	111	5 530	4 175	3 350	66	1.16	11
2011	3 983	4 780	137	5 365	4 258	3 355	71	1.16	11
2012	3 985	4 800	137	5 450	4 340	3 355	74	1.16	11

Source: FAO state Database, 2014

ANNEX B9

Percentage of poor in different governorates according to the national poverty line (EGP per year, per capita)

Governorate	1919–96	2000–01	2004–05	2008–09	2010–11	2012–13
Poverty line poverty line (L.E/ year)	-	998	1 423	2 224	3 076	3 920
Cairo	10.8	8.8	4.6	7.6	10	18
Alexandria	29.4	11.3	8	6.4	11	12
Port Said	3.7	2.6	7.6	4.4	6	19
Suez	2.4	4.2	2.4	1.9	3	5
Urban	16	9	5.7	6.9	9.6	15.7
Damietta	0.7	0.9	2.6	1.1	3	10
Dakahlia	11.4	17.7	7	9.3	12	14
Sharkia Governorate	13.9	16.1	28.2	19.2	12	14
Qalubia	28.3	12.1	11.2	11.3	22	21
Kafr El-Sheikh	10.1	6.7	13.2	11.2	14	18
Gharbiya	9.4	10.1	6.1	7.6	8	11
Menoufia	22.8	21.7	17.5	17.9	16	15
Beheira	28.5	10.4	20.5	23.5	23	20
Ismailia	9.7	7.9	6.4	18.8	18	15
Nile Valley	17.1	13.1	14.5	14.2	N/A	N/A
Urban	21.7	17.9	9	7.3	10.3	11.7
Rural	15.4	11.3	16.7	16.7	17	17.4
Giza	12	18.9	13.1	23	18	32
Bani Sweif	34	51.2	45.4	41.5	38	39
Fayoum	40.6	35.4	12	28.7	41	36
Minya	35.8	24.4	39.4	30.9	32	30
Assiut	53.4	58.1	60.6	61	69	60
Sohag	39.4	45.5	40.7	47.5	59	55
Qena	38.3	33.3	33.7	39	51	58
Luxor	N/A	N/A	60.5	40.9	39	47
Aswan	30.8	24.5	23.9	18.4	54	39
Upper Egypt	34.1	35.2	32.5	36.9	N/A	N/A
Urban	35	36.3	18.6	21.3	29.5	26.7
Rural	33.7	34.7	39.1	43.7	51.4	49.5
Border governorates	16	10.7	14.5	11.1		
Urban	20.2	10.4	0.9	4.8	3.6	11.4
Rural	10.2	11.2	32.8	23.2	33.3	46.6
Egypt	22.9	20.1	19.6	21.6	25.2	26.3
Urban	22.5	18.4	10.1	11	N/A	N/A
Rural	23.3	21.4	26.8	28.9	N/A	N/A

Source: CAPMAS, Search of Income and consumption expenditure censuses (various volumes)

ANNEX B10

Percentage of the ultra poor in different governorates, according to the national ultra poverty line (EGP per year, per capita)

Governorates	1995-96	2000-01	2004-05	2008-09	2012-13
Poverty line	-	693	985	1 648	2 576
Cairo	2.9	2.2	0.5	1.7	3.01
Alexandria	10.7	2.4	1.2	1.2	0.91
Port Said	2.1	0.2	0.9	1.7	0
Suez	1.2	0.4	0.7	0.3	0
Urban governorates	5.2	2.1	0.7	1.5	2.11
Damietta	0	0	0.2	0.2	0
Dakahlia	1.8	3.1	0.5	1	0.5
East	1.9	2.6	2.9	1.9	0.24
Qalubia	8.8	2.9	1	1.8	1.23
Kafr El-Sheikh	2.6	0.9	0.9	2.1	0.28
Western	1.6	2	0.8	0.8	0.58
Menoufia	8.2	3.7	0.4	3.1	0.82
Beheira	7.3	1.5	2.8	3.8	0.67
Ismailia	4	1	0.5	4.3	0
Nile Valley governorates	4.3	2.2	1.4	2	0.57
Urban	6.7	3.3	1	0.8	0.58
Rural	3.4	1.8	1.5	2.5	0.57
Giza	2.6	4.4	1.4	7.6	5.5
Bani Sweif	10.7	20.2	11.8	11.5	7.31
Fayoum	14	10.9	1.1	5.9	2.86
Minya	12.5	5.8	9.8	7	1.77
Assiut	25.8	24.8	22.7	31.4	24.81
Sohag	12.3	17.2	9.8	18.5	12.01
Qena	15.1	12.9	6	11.5	19.52
Luxor	N/A	N/A	16.7	14.3	8.13
Aswan	10.1	6.9	4.8	4	2.32
Upper Egypt	12.4	12.1	8.3	12.8	9.55
Present	13.4	13	4.2	6.3	3.97
Countryside	11.9	11.8	10	15.6	11.96
Border governorates	3.6	1.9	4.8	3.8	3.59
Urban	5.4	1.9		1.2	2.2
Rural	0.9	1.9	11.3	8.7	6.04
Egypt	7.4	5.8	3.6	6.1	4.35
Urban	7.7	5.2	1.7	2.6	2.21
Rural	7.1	6.1	5.4	8.5	5.85

Source: CAPMAS, Search of Income and consumption expenditure censuses (various volumes)

ANNEX B11

Number of children in preparatory education in different governorates, by gender (2006–07 and 2013–14)

Governorates	2006–07		2007–08		2010–11		2012–13		2013–14	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Cairo	72	78.1	79.1	80	73.5	72.9	80.1	84	75.9	79.2
Alexandria	80.7	85.2	80.4	87.8	70	74.6	76.7	83.2	74.4	80.4
Beheira	52.9	59.7	61.4	66.6	71	81	71.7	83.2	69	80.7
Gharbiya	72.6	79.6	73.7	77.7	72.5	77.9	75	82.7	70.9	80.3
Kafr El-Sheikh	57.9	62.4	58.6	64.6	67.2	76	72.3	82.4	66.7	77.6
Menoufia	60.5	61.8	61	64.4	77	81.1	83	92.6	81.7	91.8
Qalubia	67.4	70.1	62.4	68.5	73.2	75	82.9	91.9	75.4	85.4
Dakahlia	67	77.8	71.7	78.3	75.2	80.9	78.9	87.7	75.6	85.7
Damietta	80	94	80.2	93.4	82	90.1	84.3	98.5	81.4	94.3
Sharkia	68	73.7	68.5	76.2	74.5	82.9	76.5	88.1	76.4	88.5
Port Said	76.1	82.7	70.7	77.1	74.8	80.4	79.5	85.6	78.1	83.3
Ismailia	71.1	73	70.8	71.8	81.8	81.4	86.4	91.8	84.5	89.5
Suez	81	83	78.1	84.9	88.5	87.9	91.3	96.7	84	89.9
Giza	61.8	62.6	67.4	66.1	77.5	79.3	86.2	91.2	81.4	86.7
Fayoum	67.3	67.4	66.1	65.9	82.8	79.7	77.1	81.5	77	80.8
Bani Sweif	63.3	58.9	67.8	63.2	82.1	81	81.1	85.1	78.5	83.2
Minya	77.8	70.8	75.7	68.4	85.7	83.1	89.2	90.7	87.7	89.8
Assiut	54	56.2	56.8	56.3	82.1	82.4	81.5	88.3	80	87.9
Sohag	67.6	74.5	72.1	71.8	74.9	75.7	78.5	82.3	76.8	82.1
Qena	71.3	74.3	74	73.3	74.8	72.2	91.2	91.7	88.8	89.4
Luxor	0	0	0	0	167.8	176.5	80.5	87.2	76.2	85.1
Aswan	88.7	91	80.5	81.9	82.6	85.3	86.6	92.1	84.3	90.5
Matrouh	58.2	40.7	90.5	58	89.4	63.6	86.5	64.6	82.7	60.1
The New Valley	50.9	49.2	53.4	54.5	77	74.3	104.2	108.3	90.9	95.3
The Red Sea	42	43.1	40.6	55.7	43.7	73.2	60.6	96.5	60	94.4
North Sinai	78.2	52.8	58.8	52.8	84.5	74	103.4	99.2	92.6	90.1
South Sinai	40.4	48.6	41.7	59.6	21.2	38.4	32.2	62.2	37.8	64.5
Total	**67.1**	**70.5**	**69.3**	**71.5**	**76.4**	**79.3**	**80.4**	**87.2**	**77.4**	**84.6**

Source: Ministry of Education, Annual statistical book (various volumes)

ANNEX B12

Enrolment rate in primary school in different governorates (2006–07 and 2013–14)

Governorates	2006–07	2008–09	2010–11	2012–13	2013–14
Cairo	114.9	113.4	85.8	85.4	82.8
Alexandria	113.5	107.2	93.4	93.8	90.5
Beheira	87.2	80.1	93.3	91.1	89.5
Gharbiya	87.5	84.7	86	85	84.3
Kafr El-Sheikh	77.1	73.9	85.7	84	81.2
Menoufia	90.4	86.6	96.2	94.5	93.7
Qalubia	94.9	96.7	98.5	103.9	95.1
Dakahlia	93.3	88	93.1	90.6	88.8
Damietta	100.5	99	101	101.8	99.3
Sharkia	86.9	81.5	92.7	90.5	89.5
Port Said	98.8	96	85.6	83.7	83
Ismailia	102.9	100	97	96.7	95.4
Suez	104.6	101.4	99.7	96.5	94.3
Giza	99.8	97.3	98.3	105.2	101.2
Fayoum	82.9	77.9	97.6	90.2	89.3
Bani Sweif	88.5	82.4	100.2	93.4	92
Minya	89.5	82.1	105.9	103.4	97.4
Assiut	77.3	78.5	102.2	95.1	92.7
Sohag	68.1	64.1	97.3	91.8	89.7
Qena	80.1	73.2	80.1	91.4	88.2
Luxor	0	0	185.9	85.2	83.6
Aswan	89.1	83.2	96.5	92.7	89.1
Matrouh	104.7	79.2	103.8	99.1	99
The New Valley	81.1	79.5	96.9	95.4	97.9
The Red Sea	70.2	68.2	72.1	88.9	92.4
North Sinai	69.7	68.1	108.8	108.1	100.9
South Sinai	54.7	51.6	43.2	64.2	62.6
Total	**90.5**	**86.5**	**95.4**	**93.3**	**90.6**

Source: Ministry of Education, Annual statistical book (various volumes)

ANNEX B13

Enrolment rate in preparatory school in different governorates (2006–07 and 2013–14)

Governorates	2006–07		2007–08		2010–11		2012–13		2013–14	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Cairo	115	114.9	112.9	113.8	86.5	85	84.8	86	82.3	83.4
Alexandria	114	112.9	107.9	106.5	94.6	92.2	93.2	94.4	89.6	91.3
Beheira	85.5	89	79.3	80.9	91.8	94.9	88.5	93.9	87.1	92.2
Gharbiya	87.1	88	84.6	84.9	86	86	83.6	86.4	82.9	85.8
Kafr El-Sheikh	74.8	79.6	73.3	74.5	84.5	87.1	82.2	85.9	79.5	83
Menoufia	90.8	89.9	86.1	87	95.6	96.9	92.2	97	91.2	96.4
Qalubia	95.1	94.6	95.9	97.5	98	99.1	101.4	106.5	93	97.3
Dakahlia	91.3	95.5	87.5	88.5	93.6	92.6	89.2	92	87.5	90.1
Damietta	100.7	100.3	98.5	99.4	101.3	100.6	101	102.6	97.9	100.9
Sharkia	83.5	90.7	79.2	84	91.4	94	87.9	93.4	86.9	92.3
Port Said	99.6	97.9	96.8	95.2	86.9	84.2	83.3	84.2	82.5	83.6
Ismailia	102.4	103.3	99.6	100.5	98	96	95.8	97.7	94.8	96
Suez	104.8	104.4	100.6	102.2	100.8	98.5	96.2	96.8	94.2	94.5
Giza	98.9	100.7	97.1	97.5	99.2	97.3	103.5	107	99.8	102.8
Fayoum	82.4	83.5	79.7	76	100.3	94.7	90.4	90	89	89.6
Bani Sweif	88.3	88.8	85.9	78.9	104	96.3	95.3	91.4	93.1	90.8
Minya	90.2	88.8	85.2	78.9	109.6	102.1	104.6	102	98.1	96.6
Assiut	77	77.5	81.3	75.6	106.1	98.2	96.5	93.6	93.6	91.7
Sohag	67.1	69.2	64.8	63.5	99.7	94.9	92.3	91.2	89.9	89.5
Qena	77.7	82.6	73.8	72.5	82.2	77.9	92.9	89.8	89.1	87.2
Luxor	0	0	0	0	186.5	185.2	83.9	86.5	82.1	85.2
Aswan	87.6	90.7	83.7	82.7	96.7	96.2	92	93.5	88.2	90.1
Matrouh	109	99.9	81.7	76.4	106.4	101	99.6	98.6	99.8	98.1
The New Valley	80.1	82	79.4	79.7	95.9	97.9	94	97	95.4	100.8
The Red Sea	71.4	68.9	62.1	76.3	60.3	91.4	75	110.9	78.3	113.9
North Sinai	71	68.3	69.7	66.3	110.1	107.3	107	109.3	100.5	101.3
South Sinai	54.3	55.2	44	63.9	33.9	62.2	50.2	92.8	49	89.5
Total	**89.6**	**91.5**	**86.7**	**86.2**	**96.1**	**94.7**	**92.4**	**94.3**	**89.6**	**91.7**

Source: Ministry of Education, Annual statistical book (various volumes)

ANNEX B14

Agriculture land classification in different periods (1000 feddans)

Classification	Total area	First category	Second category	Third category	Fourth category	Fifth category
1981–85	5 992.3	3 161.6	2 107.2	487.4	180.4	55.6
1986–90	6 334.6	791.4	2 959.4	1 827.9	548.5	207.4
1991–95	7 156	2 442	2 925	1 378	338	73
1996–00	7 803.8	3 004.1	2 626.3	1 251.8	215.1	706.5
2001–05	7 785.5	978.4	3 257.3	2 122.8	815.9	611.1

Source: MALR, ARC, Institute of Land and Water

ANNEX B15

Water resources and water utilizations, 2007– 2012 (billion m^3)

Resources	2007	2008	2009	2010	2011	2012
River Nile	55.50	55.50	55.50	55.50	55.5	55.5
Groundwater	6.10	6.20	6.20	6.20	6.3	7.50
Reused agriculture drainage water	5.70	9.90	8.07	6.30	6.5	5.20
Reused spillage water	1.30	1.30	0.00	1.30	1.3	1.30
Rainfed	1.30	1.30	1.30	1.30	1.3	0.97
Seawater desalination	0.06	0.06	0.06	0.06	0.06	0.06
Total	**69.96**	**74.26**	**71.07**	**70.60**	**70.9**	**70.90**
Utilization	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Agriculture	**59.3**	**60**	**60**	**61**	**60.9**	**62.1**
Evaporation	**2.1**	**2.1**	**2.1**	**2**	**2.2**	**2.5**
Housing	**6.5**	**6.6**	**6.6**	**9.5**	**9.5**	**9.7**
Industry	**1.15**	**1.3**	**1.33**	**1.2**	**1.2**	**1.2**
Total	**69.25**	**70.23**	**70.03**	**74**	**73.8**	**75.5**

Source: CAPMAS, Egypt in figures, 2013

ANNEX B16

Water Balance (resources/utilizations) and rate of water security, 2007– 2012

Year	Resources	Utilization	Balance	Rate of water security
2007	69.96	69.3	0.7	101.03
2008	74.26	70.2	4.0	105.74
2009	71.07	70.0	1.0	101.49
2010	70.60	74.0	-3.4	95.41
2011	70.9	73.8	-2.9	96.07
2012	70.9	75.5	-4.6	93.91

Source: Calculated from table (Water resources and utilizations, 2007–2012 (billion m^3)


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ANNEX C

Stakeholder Interviews

H.E. Saad Nassar

Technical Advisor of the Minister of Agriculture and Land Reclamation

a. Definition of SSF and the most prominent characteristics

Holder of less than three feddans - the size of the family members may exceed five

b. Development of small farmers in recent decades

Increase in the phenomenon of possessory fragmentation , increase in renting land, increased production costs, prices have not increased at the same level as the increase in costs

c. The positives and negatives of these developments

Contract farming, cooperatives law, health insurance, pension, agricultural solidarity fund to combat damages

d. Current policies supportive and non-supportive of small farmers

Supporting policies: Cotton propagation to prevent mixing varieties, the reduction of poverty and hunger

Non-supportive policies: high input prices, no clear policy for the distribution of seeds and fertilizers

e. The future of small farmers in agricultural development

Compilation of agricultural exploitation, the organization of the agricultural rotation, extension, marketing loans

f. Inputs required to support small farmers

Central Administration for seeds production; control over the private sector companies; specific councils; cooperative societies; quality federations (project of General Federation of Milk Producers law); contract farming; the financial, technical and administrative restructuring of the Principal Bank for Development and Agricultural Credit; restructuring extension sector; conditional incentives support

In the field of social care: health insurance, pensions

Hamed El-Shiaty

Chairman of Shura Group for Agriculture Development

a. Definition of SSF and the most prominent characteristics

In the old lands, those who own less than five feddans; in the reclaimed lands, those who own less than twenty feddans or have less than five large animals, low income level

b. Development of small farmers in recent decades

The situation is fixed.

c. Current policies supportive and non-supportive of small farmers

The provision of fertilizer, support regarding governmental fees, exemption from the tax, customs

d. The future of small farmers in agricultural development

Must improve crop varieties, governmental intervention to preserve the species and to provide a special budget for the purity of cotton

e. Inputs required to support small farmers

Support the cooperative unions, intervention to improve the special cotton strains, increase the role of the Ministry of Agriculture with the presence of government entities, public extension among stakeholders (by contracting with farmers and the presence of supervisors from the Ministry of Agriculture until harvest), Principle Bank for Development and Agricultural Credit and the provision of required information for lending and immediate demand, cooperation between the agricultural extension and extension companies, the announcement of the price from businessmen.

Zinat Hashim Al-Sharif

Professor of Agricultural Extension, DRC

a. Definition of SSF and the most prominent characteristics

Holder of one feddan or less, low income, weak ability and lack of foundations for human development

b. Development of small farmers in recent decades

Increase their numbers, low productivity, the marginalization of their role, depend on non-agricultural activities.

c. The positives and negatives of these developments

Agricultural support does not reach them

d. Current policies supportive and non-supportive of small farmers

Supporting policies: supporting infrastructure for agriculture, social welfare, correct developmental perspective of the agricultural sector and linking it with economic activities for achieving integration

Non-supportive policies: lack of awareness of collective agricultural collective work, absence of supportive policies to maintain the heritage of rural artisanal industries

e. The future of small farmers in agricultural development

Regrouped in the framework of agricultural rotation associated with planned agricultural packages

f. Inputs required to support small farmers

Application of agricultural rotation, encouraging the private sector, need to review and amend legislation, restructuring of agricultural cooperatives and extension sector, establishment of a civil mobilization and packaging centres, multiple sources of funding and competing commercial banks to finance agricultural production, creating added value for agricultural residues, diversity of rural economic activity, obligatory health insurance

Assem Shaltout

Prof. of Horticulture, Ain Shams University, Businessman and Former Chairman of the Union of Horticulture Producers and Exporters (UPEHC)

a. Definition of SSF and the most prominent characteristics

Holder of three feddans or less, or one head of cattle, or one or two goats or sheep or have a 3 or less greenhouses

b. Development of small farmers in recent decades

Have knowledge of advanced agricultural operations, cultivate non-traditional crops, knowledge of new varieties of field and horticultural crops, bearing costs to achieve high productivity

c. The positives and negatives of these developments

Negatives: bad use of pesticides

Positives: knowledge of local or foreign consumer requirements

d. Current policies supportive and non-supportive of small farmers

Cooperatives law and insurance law

e. The future of small farmers in agricultural development

Good, in the case of the farmers unions cultivating a particular crop in a large area

f. Inputs required to support small farmers

Support for only nitrate fertilizers, provided by associations and organizations including small farmers, attempts to collectively stock their products to sell, provide limited support from the PBDAC with low interest rate, provide agricultural extension officers through the General Federation of Producers and Exporters of Horticultural Crops, social solidarity law.

Samy Reda Sabry

Senior researcher, Field Crops Research Institute, ARC and crop production expert

a. Definition of SSF and the most prominent characteristics

Holder of less than 1 feddan, reads and writes or uneducated

b. Development of small farmers in recent decades

Agrarian Reform Law 1952, dealing with cooperative marketing, the Bank of Agricultural Credit and Agricultural Cooperative.

c. The positives and negatives of these developments

The fragmentation of holdings, the difficulty of obtaining production supplies and rising prices, difficulty of marketing products

d. Current policies supportive and non-supportive of small farmers

Supporting policies: identification of remunerative prices for agricultural crops

Non-supportive policies: do not identify the prices of the important crops such as maize, sorghum and cotton

e. The future of small farmers in agricultural development

Organizing work through large groups of farmers to increase production and decrease problems

f. Inputs required to support small farmers

The application of the agricultural rotation; provide production supplies; strengthening and consolidating the agricultural cooperatives; create a system for the marketing of cotton, corn and beans; short-term loans and subsidized repayment interest rate; the implementation of national campaigns for important crops, determining remunerative prices for agricultural crops and easily marketed crops; establishing health units and social and youth centres in villages

Ibrahim Rihan

Expert in rural development and former chairman of the Village Development and Reconstruction Authority

a. Definition of SSF and the most prominent characteristics

There is no agreed definition

b. Development of small farmers in recent decades

Law for economic liberation, agriculture shows signs of the success of liberalization

Cash crop emergence

c. The positives and negatives of these developments

Positive: liberation of agriculture, the application of agricultural rotation and taking advantage of available land resources

Negative: lack of support for small farmers and marginal agricultural areas

d. Current policies supportive and non-supportive of small farmers

Supporting policies: expansion of contract farming, expansion of programs or conditional support policies

Non-supportive policies: the income obtained by the rural family is higher than the income from agriculture, the policies of agricultural and non-agricultural communities must be integrated

e. The future of small farmers in agricultural development

Must form associations for small farmers (group work), support for cooperatives, formation of rules advocacy, Promotion of agricultural extension directed to small farmers (agricultural advisory offices)

f. Inputs required to support small farmers

Reconsider the institutional building of agricultural institutions and organizations that provide services to small farmers and rebuild their capabilities, integration between the agricultural community and non-agricultural policies, integration of third-party access and inquiring about farming institutional reform

Hamdi Salem

Professor of Agricultural Economics, Ain Shams University and former chairman of Export Development Center

a. Definition of SSF and the most prominent characteristics

Holder of less than 3 feddans and using traditional cultivation, achieve low-income level, or have limited number of animals, using low level of agricultural techniques, not linked to the market in determining needed agricultural crops.

b. Development of small farmers in recent decades

Changing of some small-scale farmers from cultivating traditional to non-traditional crops, many farmers leaving agriculture to work in other non-agricultural occupations to improve their living conditions

c. The positives and negatives of these developments

Positive: finding solutions to their problems, accepting technological developments to improve their income

Negative: lack of attention to the profession of agriculture, especially by the sons of farmers

d. Current policies supportive and non-supportive of small farmers

Supporting policies: providing fertilizers

Non-supportive policies: failure to organize market for agricultural products, do not apply the contract farming systems, weak control over production inputs

e. The future of small farmers in agricultural development

Implementation of policies that organize the development of agricultural technology, the application of contract farming systems, organize farmers to work collectively to develop their production

f. Inputs required to support small farmers

Rationalization of irrigation water, association for the provision of supplies and agricultural services at suitable prices, issuing legislation to facilitate the establishment of farmer organizations and include incentives to promote them, contract farming systems through farmer associations, expanding the range of finance to include medium and long-term financing with suitable conditions, the application of the Health Insurance Law and the Social Security Law (pensions).

Gamal Fathi Gomaa

Farmer and Chairman of Agricultural Cooperative

a. Definition of SSF and the most prominent characteristics

Holder of productive animals; dairy and poultry

b. Development of small farmers in recent decades

1950–1970: After the revolution of 1952, agricultural cooperatives were created in villages to serve farmers. 1970–1980: situation remained the same. 1980–2010: Agriculture is neglected, especially cotton, and prices of production inputs increased, which led farmers to abandon agriculture and travel abroad and sell their lands.

c. The positives and negatives of these developments

1950–1970: Negative: Governmental control of the prices of some crops such as cotton. Positive: Providing selected seeds which developed agriculture after the revolution of 1952, establishing agricultural cooperatives to provide fertilizers and pesticides at affordable prices and the provision of agricultural tractors. 1980–1970: Negative period for farming and import of cotton from abroad. 1980–2010: Negative: The sale of agricultural machinery of agricultural associations and establishment of agricultural mechanization in the district to serve the villages instead of associations, and increase in prices of production inputs.

d. Current policies supportive and non-supportive of small farmers

Supporting policies: providing production of good seeds, fertilizers, pesticides and agricultural machinery and activating the role of extension services.

e. The future of small farmers in agricultural development

Good, due to increased production, which is reflected in benefits for the farmer and the government and which helps the small farmers in marketing his products.

f. Inputs required to support small farmers

Issuing legislation to prevent importing crops that have surplus production in-country, such as cotton, in order to avoid farmers' losses, follow again agricultural rotation. The government must support and provide the production inputs and services and exclude the PBDAC from the distribution or financing of these inputs, contract farming systems through farmers' associations.

Kamal Riad Suliman

Director General of the Directorate of Agriculture, Beni-Suef

a. Definition of SSF and the most prominent characteristics

Holder of a cow or buffalo or both with breeding of poultry and birds

b. Development of small farmers in recent decades

1950–1970: After the revolution of 1952, the state focused on small farms and provided them with production requirements and good seeds. In 1970–1980: The interest of the MARL in the monopoly, including the price of cotton. Then, in 1980–2010, neglected the cultivation of cotton, converting SSF to off-farm work.

c. The positives and negatives of these developments

1950–1970: Negative: The state controlled the prices of some crops such as cotton, affecting farm income. Positives: The government increased the production by providing seeds, selected machines and services to the farmers.

1980–1970: Negative period for farming and import of cotton, affecting the cultivation of cotton and increasing the cost of fertilizers and pesticides. 1980–2010: Increased neglect of agriculture and farmers and increased cost of production

d. Current policies supportive and non-supportive of small farmers

Supporting policies: provision of improved seeds and loans from PBDAC.

Non-supportive policies: lack of attention to the export of agricultural products

e. The future of small farmers in agricultural development

The small-scale farmer category promises to contribute to the increase of production and support the economy by increasing production, which is reflected in benefits for farmers and the State provided state aid and encouragement to small farmers.

f. Inputs required to support small farmers

Issue legislation that prohibits the import of crops with surplus production in-country, such as cotton, agricultural rotation, the State supports supplies services, marketing associations, the PBDAC to cut interest rates, holding seminars for farmers, the contribution of agricultural associations in social work among farmers

Mohammed Saeed Zaied

Professor of Farm Management, Ain Shams University

a. Definition of SSF and the most prominent characteristics

Holder of less than 1 feddan, the basic income is from farm work, family labour, traditional system of production

b. Development of small farmers in recent decades

Fragmentation of holdings and increase in the number of farms with less than 1 feddan, farmers cultivating vegetables instead of wheat and corn because of the decline of prices, reluctance of many farmers, particularly youth, to work in artisan work

c. The positives and negatives of these developments

The fragmentation of holdings

d. Current policies supportive and non-supportive of small farmers

There is no support for small farmers

e. The future of small farmers in agricultural development

Agricultural development and increase of production, chemical fertilizer support for farmers with smallholdings, advise the small farmers to use recent varieties of seeds, the contribution of the State in marketing

f. Inputs required to support small farmers

No agricultural rotation at the level of the large agriculture category, unavailability of seeds or problems with expiry date.

Yehia Zahran

Professor of Agricultural Extension, Mansoura University

a. Definition of SSF and the most prominent characteristics

Has small holding, depends on internal inputs of the farm, consumes part of his production domestically and sells the other part in the market, some of them depend on the traditional relationships, weak link with the agricultural information sources, depends on free extension services, inherited experiences and other farmers' practices, has no mechanism to protect his productivity advantages.

b. Development of small farmers in recent decades

In 1970: Agricultural Reform Law, low productivity, traditional agriculture, government control of cooperatives, weak efficiency and management of cooperatives

From1970 to 1980: cooperative marketing, development of agricultural production, extension support, training activities and raising awareness, protective price policies

From 1980 to 2010: weakness of agricultural organizations, decline of role of cooperatives, decline of training activities, information and extension efforts, also the political role of cooperatives, development of the leading legislation, starting some forms of contractual farming, credit problems

c. The positives and negatives of these developments

Agricultural cooperatives

d. Current policies supportive and non-supportive of small farmers

It is necessary to bring scientific will with political will into agreement.

f. Inputs required to support small farmers

Find solutions for: weakness of productivity, defect in agricultural and rural sustainable development, drain on agricultural and ecological resources, decreasing income and technical support, weakness of information and extension services, organizing and managerial interventions, legal and legislation interventions

Yousry Abdel Maola

Director of Agriculture Extension and Rural Development Research Institute

a. Definition of SSF and the most prominent characteristics

Holding less than 1 feddan, low income, do not use machinery, marketing inability, six or more member families, weak political awareness

b. Development of small farmers in recent decades

Most of developing projects start to be directed towards SSF, tendency to group them in unions some organizations give them production supplies for free in case of adopting some new technologies

c. The positives and negatives of these developments

Positives: Raising the awareness, increasing income, improving the economic level

Negatives: inability to repay their loans led to drop in economical level.

d. Current policies supportive and non-supportive of small farmers

Supportive policies: small projects, participation in unions

Non-supportive policies: the credit policies, especially the complex interest rate

e. The future of small farmers in agricultural development

The state has to support this category through raising their awareness and providing more projects

f. Inputs required to support small farmers

Providing production requirements at suitable prices, raising the awareness regarding the exporting quality of their products, spending the money provided through loans for agricultural purposes, follow the extension service recommendations, support small projects to increase their income, provide health and education services, provision of highly productive animals, improve the markets, animal production extension officers

Hassan El-Folly

Chairman of General Authority of Agrarian Reform

The definition of SSF and the most prominent characteristics

The farmer who has up to three feddans, which represents about 70 percent of the holdings at the state level, productivity goes to family consumption and does not intervene in the development of the national economy, deterioration of health and educational status, and high unemployment leading to increased migration

Development of small farmers in recent decades

The existence of civil society associations that receive funding for small farms, and creating linkage for small-scale farmers to help them in marketing and export through large-scale farmers

Pros and cons of these developments:

Cons: Lack of sustainability

Pros:-raise awareness of farmers and provide extension services to increase production, marketing methods

Current policies supportive and non-supportive of small farmers

Supporting policies: support production requirements, development of field irrigation, provision of machines to increase soil fertility, marketing policy

Non-supportive policies: non-application of agricultural rotation, lack of agricultural diversity, no projections of agricultural activity

The future of small farmers in agricultural development

The existence of specific economic entities, advanced agricultural practices and real contractual agriculture.

Inputs required to support small farmers

Agricultural rotation, the provision of production inputs and services, create links and economic entities, activating contractual conditional agriculture, development of extension systems and implementation of monthly planned programs, conducting feasibility studies for small projects for rural women, attention to healthcare and education

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FOCUS COUNTRY

Egypt

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