ARAB REPUBLIC OF EGYPT

COUNTRY SNAPSHOT

Population¹: 88,487,396
- Urban: 38,138,068 (43%)
- Rural: 50,349,328 (57%)

Rice Availability² (g/c/d): 108
- Urban: --
- Rural: --

Rice market:
Medium-grain (domestically grown) and long-grain (imported) white milled rice.

Production: USDA, 2016 4.0 MMT
FAO, 2011 3.79 MMT

Domestic industrial rice milling: Unknown number of mills but reportedly modernized

Regional trade: When rice export bans are lifted, Egypt is a regional rice exporter (approximately 800,000 MT annually)

IMPORTS

Number of importers: Unknown

Mode of imports:
Unknown proportion of break-bulk, bulk, and container, but the ports in Egypt are high-volume and capable of handling and storing large bulk vessels.

Total imports:
- USDA, 2016 35,000 (MT)
- UNC, 2015 36,000
- FAO, 2011 93,000

Type & Origins³

Brown rice 28 (0.08%)
Broken rice 51 (0.14%)
Semi-milled/wholly milled
- India 6,712 (99.8%)
- Thailand 29,516 (81.7%)
- Pakistan 5,856 (16.2%)
- 639 (1.8%)

Sources: ¹CIA Factbook 2015 ²Overall estimate is FAO 2011; Inadequate data to estimate urban/rural availability ³UN Comtrade 2015 exporter reporting Abbreviations: MMT = million metric tons, MT = metric tons, USDA = United States Department of Agriculture, FAO = Food and Agriculture Organization, UNC = UN Comtrade
EXECUTIVE SUMMARY

Even though both wheat flour and maize availability in Egypt is greater than that of rice, per capita daily rice availability is still considerable at 108 grams. Evaluations of mandatory fortification of the wheat flour used in nationally subsidized baladi bread reported satisfactory compliance, but the 5-year program ended in 2013, and as of 2015 local contacts in Egypt report noncompliance due to political instability.

When the government’s policies allow, Egypt is a sizeable rice exporter to neighboring countries. In 2015 an estimated 4 million metric tons of rice were produced, compared to only 25,000 metric tons imported. As a result of its export market, rice milling in Egypt is considered modernized, and an estimated 100% of rice is industrially milled. However, a precise description of the milling industry requires further research.

Rice fortification is likely to be technologically feasible in Egypt, but fortified rice will have limited distribution in Egypt given the greater consumption of wheat flour and maize. Although the government currently provides a rice ration to vulnerable populations, addressing the gaps in implementing wheat flour fortification would also be important to inform the sustainability of fortifying additional food vehicles, particularly in government programs.

Table 1: Demographics and annual rice (milled equivalent) availability

<table>
<thead>
<tr>
<th>Population</th>
<th>Urban%</th>
<th>Availability (MMT)</th>
<th>Imports (MMT)</th>
<th>Exports (MMT)</th>
<th>G/c/d</th>
<th>Production (MMT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>88,487,396</td>
<td>43.1%</td>
<td>4.0</td>
<td>0.025</td>
<td>0.250</td>
<td>108</td>
<td>4.0</td>
</tr>
</tbody>
</table>

2011-2016 trend

G/c/d: grams per capita per day; MMT, million metric tons

GRAIN CONSUMPTION AND FORTIFICATION STATUS

The most important cereal grains in Egypt are wheat, maize, and rice, though wheat availability is almost four times the availability of rice (Table 2). In rural areas, maize flour is commonly mixed with wheat flour to make bread.

Table 2: Cereal grain consumption/availability and fortification status

<table>
<thead>
<tr>
<th>Cereal grain</th>
<th>FAO 2001\textsuperscript{1} g/c/d</th>
<th>FAO 2011\textsuperscript{1} g/c/d</th>
<th>Mandatory\textsuperscript{2}</th>
<th>% Industrially milled\textsuperscript{2}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat</td>
<td>144</td>
<td>400</td>
<td>Yes</td>
<td>100%</td>
</tr>
<tr>
<td>Maize</td>
<td>59</td>
<td>173</td>
<td>No</td>
<td>Unknown</td>
</tr>
<tr>
<td>Rice</td>
<td>40</td>
<td>108</td>
<td>No</td>
<td>100%</td>
</tr>
</tbody>
</table>

G/c/d: grams per capita per day

\textsuperscript{1} FAO Food Balance Sheets
\textsuperscript{2} FFI Database

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\textsuperscript{1} Egypt was not visited in person by Key Consulting. All information in this profile is secondary data collected by FFI.

\textsuperscript{2} Galal, O. The nutrition transition in Egypt: obesity, undernutrition and the food consumption context. Public Health Nutrition: 5(1A), 141-148. 2003
Urban vs. Rural

Egypt’s largest cities are Cairo, Giza, and Sharkia, comprising approximately 20% of the country’s population. Overall, the 43% of the population is urbanized.

There is limited data about dietary consumption patterns in Egypt to inform urban/rural or regional distribution of rice consumption. Literature suggests that baladi bread is consumed less in rural poor populations. USDA reports that rice is an important staple in the provinces of the northern delta and Suez Canal region, as well as in urban areas such as Cairo and Alexandria. Urban consumers purchase packaged rice while rural consumers purchase rice by the scoop from bulk bags.

Rice varieties

The market for imported rice in Egypt is white milled rice (99%), versus brown, broken, or paddy rice. Domestically grown rice is the medium-grain japonica variety.

DOMESTIC RICE PRODUCTION

Egypt historically has one of the highest rice yields in the world (9.1 MT per ha), and rice is grown in the lower valley of the Nile River. The 2015/16 yield however was only 7.25 MT per ha, a 25 year low. Rice production has the beneficial side effect of leaching salt from the land in the lower Nile Valley – however concerns over water use have led to the government’s attempts to restrict rice production. Egypt’s annual production and global rice exporter role depends on government policies, which have included export bans in 2008, 2009, and 2011. Export bans have reduced the incentive for producing rice, which sells at higher prices ($900/ton) globally than domestically in Egypt. As recently as October 2015, the export ban was lifted only to be again put in place in April 2016.

Table 3: Egypt cereals production, 2016

<table>
<thead>
<tr>
<th>Cereals (MMT)</th>
<th>Maize</th>
<th>Sorghum</th>
<th>Barley</th>
<th>Rice (milled)</th>
<th>Wheat</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.0</td>
<td>0.75</td>
<td>0.11</td>
<td>4.0</td>
<td>8.1</td>
<td>18.96</td>
<td></td>
</tr>
</tbody>
</table>

1USDA via Indexmundi

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4 Although a Household Income and Expenditure Consumption Survey is held regularly in Egypt, it lumps cereal consumption (bread and rice) into one category. There are references to a 1998 National Consumption Survey in the literature but no report has been found.
Table 4: Egypt’s annual rice production, 5-year trend (MMT)\(^1\)

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4.67</td>
<td>4.75</td>
<td>4.53</td>
<td>4.0</td>
<td>4.0</td>
<td>4.39</td>
</tr>
</tbody>
</table>

\(^1\)USDA via Indexmundi

**International development support**

In 2013 Egypt was the fourth largest country source for WFP food basket purchases (67,000 MT)\(^13\). The report does not specify how much rice was sourced from Egypt, or what proportion of the food basket purchase is destined for domestic programs. In Egypt, WFP supports the government’s school feeding initiative, which estimated coverage of 1 million children in 2014, in the 16 most vulnerable governorates in the country. WFP also provides food assistance to Syrian refugees residing in Egypt\(^14\).

**IMPORTED RICE INDUSTRY**

The key rice importers are not known in Egypt.

Table 5: Annual rice import volumes, 2012-16 (MT)\(^1\)

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.015</td>
<td>0.025</td>
<td>0.034</td>
<td>0.035</td>
<td>0.035</td>
<td>0.028</td>
</tr>
</tbody>
</table>

\(^1\)USDA via Indexmundi

**Rice origins**

UN Comtrade exporter data for 2015 indicates that 82% of imported rice comes from India, 16% from Thailand, and 1.8% from Pakistan. Of the rice imports, 99% are categorized as semi-/wholly-milled, rather than broken, paddy, or brown rice. A remaining seven countries export only 0.36% of the rice imported into Egypt.

**Mode of imports**

Egypt has six ports: Alexandria, Dekheila, Damietta, Port Said, Suez Port, and Sokhna Port. Alexandria is the largest port, Damietta Port has the largest container terminal, and ports Said and Suez are at either sides of the Suez Canal\(^15\). It is not known how rice is imported into Egypt, whether by bulk or break-bulk. However, given the importance of the ports in Egypt, these ports are likely able to handle bulk container ships, facilitating destination fortification.

**Imported rice storage**

At the Port of Alexandria, 86,136 m\(^2\) is available for general cargo storage\(^16\). There is limited information on import storage capacity for rice in Egypt.

**GOVERNMENT RICE POLICIES AND PROGRAMS**

The Government of Egypt has strict policies on rice export in order to maintain stocks for food security, while also limiting rice production out of concern for water resources. In 2016 the


\(^14\) WFP. What are the current issues in Egypt? 2016. https://www.wfp.org/countries/egypt


Ministry of Irrigation and Water Resources (MIWR) announced that the allotted land for rice would be reduced from 452,000 ha to 294,000 ha; farmers found in violation would be fined US $992 per ha, an increase from US $600 per ha. In 2015/2016, farmers planted an additional 468,000 ha outside of the allotted land – double the amount allowed. Attractive rice prices have incentivized farmers despite the threat of fines.

The frequently changing policies on rice export have resulted in rice hoarding by traders, price instability and imports of rice to stabilize markets. In early 2016, rice hoarding by traders caused a shortage of rice in the national food subsidy program and retail prices of rice more than doubled during January-March 2016. As a result, the Ministry of Supply and Internal Trade (MOSIT) was forced to import 80,000 MT of Indian rice and 20,000 MT of domestically grown rice.

MOSIT provides 1.5 kg of rice per person per month for 68 million people holding ration cards (1.3 MMT/yr). The ration is historically medium-grain rice (as that is locally grown), although USDA anticipates that the government will also use imported long-grain rice in the future.

RICE MILLING
There is limited information on the local rice milling industry in Egypt. A 1998 report describing the rice-milling sector after liberalization in Egypt identified 37,000 public sector mills, 355,000 private sector, 6,200 village mills, and 2,000 tractor mills. A swift trend towards private sector milling and industrial production was described, but a more recent estimate is not known. However, due to Egypt’s role in the past as a large rice exporter, the country’s large rice mills have focused on milling rice for global export. All the domestic rice produced appears to be industrially milled, since much of the rice is grown for export. As much as 60% or private mills may have closed due to the rice export bans. The rice mills are clustered in the lower valley of the Nile River, where rice is grown.

WHOLESALE AND RETAIL TRADE

Wholesale
There is limited information on rice wholesale distribution in Egypt.

Retail
It is not known what proportion of rice is sold from traditional marketplaces (souks) out of bulk bags versus bagged in retail outlets. In 2016, the average cost of 1kg of rice was 5.42 Egyptian Pounds (~USD 0.61).

REGIONAL TRADE
When the export ban on rice is not in place, Egypt is a supplier for its regional neighbors, up to approximately 800,000 MT of its excess rice production. UN Comtrade reports in 2014 that Egypt exported rice to primarily Syria and Saudi Arabia, and USDA lists Libya and Iraq as suppliers.

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18 Personal Communication, Quentin Johnson. 2015
historical rice recipients. USDA reports that during late 2015/early 2016, sources estimate 60,000-65,000 MT of milled rice were illegally exported to Libya and Sudan.

REGULATORY MONITORING
Egypt does not use the ASYCUDA system to manage import data. However, given that domestically grown rice has far larger coverage in Egypt, regulatory monitoring of rice fortification at domestic rice mills will also be a key regulatory activity. The General Organization for Export and Import Control (under the Ministry of Trade and Industry) is responsible for enforcing inspection of goods. The Ministry of Trade and Industry shares enforcement responsibilities with the Ministry of Health for the standards of specialty and dietary foods.

RICE FORTIFICATION – SWOT ANALYSIS

Strengths
- Rice milling industry assumed to be modern and capable of fortification; however this requires confirmation.
- Rice importers are thought to be highly consolidated; however this requires confirmation.
- Government and global partners have extensive experience with fortification (of wheat flour) in Egypt.

Weaknesses
- Wheat may be a more appropriate vehicle for fortification, given its higher consumption levels.
- Resources may be better targeted to re-establishing and improving sustainability of the wheat flour fortification program prior to introducing a new vehicle.

Opportunities
- More detailed understanding of the domestic rice milling and rice importing industry is necessary.
- More detailed understanding of wheat and rice consumption patterns in Egypt would help inform which subpopulations each vehicle would impact.
- Maize flour fortification may also reach more of the rural population, if maize is industrially milled (milling industry information requires research).

Threats
- Quality of regulatory monitoring of imported foods unknown.
- Quality of regulatory monitoring of domestically produced foods is unknown.
- Rice imports and exports are highly unstable from year to year, which has impacts on domestic price and availability.