
CHAPTER 3: ACTORS IN THE *BALADI* BREAD SUPPLY CHAIN

“There are some men whose only mission among others is to act as intermediaries: one crosses them like bridges and keeps going.”

Gustave Flaubert, *Sentimental Education*, p.52.

The objective of this section is to draw out the principal actors in the *baladi* bread supply chain. Building on information from within the literature and fieldwork data that I have gathered, each actor will be listed and described to clearly outline their role in the *baladi* bread system. This process will set up the discussion in subsequent chapters to identify logistics and distortions in the *baladi* bread supply chain. By examining the role of all relevant actors, it is easier to understand their relations and interests in this process.

I have divided the actors into two groups: *conventional* actors, those who have most commonly figured in the academic literature and previous policy papers and *non-conventional* actors, those who emerged from fieldwork data and interviews. Understandably, this is but a synopsis of my assessment for actors in the *baladi* bread supply chain. Other researchers might have identified and focused on other actors. The guiding principle for my selection is the initial research question: what is the role of intermediaries in the *baladi* bread supply chain? As a result, I have mostly focused on actors that play a key role in the administration and disbursement of the *baladi* bread subsidy.

3.1. Conventional actors

3.1.1. Farmers

Wheat farmers play an essential role in the functioning of the *baladi* bread subsidy. In 2012, domestic wheat production amounted to 8.5 MMT of which 3.2 MMT was acquired by the government for *baladi* bread production, about 40% of the total required amount.⁹⁵ Farmers rely on high government procurement prices as an incentive to offset some of their production input costs such as fertiliser and diesel fuel for the harvest.⁹⁶ In this case, farmers are also concerned with distribution mechanisms. As suppliers to the government, they are in charge of transporting their wheat from the field to public mills or local wheat procurement centres owned by the state. These farmers operate largely on

95. Hamza et al., 2013, p.3.

96. Prior to 1987, wheat farmers were bound by a compulsory government delivery programme where area restriction and quota deliveries were controlled by the state. Since the implementation of the Economic Reform and Structural Adjustment programme, many of these constraints were lifted and wheat farmers were granted more freedom with regard to the buyers of the wheat harvest. For more, see: Kherallah et al., 2000, Chapter 1.

a small scale because of land redistribution reforms initiated by President Nasser in the 1950s. In fact, the majority of farms in Egypt are less than one hectare large and individual plots are labour-intensive because they are fragmented, which ultimately restricts the potential of mechanised agriculture. Nasser's land reclamation project stunted the modernisation of agriculture in Egypt, and wheat fields, albeit high-yielding, are still cultivated using intensive labour during the harvest months. As a result, the International Food Policy Research Institute estimates that crop sales for wheat farmers only account for 30% of their income. Farmers rely on other sources inside and outside the agricultural sector to supplement their remittances from the state.⁹⁷

3.1.2. Ministry of Supply and Internal Trade

The Ministry of Supply and Internal Trade (MSIT) is the key government agency and representative in charge of administering various subsidies in Egypt. In the case of *baladi* bread, the ministry oversees the purchase, distribution and production of wheat, flour and bread across the supply chain. These operations rely on an extensive network of actors inside and outside the MSIT that assist with the disbursement of the subsidy.

The General Authority for Supply and Commodities (GASC) and the Principal Bank for Development and Agricultural Credit (PBDAC) are two subsidiaries within the MSIT that are responsible for the procurement and supply of all the wheat necessary for *baladi* bread production.

In the case of international wheat imports, the GASC has been issuing tenders to purchase wheat on the international market since 2009.⁹⁸ The winning bidders are then in charge of transporting and shipping the wheat to one of five Egyptian grain terminals in Alexandria, Ayn Sukhnah, El Dekheila, Damietta or Suez, where it is then seized by the GASC.⁹⁹

For domestic wheat procurements, the PBDAC receives payments from the GASC to purchase a set amount of domestic wheat based on harvest estimates from the Ministry of Agriculture and Land Reclamation and the Egyptian Central Bank. The PBDAC then acts as a government creditor to domestic wheat farmers by which it receives their output quotas during the harvest season and reimburses them at the fixed procurement price set by the GASC during the planting season.^{100 / 101}

In 2013, the GASC spent \$3.1 billion on the *baladi* bread subsidy (see Figure 4 below). This cost accounted for the purchase, procurement, storage, transport, milling and baking of domestic and international wheat for the *baladi* bread subsidy. The total sum is spread across various supply chain operations that begin with the two processes outlined above – domestic and international wheat procurement – and continue on throughout the remainder of the supply chain. Since 1989, the price of one loaf of *baladi* bread has been fixed at 5 piasters (< \$ 0.01), however the GASC estimate that the real cost of each loaf is 34 piasters. The 31 piaster shortfall is borne by the state as part of the subsidy. Furthermore, this cost fluctuates annually depending on the agreements between the GASC and other actors in the supply chain over the price of wheat, milled flour, labour costs and permitted profit margins.¹⁰² This is examined in more detail throughout the remainder of the book by

97. For a breakdown of costs see: Hannusch, 2008, p.10.

98. Prior to 2009, the purchase of wheat was coordinated through contractual agreements. See Kherallah et al., 2000.

99. Although imported wheat plays a key part in the production of *baladi* bread, its procurement and importation are heavily regulated by the GASC. There is enough transparency for this process to merit less attention than the distortions that tend to happen at the domestic level.

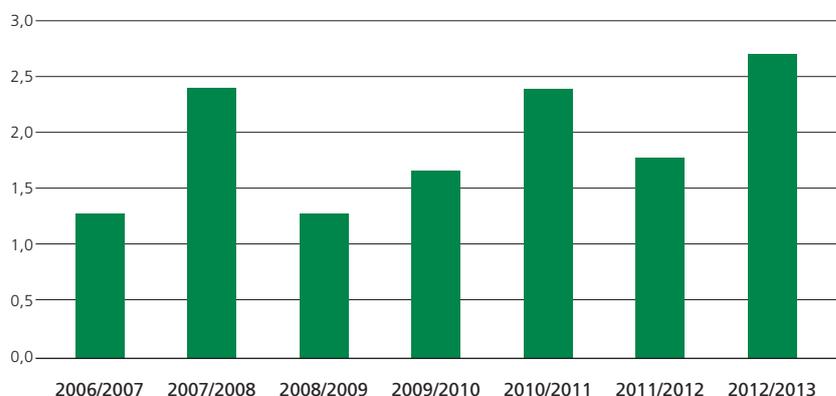
100. Since 1976, the PBDAC supplanted local cooperatives as the main channel for wheat procurement to produce *baladi* bread.

101. At the start of the planting season the GASC announces a purchasing price for the next season's domestic wheat crops. Since 2009, this price has been higher than that of the international market. The change in policy was meant to incentivise wheat farmers to sell their wheat to the government and restrict competition from private traders in a bid to make Egypt less reliant on wheat imports from abroad.

102. Between 2009 and 2013, the GASC budgeted 30-46 EGP per metric ton for milling wheat, (milling fee + miller's profit) and 160-290 EGP per metric ton for *baladi* flour. See: Hamza et al., 2013.

considering the role of farmers, millers and bakers, amongst others, in the *baladi* bread supply chain.

Figure 4. Changes in the cost of the *baladi* bread subsidy (EGP)



Source: Agence Française de Développement.

3.1.3. Storage companies

The estimated annual storage capacity for *baladi* bread wheat in Egypt is 1.0-1.5 MMT, whereas average consumption reaches 6.8-7.0 MMT per year. The GASC also aims to maintain a five-month supply of strategic wheat reserves for *baladi* bread production at any one point in time. However, the limited number of modern silos, coupled with the poor and limited storage capacity contributes to major losses and wastage throughout the supply chain.

Two public holding companies are in charge of storing the wheat imported for *baladi* bread production in steel silos: the Egyptian Holding Company for Silos and Storage (EHCSS), and the General Company for Silos and Storage (GCSS).¹⁰³ In addition, the PBDAC has its own open-air facilities called *shonas* which store the bulk of the domestic wheat.

The EHCSS was established in 2006 to upgrade wheat storage capabilities and reduce the amount of losses. By 2013, the EHCSS had constructed 25 (out of 50) steel silos with a total storage capacity of 750,000 MT largely destined for storing imported wheat.

The GCSS is a subsidiary of the Food Industries Holding Corporation, a government-owned public holding company overseeing a large volume of wheat transport and milling. The GCSS owns and operates five grain terminals in Alexandria, Ayn Sukhnah, El Dekheila, Damietta and Suez with a total handling capacity of 350,000 MT at the ports and a further 450,000 MT through inland silo facilities. Each terminal is equipped with steel silos that store the imported wheat upon arrival and then transfer it to the inland silos using the company's trucks.

The PBDAC controls 362 silos with a combined storage capacity of 2 MMT for domestic wheat. 298 of these silos are open-air facilities called *shonas* that are poorly maintained with no flooring or roofing to prop-

¹⁰³ Holding companies were part of the 1992 economic reforms to engage the private sector in the Egyptian economy. They constitute former state bodies that were converted into companies to raise capital. The state still retains a majority share in these firms (>51%) but the rest of the shares are sold to private companies or floated on the Cairo Stock Exchange.

erly store the wheat and protect it. Much of the domestic wheat that is stored in these facilities is plagued by dust and grit cross-contamination as well as high rates of vermin infestation of birds and rodents. It is estimated that 20-30% of the wheat in *shonas* is wasted because of the low storage quality of these facilities. This loss rate tends to decrease in the case of the other 64 silos that are made out of concrete.

Despite these storage spaces, the GASC also hire storage facilities from private sector traders and mills to better keep the imported wheat.

More recently, the GASC partnered with the private sector to upgrade its storage facilities by increasing the number of privately owned-silos through the Build, Operate and Transfer system. Under the new scheme, the private contractors would build the silos and the GASC would commit to using at least 60% of each silo's capacity at a prevailing storage fee for five years.

3.1.4. Transport companies

Of all the conventional actors in the *baladi* bread supply chain, the transport sector is the least studied and the availability of data on it in the extant literature is scarce. There are three major stages where transport companies contribute to the administration of the subsidy: firstly, through the transport of wheat from ports and farms to storage facilities and mills secondly, the transport of milled *baladi* bread flour from mills to bakeries and, finally, the transport of freshly baked *baladi* bread to the consumer from either large-scale industrial bakeries or to less well-served areas in rural Egypt.

About 90% of the wheat and flour are transported through trucks and small vehicles whilst the rest is transported through a poorly maintained railway network.¹⁰⁴

In the case of domestic wheat, farmers are in charge of delivering the wheat to PBDAC facilities and therefore they have to arrange for their own means to transport the wheat. This usually takes the form of carts or locally-hired trucks that carry the wheat to *shonas*. In order to monitor and control wheat quotas, farmers are only able to deposit their wheat harvest in their local governorates. This mechanism allows the PBDAC to allocate remittances to farmers based on wheat production within that area.

With imported wheat, the GCSS and EHCSS dispose of a large fleet of trucks that transports the *baladi* bread wheat from ports and storage facilities to millers. These in turn regulate supply flows to public mills depending on the quotas allocated by the GASC. In addition, the GASC pays for all the transportation costs to public mills which makes it difficult to account for them separately. On the other hand, smaller mills that are privately contracted by the GASC have their own means of transport and assume the costs associated with these activities – about 11% of their operating costs.¹⁰⁵ Each mill has its own means to then transport the *baladi* bread flour to licensed bakeries and warehouses. In the case of some large-scale bakeries and poorly serviced areas, bakers also hire a local contractor to deliver *baladi* bread within the community.

¹⁰⁴. Testimony from former Minister of Supply and Internal Trade.

¹⁰⁵. Moursi et al., 1993, p.14.

3.1.5. Milling companies

Baladi bread wheat is either milled in public mills owned by the Food and Industries Holding Corporation (FIHC) or private milling companies that are contracted by the GASC.

The FIHC is a government conglomerate that presides over public mills that produce 70-86% of the total amount of subsidised *baladi* bread flour, while the remainder is spread across private mills that are contracted by the GASC to mill *baladi* bread flour because of the efficiency of their equipment.

After the implementation of the economic reforms in 1992, all public organisations, including milling companies were transformed into holding companies. In 2013, there were about 126 public sector mills under the administration of seven milling companies owned by the FIHC.¹⁰⁶ The GASC retains a majority share in these companies (>51%) whilst the remainder is spread amongst public banks, workers unions and individual investors from the Cairo stock exchange.

Most of these public mills are unindustrialised and rely on stone milling techniques. In addition, the World Bank estimates that they employ about 4.5 times the required work force and, therefore, are considered to be highly uneconomical for the production of *baladi* bread flour.

On the other hand, private mills contracted to produce *baladi* bread flour are spread around Alexandria, Cairo and Port Said. They receive their wheat milling quotas directly from the GASC and are reimbursed for the cost of milling. In contrast to public mills, private millers tend to be more efficient and modern, relying on automatic roller mills to extract the flour. They tend to charge lower milling costs than their public milling counterparts. In fact, privately contracted mills have accounted for almost all of the capacity expansion needed to keep up with the rise in population and urbanisation. Their relative efficiency, central location and lower milling charges have incentivised the GASC to continue investing in them over the years.

Finally, it is worth noting that in less well-serviced rural areas where it is difficult for Egyptians to get hold of *baladi* bread, local mills offer their services to the population and usually charge a set price that is contingent on the extraction rate to mill flour for customers to use to bake their own bread at home or in a bakery. These mills are not part of the *baladi* bread subsidy regime.

3.1.6. Bakers

Licensed *baladi* bread bakeries are the most prominent actors in the supply chain. As the final contact point for the state before the bread is sold to consumers, bakeries play a key role in ensuring that the Egyptian population has access to *baladi* bread on a daily basis. At various time intervals, bakeries receive their *baladi* bread flour quotas from the GASC, which takes into account the allocated quota and the density of the population in a given area.¹⁰⁷ Licensed *baladi* bread bakeries cater for about 60% of the *baladi* bread demand, the rest is covered by state-owned bakeries.

¹⁰⁶. These include the Alexandria Flour Mills, East Delta Flour Mills, Middle and West Delta Flour Mills, South Cairo Flour Mills, Upper Egypt Flour Mills, Middle Egypt Flour Mills and North Cairo Flour Mills.

¹⁰⁷. Depending on the target market, bakeries may receive *baladi* bread flour deliveries every day or twice a week.

Since 1989, the government-mandated price for a loaf of *baladi* bread has been fixed at 5 Egyptian piasters. The state bears the difference between the production cost and sales price which amounted to 34 piasters per loaf in 2013.

Baladi wheat flour is sold to licensed bakeries at a previously agreed-upon price. The GASC compensates bakers for the cost of production payments that are intended to cover labour, machinery and overheads and allow for a small net profit for the bakers at the end.¹⁰⁸

Further, since the access to *baladi* bread is not rationed, bakers are forced to manage bread queues. Usually, they would allow a maximum of 20 or 30 *baladi* bread loaves to be collected by any individual at one time. Since there are often long queues, this discourages the collection of more bread. However, *baladi* bread can also be found in many “unlicensed” outlets, be they side-street sellers or luxury hotels, sometimes at 2 to 5 times the price.¹⁰⁹

Since bakers have little flexibility in adjusting their margins and quotas, they tend to rely on minimising operating costs. More often than not, they manage to make ends meet by setting aside a portion of their *baladi* bread flour quota for the black market where it retails at more than five times the government sales price (\$26.5/MT).¹¹⁰

3.2. Non-conventional actors

3.2.1. Members of parliament and mayors

Government ministers and mayors are powerful agents in the *baladi* bread-licensing regime. As government representatives, they are able to influence the allocation of *baladi* production licenses.

Each year, the MSIT grants a set number of licenses to MPs, taking into account population growth and the availability of *baladi* bread in their locality. MPs then consult with the respective local mayors about who should receive these licenses from the pool of applicants. Given the favourable prospects of income generation from *baladi* bread production, local mayors are able to use these incentives to manipulate prospective bakers. In recorded testimonies, mayors would use the *baladi* bread licensing process as a political favour, ensuring that bakeries that are awarded the licence vote for their party during the next election cycle.

Bakeries are places where people tend to congregate on a daily basis. By establishing a direct link between the political party and its services to the local community through the provision of cheap *baladi* bread, mayors seek out support for their election campaigns.

3.2.2. Egyptian Federation of Chambers of Commerce

It is nearly impossible for the GASC to negotiate with over 19,000 licensed *baladi* bread bakeries and agree on the purchase price and quotas of *baladi* bread flour. This is managed by the Bakery Owners' Division

108.In 2013 that was \$18 for every 50 kg of flour baked into *baladi* bread. However, at the time of writing \$59 million of those payments remain in arrears.

109.Interview with former research at the Information Decision and Support Center.

110.Estimates vary for black market flour costs depending on market conditions and demand. Previous research and interview testimonies suggest that *baladi* bread flour can sell at anywhere between \$160-294/MT and, sometimes, upwards.

at the Federation of Chambers of Commerce which consists of a col-
lusive group of licensed *baladi* bakers and a representative council that
directly negotiates with the GASC.

The deputy heads of the Chambers meet with the GASC and Minister of
Supply and Internal Trade every three months to determine the cost price
and incentives for bakers to produce *baladi* bread. The main points of
contention are the cost price of flour sold to bakers by the GASC, bud-
geted operating costs for bakeries, and allowable profit margins. Often,
if the bakers' demands are not meant, they threaten to go on strike and
stop *baladi* bread production.

3.2.3. Egyptian military

The Egyptian military plays a less direct, yet widely mediatised role in the
baladi bread subsidy. In 1981, the Minister of Defence and former Field
Marshal Mohammad Abd Al Halim Abu Ghazalah began advocating for
a new discourse for the army to become self-sufficient and vested in the
Egyptian economy.¹¹¹ This came at a time when the newly-elected presi-
dent Hosni Mubarak was seeking to cement his control over all aspects
of the security establishment and curb defence spending. Abu Ghazalah
initiated the National Service Project Organization (NSPO), an initiative
that went on to become the economic arm of the Egyptian military.¹¹²

In the case of *baladi* bread production, the military took over and privatised
six large-scale industrial bakeries in Cairo that were initially part of the Cairo
baking company, a public holding company. The military was then able to
operate these bakeries independently from the *baladi* bread supply chain
to feed an army of 250,000-300,000 personnel. The NSPO would buy its
wheat from the PBDAC and GASC or rely on the wheat harvest from land
that is controlled by the military and former army officers.¹¹³

In some cases, particularly at times of high international wheat prices
and bread shortages, the MSIT would call on the military to assist them
with the production and distribution of *baladi* bread. For instance, after
the 2008 food price crisis and the January 25th 2011 uprising, the sight
of military trucks loaded with freshly baked *baladi* bread arriving in areas
with bread shortages quickly saw the army painted as a provider of
bread for the people in local media reports. These are largely exagger-
ated claims since further investigation showed that the military's capacity
to produce bread is limited to around 500,000 loaves a day, a fraction
of the 25 million loaves that are needed each day to service Cairo's dis-
tricts.¹¹⁴ Although the military's contribution to *baladi* bread production is
insignificant, the MSIT relies on their ability to efficiently alleviate bread
shortages in times of crisis through their distribution channels.

3.2.4. Bakery Inspectors

Bakery inspectors constitute a key part of the *baladi* bread supply chain
operations through their roles and incentives. These inspectors are
appointed by the MSIT at governorate level to supervise the operations
of each bakery within a designated community. The inspectors act as
government agents by visiting licensed *baladi* bread bakeries to check

111. Throughout President Mubarak's rule, military spending as a percentage of GDP was cut from 17% to 2.5%.

112. The NSPO developed into an active military-controlled organisation that produced goods for both military and civilian uses. Military personnel became involved in food production, manufactured goods and construction projects. For additional details see: Kechichian, J., Nazimek, J., *Challenges to the Military in Egypt*, vol.5 no.3, Middle East Policy Council, 1997.

113. In addition to land that had been acquired by the military under Nasser's land reclamation project and Abu Ghazalah, retired military personnel were also granted large plots of land as part of the Toshka Valley reclamation project. These contributed at different times to supplementing the Egyptian military's demand for wheat. It is worth noting that testimonies revealed that some of this wheat was also sold to the PBDAC as part of the *baladi* bread programme, although I have not examined it in more detail in this study.

114. Testimony from an interview with a former minister at MSIT.

whether or not they are complying with government regulation regarding operation hours, quota deliveries and the weight of *baladi* bread loaves. For instance, employees at MSIT disclosed that inspectors would verify if a freshly baked *baladi* bread loaf from a random sample complied with the mandated government weight (130 grams), allowing for a 10% margin of error. Allegedly, for each MSIT inspector there are 10 licensed *baladi* bread bakeries to inspect. If the baker is deemed to have violated regulations then they are fined by the inspector.

Inspectors also submit reports to their local MSIT directorate to highlight any issues or complaints with bakeries in their locality. These are then relegated to the back office or elevated to the High Council for Complaints at the MSIT's main office in Cairo.

However, testimonies and reports from the field regarding the accuracy of bakery inspectors' reports suggest a very loose control process. As low-ranking civil servants, the inspectors are paid low salaries compared to the national average, about \$37 per month. In theory, these inspectors are meant to supervise the bakers' activities to ensure that they are in line with government regulation and to curb leakages of *baladi* bread flour onto the black market. Yet in practice, there are strong incentives for the inspectors to circumvent regulation and distort the *baladi* bread subsidy allocation.

For instance, inspectors can claim a 25% bonus on the value of each fine that they impose on bakers, so there is a strong incentive for them to impose higher fines and enforce regulation. However, bakers that leak their flour onto the black market would offer inspectors a bribe to not report them to the MSIT (which might result in them losing the licence to produce *baladi* bread). If the offered bribe substantially exceeds the bonus that an inspector gets from imposing a fine, then it is more likely they will accept it. In fact, given the significant price differential between subsidised and unsubsidised flour, bakers can afford to pay relatively higher bribes than the fine bonuses the MSIT would reward to inspectors. These practices contribute to further distorting the *baladi* bread supply chain at a micro-level and add in an extra layer to the subsidy system.

In addition to the above actors, there are other groups worth examining in the study of the *baladi* bread supply chain, these include port authorities, private sector traders of wheat and bread and farmer's cooperatives, amongst others. Although this study attempts to conduct a comprehensive assessment on the role of intermediaries in the *baladi* bread subsidy system, it was not possible to look at additional actors given the scope of the book and time constraints in the field.¹¹⁵ Further, the omission of these actors does not impact the analysis later on in the book as the discussion will focus only on distortions caused by actors already covered in this chapter. The next chapter provides a detailed overview of supply chain operations in the *baladi* bread system from start to finish.

115. I intend to examine these actors in more detail as part of a more thorough doctoral project that looks at the role of intermediaries in the Egyptian *baladi* bread supply chain and other food subsidy systems in the Middle East and North Africa region.