LIVELIHOODS POLICY BRIEF NO.3
IMPACT OF WORLD PRICE HIKES ON IMPORTED COMMODITIES
FOR POTENTIALLY VULNERABLE IRAQI PRODUCERS
LIVELIHOODS POLICY BRIEF NO.3
IMPACT OF WORLD PRICE HIKES ON IMPORTED COMMODITIES FOR POTENTIALLY VULNERABLE IRAQI PRODUCERS
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive Summary</td>
<td>5</td>
</tr>
<tr>
<td>Lessons Learned</td>
<td>7</td>
</tr>
<tr>
<td>Context Overview</td>
<td>8</td>
</tr>
<tr>
<td>Iraqi Poultry Farmers</td>
<td>11</td>
</tr>
<tr>
<td>Iraqi Tomato Farmers</td>
<td>12</td>
</tr>
<tr>
<td>Policy Considerations</td>
<td>13</td>
</tr>
<tr>
<td>Potential Responses</td>
<td>13</td>
</tr>
<tr>
<td>Final Reflections</td>
<td>15</td>
</tr>
</tbody>
</table>
EXECUTIVE SUMMARY

As of March 15, 2022, IOM estimates that approximately 20,148 individuals are displaced across 10 governorates in Iraq due to water scarcity and climatic factors. In 2021, Syria also experienced its worst drought in 70 years, expected to trigger further displacement of Syrians, of whom there are already an estimated 240,000 in Iraq. Low agricultural productivity due to insufficient maintenance and the minimization of costs by farmers, has been a characteristic of Iraq’s agriculture for the last two decades and has made the country dependent on imports to meet its domestic food needs. Families dependent on rainfall to produce fodder for livestock have also been affected, and in many instances displaced. Despite government efforts to subsidise wheat and barley value chains through the offering of higher than market prices to cereal farmers, 2021 drought conditions led the Ministry of Agriculture to approve plans to reduce agricultural cultivation on irrigated lands. Meanwhile, the occupation and blockage of Ukraine’s ports mean that even if wheat crops are harvested in Ukraine, they may not be exported. With war in Ukraine driving up world prices of wheat and maize, Iraq’s low income households face increasing prices for basic staples in 2022. Producers who rely on wheat, corn and barley as an input face increasing prices, and in mid-2022, are already displaying negative coping measures such as the shedding of workers and contracting of firms, which will further compound food insecurity among vulnerable jobseekers. This brief examines the impact of rising prices for wheat, corn, and fertiliser on two commodities in particular: poultry and tomatoes, with a focus on the South of Iraq, and suggests a few interventions that can be taken in the short to medium term to curb negative coping mechanisms. While the effect of the war in Ukraine has certainly been felt already on wheat, rising world prices of fertiliser could also make tomato farmers make decisions that will affect production, competitiveness, and outcomes. Coordinated actions taken now by the UN and government can help boost SME productivity in Iraq and help bolster the resilience of firms to future economic shocks.

WHEAT PRODUCTION

Drought in 2021 reduced wheat by:

- **50%** in Kurdistan
- **70%** in Nineawa

WHEAT IMPORTS

Expected to increase 50% totalling 3.4 million tons

---

4. Overall estimates point to an overall 50% reduction in the cropping of irrigated areas in the country, according to the Global Agricultural Information Network. [202112215837860_ET_ClimateDisplacement_Ninewa_Dec_2021_Public.pdf](https://iom.int).
Figure 1. Iraq Wheat Imports on the Rise over Time

Iraq Wheat Imports by Year (1000 MT) (indexmundi.com).
LESSONS LEARNED

Lessons can be learned from the economic crises the country has already experienced during 2020 as a result of the devaluation of the Iraqi dinar and restrictions on doing business implemented to mitigate the COVID-19 pandemic.

In short, these include the following:

1. A lack of information can drive decisional conflict: In standard economic analysis, individuals would optimise perfectly, and, for example, switch to the cultivation of other crops, such as eggplant and okra, once borders start allowing imported tomatoes to flood the market at cheaper prices. In Iraq, however, with limited market information available such as the likelihood of border closures and openings, farmers make production decisions based largely on the credit available to them, their available skills and knowledge, and the networks they have relied on in previous seasons (including of labourers, drivers, and markets), often with the hope or expectation that imports will be better regulated in the near or short term future. In 2020, tomato farmers were forced to sell below production costs, and in 2021, they barely made a profit. Some tomato farmers now wish to start diversifying to okra, eggplants, and garlic, yet lack the finances to do so and continue to defer such decisions, citing a hope that borders will be closed again soon.

2. Complicated subsidies can be ineffective: Agriculture, fertiliser subsidies, and obscure finance schemes may be less suitable for rural households in Iraq than simpler cash transfers. Non-participants in formal financial services may not be those who value services the least, but those who understand the rules the least. At the height of the COVID-19 pandemic, for example, firms surveyed by IOM largely sought either supplier credit, or informal credit from friends and family over commercial credit, largely due to the complexities and requirements to apply. Meanwhile, the Agricultural Cooperative Bank, which offered several different loans, went into receivership.

3. Behavioural trends as a result of policies do not mean moral hazards: We might be tempted to attribute inefficient practices along the egg and tomato value chains to moral hazards: knowing that grants or cash transfers are available, business owners may be doing less to market their good or preserve their profit margins. But this has not been the case. At the height of the COVID-19 pandemic, grants aimed at supporting SMEs to recover from the effects of pandemic-related restrictions found firms that were supported to be more likely to have increased their marketing as a result of their grant, while firms not supported engaged in shedding (and not paying) workers as the most common coping mechanism. Firms also still displayed an appetite for loans and commercial financial services, while displaying comparable levels of reduction in production.

With such lessons in mind from the height of COVID-19, what can we already anticipate to support poultry and tomato farmers in Iraq?
CONTEXT OVERVIEW

The Global Food Crisis of 2007-2008 precipitated riots in over 30 countries and was often linked with the political upheavals that led to the Arab Spring.

While the sensitivity of states to external economic shocks is known to be generally negative, states with heavily subsidised agricultural sectors may be able to increase or scale-up existing programming to support the private sector. In the instance of world food prices rising, to avoid reductions in food intake, either prices must be controlled, or cash transfers should be made available. In Basra, protests have already broken out about rising food prices. On April 10, after a demonstration at the Shalamcheh Border Crossing Point (BCP), the BCP’s director, Brigadier General Habib Kazem, announced eased entry requirements and restrictions for trucks transporting foodstuffs, promising that over the next ten days, importers would not be required to obtain a permit, and there would be no limits to the quantities of goods imported.

Meanwhile, poultry farms across Basra are currently struggling with high costs of feed, while tomato farmers are struggling to sell tomatoes at a price high enough to cover debts incurred during 2020 at the height of the COVID-19 pandemic. IOM visited 67 poultry, tomato, date, and fish farms in Basra in April 2022, and heard how rising wheat prices were already affecting poultry and egg farmers.

“I have to buy the chicken feed for my farm at USD 570 per ton, and I go through 7 tons of feed per day. Before the war (in Ukraine), it cost me USD 420 a ton. So I’m paying USD 120 a day more just on feed since the war broke out.”

Other farmers noted that prices for their chicken feed had risen from USD 420 and 430 to USD 630 and 650 per ton, respectively. To reduce overall costs, another farmer noted he had already laid off 3 workers to pay for the higher cost of feed. Others noted that they had gone into debt to pay for the high cost of feed while maintaining production. In late April, most tomato farmers are harvesting the last of their crops and getting ready to prepare new land to plant for the next season. It is likely that the rising cost of fertilisers worldwide will still take a few months to heavily affect tomato farmers in Basra. However, farmers already noted rising prices of ammonium phosphate, humic acid, and urea. When asked about what they would do, all farmers noted they would have to reduce the size of the area of land they would cultivate, which will lead to lower production.

Worldwide, prices are estimated to have risen by 89% for wheat, and 82% for some fertilisers, although in Iraq, in March 2022 WFP only noted a 9% increase in the price of wheat, with a year-on-year rise of 26%. Still, combined with the effects of the devaluation of the dinar and lower daily wages, purchasing power is estimated to have dropped by almost half.
Table 1. Prices for Grains, Fertiliser and Oil Worldwide

<table>
<thead>
<tr>
<th></th>
<th>SEPTEMBER 2021 US$ / TON</th>
<th>MID-MARCH 2022 US$ / TON</th>
<th>CHANGE (FACTOR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat, July 2022</td>
<td>202.1</td>
<td>382.1</td>
<td>1.89</td>
</tr>
<tr>
<td>Maize, July 2022 future</td>
<td>157.5</td>
<td>276.9</td>
<td>1.76</td>
</tr>
<tr>
<td>Soybeans, July 2022 future</td>
<td>330.7</td>
<td>600.4</td>
<td>1.82</td>
</tr>
<tr>
<td>Urea, US Gulf, March 2022</td>
<td>440.0</td>
<td>800.0</td>
<td>1.82</td>
</tr>
<tr>
<td>Potash, muriate, late Feb 2022</td>
<td>265.0</td>
<td>392.0</td>
<td>1.48</td>
</tr>
<tr>
<td>Oil, West Texas Intermediate (WTI) and Brent crude, US$ per barrel</td>
<td>70.0</td>
<td>105.0</td>
<td>1.50</td>
</tr>
</tbody>
</table>

With price hikes in oil as well, the Government of Iraq will luckily be able to afford more expensive public distribution system (PDS) handouts. Iraq’s PDS is one of the largest food subsidy programmes globally, yet does not function perfectly. WFP reports that in January 2022, the PDS only managed to distribute 5 out of 6 essential items, and in February 2022, the PDS only managed to distribute wheat flour. In the agricultural sector, the effects of imports, lower purchasing power, and drought have already had a sizeable impact on production, even before the Ukraine war. According to IOM research conducted with over 3,900 households, 86% of farmers recently surveyed in the south of Iraq note diminished production from 5 years ago, and 72% of livestock herders note a diminished herd.

**Figure 2. Agricultural activities among rural households**

- Farming land: 66% currently engaged, 12% abandoned in last 5 years, 22% not engaged.
- Livestock: 61% currently engaged, 8% abandoned in last 5 years, 31% not engaged.
- Fishing and fish farms: 91% currently engaged, 4% abandoned in last 5 years, 5% not engaged.

10 ODI, 2022, “Impacts of war”.
11 Ibid.
12% of farmers in rural areas also noted that they had abandoned farming in the last 5 years, in addition to 8% of livestock owners, with 76% of farmers who noted this indicating that it was because of a lack of water. This pattern is mirrored in livestock owners, whose main concern is also related to a lack of water for livestock-raising purposes (followed by a lack of food, which is often closely linked with a lack of water).12

Figure 3. Reasons for the reduced activity are similar both sectors and shared by those who fully abandoned these activities.
This policy brief will now examine in more detail two commodities in particular, poultry and tomatoes, to understand more about the challenges each commodity faces. These commodities have been highlighted as having particularly high potential by the International Trade Centre (ITC), which notes that tomatoes are the horticultural product with the highest projected import demand,\(^\text{13}\) while demand for poultry products in Iraq is expected to reach USD 1.3 billion by 2025.\(^\text{14}\)

IRAQI POULTRY FARMERS

Inputs

In the south of Iraq, two types of poultry businesses can be found, chickens raised for meat and for egg production. The chicks are produced from a hen, that is usually imported from the Netherlands or Turkey. The current buying price for broilers (chicks for meat production) is USD 1, and the price for laying hens (chicks for eggs production) is USD 1.30. The current prices are very high, because the chicks are imported and customs and import fees are added to the price of the chick. Only a few farmers have their own poultry hatching incubator to grow chicks from eggs, but most poultry field owners buy chicks for the production of meat or eggs. In the past, Iraq produced all chicks needed for the domestic poultry sector through the Ibaa Research Centre of the Ministry of Agriculture, a centre specialized in developing poultry, cow, and fish production, and even creating new generations that were resistant to the Iraqi climate.

Three types of feed are used:

1. Coarse feed (soy, corn, wheat, protein, barley);
2. Medium feed (same components as coarse feed but in different proportions); and
3. Soft feed (same components as coarse feed but in different proportions).

According to several industry experts interviewed in 2020, the demand for chicken feed exceeds supply. Chicken feed produced in Thi-Qar is exported to neighbouring governorates, such as Basra and Missan. There is also a chicken feed plant in Muthanna. Corn, vegetable oil, vaccines, and medicine could all be produced locally to support poultry farmers, or supported to have ongoing production scaled up and increased.

General Challenges

For broiler chickens, there is significant waste during production. Approximately 100 out of 1,000 chickens die during the production process. The disposal of this waste is through burning, while the chicken manure is sold as fertiliser for about USD 100 per ton. The chicken manure is sold through local merchants who buy from the farmers and then sell to other farmers. Losses also occur during transportation, because there are too many chickens in a small space and because boxes break. The level of waste can be reduced if more modern means of transportation were introduced, such as chicken transportation lorries. Another waste component is the sawdust used for the poultry flooring. This is also burned after it is no longer usable. The storage of chickens before they are sold is called manoeuvres, and takes between one and eight days. The longer the storage time, the higher the costs; therefore, farmers try to limit it as much as possible. Experience would suggest that introducing modern heating devices and lighting would increase productivity. Currently, farmers in the south of Iraq tend to use fans, or mist cooling systems, to control temperatures inside poultry halls. The water for the mist cooling systems and for feeding poultry must be treated for salinity, and reverse osmosis systems are typically installed on farms to process the water needs for USD 15,000- USD 40,000 per system.\(^\text{15}\)

\(^{\text{15}}\) In search of economic opportunities for agribusinesses in Iraq.
IRAQI TOMATO FARMERS

Inputs
After ploughing the land, farmers leave it for some time, then divide it into specific plots, add organic fertiliser (animal and Dap fertiliser) as well as insecticides and fungicides, level the soil and plant the tomato seeds. Tomato harvesting is conducted by hand, which is subsequently packaged in plastic boxes for the market. Farmers base their decision on how many tomatoes to plant on tomato consumer demand and the productivity of the farm. After harvesting the tomatoes, farmers place them in plastic boxes and then sell them to grocery wholesalers, who collect the tomatoes (and other vegetables) by car. Farmers sell tomatoes to the market daily. All trade takes place based on trust, and none of the farmers interviewed by IOM used contract sales.

Challenges
Vegetable production has increased in Iraq in recent years, particularly near urban centres where relatively modern farming techniques are applied, including the use of greenhouses. However, a major challenge for producers and processors has been to achieve and maintain quality standards along the value chain, in part due to the low quality of input and low capital intensity of farming. According to ITC, fertiliser consumption in 2016 among tomato producers in Iraq was just 35.8 kilograms per hectare of arable land, compared with a regional (MENA) average of 94.8 kilograms per hectare. Currently, 60–70 per cent of vegetable consumption is also supplied by imports from neighbouring countries. Tomato prices tend to go down when a large quantity of imports enters the market, notably from Iran and Turkey. For local farmers, competing with imports is difficult because Turkish and Iranian farms are large companies and benefit from subsidies from their respective governments. Waste is also a major problem in tomato production and occurs both during the production stage and during transportation. Waste is higher when imports from abroad are high and local producers cannot sell their tomatoes in time. Imported tomatoes generally come from Iran or Turkey, sometimes from Afghanistan, Egypt, European countries, or Syria. Imported tomatoes can be maintained for longer than the local ones, according to respondents interviewed. The expiry date of local tomatoes also depends on the season, with local tomatoes being maintained longer in winter than in summer. After harvesting the tomatoes, farmers sell them to grocery wholesalers. For most tomato farmers, tomato is their main product (together with eggplant and cucumber). 16

16 In search of economic opportunities for agribusinesses in Iraq.
POLICY CONSIDERATIONS

POTENTIAL RESPONSES

Types of interventions that should be of highest priority to support at the individual farm level include:

To address lack of access to adequate water

Financing Well Drilling and Equipping: The availability of ground water resources and the quality of water in Iraqi aquifers are highly unequal. There are an estimated 88,000 wells across the country, but the figure is likely to be far higher due to illegally drilled wells. This type of intervention requires authorization from the General Commission for Groundwater at the Ministry of Water Resources. In some areas, the authorization is granted within two weeks, such as in Al-Zubair District, Al Basrah Governorate. Financing should cover the following: well drilling, developing, testing, and installing VFD pumps that can be operated using various power supply sources.

Providing support to installing drip and subsurface irrigation systems: Drip irrigation is sometimes called trickle irrigation and involves dripping water onto the soil at very low rates (2-20 litres/hour) from a system of small diameter plastic pipes fitted with outlets called emitters or drippers. Water is applied close to plants so that only part of the soil in which the roots grow is wetted, unlike surface and sprinkler irrigation, which involves wetting the whole soil profile. With drip irrigation water, applications are more frequent than with other methods, and this provides a favourably high moisture level in the soil in which plants can flourish. Financing could cover supplying all items and materials for water pipes, fittings, and pumps for farms and greenhouses. Tomato farmers tend to already be using this, but required up to USD 9000 per farm to replace and re-fit drip irrigation piping and parts. Subsurface drip irrigation is a variation from conventional surface drip irrigation techniques and could also be relevant in the Iraq context. By minimizing evaporation, it uses water more efficiently than surface irrigation. The depth that the laterals (also used in conventional drip irrigation) are buried depends mostly on the tillage practices and the crop to be irrigated. It is a costly system that needs expert design and maintenance. But it is also a very effective method that transports water directly to the roots and is especially appropriate for arid and windy locations. Before entering the distribution pipes, the water is filtered to minimize the risk of clogging.

To support wheat, cereal, and corn production

Financing for pivot and linear irrigation systems for cereal farms: Pivot irrigation is the method of applying water to crops in a way similar to that of rainfall. The water to be sprayed is distributed through a pipe system and then sprayed into the air through sprinklers so that the water breaks into tiny droplets when falling to the ground. This way, crops will get the desired amount of water required for their growth without wasting excess water. The cost of each system unit is relatively high and is, therefore, best suited to medium and large irrigated farms.17

To support egg and poultry production

Cash transfers for feed and fertiliser: Critics of the PDS have noted that PDS benefits rarely trickle back to farmers, and that the PDS also benefits many wealthy Iraqi families who are not in genuine need of it. Similarly, experience has shown that subsidised fertiliser programmes are extremely tricky and assistance can arrive too late. Instead, cash transfers to vulnerable or low income farmers at the right time (for tomato producers, for example, right at the start of a season) would likely provide invaluable targeted support, as would cash support to poultry and egg farmers for feed purchasing. Another option would be to support poultry farmers with chicken feed, which is also recommended to be done with cash.

Charges or tariffs on imports: The governments in both Baghdad and Erbil have backed initiatives to boost and protect domestic food production. According to a new strategy for the tomato sector in Iraq, fresh tomatoes are the horticultural product with the highest projected demand in Iraq, with an estimated value of USD 183 million by 2025. One way to protect local production has been import bans, enacted in KRG and the rest of the country in 2020, but no longer in force according to the farmers IOM spoke to. Al-monitor news reports that borders may stay open for 3 months to allow for all products to be available on the market. Import bans for tomatoes should be immediately reconsidered, however, or tariffs applied to imported tomatoes to protect local production and prevent over-indebtedness among tomato farmers.

Financing for tomato processing: The most popular processed product made of tomatoes is tomato paste, which is used in a wide variety of dishes in Iraq. Ketchup and tomato-based sauces are also popular. However, in Iraq, most factories that process tomatoes have been closed and at present there is only limited processing capacity, with some smaller producers. Currently, competing with the cheaper imported tomato paste is difficult. Despite plans for local production of canned tomatoes and tomato paste in KRI, they have not materialised. The process of producing tomato paste starts by sorting the tomato peel and seeds, followed by the extraction and squeezing of tomatoes. The production capacity of one factory is 10 tons of tomato paste per day. For this production capacity, the volume of tomatoes needed would be 35 tons per day, although specific types of tomatoes are also needed. Efforts to support farmers to switch tomato types for processing and support the construction of local production capacities to make tomato paste and ketchup, could be linked to the PDS as well, which in theory also provides tomato paste.
FINAL REFLECTIONS

Even before the Ukraine crisis, climate change, the opening of borders, and the devaluation of the Iraqi dinar contributed to a decline in confidence from the Iraqi agricultural sector, and those who remain active face mounting costs of doing business.

From a sample of 200 tomato farmers in Basra, for example, business owners reported being already in debt an average of USD 8,147 per farm in 2022. A trend of deciding to reduce cultivated areas and rely on informal debt is emerging among tomato cultivators. Reflecting the large size and firm value of many poultry businesses, debts among 184 poultry businesses in Basra were already an average of USD 22,880. If borders are to remain open to imports to ensure the continued supply of cheap food, vulnerable farmers should also receive cash payments or vouchers for farm inputs to allow them to continue to produce, otherwise, there is a greater risk of more farm closures, further reducing domestic food production within Iraq. It is doubtful if PDS changes could assist farmers directly, and vouchers require administration and may lead to collusion or rent-seeking, so cash transfers for some of the interventions above are the main recommended way to assist over-indebtedness among these producers. Loans, in these cases, may also not be appropriate, given the risk of multiple borrowing. Whereas public finance would typically consider either corrective policies that address market failures or redistributive policies to improve social welfare, the Ukraine conflict introduces a scenario in which Iraq should work on both aspects. Vulnerable households need access to affordable and quality food, the PDS system requires oversight and revision, and Iraqi farmers require protection from cheap imports. These are not as incompatible as they may seem if the costs of inputs and farm productivity can be supported for Iraqi farmers. Experience from conditional cash grants during the height of the COVID-19 pandemic shows that targeted support to farmers does not have to mean market distortion or moral hazard. It can be one step, in coordination with partners, to prepare private farms to compete in export markets or eventually receive formal financial investments.