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OECD Agriculture and Food Policy Reviews

Policies for the Future of Farming and Food in Egypt

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Foreword

Policies for the Future of Farming and Food in Egypt is part of a series of country studies that apply the OECD Agro-Food Productivity-Sustainability-Resilience (PSR) Policy Framework, an evidence-based approach to assess if the policy environment is conducive to achieving sustainable agricultural productivity growth and increased resilience. To date, the PSR framework has been applied to reviews of Australia, Brazil, Canada, the People's Republic of China, Croatia, Estonia, the European Union, Japan, Korea, Latvia, the Netherlands, Norway, Spain, Sweden, Türkiye, and the United States.

This review examines the policy context and the main trends in Egypt's agricultural sector. It applies the OECD's Producer Support Estimate (PSE) methodology to Egypt for the first time, helping to shed light on the distribution of support across different commodities and the range of policies and programmes implemented by various government ministries and agencies. It also presents evidence and policy recommendations to address key challenges relevant to the Egyptian context, including food security and natural resource management, with a particular focus on water management. The review seeks to facilitate a regular engagement of Egypt on agricultural policy issues, including through the monitoring of agricultural policy developments.

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Abbreviations

ABE	Agricultural Bank of Egypt
AfCFTA	African Continental Free Trade Area
AFOLU	Agriculture, Forestry, and Other Land Uses
APC	Agricultural Pesticide Committee
ARC	Agricultural Research Centre
BCM	Billion Cubic Metres
BCWUA	Branch Canal Water User Association
CAAEE	Central Administration for Agricultural Extension and Environment
CAPMAS	Central Agency for Public Mobilization and Statistics
CAPQ	Central Administration for Plant Quarantine
CBE	Central Bank of Egypt
CH_4	Methane
CIHEAM	International Centre for Advanced Mediterranean Agronomic Studies
CO_2	Carbon dioxide
CO_2e	Carbon dioxide equivalent
COFOG	Classification of the Functions of Government
COMESA	Common Market for Eastern and Southern Africa
CSE	Consumer Support Estimate
%CSE	Consumer Support Estimate transfers as a share of consumption expenditure on agricultural commodities
DRC	Desert Research Centre
dS	deciSiemens
ECe	Electrical Conductivity
EFTA	European Free Trade Association
EGP	Egyptian Pound
EHCSS	Egyptian Holding Company for Silos and Storage
EOS	Egyptian Organisation for Standardisation and Quality
ESIIC	Egyptian Sugar and Integrated Industries Company
EUV	Export Unit Value
FAO	Food and Agriculture Organization of the United Nations
FDI	Foreign direct investment
FIES	Food Insecurity Experience Scale
FY	Fiscal Year
GAFTA	Greater Arab Free Trade Agreement
GASC	General Authority for Supply Commodities
GCNF	Global Child Nutrition Foundation
GDP	Gross Domestic Product
GERD	Grand Ethiopian Renaissance Dam
GFR	Gross Farm Receipts
GHG	Greenhouse gas
GOE	Government of Egypt
GOEIC	General Organisation for Export and Import Control
GOVS	General Organisation for Veterinary Services
GSSE	General Services Support Estimate

%GSSE	General Services Support Estimate transfers as a share of Total Support Estimate
GST	General Sales Tax
ha	Hectare
HIECS	Household Income, Expenditure and Consumption Survey
HLPE	High Level Panel of Experts on Food Security and Nutrition
HS	Harmonized System
ICA	International Cooperative Alliance
IFAD	International Fund for Agricultural Development
IFPRI	International Food Policy Research Institute
ILO	International Labour Organization
IMF	International Monetary Fund
IPPU	Industrial Processes and Product Use
ISO	International Organization for Standardization
IUV	Import Unit Value
IWMD	Integrated Water Management District
IWMI	International Water Management Institute
IWRM	Integrated Water Resource Management
MALR	Ministry of Agriculture and Land Reclamation
MENA	Middle East and North Africa
MIFT	Ministry of Investment and Foreign Trade
MOE	Military-Owned Enterprise
MoE	Ministry of Environment
MoF	Ministry of Finance
MoSIT	Ministry of Supply and Internal Trade
MoSS	Ministry of Social Solidarity
MPD	Market Price Differential
MPED	Ministry of Planning and Economic Development
MPEDIC	Ministry of Planning, Economic Development and International Co-operation
MPS	Market Price Support
MRL	Maximum Residue Level
MSP	Minimum support price
Mt	Million tonnes
MWRI	Ministry of Water Resources and Irrigation
N_2O	Nitrous oxide
NAC	Nominal Assistance Coefficient
NDC	Nationally Determined Contribution
NFSA	National Food Safety Authority
NPC	Nominal Protection Coefficient
NSPO	National Service Projects Organisation
NUE	Nitrogen Use Efficiency
NWFE	Nexus of Water, Food and Energy programme
NWRC	National Water Research Centre
NWRP	National Water Resource Plan
OECD	Organisation for Economic Co-operation and Development
PMT	Proxy Means Test
PoU	Prevalence of Undernourishment
PPP	Purchasing Power Parity
PSE	Producer Support Estimate
%PSE	Producer Support Estimate transfers as a share of gross farm receipts
PSR	OECD Productivity, Sustainability and Resilience Framework
PUA	Prevalence of Unaffordability indicator
QIZ	Qualified Industrial Zones
R&D	Research and Development
SCT	Producer Single Commodity Transfer
%SCT	Single Commodity Transfers as a share of gross farm receipts for the specific commodity

SDGs	Sustainable Development Goals
SIS	State Information Service
SOE	State-Owned Enterprise
TBSE	Total Budgetary Support Estimate
TFP	Total Factor Productivity
TRQ	Tariff-Rate Quota
TSE	Total Support Estimate
%TSE	Total Support Estimate transfers as a percentage of Gross Domestic Product
UIT	Unified Income Tax
UN DESA	United Nations Department of Economic and Social Affairs
UNCTAD	United Nations Conference on Trade and Development
UNFCCC	United Nations Framework Convention on Climate Change
USD	United States Dollar
USDA	United States Department of Agriculture
VAT	Value-Added Tax
VP	Value of Production
WFP	World Food Programme
WHO	World Health Organization
WIC	United States' Special Supplemental Nutrition Program for Women, Infants and Children
WITS	World Integrated Trade Solution database
WTO	World Trade Organization
WUA	Water User Association

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Executive Summary

Agriculture is an important sector for the Egyptian economy, accounting for 14% of GDP and one-fifth of employment. Several government strategies highlight agriculture's central role in the structural reform agenda, including *Egypt's Vision 2030*, the *National Structural Reforms Programme*, and the Ministry of Agriculture and Land Reclamation (MALR)'s *2030 Updated Sustainable Agriculture Development Strategy*. In recent decades, government efforts to expand agriculture have focused on reclaiming marginal desert lands for production, resulting in a considerable increase in the total cultivated land area and rapid growth in exports of high-value horticultural crops.

While agricultural productivity and output are rising, they have not fully kept pace with demand from the population, which stood at 116.5 million in 2024 and is projected to grow to 160 million by 2050. As a result, Egypt continues to import key agricultural commodities and is currently among the world's largest importers of wheat. Despite recent efforts to diversify its trade partners, the country remains reliant on imports from Russia and Ukraine, creating important vulnerabilities to trade disruptions, underscoring the importance of continuing to strengthen supply chain resilience and expand trade diversification.

A key challenge for Egypt is to tackle rising rates of undernourishment and food insecurity experienced by one-third of the population, while simultaneously addressing some of the highest rates of overweight and obesity worldwide. This "double burden of malnutrition" carries significant economic and social costs, including productivity losses, reduced educational attainment, and increased health care expenditure. This is partly due to the fact that healthy diets are unaffordable for the vast majority of Egypt's population, while staple-based diets remain abundant and inexpensive. Opportunities exist to strengthen the country's food system, enhance human capital, and promote long-term economic and social resilience.

The current policy approach maintains a heavy focus on food availability, by setting targets to increase self-sufficiency rates for strategic crops, along with minimum guaranteed prices and large-scale domestic procurement of staple crops by the General Authority for Supply Commodities (GASC), a government agency under the Ministry of Supply and Internal Trade (MoSIT). In addition, the government imports significant quantities of strategic commodities via the military-owned Mostakbal Misr Agency for Sustainable Development, and maintains an extensive network of silos and grain storage infrastructure. Investments to upgrade the storage infrastructure have considerably improved Egypt's storage efficiency. At the same time, the government facilitates access to staple foods at affordable prices for consumers through a bread subsidy and ration card programme. Collectively, these two food subsidy programmes benefited approximately two-thirds of the population, and cost the government an average of 1.4% of GDP per year over the decade from 2015/16 to 2024/25.

Over time, food subsidies have become a central part of Egypt's social contract. While reforms are needed to improve targeting and reduce the fiscal burden of food subsidies, Egypt's experience with the Takaful and Karama programmes indicates that cash transfers are more effective in targeting beneficiaries and reducing poverty. Furthermore, Egypt's food subsidies encourage the overconsumption of energy-dense foods including bread, cooking oil, sugar and rice, and have had limited success in addressing the double burden of malnutrition. This suggests that a greater focus on nutrition-positive investments could be warranted, including scaling up school meal programmes and nutritional education.

Egypt faces considerable agri-environmental challenges, including declining per capita availability of water resources, and increasing pollution of soil and water. Current strategies developed by the Ministry of Water Resources and Irrigation (MWRI) aim to address water scarcity primarily through supply-side investments in irrigation infrastructure and modern irrigation technologies that have contributed to increasing water use efficiency. However, improving irrigation efficiency can alter water and cropping decisions in ways that aggravate water scarcity, if not backed up by robust water demand management systems. Furthermore, fertiliser subsidies where use is not controlled encourage the overapplication of fertiliser by farmers, resulting in nutrient surpluses. There are important gaps in the implementation of pesticide regulations.

Agricultural policies in Egypt are designed and implemented by a network of government ministries, agencies, state-owned enterprises (SOEs) and military-owned enterprises (MOEs). This creates challenges for the co-ordination of policies affecting the agriculture and food sectors, highlighting the importance of continued efforts to align policies and strengthen institutional collaboration. The government intervenes across the entire value chain, through a broad range of support instruments including through price-lifting measures for staple crops, fertiliser subsidies, investments in R&D and irrigation infrastructure, and food subsidies for consumers. Some progress has been made, with support to Egyptian farmers falling from 21% of gross farm receipts in 2000-02 to 10% in 2022-24. Still, current agricultural support policies reduce market responsiveness and place a significant burden on Egypt's economy, amounting to 2.8% of GDP in 2022-24. This is higher than the levels observed across all 54 countries included in the OECD's Producer Support Estimate (PSE) database. Reforms should continue to improve the efficiency of agriculture support measures in meeting policy objectives.

Gaps in the availability and quality of data, particularly relating to agricultural public expenditures, constrains the capacity to analyse Egypt's agricultural policy environment. Further engagement with the OECD through its annual Agricultural Policy Monitoring and Evaluation exercise could help to improve transparency and support the design and implementation of policy reforms.

Key policy recommendations

- Strengthen food systems co-ordination to oversee policy interactions and facilitate reforms to meet multiple goals. Commission an independent expert review of existing government interventions in the agriculture and food value chain, including analysis of the role of government agencies, SOEs and MOEs. This review would bring clarity and transparency to the current policy environment, and facilitate comprehensive consideration of government strategies, goals, and policy tools. Introduce a co-ordination mechanism across government ministries and agencies to improve the efficiency and effectiveness of the entire policy package.
- Improve the availability, transparency and quality of data on agricultural public expenditures, market interventions, nutritional outcomes, and agri-environmental performance. Ensure that data on public expenditures and transfers to SOEs and MOEs are publicly accessible.
- Progressively shift the focus of policy support towards nutrition targets and innovation, while gradually reducing support for staple crops and the overall burden of agricultural support for the economy. Facilitate trade by reducing administrative and regulatory barriers at the border, promote diversification of import and export partners, and further strengthen the role of the private sector in agri-food markets.
- Enhance the agricultural knowledge and innovation system as the main tool to support production by improving sustainable productivity. Strengthen the extension and advisory services provided by MALR and promote the internationalisation of Egypt's R&D institutions.
- Reform the food subsidy system to target those most in need, improve nutritional outcomes, and reduce the fiscal burden. Develop the capacity to both identify poor households and to better deliver support to vulnerable populations. A clear and participatory approach to food subsidy reform will

be important to take account of conflicting expectations and to build social consensus. Develop a unified social registry and modernised beneficiary identification system to gradually target food subsidies to the most vulnerable households, while scaling up cash transfers to support the transition. Reduce subsidies for energy-dense foods in favour of a broader variety of micronutrient-rich foods, enhance the school meals programme, and promote nutritional education.

- Strengthen the sustainable management of Egypt's natural resources for agriculture, developing policies to reduce water demand and fertiliser use. Rationalise water use, improve soil moisture conservation and ensure the environmental sustainability of land reclamation. Step up enforcement of pesticides regulations, reduce subsidies for fertiliser, and develop alternative market-based, regulatory and voluntary mechanisms to manage water demand.

Assessment and Recommendations

Assessment of performance

Agriculture is a strategically important sector for the Egyptian economy

As the second-largest economy in Africa, Egypt benefits from a diversified economic structure, a vast territory, and significant natural resource wealth. Although agricultural land accounts for just 4.1% of Egypt's total land area – among the lowest worldwide – agriculture remains a strategically important sector. The sector accounts for 14% of GDP and 19% of employment, significantly higher than in OECD countries.

Government strategies put agriculture at the centre of Egypt's structural reform agenda. Many of their objectives are aligned with the UN Sustainable Development Goals and can be examined through the lens of the OECD's Agro-Food Productivity-Sustainability-Resilience Policy Framework:

- The *National Agenda for Sustainable Development*, or *Egypt's Vision 2030*, is led by the Ministry of Planning, Economic Development and International Co-operation (MPEDIC) and highlights the importance of food provision for improving Egyptians' quality of life and raising their living standards. It sets out quantitative targets to reduce malnutrition and stunting, streamline food subsidies, increase rural incomes and employment, and improve water use efficiency.
- The *National Structural Reforms Programme* was also developed by MPEDIC and includes agriculture as one of three priority sectors to diversify the economy. It outlines key actions to achieve food and water security, increase agriculture's productivity and contribution to the economy, increase incomes of small farmers, boost agricultural exports, and enhance the sector's resilience.
- The *2030 Updated Sustainable Agriculture Development Strategy* was developed by the Ministry of Agriculture and Land Reclamation (MALR) in 2020, and is the main strategic document for the agricultural sector. It aims to achieve food security and improved nutrition, enhance sustainable agriculture, eradicate rural poverty, adapt to climate change, increase agricultural competitiveness, and create employment opportunities for youth and women. It outlines ambitious targets, including the objectives, set in 2020, to increase self-sufficiency rates for strategic crops (e.g. 67% for wheat in 2030), and significantly increase agriculture's share of GDP and employment by 2030.

The targets to increase agriculture's share of GDP and employment run counter to the development trajectory typically observed in other economies, where growth in manufacturing, industry and services tends to outpace that of agriculture. In Egypt, agricultural expansion has primarily been driven by large-scale land reclamation projects implemented by the government, which convert marginal desert lands for production. As a result, the total cultivated area has increased from 8.7 million feddans (3.7 million ha) in

2010 to 10 million feddans (4.2 million ha) in 2024, offsetting losses in fertile agricultural land in the Nile Delta due to urban encroachment.

Agro-food exports are a key driver of agricultural growth, and have risen to historical highs. In particular, exports of high value horticultural products have grown rapidly, with fruits, vegetables and their preparations accounting for more than half of agro-food exports in 2022-24. Medium and large-scale commercial farms tend to be more productive and are better integrated with domestic supply chains and international markets. However, land ownership remains highly fragmented as a result of land reform policies adopted after the 1952 revolution, high population densities, and inheritance laws. Consequently, small-scale subsistence-oriented farms of less than 3 feddans (1.3 ha) still account for about 90% of farm holdings and approximately 40% of total agricultural land.

Productivity is rising, but not quickly enough to meet demand from a fast-growing population

Agricultural labour productivity has grown rapidly over the past two decades and is currently twice the global average, although it remains significantly lower than the average across OECD Member countries. The gap between agriculture and other sectors – in particular industry – has also narrowed.

Total factor productivity (TFP), which is the most comprehensive standard measure of agricultural productivity, grew steadily at 1.6% over the period 2012-22, compared with the global average of 0.9%. While agricultural output growth has slowed considerably since the 1990s, TFP has remained an important source of growth, while the contribution of inputs, in particular animal feed and labour, has declined.

Ultimately, however, agricultural productivity has not kept pace with rising demand from Egypt's fast-growing population. The population reached 116.5 million in 2024, is growing at 1.7% per annum, and is projected to reach 160 million by 2050. Population growth and rising incomes have generated growing demand for imported food products, with the value of agro-food imports increasing more than threefold since 2007 and the agro-food trade deficit expanding considerably.

Imports of some agricultural and food products are highly concentrated among few suppliers, creating vulnerabilities to trade disruptions

The cereal import dependency ratio, which indicates the share of net imports of cereals in the domestic supply of cereals, is very high at 43%. Egypt is one of the world's largest importers of wheat, and the country also imports significant quantities of maize, soybeans and vegetable oils. Imports are also highly concentrated by country of origin. Despite efforts to diversify its trade partners, Egypt remains heavily reliant on the Russian Federation (hereafter "Russia") and Ukraine for supplying over 70% of its wheat imports, and around one quarter of total agro-food imports.

This concentration represents an important strategic vulnerability, which became apparent in 2022 following the start of Russia's war of aggression against Ukraine. The threat of disruptions to global grain supplies and fertiliser markets, along with export restrictions imposed by many countries around the world, created significant food price inflation in Egypt, stoking fears of food shortages. Strategic grain reserves helped to manage the situation, while the establishment of the Black Sea Grain Initiative and EU-Ukraine Solidarity Lanes helped to keep trade flowing, and ensured Egypt's continued access to food imports.

Diversifying Egypt's food import sources can help to reduce vulnerabilities to external shocks such as food price volatility, extreme weather events, conflict and supply chain disruptions. Further efforts to expand trade relationships across different regions can enhance resilience, improve price stability in the domestic market and facilitate efficient markets that are responsive to changes in demand and supply.

Tackling food insecurity and malnutrition is a major policy priority and challenge

Egypt has undergone a rapid nutrition transition since the mid-1970s and currently faces the double burden of malnutrition: the coexistence of chronic undernutrition and overnutrition amongst its population. This is a significant public health challenge: undernourishment is rising, nearly one-third of the population is food insecure, and despite some modest improvements in indicators of undernutrition, child stunting remains persistently high. At the same time, rates of overweight children and adult obesity are among the highest worldwide. Malnutrition generates substantial costs for the Egyptian economy, through a combination of productivity losses, reduced educational attainment, and increased health costs.

Staple foods such as cereals account for nearly two-thirds of the dietary energy in Egypt's food supply, suggesting that there is room to improve nutrition and strengthen dietary diversity. However, the cost of a healthy diet in Egypt was 6.38 purchasing power parity (PPP) dollars per person per day in 2024 – significantly higher than the global average of 4.46 PPP dollars. In contrast, the cost of a diet based on the least expensive locally available starchy staples was just 0.68 PPP dollars. As a result, healthy diets that provide adequate calories and nutrients from a diverse range of food groups are unaffordable for the majority of Egypt's population, while energy-dense staple foods remain abundantly cheap.

The policy approach to food security is centred on ensuring availability by supporting domestic production of staple crops…

This report assesses the performance of agricultural and food policy in Egypt using a set of internationally comparable indicators developed by the OECD to measure support to agriculture. Applied regularly in 54 OECD and emerging economies, these indicators, including the Producer Support Estimate (PSE), are used here for the first time for Egypt. They provide a comprehensive picture of how different policy instruments transfer resources to producers and consumers of agricultural commodities and influence production and market outcomes.

The results highlight how the government supports food availability by encouraging the domestic production of strategic crops such as wheat, maize and sugar cane. Farmers are offered guaranteed minimum prices to encourage planting, and the General Authority for Supply Commodities (GASC) under the Ministry of Supply and Internal Trade (MoSIT) undertakes large-scale domestic procurement. Depending on the year, the GASC may procure between one third and half of domestic wheat production at the government-set procurement price. In addition, tariffs and import requirements are applied to certain commodities to ensure high prices and protection for domestic farmers. While market price support mainly benefits producers of staple crops, fruits and vegetables are not supported, and livestock products are penalised by higher feed costs. Experience from OECD and emerging economies shows that market price support and other policies that target specific commodities increase the rigidity of the sector and prevent farmers from adjusting their production in response to changing conditions.

Large-scale imports of agricultural commodities also help to guarantee the availability of food. Over the past decade, wheat imports have represented nearly 50% of total wheat consumption, with the GASC accounting for about half of wheat imports through international tenders and direct purchases. Since December 2024, Mostakbal Misr Agency for Sustainable Development, an agency under the Egyptian Armed Forces, has been responsible for imports of strategic commodities previously undertaken by GASC.

In addition, the government maintains strategic reserves of staple commodities to ensure stability in the food supply and protect consumers from food price inflation. In recent years, investments to upgrade the storage infrastructure and expand the network of silos have considerably increased Egypt's storage capacities and reduced losses and wastage. However, large-scale public stockholding programmes risk becoming very costly, can create distortions in domestic and international markets and reduce the capacity of the food system to respond to market signals.

… and increasing access to food through the food subsidy system

The domestic and trade policies described above are implemented in conjunction with a costly and extensive food subsidy system made up of two components: a subsidy for *baladi* bread, which allows citizens to purchase five loaves of bread per day for EGP 1 (USD 0.02), and an electronic ration card programme, with a monthly allowance of EGP 50 (USD 1) per person that can be used to purchase from a list of 33 essential commodities. The current food subsidy system benefits nearly two-thirds of the population (about 60-70 million people annually) and is not effectively targeted to the poorest households that need them most. Food subsidies also generate a high fiscal burden, costing the government an average of 1.4% of GDP per year over the past decade.

The combination of food subsidies to consumers and price support to producers provide contradictory policy signals. On the one hand, first-stage consumers saw their consumption expenditures increase by 16% through higher prices provided to producers in 2022-24. On the other hand, final consumers received food subsidies that reduced consumption expenditures by almost 7%. As a result, on balance, consumers were penalised by agricultural support policies.

Food subsidies in Egypt have evolved considerably over the past century, and much can be learned from attempts by previous governments to reform the system. For instance, significant reforms were introduced after 2014 to further discipline expenditures, reduce leakage and wastage, and improve quality and consumer choice. However, while it is widely accepted that food subsidy reform is needed to target the beneficiaries most in need, over time these subsidies have become a powerful symbol of the social contract and have helped to maintain public trust and social stability. Maintaining the momentum of reforms has proven particularly challenging, as food subsidies are often used to mitigate the impacts of food price shocks and economic crises. This underlines the importance of identifying feasible reform pathways that balance trade-offs between fiscal sustainability, social protection, and public acceptance.

Egypt's successful experience implementing the Takaful and Karama cash transfer programmes demonstrates that cash transfers tend to be more effective than in-kind support in targeting beneficiaries and reducing poverty. While expenditures on these programmes have increased considerably in recent years, cash transfers still represent a relatively small share – just 6% – of total public expenditures on *subsidies, grants and social benefits*.

Further efforts are needed to diversify diets and address Egypt's nutritional challenges

While Egypt's food subsidies have had some success in preventing rapid increases in poverty during times of crisis, they have been far less effective in addressing the double burden of malnutrition. Evidence suggests that the current system influences dietary patterns by encouraging overconsumption of energy-dense foods, including *baladi* bread and subsidised cooking oil, sugar, and rice. These dietary patterns generate significant costs linked to food insecurity and malnutrition, as well as hidden health and environmental costs.

Egypt is taking some important steps to strengthen nutrition: the government reintroduced the National Flour Fortification Programme in March 2025, which had been discontinued in 2012 due to a lack of funding. The programme is implemented in partnership with the World Food Programme and aims to tackle high rates of anaemia among children and women. Egypt also operates a national school feeding programme, providing schoolchildren with fortified snacks such as date bars. However, the distribution is irregular, and the coverage of the programme remains limited.

School meals can be an effective lever for addressing child malnutrition. Both Chile and Japan provide useful examples of successful school feeding programmes. As a member of the School Meals Coalition, Egypt can also benefit from the experiences documented in national school meals case studies developed by the Research Consortium for School Health and Nutrition.

Addressing water scarcity and improving natural resource management is critical

Agricultural production is highly concentrated along the Nile Valley and Delta, which account for just 4% of Egypt's territory but host around 95% of the population. Land and water availability per capita have been declining as a result of population growth, urbanisation, and high population densities generating increased competition for scarce resources. Per capita water availability has fallen by nearly half since 1990 and is approaching 500 m³ per inhabitant per year, the threshold for absolute water scarcity.

Egypt faces significant agri-environmental challenges. Continued population growth, rising incomes and dietary shifts will place additional pressure on natural resources, while climate change and upstream developments in the Nile Basin could exacerbate water resource pressures. Furthermore, market price support policies often target water-intensive crops and do not help to induce required changes in crop patterns, while excessive application of nitrogen fertilisers is causing nutrient imbalances and resulting in soil and water pollution.

Current strategies focus on water supply and irrigation infrastructure development

Irrigation is a cornerstone of the development plans for Egyptian agriculture and of national agricultural policy programmes. The Ministry of Water Resources and Irrigation (MWRI) has developed several long-term strategies for water resource management, including the Second National Water Resources Plan 2017-2037, and the Water Resources Development and Management Strategy until 2050 (published in 2017). Water User Associations (WUAs) also play an important role in ensuring the effective operation and management of irrigation infrastructure and drainage systems.

The current policy approach to support the agricultural sector as a whole (i.e. support for General Services) involves a heavy emphasis on investments in irrigation infrastructure and developing supply-driven technical solutions such as modern irrigation technologies, wastewater treatment and reuse, and improving the efficiency of water distribution. However, evidence suggests that irrigation efficiency improvements can – somewhat paradoxically – be associated with increased water consumption and demand, as farmers switch to more water-intensive crops and more efficient irrigation infrastructure limits return flows to the environment. This suggests there is scope to develop alternative market-based, regulatory and voluntary mechanisms to manage water demand.

Fertiliser subsidies are substantial, and high use of fertiliser and pesticides contribute to soil and water pollution

The government indirectly subsidises the production of fertilisers by providing discounted natural gas to fertiliser manufacturers and requiring them to allocate 55% of their production to MALR, which then sells the fertilisers to farmers at a below-market subsidised price. Fertilisers are targeted to producers of strategic crops – especially wheat farmers – with land holdings of up to 25 feddan (10.5 ha). Overall, budgetary expenditures for inputs, investment or credit on the farm amount to 1% of gross farm receipts.

Evidence suggests that fertiliser subsidies may be contributing to overapplication of fertilisers in Egypt, causing higher nutrient surpluses and negative consequences for soil and water pollution. In particular, the excessive application of nitrogen fertilisers combined with the reuse of agricultural drainage and wastewater affects soil quality, while large nutrient surpluses pose risks to water quality.

Despite a strong legislative framework covering the registration, handling and use of pesticides, there are several gaps in the implementation of pesticide regulations. The expansion of pesticide usage poses risks to human health and water quality. Reducing application rates could result in improved food safety outcomes as well as improved market access for exports.

A complex institutional landscape creates challenges for policy co-ordination and implementation

Agricultural and food policies are managed by a diverse range of ministries and government agencies. MALR is the main ministry overseeing the agricultural sector, and its responsibilities include fertiliser subsidies, credit programmes, agricultural R&D, extension services, and land reclamation projects. However, other ministries are also active in the agriculture and food sectors. MoSIT administers the food subsidy system, oversees procurement of domestic wheat by the GASC, and manages the government-owned silos and grain storage infrastructure. MWRI is responsible for developing and maintaining irrigation infrastructure, while MPEDIC oversees rural development initiatives and implements the Decent Life (Haya Karima) initiative. The Ministry of Investment and Foreign Trade (MIFT) is responsible for formulating and implementing trade measures. In addition, numerous state- and military-owned enterprises operate across the entire agriculture and food value chain with the aim of regulating the market and controlling food price inflation, generating significant impacts on the competitive landscape and business environment.

The large range of government ministries and the proliferation of strategic documents, sometimes with overlapping responsibilities and objectives, inevitably creates challenges for policy co-ordination. Some preliminary steps have been taken to strengthen inter-ministerial co-ordination on agricultural and food policy, including through the establishment of a National Committee for Food and Nutrition Systems under the Prime Minister's office in 2023. Nonetheless, substantial challenges for the co-ordination and implementation of Egypt's agricultural and food policies remain.

While some progress has been made, current support policies represent a high burden for the economy and are not well targeted towards improving food security, nutrition, or environmental sustainability

Egypt is confronting profound challenges in terms of food insecurity, malnutrition, and threats to soil and water resources. These are appropriately identified as priorities under Egypt's strategic programmes, along with ambitious targets and policy measures to address them. However, the current policy approach is not well targeted to address these challenges, and could be strengthened.

Some progress has been made, with support to Egyptian farmers falling to 10% of gross farm receipts in 2022-24, compared to 21% in 2000-02. The current %PSE is lower than the average for OECD Member countries (13%), but higher than the average for emerging economies (7%). That said, agricultural support policies place a significant burden on Egypt's economy, amounting to 2.8% of GDP in 2022-24. This comes from a combination of producer support (fertiliser subsidies and market price support for staple crops), general services for the sector (primarily expenditures on R&D and irrigation infrastructure), and consumer support (food subsidies).

The OECD's Producer Support Estimate (PSE) methodology can shed light on the distribution of support across different commodities and the range of policies and programmes implemented by various government ministries and agencies. However, limited data and information on budgetary expenditures and transfers from SOEs constrains the capacity to analyse agricultural policies and hinders transparency. Continued engagement with the OECD, including through its annual Agricultural Policy Monitoring and Evaluation exercise, can help to address these data gaps and ensure greater transparency to better inform policy development in Egypt.

Policy recommendations

1. Strengthen food systems co-ordination to oversee policy interactions and facilitate reforms to meet multiple goals

The achievement of food systems objectives requires co-ordination across all relevant government ministries, agencies and other stakeholders. Given the complex institutional landscape in Egypt and the multiple goals pursued by food systems policies, strengthening policy co-ordination across the various actors involved in the agriculture and food sectors is essential to assess and manage trade-offs between competing policy tools and objectives, and effectively exploit potential synergies.

1.1. Commission an independent expert analysis of the role of government agencies, SOEs and MOEs in the agriculture and food value chain, and implement a strategy to reduce their interventions in markets

- [Short term] Commission a report on government interventions in the agriculture and food value chain to be undertaken by independent experts. The report could focus on identifying all government agencies, state-owned enterprises (SOEs) and military-owned enterprises (MOEs) that are active across different parts of the value chain, the type of measures and interventions undertaken by each of them, their sources of finance and the implications of their presence for market efficiency, private investment, and competition. The purpose of the report would be to bring clarity and transparency to the current policy environment to facilitate reform.

1.2. Develop a participatory approach to food systems policymaking, facilitating the transparent discussion of strategies, goals and policy tools

- [Short term] Embrace a food systems approach that oversees the interactions across different policy domains to achieve multiple objectives relating to food security, nutrition, incomes and livelihoods, and environmental sustainability. Actively facilitate a public debate on the different objectives and priorities for food systems, involving a broad range of stakeholders including farmers, co-operatives, government, industry, and consumers to better understand and define the priorities and policy interactions. Focus on a single strategic document for agriculture and food systems that help to have a common understanding of the challenges and trade-offs. Feasible reforms need to balance fiscal sustainability, social protection, and public acceptance, ensuring that no one is left behind, particularly during proposed reforms on food and fertiliser subsides (recommendation 5.2 and 6.4), while using the new policy levers provided by the expanded cash transfer programmes (recommendation 5.3).

1.3. Develop and implement a co-ordination mechanism to oversee food systems and monitor their performance

- [Medium and long term] Given the multiplicity of interventions from different ministries, government agencies, SOEs and MOEs, design an effective mechanism to clarify the role of each entity, define the limits of their interventions, and oversee the efficiency and direction of the entire policy package. Possible options include enhancing the capacity of the National Committee for Food and Nutrition Systems, or leveraging the MPEDIC as a co-ordinating Ministry to identify policy incoherences, propose reforms, and implement more efficient policy approaches to the sector. The development of new co-ordination mechanisms should be undertaken carefully to avoid an increasing number of institutional structures that expand bureaucracy.

2. Improve the availability, transparency and quality of data, particularly data on agricultural public expenditures and agri-environmental indicators

Improving the availability, quality and transparency of data, particularly relating to public expenditures and market interventions for agriculture, is essential to facilitate more informed and evidence-based policy analysis and design. Given the diversity of public actors intervening in input and output markets, it is urgent to enhance the quality of the data and ensure their transparent publication for public scrutiny. Data availability could also be strengthened for indicators on environmental performance and nutritional outcomes. Further engagement with international organisations can help to build institutional capacity and facilitate the adoption of best practices.

2.1. Ensure that information and data on annual public expenditures and transfers to SOEs and MOEs is publicly accessible for all investments and programmes that support agriculture

- [Short term] Building on the results of the report on government interventions in value chains (see recommendation 1.1), take action to improve the availability and quality of data and analysis to understand the net impact of policy efforts in place, avoid potential contradictions, and enhance synergies. Conduct further analysis and consultations to ensure there is a single source of sufficiently granular data on agricultural public expenditures through a common accounting system that can be used by all ministries, including information on fertiliser subsidies, concessional loans, land reclamation, irrigation infrastructure, extension and advisory services, research and innovation, and food subsidies.
- [Short term] Proactively promote the access to these data by experts from academia and international organisations, allowing them to analyse and learn about policy impacts and experiences. Facilitate the public diffusion and discussion of the results of this analysis. Commit to enhancing co-ordination across different ministries and agencies to improve and consolidate the available information on agricultural and food policies into a single source.
- [Short term] As part of the way forward, consideration could be given to building on the work conducted with the OECD with an enhanced commitment to further co-operate in the annual Agricultural Policy Monitoring and Evaluation exercise. This would be a concrete means of ensuring a continuous process of improvements to data and analysis, peer learning, and benchmarking of policy with other countries.

2.2. Strengthen the quality and availability of data processed by MALR and CAPMAS and reinforce their capacities to provide and publish high-quality statistics

- [Medium and long term] Strengthen the quality and availability of data processed and provided by MALR and CAPMAS, including data on public expenditures for agriculture. Leverage the resources of the Agricultural Research Centre to establish databases and facilitate policy discussion more proactively, promoting linkages between academia and policymaking.
- [Medium and long term] Improve the availability of agri-environmental indicators, including data on water quality and nutrient surpluses at the local level.

3. Progressively shift the focus of policy towards nutrition targets and innovation, while gradually reducing support for staple crops and the overall burden of agricultural support for the economy

There is an urgent need to reform government interventions in the agricultural sector, reducing market price support and other policies tied to the production of specific commodities in Egypt. Reforms should improve the sector's productivity and ability to respond to market signals to deliver food with the quality

and diversity that is required to meet nutrient intake requirements and prevent malnutrition, while enhancing resilience through more diversified trade relationships.

3.1. Reconsider national production goals and increasingly shift the focus of policy from self-sufficiency to food security and nutrition

- [Short term] Reconsider the need to set targets for production, cultivated area, and self-sufficiency ratios for individual agricultural commodities. Ensure that existing natural resource constraints, in particular relating to land and water, are taken into consideration when setting targets. Increasingly shift the focus of policy objectives beyond food availability and self-sufficiency, to improvements in dietary and nutritional outcomes (see recommendation 5).

3.2. Reform agricultural support, reducing market price support for staples and fertiliser subsidies, and reorienting budgetary support towards innovation

- [Medium and long term] Significantly reduce and redesign support measures that create inefficiencies in output markets and burden the economy, while reorienting budgetary support toward investments in R&D and innovation to boost productivity (see recommendation 4.1). Reducing the overall burden of support to the economy implies reducing interventions in input markets, in particular fertiliser subsidies (see recommendation 6.4) and reorienting food subsidies toward nutrition-positive investments (see recommendation 5).

3.3. Facilitate trade, reduce red tape and regulatory burdens at the border, and promote free trade agreements that could allow for greater trade diversification

- [Medium and long term] Pro-actively facilitate the free access to imports and exports of agricultural commodities and food products by private sector actors to let them respond to consumer needs and market demand, reducing the government's role in the process. Reduce tariffs and other border measures that hinder trade. Streamline and enhance the transparency of import licensing procedures for agricultural and food products to ensure that they are applied in a predictable, timely, and non-discriminatory manner. Refrain from restricting or banning imports and exports.
- [Medium and long term] Given the concentration of imports and the need to diversify trade partners, prioritise the promotion of more ambitious and diverse free trade agreements. The purpose would be the development of new markets for Egyptian exports of high value agri-food products, while diversifying the sources of imports of grains and other staples for which Egypt is likely to remain a large importer.

3.4. Maintain a relatively small and efficient strategic grain reserve that reduces costs and facilitates market responsiveness

- [Medium and long term] Maintain a small and manageable public strategic grains reserve, limiting the costs of public stockholding and reducing spillovers in agricultural markets. Ensure that grain reserves are only used to provide relief during crises and to mitigate supply chain disruptions, rather than controlling market prices. At the same time, facilitate private sector investments in the operation of grain storage infrastructure to enhance the capacity to respond to sudden changes in market conditions.

3.5. Strengthen the role of the private sector in agro-food markets and reduce inefficiencies created by market interventions from government agencies, SOEs and MOEs

- [Medium and long term] In line with the recommendation on government interventions the agriculture and food value chain (see recommendation 1.1), reform and liberalise the input, output

and food distribution markets, allowing first-stage buyers to benefit from more competitive market prices, and increasing responsiveness to consumer demand. Building on the recent regulation on tax and fee exemptions for SOEs, leverage the recently created SOE unit under the Prime Minister's Office to undertake relevant reforms in relation to SOEs and MOEs, ensuring greater transparency around their activities, including their ownership structure, subsidiaries and affiliates, and access to financing and government benefits. Ensure that SOEs are on a level playing field with the private sector, both in terms of taxation and non-tax benefits such as access to land.

- [Medium and long term] Leverage the experience of OECD countries to reform and limit the role and market power of SOEs and MOEs, while facilitating private investment. Reform the GASC and gradually phase out minimum guaranteed prices and domestic procurement programmes, reorienting funds to support those most in need of assistance. Progressively reduce the role of Mostakbal Misr Agency for Sustainable Development in importing strategic commodities, as well as the involvement of the Holding Company for Food Industries and National Service Projects Organisation in the agriculture and food value chain.

4. Enhance the Agricultural Knowledge and Innovation System as the main tool to support production by improving sustainable productivity

Shift the focus of agricultural policies from production to productivity, by reorienting support from incentives to produce or use specific commodities or inputs, to supporting farmers to find innovative and sustainable solutions that are adapted to local realities.

4.1. Invest in the network of actors to facilitate knowledge transfer between government, industry, research and extension services, and farmers

- [Short term] Strengthen the extension and advisory services provided by MALR, merging them with the irrigation advisory services delivered by MWRI, and refocusing advice towards entrepreneurship, sustainable productivity and digital technologies. Use the extension services to support the creation of partnerships between farmers, researchers and other stakeholders with common interests to facilitate the flow of knowledge and the participation of farmers in the creation and adoption of innovations. Promote the active role of co-operatives, farmers organisations and WUAs in co-creating innovative solutions to improve productivity and reduce water consumption.
- [Short term] Promote the internationalisation of Egypt's R&D institutions, including the Agricultural Research Centre, Desert Research Centre and National Water Research Centre. Strengthen co-operation and build partnerships with agricultural innovation systems across the MENA region and in OECD Member countries.

5. Reform the food subsidy system to target those most in need, improve nutritional outcomes, and reduce the fiscal burden

Reforming Egypt's food subsidies is both complex and particularly challenging. Given Egypt's specific economic and social context, reforms should be undertaken gradually with clearly communicated timelines, and transitional social assistance should be provided to ensure that the poorest and most vulnerable segments of the population are not negatively affected. That said, progress is needed: reducing the fiscal burden of food subsidies is essential to free up the resources needed for nutrition-positive investments and to support the transition towards healthier diets.

5.1. Develop and implement a transparent and participatory approach for a far-reaching food subsidy reform

- [Short term] Leverage Egypt's past experiences with food subsidy reform to improve transparency and strengthen oversight and accountability mechanisms in the food subsidy system. Design and implement real-time tracking, third-party audits and community feedback channels to enhance trust in the system. Develop a process for continuous monitoring and assessment of the costs and performance of the food subsidy system.
- [Short term] Develop a participatory approach to account for different and conflicting needs and expectations of stakeholders, and to build social consensus around the reform. A communication strategy would be important to explain the rationale and benefits of the reform, focusing on potential improvements to public health and nutritional outcomes.

5.2. Design targeted food subsidies that benefit the most vulnerable

- [Short term] Develop the capacity to identify poor households (e.g. the lowest quartile of the population in the income distribution), and re-design food subsidies to reach the most vulnerable segments of the population. Learn from other countries' experiences, such as Indonesia's BPNT programme, and develop a unified social registry and strengthen the use of proxy means testing to more effectively identify and target vulnerable households. In particular, a modernised beneficiary identification and delivery system could facilitate targeting using assets and income data, national ID systems, and other socio-economic indicators. The United States' Special Supplemental Nutrition Programme for Women, Infants and Children (WIC) also provides a useful example for targeting support to low-income vulnerable populations at risk of malnutrition.

5.3. Gradually target food subsidies to a smaller share of the population, while scaling up cash transfers to the most vulnerable segments of the population

- [Medium and long term] Improvements in the targeting of food subsidies could be undertaken in three steps. First, implement a pilot programme in a selected number of governorates, using proxy means testing to identify beneficiaries and electronic cards to transfer the subsidy. Second, assess the results using surveys to understand the extent to which the programme is reaching the most vulnerable segments of the population. Finally, redesign the targeting method in response to the results and implement it across the whole country.
- [Medium and long term] Scale up the Takaful and Karama cash transfer programmes, which have been successful in reaching the poorest households. Greater use of cash transfers will help poor households in the transition to targeted food subsidies and allow them further flexibility in their food choices, while reducing the inefficiencies and leakages associated with commodity-based systems. Leverage digital solutions such as smart cards or mobile payments to reduce administrative costs and enhance transparency.

5.4. Reduce subsidies for bread, sugar, cooking oil and other energy-dense foods in favour of a wider variety of micronutrient-rich foods

- [Medium and long term] Phase out administered prices for subsidised foods and allow them to vary with market prices to reduce distortions and fiscal pressures. Progressively transition the *baladi* bread subsidy from an in-kind subsidy to an electronic voucher-based programme included as part of the ration card programme.
- [Medium and long term] Use the food subsidy scheme to facilitate healthier nutrition choices. Reduce subsidies allocated to *baladi* bread and other energy-dense foods such as sugar, cooking

oil and rice. In parallel, increase the share of subsidies for fruits and vegetables in the ration card programme, along with other micronutrient-rich foods that are important for child nutrition.

5.5. Design low-cost nutritious meals, enhance the school meals programme, and promote nutritional education

- [Medium and long term] Invest in the design of low-cost nutritious meals to be offered in schools, in collaboration with the School Meals Coalition and national organisations such as the National Nutrition Institute. Healthy meals can be targeted to children at schools in underprivileged areas as well as to low-income households, learning from the example of Chile's school meals programme.
- [Medium and long term] Develop new policy initiatives on child nutrition and education by expanding the school feeding programme, and providing a broader variety of nutritious foods to school children. Nutrition education initiatives should be brought to schools to build knowledge and awareness about nutritious diets among the new generations. The example of Japan's *Shokuiku* initiative to integrate school lunches and nutritional education into the school curriculum could be a reference.

6. Strengthen the sustainable management of Egypt's natural resources for agriculture, developing policies to reduce water demand and fertiliser use

Addressing water scarcity, land degradation, and the pollution of soil and water resources is essential to the long-term sustainability and resilience of Egypt's agricultural sector. Priority areas for reform include water management, and reforming fertiliser subsidies that damage soil and water quality.

6.1. Improve coherence between water management strategies and broader strategic documents

- [Short term] Ensure that sectoral water-related strategies such as the Water Resources Development and Management Strategy until 2050 and the Second National Water Resources Plan 2017-2037 are updated to align with objectives and targets in broader strategic documents (e.g. 2030 Updated Sustainable Agriculture Development Strategy, Egypt's Vision 2030). Long-term strategic documents should be easily available for public discussion and co-ordination among stakeholders, and for the scrutiny and analysis of experts.

6.2. Pursue policies that rationalise water use, improving soil moisture conservation, and ensuring the environmental sustainability of land reclamation

- [Short term] Continue work on canal rehabilitation and support the diffusion of efficient irrigation systems in old lands as a priority measure to reduce water losses.
- [Short term] Conduct robust environmental assessments for newly reclaimed agricultural areas from desert land to ensure long-term sustainability and improve climate resilience.
- [Medium and long term] Develop soil moisture conservation techniques, including through the use of on-farm soil moisture sensors. Establish high-resolution soil moisture maps with remote sensing technologies to identify water-stressed areas and optimise irrigation scheduling. Promote the development of online irrigation advisory services, drawing from the example of Italy's IRRINET.
- [Medium and long term] Strengthen the capacity of WUAs, ensuring they have sufficient funding and resources to implement participatory integrated water resource management and more effectively manage water demand.

6.3. Step up enforcement of pesticides regulations, closing existing implementation gaps

- [Short term] Step up enforcement of laws and regulations relating to pesticide usage and increase training of certified pesticide applicators, to reduce the risk of counterfeit pesticide usage.
- [Short term] Further disseminate best practices on pesticide application, and strengthen extension and advisory services to help farmers adopt integrated pest management practices and reduce demand for pesticides.

6.4. Reduce the subsidies to fertilisers and reorient budgetary support to investments in the Agricultural Knowledge and Innovation System

- [Medium and long term] Fully reflect the cost of fertiliser subsidies in national budgets and track the quantities of subsidised fertiliser provided to farmers. Gradually reduce the existing fertiliser subsidies along with implicit support to the fertiliser industry, ensuring that application rates do not exceed the recommended quantities per feddan set by MALR.
- [Medium and long term] Redirect the savings from reformed fertiliser subsidies to support investments in agricultural R&D and innovation, incentivise the adoption of more environmentally sustainable farming practices, and ensure that the most vulnerable farmers affected by the reforms are eligible for temporary transitional assistance (e.g. through the cash transfer programmes).
- [Medium and long term] Encourage farmers to reduce fertiliser usage to levels in line with crop-specific technical recommendations, and improve nitrogen use efficiency rates. Promote site-specific fertilisation strategies, encourage more diverse application of different fertilisers, and focus extension and advisory services on best practices in fertiliser application.

6.5. Develop market-based, regulatory and voluntary mechanisms to manage water demand

- [Medium and long term] In the absence of water pricing, develop alternative approaches to reflect explicitly or implicitly the value and scarcity of water used in agriculture. Increase the coverage of accurate water measurement and monitoring infrastructure, including irrigation metering for branch canals and *mesqa* (tertiary canals), and, when possible, on-farm metering of water consumption.
- [Medium and long term] Consider providing incentives for farmers to plant varieties with shorter crop cycles or varieties that are less water-intensive and more tolerant to salinity. These could be combined with regulatory measures such as zoning regulations to restrict the planting of water-intensive crops.
- [Medium and long term] Consider introducing performance-based incentives for water savings at the level of WUAs. The distribution of water allocations to WUAs could be combined with financial incentives to reward farmers or WUAs for efficient water use, which are linked to verified reductions in total water withdrawals. Water savings could be verified through a combination of remote sensing, flow measurements, and periodic field inspections.

1 The agricultural policy context in Egypt

With a fast-growing population concentrated along the Nile Valley and Delta, agricultural production in Egypt is largely dependent on irrigation from the Nile River. Egypt is particularly exposed to the consequences of climate change with rising sea levels in the Delta as well as increasing temperatures and extreme weather events. Although Egypt's share of area dedicated to cultivated land is among the lowest in the world, agricultural production still contributes 13.7% to GDP and employs around one-fifth of the population. Egypt's agro-food trade balance is in deficit, with reliance on staple food imports from a relatively limited number of partners. While agricultural productivity has been increasing, the rate of growth has not yet been sufficient to close existing productivity gaps.

Key messages

- Egypt is a vast country with a fast-growing population of 116.5 million that is projected to reach 160 million in 2050. The population remains highly concentrated along the Nile Valley and Delta.
- The Nile represents the main freshwater source for Egypt, but the water supply is increasingly at risk due to population growth, urbanisation, and increasing levels of pollution. Climate change is also increasing the sea levels in the Nile Delta, threatening the main agricultural production area in the country.
- Agricultural production contributes to 13.7% of Egypt's gross domestic product (GDP) and 19% of employment, although these shares are declining. Common among OECD and non-OECD countries, this agricultural sector decline reflects the higher relative growth of other sectors in the economy including services, as the economy develops.
- Egypt's agro-food imports have been systematically higher than exports and the agro-food trade deficit reached USD 9 billion in 2024. Egypt is highly dependent on imports of staple commodities like cereals and vegetable oils from a limited number of trade partners.
- Agriculture's Total Factor Productivity (TFP) has known a stable but moderate 1.5% annual growth over the past decade, mostly driven by input reduction. Egypt's agricultural labour productivity has grown and has slowly caught up with other industries. Still, innovation-led productivity growth is currently the main source of output growth in Egypt's agricultural sector.

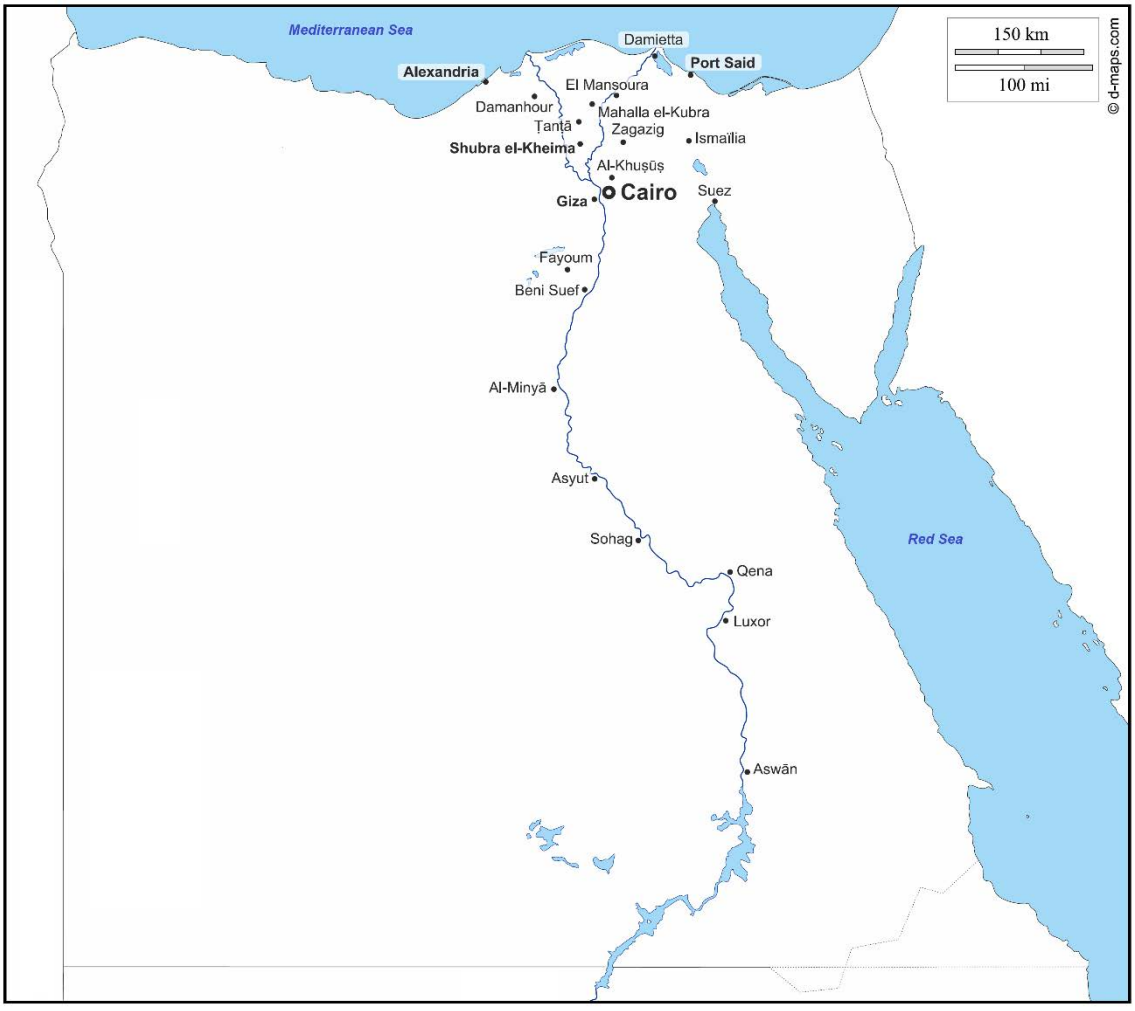
1.1. The geography, population and economic context

A vast country shaped by the Nile

With a total of 116.5 million inhabitants in 2024, Egypt is the third most populous country in Africa. Egypt lies in the northeastern corner of the African continent and has a total surface area of 1 001 450 km^2 (Figure 1.1). Its territory spreads over 1 024 km from north to south and 1 240 km from east to west, while its coastline extends for more than 2 900 km along the Mediterranean Sea, the Gulf of Suez, the Gulf of Aqaba, and the Red Sea. A vast desert plateau occupies much of the Egyptian terrain, interrupted by the Nile Valley and Delta which account for just 4% of the country's surface but host around 95% of the population. The topography ranges from 133 m below mean sea level in the Qattara Depression in the north-west of the country, to 2 629 m above sea level at Mount Catherine in the Sinai Peninsula.

The Nile represents the main fresh water source for Egypt with an annual flow of 55.5 billion cubic metres (BCM) (MoE, 2024[1]). Other sources of fresh water in Egypt comprise of groundwater aquifers, reusing agricultural drainage and treated wastewater, rainfall, and desalination which collectively provide an additional 20 BCM per year (MoE, 2019[2]). However, Egypt is facing significant challenges to its water supply driven by a growing population, climate change risks, and increasing levels of pollution. Additionally, Egypt is increasingly vulnerable to changes in upstream conditions and perceives the newly constructed Grand Ethiopian Renaissance Dam (GERD) as a threat to its water supply. There is a possibility that during years with low water levels or prolonged drought, upstream water abstractions will impact Egypt's water supply.

Figure 1.1. Map of Egypt



Source: OECD (https://www.d-maps.com/).

Political and administrative system

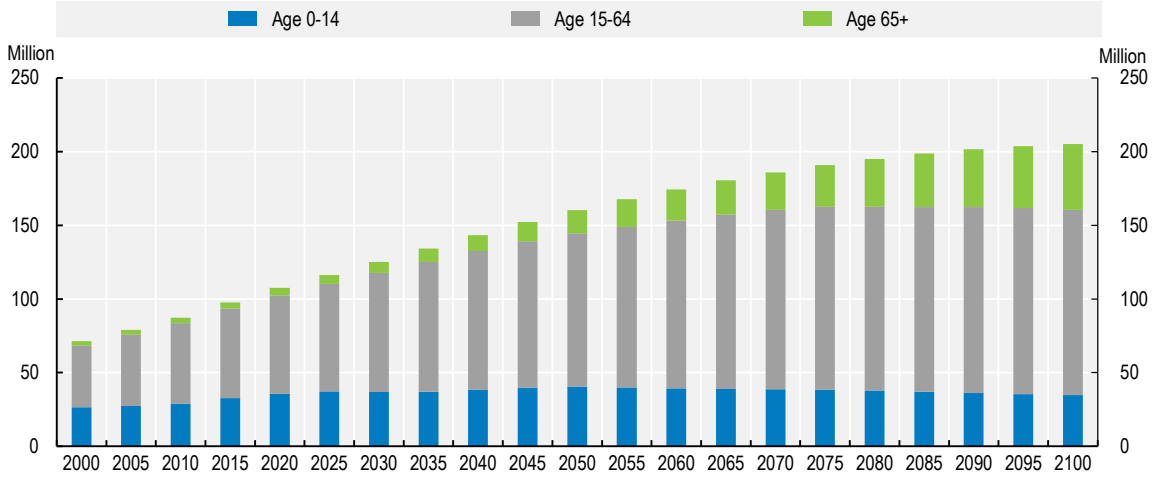
The Egyptian constitution separates the levels of government into three main branches: executive, legislative and judiciary. The executive branch is composed of the President of the Republic as the head of state, and the Prime Minister responsible for forming and overseeing the Egyptian Cabinet that shapes the agenda of the government. The legislative branch consists of a bicameral Parliament composed of the House of Representatives (*Maglis El Nowwab*), and the Senate (Consultative Council, or *Maglis El-Shura*). The judiciary is an independent branch of the Egyptian government which includes both secular and religious courts. The Supreme Constitutional Court is the highest judicial power. Each type of court has its own budget that is approved by the House of Representatives (SIS, 2025[3]).

For the purpose of public administration and regional development, Egypt is divided into 27 governorates, including urban (4 governorates) and rural/urban (23 governorates) regions. The governorates are grouped into seven economic regions primarily for the purposes of economic and physical planning. Each governorate is administered by a governor, who is appointed by the President of Egypt. Governors hold the rank of Minister and report directly to the Prime Minister, who chairs the Council of Governors and convenes regular meetings. The Ministry of Local Development is responsible for co-ordinating the governors and managing their governorates' budgets.

Population growth remains high

The Egyptian population is expanding quickly, with the five-year average growth rate standing at 1.6%. Despite falling from 2.3% in 2014 to 1.7% in 2024, Egypt's population growth rate is higher than the world average of 1.0% (World Bank, 2025[4]). The working age population is expected to expand and reach 104 million in 2050 and 126 million in 2100, according to United Nations projections (Figure 1.2).

Figure 1.2. Projected population by broad age groups



Source: UN DESA, (2022[5]), World Population Prospects, https://www.un.org/development/desa/pd/sites/www.un.org.development.desa.pd/files/wpp2022_summary_of_results.pdf.

StatLink https://stat.link/qoedu7

Adverse climatic conditions and water scarcity

An arid country with limited rainfall

Most of Egypt's land mass is arid desert and the climate is hot and dry, with limited rainfall. The dry summer season starts in May and ends in September. In addition, Egypt is exposed to strong hot windstorms called *Khamsin* which usually occur between March and May. These storms have severe consequences since they can increase the temperature by an extra 20°C and are dominated by dust. The volume of annual precipitation varies across Egypt as most of the rainfall takes place along the Mediterranean Sea, whereas the south of Egypt is typically characterised by very limited rainfall.

Temperatures and precipitation rates in Egypt have changed significantly. Between 1901 and 2013, average temperatures in Egypt rose by approximately 0.1°C per decade (World Bank, 2021[6]). On the other hand, the volume of rainfall in Egypt has fallen by 22% over the last 30 years. For the future climate outlook, temperatures are expected to continue to rise throughout the century and the precipitation rate is forecast to decrease further causing longer dry spells and higher evaporation rates.

Climate change is causing increases in sea level and extreme weather events, impacting agriculture

Some 15% of Egypt's population live in the coastal zones in the Mediterranean and the Red Sea, areas that are rich in biodiversity and valuable mineral resources and facilitate maritime transportation and trade. However, climate change poses a high risk to these coastal zones, in particular sea level rise and the

frequency and severity of extreme weather events. The country is highly susceptible to the impacts of global warming and has a high level of risk to natural disasters.

The Nile Delta is considered one of the world's three extreme vulnerable mega-deltas directly affected by climate change by 2050 (GoE, 2023[7]). The Nile Delta faces several risks including erosion, seawater intrusion and flooding, as more than 30% of the Delta is located in a lowland area (defined as levels lower than 2 metres above sea level). These consequences are expected to impact Egypt's agricultural sector, and pose a risk to the low-lying areas of the Nile Delta, through soil erosion and the water logging of crops which will impact soil quality, crop yields and reduce arable land (World Bank, 2021[6]). As over half of Egypt's food production is from agricultural land located in the Nile Delta, it is a crucial region for food security in Egypt.

Growth has weakened amidst economic challenges

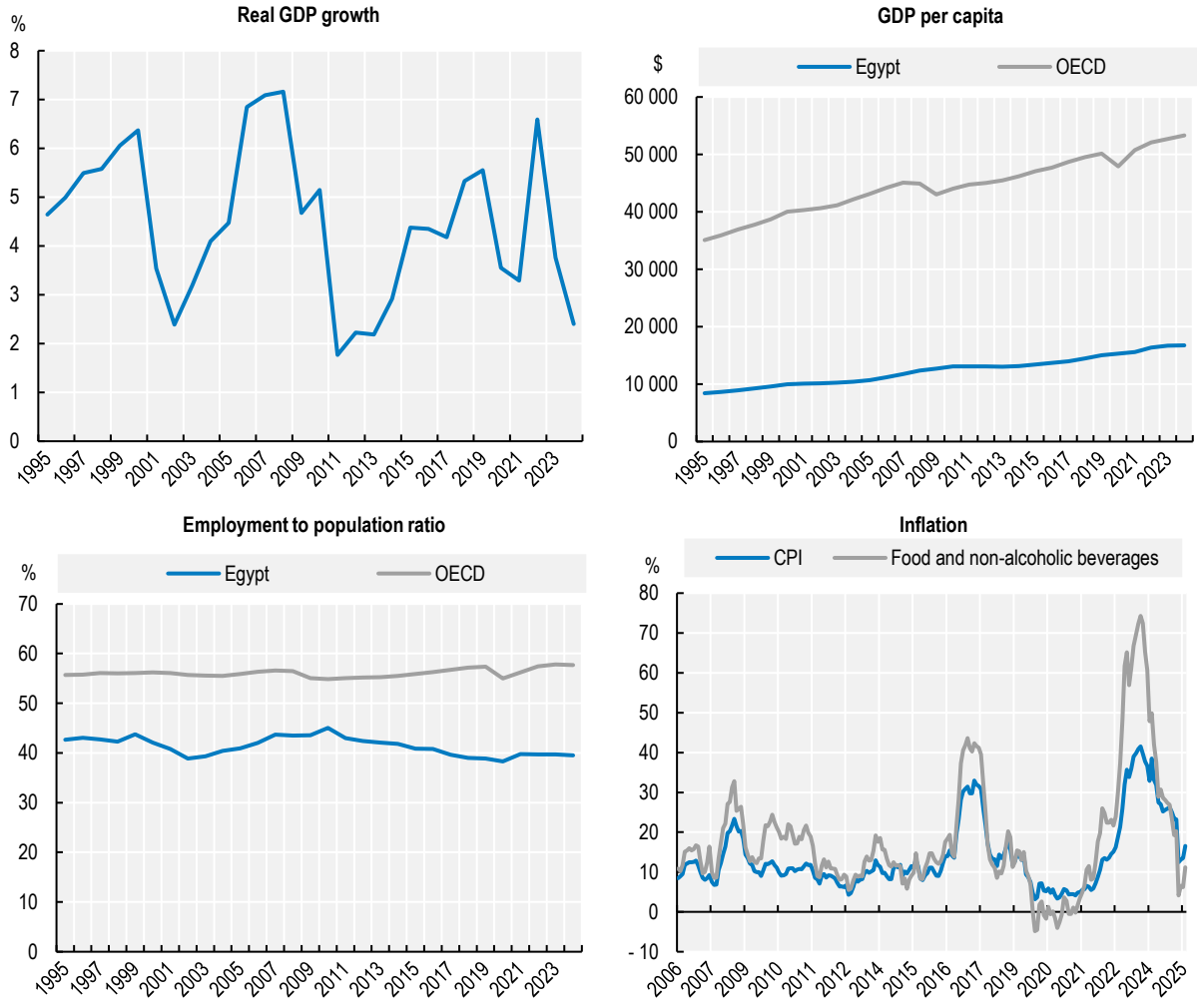
Despite fluctuating GDP growth in Egypt over the past three decades, the country is currently the second largest economy in Africa with nominal GDP representing USD 383.1 billion in 2024, lagging closely behind South Africa (USD 401.1 billion) (IMF, 2024[8]).

Over the last three decades Egypt's GDP per capita (in purchasing power parity PPP terms) has grown at a faster rate compared to many OECD and neighbouring countries. In 2024, Egypt had a GDP per capita based on purchasing power parity (PPP) of nearly USD 17 000. This is around one-third of the OECD average and below the average of neighbouring countries in the region (OECD, 2024[9]). In percentage terms, Egypt's GDP per capita has increased at an average rate of 2.4% per year since 1995, faster than the OECD average of 1.5% (Figure 1.3), yet slower than many other emerging economies.

Economic growth in Egypt has been impacted by numerous economic events and macroeconomic conditions have fluctuated over the last three decades (OECD, 2024[9]). In particular, the global financial crisis and the COVID-19 pandemic, as well as political events such as the Egyptian revolution in 2011, have weighed on the economy. However, growth has held up better in Egypt until recently than in neighbouring countries in the face of a series of major exogenous shocks. The government's timely response to the COVID-19 pandemic resulted in a rebound in investment and exports, which recovered to pre-crisis levels within a few quarters. More recently, economic growth slowed in 2022 as inflation surged following the beginning of the war in Ukraine and massive capital outflows have led to foreign currency shortages and devaluations of the Egyptian Pound (OECD, 2024[9]). The performance of Egypt's economy has been lagging due to high poverty rates, low female labour force participation rates, and high youth unemployment (World Bank, 2025[10]; World Bank, 2025[11]; Jin and Hofer, 2024[12]). In September 2025, Egypt launched the National Narrative for Economic Development, focused on directing investments towards productive sectors and the role of the private sector (GoE, 2025[13]).

Inflation in Egypt has been particularly volatile and elevated over the past decade due to both high food prices and depreciation of the currency. Inflation spiked to more than 30% in 2017, coinciding in time with the devaluation of the Egyptian Pound, and then fell to single-digit rates in 2020-21 (Figure 1.3). Throughout 2022 and 2023 inflation in Egypt remained elevated due to the rise in global food prices aggravated by supply chain uncertainty and price rises in international markets as a result of the war in Ukraine. Over the first three months of 2023 core food items accounted for approximately three-quarters of the rise in headline inflation on average, according to Central Bank estimates (OECD, 2024[9]). More recently inflation has fallen significantly from its peak exceeding 40% p.a. in 2023, with data from the Egypt Central Bank reporting headline inflation at 14.9% p.a. as of June 2025 (CBE, 2025[14]).

Figure 1.3. Selected macroeconomic indicators



Note: GDP per capita based on purchasing power parity (PPP) in constant 2021 international dollars.
Source: World Bank (2025), World Development Indicators, https://databank.worldbank.org/. Inflation data is from the Central Bank of Egypt.

StatLink https://stat.link/ferl9j

Egypt's economy is characterised by a large public sector and the predominance of the informal economy. The public sector represents on average an estimated 22% to 26% of total employment in Egypt (OECD, 2024[15]). This is partly attributed to the employment guarantee scheme, dating back to 1962, that guaranteed university graduates a job opportunity in the public sector (Ikram, 2006[16]). The scheme was later phased out in the 1990s as growth in the government labour force became unsustainable, however, the consequences persist to this day. Most notably, the government faces large near-term financing needs and commitment to fiscal consolidation is key, as is improving public financial management (OECD, 2024[9]). The informal economy continued growing to the extent that it represented more than 50% of Egypt's economy in 2019, and as of 2024 represents 67% of all workers (Egypt Today, 2019[17]) (ILO, 2025[18]). However, rates of informal employment vary considerably by sector, with informal employment within the agricultural sector reaching 97% in 2025 (ILO, 2025[18]).

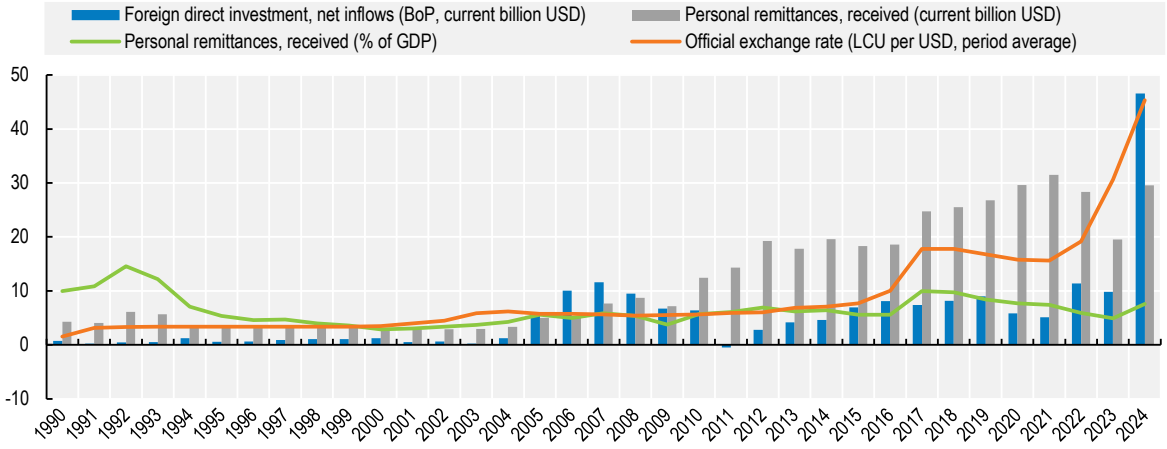
Egypt has run a current account deficit since the late 2000s, but the current account balance has recently improved with an increase in remittances which reached a record of USD 36.5 billion in FY 2024/25 (CBE,

2025[19]). Remittances received by Egypt averaged more than 5% of GDP over the past two decades, almost fully offsetting the trade deficit over the same period (OECD, 2024[9]). Only two neighbouring countries, Jordan and Morocco, received a larger contribution of remittances as a share of total GDP. However, the inflow of remittances relative to GDP has not always been increasing; it peaked at approximately 10% of GDP in 2017 and then decreased to approximately 5% in 2023 (Figure 1.4).

Egypt has historically attracted the largest amount of foreign direct investment in Africa, although the proportion of stock inflows as a share of GDP remains low (OECD, 2024[9]). These capital inflows have increased from 1990 and, although volatile, have been significant in Egypt. For example, in 2022 FDI inflows more than doubled to USD 11 billion due to a rise in cross-border merger and acquisition sales (UNCTAD, 2023[20]). The World Investment Report reported that Egypt recorded a 30% increase in the value of greenfield investment projects and an increase in FDI inflows to USD 47 billion in 2024, largely driven by the Ras El-Hekma Development Project (UNCTAD, 2025[21]).

The Central Bank of Egypt (CBE) continues to operate a managed exchange rate regime based on interventions in foreign exchange markets when exposed to shocks including COVID-19 and the war in Ukraine (OECD, 2024[9]). In 2022, the CBE intervened to devalue the exchange rate in steps resulting in a loss of half the value of the Egyptian Pound (EGP) against the US dollar by March 2023 (Figure 1.4). The currency depreciated substantially in early 2024, when the CBE took steps to move towards a more market-determined system. The currency has fluctuated within a very limited range since then.

Figure 1.4. Remittances and capital flows, 1990-2024



Source: World Bank (2025), World Development Indicators, https://databank.worldbank.org/.

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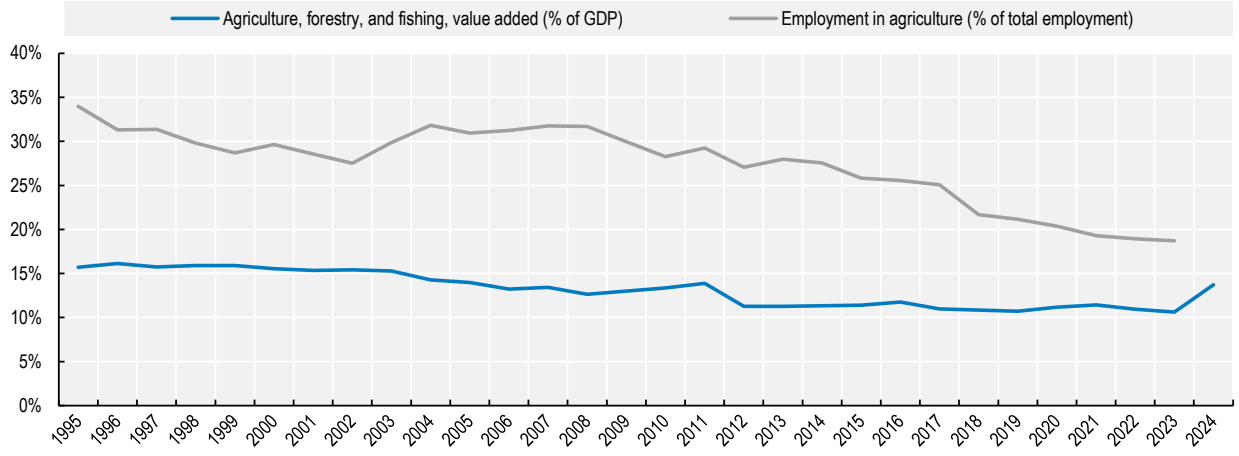
Until recently, Egypt has met its energy demands through the usage of natural gas, petroleum, hydropower, coal, and wind and solar power. However, rising energy demand, also driven by substantial energy subsidies, is placing stress on Egypt's energy sector. Energy subsidies have been significantly reduced over the past decade but were increased again following the rise in global energy prices. In addition to the increased demand, there was also a notable decrease in the production of petroleum products in the last three decades while natural gas production has increased (OECD, 2024[9]).

1.2. Agriculture in the Egyptian economy

The share of agriculture in employment and GDP is high but declining

Agriculture remains one of the most important sectors in Egypt and contributes large shares to both GDP and employment. However, similar to developments in other countries, agriculture's share in GDP has been in a steady decline, from 15.7% of GDP in 1995 to 10.6% in 2023, according to World Bank data (Figure 1.5). In 2024, agriculture's share in GDP has risen to 13.7%. Similarly, the share of employment in agriculture has been declining, from 35% in 1995 to 19% in 2023. These shares differ across regions; Upper Egypt governorates tend to employ more labour in agriculture while Lower Egypt governorates tend to result in a higher share of the GDP coming from the sector (Kassim et al., 2018[22]).

Figure 1.5. Agriculture's share in GDP and employment in Egypt, 1995-2024



Source: World Bank (2025[10]); World Development Indicators, https://databank.worldbank.org/.

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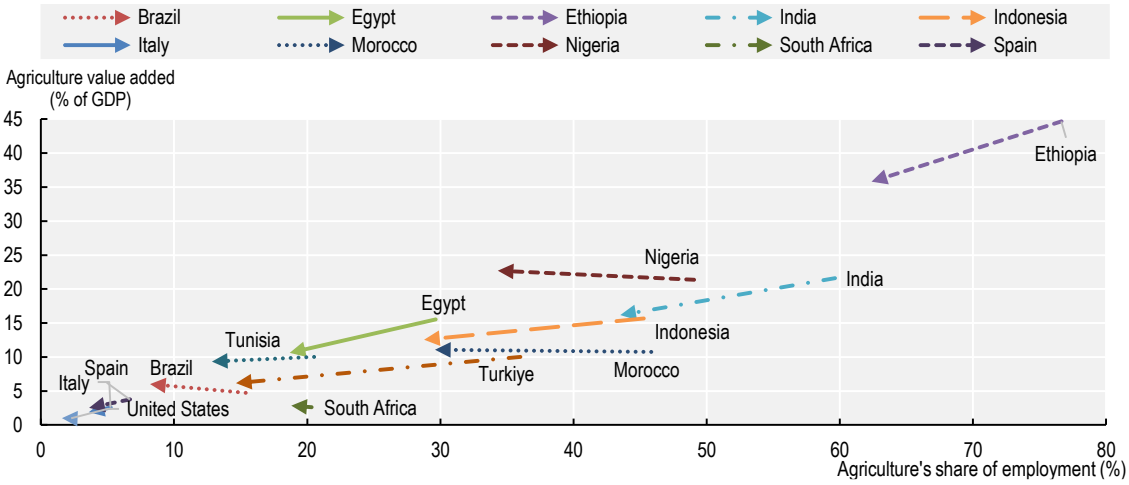
The evolution of agriculture's share in GDP in Egypt reflects the experience of neighbouring countries in the region, with agriculture's share in employment and in GDP both in steady decline. Figure 1.6 highlights the change over time of the importance of agriculture in different economies: Middle East and North Africa (MENA) countries, emerging countries and OECD Members. The same direction of change towards lower shares of agriculture in Egypt from 2000 to 2020, also took place in India, Italy, Ethiopia, Spain and Türkiye. All these countries faced a decrease in both the share of agriculture, forestry, and fishing to their GDP and a decrease in the labour dedicated to agriculture. This pattern is frequent among all countries experiencing growth and development, typically reflected in higher growth rates in manufacturing and services.

Figure 1.6. Evolution of agriculture's share in GDP and in employment in selected countries, 2000-2023



Note: Agriculture value added includes the primary sector (i.e. forestry, hunting, and fishing).
Source: World Bank (2024), World Development Indicators, https://databank.worldbank.org/.

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Farm structures are diverse

According to Scheltinga et al. (2022[23]), there are three production systems in Egypt: traditional, transitional and modern or high-tech. The traditional food system primarily consists of smallholder farmers, constituting the majority of the farming population, with farms between 1 to 3 feddan (0.4 to 1.3 hectares) in area constituting 62% of the farming population as of 2018. Within this traditional system, the individuals who produce the food are essentially the same individuals who consume it. Accordingly, agricultural production primarily caters to personal and family consumption, as the land holdings are too modest to support commercial crop cultivation. These farmers typically rear their livestock for milk and meat, and cultivate crops like wheat, vegetables, and maize for household consumption.

Individuals within the transitional food production system, on the other hand, are typically farmers with relatively higher incomes, making up approximately 24% of Egypt's total population of farmers. These farms range in size from 3 to 20 feddan (1.3 to 8.4 hectares) and their farmers cultivate food not only for their own consumption, but they also have good access to domestic markets through intermediaries, facilitating food trading (Scheltinga et al., 2022[23]).

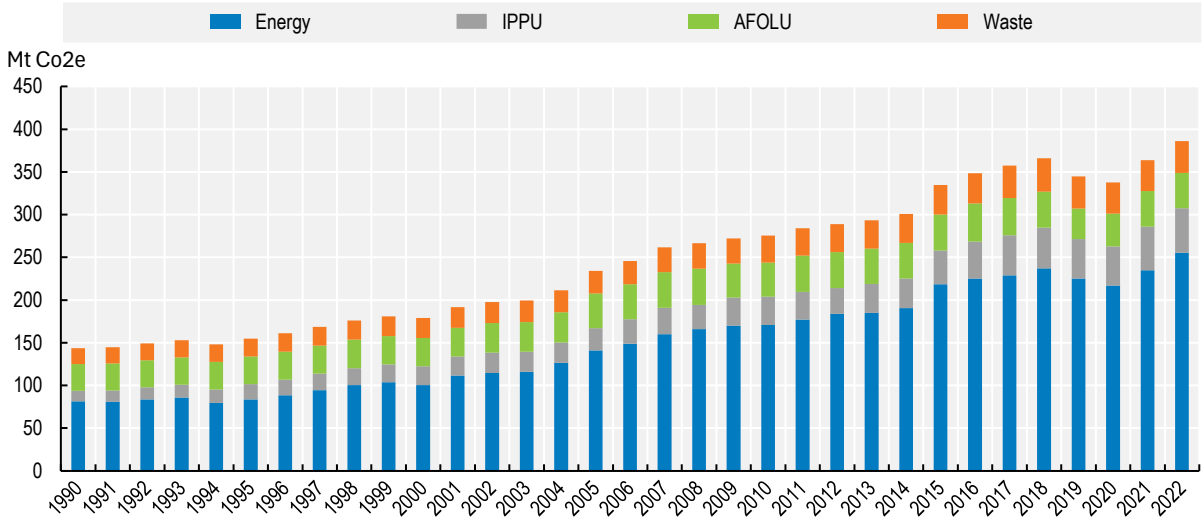
The modern food production system encompasses new farming practices that are typically situated in desert regions near oases and often in newly reclaimed land. These systems yield substantial quantities of agricultural products and involve the use of patented crop varieties. They are characterised by well-structured supply chains and employ international consultants and experts to gain knowledge of more modern farming practices. This system exhibits a significant reliance on imports, both in terms of production and consumption, including agrochemicals, services, and equipment for cultivating food. Within this food system, income levels are relatively high and approximately 13% of Egypt's farms fall within this group (Scheltinga et al., 2022[23]).

GHG emissions from agriculture are falling

The biggest contributor to GHG emissions in Egypt is the energy sector, which accounted for 66% of emissions in 2022 (Figure 1.7). Industrial processes and product use (IPPU) accounted for 14% of GHG

emissions, followed by agriculture, forestry, and other land uses (AFOLU) at 11%, and waste at 10% (MoE, 2024[1]).

Figure 1.7. Evolution of GHG emissions by sector, 1990-2022



Source: MoE (2024[1]), "Egypt's First Biennial Transparency Report", *Ministry of Environment, Arab Republic of Egypt*, https://unfccc.int/sites/default/files/resource/Egypt%20BTR1%20Final%20Master%20Report_v3_30DEC24%20AMR.pdf.

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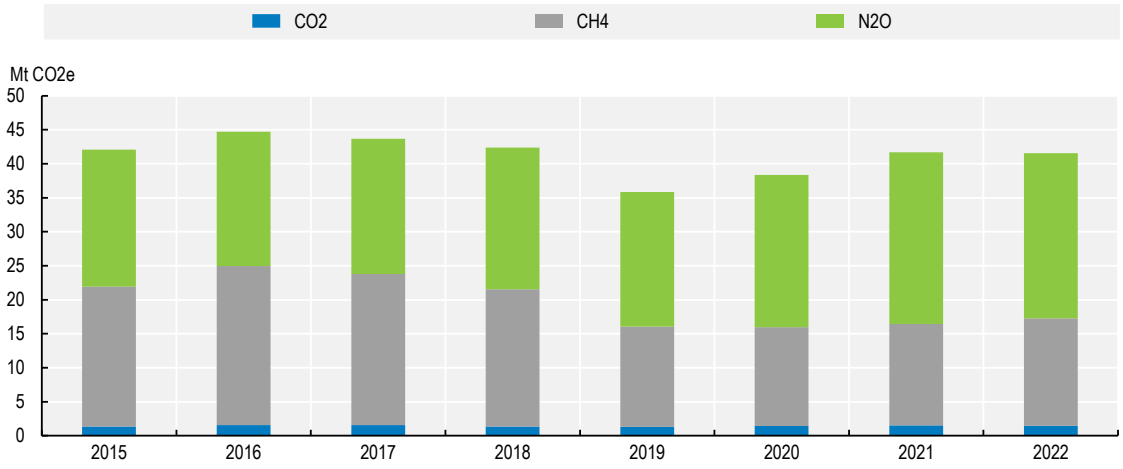
In 2022, the AFOLU sector accounted for 11% of Egypt's total GHG emissions, amounting to 41.6 Mt CO_2e. GHG emissions within the AFOLU sector primarily originate from enteric fermentation, manure management, rice cultivation, agricultural soils, and burning field residues. The largest contributor to the overall GHG emissions includes combined sources from agricultural land, which make up 56% of the total, followed by emissions from livestock, constituting 44% (MoE, 2024[1]).

The growth in GHG emissions due to the AFOLU sector fluctuated from 2015 to 2022 but has fallen since 2016 (Figure 1.8). Nitrous oxide (N_2O) emissions represent the largest share of AFOLU emissions, at 58% in 2022, followed by methane, which accounts for 38% of emissions. A sharp decline in AFOLU emissions occurred in 2019, with emissions falling to 35.9 Mt CO_2e, reflecting a decline in methane (CH_4) emissions from enteric fermentation in livestock and rice cultivation. Overall variability in emissions since 2000 largely reflect changes in agricultural inputs, changes in livestock numbers and the amount of fertiliser used in agricultural production.

Figure 1.9 shows the distribution of GHG emissions from the AFOLU sector by category. In 2022, the main contributing activity to the production of GHGs is direct N_2O from managed agricultural soils, representing 31% of the total. This is followed by enteric fermentation with a share of 25% of GHG emissions. The other activities that have a lower share, but are still relatively significant, include manure management (19%), rice cultivation (11%), and indirect N_2O emissions from manure management. Emissions from other activities are small in comparison and only produce a total of approximately 8% of GHG emissions (MoE, 2024[1]).

Figure 1.8. GHG emissions from the AFOLU sector per gas, 2015-22



Source: MoE (2024[11]), "Egypt's First Biennial Transparency Report", *Ministry of Environment, Arab Republic of Egypt*, https://unfccc.int/sites/default/files/resource/Egypt%20BTR1%20Final%20Master%20Report_v3_30DEC24%20AMR.pdf.

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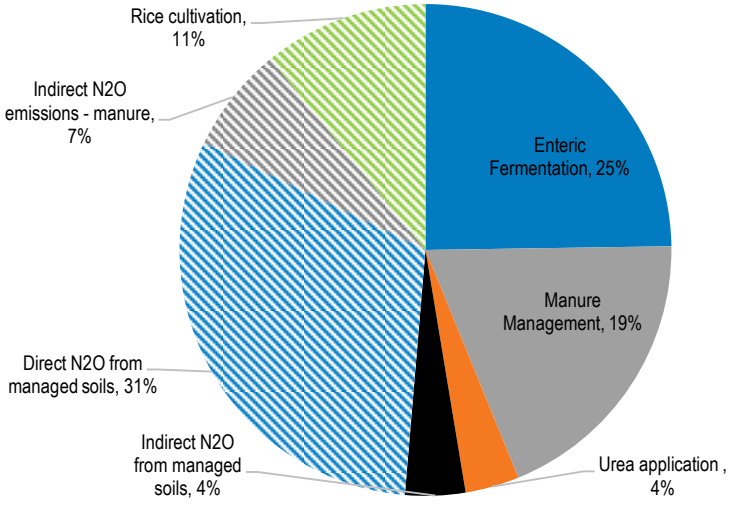
Figure 1.9. GHG emissions from the AFOLU sector per category, 2022



Source: MoE (2024[11]), "Egypt's First Biennial Transparency Report", *Ministry of Environment, Arab Republic of Egypt*, https://unfccc.int/sites/default/files/resource/Egypt%20BTR1%20Final%20Master%20Report_v3_30DEC24%20AMR.pdf.

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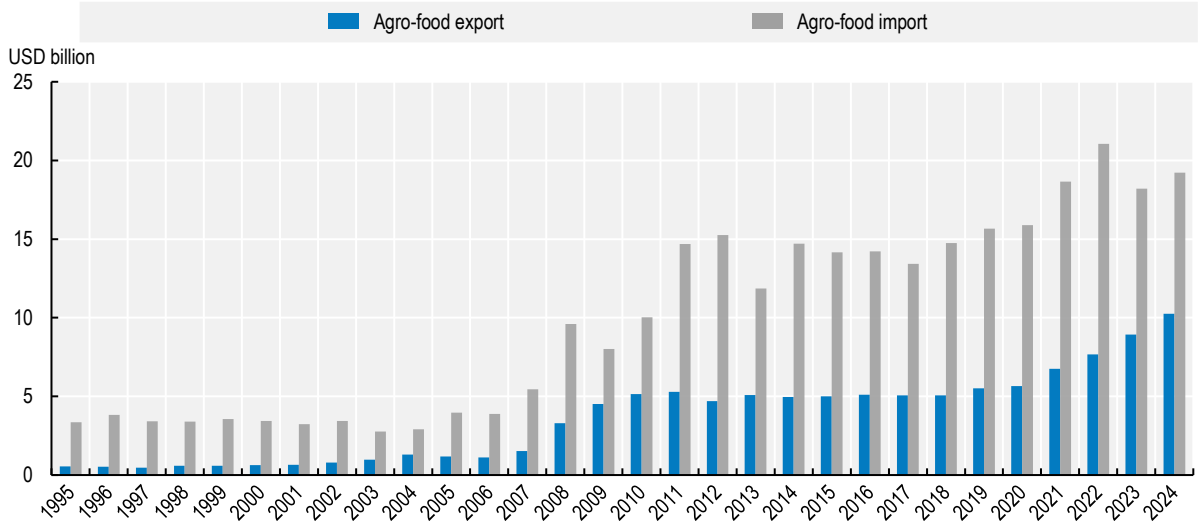
1.3. Trade and productivity

Agro-food trade deficit and import dependence

Despite the large relative size of its agricultural sector, Egypt imports a significant portion of its agricultural products (Figure 1.10). Egypt remains the world's biggest importer of wheat (representing 16% of total Egyptian food imports in 2023) and is increasingly reliant on imports of other major grains and vegetable oils, key staple foods in the Egyptian diet. The value of agro-food imports has more than tripled since 2007 in US dollar terms to USD 19 billion in 2024 increasing Egypt's food dependence on other countries.

Exports have also risen to historical highs in 2024, reaching USD 10 billion by value, resulting in an agro-food trade deficit of USD 9 billion.

Figure 1.10. Agro-food imports and exports, 1995-2024



Source: UN Comtrade Database (2025[24]), https://comtradeplus.un.org/.

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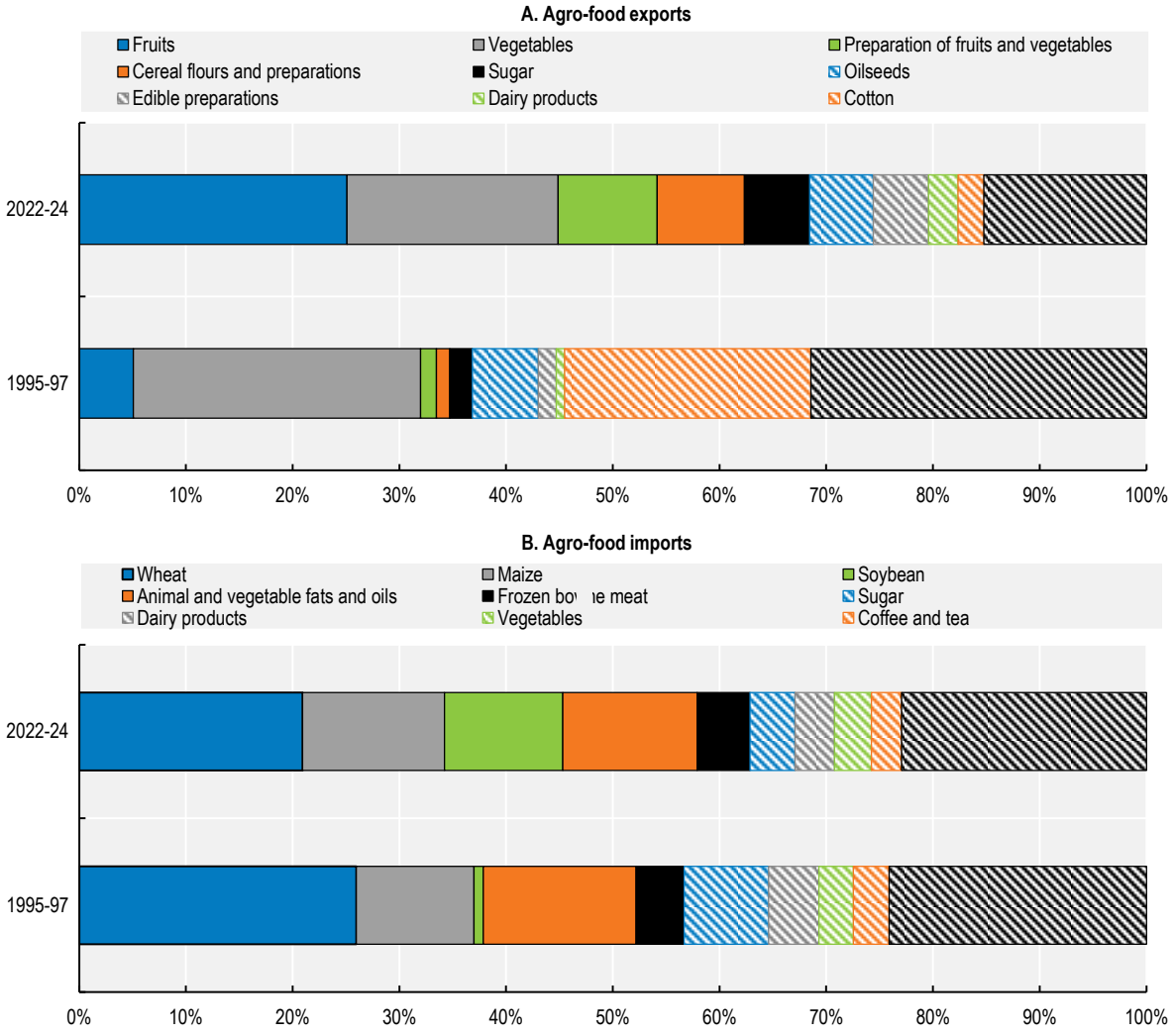
The composition of Egypt's agro-food trade has significantly changed over the last few decades (Figure 1.11). Exports of fruits and nuts, fruit and vegetables preparations, edible preparations, sugar, and cereal flours and preparations have expanded, and exports of vegetables, cotton and other products have fallen. The share of Egypt's fruit exports increased from 5.1% in 1995-1997 to 25.1% in 2022-2024 whereas the share of vegetables decreased from 26.9% to 19.8% over the same period. In addition, the share of exports of other agricultural products fell by over half over the same period, with cereals and live animals contributing the most to this fall. The group of commodities under fruit, nuts, and vegetables and their preparations represents more than half of the agro-food exports of Egypt in 2022-2024.

The composition of Egypt's agro-food imports has not shifted significantly. The share of durum wheat has decreased from 26.0% in 1995-1997 to 20.9% in 2022-2024, while imports of soybeans, maize, meat and vegetables have expanded: the share of imported soybeans increased from 0.9% to 11.1% and the share of imported meat increased from 4.5% to 5.0%. The group of commodities under cereals, soya and palm oil represents more than half of Egypt's agro-food imports in 2022-2024.

Figure 1.11. Composition of agro-food exports and imports, 1995-2024



Note: The category "Other" is the residual of import or export commodities and is not the same group for import than for exports.
Source: UN Comtrade Database (2025[24]), https://comtradeplus.un.org/.

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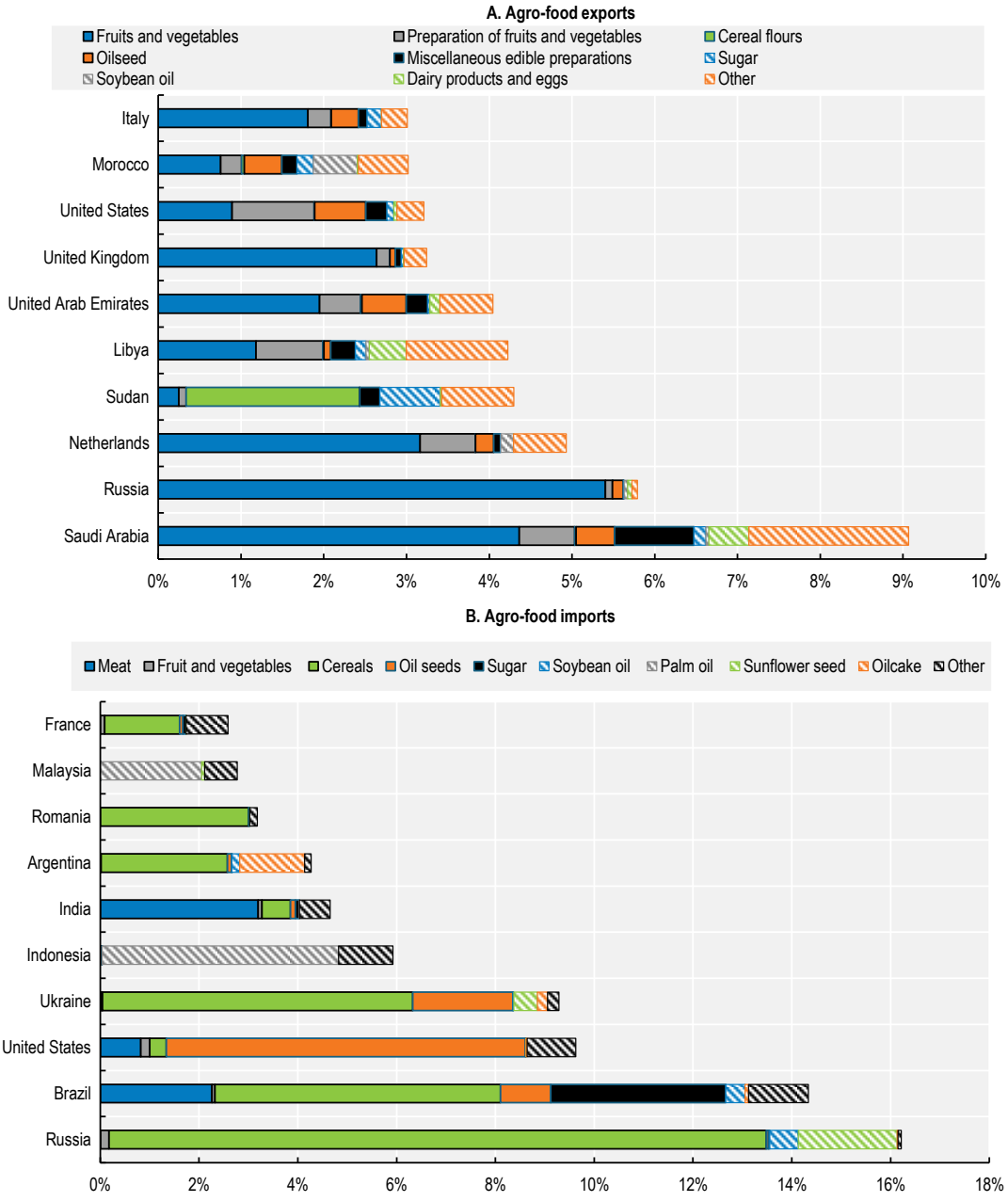
Trade partners are diverse, but there is higher dispersion among export partners compared to higher concentration in few import partners (Figure 1.12). Export partners are led by Saudi Arabia with 9.1% of agro-food exports, followed by the Russian Federation (hereafter "Russia") with 5.8% of total agro-food exports, with the rest of the main trading partners each receiving less than 5% of Egypt's agro-food exports. Fruits and vegetables represent the biggest export commodity for Egypt's main trading partners and represent more than 90% of Egypt's exports to Russia. Other export products include oilseeds (to the United Arab Emirates and the United States), cereal flours and sugar (to Sudan), fruits and vegetables preparations, and oil products such as soybean oil.

Figure 1.12. Main agro-food trading partners of Egypt, 2022-2024



Source: UN Comtrade Database (2025[24]), https://comtradeplus.un.org/.

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Egypt's agro-food imports are concentrated in fewer countries compared to its agro-food exports. Russia, Brazil, the United States and Ukraine together represent one-half of total agro-food imports, followed by Indonesia, India, Argentina, Romania, Malaysia and France, which collectively account for a further 23% of agro-food imports. Each of these trade partners typically deliver imports concentrated in one main commodity or group of commodities. For instance, more than 80% of imports from Russia are cereals. Other countries that mainly export cereals and represent more than half of all agricultural commodity exports to Egypt are Romania, Ukraine, Argentina and France. The United States and Indonesia concentrate their exports to Egypt on oil products. India, and to lesser extent Brazil, focus on meat.

Agricultural productivity is the main driver of output growth

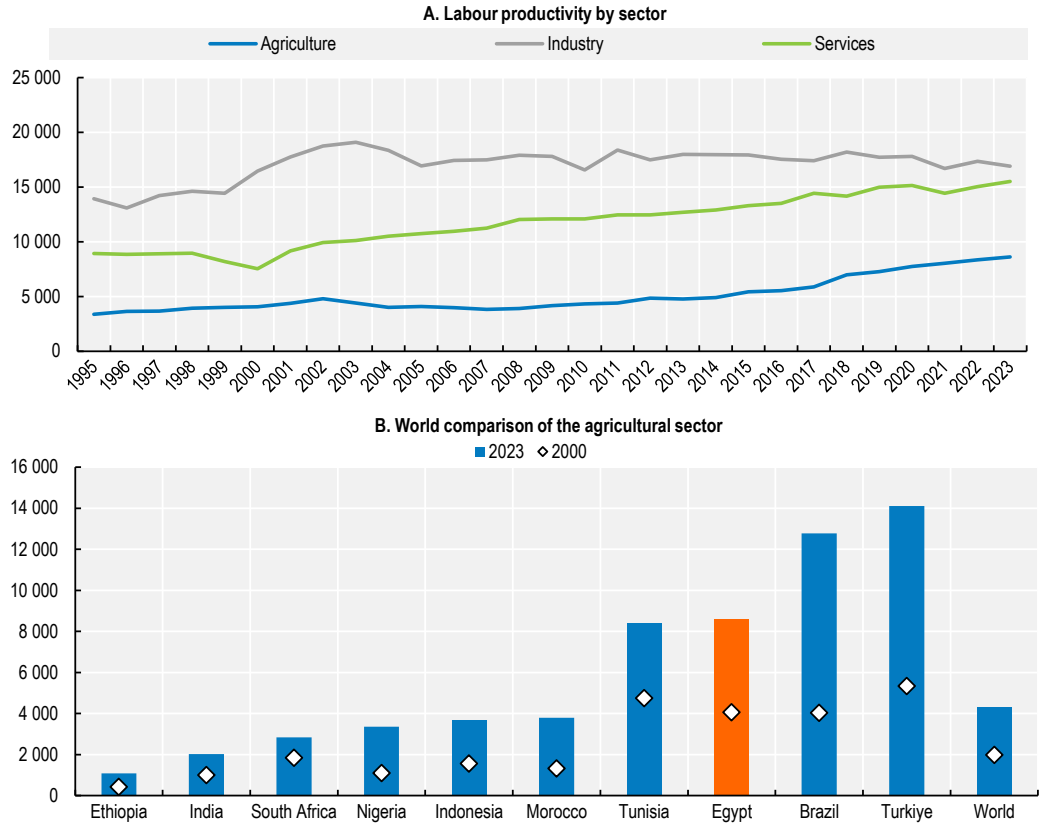
Labour productivity has grown, but the gap with other countries remains

Output per worker in the Egyptian economy has significantly increased in the last two decades, but the gap with OECD Members remains. Labour productivity in Egypt is still significantly below the OECD average, due to lower overall investment, particularly a declining share of private investment (OECD, 2024[9]). Additionally, low levels of innovation and R&D investment continue to contribute to low productivity growth in Egypt (Thiemann, 2024[25]). As a portion of GDP, Egypt spends less than 1% on R&D investment, below the OECD average of 2% (OECD, 2024[9]).

Within the Egyptian economy, labour productivity in the agricultural sector has increased compared to the industry sector where it has been stagnant, reducing the (still large) labour productivity gap between the two (Figure 1.13). However, productivity within the services sector has grown significantly and the gap with agriculture has remained largely unchanged. In 2023, labour productivity from both the services and agricultural sectors rose by 3%, with the industry sector falling by 3%. Egypt's value added per worker in the agricultural sector is almost double the world average, and has remained consistently above the world average since 2000 (Figure 1.13). Additionally, labour productivity in the agricultural sector has remained above other countries such as Ethiopia and Morocco, and similar to Tunisia (Figure 1.13).

Figure 1.13. Labour productivity by sector, 1995-2023

Value added per worker (USD constant 2015)



Source: World Bank (2025), World Development Indicators, https://databank.worldbank.org/.

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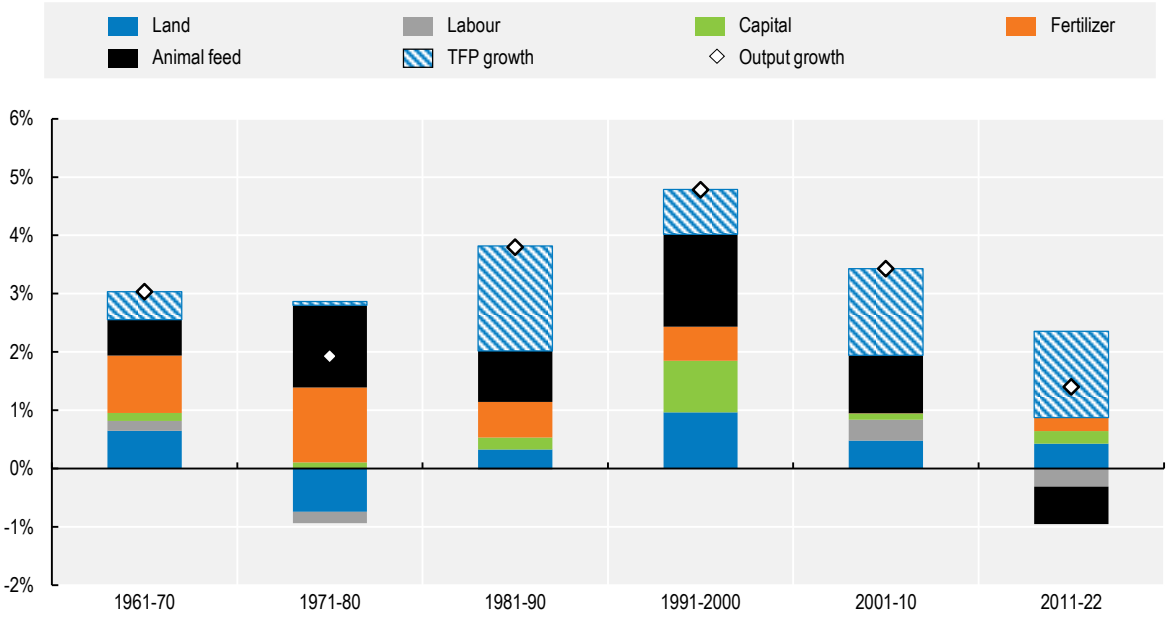
Agricultural output growth has slowed in recent decades, but TFP has maintained a steady rate of 1.5%, above the global average

Total Factor Productivity (TFP) measures the change in the ability of the agricultural sector to produce more with less and is an important indicator of performance to achieve a diversity of policy objectives. TFP growth is measured as the residual of output growth that cannot be explained by the growth in the inputs used in agriculture (Bureau and Antón, 2022[26]). Agricultural output in Egypt expanded by 4.8% per year in the decade following 1991, mainly driven by the use of more inputs such as land from land reclamation projects, and fertiliser (Figure 1.14). Annual agricultural output growth has declined in the subsequent two decades to 3.4% in 2001-10 and 1.4% in 2011-22. This has been driven by less growth in opening new agricultural lands and smaller growth in the use of inputs: stagnant use of fertiliser in the decade 2001-10, and reductions in labour in 2011-22. Under these conditions, Egypt was able to increase its annual agricultural TFP growth from 0.8%, well below the world average in the 1990s, to 1.5% in the most recent decades, driven by the reduction of labour and animal feed inputs. TFP has therefore become the main source of growth in total output, well beyond the expansion of land.

Figure 1.14. Sources of growth in agricultural output, Egypt, 1961-2022



Source: USDA (2025[27]) International Agricultural Productivity Database, https://www.ers.usda.gov/data-products/international-agricultural-productivity.

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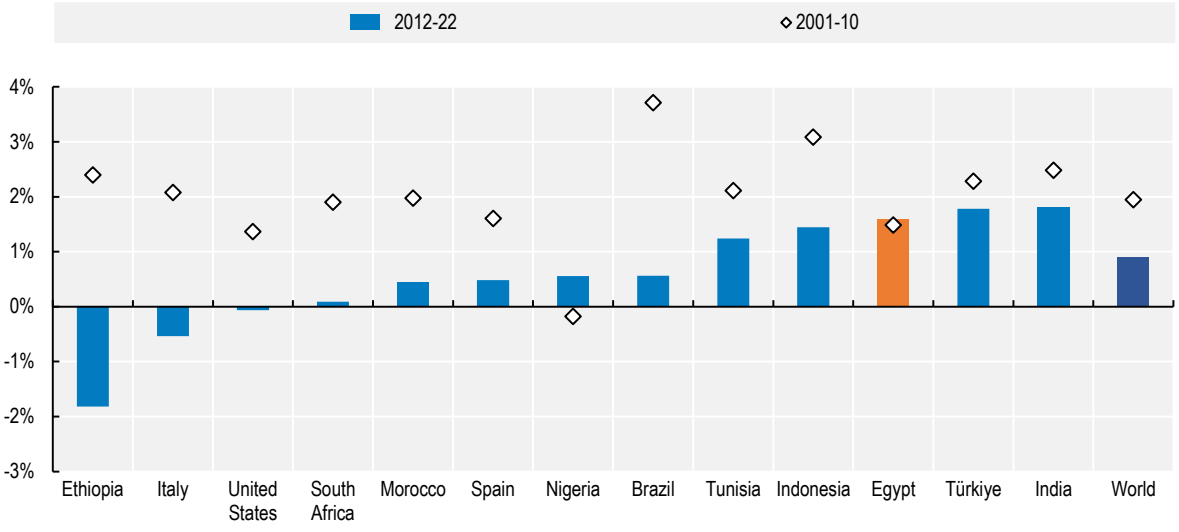
The productivity of Egypt's agricultural sector has developed more positively than in many other countries, most of which have experienced significant declines in TFP growth over the past decade (Figure 1.15). However, TFP growth in Egypt started from relatively low levels in the last decades of the 20th century and is still low compared to world historical levels and compared with some emerging economies. Between 1980 and 2010, TFP growth in some emerging economies ranged between 2% and 3%, which is still higher than Egypt's current TFP growth in the agricultural sector.

Figure 1.15. Agricultural TFP growth in Egypt and selected countries



Source: USDA (2025[27]) International Agricultural Productivity Database, https://www.ers.usda.gov/data-products/international-agricultural-productivity.

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2 Trends and evaluation of agricultural policy in Egypt

Egypt's agricultural policy maintains a strong focus on achieving food security and self-sufficiency, with ambitious goals to increase production as outlined in the 2030 Updated Sustainable Agricultural Development Strategy. However, responsibilities for policy implementation remain fragmented across multiple ministries and institutions, creating challenges for co-ordination and effective policy design. Support to producers mainly comes through market price support and input subsidies, while consumers receive transfers in the form of food subsidies. These interventions, including public stockholding, lead to market inefficiencies. While total support to agriculture is high relative to GDP, expenditures on general services remain relatively small and focused on irrigation infrastructure. Agricultural policy development is constrained by a lack of transparency and gaps in the availability and quality of policy data and information.

Key messages

- Government strategies including Egypt's Vision 2030 and the National Structural Reforms Programme highlight agriculture's central role in Egypt's structural reform agenda. The 2030 Updated Sustainable Agriculture Development Strategy sets ambitious targets to increase agriculture's share of GDP and employment, running against the development trajectory observed in other countries, and to boost production, yields, and self-sufficiency rates for strategic crops.
- Responsibilities for agricultural and food policies in Egypt fall across different ministries and agencies, creating challenges for policy co-ordination and implementation. The Ministry of Agriculture and Land Reclamation, the Ministry of Supply and Internal Trade, and The Ministry of Water Resources and Irrigation all oversee some agricultural policies. Other ministries and agencies play important roles related to trade, rural development or the environment.
- Despite numerous attempts to reform agricultural policies and open markets in Egypt over the past decades, market interventions and border measures continue to hinder private investment, market efficiency and productivity. Government agencies and state-owned enterprises are active across the entire agrifood value chain, including markets for inputs and outputs, public stockholding, food processing, distribution, and wholesale and retail trade.
- Egyptian farmers received support from the government amounting to 10% of their gross receipts in 2022-24, down from 21% in 2000-02. This level of support is lower than the average across OECD Members of 13% in 2022-24, but above the average of 7% for emerging economies in the *OECD Agricultural Policy Monitoring and Evaluation 2025* report.
- Most producer support is in the form of prices that are higher than world markets and which benefit mainly grain producers, poultry, sugar and cotton. Fruits and vegetables are not supported, and livestock products are penalised by higher feed costs. Budgetary expenditures for inputs, investment or credit on the farm amount to 1% of gross farm receipts.
- On the demand side, the combination of price support to producers and food subsidies provide contradictory policy signals. On the one hand, first-stage consumers saw their consumption expenditures increase by 16% through higher prices provided to producers in 2022-24. On the other hand, final consumers received food subsidies that reduced consumption expenditures by almost 7%. As a result, on balance, consumers were penalised by agricultural support policies.
- Support to general services (GSSE) amounted to 2.6% of the value of agricultural production in 2022-24. This was dominated by investments in irrigation infrastructure (76% of total GSSE expenditures), followed by expenditures on agricultural R&D (14%).
- The total burden of government support for the economy – combining producer, consumer and general service support related to agriculture – was 2.8% of GDP in 2022-24, higher than all 54 countries covered in the OECD's Agricultural Support database.
- Low availability of data and information on budgetary expenditures and other transfers from the government, including to state-owned enterprises, significantly constrains the capacity to analyse agricultural policies and hinders transparency in the policy debate. Using OECD methods to estimate agricultural support and compare it with other countries can help improve domestic policy development.

2.1. Agricultural policy framework

Past market interventions and food subsidies have shaped current agricultural policies

Agrarian reforms after the revolution: 1952-1973

Before the Egyptian revolution of 1952, agriculture was dominated by the private sector and the state's role was largely confined to investments in irrigation infrastructure, drainage, and land reclamation. The 1952 revolution marked the beginning of a more proactive approach to government intervention in agriculture. The agrarian reform of September 1952 limited individual ownership of agricultural land to a maximum of 200 feddans (84 ha) and saw the introduction of agricultural co-operatives as a mechanism for controlling crop rotations, output pricing, input supply, and marketing (Ikram, 2006[1]).

The public sector expanded after the nationalisation of the Suez Canal in 1956, with increasing public investment in industry and infrastructure and the introduction of comprehensive economic planning. Construction of the Aswan High Dam began in 1960 and was seen as critical to Egypt's economic growth and industrialisation strategy. The dam, which was completed in 1970, provided a significant increase in storage capacity through Lake Nasser reservoir, as well as the ability to control the annual flooding of the Nile and generate hydroelectricity.

During the 1960s, agriculture played a central role in Egypt's development policies. Policy was guided by President Nasser's "Arab Socialism", which aimed to promote a more equitable distribution of income and the provision of affordable food to urban areas sourced from peri-urban and rural regions. A wave of nationalisations in 1961 stifled foreign investment and led to the introduction of central planning, with the state taking a more active role in determining agricultural prices. This was particularly visible in the cotton sector, which represented around 80% of Egypt's commodity exports in the early 1960s. The Alexandria Cotton Futures Exchange – the world's first cotton futures exchange – was closed down, the state Cotton Authority was given the exclusive right to purchase cotton, and companies trading in cotton were brought under state control.

A series of interventions were implemented, including compulsory crop rotation schedules, regulated prices, crop area allocations, mandatory delivery quotas at prices below international market rates, and subsidised consumer prices. Agricultural co-operatives were promoted at the village level, with responsibilities in overseeing inputs, production, marketing, and credit from agricultural banks. However, interventions promoting industrialisation and import substitution led to an overvalued exchange rate and stagnation of the agricultural sector. Farmers were faced with administered prices far below border prices, resulting in declining yields, distorted cropping patterns, widening gaps between crop demand and production, diminished exports of cotton, and outward labour migration to non-agricultural sectors (Cassing et al., 2009[2]).

Land reform was viewed as an important mechanism for redistributing wealth.[1] The maximum farm size was reduced to 100 feddan (42 ha) per family in 1961, and further decreased to 50 feddan (21 ha) per family in 1969 (Hansen and Nashashibi, 1975[3]). The government launched a series of ambitious land reclamation projects following the completion of the Aswan High Dam. Whilst old land remained under private ownership within the ceilings defined under the agrarian reform, new land was largely owned by the state.

The open-door policy: 1974-1986

Starting in the 1970s, new economic reforms were introduced under the open-door policy (*infitah*), seeking to encourage domestic and foreign investment in the private sector. This was a period of high global inflation which led to rapid domestic inflation, driven by rising prices for imported food commodities. The government attempted to soften the impacts of inflation, for instance, by reducing the size of a loaf of

subsidised bread, and adopting a two-tier pricing structure for some commodities, such as sugar. However, fruits, vegetables and livestock products were not subject to price controls, and experienced rapid inflation.

After the sharp rise in international wheat prices in the early 1970s the existing food subsidy programme expanded to protect Egyptian consumers from food price inflation. This led to an increase in the cost of food subsidies which consumed a significant proportion of government expenditures. In 1977 the government announced substantial cuts to subsidies for essential goods as part of IMF requirements (Abdalla and Al-Shawarby, 2018[4]). Specifically, the government indicated that the price of bread, sugar, tea, cooking oil, and rice would increase by 25% to 50% (Soliman, 2021[5]). As a result, protests erupted in multiple cities across Egypt in opposition to the subsidy cuts. These protests, later referred to as the "bread riots" of 1977, forced the government to reverse course and restore the food subsidies. This episode reinforced the idea that food subsidies to consumers are part of the social contract in Egypt (see Chapter 3).

Law 12 was issued in 1984 declaring water a public good provided by the government to farms at no cost. In addition, the Ministry of Water Resources and Irrigation (MWRI) was entrusted with overseeing the Nile water resources, the accompanying canal system, and maintenance of irrigation infrastructure down to the *mesqa* (tertiary canal) level.

Liberalisation and structural adjustment: 1987-2013

Starting in 1986 and continuing through the 1990s, there was a shift away from the open-door policy driven by comprehensive economic reform programmes. In response to different challenges posed by the institutional structures, subsidies on farm inputs were increased, food subsidies were extended to rural areas, and land reform laws continued to address the redistribution of land ownership.

At the same time, two key agricultural policy reform programmes were carried out between 1987 and 2002 focused on reducing government interventions in markets and supported by the Economic Reform and Structural Adjustment Programme, in collaboration with the International Monetary Fund (IMF) and the World Bank. The Agricultural Production and Credit Project (1987-1995) involved reductions in subsidies for certain agricultural inputs, in controls on area allotments, and in price and marketing restrictions (Baffes and Gautam, 1996[6]; Cassing et al., 2009[2]). It also set the stage for the privatisation of state-owned enterprises (SOEs) through a new law restructuring public firms into holding companies (Ender and Holtzman, 2003[7]). The Agricultural Policy Reform Programme (1996-2002) which followed was more extensive, encompassing the privatisation of public firms. The structural adjustment programme of 1991 shifted the focus from state-controlled agriculture to a market economy, accelerating market liberalisation and encouraging greater private sector involvement in the trading of agricultural commodities. This involved the removal of most subsidies on agricultural inputs, the elimination of mandatory crop rotations, and the removal of pricing and marketing controls.

Law 213 on water usage was issued in 1994 on the management of public and private sector irrigation and drainage systems, encompassing main canals, feeders, and drains. Article 71 establishes a legal basis for water user associations (WUAs), designating them as specialised associations responsible for water management at the *mesqa* level. In addition, Ministerial Decree 14900 of 1995 further delineates the functions, rights, and duties of WUAs. These measures aimed to promote an integrated participatory system that involves farmers in management decisions within their hydraulic boundaries, fostering more efficient water use. However, MWRI's ability to manage and maintain the irrigation canals and the water delivery system was hindered by decreased state intervention and shrinking tax receipts (Gouda, 2016[8]).

Focus on food security and sustainability: 2014-present

Article 29 of the Egyptian Constitution adopted in 2014 (subsequently amended in 2019) recognises agriculture's importance in the national economy and commits the state to increasing land under

cultivation, incriminating encroachments on agricultural land, and developing agricultural and rural areas. The constitution also commits the state to providing the requirements for agricultural production, and purchasing crops at appropriate prices to achieve a profit margin for farmers (Constitute, 2022[9]).

Since 2016, Egypt's Vision 2030 has acknowledged climate change risks and their impacts on Egypt's economy and agricultural sector. The government has increased investments in water-saving technologies such as drip and sprinkler irrigation, subsidised field levelling and upgraded the canal system to minimise water losses (Chapter 4).

Agriculture is central to Egypt's structural reform agenda

Three major government strategies guide agricultural policies in Egypt: two apply to the whole economy and are led by the Ministry of Planning, Economic Development and International Co-operation (MPEDIC), and one is sectoral and led by the Ministry of Agriculture and Land Reclamation (MALR).

The National Agenda for Sustainable Development "Egypt's Vision 2030" by MPEDIC

The National Agenda for Sustainable Development, or Egypt's Vision 2030, was first launched in 2016 and then updated in 2023. The updated strategy from 2023 provides a clear direction for the country to achieve sustainable development across the economic, social and environmental dimensions. It includes six strategic goals: improve Egyptians' quality of life and raise their living standards; social justice and equality; integrated and sustainable environmental system; diversified, knowledge-based, and competitive economy; well-developed infrastructure; and governance and partnerships. These are further divided into 32 general goals to support the government in achieving sustainable development (MPED, 2023[10]).

Egypt's Vision 2030 recognises the importance of providing adequate, healthy and nutritious food for all Egyptians and has identified poverty eradication and food provision as crucial goals. The strategy also aims to expand the scope and coverage of social protection programmes, strengthen inclusion, and promote spatial and local development. Egypt's Vision 2030 highlights the importance of addressing climate change, which is likely to lead to a decline in crop productivity, increasing impacts from extreme weather events, reduced water availability and high irrigation demands. Other objectives of relevance to agriculture and food security include improving the sustainability of natural resources, strengthening waste management, improving financial inclusion, and investing in infrastructure. The strategy is well aligned with the UN Sustainable Development Goals, and provides a comprehensive list of actions for attaining these goals. The actions of relevance to agriculture and food security are outlined in Annex Table 2.A.1.

Egypt's Vision 2030 also includes an extensive list of development indicators with specific numerical targets for the years 2025 and 2030. Specific quantitative targets related to agriculture include reducing malnutrition and stunting, reducing the share of households covered by the ration card food subsidy programme, increasing incomes and employment in rural areas, and improving water use efficiency (Table 2.1).

Table 2.1. Agriculture-related targets in Egypt's Vision 2030

General goals	Indicator	2019	2025	2030
Strategic goal: Improve Egyptians' quality of life and raise their living standards				
Food provision	Malnourished people (% of population)	4.4	3.1	2.3
	Prevalence of stunting among children under 5 years (%)	17.5 (2019-20)	15.6	12.2
	Malnourished children (% of children under the age of 5)	2 (2019-20)	1.64	1.21
	Total annual fish production (million tonnes)	2	2.5	3
Strategic goal: Social justice and equality				
Social protection provision	Percentage of households covered by ration cards (%)	70 (2019-21)	61	52
Promotion of spatial and local development	Average annual household income in rural areas to urban areas (%)	74	77	85
	Employment rate in rural areas	Lower Egypt: 41.4 Upper Egypt: 39.1 Border governorates: 42.1	-	Lower bound: 38 Upper bound: 42
Strategic goal: Integrated and sustainable environmental system				
Sustainability of natural resources	Water use efficiency (USD/m^3)	4.5 (2020)	5.3	6.5

Source: MPED (2023[10]), The National Agenda for Sustainable Development: Egypt's Updated Vision 2030, https://mped.gov.eg/Files/Egypt_Vision_2030_EnglishDigitalUse.pdf.

The National Structural Reforms Programme by MPEDIC

The National Structural Reforms Programme was launched in April 2021 as the second phase of a comprehensive national programme for economic and social reform, which had begun in 2016. The programme introduces a package of targeted structural and institutional reforms based around three key pillars: (1) Building macroeconomic resilience and stability; (2) Enhancing competitiveness of the Egyptian economy and improving the business environment; (3) Supporting economic diversification and the green transition.

Agriculture is one of the three priority sectors to diversify Egypt's economic structure, together with manufacturing and the ICT sector. For the agricultural sector, the programme outlines a series of strategic objectives and key actions:

1. *Achieving and sustaining food and water security.* The key measures to achieve this objective include expanding the cultivation of high yield, low-water crop varieties; regulating water-intensive crops by limiting their area of cultivation; continuing the transition from flood irrigation to modern irrigation systems; and establishing a unit affiliated with the Council of Ministers to monitor value chains for strategic commodities such as wheat, corn, rice, sugar and oilseeds.
2. *Increasing the agricultural sector's productivity and contribution to the national economy.* This is to be achieved through the enforcement of contract farming agreements; by creating collection centres for agricultural products with unified specifications to solve internal marketing problems; and by updating relevant legislation for the agricultural sector.
3. *Creating new job opportunities and increasing the incomes of small farmers.* This is to be achieved by expanding the implementation of agricultural initiatives (e.g. the national veal project); financing farmers through the Agricultural Bank of Egypt; restructuring agricultural co-operatives; and reforming the Co-operatives Law (No. 122 of 1980).
4. *Increasing exports of crops and agricultural industries*, by establishing consolidated logistical centres for export products.

5. *Enhancing the resilience of the agricultural sector in the face of environmental risks and natural disasters*.

The National Narrative for Economic Development was launched in September 2025 and builds on the National Structural Reforms Programme, presenting a new framework to align the government's action programme with Egypt's Vision 2030. It's objectives are to sustain the trajectory of economic reform; pivot decisively toward high productivity, export-oriented sectors; build on Egypt's advanced infrastructure as a foundation for industrialisation and investment; and redefine the state's role in the economy to enhance competitiveness and stimulate private sector participation (SIS, 2025[11]).

The 2030 Updated Sustainable Agriculture Development Strategy by MALR

Egypt's 2030 Updated Sustainable Agriculture Development Strategy was developed in 2020 by MALR and is the main strategic document for the agricultural sector. The strategy puts economic growth at the centre of efforts to enhance food security and alleviate poverty and hunger. The strategy's action plan outlines a vision for *"inclusive economic and social development based on fast, sustainable and inclusive growth of the agricultural sector within the framework of integrated rural development to help, in particular, marginalized groups and alleviate rural poverty"* (MALR, 2020[12]). In addition, the action plan includes a mission statement, which is to *"Modernize the agricultural sector to achieve food security for all citizens and improve nutrition and standards of living of rural population, through improving the efficiency of resources use and capitalizing on the geographic comparative advantage of different agricultural regions."* Six strategic objectives are presented in the action plan:

1. Achieve food security and improved nutrition (to address undernourishment, food insecurity, achieve sustainable agriculture productivity growth, sustainable agriculture growth), focusing on decreasing the imports of agriculture products.
2. Enhance sustainable agriculture (focus: sustainable management of natural resources).
3. Eradicate poverty in rural areas, improve income and standards of living (focus: Upper Egypt).
4. Adapt to climate change and mitigate its impacts.
5. Increase the competitiveness of agricultural products in local and international markets (functioning and inclusive value chains – increase exports).
6. Create job opportunities for employment, especially for youth and women.

The strategy is based on a theory of change that considers growth in agriculture and food systems as the primary engine of growth in the Egyptian economy, and adopts an integrated food systems approach covering the main stages of production, handling, processing and distribution. The strategic objectives for the sector (Annex 2.A.) are closely aligned with the UN Sustainable Development Goals. The strategy outlines a number of quantitative targets for the agricultural sector, focusing on increasing the share of the sector in the Egyptian economy, employment and exports, reducing imports, and reducing undernourishment:

- Increasing the growth rate of agricultural GDP to 4.5% by 2030.
- Increasing the contribution of agriculture to GDP from 11.5% (average of 2015-18) to 15% by 2030.
- Lifting a total of 2.56 million people of the rural population above the poverty line and creating 2 million new job opportunities.
- Increasing the agricultural sector's share of total employment from 25.3% (average of 2015-18) to 30% by 2030.
- Increasing the share of agricultural commodities and products in total exports to around 30% by 2030, and increasing the value of agricultural exports from USD 5.52 billion in 2018 to USD 8.28 billion in 2030.

- Decreasing agricultural imports to save foreign currency and reduce the burden on the state's budget by reducing expenses on food imports. For example, reducing losses in wheat production by 20% and increasing production to 12.2 million tonnes per annum by 2030 would reduce wheat imports by USD 891 million.
- Improving food security by reducing the population suffering from undernourishment by 2.85 million by 2030.

While the strategy's mission statement aims to "achieve food security for all citizens and improve nutrition", many of the quantitative targets focus on self-sufficiency of specific commodities. However, self-sufficiency is not equivalent to food security (Box 2.1). Quantitative targets have been developed for the promotion of strategic crops covering cultivated area, yields, total production and self-sufficiency rates (Table 2.2). This includes a particularly ambitious target to increase self-sufficiency for specific commodities such as wheat from 44% in 2019 to 67% in 2030. The targets are to be achieved through a combination of increasing productivity ("vertical development"), increasing the efficiency of natural resource use, reducing production losses, and expanding the cultivated area through the reclamation of new lands in the desert ("horizontal development"). Specifically, the strategy aims to increase the productivity (yields) of old lands (where small farms of less than 3 feddan account for 90% of farm holdings), address the fragmentation of agricultural lands, expand the reclamation of 1.5 million feddan (630 000 ha, or 16% of current agricultural land) of new lands by 2030 using groundwater and surface water, and provide several alternatives of cropping patterns as investment models for the private sector.

Box 2.1. Differences between food security and self-sufficiency

The 1996 Rome Declaration on World Food Security and the World Food Summit Plan of Action provides a formal definition for food security:

> *"Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life."*

Food security is typically assessed across four dimensions: availability (having sufficient quantities of food, supplied through domestic production or imports); access (having adequate income and resources to acquire food); utilisation (through nutritious and healthy diets, clean water and sanitation); and stability (ensuring resilience to sudden shocks).

Self-sufficiency refers to the ability of a country or region to satisfy its needs for specific food commodities from its own domestic production. The FAO defines the self-sufficiency ratio as the percentage of food consumed that is produced domestically:

$$SSR = Production * 100 / (Production + Imports - Exports)$$

In caloric terms across all food commodities, self-sufficiency would entail producing a proportion of the country's food consumption that approaches or exceeds 100%. However, countries that are self-sufficient may still specialise their food production, while importing some food commodities and exporting others.

There are significant differences between the concepts of food security and self-sufficiency. While self-sufficiency is focused on ensuring that a country is able to produce enough food to satisfy domestic demand, food security is broader in scope, and includes the concepts of affordability, nutrition, and resilience to shocks. In particular, countries can rely on trade to meet the nutritional needs of their population, and do not need to be self-sufficient in order to achieve food security. Furthermore, trade plays an essential role in ensuring the four dimensions of food security.

Source: FAO (2016[13]); FAO (2006[14]); World Food Summit (1996[15]).

Table 2.2. Targets for strategic crops in Egypt's 2030 Updated Sustainable Agriculture Development Strategy

Crop	Indicator	2019 status[1]	2025 target	2030 target
Wheat	Cultivated area (million feddan)	3.4 – 3.13	3.5	3.75
	Yield (tonnes/feddan)	2.7 – 2.73	3.0	3.25
	Total production (million tonnes)	9.18 – 8.55	10.5	12.2
	Self-sufficiency rate	44% – 40.3%		67%
Rice	Cultivated area (million feddan)	1.3 – 1.3	1.1	1.1
	Yield (tonnes/feddan)	3.8 – 3.68	4.5	5
	Total production (million tonnes)	4.97 – 4.80	4.95	5.5
	Self-sufficiency rate	100% – 76.2%		96%
Maize	Cultivated area (million feddan)	0.7 (yellow maize) 2 (white maize) – 2.3	2.8	2.9
	Yield (tonnes/feddan)	3.22 – 3.19	3.5	3.64
	Total production (million tonnes)	8.7 – 7.59	9.8	10.6
	Self-sufficiency rate	56% – 51.1%		56%
Sorghum	Cultivated area (thousand feddan)	400	450	500
	Yield (tonnes/feddan)	2.18	2.5	3
	Total production (million tonnes)	0.85	1.13	1.5
	Self-sufficiency rate	74%		104%
Fava bean	Cultivated area (thousand feddan)	120 – 69.8	250	350
	Yield (tonnes/feddan)	1.5 – 1.45	1.7	1.7
	Total production (thousand tonnes)	180 – 100.9	425	595
	Self-sufficiency rate	40% – 10.5%		86.5%
Onion	Cultivated area (thousand feddan)	203 – 211	220	252
	Yield (tonnes/feddan)	15 – 10.49	16.5	17
	Total production (million tonnes)	3 – 3.1	3.6	3.8
	Self-sufficiency	120% – 129%		> 100% + more exports
Sugar cane	Cultivated area (thousand feddan)	325 – 329	325	325
	Yield (tonnes/feddan)	48 – 46.59	55	55
	Total production (million tonnes)	15 – 12.12	17.9	17.9
	Self-sufficiency (all sugar crops)	77% – 100%		100%
Sugar beet	Cultivated area (thousand feddan)	600 – 605	750	825
	Yield (tonnes/feddan)	18 – 21.06	25	28
	Total production (million tonnes)	10 – 12.2	18.75	23.1
	Self-sufficiency (all sugar crops)	77% – 100%		100%

1. For these commodities we present two figures for the 2019 status: first the one published in the 2023 Updated Sustainable Agriculture Development Strategy, which was the benchmark on which the strategy was built; second an updated number for 2019 as provided by CAPMAS in September 2025.
Source: MALR (2020[12]).

Responsibilities for agricultural policies are scattered across many institutions and agencies

Egypt's agricultural and food policies are administered by a range of different actors, which inevitably creates co-ordination challenges across institutions. Figure 2.1 illustrates the main ministries, agencies, research institutes and state-owned enterprises that are responsible for formulating and implementing policy.

Figure 2.1. Ministries, public institutions, and state-owned enterprises involved in the agricultural and food sectors

Source: OECD.

National Committee for Food and Nutrition Systems

The National Committee for Food and Nutrition Systems was established in 2023 with the aim of strengthening cross-ministerial co-ordination and developing strategies and action plans to promote sustainable food systems. It is chaired by the Prime Minister and includes representatives from a broad range of different Ministries. The committee is responsible for developing Egypt's National Action Plan for Food and Nutrition Systems 2025-2030.

Ministry of Agriculture and Land Reclamation

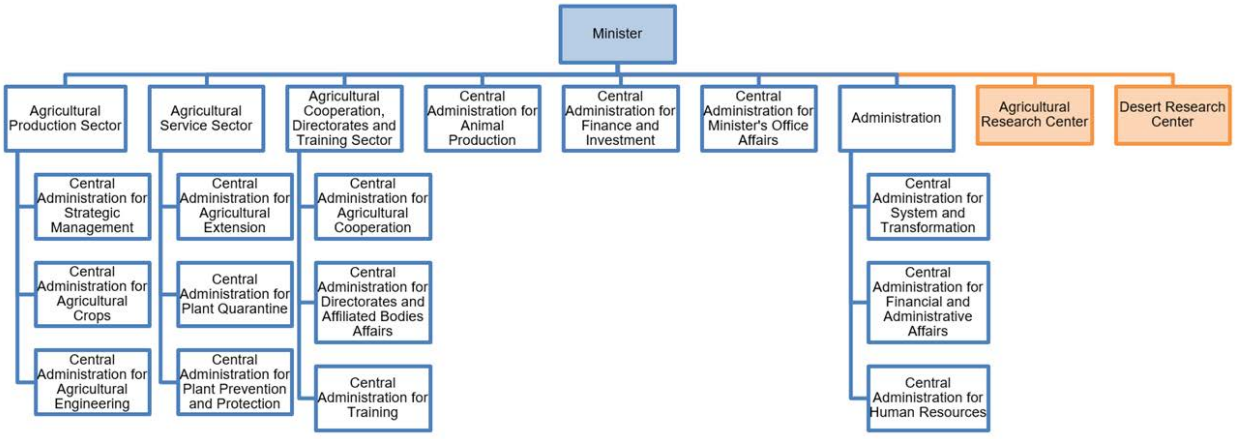
The Ministry of Agriculture and Land Reclamation (MALR) is responsible for formulating and implementing Egypt's agricultural policies and strategies. This includes the development of laws and regulations pertaining to the agricultural sector, and overseeing the implementation of Egypt's 2030 Updated Sustainable Agriculture Development Strategy. The Ministry is divided into a number of sectoral departments, as outlined in the organisational structure below (Figure 2.2). Its responsibilities encompass the management and administration of livestock production, land reclamation, agricultural services (including agricultural co-operatives), agricultural extension, and economic affairs. In addition, the Ministry supports agricultural research and innovation through the Agricultural Research Centre and the Desert Research Centre, and Egypt participates actively in international co-operation on agricultural R&D, including through its membership in the International Centre for Advanced Mediterranean Agronomic Studies (CIHEAM).

MALR oversees the delivery of extension and advisory services to farmers through the Agricultural Extension Sector and the Central Administration for Agricultural Extension and Environment (CAAEE), which is affiliated to the Agricultural Research Centre. Extension services are delivered through a network of four development support and communication centres, nine regional research and extension councils, 60 rural development centres, and over 200 agricultural extension centres at the village level (Diab, Yacoub and AbdelAal, 2020[16]).

MALR also plays a central role in the government's efforts to convert desert land into arable land for farming. The Ministry formulates long-term strategies for land reclamation, and develops policies to balance agricultural expansion with environmental sustainability. The Land Reclamation Sector is in charge of the planning and management of land reclamation projects across Egypt. It undertakes a range of activities such as conducting land surveys, evaluating soil quality, and designing and implementing irrigation systems. The Land Reclamation Sector collaborates with the General Authority for Land Reclamation, a specialised entity that directly manages the technical, financial and logistical aspects of land reclamation projects.

MALR has taken efforts to enhance co-ordination among ministries and relevant authorities on agricultural policies. This includes co-ordinating with the Ministry of Water Resources and Irrigation to determine annual rice cultivation areas; the Ministry of Supply and Internal Trade to set procurement prices for wheat, maize and sugar; and the Ministry of Environment for the management of rice straw residues. A key objective of MALR is to modernise the agricultural sector to achieve food security and improve nutrition and the standard of living of rural populations, by improving the efficiency of resource use and increasing investments across agricultural regions. While the Ministry is ostensibly responsible for rural development policy and efforts to reduce rural poverty, none of its departments are focused on rural development *per se*.

Figure 2.2. Organisational structure of the Ministry of Agriculture and Land Reclamation



Source: MALR (2025[17]).

Agricultural Research Centre

The Agricultural Research Centre (ARC) was first established in the early 1970s and is the main body within MALR dedicated to agricultural research and development (R&D). The ARC's primary objective is to support the application of advanced technologies in Egyptian agriculture in a way that optimises the use of natural resources, meets the needs of the population, facilitates exports, and improves farmers' incomes. Key functions of the ARC include: (i) conducting applied and academic research to generate a continuous flow of technologies that ensure the improvement of productivity and the reduction of production costs; (ii) transferring new technologies to the farming community through extension services and monitoring their application; and (iii) continuous training and support for human capital development.

The ARC's agricultural research activities include publishing agricultural research and its applications at the farm level, implementing agricultural research and extension programmes, proposing new legislation, conducting research on biotechnology and its applications in agriculture, and monitoring climate change and its effects on the agricultural sector. The ARC consists of an integrated network of 16 research institutes, 14 central laboratories, and 56 research stations operating throughout Egypt (ARC, 2025[18]). For instance, the Soil, Water and Environment Research Institute, the Cotton Research Institute and the Agricultural Genetic Engineering Research Institute undertake important research (Box 2.2). Collaborative efforts with partner agencies in MALR, MWRI, universities, and other affiliated research centres further support the ARC's endeavours. The current strategy emphasises multi-disciplinarity and a clear definition of research topics tailored to solve specific problems, accompanied by well-defined objectives and the allocation of sufficient physical, human, and financial resources to achieve them.

Table 2.3. Research institutes, central laboratories and research stations affiliated to the ARC

Research institutes	Central laboratories	Research stations
Soil, Water and Environment Research Institute	National Gene Bank and Genetic Resources	Tri-purpose (6)
Agricultural Extension and Rural Development Research Institute	Regional Centre for Food and Feed	Animal production stations (11)
Agricultural Economics Research Institute	Central Laboratory for Veterinary Control of Poultry Production	Regional research stations (9)
Veterinary Serum and Vaccine Research Institute	Central Laboratory for Design and Statistical Analysis Research	Horticultural research stations (6)
Animal Production Research Institute	Central Laboratory for Fisheries Research	Field crops research stations (24)
Horticultural Research Institute	Central Laboratory for Weed Research	
Animal Reproduction Research Institute	Central Laboratory for Medicinal and Aromatic Plants Research	
Cotton Research Institute	Central Laboratory for Analysis of Pesticide Residues and Heavy Elements in Food	
Field Crops Research Institute	Central Laboratory for Date Palm Research and Development	
Sugar Crops Research Institute	Central Laboratory for Control of Veterinary Biological Preparations	
Agricultural Engineering Research Institute	Central Laboratory for Organic Agriculture	
Agricultural Genetic Engineering Research Institute	Central Pesticide Laboratory	
Plant Pathology Research Institute	Central Laboratory for Agricultural Climate	
Food Technology Research Institute	Climate Change, Renewable Energy and Expert Systems Information Centre	
Animal Health Research Institute		
Plant Protection Research Institute		

Source: ARC (2025[19]); (2025[20]); (2025[21]).

Box 2.2. Research Institutes under the Agricultural Research Centre

The activities of some of the leading research institutes under the Agricultural Research Centre are described below:

Soil, Water and Environment Research Institute

The Soil, Water and Environment Research Institute is a key institution for integrated management and conservation of soils, water resources and natural resource management. Its activities include implementing surveys and classifications of soil resources, optimising fertiliser usage, monitoring soil and water pollution, designing on-farm irrigation networks, and developing innovative approaches to improve nutrient use efficiency.

Cotton Research Institute

The Cotton Research Institute aims to maintain the superiority and good reputation of Egyptian cotton worldwide through the continuous development of new high productivity cotton varieties that have improved fibre qualities, early maturity, and are resistant to pest and disease. The institute is responsible for identifying suitable agro-climatic zones, determining adequate crop management systems for different varieties, improving fibre quality assessment, meeting industrial and commercial market requirements, and upgrading cotton classification and grading techniques.

Agricultural Genetic Engineering Research Institute

The Agricultural Genetic Engineering Research Institute aims to advance plant biotechnology for the development of sustainable agricultural systems. Its activities include the adoption of new gene transfer technologies to improve agricultural productivity, developing bio-control agents for pest control, studying the genetic variability of strategic crops, and producing transgenic wheat, barley and maize cultivars that are tolerant to abiotic stress.

Source: Soliman, Ibrahim and Adel (2021[22]).

Desert Research Centre

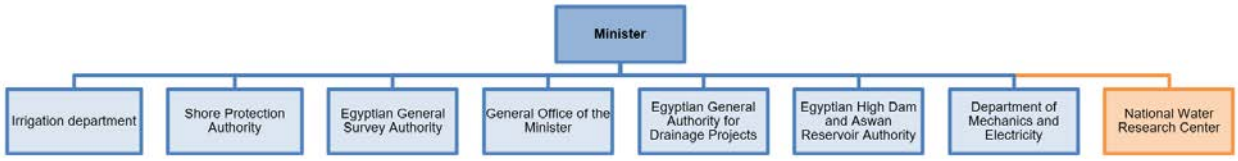
The Desert Research Centre (DRC) was first established in 1949 and was attached to MALR in 1990. The DRC is an independent scientific and research body, dedicated to the study of groundwater, rainwater harvesting, the nature of desert lands, the desert environment, plant and animal production in arid regions, and human and economic studies. In addition, the DRC seeks to determine the optimal investment methods to ensure the sustainability of Egypt's deserts for current and future generations.

The DRC's main objectives include: (i) conducting accurate scientific study of Egyptian deserts; (ii) studying the means of developing, preserving and maintaining the natural and human resources in Egyptian deserts; and (iii) combating desertification, alleviating poverty for inhabitants of desert areas, and monitoring and evaluating desertification across various agricultural ecological regions in Egypt (DRC, 2025[23]). The DRC is structured into four research divisions: Water Resources and Desert Lands Division; Ecology and Dry Lands Agriculture Division; Animal and Poultry Production Division; and Economic and Social Studies Division. In addition, the DRC maintains eleven experimental stations strategically located across Egypt's desert governorates, including stations on the North Coast, Sinai and Southern Sectors.

Ministry of Water Resources and Irrigation

The Ministry of Irrigation was originally established in 1964 and has undergone numerous changes in its structure and scope of responsibilities. It was renamed to the Ministry of Water Resources and Irrigation (MWRI) in 1999. The current MWRI oversees various entities, including the Irrigation Department, the Mechanical and Electrical Department, the Shore Protection Authority, the Egyptian General Survey Authority, the General Office of the Minister, the Egyptian Public Authority for Drainage Projects, the Egyptian High Dam and Aswan Reservoir Authority, the Department of Mechanics and Electricity, and the National Water Research Centre (Figure 2.3).

Figure 2.3. Organisational structure of the Ministry of Water Resources and Irrigation



Source: MWRI (2025[24]).

MWRI is responsible for designing and implementing government policies and strategies pertaining to water resources management. These include Egypt's Second National Water Resources Plan 2017-2037, and the Water Resources Development and Management Strategy until 2050 (published in 2017). MWRI therefore plays an essential role in advancing water security for Egypt by improving water quality, rationalising water use, enhancing the availability of freshwater resources, and improving the enabling environment for integrated water resource management. The main activities of MWRI with relevance to

agriculture include ensuring water availability for land reclamation and the expansion of agricultural production; implementing irrigation and drainage projects; monitoring surface and groundwater resources; maintaining the Aswan High Dam and Reservoir; and managing transboundary co-operation on water management through the Nile Basin Initiative.

National Water Research Centre

The National Water Research Centre (NWRC) was established in 1975 as the main research agency under MWRI. The mission of NWRC is to conduct scientific research and develop innovative solutions for sustainable water resources management in order to support Egypt's development and ensure the availability of water resources for future generations. NWRC includes 12 research institutes focused on a broad range of thematic areas including irrigation and drainage, hydraulics, hydraulic structures and machinery, surface and groundwater hydrology, sediment transport, water quality and pollution control, coastal protection, climate change, geo-measurements analysis, and socio-economic impacts of on-farm water management policies. The NWRC provides data-driven research, technical expertise, and policy recommendations to assist MWRI in developing water policies and regulations that promote the efficient and sustainable use of water resources.

Ministry of Supply and Internal Trade

The Ministry of Supply and Internal Trade (MoSIT) is a strategic ministry that is central to Egypt's policies to achieve food security. It was established in 1943 as the Ministry of Supply and has historically been responsible for administering Egypt's food subsidy system. Between 2005 and 2010 it became the Ministry of Social Solidarity as a result of a merger with the Ministry of Insurance and Social Affairs and assumed responsibility for cash transfers. The name changed to the Ministry of Social Solidarity and Justice after the 2011 revolution, and in 2014 it was renamed to the Ministry of Supply and Internal Trade[2] (Abdalla and Al-Shawarby, 2018[4]; Ido, 2018[25]).

MoSIT oversees a number of subsidiary bodies and affiliated agencies, including the General Authority for Supply Commodities, the Holding Company for Food Industries, the General Company for Silos and Storage, the Internal Trade Development Authority, and the Consumer Protection Agency. MoSIT has a broad remit and undertakes a range of activities, including:

- Monitoring the implementation of the *baladi* bread and ration card subsidy programmes.
- Ensuring the provision of essential food commodities in MoSIT outlets and expanding the range of available products.
- Developing grocery stores and mobile retail outlets across Egypt and in remote rural areas.
- Developing the National Silo Project to expand the government's grain storage capacity and minimise losses. Modernising traditional barns for improved storage of the local wheat crop.
- Registering geographical indicators, e.g. for the production of figs, olive oil and grapes in Matrouh governorate.
- Developing the companies affiliated with the Holding Company for Food Industries to enable more robust competition in local and export markets.
- Expanding the Consumer Protection Agency by opening new regional branches.
- Offering commercial developer lands to investors for the establishment of commercial chains and logistics areas (MoSIT, 2025[26]).

General Authority for Supply Commodities

The General Authority for Supply Commodities (GASC) was established in 1968 as a financially and administratively independent entity, responsible for ensuring the provision of essential food commodities

for the Egyptian population and implementing supply management policies. It has been operating under the umbrella of MoSIT since 2011. GASC is responsible for procuring strategic commodities from domestic and international sources and maintaining the government's strategic food stocks, in accordance with decisions issued by MoSIT. It regulates local markets by overseeing the quantity and pricing of goods, monitoring stocks of strategic commodities, identifying self-sufficiency gaps, and acting to preserve food security. GASC also intervenes in the domestic market during periods of crisis and high food price inflation to ensure sufficient supplies, create competition, and prevent monopolistic practices.

GASC initiates tenders on international markets for a broad range of commodities, including wheat, maize, rice, flour, pasta, sugar, soybean oil, sunflower oil, frozen poultry, and frozen meat. Until December 2024, GASC was responsible for a major share of Egypt's food imports and was the biggest wheat buyer in the international market. As of December 2024, Mostakbal Misr Agency for Sustainable Development, an agency under the Egyptian Air Forces, has assumed responsibility for imports of strategic commodities previously undertaken by GASC (Ezz, 2024[27]).

Ministry of Planning, Economic Development and International Co-operation

The Ministry of Planning, Economic Development and International Co-operation (MPEDIC) was formed in July 2024 from the merger of the Ministry of Planning and Economic Development and the Ministry of International Co-operation. The merger aimed to streamline government operations by combining the responsibilities for drafting long-term economic development plans, setting national development goals, and attracting international investment and partnerships.

MPEDIC plays a leading role in formulating the National Agenda for Sustainable Development: Egypt's Vision 2030 and ensuring a consistent approach to the implementation of the state's strategic vision across various development plans. MPEDIC is responsible for co-ordinating the plans of Ministries at the national and regional levels, formulating policies to improve the performance of government services, monitoring the implementation of government projects, and involving the private sector and civil society in policy design.

MPEDIC monitors the implementation of Egypt's Vision 2030 in co-ordination with other ministries and stakeholders, and ensures alignment with the UN 2030 Agenda for Sustainable Development and the African Union Agenda 2063. In addition, MPEDIC oversees the implementation of the National Structural Reforms Programme, the National Project for Rural Development "Decent Life" (*Haya Karima*) Initiative, Egypt's Integrated National Financing Strategy, and the Nexus of Water, Food and Energy (NWFE) programme.

Ministry of Investment and Foreign Trade

The Ministry of Investment and Foreign Trade (MIFT) was established in July 2024 from the former Ministry of Trade and Industry. The new ministry reflects the government's strategic focus on improving the investment climate and attracting foreign direct investment (FDI). The ministry retains primary responsibility for international trade and WTO affairs, and actively participates in regional and international trade agreements aimed at promoting international trade, increasing exports, strengthening Egypt's position in global markets, and fostering economic co-operation. It is also responsible for formulating and implementing trade measures related to different commodities; measures relating to agricultural commodities are implemented in co-ordination with MALR and MoSIT.

MIFT incorporates various entities such as the Export Development Fund and the Export Development Authority, which work to promote Egyptian exports by assisting firms with marketing, international exhibitions, trade missions and technical support. The Ministry also oversees the General Organisation for Export and Import Control, which manages the registration and issuing of trade permits for importers and

exporters, as well as the General Authority for Investment and Free Zones, which aims to attract foreign investors by creating a supportive business environment.

Ministry of Environment

The Ministry of Environment (MoE) was established in 1997 and is responsible for formulating environmental policy, preparing government plans and strategies for environmental protection, implementing environmental development projects, and promoting environmental relations between Egypt and other states, as well as regional and international organisations. The Ministry oversees several government strategies with implications for the agricultural sector, including the environmental dimension of the National Agenda for Sustainable Development (Egypt's Vision 2030) and Egypt's National Climate Change Strategy 2050. MoE works to reduce pollution, preserve biodiversity and the natural resource base, integrate environmental dimensions in national policies and programmes, and support Environmental Management Units at the sub-national (governorate) level.

Controlling pollution in the agricultural sector falls under MoE's responsibilities. This includes protecting water resources from nutrient surpluses and nitrogen and phosphorus run-off, by designing regulations to control agricultural run-off, promoting the use of water-saving irrigation technologies, and restoring wetlands and other natural ecosystems. MoE also maintains lists of hazardous pesticides, herbicides and other agricultural chemicals that are not allowed to be imported, sold or used in Egypt.

Agricultural Bank of Egypt

The Agricultural Bank of Egypt (ABE) was founded in 1930 with the objective of developing Egypt's agricultural sector. Formerly known as the Principal Bank for Development and Agricultural Credit, the bank underwent a restructuring in 2016 and was rebranded as the ABE following the adoption of Law no. 84/2016. Today the ABE is one of the largest agricultural banks in the Middle East and North Africa region, operating a network of 1 200 district branches and village banks across Egypt, employing approximately 17 000 staff, and providing services to 3-4 million farmers and rural citizens (Abdulghany, 2022[28]). The ABE is owned by the Egyptian Government and is supervised by the Central Bank of Egypt.

The ABE provides a broad range of loans and financial services to support agricultural and rural development in Egypt. These include concessional loans to finance crop production and agricultural investment activities (Yehia and Soliman, 2022[29]). The ABE increasingly delivers loans via farmer cards to ensure that farmers' expenditures are restricted for use in agricultural businesses. It also provides storage facilities for local wheat producers, with 392 barns strategically positioned throughout the country. The ABE supports rural development through several microfinance initiatives, issues prepaid cards to rural citizens, and is currently developing a financial inclusion strategy.

Ministry of Finance

The Ministry of Finance (MoF) is responsible for the overall financial management of the country, including budgeting, taxation and public debt. MoF provides financial resources to MALR to support the implementation of subsidy and investment programmes. MoF also collaborates with MALR and MPEDIC on the implementation of the NWFE programme, which aims to mobilise climate finance and private investments to promote sustainable development, including in the agricultural sector.

National Food Safety Authority

The National Food Safety Authority (NFSA) was established under Law No. 1/2017, reflecting Egypt's commitment to improve food safety in the local market, and open new markets for agricultural exports. The NFSA is responsible for establishing mandatory food safety criteria; inspection, control, licensing and handling of food; control of imported and local food; granting certificates for exports of locally produced

food; establishing rapid alert and recall systems; establishing risk assessment and analysis procedures; developing a system for food traceability; raising community awareness; and co-operating with national and international organisations on food safety and public health matters (FAO, 2017[30]).

Central Agency for Public Mobilisation and Statistics

The Central Agency for Public Mobilisation and Statistics (CAPMAS) was established in 1964 as Egypt's official statistical agency, responsible for collecting and processing statistical data and conducting the census. CAPMAS publishes statistical data and indicators relating to the agricultural sector, including data on crop and livestock production, yields, agricultural incomes, activities of agricultural co-operatives, and water used for irrigation.

State-owned enterprises play an important role in the agriculture and food sectors

Numerous state-owned enterprises (SOEs) and military-owned enterprises (MOEs) are active in Egypt's agriculture and food sectors. These enterprises operate across the entire agriculture and food value chain, and have an important influence on the marketing structure, the competitive environment for private enterprises, and the formation of market prices. State involvement in the agriculture and food sectors stems from the fact that food security is considered an integral part of national security.

The State Ownership Policy Framework Document was approved in December 2022 and outlines the state's ambition to fully exit from numerous business activities over a period of 3-5 years, including some activities in the agricultural sector (horticultural and field crops), as well as activities related to food and beverages. At the same time, the government plans to either maintain or increase participation in several other agricultural activities, including land reclamation and farm irrigation projects (Cabinet, 2022[31]).

SOEs and MOEs often benefit from tax privileges, and may receive transfers from the government. Following the adoption of Law No. 159 of 2023, Egypt's cabinet approved regulations to abolish tax and fee exemptions for SOEs in 2024 (L'Orient Today, 2024[32]). However, SOEs that are not engaged in economic or investment activities are not covered by the legislation.

The OECD Guidelines on Corporate Governance of State-Owned Enterprises can help policymakers to strengthen the legal, regulatory and institutional framework for SOEs (OECD, 2024[33]). The guidelines underline the importance of ensuring a level playing field and fair competition between SOEs and the private sector, including the principle of applying the same tax system to all enterprises ("tax neutrality"). This principle is reflected in the State Ownership Policy Framework Document and is central to the government's efforts to ensure competitive neutrality and a favourable business environment (Cabinet, 2022[31]). The government has also established a dedicated SOE unit under the Prime Minister's office, with responsibility for implementing the state ownership policy, identifying and maintaining a comprehensive database of all SOEs and state-owned assets, determining the optimal exit mechanism from SOEs, and strengthening the governance and management of public assets (Egypt Independent, 2025[34]).

Holding Company for Food Industries

The Holding Company for Food Industries (HCFI) is a state-owned joint stock company that was established in 1991 and transferred to MoSIT in 2014. It is one of the largest companies operating in Egypt's food sector and oversees the management of numerous subsidiary companies involved in food manufacturing, packaging, transportation, storage, and wholesale and retail trade (Table 2.4). The company has more than 70 000 employees and holds shares in 36 subsidiary companies. In addition, the HCFI also oversees three training and development centres, and an oil reception station in Alexandria (HCFI, 2025[35]).

HCFI is responsible for implementing a large part of the Egyptian food subsidy system, including managing the government's strategic reserves and distributing flour to bakeries to produced subsidised *baladi* bread. HCFI also ensures stable food prices for consumers through its network of 13 000 warehouses, 1 060 retail outlets, 8 800 Game'yeti community outlets, and some 30 000 affiliated *Tamween* grocery stores that provide subsidised commodities through the ration card programme.

Table 2.4. Subsidiaries and affiliates of the Holding Company for Food Industries

Subsidiary / Affiliate	Description
Sugar and Integrated Industries Sector	
Faiyum Sugar	Produces white sugar as a primary product and molasses and fodder as secondary products.
Nobaria Sugar Industry and Refining Company	Produces white sugar from sugar beet, molasses, and fodder from beet waste.
Egyptian Sugar and Integrated Industries Company	Produces sugar, molasses, artificial honey, as well as machinery and equipment, perfumes, confectionery, distillery products, chemicals, wood, and fodder.
Oil and Detergents Sector	
Nile Company for Oil and Detergents	Produces soap, powder and liquid detergents, cleaning products, and fabric softener.
Tanta Oil, Soap and Natural Water Company	Produces vegetable oils, margarine, bottled water, soap, industrial detergents, animal feed, as well as glycerine and fatty acids.
Egyptian Sphinx Oils and Detergents Company	Produces oils, soap, candles, detergents, glycerine, and fodder.
Misr Oils and Soap Company	Produces vegetable oils, margarines, nuts, soap, glycerine, and fodder.
Extracted Oil and Derivatives Company	Produces vegetable oils, ghee, margarine, soap, detergent, glycerine, and fodder.
Mills and Bakeries Sector	
General Company for Bakeries of Greater Cairo	Production and distribution of subsidised bread, as well as pasta and confectionery.
Upper Egypt Flour Mills	Manufactures and distributes grains and grain derivatives, produces bread and flour.
East Delta Mills	Produces breads, baked goods, dough, pasta, feed. Owns 13 mills, 3 silos, 9 bakeries and a pasta factory.
Middle and West Delta Mills	Manufactures flour, pasta and baked goods. Operates grain silos, mills and bakeries.
Alexandria Mills and Bakeries Company	Manufactures flour, bread, pasta and couscous. Operates grain silos, mills and bakeries.
South Cairo and Giza Mills and Bakeries Company	Manufactures flour, bread, pasta, bran, and fodder. Transports wheat, operates grain silos, mills, and warehouses.
Speculation and Marketing Sector	
Al-Sharqiya Madab Company	Produces rice, pasta, livestock feed, and fish feed.
Damietta and Balqas Company	Produces white rice for export, pasta, livestock feed, and fish feed.
Dahahlia Company	Produces rice and pasta.
Western Company	Manufactures barley rice, white rice, bread, and fodder.
Kafr El-Sheikh Company	Manufactures and trades barley rice, white rice, its derivatives and other food commodities.
Lake Company	Manufactures and trades barley rice, white rice, and its derivatives.
Preserved Foods Sector	
Qaha Preserved Food Company	Produces canned beans, juices, pickles, tomato sauce, molasses, jams, sherbet, and vinegar.
Internal Distribution Sector	
Egyptian Wholesale Trading Company	Provides food commodities to consumers through a network of over 950 branches.
General Company for Wholesale Trade	Operates wholesale and retail outlets. Transports and distributes both food and non-food commodities through a network of branches and warehouses.
Research and Training Centres	
Food Development and Safety Centre	Provides advice on food hygiene, and microbiological and chemical analysis of food products.
Egyptian Centre for Milling Technology	Trains millers, develops courses on the milling industry and grain technology.
Egyptian Centre for Baking Technology	Conducts research to enhance the quality and nutritional value of baked goods.

Source: HCFI (2025[35]).

The Egyptian Holding Company for Silos and Storage

The Egyptian Holding Company for Silos and Storage was established by Prime Ministerial Decree No. 1682/2002 and is a company wholly owned by GASC. The company's responsibilities include:

- Establishing and operating the silos necessary for storing grains to meet the country's needs.
- Building and developing a system for managing and monitoring the trading of local and imported wheat and flour from the beginning of contracting until the milling stage.
- Receiving wheat from citizens and suppliers during the local wheat season and storing it in silos annually for consumption throughout the year.
- Maintaining the quality of grains through monitoring and implementing the necessary maintenance to reduce the loss rate.
- Creating new areas of attraction and agricultural expansion by encouraging farmers to grow wheat and grains near the areas where silos are established.
- Reducing the average purchase price of wheat throughout the year as a result of entering the global market.

In the past, wheat was stored in barns and open warehouses, resulting in an estimated 10% of losses to rodents, birds, and weather-related damage (Abdalla and Al-Shawarby, 2018[4]). Today EHCSS operates a network of around 50 modern silos, and uses advanced storage technologies to monitor grain stocks and minimise losses.

The General Company for Silos and Storage

The General Company for Silos and Storage is a joint-stock company affiliated to the Egyptian Holding Company for Silos and Storage. The company is responsible for receiving grain shipments, unloading and storing grain in silos at various ports across Egypt. It also monitors the quality and condition of grains in its storage facilities, using modern sensor technologies to measure moisture content and protect grain stocks from pollution and spoiling. The company has the capacity to store 640 000 tonnes of grain in its silos, including 420 000 tonnes of storage capacity in the ports of Alexandria, Dekheila, Damietta, Port Said and Safaga.

National Service Projects Organisation

The National Service Projects Organisation (NSPO) was established in 1979 as a subsidiary under the Ministry of Defense, with the objective of achieving self-sufficiency for the Egyptian Armed Forces and contributing to national economic development. NSPO manufactures both military and civilian products and oversees a diverse portfolio of subsidiaries operating across various sectors, including agriculture and food, oil and gas, mining, domestic and foreign trade, contracting and specialised services, and specialised and heavy industries.

Table 2.5. Subsidiaries of NSPO operating in the agriculture and food sectors

Subsidiary (established)	Description
El-Nasr Company for Intermediate Chemicals (1972)	Produces chloride and caustic soda, as well as fertilisers and pesticides.
El-Sewedy National Company for Industries and Engineering Projects (2022)	Produces pivot irrigation devices covering areas of up to 150 feddan per device.
Leather & More (2022)	Produces finished leather products, organic solid and liquid fertilisers, and gelatine.
Egyptian Marketing Company for Phosphate (2018)	Produces crude phosphate and markets and sells all types of commercial fertilisers.
Food Security Sector (1982)	Produces field crops, fruit trees, livestock and dairy products, honey, organic fertilisers, and fodder.
National Company for Land Reclamation and Agriculture in East Owainat (1999)	Reclaims and cultivates desert land in the East Owainat project, New Valley Governorate. Cultivates wheat, barley, yellow maize, fruits and vegetables, medicinal plants, and engages in sheep breeding and honey production.
National Company for Fisheries and Aquaculture (2014)	Produces fish, processed fish products, and fish feed.
National Company for Protected Cultivation (2017)	Produces high quality pesticide-free fruits and vegetables in greenhouses, using modern technologies to control temperature, ventilation, humidity and lighting.
National Company for Animal Production (2019)	Produces processed meat and dairy products. Owns ten livestock and three dairy production complexes, two slaughterhouses, a corned beef factory, cheese factory, and two veterinary centres.
National Company for Food Processing and General Supplies (Sinai) (1994)	Produces extra virgin olive oil and various types of pickles in North Sinai Governorate.
Silo Foods for Food Industries (2020)	Produces biscuits, pasta, baked goods, and school meals, through six factories served by a mill and a group of wheat silos.
Qaha and Edfina Company for Advanced Food Industries (2021)	Produces juices and concentrates, frozen fruits and vegetables, jam, paste, canned vegetables, ready-made meals, and canned poultry.
Lacto-Misr Company (2020)	Produces infant formula, coffee creamer, and vegetable-fat whipped cream powder.
Upper Egypt Company (1998)	Involved in livestock production, land reclamation, and general supplies.
Egg Production Complex (1981)	Produces high-quality fresh organic table eggs.
Delta Fish Production Sector (Ghalioun) (2017)	Produces fish and shrimp, as well as fish and shrimp feed.
Sinai National Investment Company (2016)	Implements projects to develop the Sinai Peninsula across a range of sectors, including agriculture.
National Company for Refrigeration and Supplies (2015)	Responsible for preserving and transporting frozen meat, poultry and other food commodities across the country, using a modern fleet of refrigerated trucks.
National Company for Productive Projects (Safi) (1996)	Produces bottled natural water, olive oil, rock salt and various types of pickles in the Siwa Oasis.

Source: NSPO (2024[36]).

Mostakbal Misr Agency for Sustainable Development

Mostakbal Misr Agency for Sustainable Development was established in 2022 by presidential decree and operates as a development arm of the Egyptian Armed Forces. Initially focused on land reclamation projects, its mandate has since expanded to encompass a broader range of responsibilities. In December 2024, the agency took over a number of important functions previously held by GASC, assuming responsibility for imports of strategic commodities through international tenders and direct purchases (Ezz, 2024[27]).

Co-operatives provide an important link with smallholder farmers

Agricultural Co-operatives

Egypt registered 6 035 agricultural co-operative associations with 5.3 million members in 2019-20 (CAPMAS, 2021[37]). Membership in an agricultural co-operative has been compulsory since 1961, with annual membership fees automatically deducted from farmers' transactions with the co-operatives (Kassim et al., 2018[38]). The agricultural co-operative system underwent a restructuring in 1992, and their primary

functions shifted to serving as intermediaries connecting farmers with markets, providing technical assistance, and facilitating the delivery of inputs and concessional loans from the Agricultural Bank of Egypt. However, the complexity of the current legal framework is an obstacle to the development of co-operatives and provides little flexibility for engaging in independent marketing activities and developing contractual arrangements with the private sector (World Bank, 2014[39]; Abdelhakim, 2019[40]; ICA, 2019[41]).

Water User Associations

Water User Associations (WUAs) play an essential role in improving water delivery and strengthening participatory water management in irrigated agriculture. WUAs in Egypt operate at three levels: the district, secondary (branch-canal WUAs), and tertiary (*mesqa*) levels. Mesqa-level WUAs group farmers operating in the same irrigation canal. They were first established under the Irrigation Improvement Project in 1987, and acquired legal status under Law No. 213/1994. The Water Resources and Irrigation Law No. 147 of 2021 and its executive regulations establish a legal framework for civil society participation through WUAs, including by allowing canal and *mesqa* associations to elect secretaries of WUAs at the district level and general secretaries at the governorate level. WUAs help to manage the operation and maintenance of irrigation infrastructure, oversee the equitable distribution of irrigation water among farmers, support the adoption of efficient irrigation methods and water-saving technologies, and facilitate monitoring of water usage (Chapter 4).

2.2. Domestic policies

This section begins by examining the policies through which transfers are directly received by producers, i.e. included in the measurement of the Producer Support Estimate (PSE), such as price support measures and input subsidies. Trade policies can also provide support to producers, and these are discussed in Section 2.3. Two important policies providing support to the agricultural sector are then discussed: research and development, and infrastructure. These are included in the General Services Support Estimate (GSSE). The final sub-section discusses policies that are provided to consumers specifically for the purposes of reducing the price of the goods they consume. These are included in the Consumer Support Estimate (CSE).

Price support measures are widespread in the grains sector

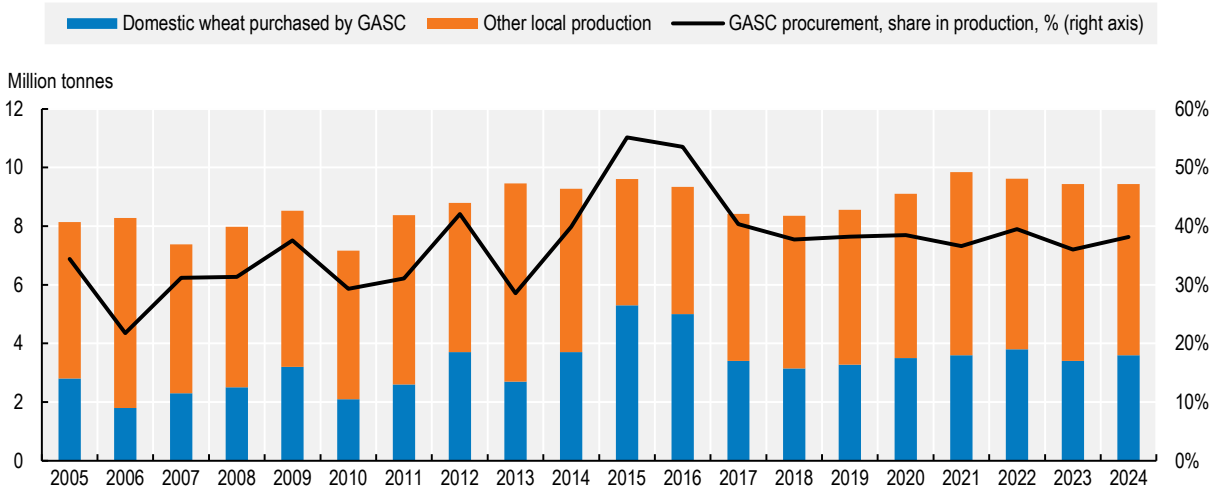
The government intervenes in domestic markets for grains, primarily through procurement at guaranteed minimum prices and public stockholding. This is done to induce greater production of wheat and maize, to increase self-sufficiency ratios and to reduce the large trade deficit for these key staple commodities, which are viewed by the government as vital for ensuring social protection and safeguarding food security. At the same time, strict prohibitions on rice cultivation constrain the production of this water-intensive crop, which already meets national consumption needs. Interventions are further reinforced by the trade measures discussed in Section 2.3.

Wheat

As the primary staple commodity and the main ingredient in *baladi* bread, wheat is considered to be an essential commodity for Egypt's national food security. The General Authority for Supply Commodities (GASC) under the Ministry of Supply and Internal Trade (MoSIT) is responsible for leading large-scale procurement operations. Depending on the year, the GASC may procure between one third and half of domestic wheat production (Figure 2.4). GASC also imported large quantities of wheat from international markets, amounting to 5.5 million tonnes per year over the period from 2020 to 2024 (USDA GAIN,

2025[42]). While previously GASC would publish data on its sourcing of grains and details of tender awards, this information is no longer publicly available, since Mostakbal Misr Agency for Sustainable Development assumed responsibility for imports of strategic commodities.

Figure 2.4. Procurement of domestically produced wheat by GASC, 2005-24

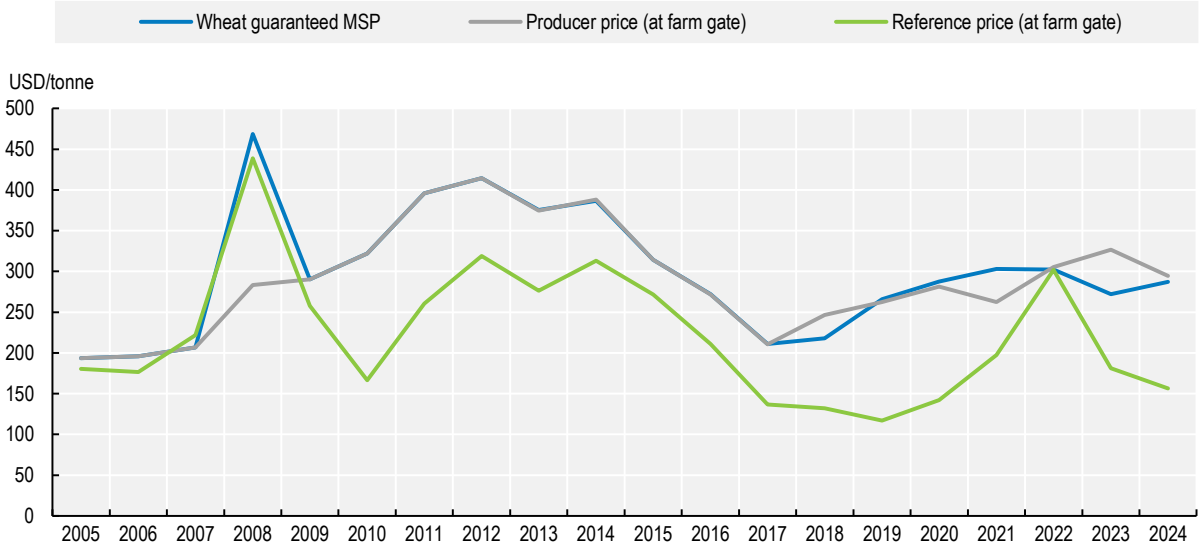


Source: Author calculations based on USDA Grain and Feed Updates and WTO (2018[43]).

StatLink https://stat.link/j4375e

GASC purchases wheat from farmers at a government-set procurement price. Since 2017, MoSIT has typically announced the procurement price that it will pay for locally produced wheat one month before the start of the procurement season, which usually runs from 15 April to 15 July. The government-set procurement price is based on prevailing international market prices and is derived from a moving average of prices paid by GASC for imported wheat over the previous two months. There is a close alignment between the minimum support price (MSP) and the price received by farmers in recent years (Figure 2.5). The corresponding reference price of wheat in the international markets (based on the import unit value) is observed to be systematically below the price received by Egyptian producers.

Figure 2.5. Government-set procurement price and producer price of wheat, 2005-24



Note: MSP = Minimum Support Price.
Source: Author calculations based on USDA Grain and Feed Updates and WTO (2018[43]).

StatLink https://stat.link/erjux3

While it is not mandatory for farmers to sell to the government, as the largest buyer in the market, the government's guaranteed procurement price has an important influence on the market price of wheat. The government views this policy as important to guarantee a "fair price" for farmers, while maintaining domestic production of wheat – an important strategic crop for the nation's food security. High procurement prices encourage farmers to cultivate wheat instead of other crops such as Egyptian clover (*berseem*) or sugar beets, leading to an expansion in the land area allocated to wheat production. Several state-owned enterprises are mandated to pay the government-set procurement price upon receipt of the crop, and then deliver it to GASC. For the calendar year 2025, these include the Holding Company for Food Industries, the Egyptian Holding Company for Silos and Storage, the General Company for Silos and Storage, the Egyptian Agricultural Bank, and Mostakbal Misr Agency for Sustainable Development (USDA GAIN, 2025[44]).

GASC also maintains buffer stocks of wheat, both to ensure food security and to help stabilise fluctuations in market prices. Stocks usually vary between three and six months of supply, with an additional one-month supply of wheat in transit to Egypt. In recent years, Egypt increased its capacity to store wheat and grain in modern silos from 1.6 million tonnes to 4 million tonnes, and modernised old storage facilities with 1.5 million tonnes of capacity. This has enabled the country to increase its strategic stocks of wheat from three to six months of supply, minimise losses due to poor storage, and mitigate temporary shocks to global wheat prices (USDA GAIN, 2022[45]). After increasing sharply to around 5 million tonnes in the late 2000s, the stocks have declined since 2022 due to rapid increases in consumption.

Maize

Maize is the second most consumed grain in Egypt and is also considered to be an essential commodity for Egypt. Yellow maize is used for animal feed while white maize is both used for human consumption and animal feed. Animal feed is a major driver of maize consumption, in particular poultry feed mix which is produced by Egypt's feed mills and consists of 70% yellow maize. Imports reached an estimated 8.5 million tonnes in 2024-25, representing around 54% of the Egyptian consumption of maize (15.6 million tonnes in 2024-25) (USDA GAIN, 2025[42]). The government of Egypt has purchased maize on the domestic market for many years at prices often exceeding international prices, to encourage increased

maize production and fewer imports of animal feed. However, in contrast to wheat, only a small portion of the overall maize production is purchased.

In February 2023, the government announced guaranteed prices of EGP 9 000 (USD 292) per tonne of white maize and EGP 9 500 (USD 308) per tonne of yellow maize (USDA GAIN, 2023[46]). These were established as minimum purchase prices to encourage increased planting of maize by domestic farmers and to build up strategic stocks, which have declined steadily over the past decade. Previously, crop procurement prices were not always announced prior to the start of the planting season, limiting farmers' incentives to invest significant resources in expanding their production of maize. MALR has also been strengthening the incentives for maize production by improving the procurement price processes, implementing contract farming arrangements, and assisting farmers in developing market channels within the feed sector (USDA GAIN, 2023[46]).

Rice

Rice is a strategic crop in Egypt and is primarily cultivated through flood irrigation. There has been a balance between the production and consumption of rice in Egypt in recent years, with imports representing just 0.5% of consumption in 2024-25. While domestic production is mostly sufficient to meet demand for short and medium-grain rice, imports are primarily focused on varieties such as long-grain, basmati and jasmine rice, which are not grown in Egypt (USDA GAIN, 2025[42]).

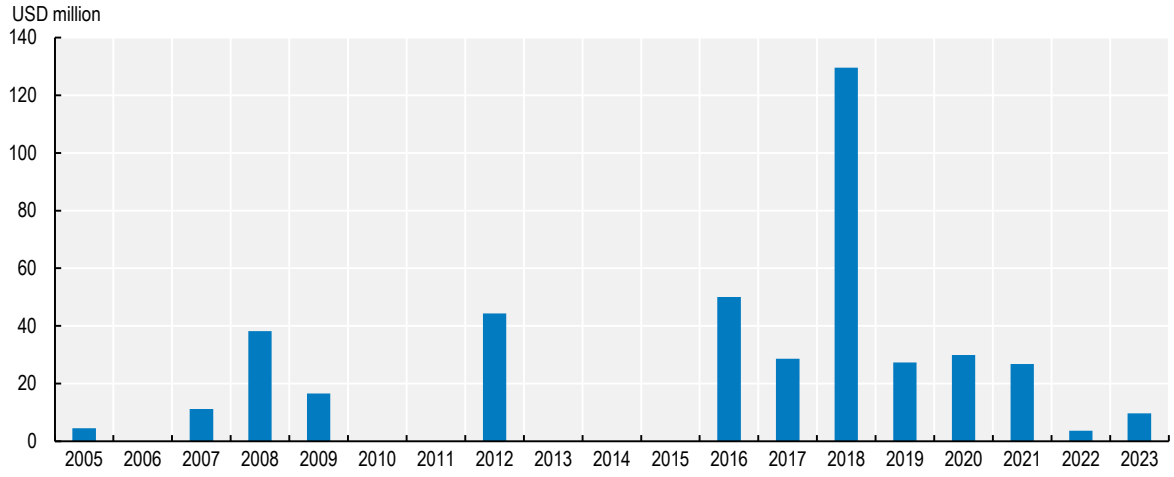
As a highly water-intensive crop, cultivation is restricted to nine governorates in the Nile Delta (totalling 1 074 200 feddans, or 451 164 ha) designated by the Ministry of Water Resources and Irrigation (MWRI) (USDA GAIN, 2025[42]). Several decrees have been introduced to further limit the cultivation of rice in areas other than those indicated by MWRI: in 2014-15 a fine of EGP 3 000 per feddan was imposed in case of violation of these limits. Other measures included the payment of further penalties to prevent the recurrence of violations or the payment of the equivalent cost of the misused water.

In 2022, MoSIT issued a decree constraining rice producers that own agricultural land higher than one feddan to supply one tonne of rice per feddan to MoSIT or face fines. At the end of 2022, marketing control was reinforced, with a decree issued to prevent shortages in the market: private stocks were prohibited, and producers, traders and distributors who withheld rice faced prison sentences and large fines. In addition, farmers who did not supply the requested rice quantity were not allowed to grow rice or to receive input subsidies for a period of one year (Ahram Online, 2022[47]). Due to concerns about food security and rapid price inflation, in November 2022, the government designated rice as an essential commodity. This designation was introduced with the objective of safeguarding food security and allowed the government to impose price controls and other domestic measures to prevent shortages, price hikes and monopolistic practices (USDA GAIN, 2023[46]).

Public stockholding

The government maintains silos and grain storage infrastructure with the alleged objective of meeting the country's demand for staple commodities and "encouraging farmers to cultivate wheat and grains near the areas where silos are established" (GASC, 2025[48]). The Egyptian Holding Company for Silos and Storage (EHCSS) is responsible for the storage of Egypt's strategic food reserve, and is currently expanding its grains storage capacity. These efforts are being undertaken within the framework of the National Silo project, which involves the construction of 50 silos with an estimated storage capacity of 1.5 million tonnes distributed across 17 governorates. This project involves considerable investments amounting to USD 421 million since 2005 (Figure 2.6), which will allow Egypt to store more than 6 months of supply in its strategic reserves. This is seen by the government as a way to mitigate the consequences of future shocks to production and prices.

Figure 2.6. Investment in silos and storage infrastructure by the EHCSS, 2005-23



Source: Data provided by the Egyptian Holding Company for Silos and Storage (EHCSS).

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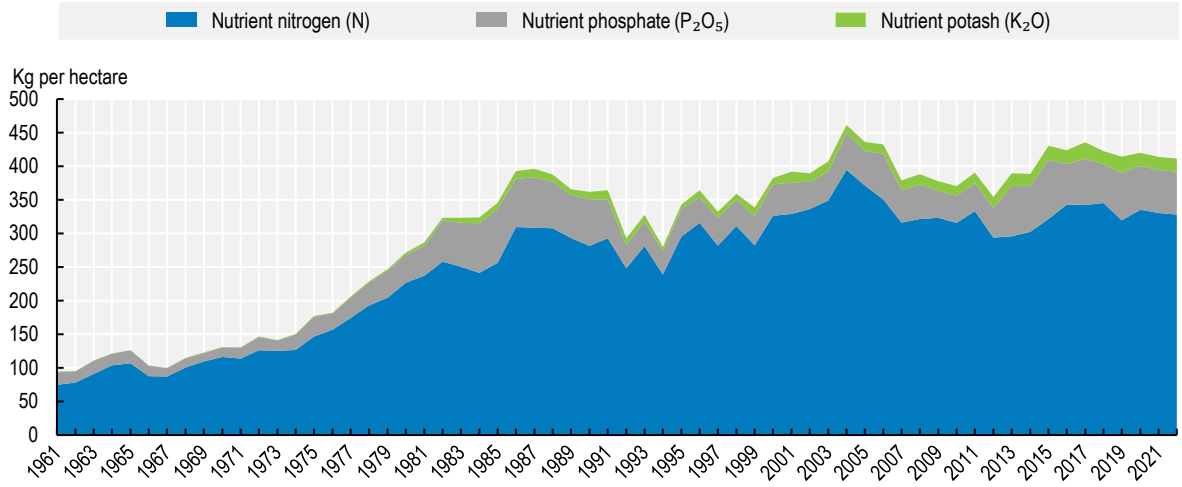
Input costs are lowered by market interventions

Fertiliser subsidies

The Egyptian Government indirectly subsidises the production of fertilisers. There are currently seven factories producing approximately 6.6 million tonnes of fertiliser per year in Egypt. These factories purchase subsidised natural gas at a discount with support from the Ministry of Petroleum and Mineral Resources and are required to allocate 55% of their production to the MALR, which is then sold to farmers at a below-market subsidised price. In return, fertiliser manufacturers are permitted to sell the remaining 45% of their production – comprising 35% for export and 10% for the domestic market. The subsidised price is updated every few years and has increased in 2022 to EGP 4 500 per tonne, but still remains below market prices.

Subsidised nitrogen fertilisers are targeted to strategic crops – in particular wheat – and are provided exclusively to small-scale farmers with land holdings of up to 25 feddan (10.5 hectares). Agricultural co-operatives are mandated by the government to distribute fertilisers, and each farmer is allocated a quota calculated based on their land size and the crops that they cultivate. Since the turn of the century, the use of fertilisers per hectare has remained stable, albeit at quite high levels. While this is in part due to multiple crops planted per year in Egypt, evidence suggests that the fertiliser subsidies may be contributing to overapplication of fertilisers, leading to nutrient surpluses with considerable negative consequences for environmental sustainability. For instance, nitrogen fertiliser applied to wheat was estimated to be 139 kg per feddan, which is 85% higher than the requirement of 75 kg per feddan set by MALR (Kurdi et al., 2020[49]).

Figure 2.7. Use of fertilisers per area of cropland



Source: FAOSTAT (2025[50]).

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National Seed Production Project

This project aims to increase self-sufficiency by raising the productivity of Egyptian crops and producing high-quality local seeds that are resistant to pests and climate change. The plan of the vegetable crop seed production programme is to increase Egypt's ability to provide vegetable seeds locally instead of importing more than 95% of vegetable crop seeds, in addition to reducing the burden on farmers by making them available at reasonable prices. The programme includes providing farmers seeds at low prices and investment in improved varieties.

The programme succeeded in deriving and registering 26 varieties and hybrids for 10 main vegetable crops: tomatoes, peppers, eggplant, watermelon, cantaloupe, peas, beans, cowpeas, cucumbers, and zucchini. New varieties are characterised by their resistance to disease, soil and water salinity, and drought.

Concessional loans provide support for small-scale producers

Preferential credit from the Agricultural Bank of Egypt

The credit portfolio of the Agricultural Bank of Egypt (ABE) includes several concessional loan products for farmers. Loans are provided to farmers with an interest rate of 5%, significantly lower than the market interest rate of about 22% in 2023. The difference is then compensated by the ABE and the Central Bank of Egypt. These concessional loans constitute about 20% of the bank's loan portfolio, while the remainder is made up of commercial loans.

Concessional loans are provided to farmers with the aim of boosting domestic production and reducing Egypt's dependency on imports. The bank also provides financing to farmers for land reclamation, and has supported Egyptian farmers in reclaiming around 4 million feddans in recent years. The ABE currently serves about 5-10% of the 9 million farmers that are eligible to apply for a subsidised loan (tenant farmers are not eligible). To help increase the bank's penetration rate, the ABE has recently developed *Agrimisr*, an online platform for landowners to apply for subsidised loans.

The National Veal Project

The National Veal Project began in mid-2017 and provides concessional loans at an interest rate of 5%. The programme has provided EGP 9 billion in financing for 44 000 beneficiaries, including small breeders, women and young graduates, to raise and fatten approximately 510 000 heads of cattle. Ministerial Resolution No. 72/2017 was issued to prohibit the slaughter of veal weighing less than 100 kg live weight, by encouraging farmers to fatten the animals until they reach a weight of at least 400 kg, with the aim of increasing the supply of red meat in the local market, raising the incomes of small breeders, and reducing imports.

Investments in irrigation infrastructure are substantial

Large-scale irrigation infrastructure projects, including the construction and maintenance of branch canals up to the *mesqa* level, are developed by MWRI. In addition, MPEDIC provides support for the rehabilitation and lining of irrigation canals through the Decent Life Initiative (*Haya Karima*). MALR, through Law No. 213/1994, encourages farmers to develop on-farm irrigation systems. In particular, the law provides for the reimbursement of expenses incurred by water user associations benefiting from *mesqa* enhancement investments, and loans. The costs associated with pump sets are to be repaid within a 3-year period, while the repayment of civil works expenses extends over a period of 20 years. These loans are provided to farmers interest-free, with the cost of the loan borne by the government. Until 2013, the cost recovery process was delayed pending a decision on whether the costs of electricity should also be included. In 2013, MWRI and MoF officially decided to include the costs of electricity networks in the cost recovery framework, with repayments scheduled over a 15-year period (World Bank, 2016[51]).

In new lands recently reclaimed from desert to agricultural production, the government provides water to farmers free of charge. Nevertheless, farmers are obliged to bear the costs associated with diesel for water pumps, the initial installation of pumps (whether surface or submersible), and the excavation of wells. However, the expenses related to pumped irrigation water receive indirect subsidies through fuel subsidies. In addition, regulations governing pump usage are not strictly enforced, which has contributed to the prevalence of unauthorised pumping (Soliman, 2024[52]) (Kassim et al., 2018[38]).

Land reclamation is a key focus of agricultural policy

Another key element of the agricultural development strategy of Egypt is the constant incorporation of new lands from the desert to agricultural production. Land reclamation involves significant expenditures on infrastructure, such as extending electricity networks, road construction, wastewater treatment, and the establishment of canals for irrigation. The importance of this systematic expansion is reflected in numerous large-scale projects that have been implemented over the past decades in Egypt.

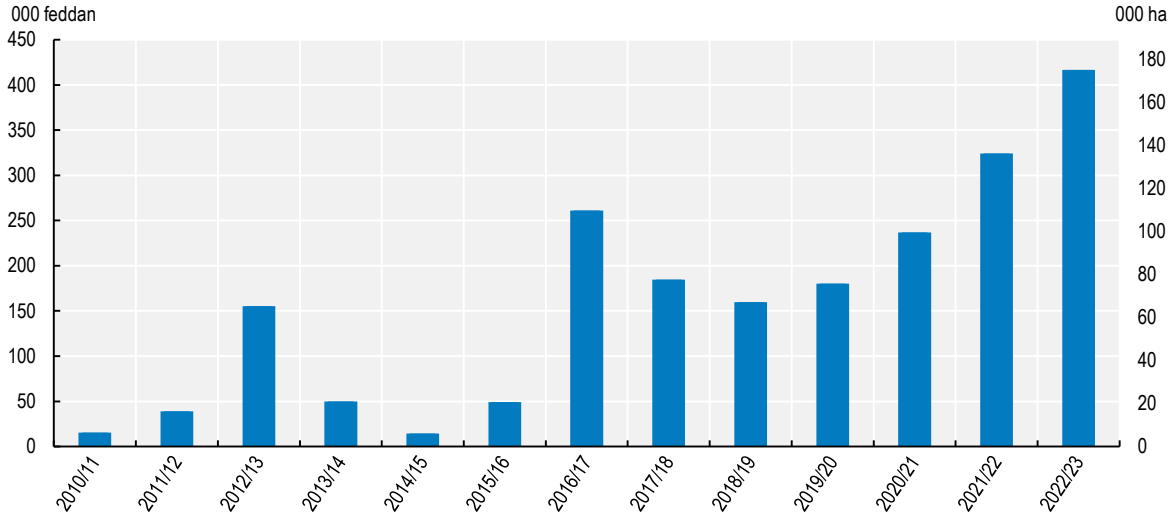
The main large-scale land reclamation projects implemented by the government are outlined below:

- The New Delta Project (launched in 2015), which aims to convert 2.2 million feddans (9 240 km²) of desert west of the Nile Delta into farmland, using pumped groundwater and treated wastewater.
- The South Valley Development Project “Toshka El Khair” (launched in 2014), which targets the cultivation of 467 316 feddan (196 273 ha), the development of agri-food industries, and the expansion of agricultural exports, including the establishment of palm plantations for export.
- The one-and-a-half million feddans project (launched in 2014), which seeks to expand cultivated land by 1.45 million feddan (0.6 million ha), increase habitable areas, and boost agricultural exports.
- The 100 000 feddans of greenhouses Project (launched in 2014), which aims to enhance vegetable production, expand exports, and support agricultural intensification through greenhouse farming.

- East Owainat Project, located in the New Valley Governorate, which aims to convert desert land into agricultural production areas using fossil water from the Nubian Sandstone Aquifer, expanding cultivated land for field crops and horticulture.

As a result of this policy, total cultivated areas have increased from 8.7 million feddans (3.7 million ha) in 2010 to 10 million feddans (4.2 million ha) in 2024 (MALR, 2020[12]). However, this has not been sufficient to compensate for the increase in food demand driven by population and economic growth. Against this background, land reclamation has accelerated considerably since 2016/2017, and there has been a nearly constant increase in the share of new areas in total cultivated areas (Figure 2.8). New lands are more often associated with larger scale market-oriented agriculture when compared with old lands, but they also host many small-scale farmers operating within the framework of governmental programmes.

Figure 2.8. Reclaimed land area, 2010/2011-2022/2023



Source: CAPMAS (2024[53]).

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Consumer support includes subsidies for Baladi bread and essential commodities

The modern food subsidy system, called *tamween*, comprises two elements: a subsidy for *baladi* bread and ration cards. The price of a loaf of *baladi* bread was previously set at 5 piasters (USD 0.001) per loaf. On 1 June 2024, the government implemented a four-fold increase in the price of subsidised bread, marking the first such increase in 36 years (Jovanovic and Glauber, 2024[54]). The bread subsidy allows eligible citizens to purchase five loaves of *baladi* bread per day at a price of 20 piasters per loaf (i.e. EGP 1 or USD 0.02 for five loaves). This is significantly lower than the market price of EGP 1.5 (USD 0.03) per loaf. If the citizen does not consume their full ration of bread, the difference is added as credit on the ration card through which can be redeemed for other subsidised commodities. For the year 2024, expenditures on the *baladi* bread subsidy reached EGP 98 billion (USD 2.2 billion) and benefited nearly 71 million citizens (USDA GAIN, 2024[55]).

In addition to the *baladi* bread subsidy, eligible citizens are granted an EGP 50 (USD 1) credit that allows them to purchase from a list of 33 essential commodities at subsidised prices from authorised distribution centres supplied by the Holding Company for Food Industries. The prices are lower in these centres than in other markets but designed to allow for a small profit. For the year 2024, the budget for this programme was EGP 36 billion (USD 798 million). It benefited 61 million citizens, whose eligibility is determined based

on a comprehensive database managed by GASC combining a variety of indicators that are frequently updated (MoF, 2025[56]).

Access to land and property rights

Land ownership remains highly fragmented in Egypt as a result of land reform policies adopted after the 1952 revolution, which set ownership ceilings of 200, 100, and then 50 feddans per individual. Over the following decades, high population density and prevailing inheritance laws have led to increasingly small and fragmented land holdings, especially in the Nile Delta (Nada and Sims, 2020[57]).

The protection of property rights is enshrined in the 2014 constitution (amended in 2019). Article 29 commits the state to "protecting and increasing land under cultivation", "incriminating encroachments thereon", as well as "the allocation of a percentage of reclaimed lands to small farmers and youth graduates". Article 33 further underlines the state's responsibility to protect public, private and co-operative ownership of property (Constitute, 2022[9]). Nevertheless, small-scale producers often face insecure tenure, limited legal protections, and bureaucratic hurdles in acquiring or registering land. While title registration has been applied to agricultural land, only 25% of land parcels are estimated to be accurately recorded in the system (Nada and Sims, 2020[57]).

Additionally, the expansion of land reclamation projects and urban encroachment in old lands have further complicated access, sometimes displacing local communities or restricting traditional land use. Amendments to the Desert Land Law of 1981 were introduced in 2024, allowing foreign investors, particularly Arab nationals, to acquire desert lands for investment projects under specific legal frameworks, and subject to regulatory and security approvals (Manshurat, 2024[58]) (Ahram Online, 2024[59]). While these changes provide pathways for foreign investment in agricultural land, majority Egyptian ownership remains a requirement in many cases.

Agriculture is an important source of employment in rural areas, especially for women. However, only 2% of Egyptian women own land, and only 5.2% of the total agricultural land is owned by women, which is lower than the average for the Arab world (7%) (FAO, 2022[60]). Furthermore, the majority of women are deprived of their rights to inherit land, particularly in border governorates and in Upper Egypt (OECD/ILO/CAWTAR, 2020[61]). The chances of women being denied their inheritance are higher for agricultural land (Khodary, 2018[62]). Strengthening legal frameworks, ensuring equitable land distribution, and improving access to land registration services are essential steps to empower farmers, particularly women, and boost productivity in the sector.

There are limited programmes to improve environmental performance

One important environmental problem in Egypt arises when farmers burn leftover rice straw after the harvest, causing black clouds to fill the sky and exposing rural residents to hazardous air pollution and respiratory diseases. In response, the government adopted the Waste Management and Regulation Law 202/2020, which introduced strict fines and prison sentences for violators. The Ministry of Environment (MoE) leads local committees to monitor and prevent the open burning of agricultural residues, and launched the "Prepare for Green" campaign in September 2024 to raise awareness amongst farmers about the dangers of burning rice straw. In addition, MoE educates farmers about methods for recycling rice straw and using it as fodder, and provides farmers with machinery for compacting and transporting agricultural waste (Farouk, 2024[63]).

Agriculture faces low levels of taxation with several exemptions for smallholders

Historically, agriculture was implicitly taxed via an overvalued exchange rate for exports and domestic price controls. These implicit taxes have been mostly eliminated with the liberalisation measures enacted over the past decades.

The Egyptian agricultural land tax acts as a proxy income tax as it is based on an assumed income stream earned from land. Land tax is assessed on the landowner, who is legally responsible for payment. However, in practice the Real Estate Tax Department collects the tax from whoever is cultivating the land, regardless of whether that person is the owner or the tenant (RTA, 2025[64]).

There are several exemptions to the Land Tax. For instance, Law No. 151/1973 provides a 100% land tax exemption to landholders with total landholdings not exceeding 3 feddan (about 90% of farm holdings), except for fruit orchards or if the taxpayer has non-agricultural sources of income. Reclaimed lands such as desert and fallow lands are exempt from land tax for ten years after becoming productive, and permanent exemptions are granted for agricultural land owned by the state and communal land owned by villages. The overall revenue generated by this tax is negligible and it was suspended in 2017 to encourage farmers and agricultural businesses to increase production (El-Din, 2020[65]). The government extended the suspension of the tax to help mitigate the financial challenges brought on by the COVID-19 pandemic and it remains under suspension.

The Unified Income Tax (UIT) is applicable to five categories of non-corporate income, one of which is agricultural land and buildings. Individuals exclusively involved in agricultural production or in the sale of agricultural inputs or marketing agricultural products are taxed as commercial entities. Most landowners and tenants subject to taxation assess their net income based on the use of agricultural lands (including buildings). The tax base aligns with that used for the agricultural land tax, relying on the estimated annual rental value defined by Law No. 113/1939. According to the Ministry of Finance, this value is calculated as the estimated return based on the type of crop multiplied by the number of feddan under cultivation. A presumptive 20% is then deducted for production costs, along with the agricultural land tax obligation; if records are available, this deduction may exceed 20%. For landowners, revenues are set at twice the rental value. This tax is then collected concurrently with the agricultural land tax (MKS Egypt, 2025[66]).

In 2016, the government transitioned from a general sales tax (GST) to a value-added tax (VAT). The new VAT included exemptions for 18 vital food items like wheat, corn, soybeans, and sugar (Wally and Akingbe, 2020[67]). The implementation of VAT on freight began in 2020, which affected private sector imports of soybeans, corn, and corn by-products. VAT exemptions currently apply to 57 items, including tea, sugar and coffee, as well as freight services related to imported grains, beans, salt and spices (PwC, 2023[68]).

2.3. Trade policies

Trade in agricultural products, both exports and imports, is heavily influenced by government policy. The Ministry of Investment and Foreign Trade (MIFT) is responsible for the formulation and implementation of Egypt's trade policy, while the Egyptian Customs Authority implements customs procedures and trade-related legislation issued by government ministries. Agricultural trade policy is implemented in co-ordination with the Ministry of Agriculture and Land Reclamation (MALR), which is responsible for setting sanitary and phytosanitary measures. This section outlines the main trade measures affecting imports and exports of agricultural and food products, including tariffs, export taxes, and quantitative restrictions such as import quotas and export bans. It also discusses regulatory requirements such as licensing and quarantine arrangements, as well as multilateral, regional and bilateral trade relations. The main trade policies and corresponding domestic policy measures for specific agricultural commodities are discussed in detail in Annex 2.C.

Import policy measures

Tariffs

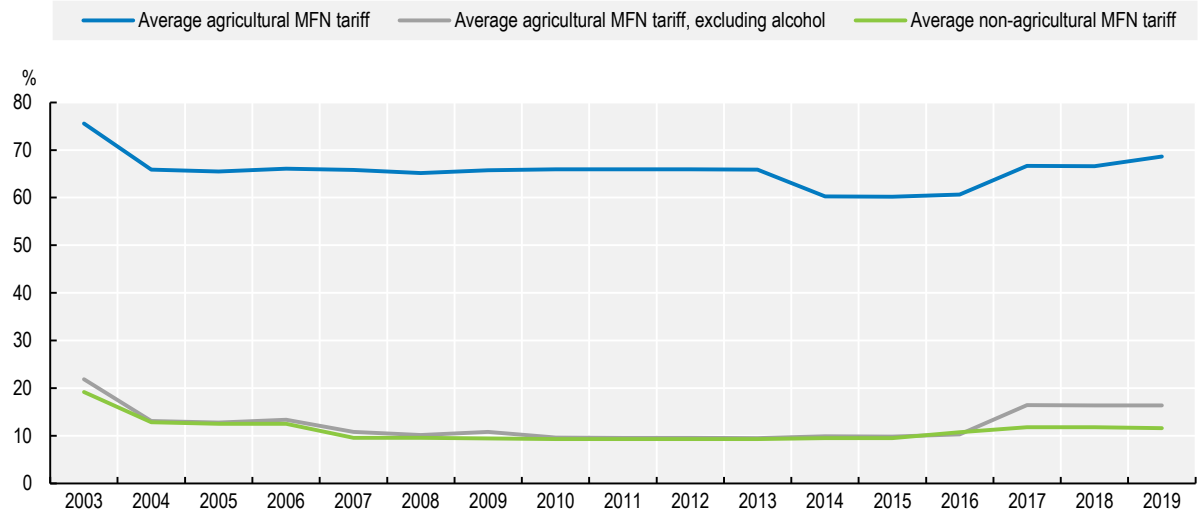
Egypt's tariff policy is based on the Customs Law No. 207/2020. Tariff rates are reviewed by the Supreme Customs Tariff Council, which submits proposals for revised tariff rates to the Minister of Finance. The proposals are then presented to the Council of Ministers, and are ultimately established and modified by Presidential decree. Nearly all tariff lines carry *ad valorem* duties, which are applied on the c.i.f. value of imports (WTO, 2018[43]). Almost 98.5% of tariff lines for agricultural products (according to the WTO definition) are *ad valorem* tariffs, while 1.45% of agricultural products face specific tariffs.

Egypt's simple average applied MFN agricultural tariff decreased from 76% in 2003 to 69% in 2019 (Figure 2.9), and further decreased to 64% in 2022. The high average tariff for agriculture reflects tariff peaks for alcoholic beverages and spirits, many of which are subject to customs duties ranging between 600% and 3000%. Excluding alcoholic beverages from the calculation results in a simple average MFN tariff rate of 16% in 2019, which as for most WTO Members, is still slightly higher than the average MFN tariff for non-agricultural products (12%).

Nearly all agricultural tariff lines (over 99%) are bound in the WTO by an upper limit, with the vast majority of final bound tariffs ranging between 15-100%. Egypt tends to apply tariffs on its agricultural products at levels far below their bound levels. Indeed, more than 70% of agricultural MFN tariff lines are either duty-free or fall within the range of 0-10%. As a result, 72% of the value of agricultural imports entered Egypt duty-free in 2019, and an additional 17% were subject to duties less than 10% (Figure 2.10).

Tariffs on agricultural products remain higher than those applied to non-agricultural goods. The product groups with import tariffs higher than 10% include live animals and meat; fruits and vegetables; cereals and food preparations; sugars and confectionery; and beverages and tobacco (Table 2.6). Aside from alcoholic beverages and spirits, relatively high tariffs of 60% are applied to bananas, oranges, mandarins and citrus fruit, pears, apricots, peaches, plums, cherries, strawberries, chewing gum, crispbread, gingerbread, sweet biscuits, waffles and wafers, rusks, and fruit juices (WITS, 2025[69]).

Figure 2.9. Average applied MFN tariff for agriculture and non-agriculture, 2003-19



Note: Simple averages are based on pre-aggregated HS six-digit averages (i.e. duties at the tariff line level are first averaged to six-digit subheadings).
Source: WITS (2025[69]), https://wits.worldbank.org/.

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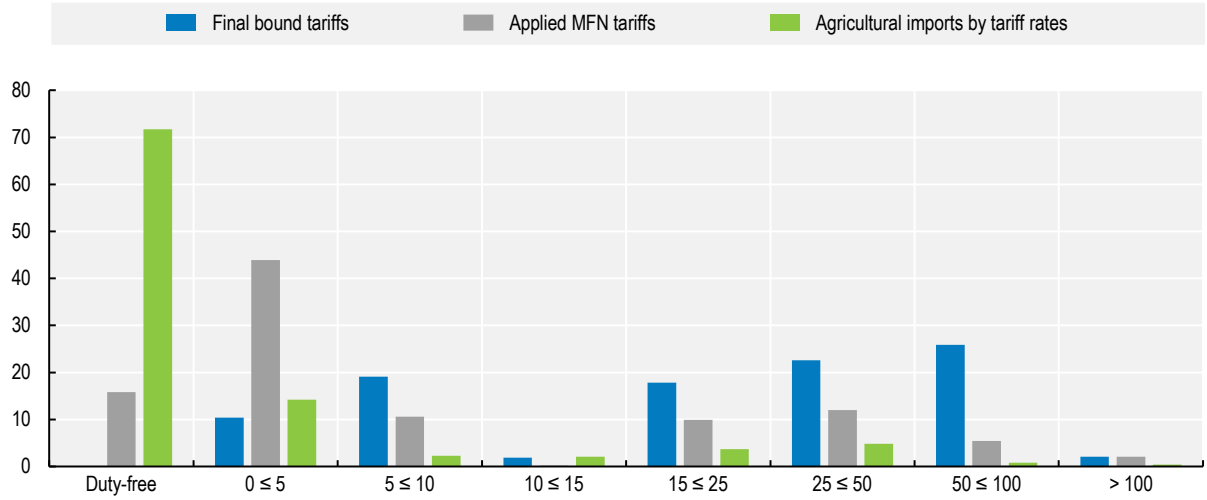
Figure 2.10. Distribution of agricultural tariff levels and imports: Frequency by level of tariff rates, 2019



Source: WTO (2021[70]), https://www.wto.org/english/res_e/booksp_e/tariff_profiles21_e.pdf.

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Table 2.6. Final bound and applied MFN tariffs on agricultural products

	Final bound rate (%)		MFN applied 2022 (%)	
	Average	Maximum	Average	Maximum
Live animals and meat	42.2	80	14	30
Dairy products	25.2	60	8	45
Fruits and vegetables	40.2	60	17	60
Coffee, tea, cocoa and spices	26.8	60	7.27	40
Cereals and food preparations	38.6	3 000	11.64	60
Oilseeds, fats and oils	24.9	80	5.36	30
Sugars and confectionery	36.5	60	14	60
Beverages and tobacco	943.5	3 000	671	3 000
Cotton, silk and wool	5.0	5	1	5
Other agricultural products	24.6	80	5	40

Source: WTO (2024[71]), (2021[70]).

Tariff exemptions, reductions and tax concessions are allowed for under the Customs Law No. 207/2020, the Customs Exemptions Law No. 186/1986, and the Investment Law No. 160/2023 (that amends some provisions of Law No. 72/2017). In addition, the government periodically reduces import duties on agricultural and food products in response to temporary shortfalls in the domestic supply or sudden increases in international market prices. For example, tariffs on raw cane and beet sugar were temporarily lowered from 20% to zero between 15 March and 31 December 2017, in response to a fall in global sugar production and sudden increases in international prices (WTO, 2018[43]). The 30% MFN tariff on imports of frozen poultry was temporarily suspended for six months in October 2023, as prescribed in Prime Ministerial Decree No. 3912/2023, to mitigate the impact of local supply shortages caused by an outbreak of Avian influenza (The Poultry Site, 2023[72]). The Decree was then renewed for an additional six months in 2024.

Egypt does not apply any tariff rate quotas (TRQs) on an MFN basis. However, tariff preferences and TRQs for the imports of some agricultural products were agreed in Egypt's free trade agreements with the European Union, EFTA and Türkiye.

Import licensing

The General Organisation for Export and Import Control (GOEIC) is an agency under the Ministry of Investment and Foreign Trade (MIFT) responsible for maintaining a registry of exporters, importers, and commercial agents, conducting inspections to ensure quality control of exports and imports, and issuing certificates of origin for Egyptian exports. According to Law No. 7/2017, all persons or companies importing goods to Egypt are required to register with GOEIC and fulfil a number of criteria including holding Egyptian nationality, practicing commercial business for at least two years prior to registration, and not being subject to bankruptcy proceedings (GOEIC, 2017[73]).

According to Prime Ministerial Decree No. 2992/2016 on "Organising Imports of Strategic Agricultural Commodities", the imports of certain commodities including wheat grains, feed maize, and soybean seeds for oil extraction are prohibited without written approval from GOEIC. However, this requirement does not apply to imports undertaken by government agencies, such as the General Authority for Supply Commodities (GASC). Furthermore, certain food products[3] for retail sale can only be imported under special conditions outlined in Ministerial Decree 991/2015, including registering with GOEIC, maintaining a quality control system, obtaining an inspection and review certificate, and ensuring conformity with the relevant accredited Egyptian standards (WTO, 2018[43]).

Imports of agricultural commodities are subject to plant health and food safety standards. MALR Decree No. 562/2019 establishes the Central Administration for Plant Quarantine (CAPQ) as Egypt's national plant protection organisation and the agency responsible for grains and oilseeds inspections. CAPQ's responsibilities include ensuring that phytosanitary certificates are in order, that products are free from pests and diseases, and that products comply with safety standards for pesticides, chemical residues and contaminants. Egyptian officials from CAPQ are also required to conduct pre-shipment inspections at the port-of-loading of imports of grains and oilseeds (USDA GAIN, 2020[74]).

Livestock products are inspected by the General Organisation for Veterinary Services (GOVS). The National Food Safety Authority (NFSA) is responsible for ensuring food safety, and works in co-ordination with CAPQ and GOVS to ensure that both domestic and imported food products meet Egypt's food safety regulations.

Standards and labelling

The Egyptian Organisation for Standardisation and Quality (EOS) is responsible for developing, issuing and mandating Egyptian Technical standards. Egyptian Technical Standards are developed by EOS technical committees, which are made up of experts from research institutes, producers, consumers, and civil society organisations. There are 150 technical committees, of which 29 relate to the food industry. In the absence of mandatory Egyptian standard specifications, importers can choose from a range of international and foreign standard specifications, including the International Organization for Standardization (ISO), CODEX or the standardisation systems of the European Union, France, Germany, Japan, the United Kingdom, and the United States.

Trade agreements

Egypt has been a WTO member since 30 June 1995 and is an active participant in the multilateral trading system, granting at least MFN treatment to all WTO members. Egypt is supportive of liberalisation of the agricultural sector within a multilateral framework (WTO, 2018[43]). Egypt is a signatory to the following regional and bilateral trade agreements:

- Pan Arab Free Trade Agreement/ Greater Arab Free Trade Agreement (GAFTA), signed in February 1997 and entered into force in January 1988.
- Common Market for Eastern and Southern Africa (COMESA), signed in June 1998 and entered into force in February 1999.
- Egypt-EU Association Agreement, signed in September 2001 and entered into force in January 2004.
- Egypt Türkiye Free Trade Agreement, signed in December 2005 and entered into force in March 2007.
- Agadir Free Trade Agreement, signed in February 2004 and entered into force in March 2007.
- Egypt-EFTA Free Trade Agreement, signed in January 2007 and entered into force in August 2007.
- Qualified Industrial Zones (QIZ) with duty free status with the US, signed in December 2004 and entered into force in February 2005.
- Egypt-MERCOSUR Free Trade Agreement, signed in August 2010 and entered into force in September 2017.
- African Continental Free Trade Area (AfCFTA), signed in March 2018 and entered into force in January 2021.
- Egypt-UK Association Agreement, signed in December 2020 and entered into force in January 2021.

2.4. Evaluation of support to agriculture

This section presents a quantitative evaluation of support provided to Egypt's agricultural sector for the period 2000-24 through the domestic and trade policies discussed in detail in the previous sections of this chapter. It makes use of the OECD's methodology for measuring the level of policy effort made by governments to support the agricultural sector, through a set of indicators designed to assess the level and composition of support and to monitor how this support compares over time and across countries.

The OECD approach classifies agricultural support policy measures into three main categories: support to individual farmers (through the Producer Support Estimate (PSE) indicator), support to agricultural producers collectively (through the General Services Support Estimate (GSSE) indicator) and support to consumers (through the Consumer Support Estimate (CSE) indicator). Put together, these indicators provide a comprehensive picture of agricultural support through the Total Support Estimate (TSE). Annex 2.B provides short definitions of key indicators used in this report, while a detailed description of the OECD methodology to estimate agricultural support (OECD, 2016[75]) and a comprehensive database for OECD and selected non-OECD countries is available at http://oe.cd/monitoring.

The method applied in this study is fully consistent with that used for other countries as presented in the OECD reports that monitor and evaluate agricultural policies on a yearly basis (OECD, 2024[76]). While strictly adhering to this method, the PSE calculations in this report are subject to the limitations of the information provided by the government of Egypt. In particular, the budgetary data was fragmented and collected from a number of sources, raising questions about its completeness and consistency. It was also highly aggregated, which required adjustments and assumptions in the allocation of support to categories and to commodities. While considerable efforts were made to share the most detailed and comprehensive information available, the government of Egypt was not always able to provide complete and detailed information on budgetary expenditures for agriculture. These caveats are discussed further in Box 2.4 and should be taken into account when analysing the results.

Support to agricultural producers: farmers mostly benefit from supported market prices and receive relatively less budgetary payments

Government support to producers accounted for 10% of their receipts in 2022-24

The Producer Support Estimate (PSE) measures the monetary value of transfers from consumers and taxpayers to agricultural producers arising from government policies that support agriculture. Transfers generated by agricultural policies are measured in gross terms (as no adjustment is made for costs incurred by producers) and at the farm gate level (to measure support provided only to individual primary producers of agricultural commodities).

The PSE is often presented using the %PSE indicator, which is calculated by dividing producer support by the value of gross farm receipts (i.e. the value of production plus budgetary and other transfers to producers). The level of support provides insights into the incidence that agricultural support policies have on producers (support when PSE is positive or burden when PSE is negative), on consumers (burden when Market Price Support to producers is positive), and taxpayers (budgetary costs).

Egypt's %PSE averaged 10.1% in 2022-24, indicating that a tenth of agricultural producers' gross receipts were generated by support policies (Table 2.7 and Table 2.8). Producer support in Egypt essentially reflects market price support measures generated through domestic policy (especially administered prices and procurement of several staple commodities) and trade policies (with significant tariff protection). Market price support, which accounts for 8.8% of gross farm receipts, makes up the vast majority of the total. This means that most of the burden of support is borne by consumers and other first-level buyers of agricultural commodities, who pay prices higher than they would have in the absence of these policies. In contrast, budgetary spending – composed exclusively of input subsidies – represents only 1.4% of gross farm receipts, a minimal share by comparison.

Table 2.7. Egypt: Estimates of support to agriculture, million EGP

	2000-02	2022-24	2022	2023	2024p
Total value of production (at farm gate)	**69 727**	**1 427 757**	**971 235**	**1 719 507**	**1 592 528**
of which: share of MPS commodities (%)	66.70	65.93	65.11	67.84	64.84
Total value of consumption (at farm gate)	**76 227**	**1 858 548**	**1 314 991**	**1 833 732**	**2 426 921**
Producer Support Estimate (PSE)	**15 039**	**146 673**	**75 661**	**167 600**	**196 757**
Support based on commodity output	12 068	127 015	62 459	153 032	165 552
Market price support[1]	12 068	127 015	62 459	153 032	165 552
Positive market price support	12 429	148 844	88 903	158 810	198 818
Negative market price support	-361	-21 829	-26 444	-5 778	-33 266
Payments based on output	0	0	0	0	0
Payments based on input use	2 971	19 658	13 202	14 568	31 204
Based on variable input use	2 910	19 345	12 905	14 270	30 860
with input constraints	0	0	0	0	0
Based on fixed capital formation	50	262	244	248	294
with input constraints	0	0	0	0	0
Based on on-farm services	11	51	52	50	50
with input constraints	0	0	0	0	0
Payments based on current A/An/R/I, production required	0	0	0	0	0
Based on Receipts / Income	0	0	0	0	0
Based on Area planted / Animal numbers	0	0	0	0	0
with input constraints	0	0	0	0	0
Payments based on non-current A/An/R/I, production required	0	0	0	0	0
Payments based on non-current A/An/R/I, production not required	0	0	0	0	0
With variable payment rates	0	0	0	0	0
with commodity exceptions	0	0	0	0	0
With fixed payment rates	0	0	0	0	0
with commodity exceptions	0	0	0	0	0
Payments based on non-commodity criteria	0	0	0	0	0
Based on long-term resource retirement	0	0	0	0	0
Based on a specific non-commodity output	0	0	0	0	0
Based on other non-commodity criteria	0	0	0	0	0
Miscellaneous payments	0	0	0	0	0
Percentage PSE (%)	**20.69**	**10.13**	**7.69**	**9.67**	**12.12**
Producer NPC (coeff.)	**1.24**	**1.13**	**1.12**	**1.11**	**1.16**
Producer NAC (coeff.)	**1.26**	**1.11**	**1.08**	**1.11**	**1.14**
General Services Support Estimate (GSSE)	**2 468**	**37 265**	**27 794**	**61 835**	**22 167**
Agricultural knowledge and innovation system	510	5 209	3 713	5 483	6 432
Inspection and control	39	355	298	346	421
Development and maintenance of infrastructure	1 764	30 766	22 765	55 047	14 487
Marketing and promotion	0	0	0	0	0
Cost of public stockholding	154	935	1 018	959	828
Miscellaneous	0	0	0	0	0
Percentage GSSE (% of TSE)	**11.01**	**12.37**	**14.37**	**17.31**	**6.28**
Consumer Support Estimate (CSE)	**-11 498**	**-154 190**	**-52 208**	**-145 894**	**-264 467**
Transfers to producers from consumers	-13 058	-161 652	-101 434	-167 036	-216 486
Other transfers from consumers	-4 482	-140 908	-76 057	-119 063	-227 605
Transfers to consumers from taxpayers	4 900	117 283	90 000	127 700	134 150
Excess feed cost	1 143	31 087	35 283	12 504	45 474
Percentage CSE (%)	**-16.12**	**-8.86**	**-4.26**	**-8.55**	**-11.53**
Consumer NPC (coeff.)	**1.30**	**1.19**	**1.16**	**1.18**	**1.22**
Consumer NAC (coeff.)	**1.19**	**1.10**	**1.04**	**1.09**	**1.13**
Total Support Estimate (TSE)	**22 406**	**301 221**	**193 455**	**357 134**	**353 074**
Transfers from consumers	17 540	302 560	177 491	286 098	444 091
Transfers from taxpayers	9 348	139 569	92 020	190 099	136 588
Budget revenues	-4 482	-140 908	-76 057	-119 063	-227 605
Percentage TSE (% of GDP)	**6.26**	**2.84**	**2.47**	**3.52**	**2.54**
Total Budgetary Support Estimate (TBSE)	**10 339**	**174 206**	**130 995**	**204 102**	**187 522**
Exchange rate (national currency per USD)	**3.94**	**31.75**	**19.31**	**30.63**	**45.30**

Source: OECD (2025), "Producer and Consumer Estimates", OECD Agriculture Statistics Database, https://data-explorer.oecd.org/.

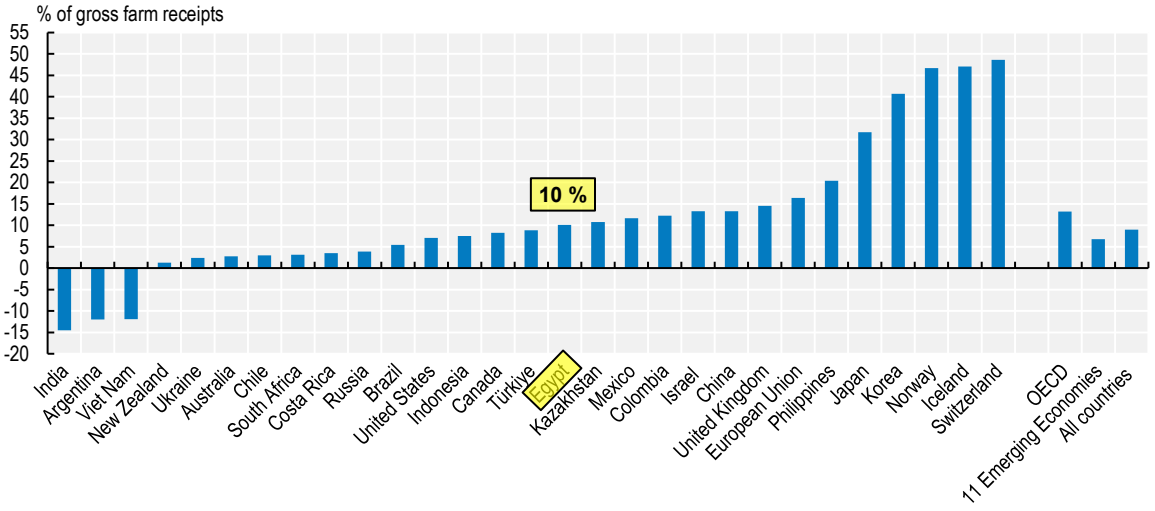
Table 2.8. Egypt: Estimates of support to agriculture, USD million

	2000-02	2022-24	2022	2023	2024p
Total value of production (at farm gate)	**17 755**	**47 199**	**50 297**	**56 145**	**35 156**
of which: share of MPS commodities (%)	66.70	65.93	65.11	67.84	64.84
Total value of consumption (at farm gate)	**19 439**	**60 516**	**68 099**	**59 874**	**53 575**
Producer Support Estimate (PSE)	**3 894**	**4 578**	**3 918**	**5 472**	**4 343**
Support based on commodity output	3 130	3 962	3 235	4 997	3 655
Market price support[1]	3 130	3 962	3 235	4 997	3 655
Positive market price support	3 231	4 726	4 604	5 185	4 389
Negative market price support	-101	-764	-1 369	-189	-734
Payments based on output	0	0	0	0	0
Payments based on input use	764	616	684	476	689
Based on variable input use	748	605	668	466	681
with input constraints	0	0	0	0	0
Based on fixed capital formation	13	9	13	8	6
with input constraints	0	0	0	0	0
Based on on-farm services	3	2	3	2	1
with input constraints	0	0	0	0	0
Payments based on current A/An/R/I, production required	0	0	0	0	0
Based on Receipts / Income	0	0	0	0	0
Based on Area planted / Animal numbers	0	0	0	0	0
with input constraints	0	0	0	0	0
Payments based on non-current A/An/R/I, production required	0	0	0	0	0
Payments based on non-current A/An/R/I ,production not required	0	0	0	0	0
With variable payment rates	0	0	0	0	0
with commodity exceptions	0	0	0	0	0
With fixed payment rates	0	0	0	0	0
with commodity exceptions	0	0	0	0	0
Payments based on non-commodity criteria	0	0	0	0	0
Based on long-term resource retirement	0	0	0	0	0
Based on a specific non-commodity output	0	0	0	0	0
Based on other non-commodity criteria	0	0	0	0	0
Miscellaneous payments	0	0	0	0	0
Percentage PSE (%)	**20.69**	**10.13**	**7.69**	**9.67**	**12.12**
Producer NPC (coeff.)	**1.24**	**1.13**	**1.12**	**1.11**	**1.16**
Producer NAC (coeff.)	**1.26**	**1.11**	**1.08**	**1.11**	**1.14**
General Services Support Estimate (GSSE)	**634**	**1 316**	**1 439**	**2 019**	**489**
Agricultural knowledge and innovation system	131	171	192	179	142
Inspection and control	10	12	15	11	9
Development and maintenance of infrastructure	454	1 099	1 179	1 797	320
Marketing and promotion	0	0	0	0	0
Cost of public stockholding	40	34	53	31	18
Miscellaneous	0	0	0	0	0
Percentage GSSE (% of TSE)	**11.01**	**12.37**	**14.37**	**17.31**	**6.28**
Consumer Support Estimate (CSE)	**-3 032**	**-4 435**	**-2 704**	**-4 764**	**-5 838**
Transfers to producers from consumers	-3 402	-5 162	-5 253	-5 454	-4 779
Other transfers from consumers	-1 200	-4 284	-3 939	-3 888	-5 024
Transfers to consumers from taxpayers	1 263	3 931	4 661	4 170	2 961
Excess feed cost	306	1 080	1 827	408	1 004
Percentage CSE (%)	**-16.12**	**-8.86**	**-4.26**	**-8.55**	**-11.53**
Consumer NPC (coeff.)	**1.30**	**1.19**	**1.16**	**1.18**	**1.22**
Consumer NAC (coeff.)	**1.19**	**1.10**	**1.04**	**1.09**	**1.13**
Total Support Estimate (TSE)	**5 792**	**9 825**	**10 018**	**11 661**	**7 794**
Transfers from consumers	4 602	9 446	9 192	9 342	9 803
Transfers from taxpayers	2 390	4 663	4 765	6 207	3 015
Budget revenues	-1 200	-4 284	-3 939	-3 888	-5 024
Percentage TSE (% of GDP)	**6.26**	**2.84**	**2.47**	**3.52**	**2.54**
Total Budgetary Support Estimate (TBSE)	**2 662**	**5 863**	**6 784**	**6 664**	**4 140**
Exchange rate (national currency per USD)	**3.94**	**31.75**	**19.31**	**30.63**	**45.30**

Source: OECD (2025), "Producer and Consumer Estimates", OECD Agriculture Statistics Database, https://data-explorer.oecd.org/.

As it is not affected by the size of the sector or by inflation, the %PSE is a good indicator to compare the level of support across countries and over time. In comparison with countries covered in the annual OECD Agricultural Policy Monitoring and Evaluation report, in 2022-24, the average level of producer support of 10% measured in Egypt is lower than the OECD average of 13%, but higher than the average of 7% for emerging economies. The level of support in Egypt is similar to that in Türkiye (9%) a net exporter of food products but below that of the People's Republic of China (hereafter, China) (13%) or the Philippines (20%), both net importers like Egypt (Figure 2.11).

Figure 2.11. Producer Support Estimate in Egypt and in countries monitored by the OECD, 2022-24 average



Notes: The OECD total does not include the non-OECD EU Member States. The 11 Emerging Economies include Argentina, Brazil, China, India, Indonesia, Kazakhstan, the Philippines, Russian Federation, South Africa, Ukraine and Viet Nam.
The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.
Source: OECD (2025), "Producer and Consumer Estimates", OECD Agriculture Statistics Database, https://data-explorer.oecd.org/.

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How Egypt supports farmers, market price policies versus budgetary payments

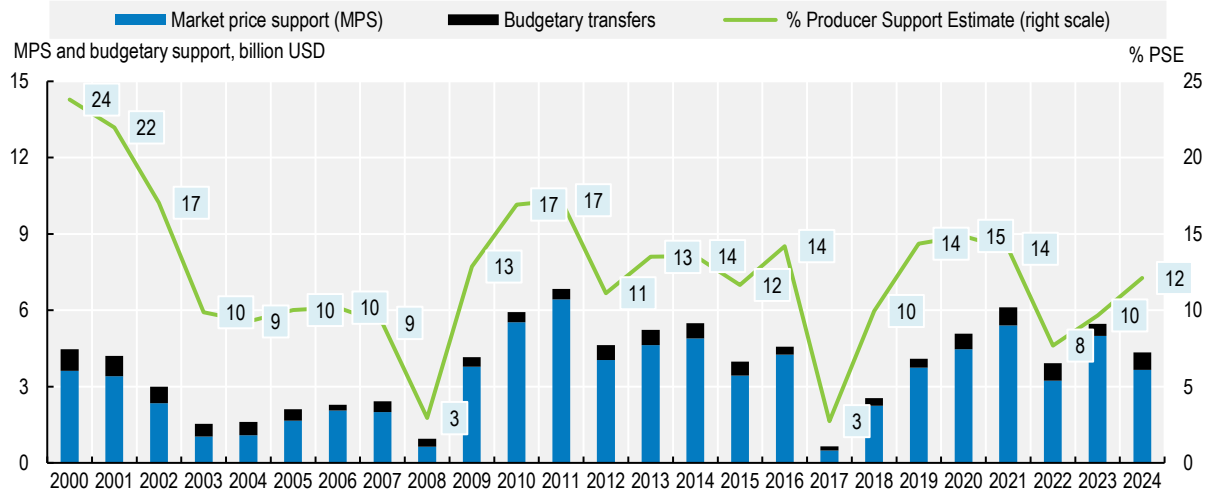
The way in which support is provided largely determines its effects. Governments have a broad range of measures at their disposal to support agricultural producers: for example, they can support domestic prices through tariffs in combination with domestic market interventions or direct price administrations. They can provide subsidies to reduce the cost of variable inputs such as fuel and fertilisers. They can also provide payments on a per animal or per hectare basis, or as a top-up to farmers' income. Each type of measure has different implications in terms of its impact on market distortions and on the burden faced by producers, consumers and taxpayers. It can also have different impacts for producers of different commodities.

The %PSE declined in Egypt from 24% in 2000 to 12% in 2024 while fluctuating considerably over the period (Figure 2.12). The magnitude of these swings was driven by changes in the relative levels of domestic and international prices underlying MPS. The decline was sharpest in 2008 coinciding with the global food price crisis generated by an overall rise in world commodity prices. High international prices reduced the gap between international and domestic prices. Variations are also sometimes caused by exchange rate fluctuations; for instance, in 2017 the rapid depreciation of the Egyptian pound caused a sharp rise in world prices in local currency, thereby lowering the %PSE. The MPS has closely mirrored

movements in the official exchange rate, with significant declines observed during periods of depreciation: a large decrease in the 2000s, another sharp drop at the peak of depreciation in 2017, and a further decline in 2022. In 2023 and 2024, successive devaluations of the Egyptian pound against the US dollar increased border reference prices when expressed in local currency, which reduced price gaps and, in turn, lowered the country's MPS and overall support level.

Changes in the level of support were almost exclusively driven by MPS (provided by transfers from consumers to producers), while the relative importance of budgetary transfers from taxpayers to producers, according to the data available, is very small. Responding to the long-standing objective of achieving food self-sufficiency, market price support is a continuing feature of support for some of Egypt's agricultural commodities. The government has aimed to increase prices received by producers to encourage domestic production, particularly of cereals, in order to secure an adequate food supply for the population and to improve farmers' income. This has led to a level of support to producers that has maintained above 10% of farm receipts in most of the years since 2009.

Figure 2.12. Level and composition of Producer Support Estimate in Egypt, 2000-24



Source: OECD (2025), "Producer and Consumer Estimates", OECD Agriculture Statistics Database, https://data-explorer.oecd.org/.

StatLink https://stat.link/wg9ov3

How support is delivered has implications for the distribution of costs and benefits. In the case of Egypt, since most of support is market price support, the burden of this support falls on consumers. But this burden is not evenly distributed. Some commodities, especially grains, are supported while other commodities such as fruit and vegetables are not. At the same time, some livestock producers are implicitly taxed due to the support provided to grain, which drives up the cost of animal feed, particularly maize. To a lesser extent, and subject to the available budgetary information, producers are also supported through budgetary transfers by means of input subsidies.

The amount of budgetary support to producers is relatively small

Box 2.3. OECD's system of classification of budgetary expenditures

As part of the OECD's analysis of agricultural support, a comprehensive review of public expenditure is conducted at both the national and sub-national levels. Based on information submitted by national authorities, the level and composition of budget support are analysed through the budgetary expenditures provided by governments to producers individually (as farmers), collectively (as a sector) and to consumers. Each policy measure supporting agriculture is then classified by the OECD according to specific implementation criteria, identifying the economic feature and eligibility conditions for farmers. The review includes:

- Producer support measures (classified under the PSE component), covering seven categories: support based on commodity output, payments based on inputs used, three categories of direct payments (linked to current or non-current area, animal numbers, receipts or income, with or without production requirements), payments based on non-commodity criteria, and miscellaneous payments.
- General service support measures (classified under the GSSE component), benefiting the sector as a whole. These include six categories: agricultural knowledge and innovation systems, food inspection and control, rural infrastructure development and maintenance, marketing and promotion, public stockholding costs and miscellaneous payments.
- Consumer support expenditures (CSE) which include budgetary transfers to first-stage consumers to offset higher prices due to market price support, as well as cash or in-kind consumption subsidies linked to such programmes.

Source: OECD (2016[75]).

Budgetary support to agricultural producers in Egypt is small in comparison to MPS. While it has increased in nominal national currency terms from EGP 3 billion per year in 2000-02 to EGP 19.7 billion in 2022-24, the sharp devaluation of the Egyptian Pound means that it decreased when expressed in US Dollars, from USD 764 million to USD 616 million over the same period (Table 2.8). However, the PSE calculations in this report are subject to the caveats and limitations in the data available and provided by the government of Egypt (Box 2.4).

Box 2.4. Challenges obtaining data on Egypt's budgetary support for agriculture

Conducting the analysis of agricultural budgetary support requires access to complete, detailed, disaggregated and consistent budget data. While considerable efforts were made to share the most detailed and comprehensive data available, several challenges were encountered in collecting budgetary expenditure information.

Challenges

Budgetary data used to assess support to agricultural producers and the sector largely come from the Ministry of Agriculture and Land Reclamation (MALR) and the Ministry of Finance (MoF). While MALR maintains and shared a detailed list of agricultural support programmes, it was unable to provide time series on annual allocations (only 2024 was available) or complete programme descriptions, which limited the level of detail possible in the review. MoF publishes annual financial statements for the state budget, including data on public expenditures for the agricultural sector. Despite their limitations, these data constituted an indispensable basis for conducting the PSE analysis. At the same time, although

all budgetary expenditures from various government bodies and administrative levels should, in principle, be reflected in MoF's reporting, verifying the completeness of this data remains difficult. A key issue is that publicly available budgetary data, including those related to agricultural policy are highly aggregated, making it challenging to assess the actual amounts allocated to specific policy measures and their implementation criteria.[1] As a result, most budgetary expenditure data included in the review are reported at the fund level (e.g. Agricultural Land Fund) or by institution (e.g. Agricultural Research Centre), rather than by specific policy measure or programme. Furthermore, the available data from the MoF included budgeted data rather than actual expenditures, making it difficult to assess the real financial support provided.

MALR provided a list of programmes but only for the most recent years or as totals for the whole period without annual breakdowns, which limited their inclusion in the database. Similarly, MoF did not provide any details (i.e. implementation criteria) on how the funds were allocated, referring to them only in broad terms such as subsidies to food commodities, support for farmers or agricultural production support.

Annual financial statements of the state budget have been made available online by the MoF since 2006. Missing data for the period 2000-05 were estimated using government expenditure on agriculture based on the Classification of the Functions of Government (COFOG), collected by the FAO in collaboration with the IMF. The series consisted of total government expenditure on agriculture, forestry, fishing and hunting. Each expenditure category, classified as PSSE or GSSE, was expressed as a percentage of the total series for each year. The percentages were then averaged over the period 2006-24 and applied to earlier years.

Additionally, expenditures by local governments from their own resources were entirely unavailable. The government did not provide this information upon request, nor was it accessible through the MoF's online platform, further limiting transparency and comprehensive analysis. Moreover, the budget does not capture financial activities carried out by economic agencies and other public sector entities, including state-owned enterprises. These entities are often engaged in significant fiscal transfers that are not reflected in the official accounts. Similarly, quasi-fiscal activities in sectors such as agriculture, including subsidies and financial support provided through state-owned fertiliser companies, remain outside the state's general budget, further obscuring the full picture of public budgetary intervention.

Challenges obtaining information include:

- *Producer support measures*: data includes only payments based on input use. Most budgetary lines were highly aggregated, making it impossible to distinguish expenditures across the various subcategories within input subsidies. As a result, these expenditures were assumed to be evenly distributed among variable input use, fixed capital formation, and on-farm services.
- Most of the expenditures on *fertiliser subsidies* are implicit and not explicitly recorded in the budget, despite their potential significance. Fertiliser subsidies were calculated as the difference between the subsidised price paid by farmers and the reference (non-subsidised) market price (source CAPMAS), multiplied by the estimated volume of subsidised fertiliser (based on FAO data).
- *General service support measures*: includes Research and Development, Inspection and Control, and Infrastructure Development and Maintenance. All data were sourced from the MoF and provided at the institutional level (e.g. investments from MWRI).
- Public *stockholding expenditures* are not recorded in the government budget. They were therefore estimated by multiplying the ending stock of grains (sourced from USDA) by the per-tonne maintenance cost for both locally produced and imported grain, based on data from the Egyptian Holding Company for Silos and Storage.

- *Consumer support expenditures* cover the two main programmes: the bread subsidy and ration card programmes. Budgetary data used to assess support to consumers come from MoSIT. This information is comprehensive and covers the main food subsidy programmes.

Main information gaps

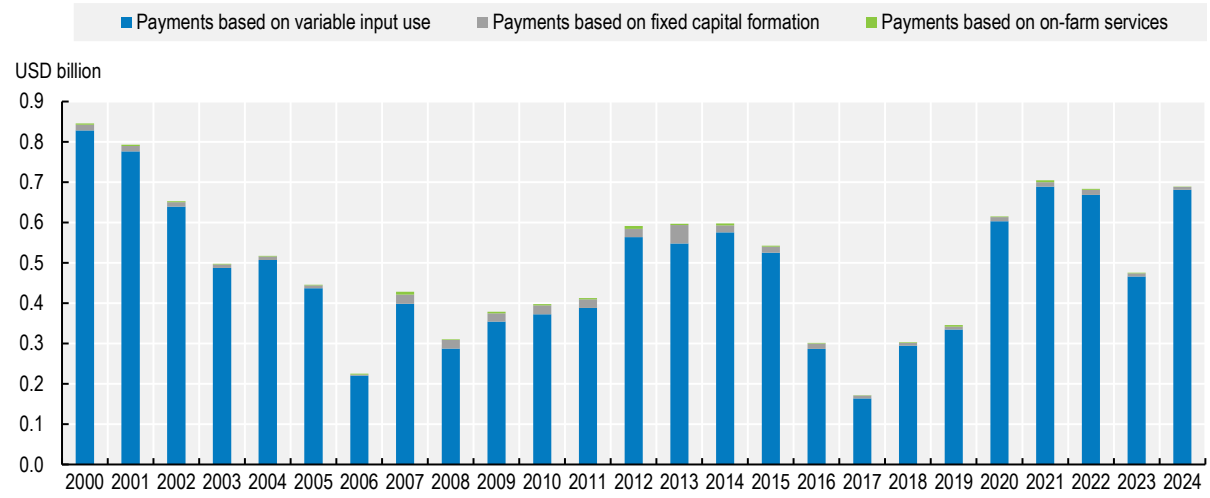
- *Exclusion of large-scale national projects*: several large-scale national agricultural development projects, while representing significant investments in the sector, often as part of land reclamation, are not included in the evaluation of support to agriculture. Along with the state, companies operating in the defence sector, the domestic private sector, and foreign companies all play a major role in these national agricultural and food projects (see section 2.2).
- *Water subsidies*: Farmers do not pay for the water used on their farms, yet the implicit subsidy associated with free water use has not been accounted for in the support estimates. This is due to the absence of data on on-farm water use (as no meters are in place to measure usage) and the lack of a clear reference price that farmers would pay if water were subject to market pricing. This is similar in a number of OECD countries, where water cost recovery remains partial (Gruère, Shigemitsu and Crawford, 2020[77]).
- Another source of agricultural policy information is the *notification to WTO*. However, the frequency, consistency and quality of Egypt's WTO notifications on agricultural policies, including domestic support, public stockholding, and trade measures is limited. Improving this will help align Egypt's practice with international standards and strengthen trust in global trade relations.

Between 2000 and 2024, budgetary expenditures to agricultural producers have fluctuated between USD 0.17 billion and USD 0.85 billion (Figure 2.13). As a share of gross farm receipts, budgetary support to producers has remained low and decreased from 4% in 2000-02 to 1% in 2022-24.

For the whole period, budgetary support to producers has been exclusively provided in the form of payments based on input use. In particular, the government provided explicit or implicit payments reducing the price paid by farmers for variable inputs (such as seeds or fertilisers) and other agricultural inputs accounting for most of the budgetary support. Payments supporting fixed capital formation are the second largest category of budgetary expenditures and target investment cost for farm buildings, equipment, or irrigation. A small part of the budget is devoted to on-farm services, mainly in the form of phytosanitary services to prevent cotton diseases and veterinary services. As detailed in Chapter 4, while they bear part of the on-farm irrigation costs such as the cost of diesel for pumping or irrigation pump maintenance, Egyptian farmers do not pay for the cost of water used on their farms. The implicit subsidy linked to the free use of water has not been accounted for in the support estimates as it was not possible to measure the volume of water consumed on-farm (as there are no meters to measure water consumption by farmers) and as it was not possible to identify a counterfactual price (i.e. what farmers would have paid in the absence of free price water policy) (Saleh, 2018[78]) .

Egypt does not provide producer support paid based on factors of production such as land area, animal numbers, income or revenue, nor does it provide payments based on non-commodity criteria (such as long-term resource retirement or payments to preserve biodiversity). There are no government agricultural insurance programmes operating in the country for the moment, although a law on crop insurance is currently under development.

Figure 2.13. Level and composition of budgetary transfers in Egypt, 2000-24



Source: OECD (2025), "Producer and Consumer Estimates", OECD Agriculture Statistics Database, https://data-explorer.oecd.org/.

StatLink https://stat.link/jdvib5

Market price support: Higher prices for farmers, higher costs for consumers

Market price support (MPS) is the predominant form of support provided to farmers in Egypt over the period from 2000 to 2024. Market price support is calculated where there are domestic or trade policies that create a Market Price Differential (MPD) between the domestic and reference price of agricultural commodities. The reference price represents the opportunity cost for domestic market participants at the given world market conditions (or the price that would have prevailed without domestic and trade policies present in the country). Market price support can generate transfers from consumers to producers when farm gate prices are above reference prices (positive price gap) or from producers to consumers when farm gate prices are lower (negative price gap). Price gaps can also exist without any policy measures that affect the transmission of prices but because of poorly functioning markets, weak institutional infrastructure or poor physical infrastructure. In such cases, the OECD assumes no policy impact and sets the MPD to zero.

Consequently, depending on the policies applied, the MPD for the same commodity may be positive in certain years, negative in others, or equal to zero. For the proper assessment of MPDs and, hence, levels of MPS, relevant policies applied for each year and commodity according to the commodities' trade status (exported, imported or marginally traded) need to be analysed. These policies are described in detail in Annex 2.C which covers the 19 commodities for which the calculation of market price support has been carried out separately: wheat, maize, rice, sugar, groundnuts, tomatoes, potatoes, grapes, mangoes, dates, bananas, oranges, onions, cotton, milk, beef meat, sheep meat, poultry, and eggs. Box 2.5 presents a detailed breakdown of the market price support calculation for Egypt.

Box 2.5. Egypt's Market Price Support: What and how?

Period covered: 2000-24

Products covered: A total of 19 commodities, accounting for on average 66% of the total value of agricultural output in Egypt in 2022-24. This includes fourteen crops (wheat, maize, rice, sugar, groundnuts, tomatoes, potatoes, grapes, mangoes, dates, bananas, oranges, onion, and cotton) accounting for 54% of the total value of crop production in 2022-24, and five livestock products (milk, beef meat, sheep meat, poultry, and eggs) representing on average 89% of the total value of livestock production.

Producer prices: Average prices received by producers, sourced from the Ministry of Agriculture and Land Reclamation (MALR). Cotton producer prices from OECD-FAO Agricultural Outlook (Aglink database 2024).

External reference prices: Import unit values are used for wheat, maize, sugar, milk and poultry. Export unit values are used for groundnuts, tomatoes, potatoes, grapes, mangoes, dates, oranges, and onion. Rice uses the world price of rice[1] defined as the FAO "all rice price index normalised to India, indica high quality 5% broken average 2014-16 (January/December)" adjusted for international transportation costs to Egypt. Bananas use export unit values for the periods 2004-10 and 2016-19 (when exported) and import unit values for the period 2000-03, 2011-15 and 2020-24 (when imported). Cotton uses the world price of cotton[1] defined as Cotlook A index, Middling 1 1/8, cfr far Eastern ports (August/July). For beef, sheep meat and eggs, external reference prices were calculated by subtracting the market price differential based on the MFN tariff, from the producer prices.

Price gap estimates: For all of the above listed products, relevant data have been collected and price gaps calculated as follows:

- For eight exportable products: groundnuts, tomatoes, potatoes, grapes, mangoes (as from 2000), dates, oranges, and onions, no agricultural trade policies or other domestic market price policies either supporting or taxing producers have been identified. The existence of a negative market price differential (MPD), in some years and for most commodities, might be linked to weaknesses in the physical infrastructure in the producer-to-consumer value chain, especially affecting perishable commodities ("market development gap"). Consequently, in line with the OECD methodology, the price gaps for these products are considered to be zero.
- For cotton, exported in 2000-12, and imported since 2013, negative market price differentials were set to zero as no agricultural domestic or trade policies taxing producers have been identified.
- For beef, sheep meat and eggs, the annual average MFN tariff rate was used to estimate the price gap because of quality differences between products imported and products produced domestically (in particular for meat products), making it difficult to ensure that domestic producer prices and reference prices are comparable. For these three commodities, MFN tariffs are identified as the main agricultural policy in place. In the case of eggs, it was not possible to estimate a proper reference price at the border due to the unavailability of trade data. It was also not possible to calculate transportation costs to the Egyptian border in the case a reference price from another country would have been used.
- External reference prices were used to calculate MPDs for the remaining commodities: wheat, maize, rice, sugar, bananas, milk and poultry meat. Negative MPDs were retained for rice in 2008 and 2017-18 to reflect the existence of export restrictions over the period.

Marketing margins: The marketing margin indicates processing, handling and transportation costs for a given commodity. To capture all costs through the value chain, margins were divided into two segments: farm gate to wholesale margins and wholesale to border margins.

- For all commodities (except those for which the tariffs have been used to derive the market price differential), the first segment was calculated as the absolute difference between the wholesale prices and the average farm gate prices. These differences were expressed as a percentage of producer prices on a yearly basis then smoothed out using ten-year averages or the average for the whole period, depending on the commodity.
- Margins between wholesale markets and the border represent transportation costs and were calculated as a fixed percentage of the farm gate price based on discussions with MALR experts. These percentages vary across commodities.
- To bring reference prices to the farm-gate level, transportation costs (wholesale to border) are subtracted from the external reference price for exported commodities, but added for imported ones (except where tariffs are used to calculate the price gaps). In turn, the margins between the producer and wholesale prices are subtracted for all commodities (again except where tariffs are used).

Extrapolation: While the calculation of market price support in Egypt was carried out separately for 19 individual commodities, two groups called "other crops" and "other livestock" comprised all commodities for which an MPD was not estimated individually. "Other crops commodities" includes all fruits and vegetables, other than tomatoes, potatoes, grapes, mangoes, dates, bananas, oranges, and onions, as well as all other crops produced in Egypt. It accounted for 46% of the value of crop production in 2022-24. "Other livestock commodities" includes all livestock products produced in Egypt, other than milk, beef and veal, sheep meat, poultry and eggs. It accounted for 11% of the value of livestock production in Egypt. An estimated value of MPS was attributed to each of these groups, based on the assumption that the ratio between the MPS for those commodities where an MPD is calculated and their total value of production is the same as the corresponding ratio for "Other crop commodities" or "Other livestock commodities" as groups. The MPS from these two groups are then added together to obtain an aggregate "other MPS" corresponding to all other commodities produced in Egypt (i.e. other than the 19 listed above).

Quality adjustments: No quality adjustments were made.

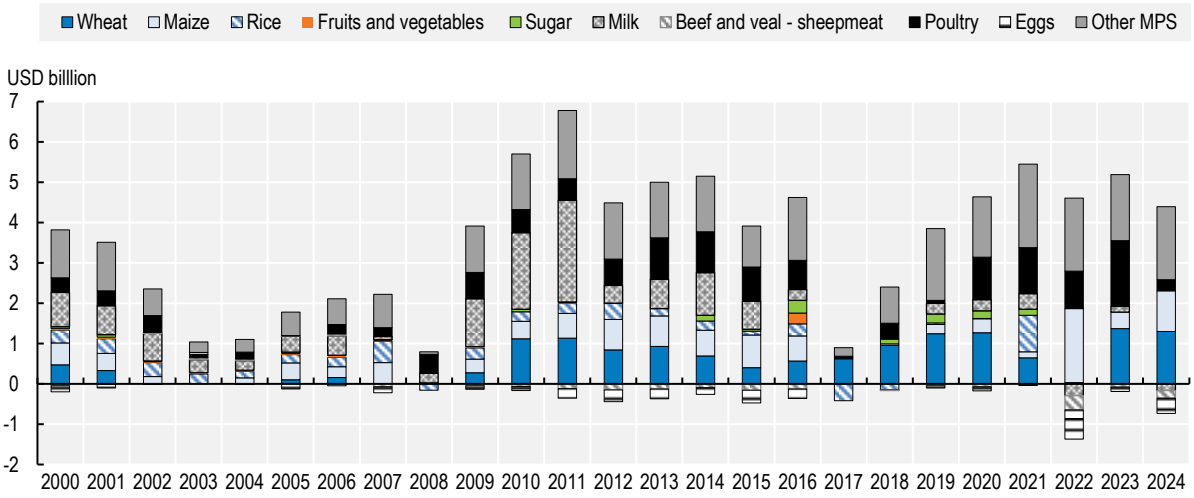
1. Annex table C11, OECD/FAO (2024), *OECD-FAO Agricultural Outlook 2024-2033*, OECD Publishing, Paris/FAO, Rome, https://doi.org/10.1787/4c5d2cfb-en.

Producer prices in Egypt are affected by a range of domestic and trade policies. These policies include guaranteed prices, procurement operations, public stockholding, and tariffs, which maintain them above reference price levels, thereby generating transfers from consumers to producers. In some cases, domestic restrictive regulations affecting stocking and trading commodities as well as export restrictions (i.e. duties or bans) are keeping domestic producer prices lower than reference prices, which creates transfers from producers to consumers.[4] While policy instruments determine the general direction of MPS transfers (from consumers to producers or vice versa), their magnitude and annual variation also depend on several other factors such as movements in world prices, domestic prices and exchange rates, as well as changes in production levels.

In line with Egypt's focus on increasing domestic self-sufficiency in the production of cereals and also due to their large shares in the total value of agricultural production, grains – especially wheat and maize – is the group of commodities which has received the largest share of positive MPS during the period from 2000 to 2024 (Figure 2.14). This means that Egyptian grain farmers are protected by domestic or trade policies in place and receive transfers paid for by consumers through higher prices for these commodities. Wheat consistently registered a positive MPS over most of the period, mainly due to the procurement price

paid by the government to encourage farmers to produce greater volumes of wheat. Maize followed the same pattern as wheat, recording a positive MPS in most years since 2000. Following the war in Ukraine global grain prices surged, and maize producer prices in Egypt rose even more sharply in 2022, generating a large amount of MPS. Domestic prices continued to rise in 2023, but currency depreciation narrowed the positive price gap for maize by increasing border reference prices in local currency terms.

Figure 2.14. Level and composition of market price support in Egypt by commodity, 2000-24



Source: OECD (2025), "Producer and Consumer Estimates", OECD Agriculture Statistics Database, https://data-explorer.oecd.org/.

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For rice, another important staple food crop, the situation is different. First, there is more balance between imports and exports, making Egypt almost self-sufficient in most years. Second, as a water intensive crop, rice has been subject to domestic regulations restricting cultivation to specific areas in the Nile Delta (USDA GAIN, 2025[42]). Over the period 2000-24, rice was subject to different types of domestic and trade policies, including production, import and marketing restrictions by MoSIT, which individually would drive up or down domestic prices, resulting in both positive and negative market price transfers which therefore can partially offset each other. For most of the years covered, domestic producer prices for rice were above reference prices, implying positive MPS. Nevertheless, domestic prices have been below reference prices on some occasions (2008, 2017 and 2018), implying negative market price transfers. Since 2008, export restrictions (including export bans or export taxes) have been implemented for both food security and environmental objectives (to reduce water intensive exports) preventing rice farmers from exploiting opportunities on the world market, hence leading to negative market price transfers to producers in certain years.

MPS has been negative for several livestock commodities (beef meat, sheep meat, milk and eggs) for one or several years. These negatives are due to the excess feed cost element: the MPD was either positive (e.g. for eggs, due to tariffs supporting egg producers) or equal to zero (for beef and sheep meat as tariff protection was removed since 2007). However, the MPS for livestock commodities is always calculated net of the MPS on domestically produced commodities used as animal feed (only maize in the case of Egypt). Maize producers are strongly supported, which acts as a tax on livestock producers, who are consumers of maize and pay higher prices for animal feed. Overall, negative MPS registered for milk, beef, sheep meat and egg producers indicate implicit losses that producers of these commodities incur due to higher prices paid for feed commodities. The year 2022 registered the largest amount of negative MPS due to excess feed costs for livestock products, reflecting a sharp increase in domestic prices for maize. Due to high tariffs protecting poultry producers, market price transfers for this commodity remained positive even after subtracting excess feed costs linked to maize feed use.

Price protection is declining but farmers remain isolated from world market signals

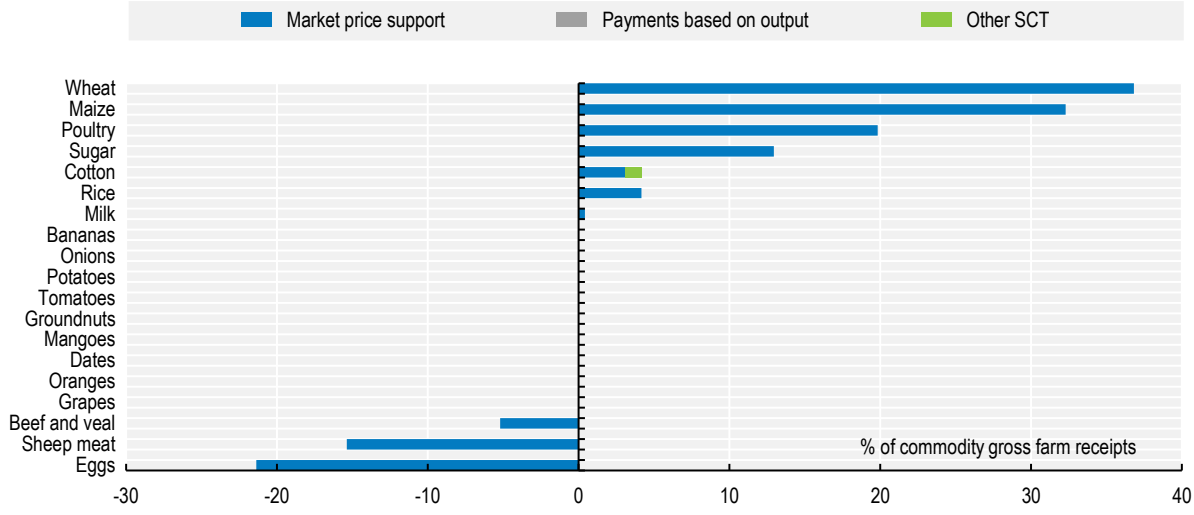
Two other indicators provide specific information that can be used to evaluate changes in policy measures over time: (1) the producer Nominal Protection Coefficient (NPC), which shows the level of price protection, measuring the degree to which domestic markets are insulated from the world market; (2) the producer NAC, which shows the level of market orientation or the degree to which the signals guiding production, consumption and trade come from the market (relative to those from policy intervention).

The producer NPC decreased from 1.24 in 2000-02 (meaning that domestic prices received by producers were 24% above world prices) to 1.13 in 2022-24 (Table 2.7). This indicates that over the past two decades, the level of price distortion has fallen and that market signals are becoming more important for producers' decisions. The producer NAC also fell from 1.26 in 2000-02 (meaning that gross farm receipts were 26% higher than if production were valued at border prices and in the absence of other support policies) to 1.11 in 2022-24. This indicates a higher share of farm receipts generated in the market at unsupported prices, and therefore lower government intervention and higher influence of market signals on the orientation of agricultural production.

By commodity, support is high for staples, while livestock is penalised with high feed costs

In order to examine the level of support by commodity and to understand to what extent agricultural policies are commodity-specific, the OECD uses the Producer Single Commodity Transfers (SCT) indicator.[5] It sums up commodity-specific transfers, such as MPS and payments linked to the production of a given commodity, and expresses it as a percentage of commodity gross receipts (i.e. value of production and budgetary payments specific to the commodity). In the case of Egypt, only cotton receives budgetary payments at commodity level (Other SCT in Figure 2.15) through two programmes, the Egyptian Cotton Improvement Fund and a support programme for cotton pest control. For the rest of the commodities, commodity gross farm receipts are equal to their value of production, and SCT is equal to market price support. There are no output-based payments identified for individual specified commodities or groups of commodities.

Figure 2.15. Producer SCT by commodity, 2020-24 average



Source. OECD (2025), "Producer and Consumer Estimates", OECD Agriculture Statistics Database, https://data-explorer.oecd.org/.

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Variations in levels of support between products translate into incentives or disincentives for producing them. Hence, differing support levels across commodities in a country generate additional market distortions affecting farmers' production choices. Alternatively, payments may be provided to producers of any commodity in a designated group (e.g. any crop or any livestock producer), or simply to producers of any commodity without distinction. The latter payments give more flexibility to those who receive support to define their production mix, therefore allowing producers to be more responsive to market signals.

Single commodity transfers vary considerably across commodities. In line with MPS developments, commodities can be grouped according to three different patterns in SCT observed in 2020-24 (see also Annex 2.C. for more details on policies applied by commodity).

First, the group of commodities with positive Producer SCT: wheat, maize, poultry, sugar, cotton, rice and milk (Figure 2.15). These seven commodities were all mostly imported in 2020-24 and are either subject to trade or domestic policy measures generating positive market price support. As a share of commodity gross receipts (%SCT), support is highest for wheat and maize with the value of transfers representing 37% and 32% of commodity gross receipts in 2020-24, respectively. These high %SCT reflect the policies implemented by the government to increase self-sufficiency for these staple commodities (through policy initiatives to stimulate production) and to reduce the import bill. Producers of both commodities have benefited from guaranteed procurement prices serving as a price floor, along with large-scale government procurement operations. Cotton producers are supported through at least two schemes that provide payments based on input use and encourage increased production. For maize flour, poultry, sugar, cotton, and milk, steps have been taken to limit competition from imports by imposing MFN tariffs.

Second, commodities with negative SCT: three livestock commodities, beef and veal, sheep meat and eggs. This implicit tax for livestock producers is not the result of a direct policy intervention affecting domestic market prices, but is rather the consequence of the excess feed cost element. Overall, these negative SCT indicate an implicit loss in receipts for livestock producers, who pay higher prices for feed than they would have in the absence of support for maize producers.

Finally, commodities with zero SCT: fruits and vegetables. These are exported commodities with no domestic or trade policies that tax or support producers. This does not mean that there were no price gaps observed between domestic and border prices for these commodities, but these gaps (most of which are negative) were not considered to be an outcome of policies, but rather are due to infrastructure deficiencies that may be impeding market adjustment. Therefore, they were not accounted for when estimating market price support.

Support to consumers of agricultural products: Higher food cost despite subsidies

The Consumer Support Estimate (CSE) is the indicator measuring consumer support, or depending on the situation, consumers' taxation. The CSE, like the PSE, accounts for both market transfers and budgetary transfers.

Consumers can be considered as both first-stage buyers of agricultural commodities (e.g. a food processor or a livestock producer who purchases grains to feed animals) or as final consumers (e.g. low-income households targeted by food aid programmes). This distinction between first and final consumers is particularly important in Egypt as they are impacted by different agricultural and food policies in place.

Higher prices negatively impact first buyers, but food subsidies benefit consumers

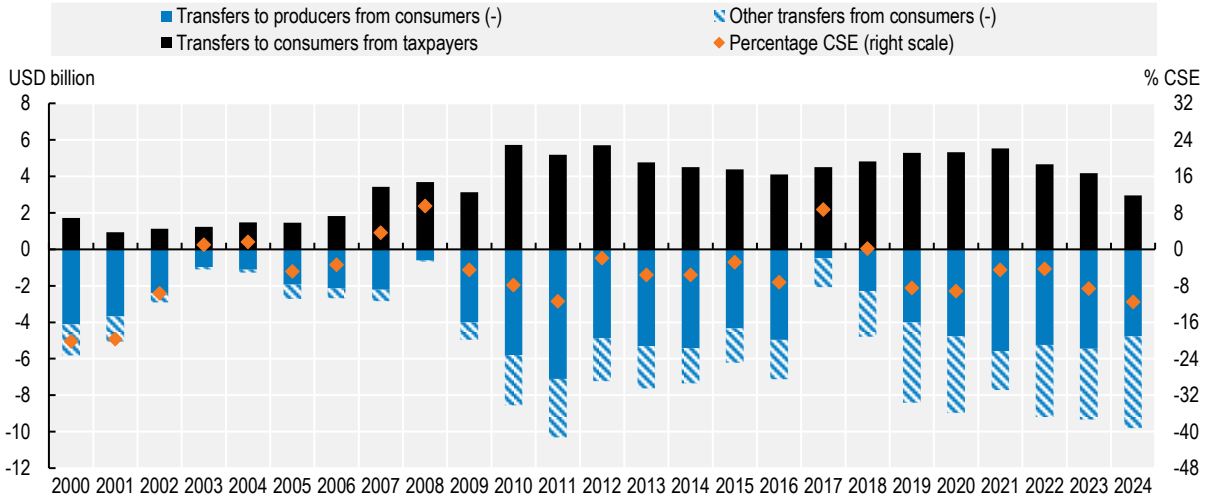
The CSE, like the PSE, can be expressed in relative terms, as a percentage of consumption expenditures (%CSE). When it is positive, consumers are supported. A negative %CSE indicates an implicit tax on consumers who are paying more than they need to in comparison with reference prices. In Egypt, in 2000, with a %CSE of -20%, consumers were, overall, taxed through agricultural and food policies that added costs of 20% of consumption expenditures (Figure 2.16). In 2024, with a %CSE of -12%, the burden for

consumers has become lighter, reducing the additional costs imposed by food and agricultural policies. However, this aggregated figure hides the existence of large transfers among consumers, producers, and taxpayers. Egypt's %CSE is the outcome of two opposing forces:

- Negative market transfers: on average, domestic producer prices for several commodities[6] are higher than world market prices, increasing costs for consumers and other first-level buyers of these commodities. This implies market transfers from consumers and other first level buyers to domestic producers (grey bars in Figure 2.16) as well as budgetary transfers to taxpayers through tariffs on imported commodities (grey-striped bars). Hence, agricultural support to producers puts a relatively high burden on consumers and first level buyers of agricultural commodities.
- Positive budgetary transfers (blue bars) are provided to intermediate and final consumers by the government as a broad effort to combat poverty and food insecurity in the country. As described in Section 2.2, the government has put in place several food subsidy programmes, including the bread subsidy and ration card programme that provides low-income consumers with access to essential food commodities, such as vegetable oils and sugar. As part of the bread subsidy programme, bakeries are compensated by the government for the difference between the price of subsidised bread and the cost of bread production (multiplied by the number of loaves sold).

While during some years (i.e. 2003-04, 2007-08 and 2017), positive budgetary transfers have more than compensated for the negative market transfers to consumers, leading to a positive %CSE, this was not the case in most of the years under review. For example, in 2022-24, budgetary expenditures to consumers increased in comparison to two decades earlier but so did the negative market price transfers to consumers, leading overall to a negative %CSE, effectively taxing consumers that need to pay higher prices for their food.

Figure 2.16. Composition of the Consumer Support Estimate in Egypt, 2000-24 average



Source: OECD (2025), "Producer and Consumer Estimates", OECD Agriculture Statistics Database, https://data-explorer.oecd.org/.

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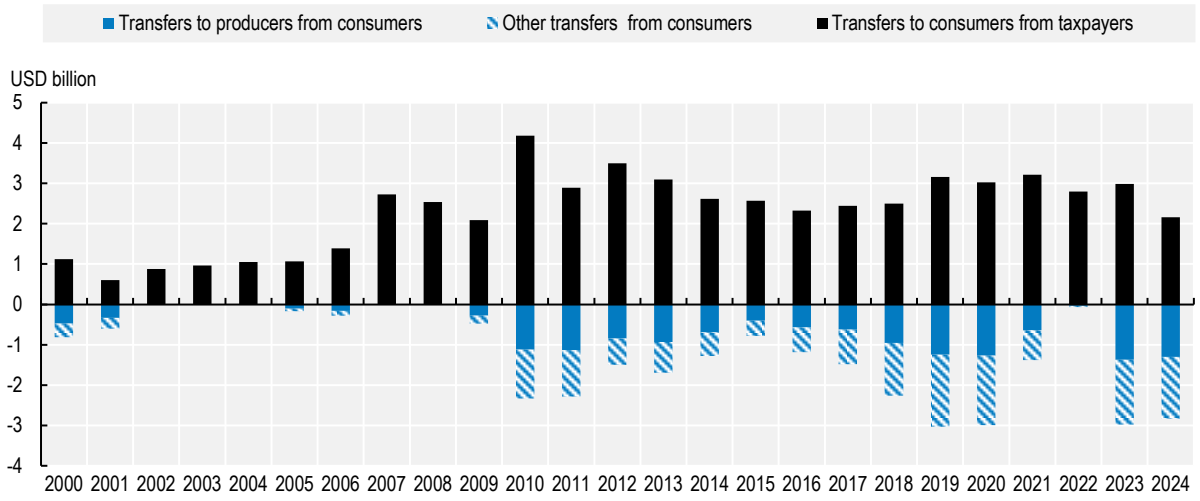
Baladi bread subsidy mitigates costs, but wheat market policies increase consumer burden

The ration card programme allows poor Egyptian citizens to buy 33 essential commodities, including PSE commodities, but it was not possible to obtain the detail of the support provided to consumers by commodity. Wheat is an interesting example because the *baladi* bread subsidy is commodity-specific, and a good illustration of the opposed direction of the policies in place for this commodity (Figure 2.17): on the

one hand, first level-buyer consumers of wheat (i.e. millers) are implicitly taxed as they pay for the higher prices due to the trade and domestic policies in place supporting producers (e.g. tariffs or procurement operations). On the other hand, intermediate and final consumers of wheat were explicitly supported through the bread subsidy programme.

Figure 2.17. Wheat transfers between consumers, producers, and taxpayers, 2000-24



Source: OECD (2025), "Producer and Consumer Estimates", OECD Agriculture Statistics Database, https://data-explorer.oecd.org/.

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Market and budgetary transfers provide contradictory signals to consumers

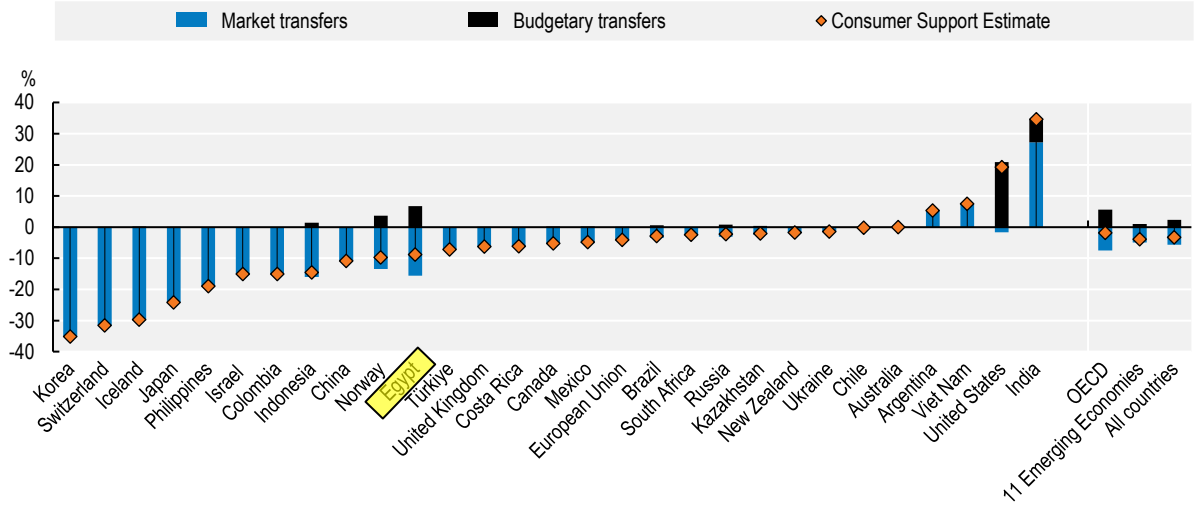
As shown by a negative %CSE, consumers in the majority of countries monitored by the OECD are implicitly taxed by agricultural policies, although to differing degrees (Figure 2.18). In 2022-24, the tax on consumers, reflected in the negative %CSE varied from less than 1% of consumption expenditures in Chile and Australia to more than 35% in Korea. However, some countries provide net support to their consumers who are supported either through lower prices (e.g. in Argentina, where consumers can purchase agricultural commodities below world market prices) or because of budgetary subsidies received by processors or by final consumers with various forms of food assistance (e.g. in the United States where the government provides food assistance to a specific group of the population). In India, consumers are supported through both low prices and a large food aid subsidy, which allow poor segments of the population to purchase food at prices that are much lower than the already low domestic market prices.

As shown in Figure 2.18, Egypt has a unique pattern of support. A %CSE of -8.9% in 2022-24 combines a significant burden for intermediate consumers on one side (with high prices paid on average for several agricultural commodities) with support for final consumers through food assistance programmes on the other side. Compared to other countries, the %CSE of Egypt is situated between that of Norway and Türkiye, two countries with limited or no budgetary subsidies to support consumers. However, the analysis of the individual components of the CSE reveal a different policy setting in Egypt: in terms of taxation of intermediate consumers, Egypt is closer to Indonesia or Colombia (grey part of the bars), with market transfers increasing Egyptians' consumption expenditures by around 16%. In terms of support to final consumers, Egypt is closer to India, with food subsidies reducing consumption expenditures by 7% (blue part of the bars). Egypt, together with Norway, Indonesia and the United States are the only countries that have a combination of positive consumer support from budgetary transfers, and negative consumer support from market transfers. Each of these countries tend to have either a high amount of positive

transfers and a low amount of negative transfers, or vice versa. However, Egypt stands out because it has both – high positive transfers and high negative transfers.

Figure 2.18. Consumer Support Estimate in Egypt and countries monitored by OECD, 2022-24 average

Percentage of consumption expenditure at farm gate



Notes: Countries are ranked according to percentage CSE levels. A negative percentage CSE is an implicit tax on consumption. The OECD total does not include the non-OECD EU Member States. The 11 Emerging Economies include Argentina, Brazil, China, India, Indonesia, Kazakhstan, the Philippines, Russian Federation, South Africa, Ukraine and Viet Nam.
Source: OECD (2025), "Producer and Consumer Estimates", OECD Agriculture Statistics Database, https://data-explorer.oecd.org/.

StatLink https://stat.link/pci2zt

Support to general services for agriculture

The General Services Support Estimate (GSSE) encompasses all types of public financing of support to the agricultural sector. As opposed to support provided to individual producers measured by the PSE, the GSSE measures support that benefits the primary agricultural sector collectively. Support for general services includes agricultural research and development, agricultural training and education, inspection and control, infrastructure, marketing and promotion, and public stockholding. Unlike the PSE and CSE transfers, GSSE transfers are not received by producers or consumers individually, and do not directly affect farm receipts or consumption expenditures.

General services can boost agricultural productivity, but they remain relatively small and focused on irrigation infrastructure

Relative to the size of the sector, the share of GSSE in the value of agricultural production in Egypt declined from 3.5% in 2000-02 to 2.6% in 2022-24 (Figure 2.20). This mirrors the broader downward trend observed internationally: in OECD Members the share fell from 5.5% of the value of agricultural production in 2000-02 to 3.5% in 2022-24, while across eleven emerging economies it declined from 3.6% to 1.9% over the same period (OECD, 2024[76]). In nominal terms, GSSE expenditures in Egypt fluctuated between USD 0.3 billion and USD 0.9 billion from 2000 to 2020 before increasing in 2021-23. The growth in general services expenditures reflects the government's focus on investments in public goods and services that can increase the sector's production capacity. While more effective for productivity than market price support or input subsidies, their overall level remains relatively low.

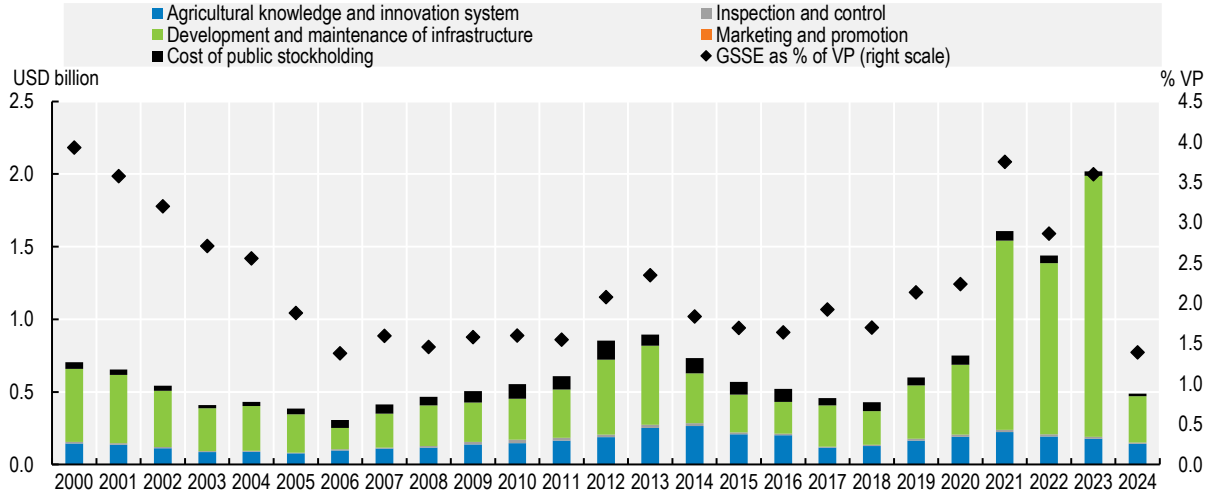
As part of its policy to manage freshwater resources (as described in Chapter 4), the most important category of GSSE in Egypt is rural infrastructure, which is dominated by investments in the development and maintenance or rehabilitation of irrigation systems. Public spending on hydrological infrastructure has remained the largest component of GSSE, rising from 65% of total GSSE expenditure in the early 2000s to more than 76% in 2022-24. This high share reflects the dependence of the sector on scarce water resources and its increase relates to the government's growing concerns regarding water availability due to pressures from other sectors' demand and from climate change (Chapter 4).

Expenditures on agricultural R&D, extension and other forms of knowledge transfer jointly represented 14% of GSSE expenditures in 2022-24, and ranged between 9% and 39% of GSSE expenditures over the period 2000-24, depending on the year. Payments included budgetary expenditures covering wages and investment from three leading governmental research centres, namely the Agricultural Research Centre, the Desert Research Centre and the National Water Research Centre, all involved in thematic research such as innovation, environment or agricultural productivity growth under desert conditions. The research centres also cover agricultural training and extension activities to encourage the use of modern agricultural technologies.

Expenditures on inspection and control systems, including those related to pests and diseases, corresponded to around 1% to 4% of GSSE expenditures over the past 20 years. Costs related to the depreciation and disposal of public storage of agricultural products are important given the government's large wheat procurement operations and broader grain stocking policies, and in some years have accounted for more than 18% of total GSSE expenditures.

The share of GSSE in total agricultural support reflects the relative importance of these transfers within the overall policy mix. Between 2022 and 2024, general services accounted for approximately 12% of total support to agriculture in Egypt. This was lower than the shares reported by OECD Members (15%) and across eleven major emerging economies (19%), reflecting a lower relative emphasis on broader, sector-wide investments.

Figure 2.19. Level and composition of General Services Support Estimate in Egypt, 2000-24



Source: OECD (2025), "Producer and Consumer Estimates", OECD Agriculture Statistics Database, https://data-explorer.oecd.org/.

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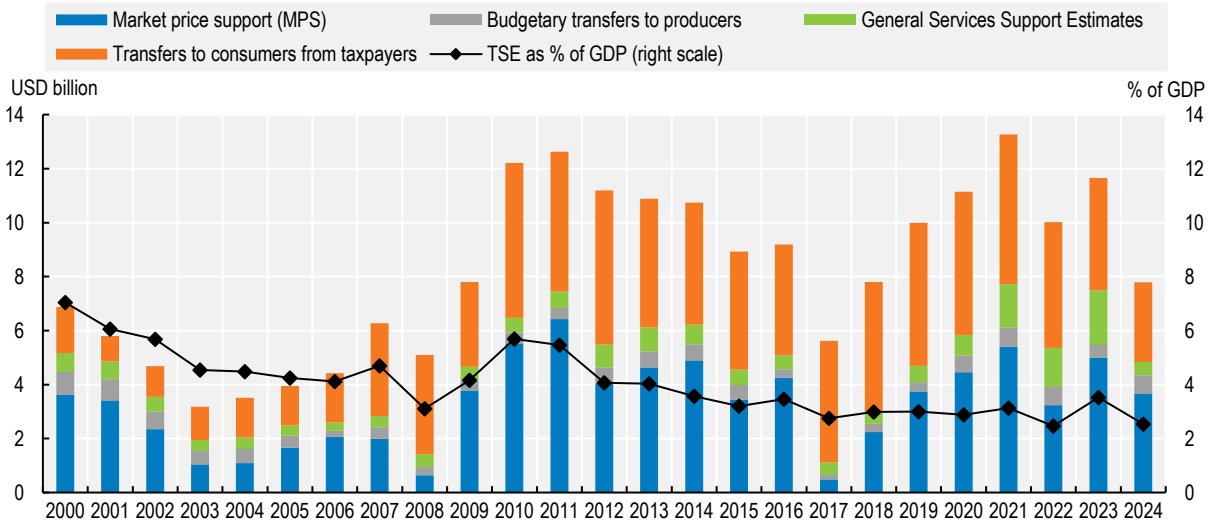
Total support to agriculture: A heavy burden on the economy driven by budgetary support to consumers and market price support to producers

The Total Support Estimate (TSE) provides a comprehensive picture of support in Egypt, based on the elements already discussed in the previous sections. The TSE represents the sum of transfers to agricultural producers (the PSE), transfers to general services (the GSSE), and budgetary transfers to consumers from taxpayers (the consumer subsidies)[7] (Figure 2.20). The entire value chain is supported in Egypt, from producer to final consumer, though to a varying extent across commodities and through a range of different policies.

Figure 2.20. Level and composition of the TSE in Egypt, 2000-24



Source: OECD (2025), "Producer and Consumer Estimates", OECD Agriculture Statistics Database, https://data-explorer.oecd.org/.

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Food subsidies and price support dominate total agricultural support

Consumer subsidies are a major component of TSE. They encompass food aid programmes delivered by the government to support consumers of agricultural commodities. Hence, transfers from taxpayers to consumers were the most important category of transfers in several years, exceeding all the other transfers combined. The government's budgetary support to consumers varied between 12% to as much as 80% of the total support estimates during the period 2000-24.

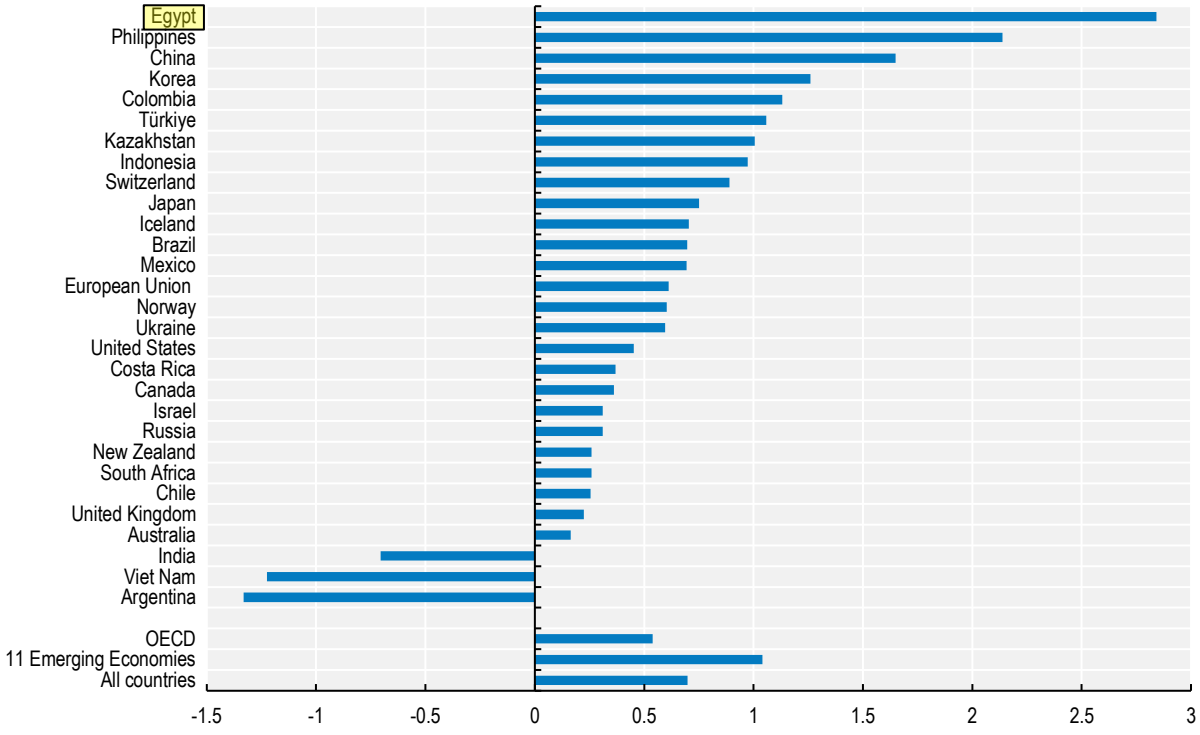
Market price support was the second most important category of transfers supporting producers through market and trade interventions which most of the time encouraged or protected domestic production but simultaneously implicitly harmed food processors such as wheat or maize processors or other first level buyers such as livestock producers. Hence, price support to producers is a constant characteristic of some of Egypt's agricultural markets (especially grain), in line with the goal to achieve food self-sufficiency.

On average, GSSE expenditures were higher than budgetary PSE expenditures, but significantly smaller than budgetary expenditures on consumer subsidies. Investing in agricultural knowledge generation, rural infrastructure, and inspection and advisory services, rather than in input subsidies, is a positive development as GSSE expenditures benefit the whole sector by enhancing its overall productivity, sustainability and resilience. Nevertheless, the share of GSSE in total support (TSE) remains small.

Egypt bears the highest economic burden of agricultural support among countries monitored by OECD

Expressed as a percentage of GDP, the %TSE provides an indication of the cost that support to the agricultural sector places on the overall economy. Its value depends on the level of support, the size of this sector and its importance relative to the overall economy. Egypt's TSE averaged EGP 301 billion (USD 10 billion) per year in 2022-24, representing 2.8% of GDP, with consumer subsidies alone accounting for 1.1% of GDP. This makes Egypt the country in the OECD PSE/CSE/GSSE database with the highest economic burden of support, followed by the Philippines (2.1%) and China (1.6%).

Figure 2.21. Total Support Estimate in Egypt and countries covered by the OECD Monitoring and Evaluation report, as per cent of GDP, 2022-24 average



Note: The OECD total does not include the non-OECD EU Member States. The 11 Emerging Economies include Argentina, Brazil, China, India, Indonesia, Kazakhstan, the Philippines, Russian Federation, South Africa, Ukraine and Viet Nam.
Source: OECD (2025), "Producer and Consumer Estimates", OECD Agriculture Statistics Database, https://data-explorer.oecd.org/.

StatLink https://stat.link/c2t9dh

This high burden for the economy reflected by the %TSE underlines the need to ensure that policy measures are well designed and meet national objectives. It is critical that the measures in place are effective and efficient in reaching the intended beneficiaries while enhancing the productivity, sustainability and resilience of the sector. Greater consideration needs to be given to the potential unintended consequences of existing support policies in Egypt. While budgetary expenditure to producers and final consumers aims to provide adequate supplies of food at affordable prices, the use of market price transfers (linked to domestic and trade policies) inevitably means that support to producers comes at the detriment of first stage buyers and consumers of agricultural commodities. Strong market interventions generate inefficiencies that neither promote innovation nor contribute to increase productivity. This may ultimately compromise the effectiveness of consumer subsides and the overarching objective of food security.

2.5. Conclusions

Achieving food security has long been an important agricultural policy objective for the government of Egypt, and guaranteeing the availability of food is considered essential to reduce poverty and prevent social unrest. However, despite previous attempts to reform agricultural and food policies, heavy market interventions and border measures continue to reduce private investment, market efficiency and productivity. The policies applied to achieve, on the one hand increased production and self-sufficiency, which is considered a food security lever by the government, and on the other hand access to cheap food by consumers, have led to contradictory policy and market signals and inefficiencies.

In recent years, in addition to increasing production and subsidising consumers, emphasis has been placed on improving the productivity and sustainability of the sector. In 2020 the government of Egypt proposed in its 2030 Updated Sustainable Agricultural Development Strategy a comprehensive approach to modernise the agricultural sector, achieve food security, improve nutrition, and increase the efficiency of resource use. It fixes ambitious self-sufficiency targets, in particular, for wheat, 67% in 2030 compared to 44% in 2019. It also includes a target of increasing agriculture's share of GDP from 11.5% in 2015-18 to 15% in 2030, running counter to the typical development trajectory observed in other countries, where agriculture's contribution to the economy tends to decline as the shares of industry and services grow.

The complex institutional landscape is a challenge for policy co-ordination, despite efforts by Egypt to improve coherence

The design and implementation of agricultural policies remains fragmented across several Ministries and governmental institutions. This makes it harder to have a holistic vision and may lead to inconsistent and contradictory policy actions across the agricultural and food sectors. The Ministry of Agriculture and Land Reclamation (MALR) is the main Ministry overseeing the agricultural sector, including subsidies for fertilisers and credit, agricultural R&D, and extension and advisory services. MALR also leads the government's efforts to reclaim desert lands into production. However, the most significant policy levers that affect agricultural resources, production and markets are in the hands of other Ministries.

The Ministry of Supply and Internal Trade administers the largest area of government support: food assistance through government's bread subsidy and ration card programmes, and comprehensive government interventions in food markets through the General Authority for Supply Commodities (GASC). The Ministry of Investment and Foreign Trade implements Egypt's trade policy, and the Ministry of Water Resources and Irrigation is responsible for the development and maintenance of irrigation infrastructure. The Ministry of Planning, Economic Development and International Cooperation is also responsible for the rehabilitation and lining of irrigation canals, as well as rural development through the Decent Life Initiative (*Haya Karima*).

Recent efforts have been taken to strengthen inter-ministerial co-ordination, including through the newly established National Committee for Food and Nutrition Systems. Nonetheless, the institutional landscape remains complex and there is ample scope to strengthen the co-ordination of agricultural and food policy.

Estimating agricultural producer support in Egypt with the OECD methodology is challenging but is helping to inform policy development

In this context, the analysis of Egypt's agricultural support policies using the OECD's Producer Support Estimate approach is particularly useful and relevant. It sheds light on how government support is implemented across different commodities, the net impact of policy efforts, and the potential contradictions between different policy signals. However, data gaps constrain the analysis in some ways – in particular, the limited data on budgetary expenditures and government transfers to state-owned enterprises related to agriculture may lead to an underestimation of the producer support estimate (PSE). Complete and

disaggregated data on budgetary expenditures for agriculture, as well as state procurement of grains, would further enrich the debate and help to design better policies.

Producers have traditionally been supported through policy instruments to increase self-sufficiency including Market Price Support (MPS), input subsidies, and the expansion of irrigation infrastructure for land reclamation. Tariff protection was high until recently and border measures remain a main tool of trade policy, along with interventions in input and output markets for some commodities. These interventions, including large-scale domestic procurement and imports of commodities, public stockholding and extensive participation of State-Owned Enterprises (SOEs) across the entire value chain (outlined in Section 2.2), contribute to contradictory incentives and market inefficiencies, rigidity and lack of innovation in the markets that are not responsive to demands for quality, consumer's expectations and world market signals.

The level of support to producers has fallen but remains high relative to GDP

Developments in agricultural policy can be evaluated by changes in support levels as measured by the %PSE (Producer Support Estimate as a share of farmers' gross receipts) and the %TSE (Total Support Estimate as a share of GDP). As outlined in Section 2.4, both indicators have trended downward since 2000 signalling a decline with large fluctuations in overall support for agricultural producers and a reduced fiscal burden on the economy. The %PSE decreased from 21% in 2000-02 to 10% in 2022-24, less than the OECD average (13%), but higher than the average of 7% for emerging economies and on par with levels observed in Türkiye. However, Egypt's %TSE, at 2.8% of GDP in 2022-24, is the highest among the 54 countries covered in the OECD's annual Agricultural Policy Monitoring and Evaluation report. This underscores the economic reality that, for a country with a relatively low GDP per capita and a large agricultural sector, even a moderate level of producer support can translate into a substantial burden on the overall economy.

Most support to producers is provided in the form of market price support

Almost all of producer support comes from market price support, a form of support that does not involve actual spending but results from government policies creating a gap between domestic and international reference prices for specific commodities. This form of support is potentially most distorting because it impedes the dynamic adjustment of agriculture responding to market signals. Hence producers are supported not by the government budget, but mostly through policies to protect producers that result in higher prices paid by consumers. In Egypt, market price support is driven by a combination of domestic and trade policy measures (see Sections 2.2 and 2.3).

In terms of domestic policies, the government implements guaranteed prices and procurement operations, primarily for wheat but also, in recent years, for maize (until 2023), rice, and sugar. Egypt also engages in public stockholding of grains to stabilise supply and prices. Furthermore, government agencies like GASC and state-owned enterprises are major players in agri-food markets.

On the trade front, market price support includes tariffs, which apply to imports of most agricultural commodities, and other import requirements such as licences. Government agencies and state-owned enterprises are also major importers of some commodities, particularly grains and meat. Export restrictions, such as export taxes, bans, and quotas, have been implemented primarily on rice. State trading enterprises play a significant role, particularly in the meat sector, where they dominate imports of beef and sheep meat.

Budgetary payments to producers are minimal and focused on input subsidies

In Egypt, according to the available data provided by the government, direct support to agricultural producers through budgetary transfers is very low, constituting only 1% of gross farm receipts in 2022-24 (Section 2.4). During this period, these budgetary transfers averaged EGP 19.7 billion (USD 616 million)

annually. This support was exclusively in the form of input subsidies, encompassing variable input subsidies, fixed capital formation support, and on-farm services. Variable input subsidies included substantial subsidies for fertilisers and programmes providing preferential interest rates for plant production. Support for fixed capital formation targeted investment costs related to farm buildings, equipment, and irrigation infrastructure. On-farm services support included assistance for cotton pest control and veterinary services.

However, assessing the full extent of these transfers is challenging due to limited data availability; while efforts have been made to improve transparency, further work is needed to ensure comprehensive reporting. Overall, a precise assessment of these programmes remains difficult, as budgetary expenditures are often allocated to various institutions and SOEs without detailed breakdowns of actual programmes and implementation criteria. For instance, it was not possible to analyse the magnitude of support provided for large-scale land reclamation projects, and there are also implicit subsidies for irrigation water that have not been computed in the producer support estimate. Following the adoption of Law No. 159 of 2023, SOEs are now required to report their financial statements and expenditures on various programmes, which should contribute to greater transparency going forward.

Efforts to support the sector as a whole focus on irrigation infrastructure

General Services Support (GSSE), which finances activities benefiting the agricultural sector as a whole, averaged EGP 37 billion (USD 1.3 billion) annually in 2022-24 (Section 2.4). Public investment in agriculture-related projects remains a key policy tool for achieving the government's development objectives and represents a substantial component of budgetary support to the sector, far exceeding the level of budgetary transfers directed to individual producers. A major share of these expenditures is allocated to investments in hydrological infrastructure, irrigation systems, and maintenance, with programmes managed by the Ministry of Water Resources and Irrigation (MWRI). Additionally, long-term investments also target areas such as agricultural research and development (R&D) and food safety inspection services.

Despite high expenditure on food subsidies, consumers are penalised by agricultural policy

Budgetary transfers to consumers represent the largest component of agricultural budgetary support in Egypt, averaging EGP 117 billion (USD 3.9 billion) annually in 2022-24. These expenditures are primarily allocated to two key food subsidy programmes: the *baladi* bread subsidy and the ration card programme. However, agricultural policies in Egypt have contradictory effects on consumers: they are negatively impacted by the market price support measures that hinder the efficiency of Egyptian domestic markets and their response to international prices, while at the same time they benefit from food subsidies. As outlined in Section 2.4, consumers were penalised on average in 2022-24 with expenditures on agriculture that were 8.9% higher due to policy interventions (%CSE). Recent reforms and policy developments such as the increase in the price of *baladi* bread and partial removal of tax privileges for SOEs could open an opportunity for improving Egypt's policy package on agriculture and food.

Annex 2.A. Strategic objectives for agriculture

National Agenda for Sustainable Development "Egypt's Vision 2030"

Annex Table 2.A.1. Actions to strengthen agriculture and food security in Egypt's Vision 2030

Strategic goal	General goal	Actions to strengthen agriculture and food security
Improve Egyptians' quality of life and raise their living standards	Poverty eradication	• Establish an integrated social protection system for those below the poverty line; expand social protection programmes; promote private sector investments to create more decent employment opportunities.
	Food provision	• Review policies and legislation prohibiting encroachment on agricultural land and address food safety concerns. • Preserve agricultural lands through agricultural soil analysis and incorporating the results into digital maps. • Double agricultural productivity and the income of food producers. • Increase the agricultural land area and implement flexible farming to achieve self-sufficiency in multiple crops. • Expand production of crops with high nutritional value, such as wheat and corn, while improving productivity. • Foster research and innovation in soil degradation prevention and the production of healthy and safe food. • Promote sustainable and organic farming, provide organic, mineral, and non-synthetic foliar fertilisers. • Build farmers' capacities and marketing skills and good practices to minimise post-harvest losses. • Encourage private sector investment in sustainable and organic agriculture and food processing. • Implement genetic improvement programmes to enhance the productivity of livestock and poultry. • Raise awareness about healthy consumption patterns to improve nutrition levels and food quality and safety. • Educate mothers about the healthy nutrition of children, thereby reducing cases of obesity or malnutrition. • Support the expansion and development of school nutrition programmes.
	Access to adequate housing	• Development and enhancement of Egyptian villages and centres in rural areas. • Halt urban expansion and encroachments on agricultural lands and prevent encroachments on the Nile River.
Social justice and equality	Social protection provision	• Develop electronic databases to capture the conditions of vulnerable groups and improve targeting methods. • Expand the coverage of targeted social protection programmes for poor families in Egypt, with a focus on women below the poverty line and rural areas especially in Upper Egypt. • Ensure sustainability for social protection programmes by training and qualifying beneficiaries, and expanding conditional cash transfer programmes to alleviate the burden on social safety nets. • Distribute food and health care cards for children from birth, improve the nutritional standards of school meals.
	Inclusion and equal opportunities	• Ensure equitable geographic distribution of schools and provide nutritious meals for students. • Enhance children's nutrition and health by developing mechanisms for early detection of nutrition-related diseases such as stunting and obesity, and raise awareness among parents about proper nutrition methods.
	Promotion of spatial and local development	• Reduce the development gap between different regions in Egypt. • Encourage the private sector to increase investments that generate employment opportunities in rural areas. • Promote the attractiveness of rural areas. • Improve the efficiency of institutions providing basic services in rural areas.

Strategic goal	General goal	Actions to strengthen agriculture and food security
Integrated and sustainable environmental system	Facing climate change challenges	• Develop a national programme dedicated to reducing greenhouse gas (GHG) emissions. • Monitor extreme weather events and their impacts on agriculture and water resources. • Prepare national plans to adapt to climate change in the agricultural and water resources sectors. • Implement adaptation projects in the most vulnerable sectors, such as low-lying areas in the Nile Delta. Foster crops resistant to drought, soil deficiencies, salinity, and temperature and promote recycling of water. • Establish early warning systems and prepare risk assessment plans for vulnerable areas. • Enhance the role of universities and research centres in climate adaptation and water conservation.
	Sustainability of natural resources	• Develop an integrated water management system and expand treated wastewater reuse to diversify supply. • Exploring non-conventional water sources, e.g. treating drainage water, desalination, and using highly saline well water. • Develop a conducive environment for private sector investment in organic and sustainable agriculture, non-conventional water, reducing air, water and soil pollution, and expanding renewable energy. • Encourage technological solutions to promote efficient use of agricultural land, prevent erosion and degradation • Strengthen scientific research to reinforce crop diversity, reduce mineral fertiliser usage, double agricultural productivity, increase the added value of reclaimed lands, and prevent soil degradation.
	Waste management	• Limit hazardous waste handling practices, such as burning of agricultural waste. • Expand projects for wastewater recycling and generating energy from agricultural and municipal waste. • Improve transportation and storage services for agricultural and food crops to reduce losses.
Diversified, competitive economy	Shift towards financial inclusion	• Provide financing for agricultural co-operatives, small-scale farmers and livestock breeders.
Well-developed infrastructure	Providing basic and adequate services	• Involve the private sector in infrastructure investments for irrigation projects in new lands. • Optimise the use of available groundwater, and preserve the resource for the benefit of future generations.

Source: MPED (2023[10]).

2030 Updated Sustainable Agriculture Development Strategy

Egypt's 2030 Updated Sustainable Agriculture Development Strategy was developed by the Ministry of Agriculture and Land Reclamation (MALR) in 2020. The strategy includes six strategic objectives, which are outlined in detail below.

Achieving food security and improved nutrition

Egypt's 2030 Updated Sustainable Agriculture Development Strategy views agriculture and food systems as the main engine for achieving economic growth, with a direct impact on reducing undernourishment and enhancing food security. The strategy recognises that achieving these developmental outcomes requires increases in productivity, greater interactions among partners, access to inputs (including fertilisers, seeds, pesticides and finance), the provision of post-harvest processes, and access to markets.

The strategy highlights the importance of science, technology and innovation, especially digital agriculture, in agricultural development. This will play an important role in enhancing efficiency, connecting small farmers to markets, and unlocking the untapped export potential of agricultural commodities and products, ultimately increasing the competitiveness of agriculture, farmers' income and the food system value chain. Consequently, the action plan of the strategy includes programmes and national projects to develop information technology and communication, facilitate digital transformation in the agricultural sector, establish agricultural databases and information technology, and bolster agricultural research and technology transfer. The strategy also gives special emphasis to agricultural extension and technology

transfer. This is based on agricultural extension services playing a pivotal role in disseminating technology and modern innovations, including digital agriculture, to small farmers.

Enhancing sustainable agriculture

The strategy notes that rapid population growth is exacerbating the problem of water scarcity in Egypt. This is a serious obstacle to the development of the agricultural sector, which accounts for 80% of total freshwater consumption. In addition, competition for water is expected to intensify across various sectors, and hence agriculture's share of Nile River water is expected to decrease over time. Consequently, there is a need to expand the use of modern irrigation technologies to reduce water consumption for irrigation. Therefore, the action plan of the 2030 Updated Sustainable Agriculture Development Strategy prioritises the sustainable use of irrigation water by improving water and irrigation management systems and scaling up the adoption of modern irrigation technologies. The strategy aims to increase the proportion of lands irrigated with modernised methods (modernised surface, sprinkler, and drip) to approximately 31.7% by 2030. Additionally, it seeks to enhance the efficiency of field irrigation for 2.2 million feddan in the El-Wadi El-Gedid and Delta regions. Furthermore, the Strategy aims to contribute to saving an additional 0.6 billion cubic metres of irrigation water through the rehabilitation and improvement of field irrigation management in reclaimed lands. This is to be achieved by converting approximately 2.1 million feddan of sugar cane and orchard plantations from flood irrigation to modern irrigation systems. The Strategy also aims to reduce agricultural products' losses by 50% by 2030.

Eradicating poverty in rural areas

Agriculture accounted for 19% of total employment in 2023, providing livelihoods for a large share of Egypt's rural population. It is also the main source of income for the majority of the rural poor. According to the strategy's theory of change, there is a direct link between achieving agricultural growth and the alleviation of poverty and hunger. The government estimates that increasing agricultural GDP by 1% is associated with a 3% reduction in poverty. In order to achieve sustainable economic growth and reduce poverty, the strategy highlights the importance of providing an enabling political environment, an appropriate governance system, and supportive macroeconomic policies. This requires focusing on the value chain of post-harvest processes and the non-farming rural economy, in addition to primary agricultural production.

Adapting to climate change and mitigating its impacts

The strategy recognises the importance of addressing the impacts of climate change on agriculture, in response to Egypt's obligations under the Sustainable Development Goals (SDGs) and the Paris Agreement. Specifically, it aims to develop a strategic framework for risk management and adaptation to climate change in the agricultural sector. The main expected outcomes from these national programmes and projects are enhancing and developing new crop varieties, establishing a comprehensive insurance system for safeguarding agricultural crops, strengthening early warning and seasonal weather prediction systems to mitigate risks, diversifying sources of farm income by incorporating additional agricultural activities, and increasing public awareness regarding climate change and its implications for agriculture.

Increasing competitiveness of agricultural products in local and international markets

The strategy estimates that Egypt's agriculture and food systems have an untapped export capacity of at least USD 10 billion per annum, but this capacity has not been realised due to institutional and organisational barriers. Fruits, vegetables and dairy products present the highest export opportunities. The strategy's action plan aims to double the quantities of vegetables available for exports, increase the exportable quantity of major fruit crops to 15%, and increase the exportable quantity of drought-tolerant

fruit crops. This is anticipated to increase the share of agricultural exports to 30% of Egypt's total exports by 2030.

Attracting and encouraging investments in agriculture and food systems is seen as critical to address the sector's financing gap and realise the untapped potential in production and exports of fresh and processed food products. Egypt is home to the largest consumer market in the Middle East and North Africa region, and benefits from ease of access to major markets in Europe, the Middle East, Africa, Latin America and Asia, as well as access to an advanced infrastructure network for ports and maritime transport. A combination of institutional and legislative reforms together with public investments must be made to address the barriers to investment. Moreover, the agricultural sector accounts for a very small share of foreign direct investment in Egypt, representing just 0.1% of the total in 2017-18.

Creating job opportunities for youth and women

Creating job opportunities for the growing labour force is a major economic challenge for Egypt. The strategy notes that while unemployment stood at 8% in 2019, it was especially high among the youth (around 30%) and among women (38.3%). According to the strategy, the agricultural sector can play a pivotal role in creating new job opportunities, especially for the youth and women in rural areas. The strategy aims to build human resource capacities and create more than 2 million job opportunities by 2030. This is to be achieved by implementing several targeted programmes to support land reclamation, develop agricultural marketing and processing, promote agricultural investment and competitiveness, reduce food losses, and support rural development.

Annex 2.B. Indicators of support to agriculture

Indicators of support for producers individually

Producer Support Estimate (PSE): The annual monetary value of gross transfers from consumers and taxpayers to agricultural producers, measured at the farm gate level, arising from policy measures that support agriculture, regardless of their nature, objectives or impacts on farm production or income.

Percentage PSE (%PSE): PSE transfers as a share of gross farm receipts (GFR, i.e. the value of production plus budgetary and other transfers to producers).

Producer Nominal Assistance Coefficient (producer NAC): The ratio between the value of gross farm receipts (including support) and gross farm receipts valued at border prices (measured at farm gate).

Producer Nominal Protection Coefficient (producer NPC): The ratio between the average price received by producers at farm gate (including payments per tonne of current output), and the border price (measured at farm gate). The producer NPC is also available by commodity.

Producer Single Commodity Transfers (producer SCT): The annual monetary value of gross transfers from consumers and taxpayers to agricultural producers, measured at the farm gate level, arising from policy measures directly linked to the production of a single commodity such that the producer must produce the designated commodity in order to receive the transfer.

Producer Percentage Single Commodity Transfers (producer %SCT): The commodity SCT expressed as a share of gross farm receipts for the specific commodity (including support).

Indicators of support to consumers

Consumer Support Estimate (CSE): The annual monetary value of gross transfers to (from) consumers of agricultural commodities, measured at the farm gate level, arising from policy measures that support agriculture, regardless of their nature, objectives or impacts on consumption of farm products. If negative, the CSE measures the burden (implicit tax) on consumers through market price support (higher prices), that more than offsets consumer subsidies that lower prices to consumers.

Percentage CSE (%CSE): CSE transfers as a share of consumption expenditure on agricultural commodities (measured at farm gate), net of taxpayer transfers to consumers.

Consumer Nominal Assistance Coefficient (consumer NAC): The ratio between the value of consumption expenditure on agricultural commodities (at farm gate) and that valued at border prices (measured at farm gate).

Consumer Nominal Protection Coefficient (consumer NPC): The ratio between the average price paid by consumers (at farm gate) and the border price (measured at farm gate).

Consumer Single Commodity Transfers (consumer SCT): The annual monetary value of gross transfers to (from) consumers of agricultural commodities, measured at the farm gate level, arising from policy measures directly linked to the production of a single commodity.

Indicators of support to general services for agriculture

General Services Support Estimate (GSSE): The annual monetary value of gross transfers to general services provided to agricultural producers collectively (such as research and development, training, inspection, infrastructure, marketing and promotion, and public stockholding), arising from policy measures that support agriculture regardless of their nature, objectives and impacts on farm production, income, or consumption. The GSSE does not include any transfers to individual producers.

Percentage GSSE (%GSSE): GSSE transfers as a share of Total Support Estimate (TSE).

Indicators of total support to agriculture

Total Support Estimate (TSE): The annual monetary value of all gross transfers from taxpayers and consumers arising from policy measures that support agriculture, net of associated budgetary receipts, regardless of their objectives and impacts on farm production and income, or consumption of farm products.

Percentage TSE (%TSE): TSE transfers as a percentage of GDP.

Annex 2.C. Agricultural policies and support for selected individual commodity or group of commodities

This annex reviews the market price transfers (to producers) element for major commodities or group of commodities included in the PSE database for Egypt. It analyses the market price differential by looking at the difference between domestic prices at the farm gate level and reference prices at the border level. It provides, in parallel, an overview of the main domestic and trade policies targeting specific products according to their trade status. Whether positive or negative, market price differentials (MPD) are supposed to reflect domestic and trade policies in place (a positive MPD meaning an *implicit support* to producers and a negative MPD *an implicit tax*). When this is not the case (for reasons mentioned earlier), the market price differential is set to zero. This analysis is at the centre of the OECD methodology for the measurement of agricultural support and is key to understand transfers between producers, consumers (understood here as first stage buyer of agricultural commodities) and taxpayers.

Wheat

Wheat is considered as an essential commodity for Egypt's national food security. In this context, the government is entitled to set market control to regulate the trading of this commodity for a specific period of time as per the country's consumer protection act (Article 8 of Consumer Protection Law No 181 of 2018).

Main domestic market policies

The General Authority for Supply Commodities (GASC), affiliated to the Ministry of Supply and Internal Trade leads large procurement operations. Depending on the year, between one-third and half of domestic production is procured. It is not mandatory for farmers to sell to the government; however, as the largest buyer in the market, the government's guaranteed price has an important influence on the market price. Guaranteed procurement prices are announced before planting season every year to encourage domestic production and to maintain the strategic food stocks.

Milling of wheat into flour produces two sorts of flour marketed through two distinct channels: *baladi* flour, used for the subsidised *baladi* bread and *fino* flour[8], used for other processed products. The GASC is the main body responsible for the supply and distribution of wheat grain and flour used for the production of subsidised *baladi* flour and bread. It determines each year the quantity of wheat delivered to public or private mills and the quota for bakeries and warehouses. These mills in turn supply flour to around 30 000 bakeries producing subsidised *baladi* bread nationwide. While the GASC remains the key body in supplying *baladi* flour, the private sector plays an important role in importing, producing and marketing *fino* flour. *Fino* flour is allowed to be produced only through imported wheat, as all domestic wheat is required for the production of *baladi* bread.

The Egyptian Holding Company for Silos and Storage is responsible for the storage of imported wheat. In 2023, the storage capacity reached 5 million tonnes (Food Business, 2022[79]). Egypt's wheat ending stock was estimated at 4.5 million metric tonnes in 2025-26 (USDA GAIN, 2025[80]).

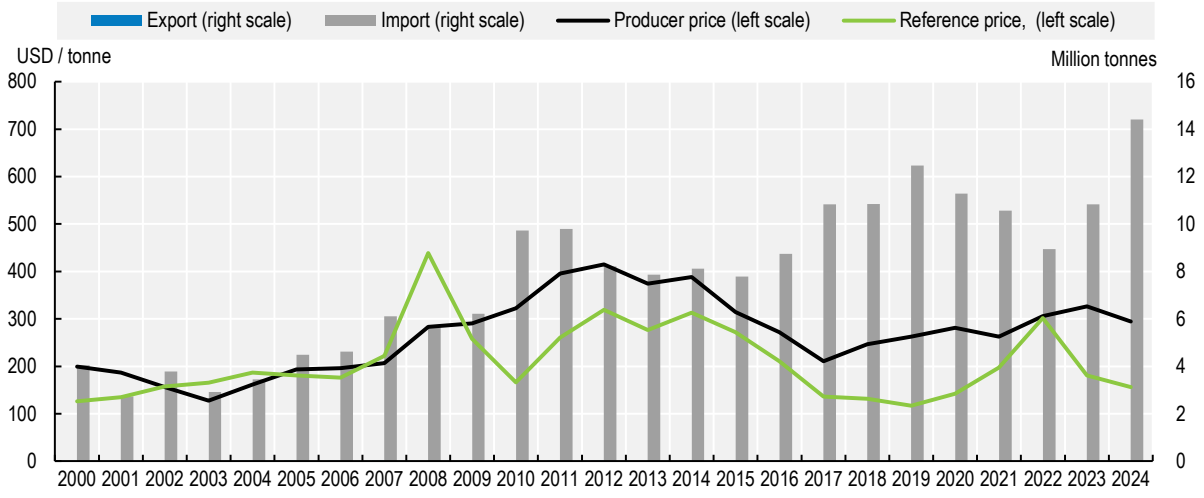
Main trade policies

GASC is one of the largest importers of wheat worldwide. An ad valorem tariff of 1% was applied on wheat (HS 1001) in 2000-02, 2% in 2004-06, and no tariffs have been applied since 2007. An ad valorem tariff of 5% was applied on wheat flour (HS 1101) in 2000-03 and was subsequently reduced to 2% in 2004-22. An export ban was in place for three months in 2022 (March-May) following the war in Ukraine, and was extended for three more months (June-August 2022) to cover the demand that was expected to increase during the period of Ramadan. Exports from domestic markets surplus were allowed with the approval of the Ministry of Trade and Industry.

Trade status and market price differential

Wheat has been consistently imported over the period 2000-24. The market price differential was positive during most of the period under review (except in 2002-04 and 2007-08) in line with domestic support policies in place (procurement operations, guaranteed prices, public stockholding) and trade policies in place (trade dominated by the public sector and import tariffs in place for wheat or wheat flour). In 2002-04 and 2007-08, MPD was set to zero, as no restrictive policies could explain the calculated negative gap.

Annex Figure 2.C.1. Trade and trends in producer and reference prices for wheat



Source: OECD (2025), "Producer and Consumer Estimates", OECD Agriculture Statistics Database, https://data-explorer.oecd.org/.

StatLink https://stat.link/q9ybf4

Maize

Maize is considered as an essential commodity for Egypt. Yellow maize is used as animal feed while white maize is both used for human consumption and animal feed.

Main domestic market policies

The government set guaranteed prices for purchasing maize to encourage farmers to increase the areas planted and to build up strategic stocks. Egypt's maize ending stock were estimated at 1.6 million metric tonnes in 2023-24 (USDA GAIN, 2023[46]).

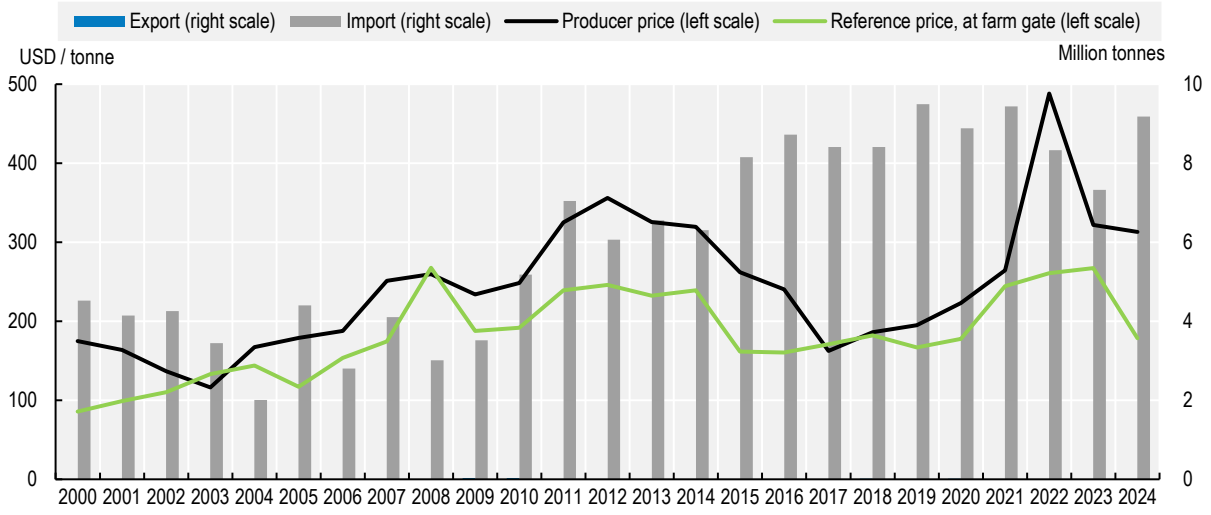
Main trade policies

An *ad valorem* tariff of 1% was applied to maize (HS 1005) in 2000-03, 2% in 2004-06 and no tariffs have been applied since 2007. An ad valorem tariff of 5% was applied on maize flour in 2000-03 and 2% in 2004-22. Similar to wheat, an export ban was in place for three months in 2022 (March-May) following the war in Ukraine, and was extended for three more months (June-August 2022) to cover the demand that was expected to increase during Ramadan. Exports from domestic market surpluses were allowed with the approval from the Ministry of Trade and Industry.

Trade status and market price differential

Maize has been consistently imported over the period 2000-22. The market price differential was positive during most of the period under review (except in 2003-2008 and 2017-18) in line with domestic support policies in place (procurement operations, guaranteed prices, public stockholding) and trade policies in place (import tariffs in place for maize or maize flour). In 2022, the six months export ban, did not depress the domestic prices as wheat was massively imported and procurement prices were on the rise, with the government seeking to stimulate production in order to reduce maize imports. Hence, the positive market price differential was maintained for 2022, as for the rest of the period. In 2003-08 and 2017-18 the MPD was set to zero, as no restrictive policies could explain the calculated negative gap.

Annex Figure 2.C.2. Trade, producer and reference prices for maize



Source: OECD (2025), "Producer and Consumer Estimates", OECD Agriculture Statistics Database, https://data-explorer.oecd.org/.

StatLink https://stat.link/1qrcv9

Rice

Rice has been historically regulated by the Ministry of Supply and Internal Trade (MoSIT), which controls the production and marketing of rice as well as by the Ministry of Water Resources and Irrigation (MWRI), which controls the area cultivated.

Main domestic market policies

Each year, the MWRI determines and limits areas where rice can be grown as per the Law 31 of 1961. As rice is water intensive, these areas are limited to specific regions (mostly in the Northern part of the Nile Delta). Several decrees were introduced to further limit the cultivation of rice in areas other than those indicated by the MWRI: in 2014-15 a fine of EGP 3 000 per feddan[9] was imposed in case of violation of these limits. Other measures included the payment of further penalties to prevent the recurrence of violations or the payment of the equivalent cost of the misused water. In 2016, the government set procurement prices to encourage rice production. These were set much lower than market prices and the government was not able to purchase the volume it targeted as farmers were selling to the private sector. In 2022, the MoSIT issued a decree (Decision No. 109 of 2022) constraining rice producers that owns agricultural land higher than one feddan[4] to supply one tonne of rice per feddan to the MoSIT, with fines imposed in case of non-respect. At the end of 2022, marketing control was reinforced, with a decree issued to prevent any shortage in the market: rice private stocks are prohibited, and producers, traders and distributors who withhold rice face prison sentences and large fines. In addition, farmers who do not supply the requested rice quantity are not allowed to grow rice or to receive input subsidies for a period of one year. In 2023, rice was declared an essential commodity (as designated by the Consumer Protection Law No. 181 of 2018), making it illegal to withhold it from the market. All non-household holders (farmers, suppliers, distributors, traders) must also declare their stocks to the MoSIT.

Main trade policies

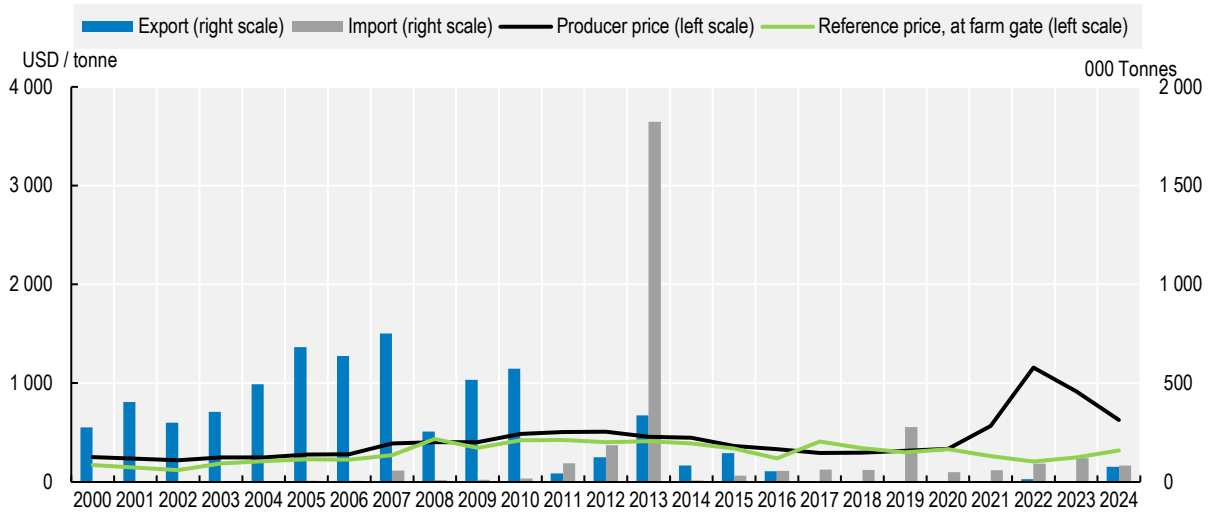
MFN tariffs of 20% were applied in 2000-03, lowered to 9% in 2009 and to 0% since 2010. Over the period 2008-22, Egypt imposed intermittent export restrictions on rice to preserve its stocks for domestic consumption and for environmental purposes due to pressure on water resources. Policy instruments included export taxes, export quotas or export bans. Export bans in place since 2016 made exports drop dramatically.

Trade status and market price differential

Rice was exported over the period 2000-10 and has been imported since 2011.

The market price differential has been mainly positive over the period 2000-22, although it was negative for some specific years (2008 and 2017-18). This reflects both the domestic policies that limit the areas where rice can be grown, pushing up the prices (explaining the positive MPD) and the export restrictions in place since 2008 which exert a downward pressure on prices (explaining the negative MPD). In 2022-24, the positive market price differential was set to zero as restrictive domestic policies were set to discourage rice production through the measures mentioned above (compelling farmers to sell their production to the government, or forbidding them to stock rice).

Annex Figure 2.C.3. Trade, producer and reference prices for rice



Source: OECD (2025), "Producer and Consumer Estimates", OECD Agriculture Statistics Database, https://data-explorer.oecd.org/.

StatLink https://stat.link/cgie6h

Fruits and vegetables and groundnuts

High-value horticultural crops, including fruit and vegetables are key drivers for agricultural development in Egypt. The export value of fruit and vegetables has been increasing significantly over the last two decades. In 2020-22, fresh and prepared fruit and vegetables together accounted for more than half of total agricultural exports, against 33% in 1995-97. This was mainly achieved thanks to the dynamic growth of the fruit sector.

Main domestic market policies

Throughout the period, fruit, vegetables and groundnuts have not been subject to price controls or other market interventions. Fruit and vegetables are important cash crops. However, in April 2018, Egypt adopted a law to allow the government to limit or ban the cultivation of crops requiring a large quantity of water, such as bananas. While bananas' cultivation could continue in existing farms, its cultivation would not be allowed to expand beyond current plots allotments.

Main trade policies

Throughout the period 2000-19,[10] imports of horticultural products were subject to MFN tariffs. Except for a few products (including bananas or grapes), the trend has been for the level of tariffs to decline. Tariffs for fruit were in general higher than tariffs for vegetables. For example, in 2000, fruit had a tariff ranging between 23 and 40% (1 and 30% for vegetables), 5-40% in 2004 (2-32% for vegetables), 10-30% in 2014 (0 and 10% for vegetables), and 10-60% in 2019 (0 and 10% for vegetables). Bananas tariffs are high, ranging between 40% in 2000 to 60% in 2019.

Trade status and market price differential

Most fruit and vegetables under review, i.e. tomatoes, potatoes, grapes, dates, oranges, onions as well as groundnuts have been consistently net exported each year in 2000-24. For each commodity, the market price differential has been negative throughout most of the period with domestic farm gate prices being

below reference prices. No domestic nor trade-related policies have been identified for these exportable commodities; therefore, the MPD is considered to be zero over the whole period. Negatives likely reflect poor infrastructures for fresh horticulture products such as lack of cold storage, processing and packaging facilities combined with a lack of modern and refrigerated transports and poor road conditions (IFAD, 2008[81]).

Bananas trade status alternates between net import periods (2000-03, 2011-15 and 2020-24) and net export periods (2004-10 and 2016-19). Positive MPD were retained during net import periods (as bananas were subject to high tariffs) and set to zero during net exported period (as no export subsidies neither domestic support policies were in place).

Mangoes have been marginally traded until 2009 (implying in the PSE methodology to be treated as an imported commodity). Tariffs were in place during this period (30% in 2000, 10% in 2009) and used to calculate the market price differential. As from 2010 the market price differential was set to zero as for other exported commodities.

Cotton

Egyptian cotton, which is known for the quality of its Extra Long Staple and Long Staple, has long been called “white gold of Egypt”, as it represents an important source of income for Egyptian growers and a major source of export revenue for the country. However, Egypt’s cotton production is now in decline: three decades ago, Egypt produced 248 000 tonnes of cotton lint which dropped to 90 000 tonnes in 2022. In 1995-97, cotton was the third largest export, after oil and aluminium. In 2020-22 cotton accounted for 3% of agro-food exports.

Main market domestic policies

Until 2014, the government provided direct payments to the textile industry to allow it to pay farmers a guaranteed fixed price set each year before the harvest season. The government used to pay the spinning companies the price difference between prices of local cotton and prices prevailing in the international market. The subsidy was created to encourage domestic industries to purchase local production and to encourage farmers to continue growing cotton. In 2014, the system was reformed and guaranteed prices were replaced by a direct payment to Egyptian farmers who received EGP 1 400 (USD 184) per quintar[11] of extra-long staple varieties and EGP 1 200 (USD 171) per quintar of short/medium varieties harvested during the 2014 season. This payment was in place for one year. From 2015, government announced indicative prices prior to the beginning of the planting season. This measure was supposed to incite the domestic industries to buy cotton from farmers at the indicative price, which, unlike the guaranteed price, is not a support price and does not commit the government to buy the crop. In 2019, 2020, 2021 and 2022, the government did not announce indicative prices for cotton. In 2021, as part of the state plan to revitalise the cotton industry, the government launched a cotton trading system via auction to buy the cotton from farmers. In 2023, the government reintroduced a guaranteed price to support farmers who failed to sell their crops to private companies within the auction system. In 2024, the government approved proposals from the MALR to maintain a guaranteed price for the 2024-25 cotton season.

Main trade policies

In 2000-03, Egypt imposed a 5% import tariff on cotton not carded or combed (HS: 520100) and no tariff is applied (0%) since 2004. A 5% import tariff on carded or combed cotton (HS: 520300) has been in place since 2004.

In 2014-15, exporters obtained a subsidy of EGP 200 (USD 26) by quintar exported.

Trade status and market price differential

Cotton has been net exported over the period 2000-12 and has been net imported since 2013.

Domestic market prices were mainly in parallel with the development of reference prices over the period though we can observe successively small negative or positive market price differentials. Positive market price differential were retained in line with domestic support policies (guaranteed prices) and with trade policies (import tariffs) in place. The negative market price differential was set to zero as no domestic or trade restrictive policies were in place.

Annex Figure 2.C.4. Trade, producer and reference prices for cotton

Source: OECD (2025), "Producer and Consumer Estimates", OECD Agriculture Statistics Database, https://data-explorer.oecd.org/.

StatLink https://stat.link/5qwfdj

Sugar

Egypt produces both sugar cane and sugar beet. Sugar cane is mostly grown in Upper Egypt, while sugar beet production is mostly concentrated in the Delta region, across desert and reclaimed lands. The share of sugarcane in national sugar production has fluctuated over time. In 2020-22, sugar cane accounted for most of the national sugar production (60%) but more recent estimates indicate a rising dominance of sugar beet, reaching about 78% of total sugar production in 2025-26 (USDA GAIN, 2025[82]). Most of Egypt's sugar refineries (all eight sugar cane mills and four of the seven sugar beet mills present in the country) are state run companies affiliated to the Ministry of Supply and Internal Trade's Holding Company for Food Industries (USDA GAIN, 2022[83]). Sugar is one of the essential commodities in Egypt, as designated by the Consumer Protection Law No. 181 of 2018.

Main domestic market policies

Sugar procurement prices are announced before each planting season to offer a measure of protection to sugar producers against market fluctuations. Sugar is mostly being purchased by state owned sugar processors but sugar growers are allowed to sell their harvest to molasses producers, who pay higher prices than state owned enterprises.

The country builds up strategic reserves to prevent any shortage in the market, equivalent these last years to several months of domestic consumption. As part of a large distribution programme, sugar is sold at government supply outlets to consumers through ration cards.

Main trade policies

Most sugar is imported through the Egyptian Sugar and Integrated Industries Company (ESIIC), affiliated to the Ministry of Supply and Internal Trade.

Import tariff rates on raw cane and beet sugar (HS 170112, 170113, 170114) fluctuated between 2% and 25% during 2000 and 2015 and have been of 20% since 2016 (except from May to December 2016 where the tariff on raw sugar import was set to zero). On several occasions, Egypt introduced provisional safeguard measures (e.g. as prescribed in Ministerial decree No. 21/2009), and increased MFN applied tariffs on raw sugar from 2% to 20% (as prescribed in Presidential Decree No. 25/2016). In 2020-21 Egypt imposed a three-month import ban on white and raw sugar.

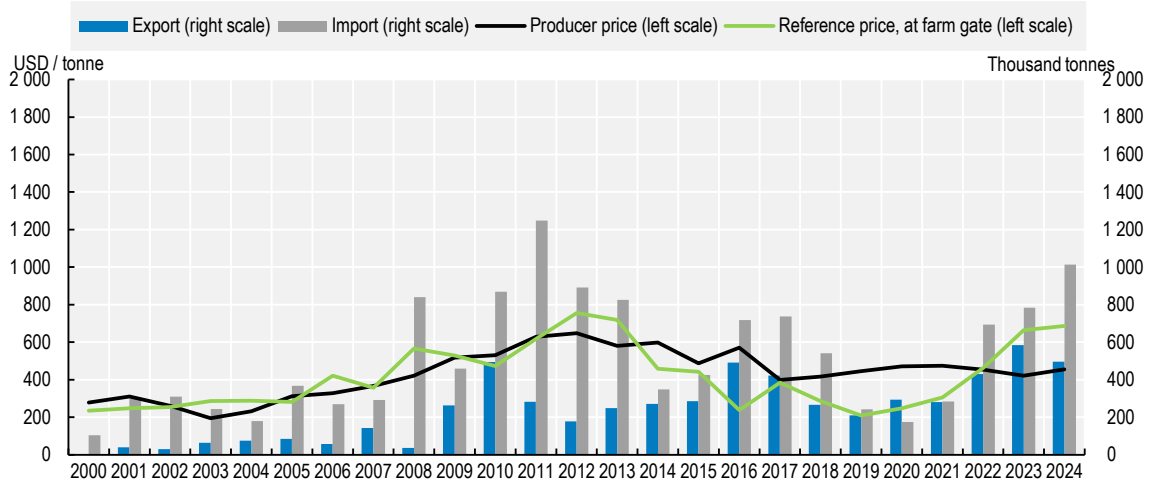
Since 2016 sugar exports are subject to an export tax (Ministerial Decree No. 455/2016) to safeguard the country strategic reserves from high world prices and to ensure a sufficient domestic supply of sugar in the country. An export ban initially in place for three months in 2023 (Ministerial resolution 88 of 2023) was extended on several occasions, most recently for six months according to Ministerial Decree No. 111 of 2025.

Trade status and market price differential

Sugar has been consistently net imported over the period 2000-24.

The market price differential was positive in 2000-02, 2005, 2007, 2010-11 and 2014-21 in line with domestic policies (guaranteed price, public stockholding) and trade policies (import tariff, safeguard measures). For the remaining years, the negative MPD has been set to zero, as although the presence of export tax or bans was noted for certain years, overall, sugar is net imported and strongly supported through the domestic and trade policies in place.

Annex Figure 2.C.5. Trade, producer and reference prices for sugar



Source: OECD (2025), "Producer and Consumer Estimates", OECD Agriculture Statistics Database, https://data-explorer.oecd.org/.

StatLink https://stat.link/a8giyn

Milk

Raw milk in Egypt is mostly produced from buffalo and cow (and to a lesser extent from goat, sheep, and camel). The sector is largely dominated by subsistence and traditional systems with a majority of micro and small-scale farmers, accounting for more than 80% of milk production in the country. The dairy value chain is characterised by a limited use of technology, low productivity, quality issues and challenges in post-production activities (ILO, 2020[84]). A modern commercial milk sector coexists alongside the subsistence and traditional sector with milk produced by large modern dairy farms.

Milk has been added to the list of strategic commodities in December 2023.

Main domestic market policies

Until 2009, raw milk producer prices were fixed by a committee composed of representatives from MALR, large scale farmers and milk's processors. The committee recommended the pricing according to a diverse range of factors including feed prices or world price of skim milk powdered (ILO, 2020[84]). No policies regulating milk prices at the farm gate level have been identified over 2010-24.

Main trade policies

Dairy products (HS 0401 to 0406) were on average subjected to a 18% tariff in 2000-03, 6% in 2004-13, 5% in 2014-19 and 7% in 2022. Skim milk powder (HS 040210) tariffs were subject to a 9% tariff in 2000-02, 3.5% in 2003-06 and 0% in 2007-22. Butter (HS 040510) was subject to a 10% tariff in 2000-03, 9% in 2003-06, 6% in 2007-09, 1.25% in 2010-15 and 2.5% since 2016.

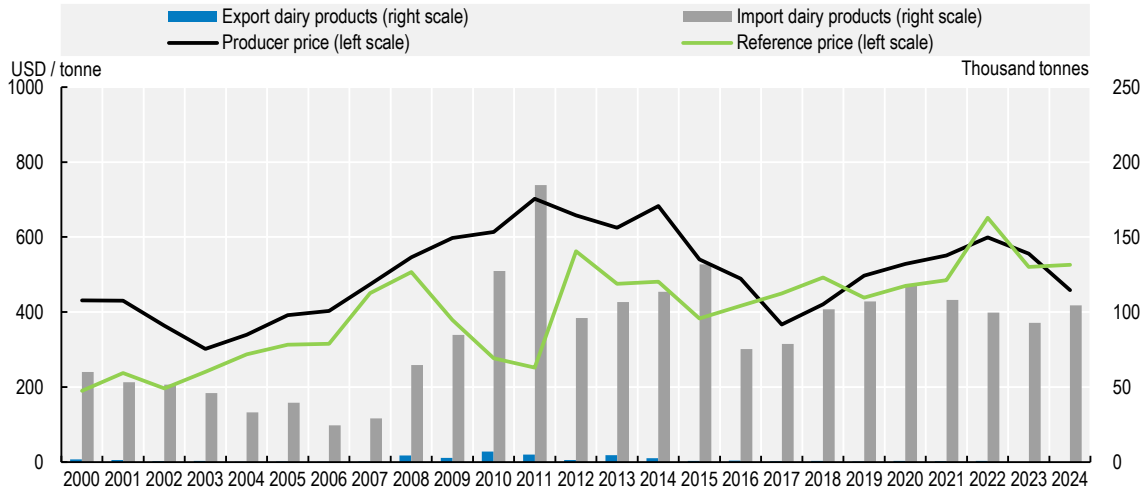
Since 1 October 2021, milk and milk products exported to Egypt require halal certification from ISEG Halal, the state entity managing the imports of food products in Egypt (Ministerial Decree No. 35/2020). However, the entry into force of this procedure has been delayed several times – most recently the delay was further extended to December 2025. In response to significant concerns raised by several countries regarding the difficulties associated with Halal certification for milk and dairy products, the Egyptian Government has excluded milk and dairy products from the scope of Halal certification requirements since March 2025.

Trade status and market price differential

Milk has been consistently imported since 2000.

During 2000-24, the market price differential for milk has been positive for most of the years in line with trade policies in place (tariffs) for dairy products. Market price differentials for 2017-18, 2022 and 2024 have been set to zero as no domestic or trade policy have been identified to explain the calculated negative MPD.

Annex Figure 2.C.6. Trade, producer and reference prices for milk



Source: OECD (2025), "Producer and Consumer Estimates", OECD Agriculture Statistics Database, https://data-explorer.oecd.org/.

StatLink https://stat.link/2sv59p

Livestock commodities (beef and veal, sheep meat, poultry)

Beef meat, sheep meat and poultry are grouped together for the purpose of the following analysis as they present the same characteristics in terms of trade status and domestic market and trade policies applied. However, an individual market price differential has been calculated for each of these commodities.

As agricultural land is limited in Egypt, small producers dominate livestock production. Limited availability of feed in Egypt and high prices for feed imports (essentially maize) have constrained meat production.

Main domestic market policies

No policies regulating livestock prices at the farm gate level have been identified during 2000-24.

Main trade policies

Egypt imposed a 5% tariff on meat of bovine animal, fresh, chilled or frozen (HS 0201 and HS 0202) in 2000-06 and a 0% tariff since 2007. Egypt imposed a 5% tariff on meat of sheep, fresh, chilled or frozen (HS 0204) in 2000-06 and a 0% tariff since 2007. Egypt imposed an 80% tariff on meat of poultry, fresh, chilled or frozen (HS 0207) in 2000-02, 64% in 2003, 32% in 2004-06 and 30% tariff since 2007. An import ban was in place before 2007.

Although the private sector is allowed to import meat in Egypt, government authorities (such as the Ministry of Supply and Internal Trade, Ministry of Agriculture and Land Reclamation and the Ministry of Defense) are Egypt's largest importers. The Ministry of Supply and Internal Trade offers imported beef at below market prices through a range of partner private grocery stores and of public outlets operated by the Holding Company for Food Industries. The government also supports meat demand by providing beef at subsidised prices through the Ministry of Defense stores.

Importers of meat products must provide several certificates before products are allowed to enter into the country including, a veterinary certificate, a certificate of origin and a halal certificate according to the 2023 Halal Standards, the reference document for "general requirements of halal food according to Islamic Sharia". The Halal certification is required for all imported food products entering Egypt and must be issued by ISEG Halal, the official Halal certification authority in Egypt. The General Organisation for Veterinary

Services (GOVS) under MALR requires that imports of meat, poultry and their products be accompanied by a Halal certificate issued by the relevant certification bodies approved by GOVS.

Trade status and market price differential

Beef meat, sheep meat and poultry have all been imported during the period 2000-24. Poultry has not (or marginally) been traded in 2000-07 and, as indicated by the PSE methodology, is treated as an imported commodity for calculating the MPD.

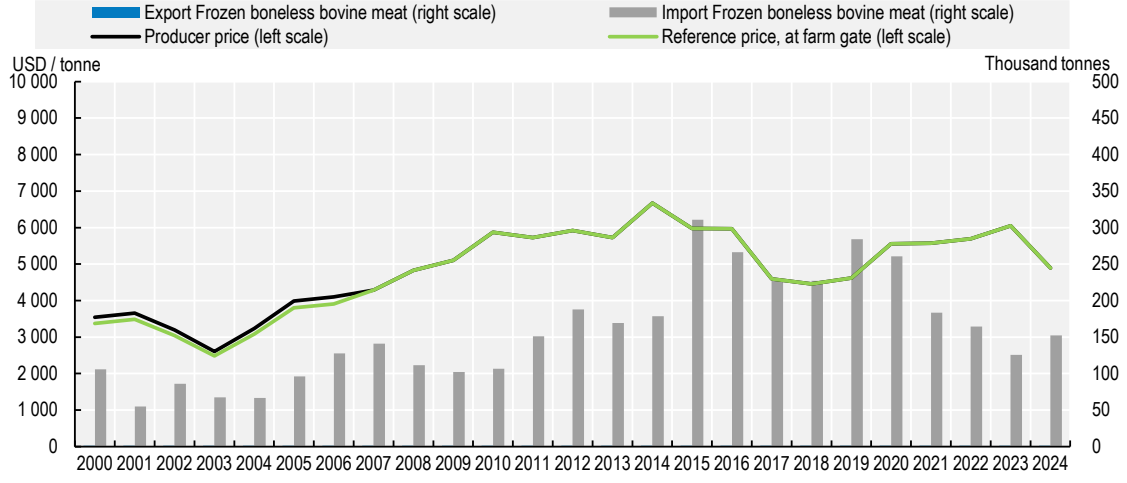
As for other countries, it is not always possible to make an appropriate "like with like" comparison between the producer price and the reference price for meat products, preventing the use of the price gap method for calculating the MPD. In the case of Egypt, the price of domestic beef (or sheep meat) produced at the farm gate level is available in fresh carcass and the price of beef (or sheep meat) imported (IUV) is available as frozen meat, making the 'like with like' comparison difficult.

Hence, the market price differentials for beef and sheep meat have been derived from the tariffs applied to these products, in line with the fact that tariffs have been the main policy in place for most of the period covered by the PSE calculations. For both commodities, since 2007 tariffs have been set to zero, which translates into a market price differential equal to zero. The use of tariffs as the appropriate way to assess the market price differential relies in this case on the following considerations:

- State trading of beef and sheep meat was effectively in place, but with the objective to facilitate imports (rather than restricting them) in order to maximise consumer welfare by selling meat at subsidised price in state outlets.[12]
- Moreover, it is considered that halal measures in place are not implicitly supporting domestic producers, as domestic and foreign producers are facing the same requirements in this area.

In the case of poultry, it was not possible to use the tariff to derive the market price differential as poultry import have been banned for several years. The ban also prevented us to use IUV at the border to compare with producer price. Therefore, the choice has been made to use the world price of poultry adjusted to the farm with transportation cost (estimated using difference between IUV and EUV between Brazil and Egypt) and margins. The result obtained (i.e. a positive gap for all years) is in line with the high tariff in place.

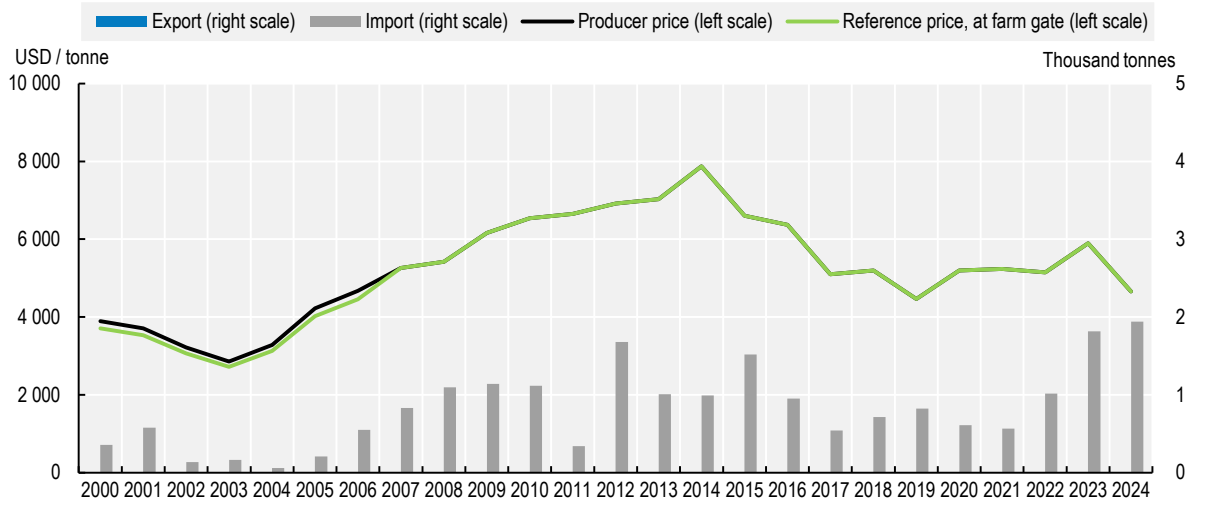
Annex Figure 2.C.7. Trade, producer and reference prices for beef and veal



Source: OECD (2025), "Producer and Consumer Estimates", OECD Agriculture Statistics Database, https://data-explorer.oecd.org/.

StatLink https://stat.link/maj4yi

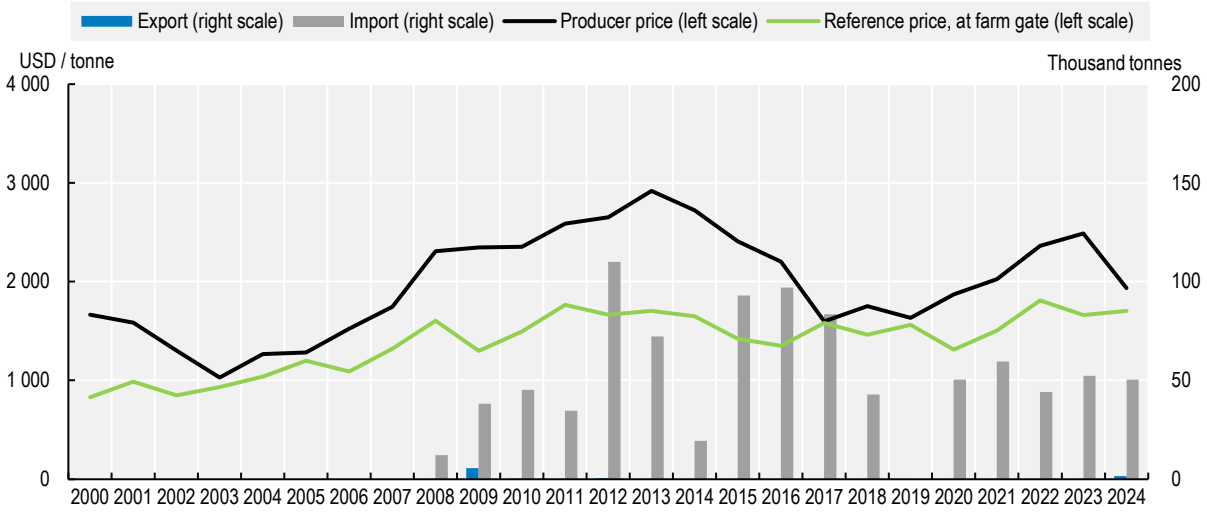
Annex Figure 2.C.8. Trade, producer and reference prices for sheep meat



Source: OECD (2025), "Producer and Consumer Estimates", OECD Agriculture Statistics Database, https://data-explorer.oecd.org/.

StatLink https://stat.link/jpray5

Annex Figure 2.C.9. Trade, producer and reference prices for poultry



Source: OECD (2025), "Producer and Consumer Estimates", OECD Agriculture Statistics Database, https://data-explorer.oecd.org/.

StatLink https://stat.link/58e1hd

Eggs

As a low cost source of protein, eggs are consumed regularly by Egyptians. Egypt is self-sufficient in eggs.

Main domestic market policies

No policies regulating egg prices at the farm gate level have been identified during 2000-24.

Main trade policies

Egypt imposed a 25% MFN tariff on eggs in shell, preserved or cooked (HS 0407) in 2000-03 and 5% since 2004.

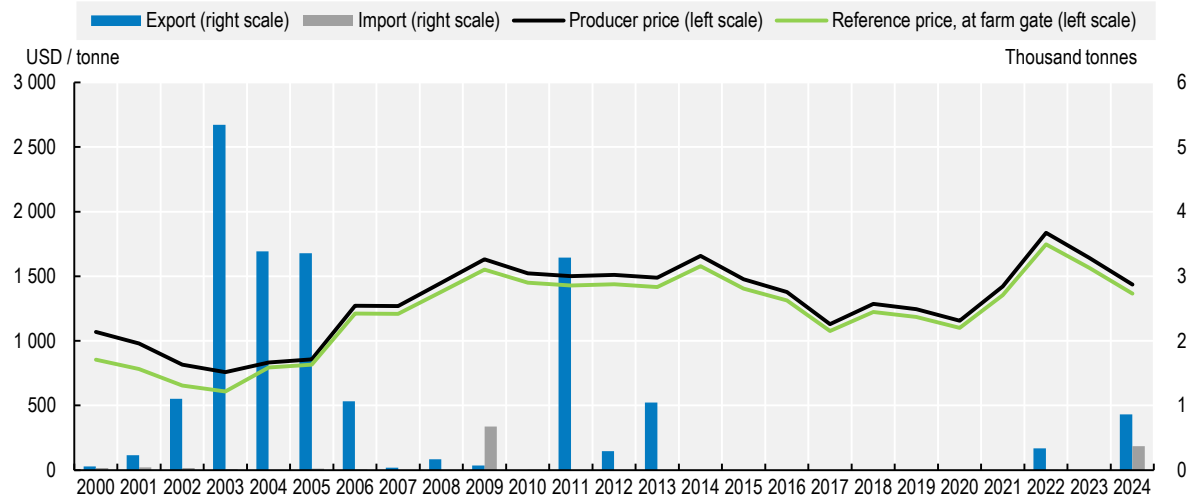
Trade status and market price differential

Eggs have been marginally traded over the period 2000-24. Depending on the years there were either no exports or imports, or a very small amount of exports. The situation of marginal trade is treated as an import status for calculating the MPD in the PSE methodology.

As it was not possible to use neither trade data to calculate IUV or EUV (given the small amounts traded), nor international transportation costs, making it difficult to use prices from another country to calculate the MPS, the choice of tariffs as proxy for the MPD was made.

Moreover, as tariffs are the only policy in place supporting egg producers in Egypt, the use of the tariff is representative in calculating the market price differential for eggs.

Annex Figure 2.C.10. Trade, producer and reference prices for eggs



Source: OECD (2025), "Producer and Consumer Estimates", OECD Agriculture Statistics Database, https://data-explorer.oecd.org/.

StatLink https://stat.link/n2cwox

Annex Table 2.C.1. Policy instruments by commodity used in the PSE database, 2000-24

	Net trade status	Border price	Market price differential	Domestic policies	Trade policies
Wheat	Imported (2000-24)	IUV	Calculated Negative set to zero	Procurement operations, Guaranteed procurement prices Public stockholding	Tariffs wheat (0 since 2007) or wheat flour
Maize	Imported (2000-24)	IUV	Calculated Negative set to zero	Procurement operations, Guaranteed procurement prices (until 2023) Public stockholding	Tariffs maize (0 since 2007) or maize flour
Rice	Exported (2000-10) Imported (2011-24)	World price: "FAO all rice price index normalised to India, indica high quality 5% broken average 2014-2016 (January/December)" brought to Egypt border	Calculated Positive MPD set to zero in 2022-24	Marketing regulations restricting rice production (linked to water issues) or stocking (linked to shortages). Guaranteed procurement price (set below market prices)	Tariffs (zero since 2010) Export taxes Export quotas Export bans
Fruit and vegetables (excluding bananas)	Exported (except mangoes imported until 2009)	EUV (except mangoes for 2000-09 where tariffs are applied)	Set to zero (except mangoes 2000-09)	No domestic market policies	Tariffs
Groundnuts	Exported	EUV	Set to zero	No domestic market policies	Tariffs
Bananas	Imported in 2000-03, 2011-15 and 2020-23 Exported in 2004-10, 2016-19 and 2024	IUV and EUV	Calculated Negative set to zero	Marketing regulations linked to water issues	Tariffs
Cotton	Exported in 2000-12 Imported since 2013	World price index – Cotlook A Index - Outlook FAO/Aglink-	Calculated Negative set to zero	Guaranteed procurement prices Indicative prices (unlike the guaranteed price do not commit the government to buy the crop) Marketing regulations restricting cotton production (linked to water issues)	Tariffs
Sugar	Imported	IUV	Calculated Negative set to zero Positive set to zero in 2022-24	Guaranteed procurement prices provided by state run companies affiliated to the Ministry of Supply and Internal Trade Strategic reserves Marketing regulations restricting sugar production (linked to water issues)	Tariffs Safeguard measures Temporary export tax Temporary export ban

	Net trade status	Border price	Market price differential	Domestic policies	Trade policies
Milk	Imported	IUV	Calculated Negative set to zero	No domestic market policies	Tariffs Exempted from halal certification requirements since March 2025
Beef	Imported	Derived from the tariff	Calculated	No domestic market policies	Imports mainly by government agencies Tariffs (zero since 2007) Phytosanitary measures (halal certification)
Sheep meat	Imported	Derived from the tariff	Calculated	No domestic market policies	Imports mainly by government agencies Tariffs (zero since 2007) Phytosanitary measures (halal certification)
Poultry	Marginal trade (2000-07) Imported since 2008	World price based on Brazil's producer prices brought to the Egyptian border	Calculated Negative set to zero	No domestic market policies	Tariffs Import ban before 2007 Phytosanitary measures (halal certification)
Eggs	Marginal trade	Derived from the tariff	Calculated	No domestic market policies	Tariffs

Note: Trade and domestic measures reported in the table refer to 2000-24 period, though not always covering the entire period. Unless otherwise specified, each measure covers one or several years.

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Notes

[1] Prior to the agrarian reform in 1952, approximately 2 000 out of 2.8 million landowners held 20% of the land, while more than 2.6 million owners held 36% of the land. By 1965, about 4 000 out of 3.2 million landowners held 7% of the land, while about 3 million held 57% of the land (Ikram, 2006[1]).

[2] There is also a Ministry of Social Solidarity, which retains responsibility for cash transfers and social protection.

[3] The food products included in Ministerial Decree 991/2015 include milk and milk products; preserved and dried fruits; oils and fats; chocolates and products containing cocoa; sugar confectionaries; pastas and prepared foods from cereals and bread products and pastries; fruit juices; natural and mineral and aerated water.

[4] For commodities not affected by such measures, the market price differential is set to zero.

[5] A %SCT of 25%, for example, indicates that the value of transfers that are specific to the commodity is equivalent to one-fourth of the commodity's gross farm receipts.

[6] Depending on the years, wheat, maize, rice, sugar, cotton, bananas, mangoes, beef and veal, milk, sheep meat, poultry and eggs.

[7] In order to avoid double-counting, market transfers associated with market price support policies in the CSE component are not taken into account in the TSE, given that they are already included in the PSE component.

[8] Flour for subsidised *baladi* bread is milled at higher extraction rates (about 82-87%), while fino and other non-subsidised bakery products use 72%-extraction flour.

[9] 1 feddan=0.42 ha.

[10] Data extracted from the UN TRAINS database, at the HS 6 digits level, available from 2000 to 2019.

[11] 1 quintar = 157.4 kg.

[12] In the absence of other policy instruments, state trading enterprises on their own may not be able to influence the domestic market (OECD, 2001[85]).

3 Strengthening food security and nutrition in Egypt

Egypt faces the double burden of malnutrition: the coexistence of chronic undernutrition and overnutrition amongst its population. Policies to tackle food insecurity have traditionally focused on increasing food availability, through measures to support domestic production and imports, and access to food, through a costly and extensive food subsidy system. While evidence indicates that food subsidies have had limited success in reducing malnutrition, reform remains challenging and sensitive. This calls for a comprehensive approach to reform food subsidies, increase dietary diversity, promote nutritional education, and facilitate greater diversification of trade flows.

Key messages

- Egypt faces the double burden of malnutrition: the simultaneous presence of chronic undernutrition and overnutrition amongst its population. Undernourishment has grown in recent decades to 9.4% in 2022-24, higher than the levels observed in Morocco and Tunisia, and rates of overweight and obesity are among the highest worldwide.
- Egypt is a major importer of agricultural commodities, with particular concentration on cereals from Russia and Ukraine. As a result, Egypt is highly vulnerable to trade disruptions involving these countries, as became apparent during the war in Ukraine, which led to significant supply chain disruptions and fears of potential food shortages.
- Food subsidies have been in place for many decades and are part of the social contract in Egypt. Their reform is sensitive and requires the participation of stakeholders to ensure its long-term continuity.
- The *baladi* bread and ration card subsidy programmes, which benefit the vast majority of Egypt's population, are not well targeted to those in need, and create incentives for the consumption of staple-intensive diets.
- Reforming the food subsidy system and better targeting its beneficiaries can support more efficient use of available budgetary resources, which could be used to create incentives for more diversified diets. In particular, reducing the high consumption of subsidised bread, cooking oil, sugar and rice in favour of a diverse range of micronutrient rich foods can help to address some of Egypt's nutritional challenges.
- The Takaful and Karama cash transfer programmes have proven to be more effective at targeting the poorest households. While these programmes have been scaled up in recent years, they are still relatively small, and there is scope to expand them further.
- Overall, there is scope to reform the food subsidy system and improve its effectiveness in reducing malnutrition, free up fiscal resources for nutrition-positive investments, enhance the role of the private sector in improving market responsiveness, and diversify trade by commodities and partners.

3.1. Overview of food security and nutrition in Egypt

Food security is the state of having reliable access to a sufficient quantity of affordable, safe, and nutritious food. Food security is multidimensional in nature and may require policy interventions across a range of different areas. Box 3.1 provides definitions for the four pillars of food security (availability, access, utilisation, and stability), and outlines some of the key indicators used to measure food security.

Poverty and inadequate incomes are among the foremost causes of food insecurity globally (OECD, 2013[1]). In 2021, 37 million Egyptians (34% of the population) were classified as poor based on the national poverty measurement methodology.[1] Furthermore, 73 million people (66% of the population) were living below the upper middle class poverty line of USD 6.85 per day (World Bank, 2025[2]). There are also significant regional disparities in poverty rates, with higher rates of poverty observed among rural populations.

Box 3.1. What is food security, and how is it measured?

The 1996 Rome Declaration on World Food Security and the World Food Summit Plan of Action provide a formal definition of food security:

> *"Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life."*

This definition was later expanded with the recognition of four key dimensions of food security:

1. **Availability:** The availability of sufficient quantities of food of appropriate quality, supplied through domestic production or imports (including food aid).
2. **Access:** Access by individuals to adequate resources for acquiring appropriate foods for a nutritious diet.
3. **Utilisation:** Utilisation of food through adequate diet, clean water, sanitation and health care to reach a state of nutritional well-being where all physiological needs are met.
4. **Stability:** The ability to ensure food security in the event of sudden shocks (e.g. conflict, extreme weather events) or cyclical events (e.g. seasonal food insecurity).

The concept of food security has evolved over time, with the High Level Panel of Experts on Food Security and Nutrition recognising the importance of additional dimensions, such as "agency" and "sustainability".

Some of the indicators commonly used to measure food security include:

- **Prevalence of undernourishment (PoU):** the percentage of the population whose habitual food consumption is insufficient to provide the dietary energy levels required to maintain a normal, active, and healthy life.
- **Prevalence of moderate or severe food insecurity:** the percentage of the population who live in households classified as moderately or severely food insecure, based on the FIES.[1]
- **Children under 5 years affected by wasting:** weight-for-height is more than two standard deviations below the WHO Child Growth Standards median among children aged 0-59 months.
- **Children under 5 years who are stunted:** height-for-age is more than two standard deviations below the WHO Child Growth Standards median among children aged 0-59 months.

1. According to the Food Insecurity Experience Scale (FIES), a household is classified as moderately or severely food insecure when at least one adult in the household has reported to have been exposed to low quality diets and might have been forced to also reduce the quantity of food they would normally eat because of a lack of money or other resources. A household is classified as severely food insecure when at least one adult in the household has reported to have been forced to reduce the quantity of food consumed, to have skipped meals, having gone hungry, or having to go for a whole day without eating because of a lack of money or other resources.

Source: FAO (2006[3]); HLPE (2020[4]); World Food Summit (1996[5]).

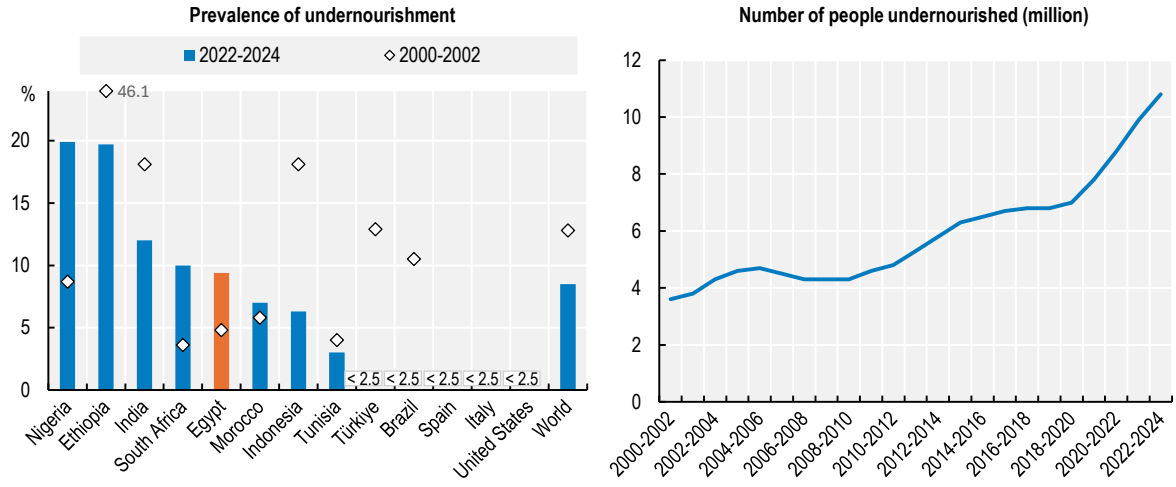
Access to food and nutrition: The double burden of malnutrition in Egypt

Egypt has been experiencing a rapid nutrition transition since the mid-1970s, and today faces a significant public health challenge in the form of the "double burden of malnutrition": the simultaneous presence of chronic undernutrition and overnutrition amongst its population (Shokry et al., 2025[6]). Malnutrition imposes a significant economic cost on Egypt, through a combination of productivity losses, reduced educational attainment, and increased health costs.

Food insecurity and undernourishment are rising

Food insecurity has increased in Egypt over the past two decades, with the number of people undernourished rising from 3.6 million in the early 2000s to 10.8 million in 2022-24. This has outpaced the growth in the overall population, and as a result the prevalence of undernourishment has also increased, from 4.8% in 2000-02 to 9.4% in 2022-24 (Figure 3.1). While undernourishment remains below the level observed in India (12%), it is higher than Morocco (7%) and Tunisia (3%) (FAOSTAT, 2025[7]). Moreover, Egypt's experience runs counter to trends observed worldwide, where the prevalence of undernourishment has been declining.

Figure 3.1. Undernourishment in Egypt and selected countries



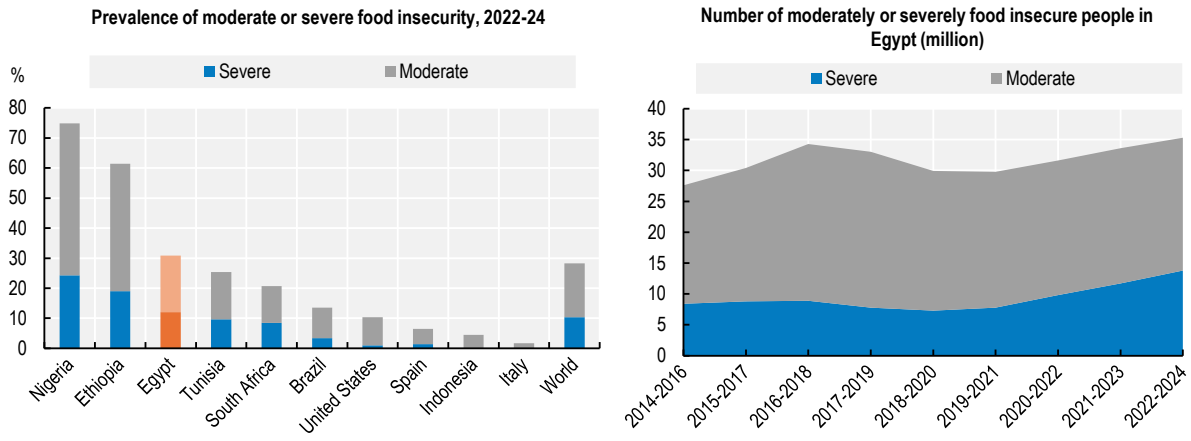
Source: FAOSTAT (2025[7]).

StatLink https://stat.link/bxfd6a

Similar trends can be observed in the number of severely food insecure people in Egypt, which increased from 8.4 million in 2014-16 to 13.8 million in 2022-24, while the number of moderately or severely food insecure people increased from 27.6 million to 35.3 million over the same period (Figure 3.2). About 31% of the Egyptian population is moderately or severely food insecure, a level that is higher than the global average of 28%. The prevalence of moderate or severe food insecurity in Egypt is considerably lower than in Nigeria (75%) and Ethiopia (61%), yet it remains substantially higher than the levels observed in Tunisia (25%), South Africa (21%), Brazil (18%) and OECD Member countries.

Indicators of undernutrition point to deficiencies or imbalances in the intake of energy and nutrients in the Egyptian population. The percentage of children under 5 years of age affected by wasting (low weight-for-height) decreased from 5.2% in 2003 to 3.3% in 2021. This represents a slight improvement, and is in line with global trends as well as the experiences of other North African economies such as Morocco and Tunisia, where rates of wasting have steadily declined. The percentage of children under 5 years of age who are stunted (low height-for-age) declined from 26% in 2000 to 13% in 2024, but remains high (Figure 3.3).[2]

Figure 3.2. Moderate and severe food insecurity in Egypt and selected countries



Source: FAOSTAT (2025[7]).

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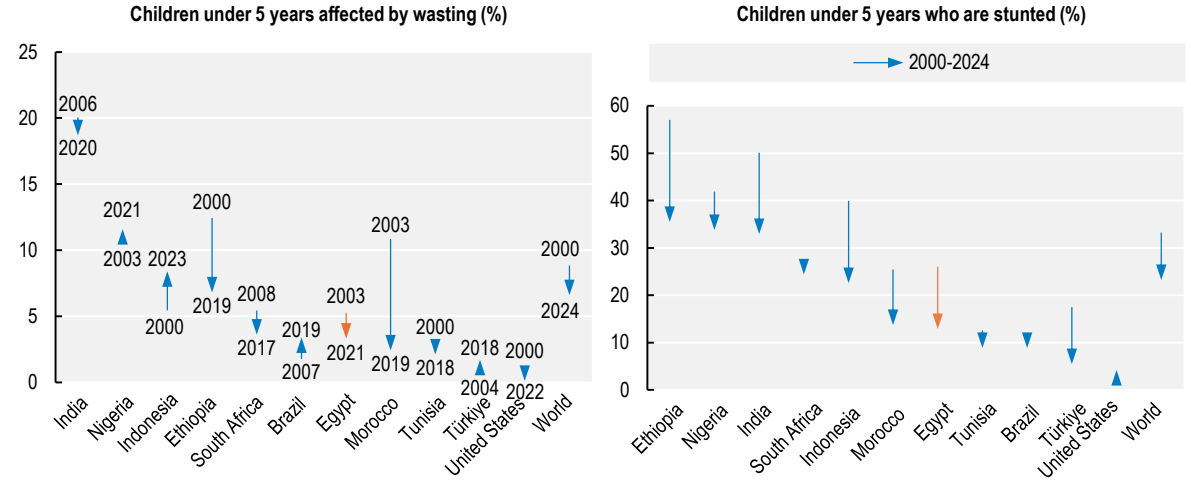
Figure 3.3. Undernutrition in Egypt and selected countries



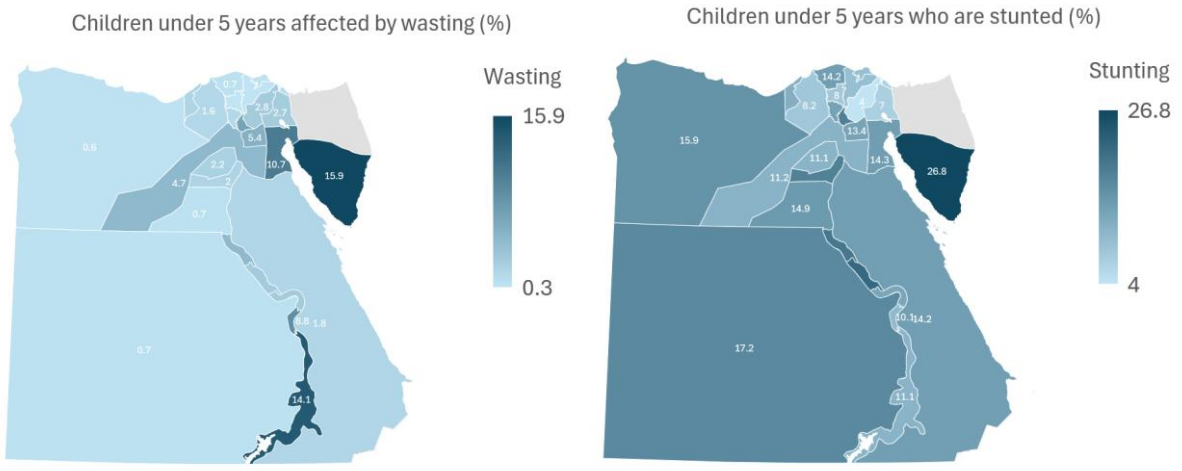
Source: FAOSTAT (2025[7]).

StatLink https://stat.link/esckmd

Wasting and stunting prevent children from reaching their physical and cognitive potential, and may be the result of poor socio-economic conditions, poor maternal health and nutrition, inappropriate infant feeding, and recurrent or chronic illness (WHO, 2024[8]). On top of the impacts to child health and well-being, the negative economic effects of child malnutrition stem from productivity losses resulting from reduced physical capacity and higher worker absenteeism, increased educational costs due to school repetitions and dropouts, and health costs from additional cases of child morbidity and mortality. For example, the economic cost of child undernutrition is estimated at 1.9% of GDP in Egypt (Elshalakani et al., 2020[9]).

An examination of subnational data from the 2021 Egypt Family Health Survey shows that the highest rates of wasting among children under 5 years of age were found in South Sinai Governorate (16%), Aswan Governorate (14%), and Suez Governorate (11%) (CAPMAS, 2022[10]). Rates of stunting were also more pronounced in South Sinai (27%), as well as the other Frontier Governorates and rural parts of Upper Egypt (16%) (Figure 3.4).

Figure 3.4. Rates of undernutrition for children under 5 years by governorate, 2021



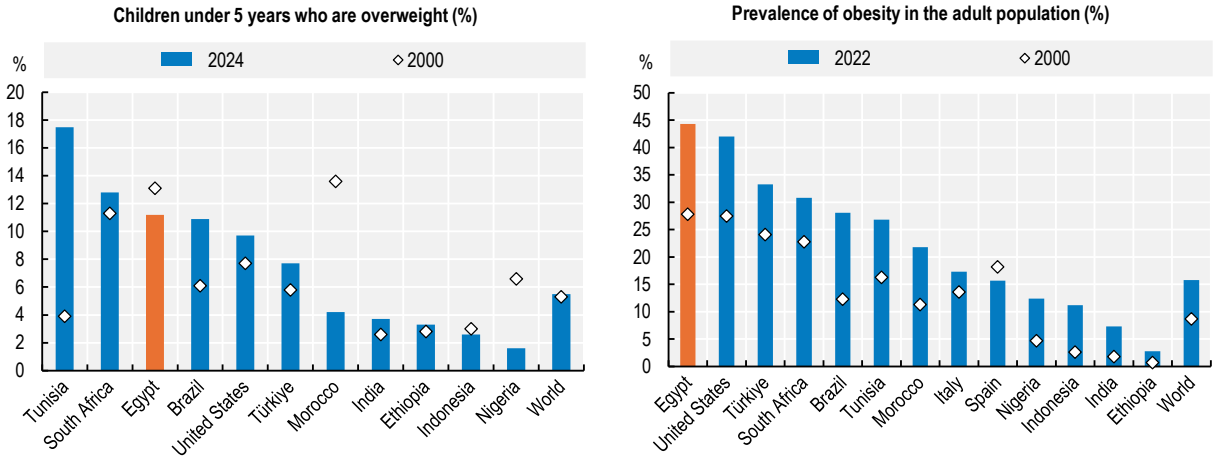
Note: Based on data for 9 694 children across all governorates, except North Sinai.
Source: OECD based on data obtained from CAPMAS (2022[10]).

Overweight and obesity are among the highest worldwide

At the same time, data on overweight and obesity indicate that Egypt faces broader issues in tackling malnutrition. The percentage of children under 5 years of age who are overweight decreased slightly from 13% in 2000 to 11% in 2024, but remains considerably higher than the global average of 5.5%. The prevalence of obesity in the adult population (18 years and over) also grew rapidly, from 28% in 2000 to 44% in 2022 (compared to a global average of 16%) (Figure 3.5).

Remarkably, in spite of widespread food insecurity and undernutrition, Egypt has the 22nd-highest share of overweight children and the fifteenth highest rate of adult obesity worldwide.[3] Rates of overweight and obesity are particularly high among women aged 15-49: 86% were classified as overweight or obese in 2021, and 56% were classified as obese (CAPMAS, 2022[10]).

Figure 3.5. Overweight and obesity in Egypt and selected countries



Source: FAOSTAT (2025[7]).

StatLink https://stat.link/mazojr

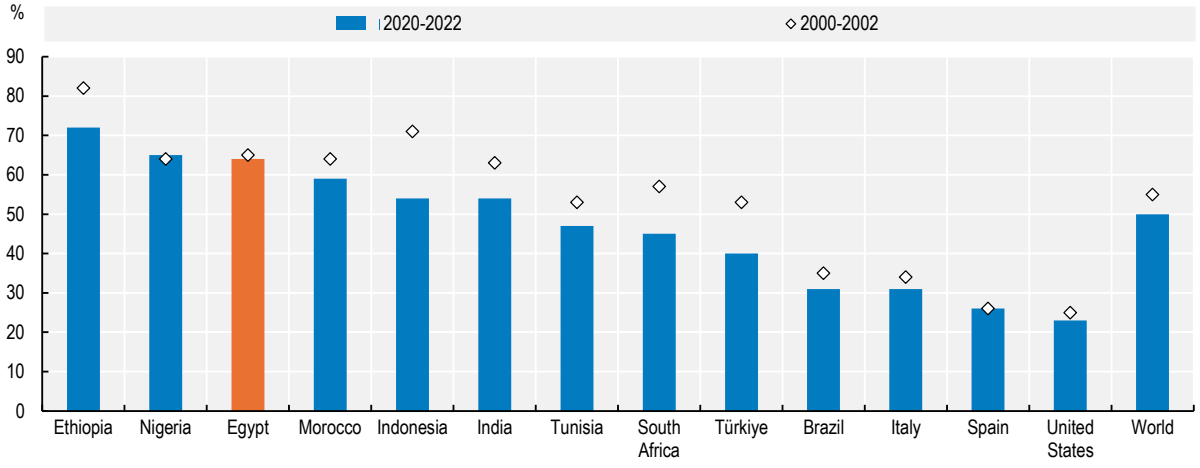
Obesity was linked to an estimated 113 000 deaths in 2020, accounting for nearly 20% of all deaths in Egypt. It is also a major risk factor for numerous diseases, including type 2 diabetes, hypertension, heart disease, stroke, and several forms of cancer. For instance, the direct health care costs associated with treating diseases attributable to obesity was estimated at EGP 62.4 billion per year in 2020 (Aboulghate et al., 2021[11]). This amounted to USD 4 billion, or approximately 1% of Egypt's GDP in 2020.

Healthy diets are relatively expensive, resulting in high consumption of staples and nutritional shortfalls

Micronutrient deficiencies are a major cause of childhood mortality and can result from unhealthy diets, insufficient intake of vitamins and minerals, or parasitic infestations. The 2021 Egypt Family Health Survey conducted direct measurements of the prevalence of anaemia[4] among children and women. Overall, the survey found that 43% of children under the age of 5 suffer from some degree of anaemia. This rate drops to 34% for females aged 5-19, and 31% for males aged 5-19. Furthermore, 38% of women aged 15-49 were found to be anaemic, which is considerably higher than the level of 25% recorded by the previous Egypt Demographic and Health Survey in 2014 (CAPMAS, 2022[10]).

The proportion of dietary energy available in a country's food supply that is derived from staple foods such as cereals, roots and tubers provides an indication of dietary diversity. Countries with very high shares of dietary energy derived from staple foods may suffer from lower nutritional quality, as non-staple foods tend to be more nutrient-dense than cereals, roots and tubers. In Egypt the share of dietary energy derived from staple foods reached 64% in 2020-22, which is significantly higher than the global average of 50%, and higher than the levels recorded in other countries in North Africa, including Morocco (59%) and Tunisia (47%) (Figure 3.6). Unlike most other countries, the share has hardly fallen in Egypt over the past two decades.

Figure 3.6. Share of dietary energy supply derived from cereals, roots and tubers (%)



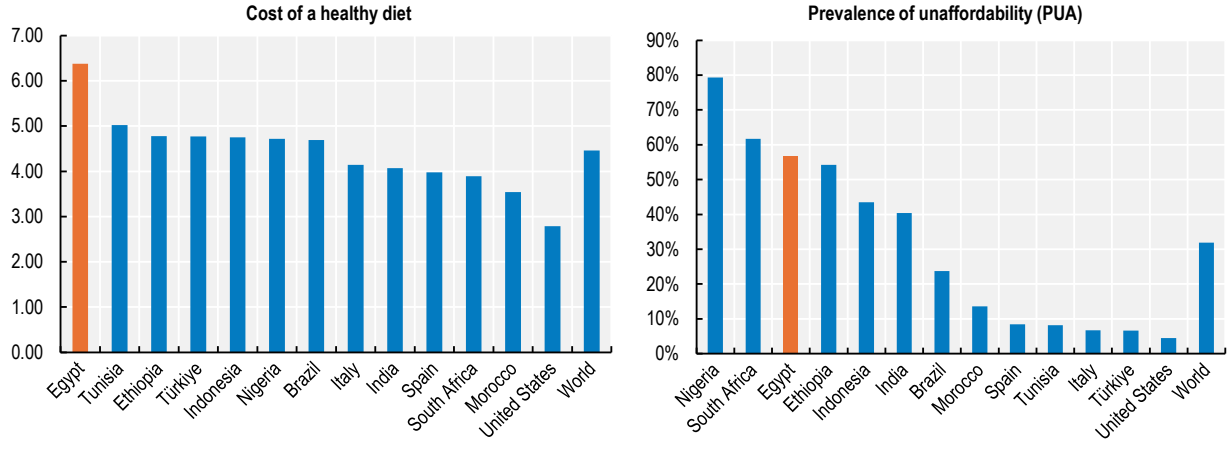
Source: FAOSTAT (2025[7]).

StatLink https://stat.link/9k4gbo

A "healthy diet" provides adequate calories and nutrients from a diverse range of food groups, helping to meet nutrient intake requirements while preventing malnutrition in all its forms, including diet-related non-communicable diseases. It consists of four key characteristics: diversity (within and across food groups); adequacy (sufficiency of all essential nutrients compared to requirements); moderation (foods and nutrients that are related to poor health outcomes); and balance (energy and macronutrient intake) (Lawrence, 2024[12]); (FAO and WHO, 2024[13]); (FAO et al., 2024[14]).

The cost of a healthy diet in Egypt, comprising the least expensive locally available foods that meet energy and nutritional requirements, was 6.38 purchasing power parity (PPP) dollars per person per day in 2024 – significantly higher than the global average of 4.46 PPP dollars. In contrast, a diet based on the least expensive locally available starchy staples was substantially cheaper for Egyptians, at just 0.68 PPP dollars per person per day. Healthy diets remained unaffordable for an estimated 66 million people, or 57% of Egypt's population in 2024 (FAO et al., 2025[15]). In comparison, the prevalence of unaffordability (PUA) of healthy diets was much lower in Morocco (14%) and Tunisia (8%) (Figure 3.7).

Figure 3.7. Cost and affordability of a healthy diet in Egypt and selected countries, 2024



Note: The cost of a healthy diet indicator is the cost of purchasing the least expensive locally available foods to meet energy and food requirements, measured in purchasing power parity (PPP) dollars per person per day. The Prevalence of Unaffordability (PUA) indicator estimates the percentage of individuals in a population whose disposable income, net of the amount needed to acquire all basic non-food goods and services, is lower than the least-cost healthy diet.
Source: FAOSTAT (2025[16]).

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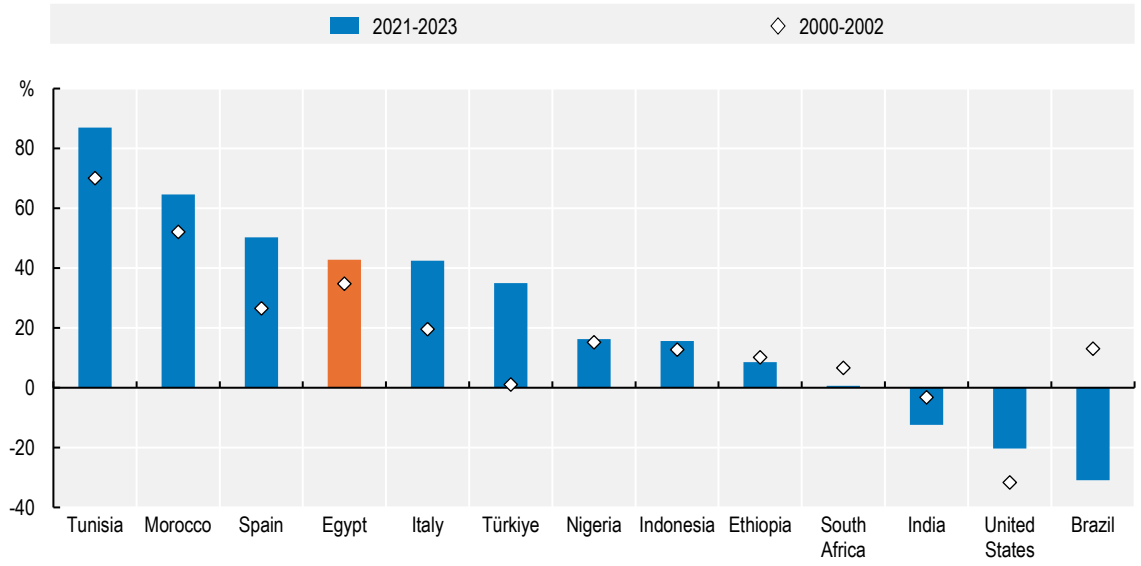
Food availability: Import dependence and vulnerability to trade disruptions

Egypt is a major importer of agricultural commodities. With a population of 116.5 million growing at 1.7% in 2024, Egypt has become increasingly dependent on imports to ensure its food supplies and remains highly vulnerable to trade-related shocks. This is reflected in the cereal import dependency ratio, which indicates the share of net imports of cereals in the available domestic supply of cereals (Figure 3.8). Egypt's cereal import dependency ratio is very high at 43% in 2021-23, and has increased steadily over the past two decades. Although this is lower than Morocco (65%) and Tunisia (87%), the large size of the country makes Egypt a large importer in absolute terms and particularly vulnerable to trade disruptions.

Figure 3.8. Cereal import dependency ratio in Egypt and selected countries



Source: FAOSTAT (2025[7]).

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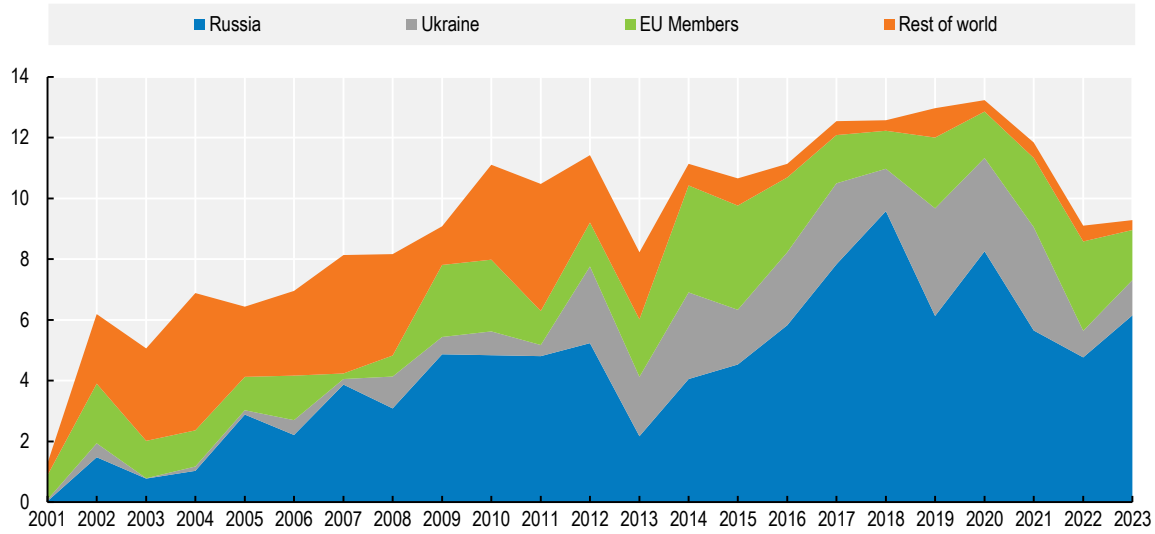
Egypt is one of the world's largest importers of wheat. Over the past decade, wheat imports have averaged 11.4 million tonnes per year, representing about 50% of the country's total wheat consumption. The government – previously through the General Authority for Supply Commodities (GASC), and since December 2024 via Mostakbal Misr Agency for Sustainable Development – is responsible for about half of the country's wheat imports, while the remainder is imported by private trading companies (Abay et al., 2023[17]). Despite the government's efforts to diversify its sources of imports, Russia and Ukraine still represent the vast majority of wheat imports, with the two countries together accounting for over 70% of Egypt's wheat imports between 2014 and 2023 (Figure 3.9). This dependency represents an important strategic vulnerability which has led to recurring fears of food shortages, particularly during acute periods of stress such as the 2007-08 global food price crisis, the onset of the COVID-19 pandemic, and the war in Ukraine.

Figure 3.9. Egypt's wheat imports, by exporter, 2001-23

Million tonnes



Note: Imports from Russia reported by Egypt were used to complete missing data for 2022-23. EU members reporting wheat exports to Egypt include Belgium, Bulgaria, Finland, France, Germany, Latvia, Lithuania, Malta, Netherlands, Poland, Romania, Spain, and Sweden.
Source: UN Comtrade (2025[18]).

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Egypt's vulnerabilities are particularly visible since the war in Ukraine

The war in Ukraine created severe disruptions in commodity markets with negative consequences for grain supplies, fertiliser markets and global food security (Glauber and Laborde, 2023[19]). The crisis posed an acute threat to net food importing countries such as Egypt, simultaneously impacting consumers through food price inflation and the government's budget through higher spending on food subsidies and the need for foreign currency to finance imports. Furthermore, within the first two months following the onset of the war, some 16 countries imposed export restrictions on food, representing about 17% of total calories traded globally (Glauber, Laborde and Mamun, 2023[20]). These measures, introduced with the objective of insulating domestic consumers, led to additional upward pressure on international prices and increased risks for net food importing countries. Indeed, food prices in Egypt grew much quicker than average wages in the aftermath of the war in Ukraine, limiting access to food for vulnerable households (FAO et al., 2025[15]).

The situation was especially critical in 2022 when the war led to blockades of Ukraine's Black Sea ports, causing a sudden halt in maritime trade and obstructing a critical route for some three-quarters of Ukraine's agricultural exports. In July 2022, Russia and Ukraine agreed to the Black Sea Grain Initiative, an agreement brokered by the UN and Türkiye allowing shipments to resume from three major ports in Ukraine. The agreement helped to restore Egypt's access to Ukrainian wheat and stabilise supplies. However, it faced considerable uncertainties and following several extensions, the agreement ultimately expired in July 2023. The establishment of EU-Ukraine Solidarity Lanes has also helped to keep exports flowing, transporting around 40% of Ukraine's grain and oilseeds via road, rail and inland waterways (European Commission, 2025[21]).

Initially, there were widespread fears that international sanctions might obstruct Russia's food exports. In response, Egypt attempted to diversify its trade partners by increasing purchases of wheat from Romania and France. Ultimately, however, Russian wheat exports were less directly affected by the conflict, and by the end of 2022 they had regained their previous pace (Jovanovic and Glauber, 2024[22]).

3.2. Policy responses to food security

Egypt's policy approach to food security seeks to guarantee the availability of sufficient quantities of staple grains by encouraging domestic production through price support measures, and by importing significant quantities of strategic commodities, in particular wheat and maize. In parallel, the government aims to ensure access to food for the population at affordable prices through the food subsidy system.

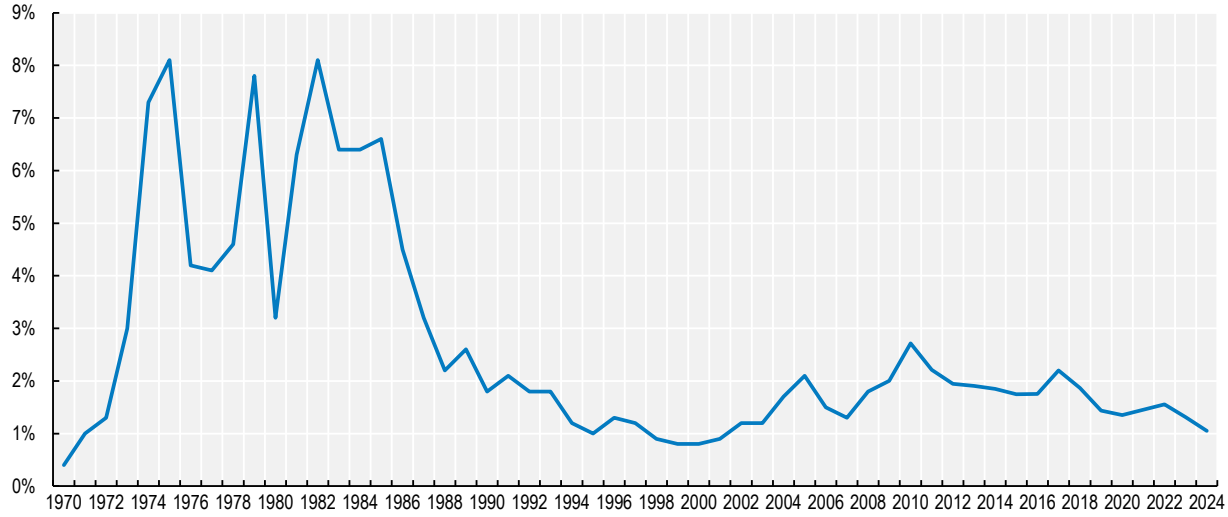
Food subsidies have evolved from emergency food relief to a fundamental entitlement

The origins of Egypt's food subsidy system date back to the early 1940s. Household rations were issued for basic necessities such as sugar, kerosene, coarse cotton textiles, edible oil and tea, initially provided on a universal basis to the entire Egyptian population (Ahmed et al., 2001[23]). Spending on food subsidies remained relatively restrained during the 1950s and 1960s and represented just 0.4% of GDP in 1970, but it grew rapidly to a peak of 8.1% of GDP in 1975, driven by surging international food prices (Figure 3.10). The expanded scope of the food subsidy system also contributed to fiscal pressures, with a broader range of 18 commodities being covered by 1977 – including beans, lentils, rice, yellow maize, frozen fish, meat and chicken (Ahmed et al., 2001[23]).

In January 1977 the government proposed substantial cuts to food subsidies following negotiations with the IMF over a package of economic reforms. The measures included increases to regulated prices for *fino* bread, *fino* flour, sugar and rice, cancellation of the tea subsidy, and increased prices for gasoline and household cooking gas[5] (Alderman, 1986[24]). The announcement sparked riots and violent unrest in Cairo, Alexandria, and numerous major cities across Egypt. Although the price increases were rescinded almost immediately, the 1977 "Bread riots" left a lasting legacy of caution towards food subsidy reforms.

Figure 3.10. Food subsidy costs, 1970-2024

Percentage of GDP



Source: Data for 1970-1999 from Al-Shawarby and El-Laithy (2018[25]); 2000-2009 from Al-Shawarby and El-Laithy (2010[26]); 2010-2024 from Ministry of Finance financial statements on the draft state budget.

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Attempts to reform food subsidies at the end of last century were only partially successful

A series of gradual or "quiet" reforms were implemented throughout the 1980s and 1990s. In 1981 the government divided all ration card holders into two categories: partially subsidised red ration cards for high-income beneficiaries and landowners with more than 10 feddans (4.2 hectares), and fully subsidised green ration cards intended to target the poorest citizens. The share of the population eligible for ration cards was reduced from 99% in the early 1980s to around 78% in 1994. However, some three-quarters of the Egyptian population continued to hold green ration cards, while the number of red ration card holders remained relatively small, representing less than 3% of the population in 1994 (Adams, 2000[27]).

The government also increased the price of a subsidised loaf of *baladi* bread from 1 piaster to 2 piasters in 1984, and to 5 piasters in 1989. These measures were met with limited public opposition, as the approach adopted was to offer higher quality bread at higher prices in some outlets, while gradually phasing out the cheaper, lower-quality loaves. In parallel, the size of a loaf of *baladi* bread was progressively reduced, from 168 g per loaf to 160 g in 1984, and to 130 g in 1991 (Ahmed et al., 2001[23]).

Food subsidy expenditures were further disciplined under the Economic Reform and Structural Adjustment Program, concluded with the IMF and the World Bank in 1991. The government removed the subsidies for frozen meat in 1990-91, fish and tea in 1991-92, rice in 1992-93, *fino* bread and *fino* flour in 1992, and *shami* bread and *shami* flour in 1996. By 1996-97, only four subsidised food items remained: *baladi* bread, *baladi* flour, sugar, and cooking oil (Adams, 2000[27]). These efforts reduced the fiscal burden of food subsidies from 15% of government expenditures in 1980 to 6% in 2000, without sparking major civil unrest (Ecker et al., 2016[28]).

The declining trend in food subsidy expenditures reversed in the 2000s, driven by a sharp rise in international food prices and a 30% exchange rate depreciation in January 2003 following the flotation of the Egyptian pound. In 2008 the dual ration card system was phased out and ration cards were extended to those born between 1988 and 2005, adding more than 23 million beneficiaries to the system (Al-Shawarby and El-Laithy, 2010[26]). Although the cost of the system surged again during the 2007-08 and 2010-12 global food price crises, in part due to rising prices for imported wheat, food subsidy costs remained relatively restrained compared with the 1980s, and did not exceed 3% of GDP (Figure 3.10).

Important reforms were introduced after the 2011 revolution

During the 2011 Egyptian revolution, citizens took to the streets calling for *"bread, freedom, and social justice"*. The call for bread reflected deep frustration over repeated shortages of *baladi* bread in the preceding years and persistent complaints about its quality (Barnes, 2022[21]). Following the 2013 military-led change in government, increasing demands for equality and improved living standards led to significant structural reforms and a comprehensive redesign of the *baladi* bread and ration card programmes.

First, a new system to improve the *baladi* bread supply chain was piloted in Port Said for a period of one year, before being rolled out nationwide in 2014-15. The government stopped distributing subsidised wheat flour to bakeries, forcing bakeries to purchase flour from mills at market prices. A new pricing system was introduced by the Ministry of Supply and Internal Trade (MoSIT), which reimbursed bakeries based on the difference between the real cost of a loaf of *baladi* bread and the subsidised price of EGP 0.05 (allowing for a small profit margin for the bakery). Wheat flour quotas were removed for bakeries, along with restrictions on their hours of operation. These reforms helped to reduce leakage of wheat flour (estimated at 30-50% in 2009) and limit black market trading, encouraged competition among bakeries and improvements in quality, and significantly reduced queuing times (Abdalla and Al-Shawarby, 2018[25]).

Second, MoSIT also consolidated the *baladi* bread and ration card programmes by replacing paper-based ration cards with electronic smartcards allocated to each eligible household. The smartcards, which had first been piloted for ration card holders in 2006, helped to monitor bakeries' financial transactions and beneficiaries' consumption of *baladi* bread, and allowed for the automation of financial transactions

between MoSIT and bakeries (Al-Shawarby and El-Laithy, 2010[26]). The new electronic smartcard system provided each household with a monthly cash allowance of EGP 15 per person, and access to more than 100 commodities including chicken, meat, fish and dairy products (Abdalla and Al-Shawarby, 2018[25]).

A third crucial dimension of the reform was to cap benefits by setting a maximum limit of five *baladi* bread loaves per person per day, and introducing a points-based system to reward consumers for each loaf of *baladi* bread saved. The savings could then be used to purchase subsidised commodities under the ration card system, creating incentives for consumers to reduce or stabilise their bread consumption.

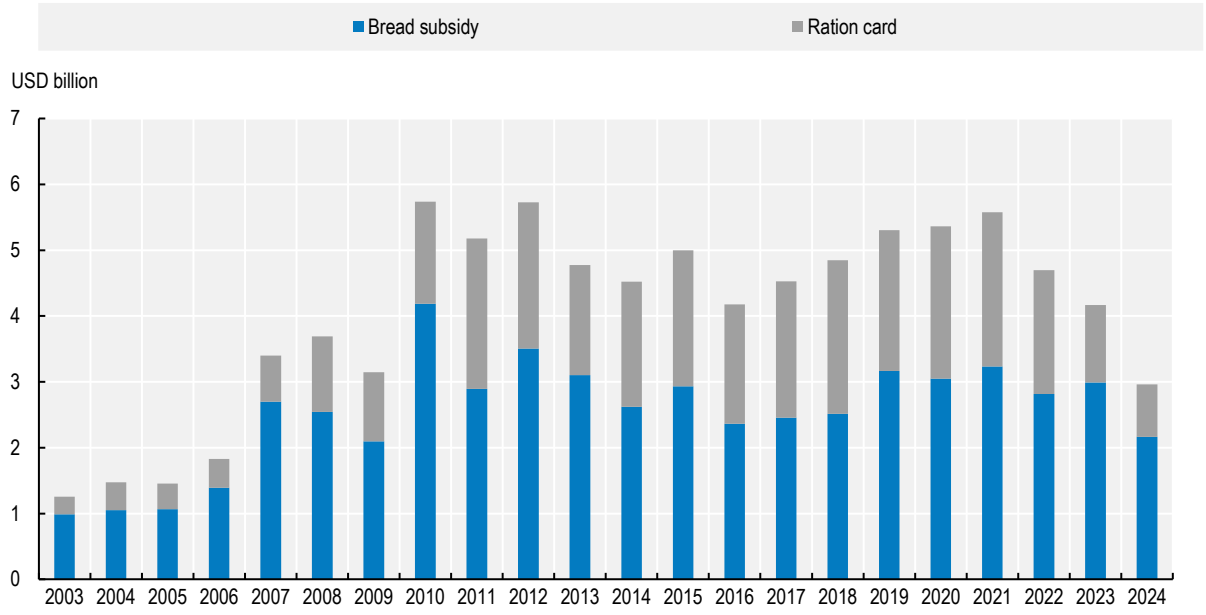
The reforms introduced in 2014-15 led to several improvements to the food subsidy system, including reductions in leakage and wastage, improvements in quality, fewer shortages, increased market competition, reduced waiting times and greater consumer choice. However, the new system also attracted more beneficiaries, and over time, the Egyptian population has come to perceive food subsidies as a legitimate civil entitlement (Ecker et al., 2016[28]).

The current food subsidy system accounts for a significant share of government expenditure

The current food subsidy system, called *tamween*, includes two main components: a subsidy for *baladi* bread, and a ration card programme. The *baladi* bread subsidy allows eligible citizens to purchase five loaves of bread per day for EGP 1 (USD 0.02), with a maximum of four beneficiaries per household. This equates to a subsidised bread price of EGP 0.20 (USD 0.004) per loaf. In June 2024, the government increased the price of subsidised *baladi* bread four-fold from EGP 0.05 to EGP 0.20, representing the first price increase since 1989. Nevertheless, the subsidised bread price remains considerably lower than the market price of EGP 1.5 (USD 0.03) per loaf, resulting in a government subsidy equivalent to 84% of the cost of production (Jovanovic and Glauber, 2024[22]). The government also introduced measures to reduce the fiscal burden of the subsidy, by further reducing the loaf size to 80 g and including maize flour in the recipe. In spite of these efforts, the *baladi* bread subsidy still accounts for the largest part of the food subsidy system – it cost about USD 2.2 billion in 2024[6] (0.7% of GDP) and benefited 71 million citizens (61% of the population) (USDA GAIN, 2024[30]). It requires about 9 million tonnes of wheat annually – about half of Egypt's total wheat consumption and three-quarters of wheat imports.

In addition, the government provides eligible households with an electronic ration card with a monthly allowance of EGP 50 (USD 1) per person, that can be used to purchase from a list of 33 essential commodities.[7] Subsidised products are available from a network of over 1 000 retail outlets operated by the stated-owned Holding Company for Food Industries, 8 800 *Game'yeti* community outlets, and some 30 000 affiliated *Tamween* grocery stores.[8] Ration card holders are allocated a monthly quota of 1 kg of sugar per person (with a maximum of 6 kg per family card), and one 800 ml bottle of cooking oil (with a maximum of four bottles per family card). In addition, families of less than four individuals can choose between 1 kg of rice or one 800 g pack of pasta per month, while larger families can choose between 2 kg of rice or two packages of pasta (Ahram Online, 2023[31]). Furthermore, beneficiaries are awarded points on their smartcard for consuming less than their daily allowance of *baladi* bread, which can then be redeemed for other subsidised commodities. Spending on the ration card programme reached USD 800 million in 2024[9] (0.3% of GDP) (Figure 3.11), with an estimated 62 million beneficiaries (53% of the population) (USDA GAIN, 2024[30]).

Figure 3.11. Food subsidy expenditures, 2003-24



Source: Data provided by the General Authority for Supply Commodities, Ministry of Supply and Internal Trade.

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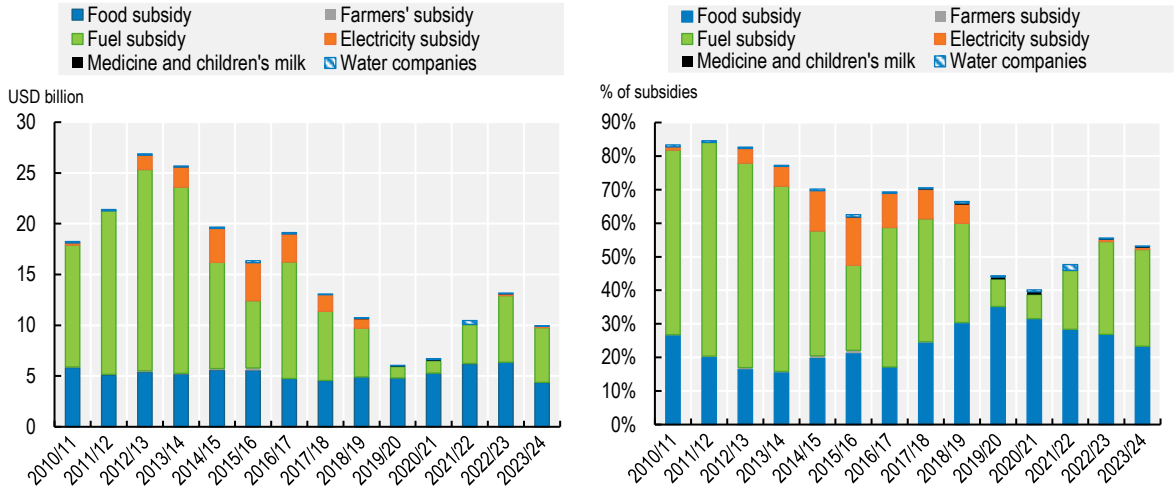
Spending on food subsidies has averaged around USD 5.3 billion per year since 2010, consistently representing about one-quarter of total expenditures on "Subsidies, grants and social benefits" (Figure 3.12). Food subsidies are the second-largest programme (after fuel subsidies) among Egypt's subsidies and social protection polices, although in some years they have been the largest programme due to fluctuations in international commodity prices.

"Commodity subsidies" include six sub-categories: (1) food subsidies (included in the Consumer Support Estimate in Chapter 2); (2) farmers' subsidies (included in the Producer Support Estimate in Chapter 2); (3) fuel subsidies; (4) electricity subsidies; (5) subsidies for medicine and children's milk; and (6) transfers to public water companies. The allocation for "Subsidies, grants and social benefits" in the state budget reached EGP 573 billion (USD 18.7 billion) in fiscal year 2023/24, amounting to 4.1% of GDP and 18.8% of total expenditures (MoF, 2025[32]). Of this, the category "Commodity subsidies" amounted to EGP 305 billion (USD 10 billion), representing 53% of social expenditures (the remainder was spent on subsidies and grants for social services, development areas, and economic activities).

Figure 3.12. Structure of commodity subsidies, 2010/11-2023/24



Source: Ministry of Finance Financial Statements on the Draft State Budget.

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Domestic and trade policies aim to support the food subsidy system

In addition to the food subsidy system, the government of Egypt intervenes in markets through a number of domestic and trade policies with the view to achieve its own national food security goals. These policies aim to guarantee the availability of a large supply of staple crops by providing support to farmers, primarily through market price support and input subsidies (described in detail in Chapter 2). The government also manages an extensive grain storage infrastructure, with the aim of ensuring stability in the food supply.

Price support and input subsidies aim to increase the production and availability of key staple crops

As outlined in Chapter 2, the government implements policies to support domestic production and boost the availability of wheat, maize and sugar cane – key strategic crops for the bread subsidy and ration card programmes. For wheat, market price support is implemented through guaranteed minimum prices and the procurement of significant quantities of production from Egyptian farmers, ranging between one-third and half of domestic production. Although farmers are not officially required to plant wheat or sell their production to the government, the guaranteed procurement price plays an important role in determining the domestic price and farmers' production decisions. Furthermore, fertiliser subsidies account for the vast majority of budgetary support to producers, and evidence suggests that priority for the allocation of subsidised fertilisers is often given to wheat producers, creating additional incentives for farmers to plant wheat (Kurdi et al., 2020[33]).

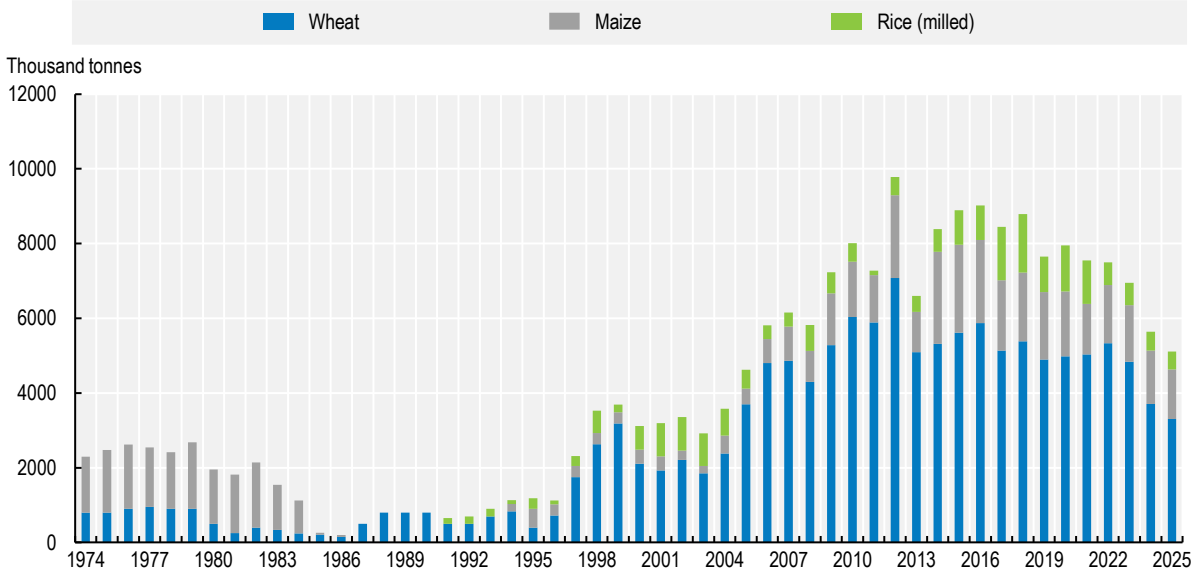
Maize is considered an essential commodity for Egypt's food security, both for human consumption and animal feed. The government sets minimum guaranteed prices for purchasing maize to encourage farmers to plant maize and to build up strategic reserves. In addition, procurement prices for sugar cane are announced before each season to support domestic production and protect sugar producers from fluctuations in market prices.

Investments in storage infrastructure have reduced inefficiencies and aim to strengthen stability in the food supply

MoSIT maintains stocks of staple commodities to ensure stability in the food supply, protect consumers from supply chain disruptions and unexpected price volatility, and increase resilience against external shocks. The Egyptian Holding Company for Silos and Storage (EHCSS) under MoSIT is responsible for maintaining strategic reserves of key staples including wheat, maize and rice (Figure 3.13).

Wastage was previously a major issue for the food subsidy system, with an estimated 10% of wheat lost to rodents, birds and weather damage due to the storage of local wheat in open barns and infrastructure deficiencies. In response, a national project to upgrade and expand the country's grains storage capacities was launched in 2014. The government invested in concrete construction and improved ventilation systems, and additional silos were built to increase the overall wheat storage capacity and reduce dependency on open barns. In addition, smart tracking systems were installed to monitor the storage of wheat and minimise leakage (Abdalla and Al-Shawarby, 2018[25]). It is estimated that these measures will allow Egypt to store more than 6 months of wheat consumption (about 10 million tonnes) in its strategic reserves.

Figure 3.13. Ending stocks of wheat, maize and rice, 1974-2025



Source: USDA FAS (2025[34]).

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3.3. Assessment of current food security policy approach

Food subsidies generate substantial fiscal outlays and are not sufficiently targeted to those in need

The current food subsidy system generates a high fiscal burden and is a significant cost for the economy, averaging 1.4% of GDP over the past decade (MoF, 2025[32]). Despite efforts to remove ineligible beneficiaries from the ration card system, food subsidies still benefit nearly two-thirds of the population, or 60-70 million people annually, and do not efficiently reach those who need them the most. There is widespread agreement among policymakers, donors and other stakeholders that food subsidies must be

reformed to address structural inefficiencies and better target the poorest segments of the Egyptian population.

However, food subsidy reform remains challenging and sensitive, and this has often prevented the government from implementing politically feasible reform pathways. Evidence suggests that Egypt's food subsidy system plays an essential role in shielding vulnerable households from the impacts of global food price shocks and trade disruptions. It has an important impact on reducing poverty and food insecurity: an estimated 9% of Egyptians would have fallen into poverty in the absence of food subsidies in 2008-09 (Al-Shawarby and El-Laithy, 2010[26]). In 2010-11, while food subsidies accounted for just 4% of household expenditures on food consumption, they represented 22.5% of the population's total calorie consumption (WFP, 2013[35]).

Over time, subsidised *baladi* bread has become a powerful symbol of the social contract between the government and the population. While reforms to the system have been implemented in the past, sustaining the reform momentum has often proven difficult, as the government periodically uses food subsidies to mitigate the impacts of food price shocks and economic crises. Moreover, the political economy of food subsidy reform requires balancing important policy priorities, including fiscal sustainability, social protection, and public acceptance, while navigating potential trade-offs. This reduces the likelihood of the government undertaking large-scale reforms to the food subsidy system, and underlines the importance of identifying reform pathways that are politically acceptable and feasible (Gutner, 2002[36]).

Targeting subsidies to groups that are poorer and more vulnerable to malnutrition can improve the efficiency of public spending and the system's effectiveness in improving food security. Recently there have been attempts to further restrict the eligibility for ration cards, with the government targeting beneficiaries using indicators such as electricity consumption in excess of 1 000 kW per month, ownership of more than three vehicles per household or a new car model released after 2014, high-level public sector employment (e.g. governors, chairpersons, Ministers), ownership of more than 15 feddans (6.3 ha) of agricultural land, and enrolment of children in private schools (Tharwat, 2019[37]). Developing a unified social registry that integrates detailed household data on assets, income, and other socio-economic indicators can facilitate the targeting of disadvantaged groups (Shokry et al., 2024[38]). The experience of Indonesia demonstrates that transitioning from in-kind assistance to electronic vouchers can improve the efficiency of social assistance, while an approach based on a unified social registry and proxy means testing can help to more effectively identify and target eligible households (Box 3.2).

Box 3.2. Reforms to Indonesia's Rice for Welfare (*Rastra*) programme

In 2017 Indonesia began a large-scale reform to replace *Rastra*, an in-kind food programme that delivered 10 kg of free rice per month to 15 million households, with BPNT, an electronic voucher-based programme that provided households with a debit card allowing for the purchase of a similar value of rice and eggs from participating private-sector providers.

The government randomised the transition to BPNT across 105 districts with a combined population of 53 million: 42 districts were randomly assigned to receive the programme in 2018, and the remaining 63 districts were randomly assigned to receive the programme in 2019. The experiment found that switching from in-kind transfers to electronic vouchers led to significant improvements in targeting: poorer households received 46% more assistance in voucher areas than in in-kind districts. Concentrating benefits led to large reductions in poverty, with the share of households below the poverty line falling by 20% for households in the bottom 15% at baseline. Voucher recipients also received higher quality rice, and increased their consumption of eggs by about 4.3%.

The targeting of beneficiaries required detailed use of administrative data: the Unified Targeting Data Base (UDB) was constructed in 2015 and contains social, economic and demographic information on 24.5 million households or over 96 million individuals across Indonesia. The UDB was used to calculate a proxy-means test (PMT) score to determine each household's predicted percentile in the national per-capita consumption distribution, based on household assets and composition. This allowed the Ministry of Social Affairs to determine a final list of beneficiaries in each district and effectively target households eligible to receive social assistance.

Source: Banerjee et al. (2022[39]); OECD (2021[40]).

Food subsidies contribute to Egypt's nutritional challenges and import dependence

The design of the food subsidy system may be hindering nutritional progress and aggravating Egypt's nutritional challenges (Ecker et al., 2016[28]). Food subsidies have been effective in preventing rapid increases in poverty during episodes of high food prices and economic crises. However, the persistently high rates of chronic child undernutrition, as well as overnutrition among the population, implies that the food subsidy system has had limited success in reducing these forms of malnutrition. The USDA's WIC programme demonstrates how targeted nutritional interventions can help to address child malnutrition (Box 3.3).

Egypt's food subsidies encourage the overconsumption of energy-dense foods and prevent shifts toward more balanced diets. In particular, the *baladi* bread subsidy encourages the consumption of bread, while the vast majority of support provided under the ration card programme is used to purchase subsidised cooking oil, sugar and rice. The consequent dietary patterns developed in Egypt have significant costs linked to food insecurity, malnutrition, as well as hidden health and environmental costs linked to non-communicable diseases and GHG emissions. These costs are projected to reach USD 103 billion annually by 2030 (FAO et al., 2021[41]). Furthermore, current consumption patterns exacerbate the dependence on imports of a reduced number of commodities from few trade partners.

Box 3.3. The Special Supplemental Nutrition Programme for Women, Infants and Children (WIC) in the United States

The Special Supplemental Nutrition Programme for Women, Infants and Children (WIC) is administered by the United States Department of Agriculture's Food and Nutrition Service. WIC provides supplemental foods, nutrition education (including breastfeeding counselling), and referrals to health care and other social services to pregnant women, postpartum women, infants, and children up to age 5 who meet certain eligibility requirements. In particular, the participant's household income must be less than 185% of the Federal poverty guidelines, and applicants must be at nutritional risk (as determined by a health professional). WIC participants are typically certified for a 6- to 12-month period, after which they must have their eligibility for WIC benefits reassessed.

WIC food packages are supplemental, and are not intended to be a primary source of food for beneficiaries. The foods included are high in nutrients: examples include infant formula; cereal, fruits and vegetables, juice, milk, eggs, and whole-wheat bread. In addition, participants receive vouchers that can be used to purchase a variety of fruits and vegetables.

The programme served more than 6 million people in FY 2022, including about 40% of infants younger than 1, 22% of children aged 1-5, 18% of pregnant women, and 24% of postpartum women. Total spending on WIC amounted to USD 5.7 billion in FY 2022, or 3% of total federal spending on food and nutrition assistance.

Source: Hodges et al. (2024[42]).

There is scope to diversify diets and improve nutritional education

A national programme to fortify *baladi* bread wheat flour with iron and folic acid to improve nutrient intake was run between 2008 and 2012, before being discontinued due to a lack of sufficient funding (Abdalla and Al-Shawarby, 2018[25]). In March 2025, the National Flour Fortification Programme was revived by MoSIT, the Ministry of Health and Population, and the National Nutrition Institute, with support from UN World Food Programme (WFP). The objective of the programme is to tackle high rates of anaemia in the population, particularly among children and women (WFP, 2025[43]).

Egypt's Ministry of Education currently operates a national school feeding programme in collaboration with the WFP, providing schoolchildren with fortified snacks such as date bars that secure an estimated 25% of their daily caloric needs (WFP, 2025[44]). The school feeding programme is also increasingly being linked to local production, providing farmers with new sources of income (WFP, 2025[45]). While an evaluation of the school feeding programme demonstrated improvements in cognitive function and academic outcomes, the analysis did not find a significant impact of school meals on the children's nutritional status (Metwally et al., 2020[46]). Furthermore, the coverage across schools remains incomplete: about 5.7 million children benefited from the programme in 2023, out of an estimated 28 million students enrolled in pre-university education (Wafaa, 2023[47]; The Egyptian Gazette, 2023[48]).

Chile's *Programa de Alimentación Escolar* provides a successful example of a school feeding programme, while Japan's *Shokuiku* initiative demonstrates the importance of integrating nutrition education into school meal programmes (Box 3.4). Furthermore, Egypt is a member of the School Meals Coalition, and can benefit from the experiences documented in national school meals case studies developed by the Research Consortium for School Health and Nutrition.

Box 3.4. School meal programmes in Chile and Japan

Chile's school feeding programme (Programa de Alimentación Escolar)

The National Board of School Aid and Scholarships (JUNAEB) provides healthy and nutritious meals free of charge to students from the lowest-income households attending state-funded schools. The programme aims to improve educational outcomes, reduce dropout rates, and address child malnutrition and food insecurity.

Around 20 nutritionists are involved in setting minimum standards for meals relating to food calories and nutritional content, food structure, quality thresholds of ingredients, and minimum acceptable operating conditions and food service infrastructure. Efforts are taken to restrict salt and sugar content in the school meals. The programme benefited around 1.6 million students across 8 116 schools in 2022, with an annual budget of USD 865 million.

Japan's school feeding and nutrition education (Shokuiku) initiative

Japan has a long history of school feeding programmes, with all elementary and junior high schools being required to provide nutritious and subsidised school lunches for their students. In 2005 the *"Basic Act on Shokuiku"* was enacted, establishing the principles of the national school feeding and nutrition education initiative.

The *Shokuiku* initiative has been internationally recognised for its success in integrating school lunches and nutritional education into the school curriculum. The initiative employs nutritionists and dieticians to plan and develop school menus that meet national dietary guidelines and reflect cultural food traditions. Teachers actively engage with students to share knowledge and information about good nutrition, how food is produced, the importance of hygiene, and how to make healthy food choices. Local ingredients are prioritised, with limited use of ultra-processed and sugary foods.

The programme benefits from active support and participation from students and their families. At many schools, children are required to serve meals to their fellow students, clean up afterwards, and learn proper dining etiquette. The cost of the programme's management is funded by schools while meal ingredients are paid for by families. Low-income families can benefit from an allowance to cover the cost of meal ingredients through Japan's social welfare services.

Source: Giner and Placzek (2022[49]); GCNF (2022[50]); GCNF (2024[51]).

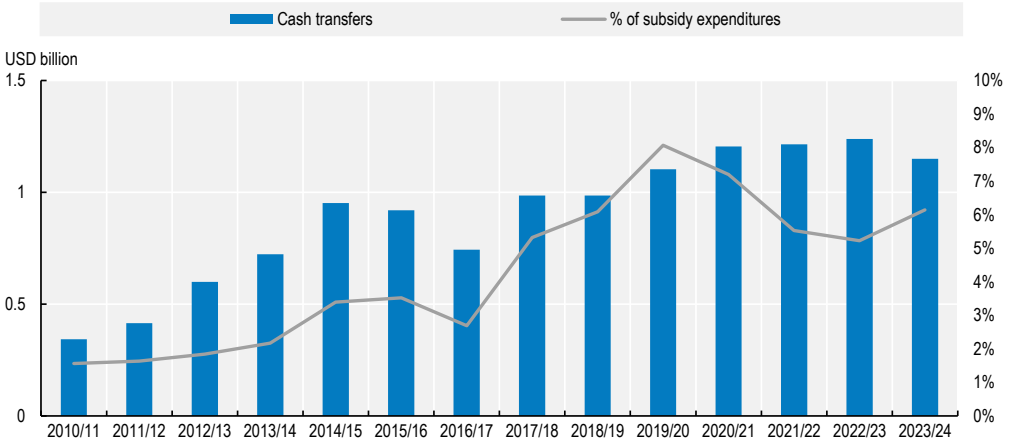
Cash transfers are more effective at targeting the poor, but still represent a small share of social assistance

The Ministry of Social Solidarity launched two new programmes in 2015: the Takaful ("solidarity") conditional cash transfers and the Karama ("integrity") unconditional cash transfers. Takaful provides cash transfers to poor families conditional on children's attendance in school and at health check-ups, while Karama provides unconditional cash transfers to orphans, the elderly poor, and people living with disabilities (Shokry et al., 2024[38]). These programmes are more effective at targeting the poor and have been scaled up in recent years. However, as cash transfers are not periodically adjusted for inflation, households may not trust that they will maintain their value over time (Abay et al., 2023[52]).

As of June 2025, some 5.2 million households were receiving cash transfers, including 4.6 million households (approximately 17 million individuals) from the Takaful and Karama programmes and 66 000 households under Daman, the former social pension programme (World Bank, 2025[53]). These programmes are also complemented by initiatives such as the Forsa Economic Inclusion Programme, which links poor individuals of working age with employment and income-generating opportunities. The objective is to help individuals to escape poverty and graduate from dependence on cash transfers (MoSS, 2025[54]).

Overall, cash transfers still represent a relatively small share of total expenditures on social protection, accounting for 6% of public expenditures on subsidies, grants and social benefits in 2023-24 (Figure 3.14). While evidence suggests that shifting spending from food subsidies to cash transfers would improve the welfare of the poorest, there are also potential trade-offs with the welfare of middle income households (Breisinger et al., 2023[55]).

Figure 3.14. Expenditures on cash transfers, 2010/11-2023/24



Note: These expenditures correspond to cash transfers ("social solidarity pension") provided by the Ministry of Social Solidarity, including the *Takaful* and *Karama* cash transfer programmes. The line corresponds to the percentage of cash transfer expenditures in total public spending on subsidies, grants and social benefits.

Source: OECD calculations based on Ministry of Finance Financial Statements on the Draft State Budget.

StatLink https://stat.link/yzha2o

Diversifying agricultural imports can help to improve supply chain responsiveness

A comprehensive approach to food security requires improving the productivity of the domestic food supply while ensuring access to diverse sources of imports. However, Egypt remains heavily reliant on imports from the Black Sea region, and short-term responses to seek alternate suppliers have had limited success in addressing the underlying structural dependencies (see Figure 3.9 and Section 1.3). The overwhelming reliance on a small number of global suppliers became especially evident during the COVID-19 pandemic and the Russia-Ukraine war, when sharp increases in food prices and supply chain disruptions created concerns around Egypt's food security. Despite these disruptions, so far Egypt has managed to avoid widespread food shortages.

Recent OECD research shows that countries with strong vertical trade links to major foreign economies may be more exposed to shocks in international supply chains (OECD, 2025[56]). As a major importer of food commodities, Egypt's trade policies could focus more on diversifying agricultural imports, opening new markets, and improving private sector participation and responsiveness to evolving market developments. In particular, imports of strategic food commodities remain heavily centralised and controlled by state-owned and military-owned enterprises. Complex customs procedures and difficulties with import licensing also raise costs for private sector importers, and undermine the capacity of the private sector to develop more flexible and responsive supply chains.

3.4. Conclusions and way forward

Egypt suffers from the double burden of malnutrition

Egypt is facing the double burden of malnutrition, with chronic undernutrition and overnutrition both posing threats to public health, productivity and educational outcomes (Shokry et al., 2025[6]). The prevalence of undernourishment has surged since the early 2000s, and nearly one-third of the population remains moderately or severely food insecure. Child stunting and wasting have improved but remain significant challenges. At the same time, Egypt has some of the highest rates of overweight children and adult obesity worldwide.

Staple foods account for a major share of dietary energy in Egyptians' food consumption, potentially contributing to nutritional shortfalls. In addition, the cost of a healthy diet remains substantially higher than the global average, and is hence unaffordable for more than half of the Egyptian population.

As a major importer of staple commodities, Egypt is vulnerable to trade disruptions

Egypt has become increasingly reliant on imports to ensure its food security, as its population has grown at a faster pace than its food production. As one of the world's largest importers of wheat, Egypt is particularly dependent on the Black Sea region, with Russia and Ukraine jointly accounting for over 70% of Egypt's wheat imports over the past decade.

This strategic dependency on wheat makes Egypt highly vulnerable to trade disruptions, and has led to recurring fears of food shortages during economic crises and periods of rapid food price inflation. Egypt's vulnerabilities were exposed in 2022 with the onset of the war in Ukraine, when blockades of Ukraine's Black Sea ports caused a sudden halt in maritime trade. While Egypt has attempted to seek alternative sources of food imports, with the government granting approval for wheat imports from 22 countries, the country has had limited success in significantly diversifying its trade partners.

While providing basic staples at affordable prices, food subsidies are costly and have had limited success in curbing malnutrition

The current food subsidy system has evolved over the past century and plays an important role in securing Egypt's social contract and providing a safety net for the population. However, they are not effectively targeted to the poorest households that need them most. Food subsidies benefit nearly two-thirds of the Egyptian population, or 60-70 million people annually, and represent a high fiscal burden, averaging 1.4% of GDP over the past decade (MoF, 2025[32]).

Furthermore, the design of the food subsidy system encourages the overconsumption of energy-dense foods, including bread, cooking oil, sugar and rice. This has created incentives for less balanced diets, with significant costs to productivity, health and the environment. While the deficiencies in Egypt's food subsidy system are widely acknowledged, reform remains complex and challenging. This underscores the importance of identifying feasible reform pathways to strengthen nutrition and encourage healthy diets, while freeing up fiscal space for social protection to support the transition.

Domestic and trade policies sustain the current food subsidy and production system but reduce market responsiveness

The current range of domestic and trade policies create incentives for the domestic production of several strategic commodities that underpin the food subsidy system, including wheat, maize, and sugar. Guaranteed minimum prices and the procurement of significant quantities of domestic production plays an important role in influencing farmers' production decisions. In addition, the government has made significant investments to upgrade the network of silos and grain storage infrastructure, which has helped to reduce losses and wastage from the storage of key staple commodities. However, growing grain reserves risk becoming very costly and can have unintended impacts on domestic and international markets (OECD, 2018[57]). All of this results in substantial government interventions that maintain the existing food subsidy system. Promoting greater diversification of agricultural imports, facilitating trade, and increasing co-ordination with the private sector can enhance the food system's resilience and capacity to respond to market signals.

Cash transfers offer a more effective means for providing the poor with targeted assistance

Cash transfers have proven to be more effective than food subsidies in providing targeted assistance to the poorest households. The Takaful and Karama cash transfer programmes launched by the Ministry of Social Solidarity in 2015 have demonstrated positive impacts on household consumption, the quality of diets, and child nutrition. While these programmes have been scaled up in recent years, they still represent a relatively small share of total government spending, and there is scope to expand them further.

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Notes

[1] Poverty rates are estimated by the Central Agency for Public Mobilization and Statistics (CAPMAS), based on the Household Income, Expenditure and Consumption Survey (HIECS). The official measure is constructed from the calculation of household-specific poverty lines that consider (1) household composition and thus household-specific caloric requirements; and (2) regional variation in costs per calorie and non-food allowance (World Bank, 2025[2]).

[2] Despite the fact that some authors have found measurement errors in stunting calculations (Figueroa and Kurdi, 2019[58]), these indicators are still an international reference for comparison.

[3] Out of 161 countries and territories for which data is available on overweight children, and 197 countries and territories for which data is available on adult obesity (FAOSTAT, 2025[7]).

[4] Anaemia is a condition characterised by a lack of healthy red blood cells or insufficient concentration of haemoglobin in the blood, which is needed to transport oxygen to the body's tissues. Anaemia can result from deficiencies in iron, vitamin B-12, and other micronutrients, infections and chronic diseases, among other causes. Iron deficiency anaemia can affect cognitive and physical development in children and reduce productivity in adults. Young children and women are particularly at risk of anaemia, and more severe cases can lead to an increased risk of mortality (WHO, 2025[59]).

[5] Notably, the price increases did not extend to *baladi* bread, beans, lentils, rationed sugar, or cooking oil.

[6] According to data provided by the Ministry of Agriculture and Land Reclamation (MALR).

[7] Subsidised food commodities include sugar, oil, chicken stock, pasta, rice, lentils, beans, flour, artificial ghee, tea, tomato paste, shredded tuna, jam, ultra-processed and fresh cheese, powdered milk, vinegar, salt, halva, four types of biscuits, tahini, coffee (Jovanovic and Glauber, 2024[22]).

[8] Based on information provided by the Holding Company for Food Industries (HCFI).

[9] According to data provided by the Ministry of Agriculture and Land Reclamation (MALR).

4 Sustainable management of Egypt's natural resources for agriculture

Egypt continues to face significant water resource challenges, with decreasing water availability per capita and high dependence on the Nile River. Water pollution is also a concern resulting from excess nitrogen application, while soil quality challenges are related to salinity and nutrient imbalances. Policy efforts are focused on irrigation infrastructure and expanding non-conventional water sources. There is scope for reducing fertiliser use, reforming subsidy schemes, and reducing water demand by empowering farmers and water users' associations.

Key messages

- Egypt faces several important natural resource challenges, including decreased water availability *per capita,* water pollution as a result of excess nitrogen application, as well as soil quality challenges related to salinity and nutrient imbalances. Rising population, changing diets, and climate change are likely to further increase pressure on natural resources over the coming decades.
- The government has developed several water-related strategies. Updating water-related strategic documents such that they fully align with other strategic documents (e.g. the updated Nationally Determined Contribution, Egypt's Vision 2030 and goals set out within Egypt's Nexus of Water, Food and Energy Programme) and improving the ease of access of such documents would improve policy coherence and help facilitate communication and inter-stakeholder co-ordination.
- Egypt's water strategy has a strong emphasis on investments in public irrigation infrastructure and modernisation of on-farm irrigation systems, in combination with regulatory instruments limiting the cultivation of certain water-intensive crops (e.g. rice). The current approach could be improved with additional emphasis on the use of economic instruments and incentives. Efforts to improve water efficiency should be backed by overall water demand reduction efforts to be sustainable.
- Salinity already affects 35% of agricultural lands, with higher shares in the lower delta, and this proportion is likely to increase as a result of sea level rise. Investments in improved drainage, best agronomic practices and the promotion of salt-tolerant crops and varieties constitute important solutions to address the salinity challenge.
- Egypt has very high nitrogen application rates, with a correspondingly large nitrogen surplus, while displaying a negative phosphorus and potassium balance. The high rates of nitrogen application contribute to challenges related to soil degradation, water quality, and agricultural productivity.
- Despite a strong legal framework related to pesticides, compliance and implementation gaps remain and pesticide contamination remains a challenge for water quality and international market access. The Egyptian government is already taking several important steps in this direction.
- Water User Associations could play a more important role in water management, serving as a link between higher-level policies and the end users of water. These institutional structures are critical to boost co-operation among water users to promote reductions in water consumption. However, this would require further strengthening these organisations, including through additional financial support and capacity building.

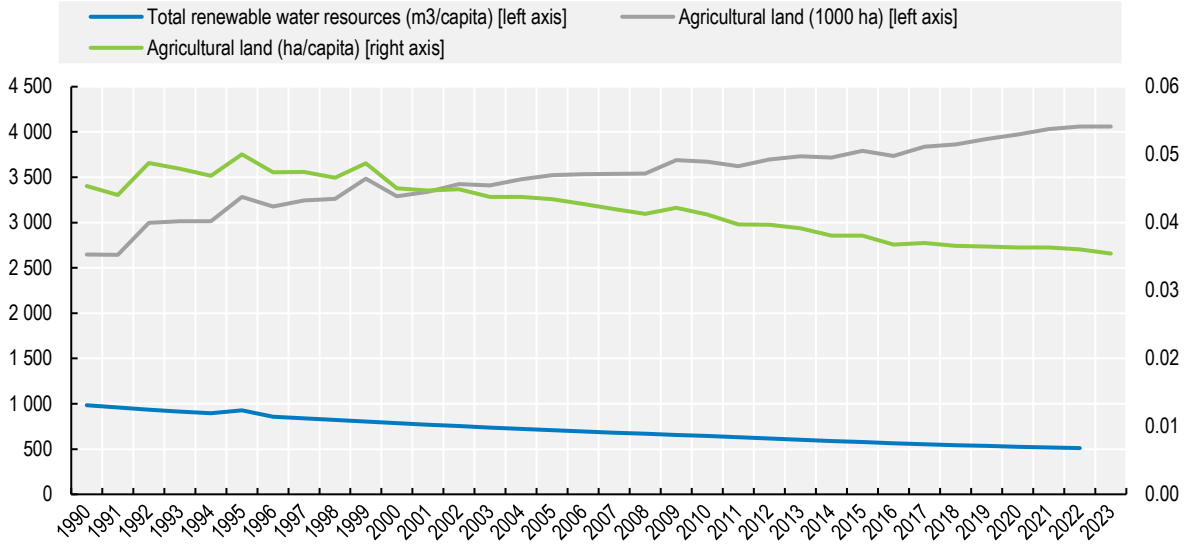
4.1. Main agri-environmental challenges in Egypt

Egypt faces significant environmental challenges, including natural resource constraints related to its land and water resources as well as climate change (Chapter 1). There are on-going policies and initiatives aimed at overcoming environmental pressures, including large-scale investments in irrigation infrastructure. Addressing these challenges appropriately is crucial for the long-term sustainability of the agricultural sector and to ensure food security.

Water availability per capita is declining, while agricultural land is growing despite pressures

Competition for scarce land and water resources and population growth have led to declines in the *per capita* availability of arable land and water, with water availability fast approaching levels of absolute water scarcity (FAO, 2025[1]; FAO, 2016[2]). The total quantity of agricultural land has increased as a result of land reclamation but land availability *per capita* has declined, by approximately 22% between 1990 and 2023 due to population growth. The potential for further agricultural land expansion is constrained by the presence of the desert and limited availability of water and fertile agricultural land, the latter mostly concentrated in specific areas of the country (mostly in the Nile Valley and Delta and in certain oases). Decreases in *per capita* water availability have been even more severe and estimated at 48% (from 985 to 511 m^3/inhabitant/year) between 1990 and 2022 (FAO, 2025[1]), with the most recent estimated level now fast approaching 500 m^3/inhabitant/year, a threshold often used to define absolute water scarcity (Liu et al., 2024[3]; OECD, 2024[4]).

Figure 4.1. Land and water availability per capita, 1990-2022



Note: Total renewable water resources per capita are taken from Aquastat. Total agricultural land is obtained from FAOSTAT, Agricultural land per capita is calculated by dividing total agricultural land (from FAOSTAT) by population (World Bank WDI).
Source: FAO (2025[1]), FAOSTAT (2025[5]), World Bank (2025[6]).

StatLink https://stat.link/ibv9lo

Competition for land and its scarcity have put enormous pressure on both the quality and quantity of agricultural land. Urbanisation, alongside challenges in the implementation of legislation aimed at protecting fertile land from urbanisation, has led to a decline of high-quality agricultural land ("old lands") (Mohamed and Sims, 2020[7]). The quantity of lower quality and potentially less productive agricultural land

("new lands"), however, has increased, especially around the Nile valley and the Delta (UN-Habitat, 2023[8]). Urban growth modelling conducted by the World Bank projects an additional 25 124 ha of agricultural land will be lost by 2030 due to continued urban expansion (World Bank, 2022[9]). At the same time, new lands were reclaimed at an average rate of 110 653 ha/year over the five years from 2018/19 to 2022/23 (Chapter 2) (CAPMAS, 2024[10]).

Excessive nitrogen application and salinity are affecting the quality of soil and water

National-level nutrient budgets have highlighted persistent nutrient imbalances, with consistently high and increasing nitrogen surpluses (at 201 kg/ha[1] for 2022) alongside deficits in phosphorus and potassium. This is consistent with surveys highlighting excess application of nitrogen fertiliser (Kurdi et al., 2020[11]) (despite increases in the subsidised fertiliser price), and site-specific observations of reduced availability of phosphorus and/or potassium (Gaballah, Mansour and Nofal, 2020[12]; Abdelaty, Abd-El-Hady and Shehata, 2023[13]). Soil quality is further hampered by salinity levels, an issue which affects an estimated 23-35% of agricultural land in Egypt (FAO, 2025[1]); (Kotb et al., 2000[14]; Bruning and de Vos, 2022[15]). High salinity levels result from several factors including seawater intrusion and irrigation with reused water (Mohamed, 2017[16]). While estimates of the share of land affected by salinity diverge, the extent is considered to be large and have yield implications (Caon et al., 2019[17]; Fadl et al., 2023[18]).

The excessive application of nitrogen fertilisers combined with the reuse of wastewater or drainage water with poor quality creates issues related to soil quality. In addition, large nutrient surpluses contribute to water pollution and the application of pesticides also increases the risk of degraded water quality. While previous OECD reports have highlighted an overall decrease in the levels of pollution in the Nile river as a result of increased industrial wastewater control, improved wastewater management capacity, and stronger focus on pollution control (OECD, 2024[4]), large nutrient surpluses pose a risk in terms of water quality. National water quality indicators for phosphorus and nitrogen do not exceed the maximum limits allowed for the Governorates that report data (2 for phosphorus and 3 for nitrogen) (CAPMAS, 2023[19]), but individual studies have documented site-specific contamination of water in groundwater wells and irrigation canals (Redwan et al., 2020[20]; El-Sayed, 2018[21]; Fouad et al., 2024[22]). A study has also found site-specific pesticide concentration exceeding standard guidelines of WHO (Dahshan et al., 2016[23]). A second aspect is that water scarcity has led to reuse of agricultural drainage water, often mixed with treated or untreated wastewater (Tawfik et al., 2024[24]). While such reuse allows more land to be irrigated at low cost and has potentially high economic value, drainage water can pose environmental risks, due to higher content of salts and agro-chemical pollutants (Arab Water Council, 2024[25]).

Continued population growth, dietary shifts and climate change are projected to put additional pressure on natural resources

Egypt has been undertaking water efficiency investments in some areas, with increases in irrigated water use efficiency over the last 30 years and the share of treated wastewater (from 50% in 2015 to 74% in 2022). At the same time, several factors are likely to increase the pressure on land and water resources in the future. Population is expected to reach 160 million in 2050 and these increases alongside shifts in consumption patterns are expected to further increase strains on already scarce water resources (Terwisscha van Scheltinga et al., 2021[26]). Climate change is expected to result in rising sea levels, with corresponding increases in sea water intrusion and coastal erosion, which are likely to increase the threat posed by soil salinity (Gado and El-Agha, 2021[27]).

Scarce water availability combined with a high reliance on the Nile River for over 90% of the supply of freshwater make Egypt vulnerable to upstream developments. Egypt perceives the filling of the Grand Ethiopian Renaissance Dam (GERD) as a threat to its water supply (El Ahram, 2025[28]; El Ahram, 2025[29]) and a large expansion of irrigation in Sudan could reduce the flow of the Nile for downstream countries (Basheer et al., 2024[30]). Importantly, beyond its possible impact on water availability, a reduced flow of

the Nile river would also affect its dilution properties, potentially compounding water quality issues (Abdel-Satar, Ali and Goher, 2017[31]). Effective co-operation among the Nile Riparian countries is essential, but despite over a decade in negotiations the involved parties have not been able to reach an agreement amenable to all countries. The latest Cooperative Framework Agreement, signed in 2024, has not been ratified by Egypt or Sudan (The New Arab, 2024[32]).

4.2. Overview of Egypt's agricultural water resources (water quantity)

Water demand substantially exceeds renewable water supply in Egypt

Water demand is estimated at 114 billion cubic metres (BCM) per year, whereas according to Egypt's Water Strategy 2050, available freshwater resources are estimated at 59.25 BCM per year (GoE, 2023[33]). This implies an imbalance between demand and supply of water in Egypt, with water demand exceeding water supply by approximately 91%. The imbalance between water demand and supply is covered by imports of commodities (with a "virtual water trade"[2] estimated at approximately 30 BCM) and the remaining amount (about 21 BCM) is covered by water from unconventional sources, such as reuse of agricultural drainage and treated wastewater. As a result, recent studies have found depletion occurring in several aquifers in the country (Shalby et al., 2023[34]).

Increasing imports of agricultural commodities have been a way to cover the imbalance between demand and supply of water-dependent commodities (e.g. wheat, maize and soybean). The fast population growth is clearly a key determinant of this trend, exacerbated by very concentrated dietary patterns in Egypt incentivised by domestic food subsidies (Chapter 3). Despite efforts undertaken, these factors have constrained the ability of the government to reduce and diversify its imports.

Unconventional sources such as reuse of drainage water are expanding

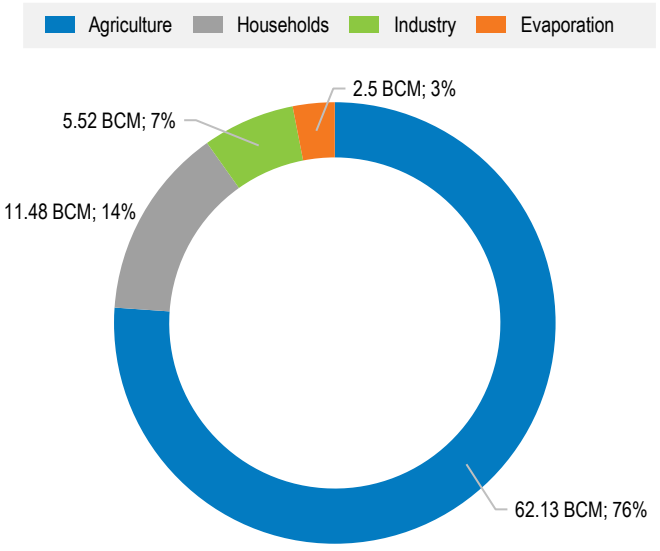
The main water source in the country is the Nile River, which represents over 97.7% of the total annual renewable water supply. Unconventional sources like reused water are playing an increasing role to help Egypt meet demand. According to Egypt's Water Strategy 2050, the total annual supply of freshwater amounts to 59.68 BCM from four main sources, namely the Nile River (55.5 BCM, 93%), groundwater (2.5 BCM, 4.2%), rainwater (1.3 BCM, 2.2%) and desalination (0.38 BCM, 0.6%) (MWRI, 2016[35]). To meet water demand in the agricultural sector, reuse of drainage water in the Delta has been adopted as a policy by the Egyptian government since the late 1970s (Rady and El-Din Omar, 2018[36]). The reuse of treated agricultural wastewater currently amounts to an estimated 21.95 BCM (CAPMAS, 2025[37]). As a result, unconventional sources (such as re-use of drainage water[3]) play an important role in helping Egypt meet the demand for water and currently amount to 38.6% of total annual renewable water supply, effectively making unconventional water sources the second largest water source in the country.

Agriculture in Lower Egypt accounts for the majority of irrigation water use

The agriculture sector accounts for 76% of total water use in Egypt (Figure 4.2) (CAPMAS, 2025[37]). Given the arid and hyper-arid climatic conditions in Egypt, characterised by very low levels of rainfall, the overwhelming majority of agricultural land is irrigated, with less than 2% of Egypt's agricultural land being rain-fed (Kassim et al., 2018[38]). Water for irrigation therefore represents the main source of water demand, with the demand being unevenly distributed both in geographic terms and by crop. In terms of geographical distribution, the majority of irrigation water use (61% in 2023) occurs in lower Egypt (Figure 4.3). The main four crops (wheat, maize, sugarcane, and rice) account for a very large proportion of water requirements for irrigation of crops.

In terms of irrigation method, Egypt still relies predominantly on flood irrigation which is used in about 82% of agricultural lands. Drip irrigation is used in about 10% and sprinkler irrigation is used in about 8% of agricultural lands (Atta et al., 2022[39]). In this context, the Egyptian government has had a strong focus on improving irrigation efficiency. More recent estimates from MALR indicate that modern irrigation systems (including sprinkler and drip irrigation) reached about 26% of the total cultivated area in 2024/25.

Figure 4.2. Water use by sector, 2023/24



Notes: BCM: Billion cubic metres. The above figure refers to the uses of water resources by sector for the year 2023/24. The category "drinking water" is assumed to refer to water consumed by households.
Source: CAPMAS (2025[37]).

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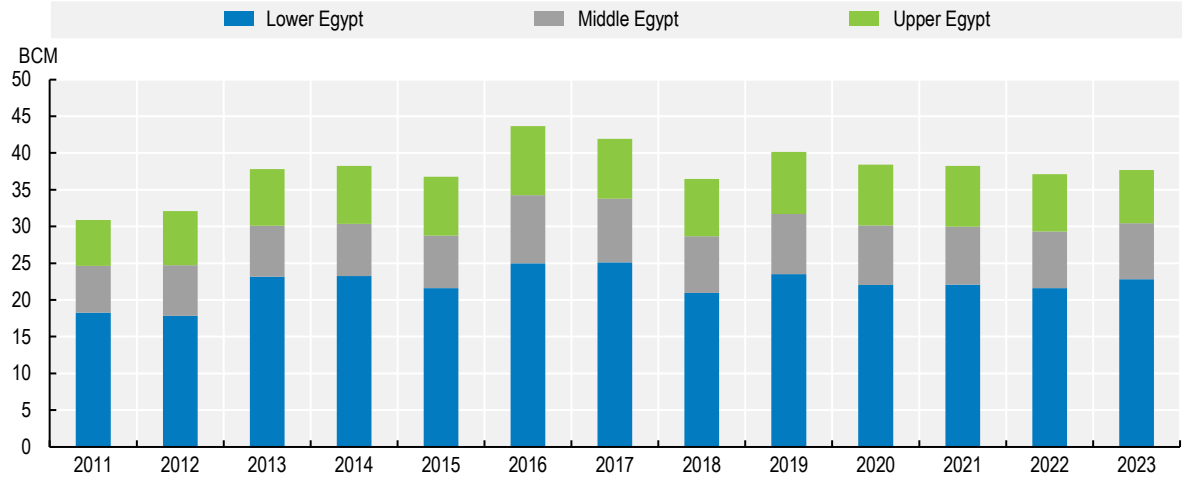
Figure 4.3. Quantity of used irrigation water by geographic subdivisions



Note: BCM: Billion cubic metres. Includes used irrigation water for three cropping seasons (winter, summer and Nile) and fruit production.
Source: (CAPMAS, 2025[40]).

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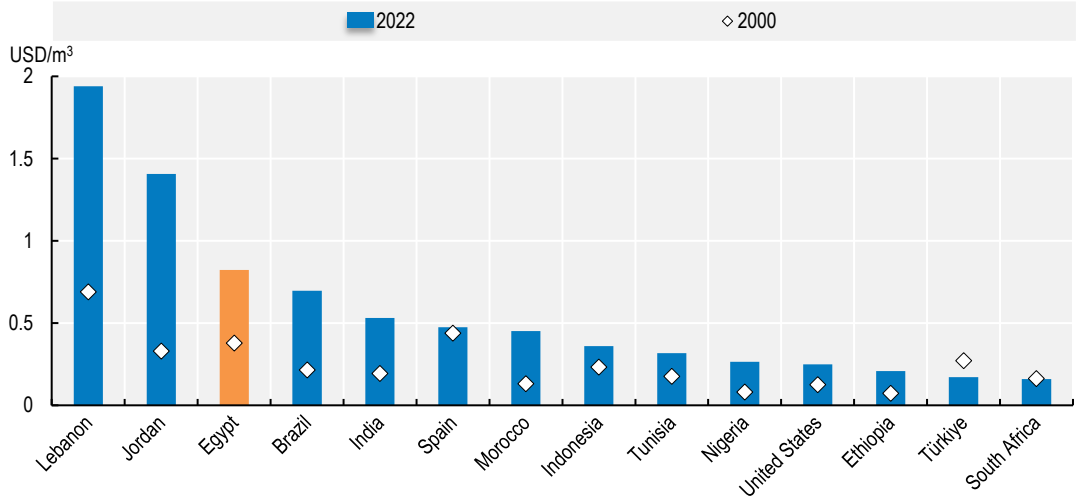
Water efficiency in agriculture, measured as production value per volume of water (USD/m^3), has increased over time to a large extent as a result of irrigation modernisation, shifts to higher value-added crops, and public investments in irrigation and R&D. It has doubled between 2000 and 2022, but remains below that of certain regional peers (e.g. Jordan and Lebanon) (Figure 4.4) (FAO and UN-Water, 2024[41]). Several studies attribute output growth to a combination of better technology, switches to more profitable crops, and input intensification, while highlighting the importance of public investments to maintain this trend (Fuglie et al., 2020[42]).

The Ministry of Water Resources and Irrigation (MWRI) has been investing significantly to reduce the gap between water demand and supply. Its vision for the future entitled "second-generation Irrigation System 2.0" includes eight axes of action, such as large-scale investments in infrastructure (e.g. 7 000 km of canals were rehabilitated in recent years and several large drainage water treatment projects were completed), as well as supporting irrigation modernisation and implementing water purification activities along the 22 000 km of drainage networks.

Figure 4.4. Irrigated agriculture water use efficiency in Egypt and selected countries



Note: The diamonds represent data for the year 2000 across all countries, except for Ethiopia (2002) and Indonesia (2005).
Source: FAO (2025[1]).

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Urban water demand is projected to increase and further pressure will be exerted on water resources from the Nile

In the future, rising urban demand for water, shifting land usage, and the effects of climate change are expected to put additional pressure on Egypt's already scarce water supplies. Using a modelling approach, Esraa et al. (2023[43]) forecasts water demand (apart from virtual water) to increase from 78.40 BCM in 2023 to 81.02 BCM in 2037. However, given projected population increases, the forecast anticipates an increase in residential and industrial water uses, which implies that agriculture would need to reduce the level of water use by approximately 1 BCM. Increases in temperature can also threaten the water supply. It is estimated that rising temperatures could increase evapotranspiration losses by over 5% and that canal rehabilitation would be an important way to overcome the reduced water availability (Badr et al., 2023[44]).

The reliance on the Nile as the main source of renewable water also makes Egypt vulnerable to upstream developments. Basheer et al. (2024[30]) analyse the impact of expanding irrigation in Sudan by 1 million hectares, and note that the combined effect of the irrigation expansion and the Grand Ethiopian Renaissance Dam (GERD) could lead to a reduction in downstream flows by an estimated 0.2 to 7.2 BCM

during 2030-2050 (Basheer et al., 2024[30]). Finally, the presence of two very large reservoirs relative to the yearly flow of the Nile (i.e. Lake Nasser and GERD) poses a very large challenge in terms of resource management. This makes effective co-operation between countries along the Nile essential. However, no co-operation agreement amenable to all countries has been reached so far (The New Arab, 2024[32]).

4.3. Soil salinity

High levels of soil salinity are driven by use of shallow groundwater for irrigation and sea water intrusion

Egypt is one of the countries in the world most affected by salinity, which poses an important challenge which is likely to grow in the future. The issue of salinity in Egypt is not new, with early surveys in the mid-1970s revealing that 20-25% of soils in Upper Egypt, the Upper Delta and Middle Delta were affected by salinity, with this proportion increasing to 60% in the lower Delta (Sharma, 2023[45]). These numbers are also broadly in line with more recent inventories and studies in the mid-1990s which concluded that 35% of Egypt's agricultural lands suffer from salinity, with electrical conductivity (ECe) above 4 dS/m (deciSiemens per metre), a common threshold for moderate salinity. According to Mohammed (2017[16]), the three main causes for salinity in Egypt are irrigation with low quality water, shallow water table and waterlogging, and seawater intrusion. Overapplication of fertiliser (especially nitrogenous fertiliser) can also contribute to salinity as they release soluble salts into the soil and therefore have the potential to directly contribute to soil salinity. In the future, it is expected that climate change induced sea level rise could lead to further sea water intrusion in coastal areas. As a result, Lower Egypt, in particular, is more prone to salinity problems.

There are technical solutions, but these are often subject to difficult trade-offs

The potential solutions to farm in saline soils will require a mix of improved practices and further investment in irrigation and drainage systems. There are several ways to either reduce salinity of soils or adapt to higher levels of salinity. Good agricultural drainage is critical to address salinity, with sub-surface drainage being an effective technique to control salinity (Sharma, 2023[45]). A second aspect would be to limit the use of groundwater close to the sea, in order to prevent the intrusion of saline sea water in coastal aquifers. Salinity management practices in irrigated agriculture include adding organic matter, applying soil amendments, and, in specific contexts such as Türkiye's coastal plain of Adana, planting trees on small dykes with drip irrigation to reduce salt accumulation. Finally, there is scope to switch towards more salt-tolerant varieties or crops that are altogether more salt tolerant. However, doing so will have to consider not only the crop's tolerance to salinity, but a combination of their tolerance to different kinds of stresses (e.g. salinity, heat, water).

In some cases, there may be trade-offs between the reduction of salinity levels and the decrease in on-farm water consumption. Appropriate drainage and the use of drip irrigation in new lands are likely to remain important elements to reconcile salinity management and water efficiency goals, but different solutions will need to be used in old lands. Rice is often used in Egypt as a reclamation crop in saline soils (Michalscheck et al., 2025[46]). Cultivating a water-intensive crop like rice in some areas allows to lower the salt content of the soil and is widely seen as a very effective biological strategy to reduce salt content of the land, but at the expense of increased water intensity (Peng et al., 2025[47]). Careful management of these trade-offs or opting for reclamation strategies of saline land that are less water-intensive will be an important aspect to consider in the future.

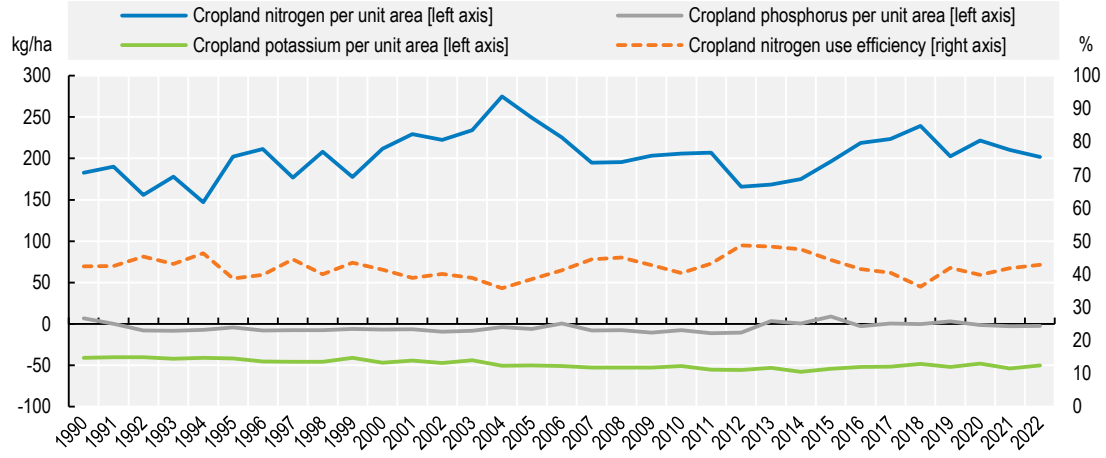
4.4. Overuse of fertilisers and pesticides

High and unbalanced application reduces fertiliser use efficiency and has impacts on water quality

Egypt has one of the highest uses of fertiliser per hectare worldwide and nitrogen balances have increased over time, while nitrogen use efficiency has decreased (OECD, 2024[4]). MALR is currently working to expand organic farming to reduce the use of nitrogen fertiliser. However, fertiliser application per hectare still remains over three times the OECD average (OECD, 2024[4]), and several-fold higher than the MENA average. Despite intensive cultivation with up to three cropping seasons per year in many places in Egypt, nitrogen surpluses are above 200 kg/ha, higher than the OECD median of about 50 kg/ha (OECD, 2025[48]). Excess nitrogen application occurs alongside deficits in the application of other key nutrients, especially phosphorus. The phosphorus and potassium balance are consistently negative, with the phosphorus deficit increasing over time (Figure 4.5).

The consistently high rate of application per hectare, combined with land expansion and a declining nitrogen use efficiency essentially means that the losses of nitrogen to the environment have increased over time, with potential consequences on water quality. Survey data clearly highlights that there is excess application of nitrogen fertiliser *vis-à-vis* the recommendations from government bodies and that this is partially due to the fact that nitrogen fertiliser is subsidised (Kurdi et al., 2020[11]). Nitrogen Use Efficiency (NUE) has decreased over time, leading to declines in soil fertility. Several factors have contributed to the decrease in NUE over time: the unbalanced application of different nutrients (excessive nitrogen, insufficient phosphorous and potassium), and the lack of knowledge about soil fertility at the farm level, including the persistent belief that increased fertiliser use necessarily leads to higher plant growth (Elrys et al., 2019[49]).

Figure 4.5. Cropland nutrient balance per hectare and nitrogen use efficiency



Note: Crop nutrient balance is given by the difference between total nutrient outputs and total nutrient inputs. Nutrient use efficiency is the ratio of total output and input.
Source: FAOSTAT (2025[50]).

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Water quality indicators met most national standards in 2021, and Egypt has improved the capacity to monitor water quality (OECD, 2024[4]). Water quality has also improved due to better control of industrial wastewater and wastewater management. However, several Governorates do not report nitrogen and phosphorus concentrations (CAPMAS, 2023[19]). Recent studies have shown that the levels of water pollution display substantial variation geographically and by water source. Analyses of groundwater in

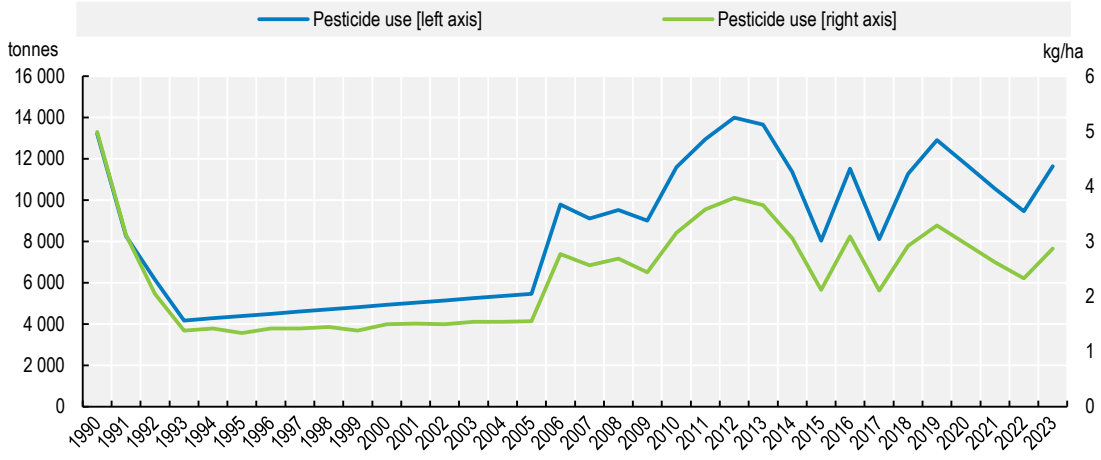
Northeast Cairo and Sohag have shown levels of nitrate concentration in excess of WHO drinking limits for some wells, especially in Northeast Cairo (Redwan et al., 2020[20]; El-Sayed, 2018[21]). Excessive contamination levels in irrigation canals in Fayoum have also been reported (Fouad et al., 2024[22]). With regards to Nile water, recent studies indicate an improvement in water quality (which they partially attribute to better water treatment) and find concentration levels below drinking water limit thresholds and nitrate concentration levels below typical eutrophication thresholds, while noting high variation in water quality, with water quality indicators typically being lower in monitoring stations around greater Cairo (Hegab et al., 2025[51]).

Reducing levels of applied fertilisers, ensuring more diverse application of different fertilisers, and improving Nutrient Use Efficiency are therefore important elements to reduce nitrogen surpluses. The sheer size of the nitrogen surpluses and the results of farm-level surveys provide evidence of the discrepancies between applied amounts and crop-specific technical recommendations and highlight scope to reduce nitrogen fertiliser application. Important elements for doing so include the alignment of economic incentives (such as subsidies) with agronomic best practices, improving the knowledge of farmers regarding fertiliser application best practices, as well as providing site-specific fertiliser strategies. Importantly, reducing the excess application of fertilisers could also lead to substantial mitigation co-benefits (through GHG reductions), as well as public and private savings.

High use of pesticides and counterfeit sales

The use of pesticides in Egypt has increased between the mid-1990s and 2023. According to FAOSTAT data, following a sharp decline in the early 1990s as a result of shift towards integrated pest management (El-Husseini, El-Heneidy and Awadallah, 2018[52]) and a phasing out of pesticide subsidies (Kassim et al., 2018[38]), pesticide application per hectare and total quantities of pesticide used have increased substantially since the mid-1990s (FAOSTAT, 2025[53]). The expansion of production of horticultural products and the intensive agriculture practiced as a result of existing land constraints, as well as the increased prevalence of certain crop pests due to climate change, have been driving factors of increased pesticide use in Egypt. MALR is currently implementing measures to expand integrated pest management practices and to develop new crop varieties that are both resilient to climate change and resistant to agricultural pests.

Figure 4.6. Pesticide use, 1990-2023



Note: FAOSTAT data from 2015 onwards is either imputed or estimated.
Source: FAOSTAT (2025[53]).

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Egypt has strict rules regarding how pesticides can be registered and also has Maximum Residue Levels (MRLs) to prevent the overuse of pesticides. The Ministry of Agriculture and Land Reclamation (MALR) and the Agricultural Pesticide Committee (APC) are the main regulatory bodies for pesticides in Egypt, with the MALR being the main regulatory body, and the APC the enforcement agency (El Safoury, 2020[54]). As highlighted by El Safoury (2020[54]), Egypt has a strong legislative structure related to pesticides with several laws and decrees covering the registration, handling and use of pesticides.

Despite a strong legislative framework, in practice, there are several implementation gaps related to the sale and use of pesticides, with negative environmental impacts. Illegal pesticides are a global issue, with the global trade in illegal pesticides estimated at USD 6-10 billion (Frezal and Garsous, 2020[55]). In Egypt, industry actors estimated that counterfeit pesticides could account for one fifth of the total pesticide market in 2019 (Agronews, 2019[56]). The issue of illegal pesticides combined with its overapplication has led to several instances where pesticide residues have been found to exceed MRLs or, in the case of exports, contain traces of pesticides not allowed by trade partners. The European Union's European Food Safety Agency highlighted that samples of imported oranges and grape leaves from Egypt were found to contain traces of a pesticide (chlorpyrifos) that is neither allowed in the EU nor in Egypt (Carrasco Cabrera et al., 2024[57]). A recent study focusing on 4 200 samples of horticultural products from 20 different markets in Egypt has also found that 42% of samples contained pesticide residues, with 13% of the samples exceeding MRLs (Malhat et al., 2024[58]). Beyond the risk to human health, there is evidence of pesticides being found in water samples. A study that sampled water quality in the Rosetta Branch of the Nile River found over 75% of samples being contaminated. While levels found were not considered a risk for human health, they could pose ecological risks to aquatic organisms (Eissa, Al-Sisi and Ghanem, 2021[59]).

Tackling issues related to pesticides will require stricter enforcement of existing legislation, training, and technological solutions. Egypt is already undertaking some of these actions, namely through the training of over 25 000 certified pesticide applicators, whose role would be to monitor pesticide use in agricultural lands (Food Business Middle East and Africa, 2024[60]). The existence of a large number of certified pesticide applicators can help reduce the risk of counterfeit pesticides. Expanding the adoption of Integrated Pest Management practices could also reduce the need for pesticides.

4.5. Agricultural water management policies and governance in Egypt

Overall vision and strategic approach to water management

Egypt has a long tradition of policies aimed at reducing the imbalance between water supply and demand, which have culminated in the most recent water strategy 2050 (MWRI, 2016[35]). However, since then there have been several new programmatic and strategic documents (e.g. Egypt's Vision 2030, the Nexus of Water, Food and Energy programme, the 2030 Updated Sustainable Agricultural Development Strategy, National Climate Change Strategy 2050) which also focus on water without an update of the sectoral policies.

Water for irrigation is used by Egyptian farmers free of charge, except for the pumping costs. Since 1975 MWRI has played the role of balancing supply and demand for water through the "National Water Resources Plans" that assess the current and future availability and demand for water (Kassim et al., 2018[38]). This exercise led to a broader Water Master Plan in 1981 with a time horizon until 2000 with the goals of preparing inventories of water resources, assessing current and future water needs and availability, as well as assessing trade-offs between multiple water uses and solutions to improve efficiency. A subsequent strategy was developed since 2005, entitled "Water Resources Strategy of Egypt Until 2017" with a primary goal of obtaining an additional 10.3 BCM of water (including 3.1 BCM of deep groundwater) to cover the foreseen increase in water needs from land reclamation initiatives until 2017. This was to be achieved by decreasing cultivated areas for water intensive crops (e.g. rice and sugarcane),

increasing the use of groundwater, and recycling agricultural drainage water. This first "National Water Resources Plan" was developed by MWRI to guide public and private actions for ensuring the optimum development and management of water that benefits both individuals and society at large, and to promote the sustainable development and management of water resources. This plan was founded on the principles of integrated water resources management as defined in the Strategy.

More recently in 2016, MWRI developed a new "Water Resources Development and Management Strategy until 2050" (Water Strategy 2050) (MWRI, 2016[35]). Egypt's Water Strategy 2050 seeks to achieve water security through the implementation of sustainable management of water resources in the long-term. Doing so successfully will entail both the development of Egypt's scarce water resources, as well as the management of both present and future water demands.

The strategy is based on four main pillars, which include improving water quality, rationalising water use, enhancing the availability of freshwater resources, and improving the enabling environment for integrated water resource management, planning and implementation. The four pillars are seen as fundamental to address short- and long-term needs of the various sectors in terms of water resources. On the supply side, the strategy has a strong focus on further developing water resources, both traditional and non-traditional, including (a) the Nile River, (b) groundwater, (c) rain and floodwater harvesting and protection, (d) reusing agricultural wastewater, (e) reusing treated wastewater, and (f) desalinating seawater and brackish water. In addition to domestic water sources, the strategy also foresees imports through "virtual water trade" and agriculture production beyond Egypt's borders as a way to decrease the water supply constraint. On the demand side, the strategy focuses very much on technical solutions for increasing water efficiency, with the goal of optimising water returns in the most water-consuming sectors, including agriculture, industry, drinking water, and household water. In terms of water quality, the focus is on pollution control in an integrated water resource management system.

The second update of Egypt's Nationally Determined Contributions (NDCs) submitted to the UNFCCC in June 2023 identifies water as a top adaptation priority (GoE, 2023[33]). It is stated to be aligned with the National Water Resources Plan 2037 and the Water Strategy 2050. The following adaptation measures are included: modernising irrigation systems, expanding drainage and treated wastewater, protecting coastal groundwater from salinisation, promoting water-saving crops and resilient agricultural practices, and scaling up desalination powered by renewables.

These broad water management strategies are useful to co-ordinate the efforts of all actors in the system and to guide the decisions of farmers, investors and other players. Making these strategies and publications more easily accessible is critical to ensure that all parties feel part of the strategy and make decisions to contribute to its achievements.

Institutional co-ordination among ministries can be challenging

The legal framework related to water management in Egypt includes several laws on irrigation, water quality and drainage. Law 147/2021, which replaced Law 12/1984, provides the legal framework that covers irrigation, distribution and drainage management while Law 213/1994 and its by-laws are the basis for the management of infrastructure projects for covered drainage and the engagement of water user associations. In addition to these, there are several laws and decrees related to environmental protection that have implications for water management (Rady and El-Din Omar, 2018[36]). These include Law 93/1962 (and its 1962, 1982 and 1989 amendments) on discharges into open streams, Law 27/1978 which focuses on regulation of water resources and water treatment, as well as Law 48/1982 which focuses on protection of the Nile and its waterways from pollution. Finally, Laws 4/1994 and 9/2009 focus on environmental protection.

MWRI plays a central role in managing Egypt's water resources. While MALR is responsible for agriculture and land reclamation, MWRI oversees water resources and related policies, supervising, managing, and

preserving the state's water assets in accordance with Law 147/2021. Key responsibilities of MWRI include developing a clear vision for the water sector, planning and maintaining water infrastructure such as canals and drainage treatment facilities, and supporting the modernisation of irrigation and water distribution systems.

At the central level, water distribution relies on effective co-ordination between ministries to ensure an effective allocation of water resources. Interministerial co-ordination plays a central role in co-ordinating water distribution in Egypt. MALR is responsible for defining recommended cropping patterns and calendars based on farmers' crop choices. MWRI is then responsible for releasing the water to ensure sufficient quantities of water are provided to meet the needs of farmers. The volume of water discharged is therefore predominantly influenced by cropping patterns that inform how the water is distributed through the complex network comprised of dams, barrages and canals from the Aswan High Dam to the Mediterranean.

Decentralised and participatory integrated water resource management (IWRM)

Once the water enters primary and subsidiary canals, it can be pumped into the *mesqa* (tertiary canals that receive water from branch canals), which usually cover areas averaging approximately 70 feddan (approximately 20 ha) and are governed through a participatory water management system that relies on Water User Associations (WUAs) (Chapter 2). WUAs are designated in article 71 of Law 213/1994 as responsible for water management at the *mesqa* level, where farmers manually open gates at pre-determined intervals (typically every 7-15 days), which allows water to flow into the *marwas* (on-farm canals) (Gouda, 2016[61]). In terms of their legal status, WUAs are private entities that do not operate for financial gain according to Law 147/2021. Elhadad, Elgamal and Mady (2020[62]) trace the origins of WUAs back to the early 1980s, when the concept of handing over water management to new water organisations first emerged. In the mid-1980s, eleven command areas were enhanced through the application of the USAID-IIP project in its different phases, which led to the development of new water organisations in those areas (Box 4.1).

The participatory nature of the arrangement involving farmers in the management decisions within their hydraulic boundaries is designed to enhance water use efficiency. WUAs play an important role in terms of ensuring that water users co-operate with the government as well as ensuring efficient operation of irrigation and drainage systems at lower levels. They have two key responsibilities: co-ordinating irrigation schedules among farmers and keeping the upgraded *mesqas* in good repair. Co-ordinating across a large number of farmers, especially across different districts, remains challenging, and the introduction of modern technologies that reward individual, rather than collective, action (such as diesel pumps) is sometimes perceived as making co-operation more challenging.

Box 4.1. History of WUAs in Egypt

Egypt has a long history of building agricultural Water User Associations (WUAs) in the Nile Delta. However, until 1994 WUAs had no legal status and were therefore not financially viable and could not govern themselves with complete ownership of *mesqa* infrastructure. The 1994 revision of Law 1984/12 turned WUAs into legal organisations and created Water Users Unions (WUUs) in the New Lands. The Central Directorate of Irrigation Advisory Services (CD-IAS) was established as a permanent institution in 1999 to cover all sectors covered by the Ministry of Water Resources and Irrigation (MWRI), focusing on secondary-level Branch Canal WUAs. These organisations were expected to help with Branch Canal annual planning, maintenance prioritisation, water distribution, and cost recovery. However, branch canal level experiments were limited by the lack of legal status for WUAs above *mesqa* level boundaries. Branch Canal WUAs or Water Boards were never recognised as user associations for

water management at the secondary canal level and above, and the policy was directed towards transferring asset maintenance responsibility.

The increased focus on Integrated water resource management (IWRM) has been supported by development partners, with several projects between 1994 and 2012 aimed at supporting WUAs and participatory IWRM. The Dutch-supported Fayoum Water User Organisations project started creating Water boards in two districts, then expanding to the other seven districts. The project then spread to different parts of Egypt (the Delta, Fayoum, Middle and Upper Egypt) where a total of 900 Water Boards were established. Further decentralisation efforts were also pursued under USAID's Agricultural Policy Reform Program (APRP) (1996-2003), and LIFE-IWRM Project (2004-2012) which allowed secondary-level Branch Canal Water User Associations (BCWUAs) to be formed, helped the MWRI further develop participatory IWRM on 485 000 ha (15% of Egypt's irrigated land), and expanded Integrated Water Management Districts (IWMDs) to 27 districts in 5 irrigation directorates and formed 600 BCWUAs.

WUAs and BCWUAs play an important role in terms of co-ordinating water distribution, and operating *mesqa* level infrastructure. By advocating for users' needs and supporting IWMDs, they play an important role in Egypt's increasingly decentralised water governance system by providing a link between higher level policymakers and end users of water. However, the capacity of these associations (especially BCWUAs) to operate effectively remains hampered by their limited role in Operation and Maintenance of infrastructure and financial constraints. At the branch canal level, Rap et al. (2015[63]) highlight the need to give more power to BCWUAs, the right to collect fees, and strengthen the legitimacy of BCWUAs in irrigation management in Egypt.

Source: Rap et al. (2015[63]).

High ambitions to improve water efficiency

Egypt's goals for water resource efficiency are ambitious, even in the short-term. For instance, the framework of Egypt's Vision 2030 strategy estimates the need to drastically increase water use efficiency from USD 4.5 per cubic metre in 2020 to USD 6.5 per cubic metre by 2030 (MPED, 2023[64]) in order to irrigate additional land central to the government's Food Security plans.

To achieve the twin goals of increasing production while preserving scarce water resources, the strategy foresees several means of attaining its goals related to the sustainability of natural resources, ranging from technological innovations to sensitising users about using resources efficiently. Technical solutions considered by the government to increase production while preserving scarce water resources include the modernisation of irrigation systems, the reuse of agricultural wastewater, as well as improving the efficiency of water distribution. Crop diversity, doubling agricultural productivity and increasing value added of reclaimed lands are also seen as an integral part of the solution.

The implementation of National Water Resource Plans focuses on water supply augmentation rather than demand reduction

At the more operational level, many actions are included in Egypt's two successive National Water Resource Plans (NWRPs). The government devised a first NWRP for the years 1997-2017. This plan highlighted 39 activities with two possible scenarios, namely the status quo and a "Facing the Challenge" plan. This NWRP drew a clear distinction between irrigation in old and new lands. Given that the use of flood irrigation is illegal in the new lands, it mandated the use of modern irrigation systems (sprinklers, drip) on reclaimed lands, as well as night irrigation.

A second NWRP was launched in June 2017 with a 20-year time horizon (until 2037) in an attempt to tackle several challenges faced in the previous NWRP. In particular, water demand continued to be higher than expected, and water quality issues persisted as a result of remaining challenges related in particular

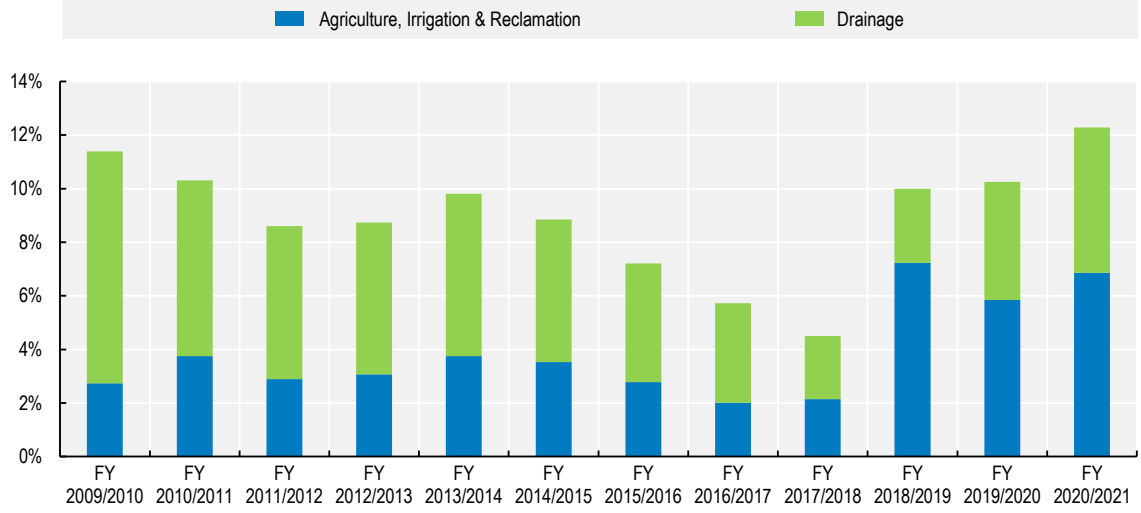
to rural sanitation, as well as cropping patterns that favour profitable yet water-intensive crops such as sugarcane and cotton. The assessment of the 1997-2017 NWRP concluded that supply-driven programmes had made better progress than those focused on water demand and decentralised management, partially as a result of challenges related to the lack of clarity in the defined goals for improving water quality and implementation of the required legislative and regulatory framework.

As a result, the second NWRP 2017-2037 has a stronger focus on supply-driven interventions. Integrated water resource management (IWRM) still forms the basis of NWRP2037 and the model recognises the monetary value of water and promotes a participatory approach to integrate this value in water management (MWRI, 2021[65]). In terms of policy actions, the NWRP seems to be following a hierarchical logic by prioritising policies according to perceived diminishing returns. Increasing the water supply is seen as a priority for the first phase, followed by efficiency gains and demand management in a second phase. Finally, an adaptation phase would be implemented encouraging water users to discover solutions for water management independently in a context of persistent water scarcity. As a result, this NWRP tends to favour supply-side measures with investments and operational expenditures on technical solutions, while other market-based, regulatory, or voluntary tools could be added but are not currently applied. In addition to this, however, the NWRP has not yet been updated to reflect changes in other programmatic documents.

Public investments in irrigation have increased, but private investment has remained stagnant due to lack of incentives

Given the focus on increasing the quantity and efficiency of water supply, investments in irrigation have been the key component of Egypt's water policies. The Central Bank of Egypt (CBE) estimates that investments related to agriculture, irrigation, reclamation and drainage reached 12% of total public investment for the 2020-2021 fiscal year (Figure 4.7). While the overall share declined between 2010/11 and 2017/18, there was a noticeable increase in public investments in irrigation and drainage starting from 2018/19.

Figure 4.7. Public investment in agriculture, irrigation, reclamation and drainage (% of total public investment)

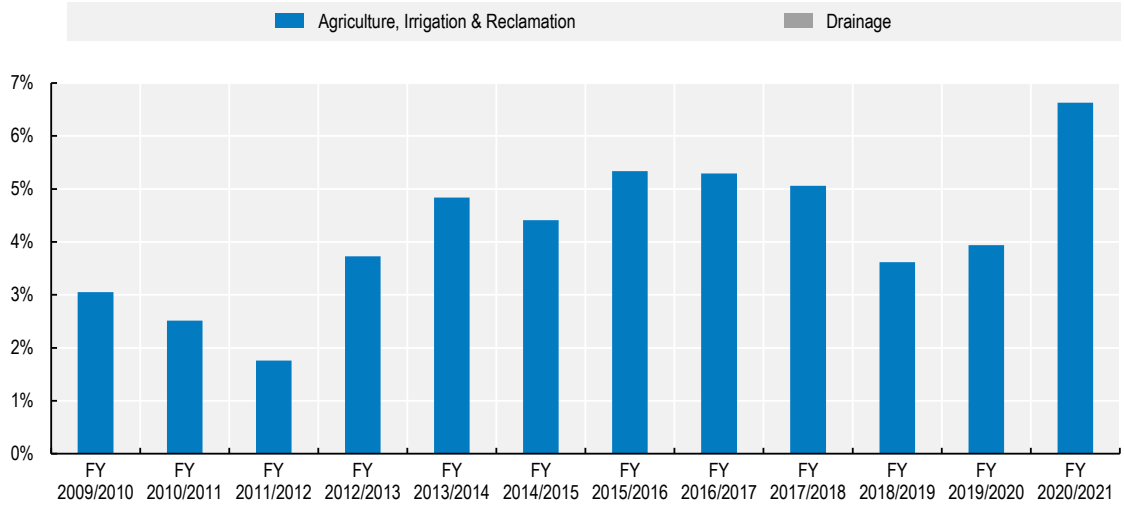


Source: CBE (2022[66]).

StatLink https://stat.link/41apes

However, while there has been an increase in public investments in irrigation, available data seems to suggest that private investment remains relatively restrained. As highlighted by Figure 4.8, private investment in agriculture, irrigation, reclamation and drainage as a share of total private investment increased between 2009/10 and 2015/16, but declined over subsequent years, before increasing sharply in 2020/21. Furthermore, imports of irrigation equipment increased in 2008 but have been stagnant in recent years (Figure 4.9). The private investment and import trends are likely to reflect the slower than expected uptake of modern irrigation technologies in the Nile Delta, given that farmers are required to use modern irrigation systems in the New Lands.

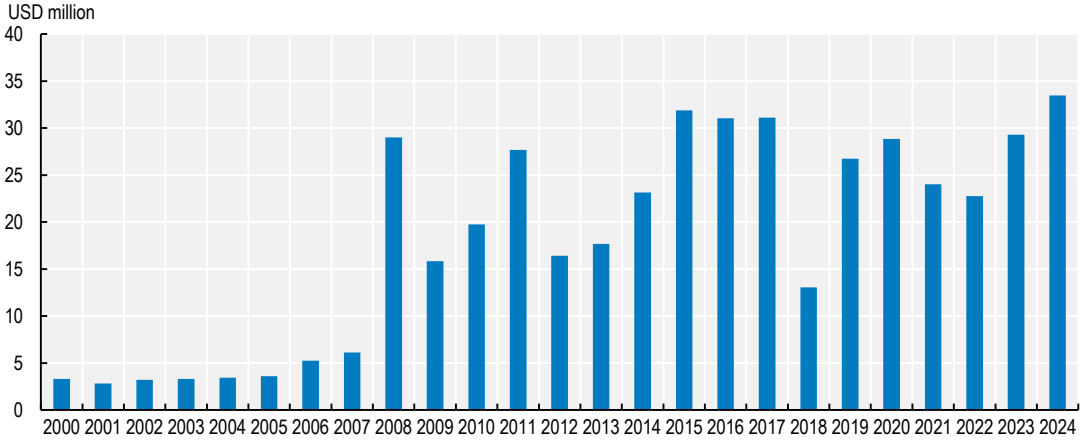
Figure 4.8. Private investment in agriculture, irrigation, reclamation and drainage (% of total private investment)



Note: No private investments in drainage were recorded over the period.
Source: CBE (2022[66]).

StatLink https://stat.link/qiv5a3

Figure 4.9. Imports of irrigation equipment, 2000-24



Note: Data corresponds to imports of "Mechanical appliances; for projecting, dispersing or spraying liquids or powders, for agricultural or horticultural use, whether or not hand-operated" (HS code 842481).
Source: UN Comtrade (2025[67]).

StatLink https://stat.link/al654g

The trends in private investment constitute a particular challenge given Egypt's focus on irrigation modernisation and its importance to achieve the desired water use reductions. Over time, Egypt's indicators of water efficiency in irrigation (in production value per volume of water used) have increased significantly (Figure 4.4), but the overall levels remain below the top global performers. The largest increases in water efficiency since 2007 were witnessed after 2015, which roughly coincides with periods with increases in private investment, once accounting for lags. At the farm-level, the rapid modernisation of irrigation technologies remains central to Egypt's strategy to further improve water efficiencies, with drip and sprinkler irrigation systems estimated to reduce water consumption by 50% and 30%, respectively, compared to flood irrigation (Guo and Li, 2024[68]).

Multiple studies, including reports published by the OECD (OECD, 2016, pp. 41-42[69]), the World Bank (Scheierling and Tréguer, 2018, pp. 29-33[70]), the FAO (Perry, Steduto and Karajeh, 2017[71]),and the International Water Management Institute (IWMI) (Giordano et al., 2017, p. 30[72]), have noted that irrigation efficiency improvements can be associated with higher water consumption. This is due to two phenomena observed in different international contexts. First, higher efficiency without production constraints can encourage farmers to switch to more water intensive crops and/or to expand their irrigation area, an effect called the Jevons paradox or rebound effect (observed in the energy sector). In Egypt, water efficiency favours more profitable but water-intensive crops such as sugarcane and cotton. Second, irrigation efficiency, even without changes in crop or area, ensures that all withdrawn water goes to the plants, thereby limiting losses, including return flows to the environment. This can mean that groundwater recharge is diminished and so are returns to rivers, and consequently water sources can be depleted even if applications are more efficient with observed water use reduction (an effect called the "irrigation efficiency paradox") (Grafton et al., 2018[73]).

In this context, it will be essential that further investments be combined with a water resource allocation system to effectively manage agricultural water demand, avoid increased water consumption, and ensure the system remains sustainable. Irrigation modernisation can reduce water withdrawals (assuming no rebound effect and quantitative management) and may improve water quality by reducing the need for water reuse. Still, system-level efficiency in the Nile river is already high, meaning that it will be more challenging to improve system efficiencies (Abdellatif et al., 2025[74]).

Building trust and engagement in the water management system is crucial and requires co-ordinated advisory services

Policy coherence and trust in the water management system is seen as a key challenge with regard to achieving water goals in Egypt. In some cases, farm-level adoption of water technologies may be hampered by the fragmentation of extension services, and distrust in their guidance and on who benefits from water use reductions. Eldabbagh and Brouziyne (2024[75]) highlight that overcoming this would require further integration of the extension system between different sectoral Ministries and agencies (MALR, MWRI, and Lakes and Fisheries Resources Protection and Development Agency). Furthermore, the development of online advisory services can help farmers to optimise irrigation scheduling, as seen in the example of Italy's IRRINET (Box 4.2). An integrated system designed to support holistic knowledge sharing, and support for scalable innovations could be an important aspect.

Box 4.2. Italy's online irrigation advisory services (IRRINET)

IRRINET is an online information service that advises farmers on efficient irrigation and water management practices. Initially developed in Italy's Emilia-Romagna region, IRRINET provides free advisory services to over 12 000 farms daily, via a website, SMS, and a mobile app. Data on rainfall, evapotranspiration, soil and crop parameters are combined to generate a water balance for individual crops and plot areas, providing farmers with detailed guidance on irrigation scheduling.

IRRINET helps to optimise water resource use and contributed to saving an estimated 90 million m^3 of water in 2017. This was equivalent to 20% of total agricultural water demand in the Emilia-Romagna region, and was achieved without compromising on crop yields and production.

IRRIFRAME was developed in 2011 to roll out online advisory services at the national level. By early 2019, IRRINET/IRRIFRAME was present in 16 Italian regions, involving 69 land reclamation boards over 16 000 users across Italy. Online advisory services are provided free of charge, and the overall management and maintenance costs are low, at just USD 0.02 per person.

Source: Climate ADAPT (2019[76]).

4.6. Conclusions and way forward

Long-term water management strategies could benefit from improved communication

Given the competition for natural resources and the stringency of water scarcities, achieving sustainable water management in Egypt is likely to require a multi-pronged approach of supply and demand side measures. Developing long-term water management strategies like those in Egypt can help to align the expectations and actions taken by different stakeholders. However, it would be important to ensure that sectoral strategies are updated to further align with broader programmatic documents (e.g. Egypt's Vision 2030), make water-related strategic documents more easily available, and facilitate communication and inter-stakeholder discussion and co-ordination among all actors, public and private.

Technical solutions to improve the efficiency of water use are not sufficient and need to be backed up by robust water demand management systems

Water-related technical innovations have an important role to play. As highlighted earlier, most irrigated areas in Egypt use traditional irrigation techniques and sub-optimal drainage is also one of the causes of increased soil salinity. Adopting more modern irrigation technologies, improving drainage infrastructure, rehabilitating existing irrigation infrastructure, and even considering alternative water sources (e.g. expanding further treated wastewater re-use or desalination) can help improve water use efficiency under highly scarce water conditions, potentially contributing to improving water availability and quality. Current efforts to upgrade and rehabilitate irrigation infrastructure in the Nile Delta as well as efforts to encourage farmers to adopt more modern irrigation systems represent an important step in the right direction. Such measures will require sustained financial resources, with the estimated yearly cost of measures in the NWRP2037 at EGP 44 billion[4] (Thomas, 2019[77]). Given the country's objective of achieving fiscal consolidation and established investment ceilings as part of the IMF programme, existing fiscal space may limit the extent to which these goals can be achieved through public investments alone, which may create a need for the development of alternative policy instruments or alternative sources of financing.

However, it is also known that improving water use efficiency through technical solutions may not reduce but could even increase final water demand, if not implemented in conjunction with robust water demand management systems. Increasing water efficiency through technical solutions is costly and shifts the problem without changing behaviour. Research has shown that improving irrigation efficiency can alter water and cropping decisions in ways that ultimately aggravate water scarcity (Pérez-Blanco et al., 2021[78]). A robust water demand management system is also required, providing clear signals to farmers on the need to reduce water use.

Changing farming practices and behavioural responses requires well-enforced regulations…

Broad-based adoption of improved practices, technologies and cropping patterns, combined with regulatory approaches are an important part of the solution. Measures that could induce changes to crop patterns towards less water-intensive crops (e.g. replacing sugarcane by sugar beet, reducing rice cropping areas) as well as those that are more tolerant to salinity, are needed. Economic incentives derived from policies such as market price support do not help to induce these changes in crop patterns (Chapter 2) as price support mechanisms often target water-intensive crops (e.g. sugarcane, cotton). Shifting to varieties with shorter crop cycles can also play an important role in reducing the demand for water (Thomas, 2019[77]).

The government has also used regulatory measures to accelerate the transition to less water-intensive crops, including zoning regulations for water intensive crops (e.g. rice, sugarcane, banana) and has prohibited the export of certain crops (e.g. rice). Regulatory policies could also prove useful in reducing the amount of counterfeit pesticide (which could have water quality co-benefits), as well as stricter enforcement of regulations in place regarding urban settlements in prime agricultural land, which aggravate the already high land constraint. Closing existing implementation gaps on pesticides regulations and further disseminating best practices on pesticide application, such as current initiatives of training pesticide applicators, could result in improved food safety outcomes as well as improved market access for exports.

…but also knowledge, awareness and trust…

A key challenge lies in the effective implementation of such policies, in particular by making farmers and other decision makers understand the need for their co-operation as critical partners to efficiently manage scarce water and soil resources. Improving the knowledge of actors and strengthening institutions are important. A key reason for the overapplication of fertiliser is the lack of knowledge farmers have about the optimal application of fertiliser in their situation. Another challenge relates to Egypt's extension system, where there is siloed knowledge on water in MWRI whereas knowledge on agronomic practices is concentrated in MALR (Eldabbagh and Brouziyne, 2024[75]). This fragmentation is likely to reduce the efficiency of extension services. In addition to knowledge constraints, appropriate funding and training of WUAs and other water user organisations (e.g. BCWUAs) is another important factor that can contribute to efficient use of the allocated water by WUAs and its members. Ensuring that they receive appropriate training on aspects that can improve system efficiencies (e.g. water-saving practices, how to optimise system maintenance) and on the role of each of the actors in the water management systems could also play an important role. It will be important to further strengthen and empower the different types of WUAs, ensuring they have the adequate capacity and funding to carry out their operations. A better integration of extension services from different ministries such as MALR and MWRI could also contribute to create trust and strengthen the role of farmers and their associations to contribute to reduce water demand.

…and exploring better alignment of economic instruments and policy goals

A fundamental challenge in Egypt, however, is that there is a need to further align economic incentives with objectives to save water and improve water quality in the country. As noted in the OECD 2016 Council Recommendation on water, economic instruments are an important tool of a water policy package and water policies are most effective when they are used in combination with other instruments (e.g. regulatory, voluntary) (OECD, 2016[79]). Further water demand measures should be prioritised, as supply augmentation will only shift the challenges to a later date. On water quality, Egypt has been shifting towards economic incentives (OECD, 2024[4]). This is the case in industrial waste discharge where the government is reinforcing the polluter pays principle by increasing penalties for factories whose waste discharge pollutes waterways (OECD, 2024[4]). However, in agriculture, there are at least two instances where economic incentives could be better aligned in order to promote behavioural changes: fertilisers subsidies and water charges.

Implementing performance-based incentives for water savings at the WUA level could help progress towards sustainable agricultural water management. Incentives should be tied to verified reductions in total water withdrawals, rather than reductions per hectare, to avoid the rebound effect where efficiency gains lead to expanded irrigated areas. WUAs achieving water savings targets could receive financial or in-kind rewards, which can be reinvested in infrastructure maintenance, capacity building, or further efficiency improvements. Verification should combine remote sensing, flow measurements, and periodic field inspections, ensuring transparency, accountability, and collective responsibility for sustainable water management.

Reducing fertiliser subsidies that encourage overapplication of nitrogen is imperative…

The current fertiliser subsidy promotes excessive use of nitrogen fertiliser which leads to large nitrogen surpluses, as well as reduced use of other fertilisers (e.g. phosphate). Gradually phasing out the subsidy, while promoting site-specific fertilisation strategies could deliver a triple win. It could make farming more profitable, generate much-needed public expenditure savings which could be partially re-invested in other areas, and could contribute to improved water quality.

…and creating incentives at farm- and WUA-level to reduce water consumption

Investing in individual volumetric counters of water consumption and exploring ways for making visible the cost of water or pricing water would be an efficient way to align economic incentives with conservation goals. In the current system in Egypt farmers pay for the cost of pumping water and only part of the costs of irrigation infrastructure. The price paid by the farmer in the old lands is not related to the quantity of water used, other than pumping costs as there is no volumetric pricing, abstraction fees, nor formal permits. However, in the Egyptian context, this could be challenging for several reasons (Thomas, 2019[77]). First, water prices that would allow for full cost-recovery may not be affordable nor acceptable by farmers. Second, volumetric pricing may not be appropriate when part of the return flows is recoverable. The administrative and technical challenge of metering water consumption is also seen as a significant constraint to implement water pricing in Egypt (Antipolis, 2011[80]).

A transitional option could be to first define and implement a quota or permit-based system in which quantities could partially be determined by the value of the crops cultivated, such that more water is provided for higher value-added crops (Thomas, 2019[77]). Once the system, including metering, is in place, quotas could be allocated to farmers or WUAs that could be rewarded for water savings, rather than imposing an additional cost. Only those who consume water beyond their quota would have to pay a charge. Similar schemes exist, for example, in Australia, where the government bought water entitlements from willing sellers as part of the Water Efficiency Programme and the Strategic Water Purchasing programme. WUAs or farmers could be paid for water allocations that they decide not to use because they

switch to less water-intensive practices or undertake technological improvements. Funding for such a scheme would require additional resources, but in the event of a fertiliser subsidy reform, a share of the savings could be reserved for such a programme.

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Notes

[1] This is four times the OECD median rate (OECD, 2025[48]).

[2] "Virtual water" refers to the water used in the production of an agricultural or industrial product. A water-scarce country such as Egypt may use virtual water trade to reduce the pressures on its water resources by importing water-intensive products, and exporting products that require less water (Hoekstra and Hung, 2002[81]).

[3] Large-scale tertiary treatment plants for agricultural drainage water have been established, including the Bahr El-Baqar plant, with a capacity of 5.6 million m³/day; the El-Hamam plant, with a capacity of 7.5 million m³/day; and the Al-Mahsamma plant, with a capacity of 1 million m³/day.

[4] Equivalent to USD 2.4 billion based on the average exchange rate in June 2017.

OECD Agriculture and Food Policy Reviews

Policies for the Future of Farming and Food in Egypt

Agriculture is a strategic sector for the Egyptian economy and is central to the government's structural reform agenda. Ongoing efforts aim to strengthen food security and resilience against trade-related shocks. However, productivity has not kept pace with population growth in recent years, and Egypt faces significant environmental challenges, including water scarcity, salinity, and soil and water pollution related to nutrient imbalances.

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