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Report No: PAD5035

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

PROJECT APPRAISAL DOCUMENT
ON A
PROPOSED LOAN

IN THE AMOUNT OF US$ 500 MILLION

TO THE

ARAB REPUBLIC OF EGYPT

FOR AN

EMERGENCY FOOD SECURITY AND RESILIENCE SUPPORT PROJECT

June 13, 2022

Agriculture And Food Global Practice
Middle East And North Africa Region

CURRENCY EQUIVALENTS

Exchange Rate Effective Apr 18, 2022

Currency Unit =	Egyptian Pound (EGP)
EGP 18.4 =	US$1
US$ =	SDR 1

FISCAL YEAR
January 1 - December 31

Regional Vice President:	Ferid Belhaj
Country Director:	Marina Wes
Regional Director:	Ayat Soliman
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ABBREVIATIONS AND ACRONYMS

ASA	Advisory Services and Analytics
ASC	Agriculture Service Clusters
CAOA	Central Agency for Organization and Administration
CAPMAS	Central Agency for Public Mobilization and Statistics
CBE	Central Bank of Egypt
CGIAR	Consultative Group of International Agricultural Research
CPF	Country Partnership Framework
CSA	Climate-smart Agriculture
CY	Calendar Year
E&S	Environment and Social
EBRD	European Bank for Reconstruction and Development
EFA	Economic and Financial Analysis
EGP	Egyptian Pound
EHCSS	Egyptian Holding Company for Silos and Storage
EIB	European Investment Bank
ELMPS	Egypt Labor Market Panel Survey
ERF	Economic Research Forum
ESCP	Environmental and Social Commitment Plan
ESF	Environmental and Social Framework
ESHS	Environmental, Social, Health and Safety
ESMP	Environment and Social Management Plan
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FIHC	Food Industries Holding Company
FM	Financial Management
FSS	Food Subsidy System
FY	Fiscal Year
GAFTA	Grain and Feed Trade Association
GASC	General Authority for Supply Commodities
GCSS	General Company for Silos and Storage
GDP	Gross Domestic Product
GHG	Green House Gases
GOE	Government of Egypt
GRID	Green, Resilient and Inclusive Development
GRM	Grievance Redress Mechanism
IBRD	International Bank for Reconstruction and Development
HIES	Household income and expenditure survey
IDA	International Development Association
IFAD	International Fund for Agricultural Development

IFPRI	International Food Policy Research Institute
IFR	Interim Financial Report
kg	kilograms
LC	Letter of Credit
M&E	Monitoring and Evaluation
MALR	Ministry of Agriculture and Land Reclamation
MARTRANS	Egyptian Company for Marine Transport
MENA	Middle East and North Africa
MOF	Ministry of Finance
MOIC	Ministry of International Cooperation
MOSIT	Ministry of Supply and Internal Trade
MOU	Memorandum of Understanding
Mt	Metric ton
NNC	National Navigation Company
OHS	Occupational Health and Safety
PCC	Project Coordination Council
PDO	Project Development Objective
PER	Public Expenditure Review
PMU	Project Management Unit
POM	Project Operations Manual
PPSD	Project Procurement Strategy for Development
SEP	Stakeholder Engagement Plan
shona	An open-air grain storage facility
STEP	Systematic Tracking of Exchanges in Procurement
TOR	Terms of Reference
US$	US dollar
USDA	United States Department of Agriculture
WBG	World Bank Group

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DATASHEET

BASIC INFORMATION

Country(ies)	Project Name
Egypt, Arab Republic of	Emergency Food Security and Resilience Support Project

Project ID	Financing Instrument	Environmental and Social Risk Classification	Process
P178926	Investment Project Financing	Substantial	Urgent Need or Capacity Constraints (FCC)

Financing & Implementation Modalities

[ ] Multiphase Programmatic Approach (MPA)	[ ] Contingent Emergency Response Component (CERC)
[ ] Series of Projects (SOP)	[ ] Fragile State(s)
[ ] Performance-Based Conditions (PBCs)	[ ] Small State(s)
[ ] Financial Intermediaries (FI)	[ ] Fragile within a non-fragile Country
[ ] Project-Based Guarantee	[ ] Conflict
[ ] Deferred Drawdown	[✓] Responding to Natural or Man-made Disaster
[ ] Alternate Procurement Arrangements (APA)	[ ] Hands-on Enhanced Implementation Support (HEIS)

Expected Approval Date	Expected Closing Date
28-Jun-2022	15-Jun-2026

Bank/IFC Collaboration

No

Proposed Development Objective(s)

The project development objective is to ensure the short-term supply of wheat for uninterrupted access to bread for poor and vulnerable households and to strengthen Egypt's resilience to food crises.

Components

Component Name	Cost (US$, millions)
Component 1. Emergency Response Measures	380.00
Component 2. Strengthening Preparedness and Response to Shocks	117.50
Component 3. Project Management and Knowledge Management	2.50

Organizations

Borrower:	Ministry of International Cooperation
Implementing Agency:	Ministry of Supply and Internal Trade

PROJECT FINANCING DATA (US$, Millions)

SUMMARY

Total Project Cost	500.00
Total Financing	500.00
of which IBRD/IDA	500.00
Financing Gap	0.00

DETAILS

World Bank Group Financing

International Bank for Reconstruction and Development (IBRD)	500.00

Expected Disbursements (in US$, Millions)

WB Fiscal Year	2022	2023	2024	2025	2026
Annual	0.00	380.00	40.00	40.00	40.00
Cumulative	0.00	380.00	420.00	460.00	500.00

INSTITUTIONAL DATA

Practice Area (Lead)

Agriculture and Food

Contributing Practice Areas

Climate Change and Disaster Screening

This operation has been screened for short and long-term climate change and disaster risks

SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

Risk Category	Rating
1. Political and Governance	Moderate
2. Macroeconomic	Substantial
3. Sector Strategies and Policies	Moderate
4. Technical Design of Project or Program	Moderate
5. Institutional Capacity for Implementation and Sustainability	Substantial
6. Fiduciary	High
7. Environment and Social	Substantial
8. Stakeholders	Moderate
9. Other	Low
10. Overall	Substantial

COMPLIANCE

Policy

Does the project depart from the CPF in content or in other significant respects?

[ ] Yes [✓] No

Does the project require any waivers of Bank policies?

[ ] Yes [✓] No

Environmental and Social Standards Relevance Given its Context at the Time of Appraisal

E & S Standards	Relevance
Assessment and Management of Environmental and Social Risks and Impacts	Relevant
Stakeholder Engagement and Information Disclosure	Relevant
Labor and Working Conditions	Relevant
Resource Efficiency and Pollution Prevention and Management	Relevant
Community Health and Safety	Relevant
Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	Relevant
Biodiversity Conservation and Sustainable Management of Living Natural Resources	Relevant
Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	Not Currently Relevant
Cultural Heritage	Not Currently Relevant
Financial Intermediaries	Not Currently Relevant

NOTE: For further information regarding the World Bank's due diligence assessment of the Project's potential environmental and social risks and impacts, please refer to the Project's Appraisal Environmental and Social Review Summary (ESRS).

Legal Covenants

Sections and Description
Section I.A. 1(b) of Schedule 2. "the Borrower shall, through the Minister of Supply and Internal Trade: (i) no later than two (2) months after the Effective Date, establish and thereafter maintain throughout Project Implementation, a Project Management Unit"

Sections and Description
Section I.A. 1(c) of Schedule 2. "The Borrower shall, through MOSIT via the Project Management Unit, no later than three (3) months after the Effective Date, or any later date agreed upon with the Bank, establish and thereafter maintain an advisory Project Coordination Council"

Sections and Description
Section I.C. 1. of Schedule 2. "No later than two (2) months after the Effective Date or any later date agreed upon with the Bank, the Borrower shall, through the Project Management Unit once established, prepare and adopt, in

accordance with terms of reference acceptable to the Bank, a Project Operations Manual"

Conditions

Type	Financing source	Description
Effectiveness	IBRD/IDA	Article 5.02. The Additional Condition of Effectiveness is that the Subsidiary Loan Agreements have been entered into between the Borrower and the Project Implementing Entities.

I. STRATEGIC CONTEXT

A. Country Context

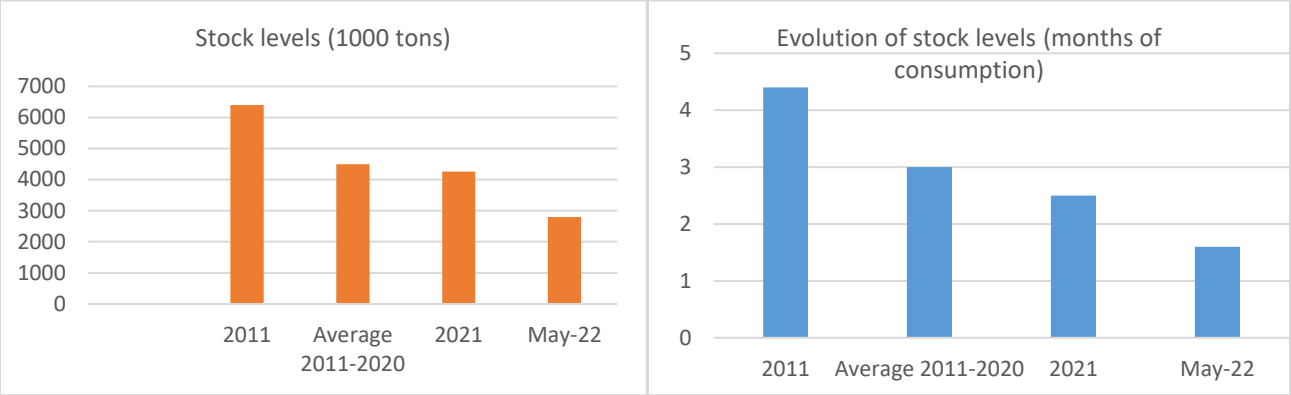
1. **The sudden halt in exports of grains from Ukraine and the export shortfall from the Russian Federation and the Black Sea region due to the ongoing war in Ukraine have had drastic impacts on global food and nutrition security, particularly for net-food importers like many countries in the Middle East and North Africa (MENA).** The war has resulted in unprecedented disruptions of exports of grains and edible oils from Ukraine and the Russian Federation, impacts on shipping logistics beyond the Black Sea region, food price hikes and risks to the next agricultural planting season due to high fertilizer and fuel prices.

2. **As of May 2022, the scale of current export restrictions has surpassed that of the 2007/08 food crisis with severe impacts across the MENA Region.** Prior to the war, grain and fertilizer markets were already tight. As of May 23, 2022, global wheat prices were 57 percent higher than in February 2022 and 93 percent higher compared to January 2021. Global buffer stocks are down for a second year in a row and at their lowest level in six years, indicating that markets are likely to remain volatile and tight into 2023. The United States Department of Agriculture (USDA) issued its first world estimates for the 2022-23 crop season in early May, forecasting a fall in global wheat production for the first time in four years, a forecast which increased wheat prices further. The impacts will continue to unfold as both exporters and importers are adjusting to lower global supply, and with signals that some exporters may slow down or limit exports as the crisis unfolds. In the short term, the most vulnerable countries are those with concentrated shares of imports of key food commodities from Ukraine, the Russian Federation, or both, and where the share of wheat in daily calories is high.

3. **Egypt is among the countries most vulnerable to the economic impacts of the war in Ukraine globally[1]. The suspension of grain exports from the Black Sea region has delivered a major supply and food import bill shock, leading to drastic reductions in wheat reserves.** Egypt imports approximately 12 million metric tons of wheat annually, which accounts for nearly 62 percent of total wheat use in the country[2]. Up to 66 percent and 25 percent of these imports are from the Russian Federation and from Ukraine[3] respectively. Wheat prices averaged US$ 284 per metric ton during the first quarter of 2021 and reached US$ 486 per metric ton in March 2022[4]. In December 2021, the Government of Egypt (GOE) indicated that the country had stocks of around 5.7 months of wheat consumption in silos.[5] By mid-April 2022, strategic wheat reserves were down to 2.6 months of domestic consumption[6], reflecting difficulties in securing imports from global markets since March 2022. Egypt suspended its tendering from international markets in March 2022 following two unsuccessful tenders due to high prices and low response.

[1] WTO, The Crisis in Ukraine: Implications for Trade and Global Development, April 2022
[2] https://www.ifpri.org/blog/russia-ukraine-crisis-poses-serious-food-security-threat-egypt
[3] ITC Trade Map
[4] World Bank. Commodity Prices data, May 2022
[5] https://www.reuters.com/article/egypt-commodities-idUSKBN2J00XE
[6] https://www.reuters.com/world/middle-east/egypt-has-strategic-wheat-reserves-sufficient-2.6-months-spokesperson-2022-04-04/

Figure 1 – Evolution of wheat stock levels, in tons and months of consumption-equivalent[7]

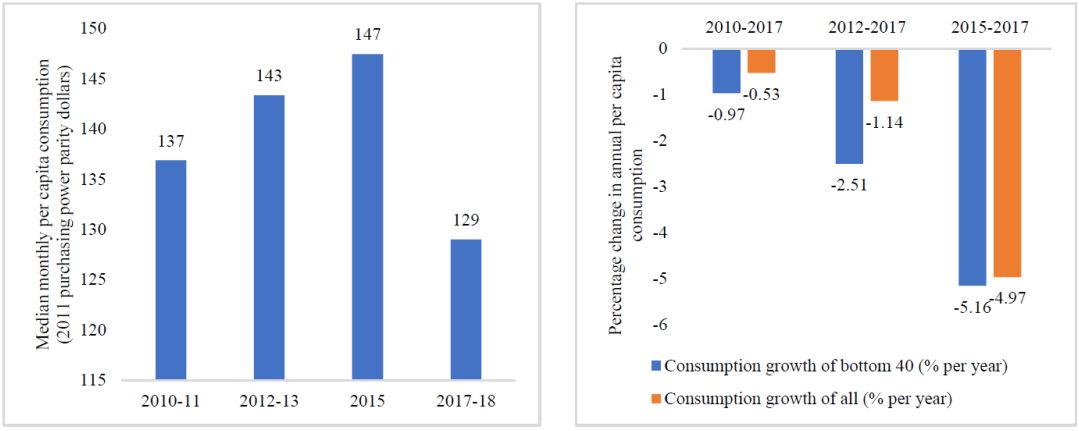


4. **Domestic wheat purchases – even if increased as planned during the upcoming harvest – will not compensate for the significant decline in imports from the Russian Federation and Ukraine.** While Egypt projects increasing domestic wheat purchase from an annual average of 4.5 million metric tons[8] to up to 6 million metric tons[9] during the ongoing harvest (April to June 2022) by offering higher prices to farmers, this increase will not however compensate for the significant decline in imports from the Russian Federation and Ukraine described above. Furthermore, the production of bread requires locally produced wheat to be mixed with matching quantities of imported wheat to address quality issues. Continued imports will therefore be needed for the rest of the year in view of low stock levels[10].

5. **Bread is central to Egyptian diets, in particular for the 31 million poor living below the poverty line and the 39 million additional poor living below the $5.50 (2011 PPP) per capita per day, with limited substitution opportunities**. The share of wheat-products in total consumption is 41 percent higher in the poorest decile than in the richest one. The poverty rate is also highly sensitive to changes in the cost of the basic consumption basket (World Bank Poverty Brief, February 2022). Prior to the pandemic, median per capita consumption fell markedly between 2015 and 2017 due to inflation (Figures 2a and 2b). The current price hikes come in the context of already high food price inflation and increasing poverty and vulnerability due to the impact of the COVID-19 pandemic. Two years into the pandemic, evidence from rapid surveys suggests that 55 percent of main income earners who maintained their jobs through the pandemic reported a decline in family income—most notably among the poor, self-employed and informal workers. The well documented disparities across Egypt's regions are still present today with spatial disparities marked especially between rural and urban areas. The poor are concentrated in Upper Egypt, which is home to about 40 percent of the population but about 50 percent of the poor population[11].

[7] Source: USDA, GASC and team calculations
[8] Representing approximately 3 months of consumption
[9] Representing approximately 3.4 months of consumption
[10] Bread making requires mixing locally produced wheat with up to 75 percent imported wheat to address quality issues with locally produced wheat
[11] Egypt Systematic Country Diagnostic Update, October 2021. Unlocking Egypt's potential for poverty reduction and inclusive growth, World Bank Group

Figure 2a and 2b: Median consumption (2010-2017) and Consumption growth and shared prosperity (2010-2017)[12]



6. **Rising food and fuel prices are resulting in inflationary pressures with direct impacts on the 31 million people living below the national poverty line.** The impact of the war in Ukraine on food security has materialized in the form of increased costs of bread, other imported grain, fuel and fertilizers (affecting domestic agricultural production). Domestic prices were gradually rising, and inflation spiked to 8.8 percent in February 2022 and 10.5 percent in March 2022 (well above its 6 percent average since the beginning of fiscal year 2021/2022), reflecting early repercussions of the war in Ukraine.[13] The recent increase in inflation poses further pressures on real incomes which were already adversely affected by the income losses reported during the COVID-19 pandemic, notably among women and informal workers.[14]

7. **In response, the GOE has announced macro-economic reforms and policy measures to bolster the social protection system to protect the poor and vulnerable.** On March 21, 2022, the Central Bank of Egypt (CBE) allowed greater flexibility in the exchange rate to stem the widening net exports deficit and policy rates were raised by 100 basis points to help curb inflation. This led to an immediate depreciation vis-à-vis the US dollar by around 16 percent. Simultaneously, the government announced a social mitigation package worth EGP 130 billion (1.6 percent of FY2022/23 GDP) to partially alleviate the impact of the associated rise in prices. This package included bringing forward planned increases in public sector wages and pensions, tax measures and adding (in April 2022) 450,000 new households to the cash transfer programs (Takaful and Karama). In May the Central Bank of Egypt announced a further 200 basis point increase in the policy rate.

8. **The Government also introduced further reforms to the Food Subsidy System (Box 1) as well as significant investments in food storage infrastructure to address supply chains disruptions and improve the efficiency of the wheat value chain on the supply side,** including: (a) modernizing wheat storage facilities (through upgrade and expansion of silos, upgrade of wheat storage management and information system) and (b) improving the targeting of the ration card by introducing new exclusion criteria based on thresholds related to income, taxes, social insurance, private school fees, mobile bill, electricity consumption along with other factors. In doing so, the GOE measures supported the promotion of better targeting and efficiency of the program and contributed to building the resilience of households against shocks, whilst promoting food security.

[12] Egypt Systematic Country Diagnostic Update, October 2021, World Bank Group
[13] "Financial Sector Development and Stability Policy Loan". World Bank Group. 2022
[14] World Bank, Egypt Economic Monitor, 2021

B. Sectoral and Institutional Context

9. **Egypt ranks 62nd out of 113 countries worldwide on the Global Food Security Index with food insecurity a longstanding development challenge.** There are several factors that affect food security in Egypt, namely (i) high reliance on grain imports; (ii) food accessibility and affordability for low-income households; (iii) climate change and its direct implications on the food supply chain and agricultural productivity; and (iv) high levels of food loss and waste. The proposed operation addresses these challenges by increasing grain availability in the short term, reducing losses, and building productive capacity and resilience of small-scale farmers.

10. **A significant number of households reduced their food consumption during the COVID-19 pandemic** threatening gains in poverty reduction and health, which could have lasting impacts on nutrition and cognitive development of young children. During the pandemic, most working individuals (73.5 percent) reported that they suffered from income shocks/reduction according to a survey in April-May 2020 by the Central Agency for Public Mobilization and Statistics (CAPMAS) as part of the Household Expenditure Income and Consumption Survey (HIECS). Households used negative coping strategies such as adjusting food consumption and shifting to cheaper foods (92.5 percent); reducing weekly consumption of meat, poultry, and fish (89.8 percent); relying on friends and relatives (50.1 percent); reducing the quantity of food in each meal (36 percent); and reducing the frequency of meals in a day (19.8). A larger share of rural than urban households reported using these harmful coping strategies[15]. Nutrition indicators point to high levels of child stunting (21.6 percent on average) and wasting (8.5 percent on average), with incidence even higher for the poor (25.8 percent stunting and 10.1 percent wasting)[16] and to the need for improved diets in particular for the poor and vulnerable segments of the population.

Box 1: The Food Subsidy System (FSS)

The Food Subsidy System in Egypt consists of three main components:

- **The Ration Card System – covers 64 million people**: Beneficiaries are eligible to receive a monthly cash allowance, that they can spend on a basket of predetermined goods.
- **The Bread Subsidy Program – currently reaches 72 million people**: Each individual is entitled to 5 loafs per day at the subsidized price of 5 piasters, as opposed to its cost which ranges from 60-65 piasters per loaf, while the government compensates bakeries for the difference between the selling price and production cost. There is also a point-based-incentive system which converts each loaf of bread saved from the beneficiaries' daily consumption to points equivalent to money.
- **The Flour Warehouse Subsidy**: Some beneficiaries can choose not to buy subsidized loafs of bread and instead receive a monthly flour subsidy of 10 kg of flour per citizen

Source: Public Expenditure Review for the Human Development Sectors. 2022, World Bank Group

11. **The Food Subsidy System (FSS) remains the largest social assistance program across Egypt.** Food subsidies have long been the bedrock of the Egyptian social safety net. Over the decades, the bread subsidy system – which currently reaches 72 million Egyptians - went through several transformations, resulting in the current set up of subsidized bread and ration cards to provide affordable access to food (Box 1 and Table 1). A total of EGP 84.5 billion has been allocated to subsidies for food and bread in the fiscal year (FY) 2020/21 budget. This comes alongside EGP 36.5 billion to support ration card goods for the 64 million beneficiaries, covering EGP 50 per month

[15] CAPMAS. (2020). The effect of COVID on Egyptian Households (May 2020).
[16] Egypt Systematic Country Diagnostic Update, October 2021, World Bank Group

for each of the four individuals registered on the card, and EGP 25 per person per month if more than four individuals are registered on the card.[17]

Table 1 – Poverty and vulnerability in Egypt (HIES, 2017)

	Number of poor	Rate	Universal coverage by the Bread Subsidy program
National Poverty Line	31 million	32.5%	Yes
US$5.50 (2011 PPP) per capita per day poverty line[18]	70 million	72.6%	Yes
Middle class and wealthier households	26 million	27.4%	No
Upper Egypt – Population under the national poverty line	19 million	50.0%	Yes

12. **GOE has been strongly committed to reforming the Food Subsidy System to increase its efficiency and targeting.** In 2014, the GOE (i) replaced the subsidized commodity quotas with a point-based system reflecting monthly cash allotments which allows beneficiaries to buy any commodity within the money allowance; and (ii) limited the number of bread loaves purchased. The targeting of the Bread Subsidy Program has been improved through a smart card registration system, ending the era of the universal bread subsidy introduced during World War II. This change also marked a step toward merging the traditionally separate Bread Subsidy Program and the ration card program. More recently in 2019, efforts were undertaken to reduce leakage to richer households through adjustments to eligibility criteria and cleaning of the beneficiary database, using the Unified National Registry.

13. **The Bread Subsidy Program is one of the main components of the FSS, benefiting over 96 percent of the poor in Egypt[19] and costing about US$3 billion per year in wheat imports. The program requires about 9 million tons of wheat annually — close to half of the total wheat consumption in Egypt.** The value of the Baladi bread (Egypt's staple local bread) component of the FSS represents 0.8 percent of GDP. Wheat is a key input to the Bread Subsidy Program, which requires about 9 million tons of wheat annually with over half coming from imports. Supply-side disruptions and price shocks such as those caused by the war in Ukraine, have therefore had a significant impact on food security of poor and vulnerable households. The GOE has been spending about US$ 3 billion annually for wheat imports for the Bread Subsidy Program. The current supply chain disruptions and resulting price increase could nearly double that amount to US$ 5.7 billion potentially disrupting Egypt's Bread Subsidy Program.[20]

[17] The share of the population receiving ration cards and bread subsidies has declined from 88 percent and 74 percent of households in the top two deciles in 2017/2018 as government's efforts to improve the targeting of the program have been strengthened since 2019

[18] Indicates the number and percentage of people considered vulnerable to falling into poverty

[19] Evaluations of the Bread Subsidy Program through systematic surveys confirm that 96 percent of eligible beneficiaries under the program actually do benefit from the program (Public Expenditure Review for the Human Development Sectors, 2022, World Bank)

[20] Public Expenditure Review for the Human Development Sectors. 2022. World Bank Group.

Box 2: Key figures for the wheat value chain in Egypt

Total annual demand: 20-21 million metric tons
Imports: 12 million metric tons (both government and private sector)
Domestic production: 8-9 million metric tons annually
Total average historic cost of import bill = US$3 billion

Bread Subsidy program use: on average 9-9.5 million metric tons, of which:
Domestic wheat= 3.5-4.5 million metric tons
Imports= 4.5-5.5 million metric tons
Proposed project purchase – 700,000 tons (approx. 8% of total)

14. **Egypt's strategic wheat reserves in mid-April 2022 were sufficient for 2.6 months only, thus posing a significant risk for a country highly dependent on imports for its food security and facing major market disruptions**. The strategic wheat reserves managed by Government are used for the implementation of the Bread Subsidy Program, with immediate implications for the food security of the most vulnerable if supplies were to be interrupted. As of mid-May 2022, the strategic reserves have been further drawn down and both domestic purchases and new imports are urgently needed to meet the needs of the subsidized bread program for the rest of the year.

15. **To minimize Egypt's dependency on wheat imports in the medium term, and in line with Egypt's Food Security Strategy, embedded in Egypt's 2030 Vision, several priority actions will contribute directly to sustainably increasing the efficiency of the wheat value chain in country.** These include are: (i) reduction of losses, currently reaching up to 20 percent of total grain storage through improved silo infrastructure to facilitate market access for local producers and reduce post-harvest losses; (ii) promoting climate-resilient agri-food value chains and ensuring that the agri-food sector further contributes to job creation; (iii) continued investment in early warning systems and mitigation measures; and (iv) continued strengthening of social protection programs.

16. **The proposed operation supports Egypt by mobilizing immediate short-term relief to address supply and price shocks while simultaneously bolstering Egypt's longer term food security strategy and improved nutrition strategy for the poor and vulnerable.** This is done in close coordination with a wide range of other partners, providing both financial support, investments and technical assistance. Bank support would be part of a coordinated donor response to address financing needs in the range of US$1.6 billion based on the information available from partners, covering grain import needs for the year 2022, support to improved storage and support for more efficient and resilient domestic production (see paragraph 67).

Reducing Losses and Enhancing Production Efficiency through Modern, Strategic Storage

17. **Efficient storage facilities such as modern silos play a key role in reduction of losses and are critical to replacing the open-air storage facilities (shona) currently used across Egypt[21].** When well-managed, modern and high-technology silos are key elements of resilience in the grain value chain, in terms of post-harvest processing– sorting, cleaning, storing, maintenance – and the overall quality control of grain (by dedicated on-site labs) against pest infestation and disease, hence significantly reducing losses (estimated at 10-20%) and safeguarding human health. As such, silos are much more than just storage infrastructure and provide a range of services to both producers and consumers.

[21] Open air storage facilities (*shona*) do not provide protection from birds, rodents, weather changes, and insect infestation. Extreme temperatures and increases in atmospheric humidity due to climate change increase the risk of insect infestation, a source of wheat loss and health risks. Safe wheat storage is considered a measure to adapt to climate change and contributes to food security

18. **Upgrading of silo technology and performance in strategic locations within the grain value chain is key to hedge against supply shocks**. The geographic distribution of silos in a country is important from this perspective as shocks may differentially impact some parts of the country vis-à-vis others. In recent years, the National Project of Silos – the Government's program, undertook to expand the silo storage capacity in Upper Egypt, where the largest share of the poor and vulnerable population lives.[22] Silos can be an important financial instrument for agricultural risk management (in many countries storage facilities are linked to financial institutions through warehouse receipts and other financial instruments). Improved technology enhances the ability for all sizes of producers to participate in the value chain, stimulating improvements in productivity and linkages to market for smaller producers. Investment in modern storage facilities with state-of-the-art temperature and disease control functions, would reduce or eliminate potential impacts of climate change on grain storage, and reduce losses and therefore GHG emissions.

19. **To address gaps and inefficiencies in Egypt's overall grain storage infrastructure and services, the National Project of Silos was established in 2015.** The Egyptian Holding Company for Silos and Storage (EHCSS) – the state-owned operator of silos - operates 44 silos with capacity ranging from 10,000 to 60,000 tons, with a total of 3.3 million tons[23], equivalent to 1.8 months of consumption. There are also smaller publicly owned and private operators, who operate under 1 million tons of storage. Annex 2 includes a detailed description of the wheat value chain.

Strengthening the resilience of the agri-food sector for climate-smart food security

20. **In the medium-term strengthening Egypt's preparedness and resilience to shocks also lies in building the resilience of the agri-food sector**. This will both contribute to productivity gains, as well as poverty reduction and increased employment, as the agri-food sector is a major component of the Egyptian economy with agriculture alone contributing to 11.5 percent of the country's GDP, and accounting for 28 percent of all jobs and over 55 percent of employment in lagging regions, such as Upper Egypt[24]. Moreover, the agriculture sector is the largest employer of women in Egypt, with almost 45 percent of women in the total workforce employed in the sector. Women employed in the sector, however, face a number of barriers in terms of asset ownership rights, access to information and participation in decision-making (Box 3).[25]

21. **The effects of climate change on the Egyptian agri-food sector are significant**. Climate change exacerbates the impacts of economic shocks, including the current crisis. Data from the partial equilibrium Agricultural Sector Model of Egypt and climate change data from Egypt's second national communication to the Intergovernmental Panel on Climate Change (IPCC), show that climate change will cause a 6 percent reduction in agri-food production and a 19 percent increase in prices by 2050.[26] This was supported by a recent study by IFPRI[27] which projected a 10 percent decline in food crop yields in Egypt and 19-23 percent increases in prices by 2050. Enhancing the adaptation of smallholder farmers to the impacts of climate change is therefore a priority. For

[22] Description of the National Project of Silos at www.sis.gov.eg
[23] https://www.ehcss.com/en/about-company/
[24] https://www.usaid.gov/egypt/agriculture-and-food-security#:~:text=Agriculture%20is%20a%20major%20component,Upper%20Egypt%20is%20agriculture%2Drelated.
[25] These figures might not be capturing the full picture and the informal contributions of women in agriculture-related activities inside and outside the households
[26] McCarl, Bruce A., et al. "Climate change vulnerability and adaptation strategies in Egypt's agricultural sector." *Mitigation and adaptation strategies for global change* 20.7 (2015): 1097-1109.
[27] Perez, Nicostrato D.; Kassim, Yumna; Ringler, Claudia; Thomas, Timothy S.; and ElDidi, Hagar. 2021. Climate change and Egypt's agriculture. MENA Policy Note 17. Washington, DC: International Food Policy Research Institute (IFPRI). https://doi.org/10.2499/p15738coll2.134318

example, the Delta area could potentially lose 30 percent of its food production by 2030 if the adverse impacts of climate change on the area remain unaddressed.[28]

Box. 3. Gender Gap Assessment for Agriculture

In rural areas, 54 percent of women are employed in the agricultural sector, forestry, logging, or fishing. While 70 percent of women farmers and agricultural workers do not earn wages for work, they represent 23 percent of total workers in the agricultural sector, mostly in the informal sector, and account for 60 percent of local food production and marketing. More than 50 percent of rural women, who make up an estimated 27.8 percent of the total population in Egypt, are actively involved in informal tasks such as fertilization, weeding, harvesting, sacking, marketing, and storage of agriculture products. Some also undertake ploughing and irrigation. Women also carry out all domestic tasks, including water and fuel collection, and food processing and preparation. Women manage about 38 percent of the total Egyptian share of water from the Nile River; this percentage includes women who share irrigation activities with men.

Women face specific barriers pertaining to land ownership, extension services, and decision-making relating to natural resources (decision-making over crop variety and expenditure of agriculture income significantly varies in different areas of Egypt based on context, types of crops. Egypt's average rate of women's land ownership is 2 percent, below the regional average of 5 percent. Regarding decision-making, research has shown that women in the Old Lands were more involved in joint decision-making about crop variety than women in the New Lands.

Longstanding efforts have been made to improve gender equality and social inclusion in laws and policies in Egypt. The National Council for Women has been established since 2000 to promote equality and reduce discrimination, its chair is appointed by the President. Efforts have also been made to improve women's participation and benefit sharing. The National Strategy for the Empowerment of Egyptian Women 2030 also emphasizes the importance of supporting women in adapting to climate change and mitigating environmental risks that may have adverse social and economic impacts on livelihoods, with a stronger focus on the rural population living in Upper Egypt, the poorest, the heads of households, and the elderly and disabled.

Source: World Bank staff and "FAO. 2021. Country gender assessment of the agriculture and rural sector – Egypt. Country Gender Assessment Series. Rome.

22. **The pace of job growth in the agri-food system is likely to be highly dependent on farm-level productivity growth.** This warrants a continued strong focus on agri-food system's productivity as a key pathway to job creation and poverty reduction in Egypt. According to the World Bank Poverty Assessment for Egypt[29] there is a direct correlation between primary production and poverty pockets, with the share of agricultural workers high in both high-poverty governorates of Upper Egypt and moderate-poverty governorates of Lower Egypt. This pattern suggests that increasing the sector's efficiency and value addition is likely to contribute to decreased poverty levels. Furthermore, with the percentage of the population living in rural areas in Egypt exceeding 57 percent, agri-food sector development can have a direct effect on rural livelihoods and resilience, and consequently inclusive economic growth.

23. **To contribute to increased farm-level productivity growth and resilience, investments in modernized extension services are key.** According to Egypt's Sustainable Agriculture Development Strategy 2030, efficient agricultural extension plays an effective role in transferring knowledge and technology to small holders, narrowing

[28] Concept Note: *Enhancing the Agricultural Production for Adaptation to Climate Change Throughout Tolerant and Short-duration Crop Varieties*" Ministry of Agriculture and Land Reclamation. 2022

[29] World Bank. 2019. Understanding Poverty and Inequality in Egypt. World Bank, Washington, DC. © World Bank. https://openknowledge.worldbank.org/handle/10986/32812 License: CC BY 3.0 IGO

the yield gap, increasing productivity, and raising the efficiency of natural resources. Moreover, upscaling the existing agrometeorological early warning system and availing timely information is crucial for preparedness to climate shocks and to mitigate the risks of climate-related events.

24. **While Egypt has high levels of land and labor productivity in agriculture compared with regional and global averages, the growth of yields of major crops in Egypt have declined**. Decline in growth suggests that in addition to insufficient agricultural research and extension services, the fragile agricultural resource base is under pressure– including water and land resources, from both climate change and increased population growth. The project would support the development of resilient and adapted crop varieties and increasing the dissemination, technology transfer and adoption of climate smart agricultural practices, through increased extension service provision.

25. **The proposed operation will support important areas of reform of food and agriculture policies.** Support under the project will focus on: (a) continuing reforms of the food and bread subsidy system to address current weaknesses and to support the transition towards enhanced targeting and more sustainable social protection programs, (b) improved management of grain storage to reduce losses and an assessment of other commodity price hedging instruments, (c) increasing consistency between food and agricultural policies, including with regards to instruments to improve nutritional outcomes for the poor through promoting balanced diets, and (d) cross-border collaboration around regional risk management tools for strategic agricultural commodities.

26. **An improved nutrition strategy for the poor and vulnerable is a key element of the forward look.** Nutrition indicators point to high levels of child stunting (21.6 percent on average) and wasting (8.5 percent on average), with incidence even higher for the poor (25.8 percent stunting and 10.1 percent wasting)[30] and to the need for improved diets in particular for the poor and vulnerable segments of the population. A key element of the broader food system reform will therefore need to explore access to safe and diversified nutrition for all and shifting to sustainable and healthy consumption patterns through a combination of supply and demand side measures focused on the most affected populations, children and women of childbearing age.

C. Relevance to Higher Level Objectives

27. **The proposed project is consistent with the "World Bank Group (WBG) Response to the Global Impacts of the war in Ukraine: A proposed Roadmap".** The response includes support to finance grain imports when certain conditions are met but also increase grain storage capacity and fostering regional cooperation to address disruptions in the food and fertilizer markets. Interventions will aim to ensure that the poor have access to food by scaling up social safety nets, providing support to food producers, and improving the resilience of smallholder farmers. The project design follows several filters and criteria – among others, to ensure that grain purchases remain temporary and below historical levels and do not lead to hoarding, that project support benefits the poor and vulnerable, and that the World Bank's response is closely coordinated with that of other development partners. The project design recognizes the exceptional nature of the current crisis and of its impact on Egypt with emergency measures aimed at protecting poor and vulnerable segments of the population against the fallout of the war in Ukraine. The filters are detailed below under Project Components section below.

28. **The project is aligned with Egypt's updated Sustainable Agriculture Development Strategy 2030 and responds to the food security and productive capacity related objectives in the National Structural Reforms Program**. Moreover, the project is aligned with the GOE's National Food System Dialogue, which outlines five action tracks, namely: (i) ensuring access to safe and nutritious food for all; (ii) shifting to sustainable and healthy

[30] Egypt Systematic Country Diagnostic Update, October 2021, World Bank Group

consumption patterns; (iii) boosting nature-positive food production at scale; (iv) advancing equitable livelihoods and value distribution; and (v) building resilience to vulnerabilities, shocks and stress.

29. **The Project will contribute towards the WBG twin goals of ending extreme poverty and boosting shared prosperity.** The Project addresses key issues related to agriculture productivity, scaling up good practices in agricultural production and improving livelihoods in rural areas as highlighted in the current and upcoming Country Partnership Framework (CPF FY 2022-2027). Support under Component 2.2 focusing on building resilience for grain value chain is aligned with the current CPF's objective of promoting climate-smart practices in agriculture. The forthcoming CPF FY 2023-2027, places considerable emphasis on building resilience and preparedness to shocks both at national level and at household level. In that context, the project balances short term emergency support measures with medium to long term resilience building activities, potentially minimizing the impact on poor and vulnerable populations of the compounded effects of the COVID-19 pandemic and the current food price shock caused by the war in Ukraine.

30. **Furthermore, the project is aligned with the WBG MENA Strategy.** The project reflects the priorities of the WBG MENA Enlarged Strategy, which focuses on harnessing human capital, leveraging digital technologies and Maximizing Finance for Development, in addition to the MENA Climate Roadmap (2021-2025). An improved strategic grain stock management strategy will contribute to improving resilience to climate shocks transmitted through the food system.

31. **The project is also aligned with the WBG Climate Change Action Plan 2021- 2025 and supporting the Green, Resilient, and Inclusive Development (GRID) agenda.** The project focuses on urgent wheat imports for the Bread Subsidy Program which targets the poor and vulnerable segments of the population thereby promoting inclusion. Investments in silos to reduce wheat loss and waste aim to enhance the resilience of agriculture and more broadly the agri-food system in the context of climate change and a growing population. Reducing losses and waste in the wheat value chain is also expected to contribute to GHG emission reductions. Moreover, investing in research, development and technology transfer in pursuit of climate-smart agriculture (CSA) practice adoption in the upstream segment of the value chain is also a direct contribution to a green, resilient and inclusive approach to development.

32. **The project supports the GOE's participation in the Agriculture Innovation Mission for Climate (AIM for Climate)**. Specifically, by: (i) supporting the agricultural research, development and innovation system, which would include for instance, the technology for short-duration, stress-bearing crop varieties; (ii) supporting the national scientific and research institutions to survey and identify the most vulnerable agro-ecological zones that require urgent adaptation measures; and (iii) scaling up the agrometeorological early warning system, to allow for enhanced weather forecasting. Those activities also directly support the GOE's Agriculture Initiative, which is set to be announced at COP27.

33. **The project contributes directly to two of the four pillars of the WBG Gender Strategy (FY16-23)**, including: (i) removing constraints for more and better jobs and (ii) enhancing women's voice and agency, through extension activities targeting women under Component 2. The project is also aligned with the pillars of Egypt's National Strategy for the Empowerment of Women 2030.

34. **The project leverages ongoing and planned WBG knowledge products and investments.** The project will increase support to lagging regions by complementing the World Bank-financed Upper Egypt Local Development Program (P157395), which is being implemented in overlapping Governorates (Qena, Assiut, Minya and Sohag) whilst capitalizing on the existing institutions and capacities built through the program. The project also builds on WBG advisory services and analytics (ASA), such as the Public Expenditure Review (PER) of the human development sectors, and the ongoing Agriculture and Food Systems Performance and Options for Competitiveness Enhancing

Policies ASA. The project allows for furthering existing dialogue on targeting of beneficiaries under the bread subsidy program using findings and recommendations of the PER of the human development sectors.

II. PROJECT DESCRIPTION

A. Project Development Objective

PDO Statement

35. The project development objective is to ensure the short-term supply of wheat for uninterrupted access to bread for poor and vulnerable households and to strengthen Egypt's resilience to food crises.

36. The project development objective recognizes that the project provides an exceptional response to the sudden and unprecedented market disruptions resulting from the war in Ukraine and the risks that they present for the food security of the poor. Emergency measures focus on uninterrupted access to bread, as it is currently the main source of caloric intake for the poor and vulnerable segments of the population and defined as the provision of wheat to the Bread Subsidy Program, which benefits the poor and vulnerable segments of the population (as defined by the eligibility criteria of the Bread Subsidy Program). The project development objective also recognizes that, beyond the short-term response, Egypt needs to strengthen its resilience to future food crises. Resilience will be measured through: (a) improved government capacity to manage strategic wheat stocks and to store wheat in climate and disaster-resilient storage facilities to reduce losses; (b) laying out the ground for reforms to the bread subsidy program to increase its efficiency and fiscal sustainability; (c) improved policies to foster nutritious and diversified diets for the poor, and (d) increased resilience of grain production to shocks.

PDO Level Indicators

37. The PDO-Level Results Indicators are the following:

a. Cumulative amount of wheat procured through the project for the Bread Subsidy Program to ensure continued access to affordable bread for the poor and vulnerable. This indicator measures the immediate impact of the project and ensures that the project interventions serve the purpose of replenishing wheat stocks to a minimum critical level for uninterrupted access to bread by poor and vulnerable households. This indicator contributes to the objective of accessibility of staple bread as a key dietary component with focus on poor and vulnerable households.

b. Existing storage for the Bread Subsidy Program that has been made more efficient. This will be measured as the improved and more efficient storage facilities upgraded and modernized through project interventions. This indicator contributes to the medium- to long-term resilience aspect of the PDO and measures the country's resilience to food crises.

c. Percent of grain losses in storage in improved silos under the project. This indicator measures the waste/loss reduction potential of project investments in silos.

d. Farmers adopting improved technologies (of which, female). This indicator will measure the adoption of climate smart agricultural practices by farmer beneficiaries (disaggregated by gender).

The project's results framework will also monitor the percentage of the poor benefitting from project support under Component 1. The results framework includes the following indicator: "Percentage of poorest decile receiving bread subsidies", aiming to monitor that universal access for the poor continues. The results framework also includes citizen engagement indicators.

B. Project Components

38. In the context of the sudden and exceptional market disruptions resulting from the war in Ukraine, the project design recognizes that ensuring short-term availability of wheat in Egypt to maintain access to affordable bread for poor and vulnerable segments of the population, addressing current market failures, is urgently needed. At the same time, the design also aims to increase preparedness and resilience to future crises, building on lessons learned from earlier food crisis response (such as the 2007-08 crisis).

39. **Key filters and criteria applied to the design of the project recognize the exceptional nature of the proposed World Bank emergency response in the context of the market disruptions resulting from the war in Ukraine and include the following**:

a. **The country has experienced a significant disruption to food supply** – due to the disruption of established imports from the Black Sea region, price hikes and low response to tenders since March 2022. Short-term grain supply support would be provided *on a temporary basis*, during the first three to six months of implementation, to minimize immediate socioeconomic impacts of import disruptions and to ensure a return to food security in the medium-term. Timely financing and the use of procurement procedures aligned with World Bank Procurement Regulations are expected to send positive signals to potential suppliers. The project support will be delivered through new tenders and will not include retroactive financing.

b. **The support intends only to replenish stocks to minimum required levels** not exceeding Egypt's historic stock-to-use ratio. Support for grain imports and stock replenishment would remain *below historic levels (which stood on average at 3 months of consumption over the past decade) and aim to restore a critical minimum level of stocks* to avoid disruptions to the Bread Subsidy Program and its direct impact on the poor. Purchases under the project amount to approximately one month of consumption under the Bread Subsidy Program[31] (8 percent of annual consumption under the program, approximately 700,000 tons of wheat) phased during the first months of implementation, with wheat stocks already below 2.6 months of supply in mid-April 2022 and decreasing since then (see Country Context and Annex 2).

c. **The project has a reasonable likelihood of ensuring access to food on affordable terms to the poor and vulnerable**. Project support will be exclusively channeled through the Bread Subsidy Program which universally benefits the poor and more vulnerable segments of the population. The targeting of the program has been gradually improved and will be further improved through support for the continuation of reforms, to ensure greater efficiency and fiscal sustainability. Project support under Component 2 will disproportionally benefit poorer regions (Upper Egypt). The project design also includes support for *improved monitoring and evaluation* of the Bread Subsidy Program, paving the way for increased

[31] Those purchases also represent a negligible share of average annual global wheat trade (0.3 percent)

coherence of food policy instruments (see Project Components and Results Monitoring and Evaluation Arrangements).

d. **Adequate measures are in place to address fiduciary/corruption risk and optimize efficiency.** The project design includes adjustments to procurement procedures for international wheat purchases for full alignment with Bank Procurement Regulations. The design also includes enhanced monitoring of the subsidized bread value chain through surveys and in collaboration with civil society organizations, building on the extensive experience of the Bank in Egypt in that area. Wheat import procurement packages will be phased over time to avoid spiking demand in already tight markets (see Procurement).

e. **Close coordination with partners**. World Bank financing is closely coordinated with that of other development partners (including the European Investment Bank - EIB, European Bank for Reconstruction and Development - EBRD, European Union - EU, International Fund for Agricultural Development - IFAD and the OPEC Fund for International Development among others), as described further below in section E. Close and regular coordination is taking place to ensure strategic complementarity and maximum impact while avoiding duplication; and

f. **Strengthening preparedness and resilience to food crises** so that Egypt does not face the same vulnerabilities in the future and taking proactive measures against widely known impending risks including those linked to climate change (see Project Components – Components 2 and 3).

40. The project consists of three complementary components providing a balance between short-term response and medium-term preparedness for and resilience to food crises, as follows:

41. **Component 1. Emergency Response Measures (US$ 380 million).** The objective of this component is to address the shortfall in imports of wheat, to minimize the disruptions in the Bread Subsidy Program and protect poor and vulnerable consumers. The component will finance the public procurement of approximately 700,000 metric tons of imported wheat (the final quantity will depend on the market price at the time of procurement), representing approximately one month-equivalent of the total consumption of the Bread Subsidy Program, through a procurement process acceptable to the World Bank, to be conducted by the General Authority for Supply Commodities (GASC) affiliated with the Ministry of Supply and Internal Trade (MOSIT). Imported wheat is essential for the production of the Baladi bread (the traditional bread), as it needs to be mixed with locally produced wheat to improve quality specifications for bread making. This short-term emergency wheat supply, made available through the project, will be procured through new tenders in the first months of project implementation and will not include any retroactive financing.

42. The project will establish an enhanced monitoring system to verify access to the Bread Subsidy Program by the poor and provide support under Component 3 for the reforms of the program that have been initiated by the Government.

43. For the Bread Subsidy Program, MOSIT imports wheat through GASC - a state-owned enterprise. GASC issues public tenders for international procurement of wheat and buys locally produced wheat from Egyptian farmers at subsidized rates through the Egyptian Holding Company for Silos and Storage (EHCSS), the Food Industry Holding Company (FIHC) and the Agricultural Bank of Egypt (ABE). Internationally procured and locally produced wheat is stored at the EHCSS, General Company for Silos and Storage (GCSS), FIHC and ABE, after which

they are transferred to government-owned or contracted private sector mills to produce subsidized flour. The flour is then transferred to government and contracted private sector bakers which strictly produce the subsidized Baladi bread for distribution to vulnerable beneficiaries (approximately 72 million people) based on criteria for targeting (see Annex 2 for details). Under the project, and as described below under Procurement, adjustments have been made to existing procurement practices for alignment with the World Bank's Procurement Regulations. During implementation, project support will include assistance for further improvement of existing procurement practices.

44. **Component 2. Strengthening Preparedness and Response to Shocks (US$ 117.5 million)**. This component aims to reduce wheat losses, improve domestic grain production and access to markets for farmers, and strengthen farm-level resilience and preparedness to shocks, in line with Egypt's food security strategy. This would be achieved by (a) increasing the storage capacity for wheat in modern silos in selected locations (Sub-component 2.1) with an emphasis on poorer areas (Upper Egypt); and (b) financing the research, development and dissemination of high yielding adapted wheat varieties, piloting climate smart extension services in the same poorer areas (Upper Egypt) and upscaling the national Agro-Meteorological early warning system (Sub-component 2.2).

45. ***Sub-Component 2.1. Improving the resilience of the wheat supply chain and reducing loss and waste (US$ 112 million).*** This sub-component will finance the upgrading of Egypt's strategic wheat storage capacity in order to strengthen preparedness for and resilience to future market shocks and climate risks. The sub-component will contribute to food security by reducing loss and waste in the wheat supply chain, and by improving farmers' access to domestic grain markets. The sub-component will provide financing to the Egyptian Holding Company for Silos and Storage (EHCSS) to support the network of modern, energy efficient silos[32] integrated with rail and river transportation system and selectively located in poorer areas with substantial wheat production. The silos will be specially upgraded and designed to be climate-resilient to maintain the quality of the grain.

46. The sub-component will be implemented under the auspices of the National Project of Silos. The component would finance the upgrading, modernization and expansion of up to 10 priority silos serving Qena, Assiut, Aswan, Al Wadi Al Jadid, Minya and Giza governorates, strategically prioritized in poorer Governorates of Upper Egypt. (Table 2).

Table 2. EHCSS proposal for construction and expansion of silos

Location (Markaz)	Governorate	Upgrade and Expansion/ New
Al-Marashda (current capacity 60,000 Mt)	Qena	Expansion
Dandara (expected 120,000 Mt)	Qena	New
Al-Taramsah (current capacity 90,000 Mt)	Qena	Expansion
Assiut (current capacity 60,000 Mt)	Assiut	Expansion
Al-Mafalsah (current capacity 60,000 Mt)	Aswan	Expansion
East Owainat (expected 60,000 Mt)	Al Wadi Al Jadid	New
Farafra (expected 60,000 Mt)	Al Wadi Al Jadid	New
Sheikh Fadl (current capacity 60,000 Mt)	Minya	Expansion
Bahnasa (current capacity 60,000 Mt)	Minya	Expansion
Atfih (current capacity 30,000 Mt)	Giza	Expansion
Total		

[32] Use of solar energy and other renewable energy sources will be included in the design of silos.

47. This modern grain collection and storage infrastructure would help ensure safe, wasteless and energy-efficient storage of grain. Climate change could lead to increase in insect pests, change in grain drying conditions, surge in fungal diseases in storage facilities due to variability of temperature. Investment in modern storage facilities with state-of-the-art temperature and disease control functions, would reduce or eliminate potential impacts of climate change on grain storage, and reduce losses and therefore GHG emissions. Integrated with rail and river transportation, the storage infrastructure would ensure more efficient procurement of wheat and other strategic grains domestically, thus improving farmers' access to markets. It will also increase the overall resilience of Egypt to withstand any future supply shocks.

48. The project will finance the design of silos, civil works and equipment, including imported equipment and technology components required to assemble field-silos. Government counterpart co-financing is expected to finance local components and local civil works and the project manager (supervisor) contract. The estimated counterpart co-financing will be around 50 percent. Implementation, including contracting for the design, construction and supervision of activities, will be managed by EHCSS, which is mandated by its establishment decree to serve as the agency responsible for the management of strategic state-owned grain silos.

49. The sub-component will contribute to the reduction of the estimated current level of average storage loss in existing silos from approximately 12 percent to 8 percent. The loss in all upgraded and 3 new facilities is expected to be even lower at around 1-2 percent. The facilities will also be available for domestically procured wheat, thereby enabling farmers' access to markets, especially in nearby areas, and preserving the quality of wheat, further reducing import needs. The strategic location of storage facilities would ensure the integrity of the wheat supply chain, efficient access to transportation routes and it would also likely mitigate climate risks associated with wheat storage in remote locations. Technical assistance made available through the project and from additional EHCSS resources, would support additional improvements in grain silo management system, by connecting around 50 silos nationwide (including up to 10 financed under the project) to a modern, state-of-the-art management and information system.

50. ***Sub-Component 2.2. Improving farm-level resilience and enabling sustainable domestic cereal production (US$ 5.5 million).*** This sub-component aims to improve productivity and farm-level resilience and increase the adoption of climate-smart agricultural practices in poorer areas of Upper Egypt. It will specifically: (i) support climate change adaptation through investments in the research, development and dissemination of high yielding tolerant and early maturing crop varieties; (ii) improve technology transfer and service provision and increase farm level resilience by piloting modernized agricultural extension services in Agriculture Service Complexes (ASCs) in select Hayat Karima villages focusing on the poorer governorates of Upper Egypt; and (iii) strengthen farm level resilience and response to shocks, by upscaling the coverage of the current National Agrometeorological Early Warning System, whilst complementing the support to the national extension service system.

51. This sub-component contributes to the Sustainable Agriculture Development Strategy 2030 and its relevant Action Plan, which aim at: reducing the losses in wheat production by 20 percent from the current levels and increasing the productivity and average yield of wheat to 3.25 ton/feddan, targeting an increased production of 12.2 million ton per annum domestically.

52. ***Activity 2.2.1: Seed Processing****:* According to the Consultative Group of International Agricultural Research (CGIAR) Climate Change, Agriculture and Food Security Research Program, one efficient adaptation strategy is providing farmers with access to improved and adapted seeds that are heat- and drought-tolerant and high-yielding. Moreover, the use of improved seeds in smallholder agricultural systems has been found to increase both productivity and income. This activity supports the National Project for the development of cereal crops, and

would be implemented by the Agriculture Research Centre, and specifically through its affiliates: the Field Crops Research Institute (FCRI), Central Administration of Seed Production (CASP) and Central Administration for Seed Certification (CASC).

53. This activity would entail financing: (i) the registration and certification of six wheat cultivars (five for bread, and one for durum); (ii) the quality testing, multiplication and dissemination of the approved varieties; (iii) support to the handling and processing of certified foundation seeds, by rehabilitating at least four seed processing units, in terms of drying, cleaning and storage. The targeted processing units for rehabilitation provide full national coverage and they are located in Sakha (Kafr El Sheikh), Gemaiza (Al Gharbeya), Sids (Beni Suef) and Shandawil (Sohag).

54. ***Activity 2.2.2: Climate Smart Extension Services***. To better support farmers' resilience to climate change and to improve the effectiveness of agricultural extension services this activity will pilot modernized extension service delivery and knowledge transfer, through selected Agricultural Service Complex (ASCs) in pre-identified Hayat Karima Villages in Upper Egypt (Box 3). This activity will include a specific focus on ensuring that women farmers have access to extension services in order to close the gap in access to information and technologies, and the project will monitor outcomes in that area. To improve service provision at the ASCs, and to address productivity issues related to weather vulnerability, this activity will also expand the current coverage of the Agrometeorological Early Warning System in targeted villages, and therefore allow for the availability of weather information and enable associated advisories, which would support the increased adoption of CSA practices.

55. Jointly with a strengthened extension system, the availability of weather information and associated advisory services will contribute to: (i) increased productivity, as adequate and timely weather information can help farmers make decisions on timing and proper planting dates of crops; (ii) adaptation through risk management, as effective use of weather information services enables farmers to better manage the negative impacts of weather-related risks in growing seasons; and (iii) mitigation by increasing the efficiency and better matching the use of fertilizer and other production inputs with climatic conditions.

56. Implemented by the Climate Change Information Center, Renewable Energy and Expert Systems (CCICRE) under the Agricultural Research Center (ARC) and managed by the Agricultural Extension Service of Ministry of Agriculture and Land Reclamation (MALR), this activity would finance 10 automatic agrometeorological stations, and the equipment and operationalization of the extension service units in at least 10 ASCs. Additionally, this activity will finance the provision of training packages to extension agents on how to deliver CSA related extension services, and to farmers on how to better adopt CSA practices. Moreover, it will also focus on extension services related to post-harvest handling of grains, in order to reduce loss and waste. The location of the established ASCs supported by the project will coincide with the locations of the silos supported in component 2.1 (Qena, Assiut, Aswan, Al Wadi Al Jadid, Minya and Giza governorates). The provision of capacity building and training will be supported through relevant and up-to-date regional and international research and extension activities supported inter alia through CGIAR.

Box 4: Hayat Karima 'A Decent Life'

Endorsed by H.E President Abdel Fattah Al-Sisi, the Decent Life (Hayat Karima) Initiative aims to consolidate the efforts of the State, civil society, the private sector and development partners in addressing multidimensional poverty and unemployment within the framework of the Sustainable Development Strategy and Egypt Vision 2030.

Supported by a remarkable multistakeholder effort, the targeted villages most in need were divided according to the data and surveys of CAPMAS in coordination with the relevant ministries and bodies. Phase I targets 1413 villages, where poverty rates are at a staggering 70 percent or more. Villages span across 20 governorates, and 52 administrative centers, representing 20 percent of the overall Egyptian population.

Within the framework of the State's plan to implement Phase I of the Hayat Karima Initiative, 332 villages have been selected to house unified ASCs. Each center serves as a hub, which includes at least a veterinary unit, an agricultural associations' unit and extension center (some also include milk collection centers). The Ministry of Agriculture and Land Reclamation in close coordination with the Ministry of Housing, Utilities and Urban Communities have designed, built, and delivered the ASCs, and are currently working on their operationalization.

Source: World Bank staff and https://www.hayakarima.com/

57. **Component 3. Project Management and Knowledge Management (US$ 2.5 million).** This component will support project management and knowledge management activities envisaged under the project. With regards to project management activities, this component will support financial management (including audit), procurement, monitoring and evaluation and ESF compliance (including a citizen engagement mechanism and a strengthened Grievance Redress Mechanism (GRM) for better risk management). Under monitoring and evaluation (M&E) activities, the component will establish rigorous mechanisms to monitor the targeting of the Bready Subsidy Program, through surveys and semi-annual comprehensive reviews using local partners, including agencies supporting citizen feedback mechanisms, building on the significant experience across the Bank portfolio in Egypt. The project will assess the efficiency and effectiveness of the Bread Subsidy Program and carry out an evaluation at mid-term to inform the continuation of the reforms of the program, with a focus on efficiency, targeting and nutritional outcomes for the poor and vulnerable populations, in the context of the ongoing reforms of the social protection system. This evaluation will recommend an approach to further reform the Bread Subsidy Program with a view to strengthening its fiscal sustainability and efficiency with regards to improving the food and nutritional security of the poor.

58. This component will include studies, technical assistance and policy dialogue to contribute to overall food security policies and reforms. Support under the project will focus on: (a) options for reforms of the food and bread subsidy system to address current weaknesses and to support the transition towards more sustainable social protection programs, (b) improved management of grain storage to reduce losses and an assessment of other commodity price hedging instruments, (c) increasing consistency between food security and agricultural policies, including with regards to instruments to improve nutritional outcomes for the poor and vulnerable segments of the population (including though balanced diets), and (d) cross-border collaboration around regional risk management tools for strategic agricultural commodities.

C. Project Beneficiaries

59. **The project will generate benefits for three categories of beneficiaries.** Those include (a) the poor and vulnerable households who are the beneficiaries of the subsidized bread program, (b) small farmers and farming households benefitting from increased access to markets, improved agricultural practices and post-harvest

storage with a focus on the poorer areas of Upper Egypt, and (c) the Government from improved national storage infrastructure and management of strategic grain reserves, as well as improvements to the efficiency of the subsidized bread program resulting in increased fiscal sustainability.

60. **All beneficiaries of the Bread Subsidy Program, i.e., those meeting the eligibility criteria established by the program to define poor and vulnerable households, will benefit from the project.**[33] Those include all the most vulnerable households -- poor households with children, elderly, disabled or orphans, who constitute the main recipients of the social assistance programs. To improve targeting of the program, the project will include support for further reforms (e.g., further adjustments to eligibility criteria; phased rollout of other social protection programs) as well as a robust monitoring and evaluation system (including an evaluation of the efficiency of the program compared to other social safety net instruments). In addition, other beneficiaries include around 4,000 small farmers in lagging regions (Upper Egypt) who will participate in the agricultural extension and technology transfer programs focused on scaling-up climate-smart agricultural practices, and a greater number of farmers who will benefit from improved access to markets through the expansion of the network of silos in Upper Egypt, and from the services of the scaled up national agrometeorological early warning system.

D. Results Chain

61. The project aims to balance short term and medium-term response measures (Figure 1), in pursuit of immediate food security needs of poor and vulnerable segments of the population, strengthened preparedness to shocks and enhanced resilience to climate change. The objectives are:

a. *In the short term*: making available approximately 700,000 metric tons of wheat, to ensure availability and undisrupted supply of wheat for the Bread Subsidy Program benefiting poor and vulnerable households.

b. *In the medium term*: investing in strategic grain storage capacities in selected areas to reduce losses and facilitate access to markets for local producers (with emphasis on poorer areas), developing resilient and adapted wheat varieties, and providing adequate and timely weather information to support farm-level decision making and response to weather shocks; the continuation of food and agriculture policy reforms to ensure better food security and nutritional outcomes for the poor.

c. *In the medium to long term*: decreasing losses along the wheat value chain, the wide scale dissemination of resilient and adapted wheat varieties increasing both productivity and farmer incomes, upscaling extension and advisory service provision in lagging regions, increasing the adoption of climate smart agricultural practices and ensuring productivity gains whilst catering to efficient resource management. Additionally, dialogue on food security policies and cross-border collaboration around regional risk management tools for strategic agricultural commodities will be facilitated.

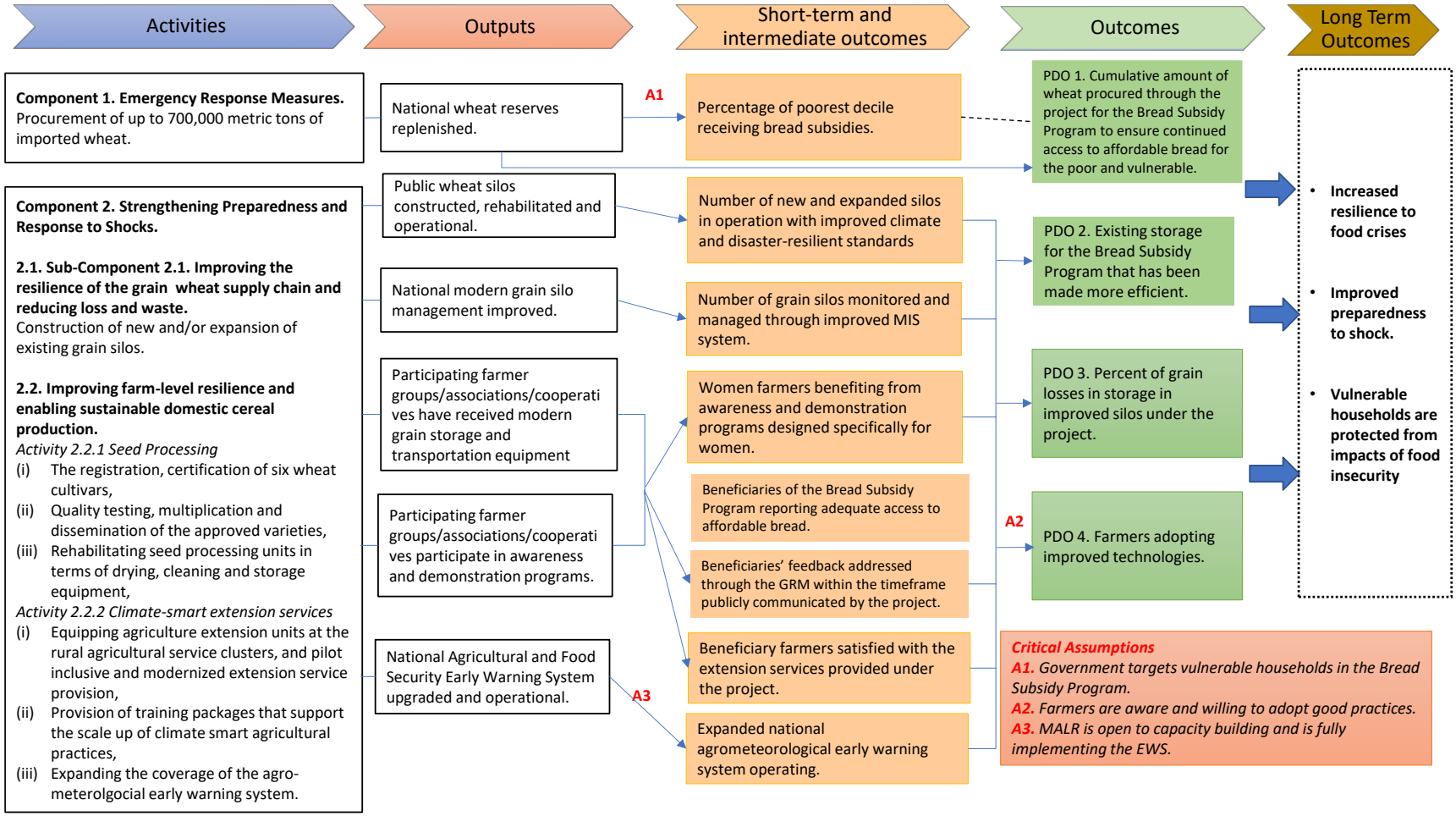
62. **The project will foster environmental performance and climate change adaptation and mitigation throughout the wheat supply chain.** Investments in silos are expected to significantly reduce food waste and loss, and improve overall performance of silos, including energy efficiency. These investments will be combined with upgrades in the national grain silo management and information system, resulting in efficiency gains at national level. Farmer extension and training programs focused on the promotion of climate-smart agricultural practices,

[33] An estimated 31 million poor households benefit from the subsidized bread program nationwide, as well as another 40 million people who fall under the US$5.5 per capita per day poverty line and are considered vulnerable households.

especially focused on post-harvest handling of grain as well as on scaling up better yielding grain varieties, will facilitate climate change adaptation at farm level. Investments in national level technical capacity, including for seed testing, early warning systems, and improved extension programming, will help improve national resilience and preparedness to climate change.

63. **While the global and domestic outlooks remain highly uncertain, Egypt has signaled its commitment to macro-stability and structural reforms over the medium term.** These reforms (supported by a potential IMF program focusing also on strengthening the role of the private sector) can boost confidence and help to contain the short-term macro-stability losses. This can provide an opportunity for the authorities to continue to advance key structural reforms, including in the area of food subsidy policy. The Food Subsidy Program is one of the oldest programs and a key cornerstone of Egypt's social safety nets. Potential price increases to the bread have been announced by the GOE and are currently under consideration. Poverty impacts would need to be mitigated through a concurrent expansion in cash transfers or through maintaining the existing price for the poorest households. Illustratively, and assuming constant price elasticity within the fiscal incidence model, a doubling of the price of bread, from 5 to 10 piasters, could trigger an increase in poverty of 0.4 percentage points and free up approximately EGP 8.3 billion in resources. Tripling the price would lead to about 0.6 percentage point increase in poverty and save EGP 12.5 billion (World Bank, 2022). Whilst poverty increases appear moderate, using the savings toward protecting the poor would be crucial given the importance of bread in their consumption – about 4 loaves of bread are consumed each day per person. This is the intended reform direction of the GOE.

Figure 1. Project's Theory of Change



E. Rationale for Bank Involvement and Role of Partners

64. **The World Bank is well placed to assist Egypt in addressing the current crisis and building capacity for preparedness and resilience to future crises, building on its longstanding engagement in Egypt and lessons learned from earlier food crisis response globally.** The World Bank will support interventions that combine investments in the short term, to ensure the immediate availability and accessibility of food, in particular for disadvantaged households, while improving domestic wheat storage and climate-smart production. The World Bank will also engage with the GOE to strengthen their food security strategy including, as relevant, through increased collaboration at regional level. In the long-term, the government will need to repurpose its public support to the agri-food sector to provide the right incentives to wheat producers to stimulate domestic production, while reducing the burden on public finances and better targeting food subsidies (including reducing waste and improving nutrition). The project will carry out analysis to inform government's decisions in that respect. Investments in research will be needed to generate and disseminate climate-focused innovations to farmers to enhance farming systems' resilience to shocks, and the World Bank's long-standing partnership with CGIAR could also complement project support.

65. **Project interventions also complement the World Bank's support to social protection programs.** For example, project support will complement the conditional and unconditional cash transfer programs, namely the Takaful and Karama programs, as beneficiaries of food ration cards or recipients of the Bread Subsidy can benefit from additional support if they have not qualified as Takaful or Karama households. The project focuses on addressing wheat supply chain issues that affect food security, complementing the assistance provided through those programs. In the same vein, the project complements the Decent Life Presidential Initiative "Hayat Karima" for sustainable rural communities, which aims at improving access to basic services and infrastructure in target villages.

66. **The World Bank's involvement leverages partnerships over and above the support that the Ministry of International Cooperation (MOIC) has secured over the past 18 months for the long-term development of agriculture and for rural development** (Table 3). The World Bank's emergency response supports the country's food security strategy and will be provided in coordination with several other donors. The World Bank has been leading in the crisis response and strong commitments have been communicated by EIB, EU and EBRD among others to engage on food security projects and complement the World Bank's response, in the form of loans and/or grants, to contribute to the emergency response, the modernization of storage infrastructure, the promotion of more efficient agricultural technologies, and transition to sustainable agriculture. Close and regular coordination is taking place, including under the government Multi-Stakeholder Platform, to ensure strategic complementarity and maximum impact while avoiding duplication. In addition to the proposed World Bank support, additional financing in the order of US$1.1 billion would be necessary to support the Government's wheat purchases in 2022 and investments in improved grain storage and domestic production. The OPEC Fund for International Development is preparing an investment program consisting in the construction of grain silos in port areas with a storage capacity of 100,000 tons. The EIB is preparing an investment in grain silos for an estimated amount of US$100 million. The EBRD is discussing with GOE additional support for grain imports and storage, that would be phased-in to supplement World Bank support if market disruptions extend over time (remaining grain import financing needs under the Bread Subsidy Program for the year 2022 are estimated at US$760 million, equivalent to two months of consumption). The United Arab Emirates will be supporting the rehabilitation of 25 silos (US$300 million). Both IFAD (Sustainable transformation for Agricultural Resilience in Upper Egypt Project, US$64 million) and the EU (Joint Rural Development Program in Egypt, US$31 million) are completing the

preparation of projects complementary to World Bank assistance under Component 2 of the project.

Table 3: Donor engagements in agriculture/food security/rural development (2021-2022) as of May 2022[34]

Institution	**Project / Status (ongoing or new)**	**Amount (2021-2022)**
International Islamic Trade Finance Corporation (ITFC)	Financing the imports of basic commodities (foodstuffs and fuel) (ongoing)	US$ 1,359 million
United States of America	Agribusiness for Rural Development and increasing Incomes (ongoing)	US$ 5 million
Germany	Agricultural Innovation Project (ongoing)	US$ 8 million
African Development Bank	Program for integrated Rural Sanitation in Upper Egypt-Luxor (ongoing)	US$ 131 million
	Total committed/under implementation	**US$ 1,385 million**
United Arab Emirates	Upgrading of 25 silos for grains (new financing)	US$ 300 million
OPEC Fund for International Development	Construction of port silos with capacity of 100,000 tons (new financing)	N/A
EIB	Modernizing storage capacity (new financing)	US$ 100 million
European Union	Joint Rural Development Program in Egypt (new financing)	US$ 31 million
IFAD	Sustainable transformation for Agricultural Resilience in Upper Egypt (new financing)	US$ 64 million
EBRD/EIB	Under discussion – support for wheat imports supplementing World Bank support	N/A
	Total new/under preparation	**US$ 495 million**

F. Lessons Learned and Reflected in the Project Design

67. **The project builds on the following relevant lessons learned from past and ongoing WBG responses to food and nutrition security crises**, including the Global Food Crisis Response Program, which was designed to address the 2008-2009 food crisis:

a. *Importance of balancing speed with quality control:* the project leverages existing and well-functioning systems by financing activities through institutions with prior experience and capacity to prepare and implement the operation. This helps mitigate some of the potential risks related to the institutional, technical and fiduciary aspects of the proposed operation.

b. *Critical to ensure that the most vulnerable are targeted by emergency responses:* the project seeks to target the poor and vulnerable segments of the population who will access the Baladi Bread produced from the purchase of imported wheat. In addition, poor farmers will directly benefit from the infrastructure and services provided under the proposed operation.

[34] Based on the information provided by donors and partners.

c. *Prioritize building back better approaches to increase the efficiency and resilience of food production:* the project is designed to strike a balance between the emergency response under Component 1 and increasing food crisis preparedness and resilience under Component 2.

68. **The project design builds on the strong track record and lessons learned from Bank investments in improved grain storage infrastructure and management systems (e.g., in Mexico, Bangladesh, India).** The project also considers the findings and policy recommendations of World Bank analytical work on grain import supply chains in Arab countries. The 2012 World Bank report "The Grain Chain: Food Security and Managing Wheat Imports in Arab Countries" calls on Arab countries to adopt an integrated approach to managing price and supply risks associated with grain imports. The report recommends import dependent countries use targeted investment and policy reform to improve efficiency throughout the grain import supply chain, concentrating on strategic storage, logistics, and procurement. The report also highlights the opportunity of cross-border collaboration to implement regional solutions. Key lessons reflected in the project design are summarized below:

a. *Strategic storage*: Strategic reserves provide countries with critical lead time to secure alternative grain supplies or supply routes during times of crisis. Moreover, historical data suggest a strong negative correlation between changes in grain stocks and changes in grain prices. Importantly, the benefits of strategic reserves must be measured against the cost of maintaining them.

b. *Procurement:* Develop a procurement strategy that leverages strategic partnerships while maintaining a diversified portfolio of suppliers and mitigating import risks through the use of physical and financial hedging instruments. A successful hedging strategy would be over a long-term horizon, using a mix of the various instruments available, and could help governments better predict their future fiscal liabilities

69. **The project will also build on the extensive analytical work that is available with regards to food, agriculture, and social protection policies in Egypt.** This includes, among others, the PER for the Human Development Sectors (2022), extensive evaluations of the social protection system in Egypt carried out by the World Bank[35], IFPRI[36] and others[37], the recommendations of which need to be operationalized. Some of the key findings include: (a) combining an expanded cash transfer program with targeted reforms to the food subsidy system would lead to the largest welfare gains for poor households; (b) food security policies should focus further on the improvement of the Egyptian agricultural services system (e.g., agricultural research and development) and increasing the efficiency of the wheat value chain; (c) the need to assess the adequacy of the level of food subsidies for the poor; and (d) the need to develop a roadmap to gradually move from food vouchers to cash. The

[35] Abdalla, M., & Al-Shawarby, S. (2017). The Tamween Food Subsidy System in Egypt: Evolution and Recent Implementation Reforms. In H. H. Alderman, U. Gentilini, & R. G. Yemtsov (Eds.), *The 1.5 Billion People Question: Food, Vouchers, or Cash Transfers?* (pp. 107–150). Washington, D.C; World Bank. (2005). *Egypt - Toward A More Effective Social Policy: Subsidies And Social Safety Net*. Washington, D.C.

[36] Breisinger, C., Eldidi, H., El-enbaby, H., Gilligan, D., Karachiwalla, N., Kassim, Y., Thai, G. (2018). *Egypt's Takaful and Karama Cash Transfer Program Evaluation of Program Impacts and Recommendations*. *IFPRI Policy Brief*. Washington, D.C.; Kurdi, S., Breisinger, C., Eldidi, H., El-enbaby, H., Gilligan, D. O., & Karachiwalla, N. (2018). Targeting Social Safety Nets Using Proxy Means Tests : Evidence from Egypt's Takaful and Karama Program. In *ReSAKSS Annual Trends and Outlook Report* (pp. 135–153). Washington, D.C: International Food Policy Research Institute (IFPRI).

[37] Ramadan, R., & Thomas, A. (2011). Evaluating the impact of reforming the food subsidy program in Egypt: A Mixed Demand approach. *Food Policy*, *36*(5), 638–646; Helmy, O. (2005). *The Efficiency and Equity of Subsidy Policy in Egypt* (The Egyptian Center for Economic Studies Working Paper Series No. 105). Cairo, Egypt; Al-Shawarby, S., & El-laithy, H. (2010). *Egypt's Food Subsidies: Benefit Incidence And Leakages*. Washington, D.C.

project design considered those findings and will support the reform agenda previously identified.

III. IMPLEMENTATION ARRANGEMENTS

A. Institutional and Implementation Arrangements

70. **MOSIT will be responsible for the coordination and supervision of the implementation of activities under the project**. To this end, the Minister of Supply and Internal Trade will establish a Project Management Unit (PMU), with composition, functions, responsibilities and resources acceptable to the Bank as set out in the Project Operations Manual (POM), to be responsible for day-to-day monitoring of project activities, including coordination with the Project Implementing Entities, overall implementation of environmental and social aspects for the project, and implementation on technical and fiduciary aspects for Components 2.2 and 3. The PMU will be staffed at all times during project implementation with a project director, an agriculture specialist, environmental and social specialists, a procurement specialist, a financial management specialist and a monitoring and evaluation specialist; all with terms of reference, qualifications and experience acceptable to the Bank. The PMU will be established within two months of project effectiveness.

71. **The Project Implementing Entities will be GASC and EHCSS**. GASC, an agency under MOSIT, will be responsible for the procurement of wheat under Component 1. GASC has been established by the Republican decree No 1189/1968 and is affiliated with the MOSIT. The Chairman of GASC is the Minister of Supply and Internal Trade, while day-to-day management of GASC is executed by its Vice Chairman. GASC will follow the wheat procurement process outlined in Section IV.B.(ii). Implementation of Component 2.1 investments on upgrading and modernization of silos will be the responsibility of the EHCSS, established by a decision of the Prime Minister No. 1682 of 2002 in accordance with the provisions of the public business sector companies No.203 of 1991.

72. **EHCSS manages all public grain storage in Egypt, including receiving and storage of imported and local wheat**. EHCSS is a state-owned enterprise under GASC, with an independent legal status and is not part of the state budget. EHCSS will be the primary implementing entity in charge of the implementation of the establishment and upgrading of silos. EHCSS will oversee the design and construction of silos. EHCSS will also operate the silos after their completion. Additional technical assistance and capacity building, including digital operations and management systems for the EHCSS would be supported through a technical assistance package allocated under Component 3.

73. The summary of project implementation arrangements is presented in Table 4.

74. **The MOIC will sign a Subsidiary Loan Agreement respectively with EHCSS and GASC** setting forth *inter alia* the project's technical, fiduciary, and environmental and social requirements that are to be complied with. Additionally, it was agreed that the World Bank will sign Project Agreements respectively with GASC and EHCSS.

75. **MALR through the PMU will lead the development, management, and implementation of Component 2.2** including the farm-level resilience building activities, the design and implementation of the expanded Agro-Meteorological Early Warning System, as well as activities related to capacity building in seed management envisaged under Sub-component 2.2. A Memorandum of Understanding (MOU) will be established between the Ministry of Finance (MOF), MOSIT and MALR to facilitate the implementation of Component 2.2 of the project.

76. **Implementation arrangements would include a Project Management Unit (PMU), which would be housed in MOSIT**. The PMU will be responsible for preparation and supervision of the implementation of the

environmental and social commitment plan (ESCP) for the whole project; procurement and financial management for components 2.2 and 3; project reports and implementation of monitoring and evaluation for the whole project, updating and maintaining the results framework; the preparation and updating of the Project Operations Manual. The PMU will be funded through MOSIT's general operational budget, and through Component 3 as may be required for external consultants or experts. The PMU will be established within two months of effectiveness.

77. **A POM** will be prepared within two months of effectiveness.

78. **A Project Coordination Council (PCC)** which is an advisory and coordination body will be established within three months of project effectiveness with membership and terms of reference acceptable to the World Bank. The PCC will be chaired by the Minister of Supply and Internal Trade and will include inter alia representatives from the MOIC, MOF, MALR, GASC, EHCSS.

Table 4. Project implementation arrangements

Component/Activity	Implementing Agency
Component 1. Emergency Response Measures. Procurement of up to 700,000 metric tons of imported wheat.	GASC
Component 2. Strengthening Preparedness and Response to Shocks. **Sub-Component 2.1. Improving resilience of grain supply chain and reducing loss and waste.** Upgrading, expansion and modernization of silos. **Sub-Component 2.2. Improving farm-level resilience and enabling sustainable domestic cereal production.** Activity 2.2.1. Seed Processing. Activity 2.2.2. Climate Smart Extension Services.	EHCSS MALR through PMU
Component 3. Project Management and Knowledge Management	PMU

B. Results Monitoring and Evaluation Arrangements

79. The Results Framework provides key measures of the project achievements against its stated objective, indicates the project's contribution to achievement of government's higher-level objectives, and provides evidence for decision making and policy formulation. The PMU will have the overall responsibility for results monitoring and evaluation (M&E). The PMU will aggregate M&E data from relevant sources, to be described in the Project Operations Manual, providing evidence of progress on the Results Framework indicators. A full-time, experienced M&E specialist will be hired by the PMU to support MOSIT.

80. Given the emergency nature and fast-track preparation of the project, a mid-term survey will be conducted to evaluate the project progress, especially focused on the perceptions of various groups of beneficiaries. The baseline M&E data will be based on the widely available statistical information, as well as output data available through project activities. Existing household income and consumption surveys will be used to track poor and vulnerable households' access to wheat/bread. The project will also conduct additional surveys to monitor continued access to affordable bread by poor and vulnerable households, partnering with local agencies and civil society groups to ensure real time information on access and distribution, using the Bank's strong experience with feedback mechanisms in Egypt. A semi-annual review will be undertaken with more detailed assessment along the full value chain, to validate the information under the BSS on access to poor and vulnerable. The final evaluation will include the comprehensive assessment of the project outcomes against envisaged targets.

Gender differentiated assessments will be undertaken through all the surveys used under the project. The detailed monitoring and evaluation plan will be included in POM.

81. The project will strengthen the monitoring and evaluation (M&E) of the Bread Subsidy Program, under its monitoring and evaluation activities, to inform the ongoing reform process that has been led by the GOE and provide information on areas for improvement and reforms (e.g., targeting). The mid-term review will include a study (evaluation) of the efficiency of the bread subsidy system in the context of the reform of the social protection system. The evaluation report will spell out an approach to further reform Egypt's food policy instruments with a view to strengthening their fiscal sustainability and their efficiency with regards to improving the food and nutritional security of the poor (promoting balanced diets). Other M&E activities under the project will also contribute to better understanding of entry points to improve the efficiency of the wheat value chain.

C. Sustainability

82. **To ensure sustainability, the project will pursue an integrated approach including short-term and medium-term responses to the food crisis**: (i) providing immediate relief in the short term by financing wheat imports, and thereby ensuring uninterrupted access to bread by poor and vulnerable populations, and (ii) significantly reducing wheat loss/waste in newly constructed and expanded storage facilities, and (iii) promoting climate resilient agricultural and post-harvest handling practices to better adapt to climate change impacts on agricultural production, specifically wheat production. Component 2, including investments in improved silos and at farm level, is an integral part of the project's strategy to ensure sustainable outcomes in terms of increased food security and resilience to future food crises. A modernized network of silos in critical locations will enable Egypt to better mitigate the risks of market disruptions, while also providing incentives (and outlets) to better link farmers to markets. In turn, increased access to markets for domestic producers and improved quality of domestic grain (due to better storage facilities) will contribute to minimizing Egypt's dependency on wheat imports in the medium-term. Support for the continuation of reforms of food policies will also contribute to the sustainability of Egypt's food system.

83. **Several project design elements and additional factors will help Egypt adjust in the medium-term in case of a protracted crisis.** Recognizing uncertainties about the war in Ukraine and its continued global impacts, the project design includes provisions to strengthen Egypt's ability to respond to a prolonged disruption of grain markets – including through improved and modernized storage facilities, increased resilience of local production, and an updated market risk management strategy (under Component 3). Those will enable the Government to better plan and consolidate its response including by reflecting in next fiscal year's budget (2023) the full costs of grain imports, should prices remain at a high level. Other partners are also ready to provide financial support for grain imports beyond the short-term period covered by the Bank project (remaining grain financing import needs under the Bread Subsidy Program for the year 2022 are estimated at US$ 760 million[38], equivalent to two months of consumption). In addition, several donors have announced that they are already preparing operations focusing on improved storage facilities as described in paragraph 66 and Table 3.

84. **Environmental sustainability**. Project activities are expected to decrease GHG emissions along the grain value chain and to increase its resilience to climate change. State-of-the-art technology for silo management would be introduced under the project.

85. **Institutional sustainability**. The project focuses on improving the capacity of key institutions involved in the grain value chain to establish better infrastructure and services along the value chain (e.g., improved extension

[38] World Bank estimate at current market prices

services for small farmers, better storage services for farmers and an enhanced agrometeorological early warning system). In addition, support for further reforms of the subsidized bread program would aim at decreasing the program's fiscal impact and increasing it efficiency.

86. **Technical assistance and capacity building activities are included to promote sustainability**. The technical assistance will be provided to further inform strengthening of the wheat value chain during project implementation. Dialogue on food security policies, including opportunities for regional collaboration, are also included under this component. The technical assistance and capacity building activities will draw from international best practices, adapted to the Egyptian agricultural context.

IV. PROJECT APPRAISAL SUMMARY

A. Technical, Economic and Financial Analysis (if applicable)

87. The project's benefits are expected to be twofold: first, preventing a disruption in the availability of wheat for bread in the short term, the alternative of which would be high social and economic costs, in particular for the poorest households; and second, benefits would result from the country's improved capacity and knowledge to increase its food system resilience in the medium and long term.

88. The project opted for a simple and well-focused design building on the existing market and governance structures to secure immediate supply and access to wheat. Wheat imports will be carried out using the existing public procurement program, with adjustments for compliance with Bank Procurement Regulations, and project implementation will be ensured by the existing MOSIT systems and staff. At the same time, the project will include elements (under Component 2) to help increase longer-term capacity to reduce vulnerability to shocks.

89. In addition to the food security and market stabilization benefits of establishing sufficient strategic wheat reserves, quantifiable improvements in wheat storage under Component 2.1 offer attractive returns. Once the improved structures are in use, annual avoided losses on wheat stored are estimated at about US$4.4 million. This would represent a net present value of US$21 million and IRR of 48.9 percent over the course of an assumed 15-year lifetime. The investment in silo storage also has a positive greenhouse gas emission reduction impact. Without the investment, emissions from wheat losses because of lack of proper storage would add 41,148 tons of CO2 equivalent annually. By constructing and storing in the silos, Egypt would reduce its CO2 emissions by 548,640 tons of CO2 equivalent that would emanate from wheat losses over the lifetime of the project, equivalent to 36,576 tons of CO2 equivalent per year.

90. **Gender.** The project would address gaps in women farmers' access to information and technologies under Sub-Component 2.2. Rural women and female farmers who rely on the land are much more vulnerable to food insecurity than men as they often lack the resources and the technical know-how needed to build knowledge, access financing and adopt new technologies to help them cope with economic shocks and rising effects of climate change. Studies have also shown that restrictive social norms about women's capability as farmers play a major role in constraining their agricultural management, however, training in specific techniques and practices helps both to combat gender stereotypes as well as to equip women with the knowledge to improve their farming outputs[39]. Activities supported under Sub-Component 2.2 will specifically target women farmers to bridge the gap in their access to knowledge, technologies and markets. The project will do this by ensuring that women farmers are targeted by engaging local cooperatives and delivering extension services in a way that will ensure women are able to benefit (such as taking into account timing and location of services). Indicators are included in the Results Framework to measure progress in that area.

91. **Climate change co-benefits.** The project would reduce the risk of investment and allow GASC to aggregate and purchase a higher volume of wheat supply domestically, reducing the number of shipments, and therefore, it would generate climate change mitigation benefits by contributing to energy and resource use efficiency. Additionally, the project would reduce food loss and waste through improved wheat value chain operations which generate climate change mitigation and adaptation co-benefits. Furthermore, Sub-Component 2.2 is specifically

[39] Baruah et al 2019: https://grow.research.mcgill.ca/publications/working-papers/gwp-2019-23.pdf)

focused on mitigating losses in the wheat supply chain and thereby reducing GHG emissions and building resilience of farmers to climate change. According to projections, national wheat production would be reduced because of climate change. Thus, better risk management of the wheat value chain through capacity building activities would mitigate the negative impacts of climate change.

92. **Citizens' engagement.** The project would ensure citizens engagement through the following interventions: (1) conducting surveys and periodic monitoring of availability and access to subsidized bread under the Bread Subsidy Program, with a focus on the poor and vulnerable groups; (2) under Component 2, engaging with beneficiaries on measures to reduce food loss and waste along the wheat value chain; and (3) engaging beneficiaries in the planning and design of activities under Sub-Component 2.2 (e.g. to ensure that the timing of activities responds to the needs and constraints of specific groups, such as women).

B. Fiduciary

(i) Financial Management

93. A financial management (FM) assessment of the Project's implementing entities was undertaken by the World Bank to assess their ability to maintain adequate FM systems and to report on the use of Project funds. The following is a summary of the FM arrangements agreed for the Project implementation.

94. **Budgeting.** The Project annual budgets will be consolidated by the PMU with inputs from GASC for Component 1, EHCSS for Component 2.1 and from MALR for Component 2.2.

95. **Accounting and Controls.** While GASC and EHCSS adopt the accrual basis of accounting for their entities' financial statements, the Project financial statements will be prepared using the cash basis of accounting. GASC budget execution follows ex-ante reviews by MOF financial controllers, while an "internal audit and governance unit" that reports directly to GASC vice-chairman is in charge of financial and operational reviews. EHCSS finances are managed by its financial and administrative sector while a general directorate is in charge of financial, administrative and technical inspection.

96. **Funds flow.** The PMU will be responsible for coordinating the process of withdrawing loan proceeds. Disbursements of activities under Components 1 and 2.1 will mainly use letters of credit (LCs) that are envisaged to benefit from "Special Commitments" issued by the World Bank. Components 2.2 and 3 are envisaged to largely depend on "Advances" to the Project's designated account.

97. **Reporting and Auditing.** The PMU will prepare Interim Financial Reports (IFR) on a semi-annual basis. Each IFR will be due within 45 days after the end of each semester. The PMU will also prepare the Project annual financial statements that are due within 6 months from the end of each fiscal year. In addition, the annual financial statements of GASC and EHCSS are subject to financial audit by the Egyptian Supreme Audit Institution known as Accountability State Authority. Given the time needed to conclude these audits, a copy of the audit report of each of GASC and EHCSS will be required within 9 months from the end of each fiscal year.

98. **Disbursements.** The proceeds of the loan will be disbursed in accordance with the World Bank's disbursements guidelines and as outlined in the Disbursement and Financial Information Letter. Disbursements under Components 1 and 2.1 are envisaged to largely use "Special Commitments" given the nature and size of payments. For component 2.1, the special commitments using loan proceeds are envisaged to cover the foreign currency component of the contracts of silos construction and extension.

(ii) Procurement

99. **Procurement Regulations**: Procurement will be carried out in accordance with the "World Bank

Procurement Regulations for Borrowers under Investment Project Financing" dated July 2016 and revised November 2017 and August 2018 and November 2020 (Procurement Regulations), and the provisions of the "Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants", dated October 15, 2006, and revised in January 2011 and as of July 1, 2016 (Anti-Corruption Guidelines) will apply. In accordance with paragraph 5.9 of the 'Procurement Regulations, the World Bank's Systematic Tracking of Exchanges in Procurement (STEP) system will be used to record all procurement actions under the project, including preparing, updating and clearing the Procurement Plan, and seeking and receiving the Bank's review and No-objection.

100. **Emergency Procedures.** The project triggered paragraph 12 of IPF Policy OP 10.00 Section III (Projects in Situations of Urgent Need of Assistance or Capacity Constraints) allowing fast-track of procurement arrangements as well as deferring the procurement preparation requirements to the implementation stage. Therefore, the Project Procurement Strategy for Development (PPSD) will be deferred. Due to the emergency nature of the project and the specificity of the wheat market, procurement arrangements will adopt streamlined procedures for approval of emergency procurement to expedite decision making and approvals. Procurement approaches under the project will utilize the flexibility provided by the World Bank Guidance for Procurement in Situations of Urgent need of Assistance or Capacity Constraints.

101. **Implementing agencies (IAs) assessment.** The Emergency Response Measures component will be implemented by the General Authority for Supply Commodities (GASC- *http://www.gasc.gov.eg*) of the Ministry of Supply and Internal Trade (MOSIT) which has full power for procuring commodities including wheat. While the full mandate to conduct the procurement process for the silo construction, operation and maintenance is with the Egyptian Holding Company for Silos and Storage (EHCSS- *www.ehcss.com*) the Borrower will establish in the MOSIT a PMU to coordinate with GASC, EHCSS and MARL respectively for the implementation of Components 1, Component 2.1, and component 2.2 and to implement Components 3, including implementing all procurement activities.

102. **GASC** was established by Republican Decree No 1189/1968. GASC approaches the local and international market to procure strategic commodities including wheat needed by the GOE and its procurement process is limited to prequalified (registered) bidders who have been registered in GASC suppliers' list based on their qualifications and experiences in the wheat market and after establishing a local representant/ correspondent in Egypt. After identifying needs, GASC advertises on its website and on Reuters, Bloomberg and Middle East News Agencies invitations for quotations specifying wheat specifications, requesting a price for one shipment (55,000 to 60,000 metrics tons) and fixing a deadline for submission which is often one day. Submission and public opening of quotations are made on the same day by a commission formulated for this purpose and comprising the representatives of some Ministries/bodies in the presence of the suppliers' representatives (agent).

103. **Anticorruption and governance**. The whole process from the submission of offers to award is concluded in one day due to the specificity of the wheat market (quotations are valid until 16:30-Cairo time on the same day). The World Bank reviewed the standard procurement documents used by GASC, and it was agreed by GASC that these documents will need to include the World Bank's anticorruption provisions including the condition that no contract should be awarded to World Bank's ineligible firms. These documents also will be amended to ensure consistency with Sections I, II and III of Procurement Regulations. The World Bank will work with GASC to ensure that the following requirements are met: (i) bidding documents and offers will be in English language; (ii) the bidding documents will specify a clear basis for evaluation and award decisions; (iii) bid openings should be conducted publicly; (iv) the Bank does not finance directly the costs of agents that are paid by suppliers (the Bank strongly recommends to publish the agents' fees and their disclosure as part of the bid; and v) a clear complaint process will be required (accessible electronically) and the World Bank should be notified immediately of any

complaints. All wheat contracts will be subject to prior review by the Bank. It is expected that wheat purchases will be phased during the first months of project implementation taking into consideration the evolution of global prices and to maintain a regular flow of imports below or on par with historic levels. During early project implementation, the Bank will also advise government on possible further improvements to the grain tendering system. In addition, the M&E system, GRM system and citizen engagement under the project will further ensure that the support is reaching the intended beneficiaries.

104. **EHCSS** was created by a decision of the Prime Minister No. 1682 of 2002 to manage, operate, and develop silos activities. EHCSS is not subject to the national procurement law and has its specific financial and procurement manual. EHCSS has experience with the procurement process to construct silos and has recently completed the construction of 22 silos via an international competitive bidding process with prequalification. It was implemented via a single responsibility turnkey contract for design, supply and installation. For all project activities, EHCSS will use the World Bank Standard Procurement Documents following competitive procurement processes with the most appropriate market approach and selection method.

105. **Market analysis**. While the finalization of the PPSD is being deferred to the implementation stage, the World Bank team conducted a market assessment which informed the design of the procurement approach and can be summarized: i) GASC has a pre-qualified list of 20 international wheat suppliers that mainly source wheat from Europe and the Black Sea market, and is currently looking at further diversifying its import and certifying exports from India and Argentina; ii) there are 15 local agents representing international suppliers (e.g. Luis Dreyfus, ADM); iii) Egypt is one of largest wheat importers in the world and international firms have established offices in the country to ensure business continuity; iv) GASC receives good level of competition for its tenders; v) bids are based on FOB for shipment of 55,000 to 60,000 metric tons usually to be delivered within five to six weeks after contract signature; vi) for transportation from the country of origin, the Egyptian Company for Marine Transport (MARTRANS) conducts an open procurement process to hire the shipping company (National Navigation Company - NNC) or a private sector operator.

106. **Role of agent and foreign companies' registration.** For the wheat market, there is a need for a domestic intermediary to accommodate the quick processing of procurement and contracting that responds to the specificity of the market and reliance on the global market price at the time of procurement. An agent can represent different suppliers and, as such, different bids can be submitted by the same agent, and a bidder can submit more than one bid on condition that the wheat comes from different origins. The agent should be dully authorized by the bidder to submit bids and the performance security, and to sign the contract. Agents are paid by suppliers. The Bank reviewed the requirement of companies' registration and agents' roles currently operating in Egypt and concluded that they are a key part of the system which could not operate without them and that eliminating them would result in significant disruption of the procurement process.

107. **Procurable activities**. There are two main sets of packages: (i) an estimated 700,000 metric tons of wheat for an estimated value of US$380 million (final quantity will depend on the market price at the time of procurement) in multiple procurement packages; (ii) Construction/ Extension of silos for an estimated value of US$112 million. There will also be procurement for goods, works, equipment, and consulting services for small values**.**

C. Legal Operational Policies

	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Areas OP 7.60	No

D. Environmental and Social

Environmental

108. The significant environmental, including occupational health and safety (OHS), impacts associated with the project activities include: (a) maritime transportation of wheat from ports of origin to ports of destination, handling and storage of wheat in the silos at the wheat-receiving ports of Egypt (Alexandria, Damietta and Safaga) under Component 1; and (b) construction and operation of the new and expanded inland silos under Sub-Component 2.1. Expected impacts under Component 1 and Component 2.1 include accidental marine pollution from wheat shipment vessels, maritime workers' OHS impacts (specific to Component 1), organic dust emissions during the offloading, loading and storage of wheat, air emissions and noise from trucks and port machinery, handling of solid and hazardous waste (oil filters and empty pesticide containers), handling and storage of pesticides used occasionally for fumigation of wheat, gaseous emissions of residual pesticides after fumigation. Operation and maintenance occupational health and safety risks include falling from heights, fire, explosion, working in confined spaces, electrocution, burns from hot surfaces, handling of hazardous materials and waste (pesticides), inhalation of fine dust, inhalation of pesticide vapors, extreme weather conditions, entanglement, hitting hard and moving objects. Environmental impacts associated with activities under Sub-Component 2.2 are not as significant.

109. The port silos are located within the jurisdiction of the respective port authority each of which has its port-wide environmental requirements, medical aid and firefighting systems. Meanwhile, the responsible entity for receiving and storage of the imported wheat (GCSS) has its own environmental and OHS management systems following the national requirements and the relevant Port Authority regulations.[40] It is worth mentioning that wheat cultivation and production are known to originate from areas where there is no/low risk of significant conversion or degradation of natural or critical habitats. In addition, GASC has a well-developed list of 16 approved wheat production origins (Argentina, Australia, Bulgaria, Canada, France, Germany, Hungary, Kazakhstan, Latvia, Paraguay, Romania, Russia, Poland, Serbia, Ukraine, USA). Furthermore, GASC has a list of approved wheat primary suppliers, whom the majority are members of international trade association promoting environmental and social sustainability in the trade of agriculture commodities (such as: The Grain and Feed Trade Association – GAFTA[41]).

110. In addition to the operation and maintenance environmental and OHS impacts described under Component 1, Component 2.1 involves civil works associated with the construction of new silos in three locations and capacity increase to seven existing silos all located in Upper Egypt Governorates. Associated infrastructure (access roads, electricity and water) works are anticipated specially to serve the new silos. The exact locations of

[40] Port silos are not financed by the project.
[41] https://www.gafta.com/about

the ten silos are preliminarily identified at district (Markaz) level. However, the technical feasibility and engineering studies are not yet prepared. Typical construction risks and impacts may include air, dust and noise emissions from construction equipment, solid, liquid and hazardous wastes, soil pollution, pollution of fresh surface or underground water bodies, disturbance to natural habitats and fragile ecosystems. Construction related OHS risks include working at height, moving objects, slips, trips, and falls, noise, Hand Arm Vibration Syndrome, Material & Manual Handling, Collapse and extreme weather conditions (e.g., heat strokes due to very hot summer weather conditions in Upper Egypt).

111. Minor environmental and OHS risks are expected for the planned activities under Sub-Component 2.2. These may include basic OHS risks related to the operation and maintenance of procured equipment and installation of the EWS. Training for the intended users on OHS requirements and ensuring the maintenance of the procured equipment in good working condition need to be in place with assigned responsibility and adequate resources. Minor environmental impacts are expected during the installation and operation of EWS equipment (weather forecast stations) which entails minor civil electro-mechanical work (during construction) and electricity consumption (during operation). The awareness, training and demonstration activities under this sub-component are not expected to result in investments which may result in negative environmental impacts. Yet, it is recommended to include environmental awareness as part of the planned awareness raising programs.

112. The project is also expected to have positive direct and indirect social impacts, including improved food security for vulnerable households, job opportunities and business development for small farmers. The project will contribute to reducing wheat losses and enhancing food security in the country under challenging global conditions that are likely to affect the security of wheat supply. Wheat is an essential component of the nutrition system of Egyptian citizens and is specifically an essential food item for the poor and the families targeted with the subsidized ration. Wheat procured through Component 1 will be supplied to different mills all over the country and bakeries producing and selling subsidized bread. Component 2.1 will contribute to enhancing the grains storage capacity which will in turn contribute to reduction in losses and uninterrupted availability of bread; the construction of silos will offer temporary local jobs to middle and low skilled individuals. Component 2.2 and the technical support under Component 3 come to complement the infrastructure construction under Component 2.1. They are anticipated to have positive impacts on the poor and vulnerable groups by enhancing farmers' capacities through strengthened access to knowledge and agricultural inputs. This will help the small-scale farmers located in the Governorates of Upper Egypt to have improved access to information which will in turn contribute to climate-smart production practices, higher yields, and improved income.

Social

113. Potential adverse social impacts include (i) risk related to land acquisition and restricted access to land both temporarily and permanently; (ii) potential inappropriate labor and working conditions in construction and agriculture sector both in the country (for Components 2.1, 2.2 and 3) and for the primary supplier (Component 1); (iii) risk of elite capture, exploitation and unequal access to project benefits for vulnerable groups (for components 1.2, 2.2 and 3); (iv) potential reputational risk related to exclusion, risk of lack of transparent sharing of information and unresolved complaints.

114. Potential risks associated with Component 1 could be labor and working conditions, child and forced labor for the primary supplier. However, this risk is assessed as minor given the global scale of the suppliers and the fact that they are also members of international trade association promoting environmental and social sustainability (as discussed above).

115. The risks of Component 2.1's construction phase are the typical social risks associated with the construction of infrastructure, most importantly those related to potential temporary inconvenience (noise, dust,

traffic, etc.), risk on construction workers particularly vulnerable workers, risk on community health and safety, and risks of accidental damages to private properties, assets and potential implications on livelihoods. Those risks are particularly relevant in the areas where the silos are built near inhabited areas. Risks and impacts related to ESS5, namely land acquisition, restriction to access and involuntary resettlement could be also relevant in relation to this sub-component. At this stage of the project and in light of the communicated information, construction of three silos and expansion of seven existing silos will be supported by this sub-component. The exact locations of the new silos are only preliminarily identified and several of the expansions for the seven silos will take place within the existing boundaries/fences. The World Bank was informed that privately owned land was never expropriated in the past for the construction of the silos and eminent domain provisions do not recognize silos as public interest project. The common practice is to use vacant state-owned land for silo construction. While silos' locations can be in proximity to agriculture land, they are rarely established in inhabited residential areas. More details on the application of ESS5, legacy issues and the need for preparing resettlement plans will be determined after the technical feasibility and engineering studies preparation. With regard to the operation of this component and although delivering wheat to the silos is open to a range of farmers, associations and companies, there is a risk that small farmers could be excluded from the benefits of the constructed silos by their inability to market/sell their produced wheat due to different reasons that may include but are not limited to, unfulfilled standards, unclear information sharing. Risk of unequal opportunities, increased complaints and potential exploitation could be also relevant in the operation stage.

116. Despite the expected positive outcomes of Component 2.2, the risk of elite capture (e.g., large scale farmers, companies and agriculture associations) of the benefits of the planned interventions and the exclusion of the small-scale farmers needs to be considered along with strong measures to maximize the benefits to this vulnerable group and to address potential exploitation of farmers including women farmers. The risk of unaddressed complaints in relation to different project components is also relevant. The preliminary SEP ran a rapid identification for the existing grievance mechanisms and found several existing channels that could be utilized to serve in handling the project-related complaints to tackle this risk. The SEP will be regularly revisited and updated to ensure the identification and engagement of all relevant stakeholders throughout project implementation.

117. ESF scope of application. The ESF will cover all project activities including: (i) transportation of wheat from ports of origin to Egyptian ports; (ii) wheat handling and storage in the relevant ports; (iii) construction and operation of new and expanded inland silos; (iv) subcomponent 2.2 physical activities such as installation of agrometeorological early warning systems and operation and maintenance of procured equipment; and (v) component 3 activities. The following ESSs are relevant: ESS1, ESS2, ESS3, ESS4, ESS5, ESS6, ESS8 and ESS10. To comply with the ESF requirements in the context of the emergency nature of the project, an Environmental and Social Commitment Plan (ESCP) and a preliminary Stakeholder Engagement Plan (SEP) have been prepared. E&S instruments will be deferred to the implementation stage. This is due to the emergency nature of this operation and in accordance with ESF E&S Policy paragraph 14, and OP 10.00 paragraph 12, and E&S Directive paragraph 52, where exceptional arrangements for E&S requirements are permitted to be deferred to the project implementation stage. The project benefited from the ESF risk management and proportionality approaches to address the potential E&S risks at the different stages of the project life cycle. As such, specific E&S instruments and studies, have been determined with clear outputs, timeframe and assigned responsibility in the disclosed ESCP. The site-specific E&S instruments will be prepared, disclosed, consulted upon, and cleared by the World Bank as appropriate and proportionate to project-associated risks.

118. GASC and EHCSS will be the entities which will be implementing Components 1 and 2.1, respectively. PMU on behalf of MARL will be responsible for preparing the required instruments relevant to the planned activities

under Sub-component 2.2 as detailed in the ESCP. The PMU which will be established at MOSIT will be responsible for: (i) ensuring that all determined E&S documents are timely prepared, nationally approved and World Bank-cleared; (ii) ensuring that specific actions (based on E&S audit findings and ESMP recommendations) are being implemented; and (iii) compiling and submitting to the World Bank regular environmental and social progress reports.

119. Institutional arrangements for environmental management are in place but need strengthening. There are several agencies and state-owned enterprises (SOEs) which will be involved in implementing the project. In order to manage project risks, the project implementing agencies (MOSIT through the PMU, GASC, EHCSS) and will carry out environmental and social assessment in order to: (i) ensure that project activities are environmentally sound and sustainable; (ii) inform and influence the design and planned interventions to ensure risk mitigation hierarchy is in place; (iii) determine mitigation measures and monitoring plans proportionate to risks and impacts of the project interventions throughout the project life cycle in a systematic manner. This will be achieved through specific actions and measures.

120. The environmental and OHS management capacity of GCSS (responsible for port silos) is well-established. An environmental management department and OHS department are present at the different administrative levels starting from the company headquarters down to the port silos level. Well-trained environmental and OHS officers (engineers and technicians) are supervising and ensuring (i) compliance with the national environmental and OHS legal requirements; (ii) compliance with the relevant Port Authority specific environmental regulations; (iii) maintaining and continuously updating environmental and OHS records; and (iv) reporting any environmental or OHS incidents to their respective management levels and the relevant Port Authority departments. Regular environmental monitoring, according to national legal requirements, is being conducted through independent third party, nationally accredited environmental consulting firm.

121. The OHS management capacity at EHCSS (responsible for inland silos) is adequate while the environmental management capacity needs strengthening. At the silos level, a team responsible for OHS, led by a well-trained officer is in place at each silo site. In addition to the OHS officer responsibilities, handling environmental aspects during operation and maintenance is an additional assigned task. At the company headquarter level, environmental management is not within EHCSS organizational structure. However, an OHS department does exist and one of its staff is assigned environmental responsibilities. EHCSS fully relies on external environmental consulting firms to prepare environmental studies, develop annual environmental records, and conduct environmental monitoring on an as needed basis. It is worth mentioning that EHCSS has implemented projects for construction of silos which were financed by international development agencies such as the Danish International Development Agency.

122. With regards to the capacity of the mentioned entities in relation to environmental risk management aspects of the ESF, the initial due diligence conducted showed that MALR has strong environmental management and climate change technical knowledge. On the social side, despite the absence of social risk management unit or stakeholders' engagement unit per se, both ministries (MALR and MOSIT) have strong linkages to Egyptian citizens and the core mandates of both is to offer service to the segments that are among the poorest and most vulnerable. The project can capitalize on the ministries' track record in dealing with poor families entitled to subsidies and different local stakeholders including small scale farmers. For example, MOSIT through EHCSS has an existing system for consultation with different stakeholders in the wheat value chain during the harvesting season. MALR through the Agricultural Extension Sector has a well-established system for engaging and consulting with different types of farmers that is ongoing throughout the year. Those are seen as good entry points for strengthening stakeholder engagement through the project.

123. Once established, the PMU at MOSIT will be staffed with one qualified environmental and one qualified social specialist to support management of environmental, social, health and safety (ESHS) risks and impacts of the Project, all with composition, mandate, resources, and terms of reference satisfactory to the World Bank. MOSIT will ensure that each of the relevant Project Partners has ESHS focal points to supervise and ensure implementation of E&S requirements. The PMU will support the Project Partners in preparing the specific scope of work necessary for the EHS specialist(s)/consultant(s) to perform the required duties. The primary responsibility of the environmental and social specialists will be to address the environmental and social risks of the project and support the enhancement of stakeholder engagement. Terms of Reference (TOR) for the specialists will be developed with support from the World Bank. Their primary responsibility will be to:

a) Support in developing TORs for the consultancy firms that will be developing the ESF instruments as per the ESCP;
b) Follow up closely in the preparation of the ESF instruments;
c) Ensure that the project has a functioning Grievance Mechanim system for both labor as per the Labor Management Plan and citizens;
d) Facilitate the implementation of SEP activities; and
e) Maintain regular monitoring and reporting including on the ESCP implementation and other project relevant dimensions.

V. GRIEVANCE REDRESS SERVICES

124. Communities and individuals who believe that they are adversely affected by a World Bank supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the World Bank's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of World Bank non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and World Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit http://www.worldbank.org/en/projects-operations/products-and-services/grievance-redress-service. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

VI. KEY RISKS

125. The overall project risk is Substantial, which stems from the risks described below.

126. ***Macroeconomic risk is Substantial***. Global market conditions may continue to put pressure on commodity prices and impact Egypt's balance of payments. Expected potentially persistent high inflation and the resulting increase in government expenditures due to the higher cost of government purchases and subsidies, in light of rising commodity prices, may limit the ability of the government to continue to fully finance the Bread Subsidy Program. Expected co-financing arrangements for the construction of silos may also not fully materialize if the

government finances continue to remain under pressure. The project aims to mitigate some of these risks by providing a replenishment of wheat reserves to avoid a disruption in wheat supply in the short-term and strengthening the efficiency and resilience of the domestic wheat value chain (Component 2). The Project will also support the Government in adjusting its food security strategy including reforms of the Bread Subsidy Program (Component 3). An annual workplan and budget exercise with EHCSS will aim at mitigating risks associated with any financing pressures for construction and/or expansion of silos.

127. ***Institutional capacity for implementation and sustainability risk is Substantial***. Institutional capacity risks stem from the fact that MOSIT and Implementing Entities have not worked with the World Bank on investment lending operations prior to this project. Mitigation includes introducing capacity building and technical assistance activities through Component 3. With regards to sustainability risks, activities under Component 2 (improved grain storage network and management, improved post-harvest handling practices) and support for reforms of food subsidies under Component 3 are an integral part of the sustainability strategy under the project. In addition, technical assistance will be provided to GOE to improve its grain price risk management strategy, enabling better planning for next fiscal year (2023) including through budget adjustments to reflect the full cost of grain imports should prices remain high. Finally, other partners are ready to provide financing for grain imports to supplement Bank support.

128. ***Environmental risk is Substantial***. As described in Section D, there are potential negative environmental risks and impacts associated with some of the project-financed interventions. Environmental risks associated with Component 1 are related to maritime transport, handling and storage of wheat including operation and maintenance of port equipment and port silos. Sub-component 2.1 environmental risks are mostly related to, construction, operation and maintenance of inland silos in addition to risks associated with wheat handling and storage. Since the activities, specifically under sub-component 2.1 will involve the construction of 10 silos across different locations in the country, the associated risks are considered Substantial. Other risks related to Component 2.2 interventions are considerate Moderate. With support from qualified consultants, the existing environmental and OHS management capacity of the implementing agencies will be adequate to manage and mitigate all identified potential environmental and OHS risks.

129. ***Social risk is Substantial***. Many Egyptian citizens at large, including vulnerable and low-income groups and small-scale farmers, will benefit from the project. The potential adverse social impacts include: (i) risk related to land acquisition and restricted access to land both temporarily and permanently; (ii) potential inappropriate labor and working conditions in the construction and agriculture sectors both in the country (for components 1.2, 2.2 and 3) and for primary suppliers (Component 1); (iii) risk of elite capture, exploitation and unequal access to project benefits for vulnerable groups (for components 1.2, 2.2 and 3); and (iv) potential reputational risk related to exclusion, risk of lack of transparent sharing of information and unresolved complaints.

130. ESF instruments that will be prepared will include mitigation measures, not only to address the impacts and risks but also to maximize the benefits and emphasize an inclusive approach. Grievance mechanisms will be strengthened capitalizing on the multiple existing systems by enhancing and streamlining them while emphasizing the closure of feedback loops. The implementation of the SEP is also expected to help in engaging stakeholders at an early stage, addressing their views and concerns as an ongoing process.

131. Specific risk management and mitigation measures are reflected in the ESCP. The implementing entities (MOSIT through PMU, GASC, EHCSS) are officially committed to implement the actions determined in the ESCP which is an integral part of the Loan Agreement and addresses all potential risks and impacts associated with all project components through clear, specific, and time-bound measurable actions.

132. ***Financial Management risk is Substantial***. Significant budget variances exist in GASC given the global

market conditions and volatile wheat market prices. Supplementary funding from the state budget is sought as applicable following the due legislative procedures. The World Bank's "Special Commitment" disbursement option and the use of LCs at sight rather than LCs with supplier facilities (usually 180 days) should help reduce import costs.

133. The high investment costs assumed by EHCSS for silos construction will drastically increase its financing burden. The expansion is viewed as a strategic need at the national level, and the accruing revenues from storage and handling fees should ensure a financially viable/sustainable model for EHCSS. In the case of silos associated with railway or river transport facilities, close coordination between EHCSS and the Ministry of Transport is required including timely budget allocations. There may be a tendency to opt for direct orders (single source selection) as opposed to competitive bidding under urgency considerations. The review of Procurement Plans should help in this regard through assessment on a case-by-case basis.

134. The audit reports of GASC and EHCSS both had qualified opinions citing significant pending settlements with different entities among other observations. The Project funds will be ring-fenced either using designated accounts or through adopting "special commitments" disbursement methods.

135. ***Procurement risk is High***. MOSIT, GASC and EHCSS have not worked with the World Bank on investment project financing operations before. As such and taking into consideration project-specific activities, the following risks have been identified: (i) increased prices due to high global demand and supply shortages as well as associated sea transportation and logistics; (ii) limited grain market and origins of wheat as certified by the Egyptian authorities; (iii) limited market for construction of silos; (iv) managing the risks associated to the multiple contracts under the works activity; (v) Egypt imports more than 60 percent of its wheat from the Russian Federation, within the current crisis contracts with Russian firms might not be implementable due to international payments restrictions imposed on Russia; and (vi) integrity risk as one agent can submit bids on behalf of more than one wheat supplier, from different wheat origins, translate the offer to Arabic, sign it and submit it to GASC.

136. The procurement risk will be reviewed during implementation following the integration of mitigation measures. All parties including agents and suppliers will be required to abide by the Anti-Corruption Guidelines. The World Bank will prior review all wheat contracts. The World Bank will agree with MOSIT on templates for procurement documents and evaluation reports to be used and no changes will be allowed. Publication of bid opening minutes will be required. GASC will be responsible to ensure price reasonableness in comparison with prevailing market prices. The Bank task team will confirm that prices are consistent with the spot market. The task team will ensure availability of updated price information to facilitate World Bank review. GASC will recruit or reassign existing qualified staff familiar with World Bank Procurement Regulations, to support procurement. The World Bank will maintain close follow-up and quality control of procurement/contract management matters during project implementation to ensure the efficiency of procurement decisions. Diversification of the sources of supplies and countries of origin of wheat and opening its market would help Egypt mitigate market risks. EHCSS will use initial selection or prequalification to open the list of suppliers to all eligible firms for the procurement of silos. The implementing entities need to propose arrangements to ensure that payments can be made under any signed contract. Training of MOSIT, GASC and EHCSS on the World Bank procurement framework and STEP will also be carried out. Finally, the POM will include in its procurement section an effective complaints management system to handle procurement complaints, with immediate notification to the World Bank.

137. Based on the above assessment of FM and Procurement risks, overall Fiduciary risk is considered High.

VII. RESULTS FRAMEWORK AND MONITORING

Results Framework

COUNTRY: Egypt, Arab Republic of

Emergency Food Security and Resilience Support Project

Project Development Objectives(s)

The project development objective is to ensure the short-term supply of wheat for uninterrupted access to bread for poor and vulnerable households and to strengthen Egypt's resilience to food crises.

Project Development Objective Indicators

Indicator Name	PBC	Baseline	End Target
Short-term availability of grain is ensured.			
Cumulative amount of wheat procured through the project for the Bread Subsidy Program to ensure continued access to affordable bread for the poor and vulnerable (Metric ton)		0.00	700,000.00
Additional storage capacity is available.			
Existing storage for the Bread Subsidy Program that has been made more efficient. (Metric ton)		0.00	600,000.00
Waste and loss in national wheat stocks reduced.			
Percent of grain losses in storage in improved silos under the project (Percentage)		12.00	8.00
Farmers adopt climate-smart agriculture technologies.			

Indicator Name	PBC	Baseline	End Target
Farmers adopting improved technologies (Percentage)		0.00	60.00
Farmers adopting improved technologies (female) (Percentage)		0.00	60.00

Intermediate Results Indicators by Components

Indicator Name	PBC	Baseline	End Target
Component 1. Emergency Response Measures			
Percentage of poorest decile receiving bread subsidies (Percentage)		96.20	96.20
Component 2. Strengthening Preparedness and Response to Shocks			
Number of new and expanded silos in operation with improved climate and disaster-resilient standards (Number)		0.00	10.00
Number of grain silos monitored and managed through improved MIS system. (Number)		0.00	50.00
Women farmers benefiting from awareness and demonstration programs designed specifically for women (Percentage)		0.00	90.00
Component 3. Project Management and Knowledge Management			
Beneficiaries of the Bread Subsidy Program reporting adequate access to affordable bread (Percentage)		0.00	95.00
Beneficiaries of the Bread Subsidy Program reporting adequate access to affordable bread (female). (Percentage)		0.00	95.00
Beneficiaries' feedback addressed through the GRM within the timeframe publicly communicated by the project (Percentage)		0.00	100.00
Expanded national agrometeorological early warning system operating (Yes/No)		No	Yes

Indicator Name	PBC	Baseline	End Target
Beneficiary farmers satisfied with the extension services provided under the project (Percentage)		0.00	80.00

Monitoring & Evaluation Plan: PDO Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Cumulative amount of wheat procured through the project for the Bread Subsidy Program to ensure continued access to affordable bread for the poor and vulnerable	This indicator measures the immediate impact of the project and ensures that the project interventions serve the purpose of replenishing wheat stocks to a minimum critical level for uninterrupted access to bread by poor and vulnerable households. This indicator contributes to the objective of accessibility of staple bread as a key dietary component with focus on poor and vulnerable households.	Annual	GASC	Data will come from GASC regular reports. Since procurement of wheat under Component 1 is expected to be completed within the first year, this indicator's monitoring will be discontinued after Component 1 is fully disbursed.	PMU
Existing storage for the Bread Subsidy Program that has been made more efficient.	This indicator will be measured as the improved and more efficient storage	Annual	EHCSS	EHCSS Reports	PMU

	facilities upgraded and modernized through project interventions. This indicator contributes to the medium-to long-term resilience aspect of the PDO and measures the country's resilience to food crises.				
Percent of grain losses in storage in improved silos under the project	This indicator measures the waste/loss reduction potential of project investments in silos.	Annual	EHCSS	EHCSS Reports	PMU and EHCSS
Farmers adopting improved technologies	This indicator will measure the adoption of climate smart agricultural practices by farmer beneficiaries (disaggregated by gender).	Bi-Annual	Surveys	Sample Surveys	PMU and MARL
Farmers adopting improved technologies (female)					

Monitoring & Evaluation Plan: Intermediate Results Indicators					
Indicator Name	**Definition/Description**	**Frequency**	**Datasource**	**Methodology for Data Collection**	**Responsibility for Data Collection**
Percentage of poorest decile receiving bread subsidies	This indicator will monitor that universal access for the poor to Bread Subsidy Program continues.	Bi-Annual	Surveys, poverty and consumption data analyses	Poverty and Social Impact analysis tools	PMU
Number of new and expanded silos in operation with improved climate and	This indicator measures the number of silos upgrade	Annual	EHCSS	EHCSS Reports	PMU and EHCSS

disaster-resilient standards	through the project.				
Number of grain silos monitored and managed through improved MIS system.	This indicator measures the number of silos connected to the improved and upgraded MIS system.	Annual	EHCSS	EHCSS reports	PMU and EHCSS
Women farmers benefiting from awareness and demonstration programs designed specifically for women	This indicator measure percentage of women farmers who participated in special training programs designed for women and benefited from these programs.	Bi-Annual	Surveys	Sample Survey	PMU
Beneficiaries of the Bread Subsidy Program reporting adequate access to affordable bread	This indicator measures continued access to affordable bread for beneficiaries of the Bread Subsidy Program.	Survey to be carried out in year 1, year 2 and at end project.	Surveys	Sample Survey of beneficiaries	PMU
Beneficiaries of the Bread Subsidy Program reporting adequate access to affordable bread (female).					
Beneficiaries' feedback addressed through the GRM within the timeframe publicly communicated by the project	This indicator will measure the project's response to beneficiaries' feedback through the GRM system.	Annual	GASC, EHCSS and PMU	Project monitoring system. Reports will be received through multiple channels.	MOSIT through PMU
Expanded national agrometeorological early warning system operating	This indicator will indicate that the agrometeorological EWS has been expanded to 50 stations and is in	Annual	MARL	MARL Reports	PMU and MARL

	operation				
Beneficiary farmers satisfied with the extension services provided under the project	This indicator measures the share of beneficiary farmers under sub-component 2.2 satisfied with the extension services provided under the project (disaggregated by gender)	Bi-Annual: At mid-term (year 2) and end-project (year 4)	Surveys	Sample survey of beneficiary farmers	PMU and MARL

ANNEX 1: Implementation Arrangements and Support Plan

COUNTRY: Egypt, Arab Republic of
Emergency Food Security and Resilience Support Program

Implementation Arrangements

1. The Ministry of Supply and Internal Trade (MOSIT) will be responsible for coordination and supervision of the implementation of activities under the project. To this end, the MOSIT will establish a Project Management Unit (PMU), with composition, functions, responsibilities and resources acceptable to the World Bank as set out in the Project Operations Manual (POM), which will be responsible for day-to-day monitoring of project activities, including coordination with the Project Implementing Entities, overall implementation of environmental and social aspects for the project, and implementation of technical and fiduciary aspects for Components 2.2 and 3. The PMU will be staffed at all times during project implementation with a project director, an agriculture specialist, environmental and social specialists, a procurement specialist, a financial management specialist and a monitoring and evaluation specialist; all with terms of reference, qualifications and experience acceptable to the World Bank. The PMU will be established within two months of project effectiveness. The roles and responsibilities of the PMU are summarized below:

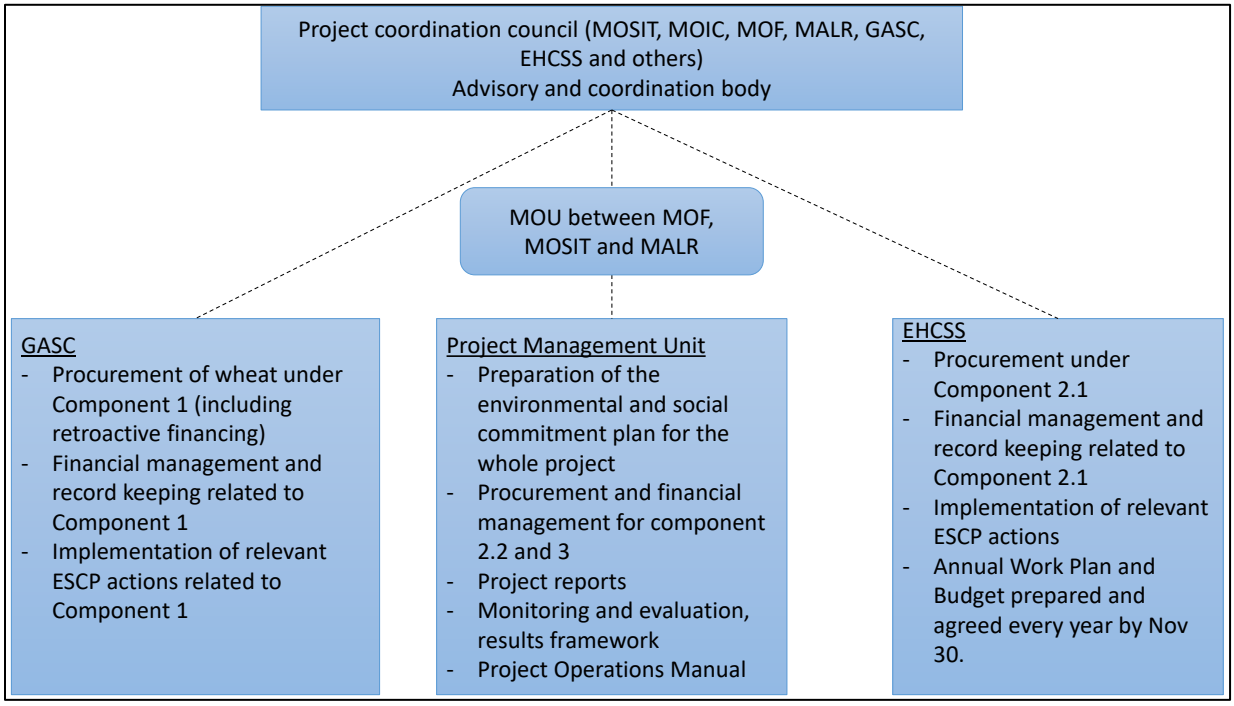
- The PMU will report to the Minister of Supply and Internal Trade;
- The PMU will be comprised of the following specialists: Director; Agriculture specialist (seconded by the Ministry of Agriculture and Land Reclamation (MALR); Procurement specialist; Financial Management specialist; Environmental specialist; Social specialist; M&E specialist; Other experts and consultants if required;
- The PMU will prepare project reports, IFRs and conduct M&E;
- The PMU will liaise between implementation partners (GASC, EHCSS and MALR) for all project reporting and M&E functions;
- The PMU will implement all procurement and financial management for component 2.2 and component 3; and
- The PMU will oversee environmental and social compliance of the whole project in close coordination with GASC, EHCSS and MALR.

2. The Project Implementing Entities will be GASC and EHCSS. GASC, as an agency under MOSIT, will be responsible for the procurement of wheat under Component 1. GASC has been established by the Republican decree No 1189/1968 and is affiliated with the MOSIT. The Chairman of GASC is the Minister of Supply and Internal Trade, while day-to-day management of GASC is executed by its Vice Chairman. GASC will follow the wheat procurement process outlined in Section IV.B.(ii). Implementation of Component 2.1 investments related to construction of new and expansion of existing silos will be the responsibility of the EHCSS, established by a decision of the Prime Minister No. 1682 of 2002 in accordance with the provisions of the public business sector companies No.203 of 1991.

3. EHCSS manages all public grain storage in Egypt, including receiving and storage of imported and local

wheat. EHCSS is a state-owned enterprise under GASC, with an independent legal status and is not part of the state budget. EHCSS will be the primary implementing entity in charge of the implementation of the establishment and upgrading of silos. EHCSS will oversee the design and construction of silos. EHCSS will also operate the silos after their completion. Additional technical assistance and capacity building, including digital operations and management systems for the EHCSS would be supported through a technical assistance package allocated under Component 3. Figure A1.1 describes the implementation arrangements of the project.

Figure A1.1 Implementation Arrangements



4. The Ministry of International Cooperation (MOIC) will sign a Subsidiary Loan Agreements respectively with EHCSS and GASC setting forth inter alia the project's technical, fiduciary, and environmental and social requirements that are to be complied with. Additionally, it was agreed that the World Bank will sign Project Agreements respectively with GASC and EHCSS.

5. MALR through the PMU will lead the development, management, and implementation of the farm-level resilience building activities, the design and implementation of the expanded Agro-Meteorological Early Warning System, as well as activities related to capacity building in seed management envisaged under Sub-component 2.2. A Memorandum of Understanding (MOU) will be established between the MOF, MOSIT and MALR to facilitate the implementation of Component 2.2 of the project.

6. A PCC which is an advisory and coordination body will be established within three months of project effectiveness with membership and terms of reference acceptable to the World Bank. The PCC will be chaired by the Minister of Supply and Internal Trade and will include inter alia representatives from the MOIC, MOF, MALR, GASC, EHCSS. The roles and responsibilities of the PCC are summarized below:

- The PCC will be chaired by the Minister of Supply and Internal Trade;

- The PCC will include representatives of MOIC and MOF, the Vice-Minister of Agriculture and Land Reclamation, Vice-Chairman of GASC and the Chairman of the Board of EHCSS;
- The PCC will meet from time-to-time, but no later than once every quarter, to discuss project progress and resolve issues that require coordination between various agencies; and
- The PMU Director will serve as a secretary of the PCC, and will be in charge of organizing PCC meetings, recording agendas and developing plans for follow up actions.

Support Plan

7. Implementation support for the project will focus on functions and activities typically monitored by World Bank task teams during supervision, including technical activities, management functions (administration, FM, procurement), and compliance with safeguard policies. Special attention will be directed to ensuring the timely implementation of the risk mitigation measures identified in the SORT matrix. The implementation support strategy is flexible and likely to be amended during implementation in response to the evolving needs of the project, including changes in the institutional context. A POM will be developed within two months of project effectiveness.

Implementation Support Plan and Resource Requirements

8. The areas on which implementation support activities will focus are summarized in Table A1.1, which also lists skill requirements.

Table A1.1: Implementation support focal activities and skill requirements

Time	Focus	Skills needed	Resource estimate
First 6 months	- Project establishment - Establishment of fiduciary systems - Environmental and social aspects in place - Establishment of Project Coordination Council. - Setting-up M&E system - Communications strategy development and implementation	- Task Team Leader - Agriculture Specialist - Wheat value Chain Specialist - Silo specialist/engineer - Procurement Specialist - Environmental Specialist - Social Specialist - FM Specialist	15 staff weeks
12 months-36 months	- Program implementation - Communication activities - Monitoring - Reporting	- Task Team Leader - Agriculture Specialist - Wheat value Chain Specialist - Silo specialist/engineer - Procurement Specialist - Environmental Specialist - Social Specialist - FM Specialist	25 staff weeks/year

ANNEX 2: Summary of the Wheat Value Chain in Egypt

COUNTRY: Egypt, Arab Republic of
Emergency Food Security and Resilience Support Program

Introduction – Key features of the Wheat Value Chain

9. In Egypt, approximately 40 percent of the wheat consumed is locally produced, while around 60 percent is imported. USDA estimates for the 2022/23 marketing year that domestic production of wheat will be round 9 million tons with a further 12 million tons imported. Of the estimated 9 million tons (for 2022/23) of wheat grown in Egypt, on-farm consumption of wheat accounts for 63 percent, providing flour for farming households.[42] To cater for the low-income population, the government through the Ministry of Supply and Internal Trade (MOSIT) has been implementing a bread subsidy program for decades (the Baladi bread program), through which the government is involved in the wheat sector both as major purchaser of domestic wheat and as a major importer of wheat. The government utilizes on average 40 percent of all wheat (domestic and imported) for the Bread Subsidy Program, owns 30 percent of milling capacity and employs a further 20 percent of milling capacity in tolling contracts with private mills.

10. The government purchases on average 9 million tons of wheat annually: around 3.5-4.5 million tons are bought from domestic production (with a target of purchasing a record 6 million in 2022/23), while around 4.5-5.5 million tons are imported by the General Authority for Supply Commodities (GASC) on behalf of MOSIT. This wheat is milled to produce "82 percent" extraction flour for the subsidized Bread Subsidy Program.[43]

Box B1: Key figures for the wheat value chain

Total annual demand= 20-21 million metric tons Imports=12 million metric tons (both government and private sector) Domestic production=8-9 million metric tons Bread Subsidy program uses: on average 9-9.5 million metric tons, of which: Domestic wheat= 3.5-4.5 million metric tons (government) Imports= 4.5-5.5 million metric tons (government)

11. The wheat value chain segments are organized as follows:

1) Local Wheat Production and Storage

12. The government provides a procurement price set at high level to encourage farmers to grow wheat and provides input subsidies to farmers. Wheat is grown throughout Egypt, in the Delta region, along the banks of the Nile, as well as in the newly reclaimed areas. In 2021, wheat was grown on 1.53 million ha.

13. On average, the government purchases around 40 percent (around 3.5-4.5 million metric tons) of

[42] USDA Grain and Feed Annual Report March 2022.
https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=Grain%20and%20Feed%20Annual_Cairo_Egypt_EG2022-0009.pdf
[43] Presentation by GASC in March 2022

domestically grown wheat with the remaining wheat consumed on-farm for food, seeds, feeding and other purposes.[44] On behalf of GASC, three government companies purchase domestic production: the Agricultural Bank of Egypt (ABE), the Egyptian Holding Company for Silos and Storage (EHCSS) and the Food Industries Holding Company (FIHC).

14. ABE is the single largest buyer of domestic wheat, accounting for approximately half of government domestic purchases[45]. Locally produced wheat purchased by ABE is stored in the 355 shonas in Egypt, which are close to farming areas, ranging in size from 6,000 to 8,000 tons of capacity. A shona is a simple floor area enclosed by fences, where wheat is stored by stacking it in jute bags. Of these shonas, only 88 have concrete floors. Overall, ABE has 2.1 million tons of storage capacity through this system. This basic system of storage in the shonas creates significant wheat loss. The jute bags often tear and leave the wheat vulnerable to weather and pests. This results in important losses of wheat and reduces its quality, impairing its suitability for milling by increasing the share of impurities. Handling is also done manually, which adds further impurities and losses. While there are no official estimates available of the quantitative losses at the shona, post-harvest loss is estimated around 18 percent.

15. The Egyptian Holding Company for Silos and Storage (EHCSS) is the second largest buyer of domestic wheat and has 44 silos with silo capacity ranging from 10,000 to 60,000 tons, distributed throughout Egypt. EHCSS total storage capacity is around 3,290,000 tons, utilized for domestic wheat production storage as well as for imported wheat. The Food Industries Holding Company (FIHC) purchases around 0.5 million tons of wheat annually, which is sent directly to government-controlled mills.[46]

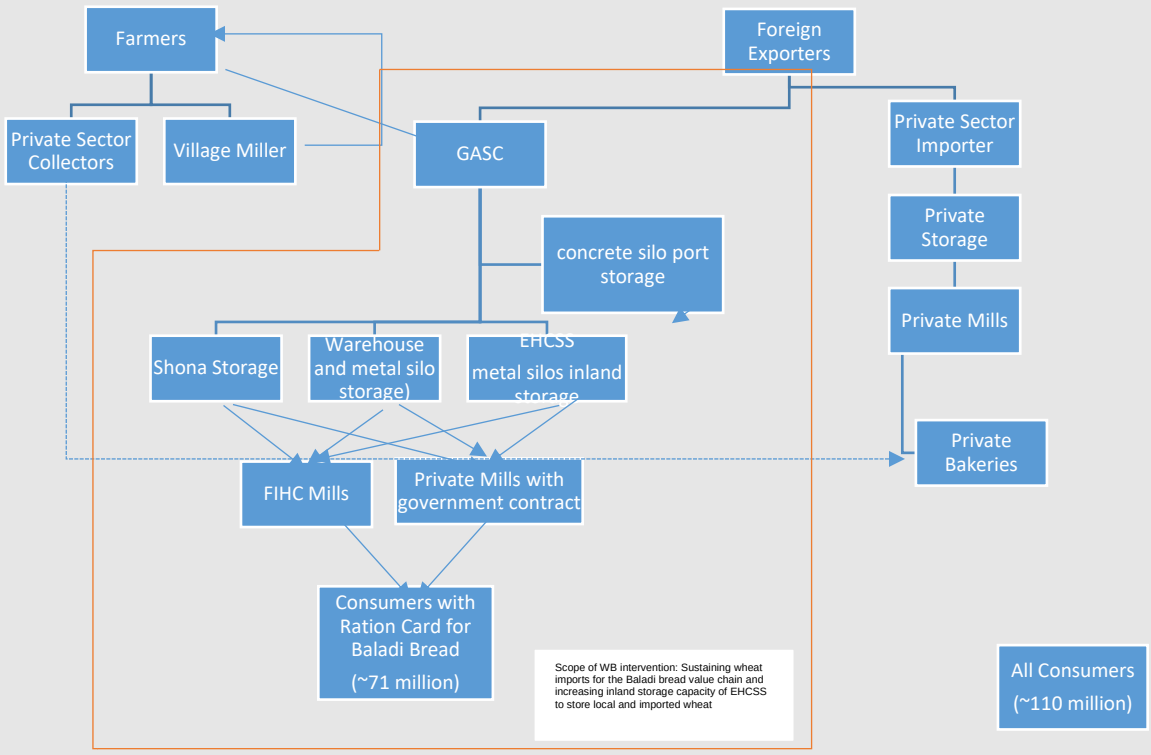
16. Even though a large proportion of Egypt's cropped area is sown with wheat with high yields, Egypt is heavily dependent on imports to meet its consumption needs. Limits to the cultivated area, as well as water supply, coupled with rapid population growth, mean that Egypt will remain dependent on imports. In addition, quality issues with domestically produced wheat, in particular due to poor storage conditions in the current network of storage facilities, also result in higher needs for imports.

[44] Due to the war in Ukraine, MOSIT issued a ministerial decree requiring every wheat producer in the CY 2022 season to sell a minimum of 12 ardeb/feddan, or 4.28 MT per hectare (1 Feddan = 0.42 Hectares), to governmental wheat purveyors. The decision stressed that if quantities of the crop are sold before the issuance of this decree, the buyer must deliver what he bought to the government authorities on the same terms. The decision also prohibits the sale of the remainder of this season's wheat to non-governmental agencies unless a permit is obtained from MOSIT. It is also prohibited to transfer wheat from one place to another except with a permit as well. The decree stipulated that large farm (25 acres or more) should sell 90 percent of their wheat production to governmental wheat purveyors and such farms will receive subsidized fertilizers for their summer crops.

[45] Yigezu, Yigezu A., et al. "Food Losses and Wastage along the Wheat Value Chain in Egypt and Their Implications on Food and Energy Security, Natural Resources, and the Environment." Sustainability 13.18 (2021): 10011.

[46] Presentation by EHCESS to the World Bank in March 2022

Figure B1. Wheat Value Chain in Egypt: Main Stakeholders and Scope of World Bank Intervention



2) Wheat Imports and Storage

17. Of the total average 12 million tons of wheat annual imports, government imports account for up to 45 percent. Government imports are purchased through tenders issued by the General Authority for Supply Commodities (GASC). The wheat arrives in one of Egypt's three major ports and is cleared and stored in port level storage owned by the General Company for Silos and Storage (GCSS), which has around 400,000 tons of storage facilities in the ports of Alexandria, Damietta and Safaga.[47]

18. The government purchases wheat through GASC. GASC buys wheat opportunistically through the year though it often ceases to import during May and June when the Egyptian harvest is underway. On average, tenders

[47] Presentation by EHCESS in March 2022.

come out every two to three weeks and are released on Reuters late in the evening in Cairo after the Intercontinental Board of Commodity Exchange (formerly known as the Chicago Board of Trade) has closed. The shipping time for GASC tenders is on a very short notice, for example a tender set out on 8 July may envisage delivery between 21 and 31 August.

19. Beyond the port silo storage, the imported wheat purchased by the government is stored by GCSS and EHCSS inland. Apart from the port silos, GCSS has two silos to serve the greater Cairo area. One has a capacity of 100,000 tons and is located in Shubra (a suburb of Cairo). The other has 60,000 tons of capacity and is in Imbaba (a neighborhood in Giza). The EHCSS has 44 silos with an average capacity of 10,000-60,000 tons each, distributed throughout Egypt, where it stores both domestic and imported wheat. From there on, the wheat makes it to mills for the subsidized Bread Subsidy Program value chain. GASC normally keeps a four-to-six-month supply of stocks (including wheat) in the import pipeline, with an additional one-month supply of wheat in transit to Egypt.

20. The private sector imports approximately 5-6 million tons of wheat annually and has a storage capacity of just over 2.9 million tons spread across all the main ports. However, in contrast to the government sector, this storage is used not only for wheat, but also for other grains, as well as oilseeds and meals. The private sector import chain operates on a just-in-time basis, storing as much as private storage and mills can take. Storage facilities operate efficiently, considering vessel line-up and inspection delays, as well as demand. Wheat imported by the private sector moves directly to the mills. The private sector has no port storage and is not allowed to use government port silos.[48] (Table B1).

Table B1. Role of the government and private sector in the Bread Value Chain

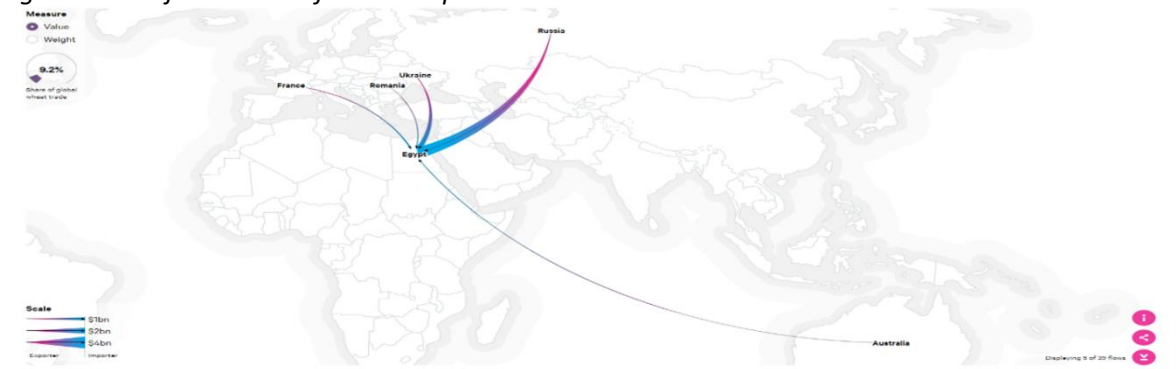
Value Chain Stage	Public Sector	Private Sector
Imports	GASC imports wheat on behalf of the Ministry of Supply and Internal Trade	Importers usually are either large traders working with international suppliers, local large mills, or feed producers
Wheat Production	The government is not involved in direct growing of wheat. It subsidizes and provides loans, machinery, and inputs.	Farmers, mostly small-scale producers, produce the majority wheat, which is mostly consumed at farm level (for flour, seed, and animal feed), sold to private sector, or sold to government at above market prices.
Storage (Port and in-land)	ABE operates shonas, and EHCSS operates metal silos for domestic storage, and GCSS operates the concrete silos at port (Alexandria, Safaga, Dumyat).	Private sector (importers and mills) wheat is stored at private storage silos and mills. The private sector is not allowed to store at government silos whether at ports or internally.
Transport	The government owns and operates a fleet of bulk carriers for wheat transport through the Egyptian Company for Marine Transport (MARTRANS) and the National Navigation Company (NNC). When there is no availability, the	Private sector hires private bulk shipping and land transport.

[48] https://www.ebrd.com/documents/comms-and-bis/egypt-wheat-sector-review.pdf

	government hires private sector bulk shipping company. EHCSS has a fleet of trucks and barges that transport wheat inland.	
Milling	Government through FIHC owns 80 mills	69 private mills operate as toll millers (by contract from government)
Bread Production	Government owns only 2 percent of the 18,000 Baladi bakeries in Egypt, even though government bakeries account for 12 percent of the total production capacity.	Private bakeries (under toll contract) produce subsidized bread and sell based on reimbursement of bread sales. Other private bakeries with no government contract

21. Egypt's imports of wheat over the last five years amounted to 62.6 million tons, with 59.7 percent from Russia and 22.3 percent from Ukraine (82 percent combined), both major suppliers to the Egyptian market. Egypt relies on Russian and Ukrainian wheat due to competitive prices, lower freight costs, and less time reaching Egyptian ports compared to other origins. Egypt's CY 2021 wheat imports from the Russian Federation and Ukraine amounted to almost 77 percent of total wheat imports. Private sector imports represented 60 percent of total imports and government imports were 40 percent in CY 2021. Private industry became a major player in the wheat market in Egypt during the past five years, gaining more market share every year in the wheat trade.

Figure B2. Major sources of wheat imports in 2020



Source: ITC and Chatham House

3) Downstream segments

22. For the subsidized bread value chain, the Egyptian government operates 6.6 million tons of milling capacity directly and uses another 4.3 million tons of private sector facilities through tolling contracts. There are 80 public sector mills with a total capacity of 6.6 million tons. Almost two-thirds of all wheat is milled in public sector mills, giving them a capacity utilization per year of around 72 percent. The average public sector mill has an average capacity of just over 82,000 tons/year (250 tons/day), while the private sector mill has a smaller average capacity of just under 62,000 tons/year (approximately 190 tons/day). There are 69 private sector mills engaged in producing "82 percent" flour for the government with toll contracts. Private sector capacity utilization is slightly lower than that in the public sector at 63 percent. While public mills receive the wheat at a subsidized price and then sell the flour and bran back to the government at fixed prices, while private sector mills receive a

flat milling fee of between EGP 500–600 per ton.[49]

Subsidized Baladi Bread Production

23. The Bread Subsidy Program uses both imported and domestically grown wheat, with imports essential both to meet the shortfall in domestic production and to provide wheat quality consistent with what is required for bread production. In practice, the two types of wheat are blended before being milled (up to 75 percent of imported wheat is mixed with locally produced wheat). While local wheat is of a sufficiently good milling quality at harvest, the low quality of storage means that impurities are combined with the wheat and that, eventually, different qualities of wheat are mixed. As a result, blending with imported wheat is essential to achieve the right quality of flour for bread making.

24. The wheat purchased by the Egyptian government is distributed to government and private mills to be ground into 82 percent extraction flour to produce Baladi bread. Private mills are not allowed to produce 82 percent flour unless they are operating under a government contract.

25. This 82 percent flour is provided to 18,000 Baladi bakeries, which produce only Baladi bread. Of these, less than 2 percent are owned by the government. However, government-owned bakeries are on average seven times as large as private bakeries, as a result their share of total baking capacity is higher at around 12 percent.[50] Traditionally, the government has provided subsidized flour to bakeries to produce Baladi bread to be sold at the subsidized price of 5 piastres, while unsubsidized bread is sold at EGP 1 (before the crisis, now around EGP 1.5-2). The current cost of subsidizing one loaf of Baladi bread is EGP 0.60 (US$0.03).[51]

26. As part of government reforms for bread subsidy, the government introduced a system under which each person is only entitled to 5 loaves of Baladi bread, and an electronic smart card is used to purchase the bread at the subsidized fixed price. The system helps the government determine the subsidies to which the baker is entitled, determining how much subsidized flour should be transferred. The system provides targeting for Egypt's 72 million poor and vulnerable people, and significantly reduces wastage in the chain. The current subsidy system permits beneficiaries who consume less than the quota amount to convert their bread savings into points (1 point = EGP 0.01). Points are redeemable, beneficiaries can use points to choose from 28 other food items sold at 20 percent discounted prices, offering a more diversified food basket similar in quality to that found in retail outlets. Beneficiaries make their purchases at the roughly 32,000 MOSIT-partnered private grocery stores, as well as from 1,300 state-owned consumer complexes.

Non-subsidized Bread Production

27. The overall private mill capacity is in the region of 15–20 million tons. Of this total capacity, 4.3 million tons are in mills operating under government contracts, leaving 10.7 million tons of capacity. Private sector mills (not under government contract) produce finer "72 percent fino" and higher-grade flour, which is used for different types of unsubsidized bread and pastries and is consumed by the general population (around 110 million). The private sector has a large untapped capacity to participate in the wheat value chain.

4) Status of stocks

[49] https://www.ebrd.com/documents/comms-and-bis/egypt-wheat-sector-review.pdf
[50] Ibid
[51] Interview with EHCSS in Alexandria in March 2022

28. There has been a decrease in the level of the strategic wheat buffer stock over the past decade since the levels observed in 2011 (Figure B3). Overall stocks stood at 2.6 months of consumption in mid-April 2022[52] and they have since then further diminished representing under two months of consumption as of mid-May 2022. While production forecasts indicate that local production this year will be sufficient to cover the share of the subsidized bread program needs that are covered through purchases of locally produced wheat, given the low and diminishing levels of stocks, additional imports continue to be needed in the short-term to complement purchases on the domestic market and to secure wheat supplies for the continuation of the program for the rest of the calendar year (CY). Project-financed purchases will support the continuation of imports in the short-term (Figure B4) for a total amount of 700,000 tons (8 percent of the annual needs of the Bread Subsidy Program), providing financing at a critical juncture to avoid a disruption of imports for the Bread Subsidy Program. Figure B5 shows that current stock levels (measured in month of consumption) are currently well below their historic, average level over the past decade (3 months of consumption). This leaves Egypt dependent on regular and continued imports of wheat to complement domestic production and meet its domestic consumption needs until the end of the year, including for the Baladi bread program, as well to maintain stock levels or to replenish them to minimum levels (3 months) to buffer potential new market disruptions in the coming months.

Figure B3 – Source: USDA and Bank team calculations

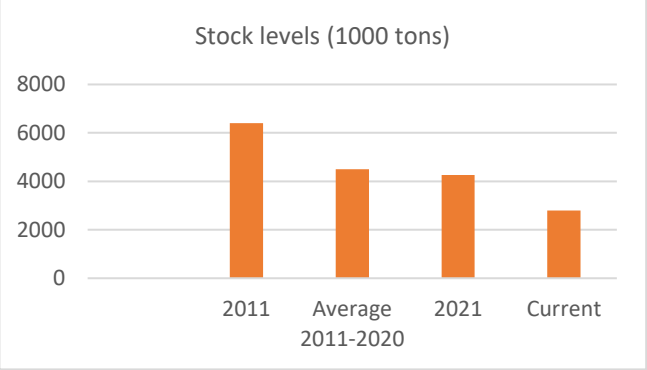


Figure B4 – Sourcing for the Bread Subsidy Program, 2022

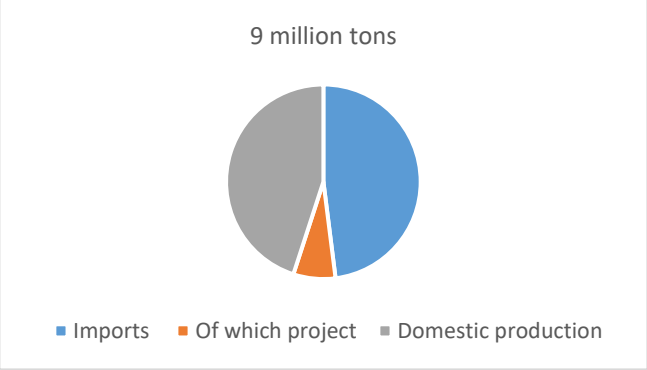
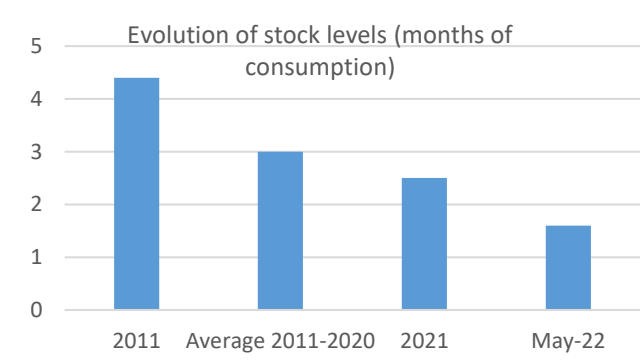


Figure B5 – Stock levels in months of consumption-equivalent



[52] This number includes both Government stocks for the Baladi bread program and stocks held by the private sector for the production of other products.