International Trade Centre

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Assessing the competitiveness of farmers and agrifood SMEs in Iraq –Report

Strengthening the Agriculture and Agrifood Value Chain and Improving Trade Policy in Iraq (SAAVI)

سافي-SAAVI

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Cordaid

NRC
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ACRONYMS AND ABBREVIATIONS

Unless otherwise specified, all references to dollars ($) are to United States dollars, and all references to tons are to metric tons. The term 'billion' denotes 1 thousand million.

FAO	Food and Agriculture Organization
GDP	Gross domestic product
ICT	Information and communications technology
IOM	International Organization for Migration
ITC	International Trade Centre
NRC	Norwegian Refugee Council
SAAVI	Strengthening the Agriculture and Agrifood Value Chain and Improving Trade Policy in Iraq
SME	Small and medium-sized enterprise

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About the report

This *Assessing the competitiveness of farmers and agrifood SMEs in Iraq* report combines data analysis and recommendations to guide policymakers, businesses and trade and investment support institutions in improving the business environment for farmers and SMEs in the agriculture and agrifood sectors in Iraq.

The publication features the key findings emanating from interviews with approximately 600 agrifood enterprises in Iraq based on the International Trade Centre's (ITC's) SME Competitiveness Survey.[1] The survey interviewed primary producers using a targeted farm-level survey, while agribusiness small and medium-sized enterprises (SMEs) (input suppliers, traders and collectors, and processors) were interviewed using a firm-level survey. The results from the survey serve to develop detailed profiles of their operations and perspectives on the business environment.

The survey was implemented in partnership with the Norwegian Refugee Council (NRC)[2] and Cordaid,[3] who interviewed farmers and agrifood SMEs in southern and northern Iraq respectively.

Partner	Area	Districts covered	Farmers	Agribusinesses
NRC	Southern Iraq	Al-Zubair, Abu Al-Khaseeb, Al-Basrah, Al-Qurna, Al-Midaina, Al Faw and Shatt Al-Arab in Al-Basrah and Al-Chibayish in Thi-Qar	151	164
Cordaid	Northern Iraq	Sulaymaniyah, Duhok and Erbil in the Kurdistan Region of Iraq (KRI), and Sinjar, Makhmur, Al-Hamdaniya, Tel Kaif, Tel Afar and Al-Mosul in Ninewa.	141	140

This report was elaborated within the framework of the European Union-funded *Strengthening Agriculture and Agrifood Value Chains and Improving Trade Policy in Iraq* (SAAVI) project. The findings from this study directly inform SAAVI's activities and contribute to the elaboration of Iraq's Sustainable Development Strategies on Poultry and Tomatoes. These farm and agribusiness surveys complement additional research under SAAVI, including a panel study of COVID-19 impacts on SMEs, a market research analysis, a climate change risk assessment, and additional targeted quantitative and qualitative analyses.[4]

1. ITC SMECS: https://www.intracen.org/SMECS/Implementation/.
2. NRC in Iraq, website: https://www.nrc.no/countries/middle-east/iraq/.
3. Cordaid in Iraq, website: https://www.cordaid.org/en/countries/iraq/.
4. The implementation of the surveys was complemented by the roll-out of 18 focus group discussions with farmers and agribusinesses specifically on poultry, tomatoes, gender issues, climate change and environmental issues in northern and southern Iraq.

Executive summary

The Republic of Iraq's food and agriculture sector has the potential to contribute to national growth and diversification, the creation of inclusive economic opportunities, and enhanced sustainability and resilience. An important first step in realizing this potential is understanding the context and challenges facing those active in the sector.

As part of the *Strengthening Agriculture and Agrifood Value Chains and Improving Trade Policy in Iraq* (SAAVI) project being implemented by the International Trade Centre with funding from the European Union, farm and agribusiness surveys were carried out in selected locations across Iraq. The information collected from 292 farmers and 304 small and medium-sized enterprises (SMEs) in the agrifood sector on their operations, priorities for the future and key constraints yields valuable insights on the needs and development potential of the food and agriculture sector.

The survey results highlight how competitiveness in the short term is hindered by barriers to expanding production and improving quality. Input costs are considerable for many farmers and, despite consumers' interest in product quality, certification rates are low among respondents. Access to post-harvest storage facilities is limited and farmers without access to adequate storage are more likely to face post-harvest losses or have their products rejected by buyers.

In addition to farm- and firm-level capacities, connections between value chain actors and connections with markets are essential elements in building competitiveness. However, many agribusiness SMEs report challenges in sourcing inputs locally, though the use of protocols between buyers and sellers is associated with there being fewer quality issues. Information and communications technology (ICT) use, such as having a website, can be an effective way of linking value chains and markets, and seems to be associated with respondents having better connections with markets. Furthermore, while close to half of farmers are members of an association, few report on the services received form these associations in a positive manner. Most agribusiness SMEs are not members of any association.

The COVID-19 pandemic and climate risks have highlighted the need to build resilience and capacities to adapt to changing circumstances. However, many farmers and agribusinesses in Iraq lack the resources and technology to cope with climate stress. Access to finance, technical skills and technology use will all need to be improved to help the sector manage future challenges.

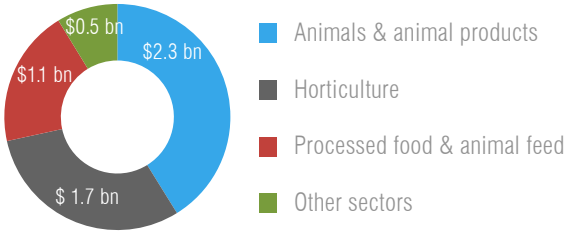
Following from these results, this report outlines policy recommendations for leveraging the strengths of farms and SMEs in this sector while taking steps to address the fundamental constraints they have identified. Priorities include:

- Expanding and tailoring skill development programmes to market needs;
- Fostering better access to equipment and inputs;
- Supporting greater use of digital tools;
- Enhancing capacities to produce and recognize quality goods;
- Strengthening storage and logistics systems;
- Making business support organizations more effective;
- Expanding access to finance for farms and SMEs;
- Promoting opportunities for women to work and build businesses in the sector.

At a glance: how competitive are Iraqi farmers and agribusinesses?

The agriculture potential in Iraq

The agriculture and agri-food sectors with the highest projected demand:



$5.6 billion estimated Iraqi demand of agriculture products by **2025**

The agriculture and agri-food sector in Iraq have significant potential for growth by supplying to the increasing domestic demand that currently relies on imports.

Agriculture, one of the keys to addressing the employment challenge

More than **170,000** additional jobs could be created by 2030 with a growth rate of **3%** in agriculture production (moderate-growth scenario).

Contribution to **Sustainable Development Goals**

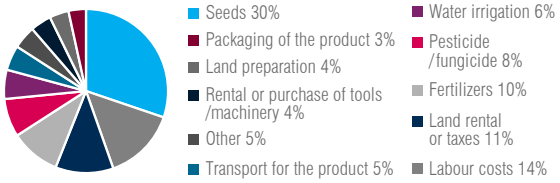
Capacity to compete: meeting short-term market expectations

Factors such as access to adequate inputs and infrastructure and compliance with quality standards govern the ability to meet market expectations

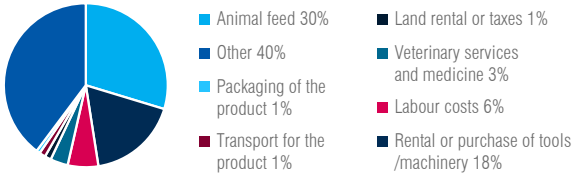
Reliable access to inputs to power productivity

Biggest challenge farmers faced with accessing inputs was high prices, followed by lack of capital and lack of financial support

Tomato & other vegetables: annual average costs of production

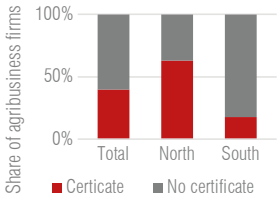


Poultry & livestock: annual average costs of production



A focus on quality to capture buyer interest

Despite keen interest by consumers in quality, certification rates are relatively low in Iraq



Most common certificates
- Food safety
- Labour safety
- Quality/performance certificates

Less common certificates
- Environmental and sustainability certificates

Roughly 50% of firms are willing to pay a premium to their suppliers for higher quality produce

Good storage facilities to ensure successful sales

Severe shortage in post-harvest facilities and cold storage infrastructure

Temperatures can reach 40°C in summer
Leading to spoilage without proper storage

- Over 40% of farmers did not store their products
- 89% of farmers who said their products got rejected due to poor quality did not use any storage facility

Capacity to connect: building market linkages and cooperation among value chain actors

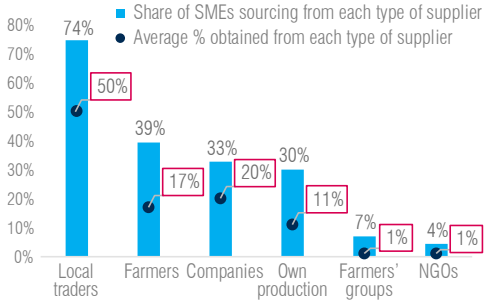
Establishing the right relationships with other actors in the value chain can improve the competitive position of businesses

Strong farmer-agribusiness partnerships to secure reliable inputs

Agribusiness SMEs reported several challenges in terms of sourcing inputs locally

Top constraints:

- 32% unsatisfactory or inconsistent product quality
- 20% insufficient volume
- 12% scattered suppliers



Better supplier-buyer relationships could improve input reliability and quality for agribusiness buyers.

Buyer diversification and engagement for resilience

- Most surveyed agribusinesses sell to traders or intermediaries
- In the south, the agribusiness clientele was dominated by foreign buyers and a larger proportion of domestic processors than in the north

Institutional strengthening is needed to boost local producers

- 45% of farmers belong to a business association
- Only 5% of farmers reported receiving good quality services from their farmers associations
- 90% of agribusiness said that they did not belong to any business association

Capacity to change: resilience in the face of multiple macro-economic challenges

Adequate and sustainable returns can only be achieved if the firm can adapt and respond to these changes in a way that keeps the enterprise afloat – or even grows it.

Major economic disruptions pose challenges to Iraqi farmers and SMES

62% of SMEs were strongly affected by the pandemic

Both farmers and SMEs in the north seemed to be more affected than those in the south

How were SMEs affected?
- 22% Closing of markets
- 19% Accessing transportation
- 19% Temporary shutdown

Next crisis?
- Climate change

Most cited environmental risks
- Changing temperatures
- Water scarcity

Top areas of support needed:
Accessing finance, insuring their business and accessing cooling storage

Building resilience to future crises

- Access to finance to implement change
- Minimal use of formal financing

Why?

» 42% answered high interest rates
» 20% no Shari'a compliance

Shifting towards better technology and value chain upgrades

77% of agribusinesses said they needed some training to improve their operations

Over 3/4 of agribusiness had a strategy to add value to their products

Source: ITC farm and agribusiness survey 2021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Introduction: Issues at stake in Iraqi agriculture

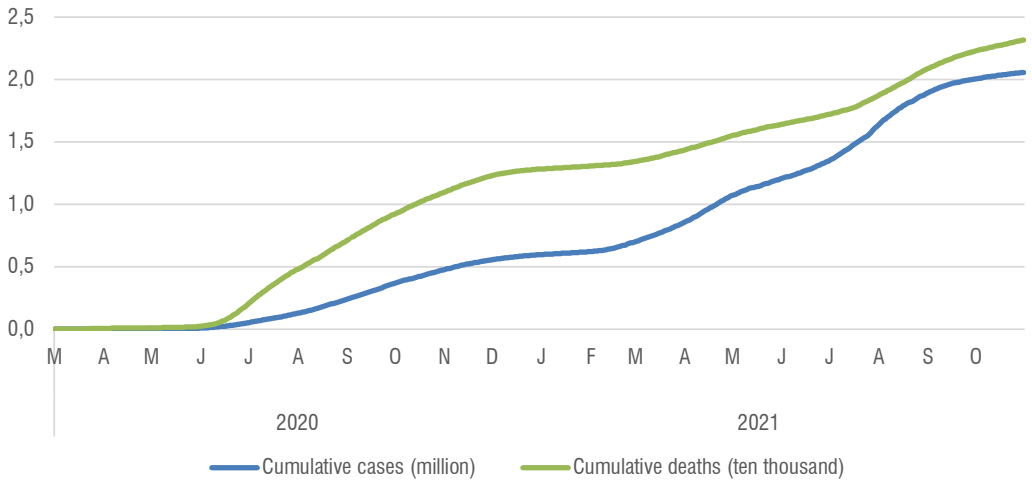
Agriculture and agrifood value chains offer considerable promise in Iraq, where multiple crises have hindered economic and social progress. Taking advantage of the opportunities offered by modern value chains will require addressing domestic challenges and finding ways to navigate stubborn constraints.

A challenging context

The development of agriculture and agrifood value chains is made more necessary and more challenging by the complex difficulties the country faces in fostering sustainable, inclusive and resilient growth. Iraq has faced prolonged conflict and instability, oil dependence and an underdeveloped private sector. Climate change also poses risks for the country owing to slow-onset events such as increasing temperatures, decreasing precipitation, desertification, and the salinization of water and soils, as well as extreme weather events such as droughts, high temperatures, heatwaves, strong winds (and sand and dust storms) and erratic heavy rains. While its exposure to these events is low, Iraq's vulnerability remains high due to a lack of adequate adaptive measures in place.[1]

The global COVID-19 pandemic has exacerbated these issues and complicated an already fragile context in Iraq. After three waves of infections, by the end of October 2021, the cumulative number of confirmed cases exceeded 2 million and the number of deaths had passed 23,000 (Figure 1).

Figure 1: Cumulative total of confirmed COVID-19 cases and deaths in Iraq (March 2020 to October 2021)



Source: Johns Hopkins University (2021).

1. ITC (2021). *Climate change risk and opportunities in Iraq agrifood value chains.* International Trade Centre, Geneva. Available from https://www.intracen.org/uploadedFiles/Common/SAAVIreport.pdf.

Containment measures imposed by the Iraqi Government since the beginning of 2020, including curfews, a ban on non-essential businesses and public gatherings, border closures and travel restrictions, have led to reduced operating hours and the closure of many SMEs.[2] The extent of lockdown measures varied considerably across the governorates covered by surveys (Table 1).

Table 1: Days under lockdown, by governorate (February 2020 to June 2021)

Governorate	Days under full lockdown	Days under partial lockdown
Basrah	160	116
Duhok	127	36
Erbil	136	39
Ninewa	77	187
Sulaymaniyah	0	36
Thi-Qar	252	69

Source: International Organization for Migration (IOM), Food and Agriculture Organization (FAO) and ITC (2021). *Panel Study IV: Impact of COVID-19 on Small – and Medium-Sized Enterprises in Iraq.*

Gross domestic product (GDP) growth, which has been generally constrained and often volatile in the recent past, was hit by the collapse in oil prices and reduced export volumes that followed the initial spread of the pandemic, as well as the effects of lockdown measures taken to slow the spread of the virus at home. According to the World Bank, GDP declined by 10.4% in 2020 as the oil sector fell by 17.6% and non-oil GDP slipped by 9%. Unemployment was estimated to have increased to 13.7% and the current account fell into negative territory as well, even as reduced purchasing power caused a decline in importing.

Agriculture's potential

In this context, the strengthening of agriculture and agrifood value chains offers a promising step to promote economic recovery and diversification. While agriculture accounts for only 5% of Iraq's GDP, it accounts for 20% of employment.[3] Farmers and agricultural SMEs are powerful actors in the quest to achieve the United Nations Sustainable Development Goals (SDGs) in Iraq. They make important contributions to poverty reduction and rural development, food security, the creation of inclusive livelihoods, and environmental sustainability. In addition, improving the competitiveness of value chains related to agriculture provides opportunities to increase domestic value addition, enhance productivity, and increase technology use and digitalization, as well as address concerns about food security and access to adequate nutrition.

Diverse agroecological and socioeconomic contexts affect the extent to which value chain upgrading can achieve these goals. While most of Iraq has a hot, arid, subtropical climate, five agroecological zones with varied climatic conditions are present in the country, making it suitable for growing a range of crops (including cereals, palm dates and vegetables) and raising animals.[4] Agricultural outputs with potential for food security and trade depend on value chain stages, including: the provision of inputs and services to farms; farming; processing, packaging and other forms of value addition; logistics and transportation services; and activities related to markets, marketing, and interaction with buyers and consumers.

2. ITC, FAO and IOM (2020). Panel Study I: Impact of COVID-19 on Small – and Medium-Sized Enterprises in Iraq. Available from https://iraq.iom.int/files/IOM%20Iraq%20Panel%20I%20Study-Impact%20of%20COVID-19%20on%20SMEs%20in%20Iraq%2C%20Flash%20Report%204MB.pdf.

3. World Bank (2019). Iraq Economic Monitor, Fall 2019: *Turning the Corner – Sustaining Growth and Creating Opportunities for Iraq's Youth.* World Bank, Washington, DC. Available from https://openknowledge.worldbank.org/handle/10986/32590.

4. ITC (2021). *Climate change risks and opportunities in Iraqi agrifood value chains.* International Trade Centre, Geneva. Available from https://www.intracen.org/uploadedFiles/Common/SAAVIreport.pdf.

Yet the consequences of climate change for the current and future productivity of Iraqi agriculture could be considerable. The risk is further exacerbated by the obsolescence of the irrigation network, which has been degraded by years of insufficient maintenance of and limited investment in infrastructure. Investment in climate change adaptation and the use of more sustainable practices – particularly regarding water use – will be needed in light of these risks.[5]

The agriculture and agrifood sector in Iraq has significant potential for growth by supplying growing domestic demand that currently relies on imports to a considerable extent. ITC estimates that demand for agricultural products will total approximately $5.6 billion by 2025. This includes $2.3 billion in animals and animal products, $1.7 billion in horticulture, $1.1 billion in processed food and $0.5 billion in other products.[6]

Increased domestic production has the potential to replace some of these imports of basic foodstuffs and to serve new demand, including for processed and speciality products, and even supply regional or global markets. Price competitiveness, along with improvements in quality and marketing, will be needed for Iraqi products to gain domestic market share and, eventually, traction in global markets. Improvements across the value chain are in turn needed to underpin sustainable improvements in competitiveness.

Strengthening agriculture and agrifood value chains

Addressing the barriers to the development of agriculture and related activities and seizing the opportunities that they present is the focus of the SAAVI project.[7] The initiative is concerned with the design of competitiveness and sustainability strategies for high-potential products targeting domestic markets, enhancing commercial value chain alliances and capacities of SMEs to compete effectively, and increasing the enabling business environment's capacities to better support value chain competitiveness. It has a particular emphasis on the improvement of knowledge and skills for employment among youth. A fourth expected result is concerned with improving trade policy for enhanced performance and value chain competitiveness.

A clear understanding of field and factory level production conditions is needed to inform this work and ensure its relevance to beneficiaries. It is vital to understand the capabilities of local producers, identify opportunities and challenges for growth and value chain strengthening, and assess where interventions would be most effective for the sector to be more competitive.

For this reason, in 2021, ITC conducted farm and agribusiness SME surveys that – in addition to consultations, market studies and supporting analytical work – are driving project efforts to share information, identify constraints and establish priorities. This report presents the results of those surveys.

These farm and agribusiness SME surveys complement additional research being undertaken under or in partnership with the SAAVI project, including reviews of COVID-19 impacts on SMEs,[8] market potential[9] and climate change risks,[10] as well as a forthcoming study on market conditions based on consumer, buyer and retailer interviews.

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5. ITC (2021), *Climate change risks and opportunities in Iraqi agrifood value chains.* International Trade Centre, Geneva. Available from https://www.intracen.org/uploadedFiles/Common/SAAVIreport.pdf.

6. ITC (2021). *Identifying agricultural and agrifood products with potential for production and commercialization in Iraq.* Available from https://www.intracen.org/uploadedFiles/intracenorg/Content/Redesign/Projects/SAAVI_Iraq/SAAVI%20TMI%20report%202_web.pdf.

7. SAAVI website: https://www.intracen.org/SAAVI/.

8. ITC, FAO and IOM (2021). *Panel Study IV: Impact of COVID-19 on Small – and Medium-Sized Enterprises in Iraq.* Available from https://www.intracen.org/uploadedFiles/intracenorg/Content/Redesign/Projects/SAAVI_Iraq/IOM%20Iraq%20Panel%20Study%20IV-Impact%20of%20COVID-19%20on%20SMEs%20in%20Iraq,%20Flash%20Report.pdf.

9. ITC (2021). *Identifying agricultural and agrifood products with potential for production and commercialization in Iraq.* International Trade Centre, Geneva. Available from https://www.intracen.org/uploadedFiles/intracenorg/Content/Redesign/Projects/SAAVI_Iraq/SAAVI TMI report 2_web.pdf.

10. ITC (2021). *Climate change risks and opportunities in Iraq agrifood value chains.* International Trade Centre, Geneva. Available from https://www.intracen.org/uploadedFiles/Common/SAAVIreport.pdf.


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Assessing competitiveness in agricultural value chains

From May to June 2021, ITC, in partnership with the NRC and Cordaid in Iraq, surveyed farms and agribusinesses in northern and southern Iraq. The objective was to better understand Iraq's agriculture and agrifood sector by gathering information on the activities and perspectives of farmers and agribusiness SMEs (input suppliers, traders and collectors, and processors with fewer than 100 employees). The surveys aimed to identify the main competitiveness challenges facing value chain actors in the horticulture and livestock sectors, assess horizontal and vertical business linkages, the institutional environment, and the impact of and responses to the COVID-19 pandemic and climate change.

Data collection focused on specific governorates in the north and south of the country and on priority products. In the south, the NRC collected data in the governorates of Basrah and Thi-Qar. In the north, Cordaid collected data in Nineveh governorate and the Kurdistan Region of Iraq (KRI). The surveys focus on five priority subsectors within the agriculture and agrifood sector, namely tomatoes, other vegetables, livestock, poultry and dairy. These agricultural subsectors were chosen for their high potential to contribute to growth, diversification and job creation, strong demand, and the possibility to create beneficial spillovers in other areas.

Understanding competitiveness

Given its importance in driving business performance and economic development, ITC has developed an analytical framework to understand firm competitiveness and how it can be improved over time.[11] The SME Competitiveness Survey is built around three interrelated pillars that drive competitiveness, each subdivided into three themes. The three pillars of competitiveness are compete, connect and change. The first pillar of the grid, *capacity to compete*, focuses on the ability of enterprises to deliver output of appropriate quantity, timeliness, quality and cost to meet current market expectations. The second pillar, the *capacity to connect*, centres on gathering and exploiting information and knowledge by linking to buyers, suppliers, and institutions. The third pillar, *capacity to change*, pertains to the ability of a firm to make changes in response to, or in anticipation of, dynamic market forces and to innovate through investments in human, intellectual and financial capital.

In addition, ITC analyses the ability of companies to sustain competitiveness, including through gender inclusiveness, environmental sustainability and resilience during crises. The SME Competitiveness Survey and Farm Survey in Iraq deployed this framework through a questionnaire that gathers data along these pillars.

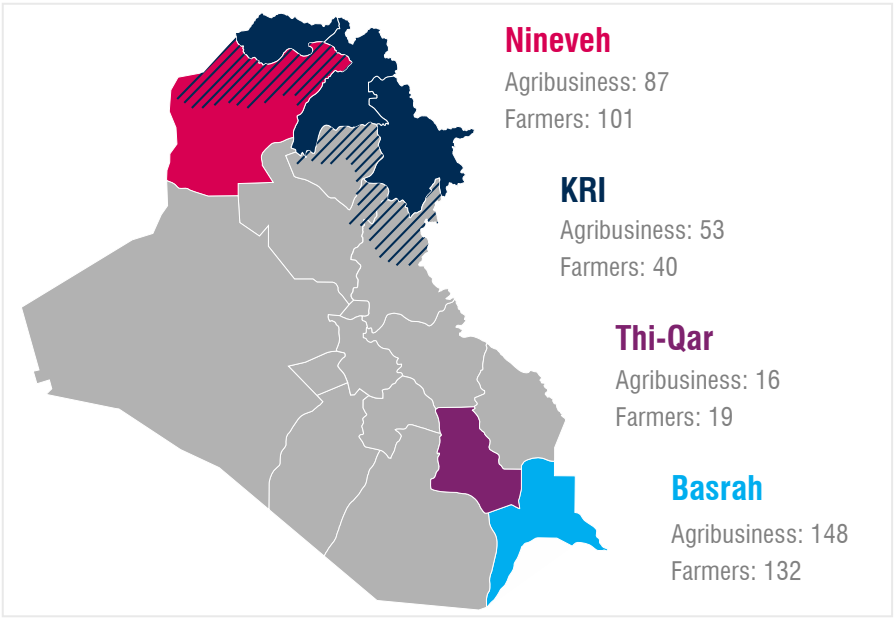
11. ITC's SME Competitiveness Outlook 2015 provides a more detailed description of the SME Competitiveness Grid and the methodology behind it. Available from http://www.intracen.org/publication/SME-Competitiveness-Outlook-2015/.

The competitiveness surveys in Iraq

A total of 596 participants were interviewed across the northern and southern regions of Iraq. Out of these, 292 were farmers and 304 were agribusinesses (Figure 2).

In the north, which has a milder climate better suited to cropping and where agriculture is mostly rain-fed, the enumerators covered the following districts within the Nineveh governorate: Al-Hamdaniya, Makhmur, Mosul, Sinjar, Tel-Afar and Tel Kaif, and three governorates in the Kurdistan Region of Iraq (KRI): Erbil, Duhok and Sulaymaniyah. In the arid south, where agriculture is typically irrigated, they covered Al-Zubair, Abu Al-Khaseeb, Basra, Al-Quma, Al-Midaina, Al-Faw and Shatt Al-Arab districts in Basrah governorate, along with Al-Chibayish district in Thi-Qar.

Figure 2: Surveyed governorates and regions



Source: ITC.

Farmers consist of primary producers and farmer groups involved in vegetable, livestock and poultry farming, including meat and dairy production. Farmer groups are farmer-owned and controlled organizations with a defined membership, established to support members in pursuing their individual and collective interests. Among interviewed farms, 21% had less than five employees, and are thus categorized as micro-sized. In addition, 68% were small (5–19 employees) and 11% were medium-sized (20–99 employees).

However, in terms of the size of landholdings, 13% of interviewed farmers had micro-holdings (less than 5 donums,[12] or 1.25 hectares), 7% had small (5–9 donums), 26% had medium (10–24 donums) and 54% had large holdings (greater than 25 donums). Tomato farmers accounted for the highest share of interviewed farmers (43%), followed by other vegetable and livestock farmers.

Agribusiness SMEs in this survey are companies with less than 100 employees, including the self-employed, family firms, partnerships and associations, and involved in agribusiness input provision, trading/collection and agroprocessing in selected value chains, for example, by storing, grading and packaging of agro products. Among interviewed agribusinesses, 61% were micro firms, 35% were small firms and 4% were medium-sized (Figure 3). Livestock and poultry businesses made up the highest share of surveyed agribusinesses, and worked mainly as collectors or traders. Interviewed agribusinesses included 195 traders/collectors, 63 input suppliers and 31 processors, while 15 conducted other activities. Furthermore, 6% of interviewed agribusinesses were led by women, while 26% were led by youth aged younger than 35 years, and 63% were registered with or licensed by a national authority.

12. A donum in Iraq is equivalent to a quarter of a hectare (0.25 ha) or 2,500 m^2. For example, 1 donum = 0.25 hectares; 5 donum = 1.25 hectares.

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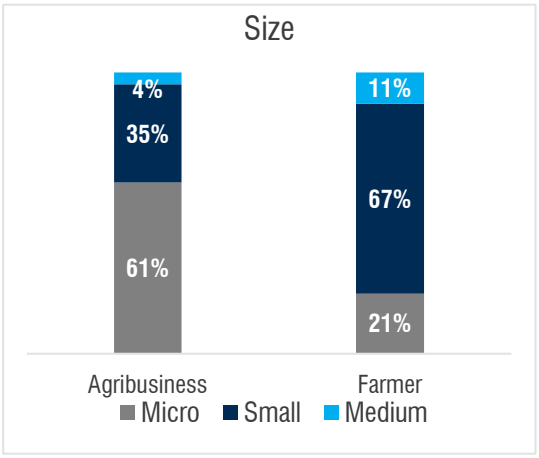
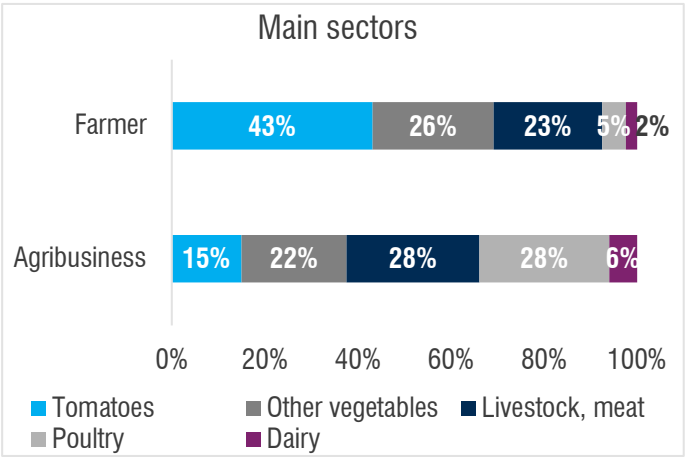
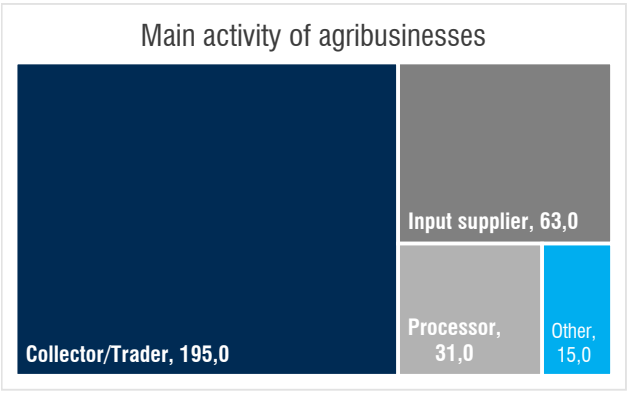
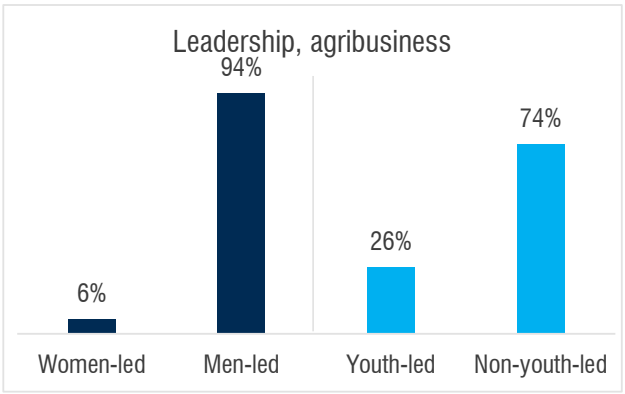
Figure 3: Characteristics of surveyed agribusinesses and farmers









Source: ITC agribusiness and farm surveys.

Competitiveness of small agribusinesses in Iraq

To contribute to Iraq's growth and development, agribusiness SMEs have to be competitive on markets to retain their buyers and expand market share today and in the future. This section assesses how competitive Iraqi farmers and agribusiness SMEs are, and how this performance can be made resilient to dynamic market forces.

The results of the surveys are analysed here in terms of the insights they offer on the ability of agribusinesses to meet short-term market expectations (capacity to compete), including by efficiently transforming inputs into outputs, quality and storage. The second subsection assesses the extent to which they build market linkages and cooperation among value chain actors (capacity to connect), including through farmer–agribusiness partnerships, diversification and liaison with institutions. The resilience of agribusiness SMEs in the face of multiple macroeconomic challenges showcases their capacity to change, including through access to finance and value chain upgrading.

Meeting short-term market expectations

To capture market share and earn a decent living in a competitive market, producers must deliver outputs of appropriate quantity, quality and cost desired in the market. Factors such as access to adequate inputs and infrastructure and compliance with quality standards govern the ability to meet these expectations.

RELIABLE ACCESS TO INPUTS TO POWER PRODUCTIVITY

Farm productivity is essential to agricultural livelihoods and the ability to sell an affordable product at markets. To a significant extent, agricultural productivity in developing countries depends on farmers having sufficient access to inputs such as water and feed, the quality of infrastructure, and farming techniques and technologies. However, conflict, seasonal droughts, and eroded soils in northern Iraq and water salinity issues impacting feed production in the south have disrupted access to animal feed. This has led to high market prices that further constrain livestock value chain development in Iraq.[13] In addition, insecurity in the north of the country has strongly reduced access to essential agricultural inputs such as seeds, fertilizers, land and labour, while costs increased.[14]

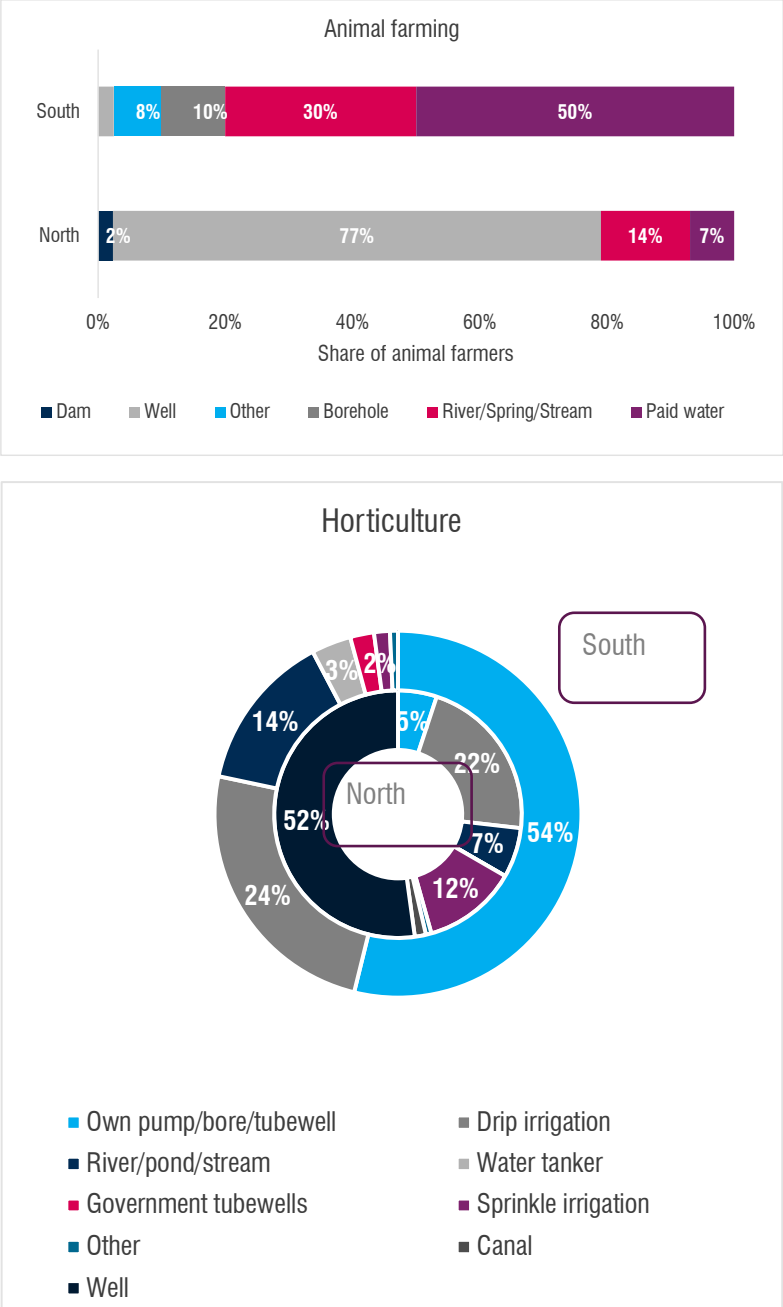
Climate change poses serious risks for agriculture in Iraq, particularly through increased water scarcity and unreliability of access. Despite this, approximately 90% of surveyed animal farmers reported having proper access to sufficient water and feed. Most surveyed farmers used groundwater for their crops and livestock, albeit with discrepancies across regions. Indeed, groundwater is the primary water source for livestock and farm irrigation in Iraq, and more than 88,000 wells are located across the country, including

13. FAO (2016). *Agriculture And Livelihoods Needs Assessment – In The Newly Liberated Areas of Kirkuk, Ninewa, and Salahadin.* Available from https://reliefweb.int/sites/reliefweb.int/files/resources/FAO_Assessment1.pdf; Norwegian Refugee Council (NRC) (2018). *Livelihoods and Market Assessment – Basra, Iraq.* Prepared by Moi Peter Elia, 21 October 2018. Available from https://reliefweb.int/sites/reliefweb.int/files/resources/Basra%20Livelihoods%20Technical%20Assessment%20FINAL.pdf.

14. FAO (2016). *Agriculture And Livelihoods Needs Assessment – In The Newly Liberated Areas of Kirkuk, Ninewa, and Salahadin.* Available from https://reliefweb.int/sites/reliefweb.int/files/resources/FAO_Assessment1.pdf.

for household, city and industrial use.[15] Most surveyed farmers in the northern provinces relied on wells for their animals, while those in the southern region relied on paid water (e.g. tankers) and surface water such as rivers, springs or streams (Figure 4). Horticulturists in the north mainly used wells and water-efficient irrigation (drip or sprinkle) to irrigate their farms. Those in the south primarily used their own pump, bore or tubewell, drip irrigation and surface water sources like rivers to irrigate their farms.

Figure 4: Main water sources for animals and irrigation for horticultural farms

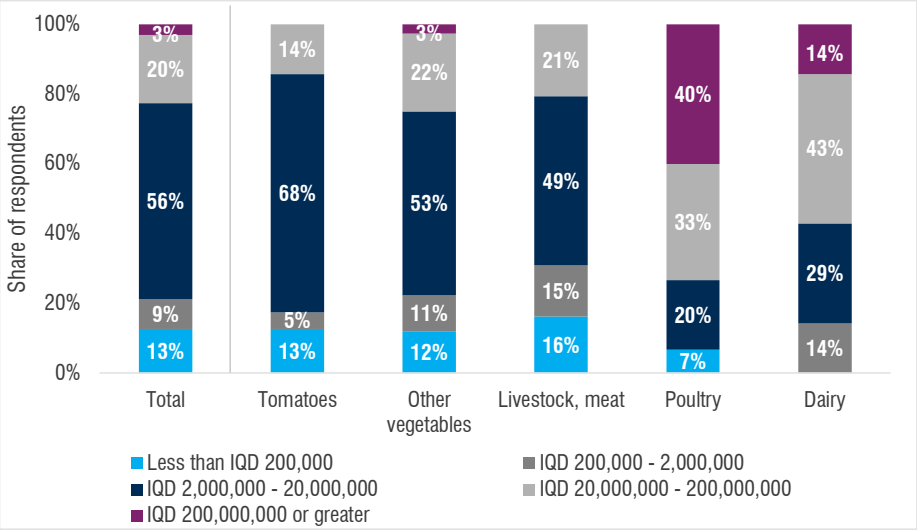


Source: ITC farm survey.

More than half of the surveyed farmers make IQD 2,000,000 ($1,373) to IQD 20,000,000 ($13,727) annually from their main product.

15. Fanack (17 November 2016). *Water Uses in Iraq.* Available from https://water.fanack.com/iraq/water-uses-in-iraq/#_ftnref1.

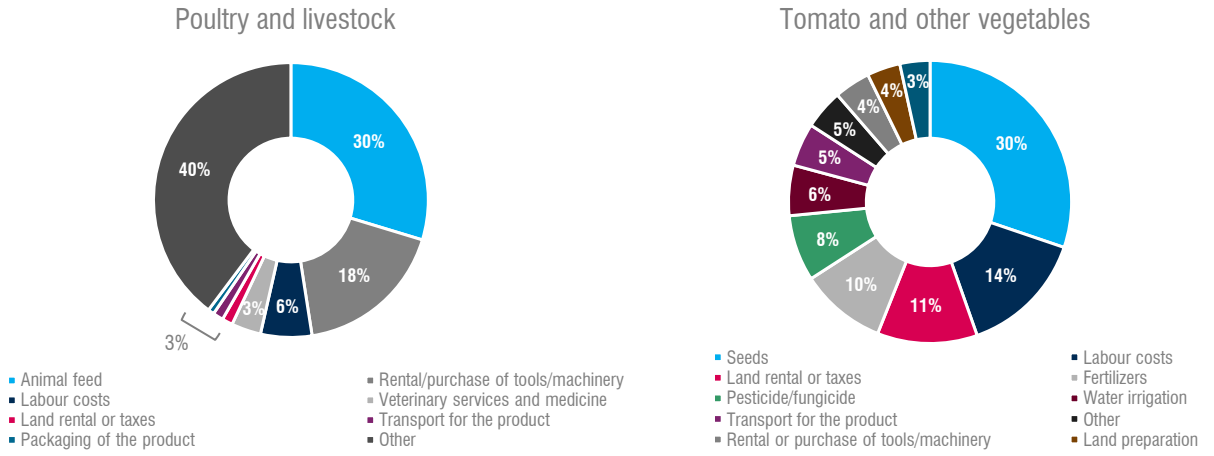
Figure 5: Annual revenue for main output



Source: ITC farm survey.

Animal feed was the most expensive input for poultry and livestock farmers, and accounted for an average of 30% of total annual expenditures. This was followed by tools and machinery (18%) (Figure 6). On the other hand, farmers of tomatoes and vegetables spent the most on seeds (30% of total annual expenditure), labour (14%) and land rental (11%). However, these shares differ by land holding size. For example, while seeds and labour consisted of 34% and 14% respectively of large farms' (> 25 donums) expenditure, they accounted for 13% and 22% respectively for micro and medium-sized farms.

Figure 6: Annual costs for producing main output



Note: The costs are merely estimates and opinions of interviewed farmers on how much the input might cost per year and are based on the knowledge and experience at the time of the interview. They might not necessarily be the actual costs incurred.

Source: ITC farm survey.

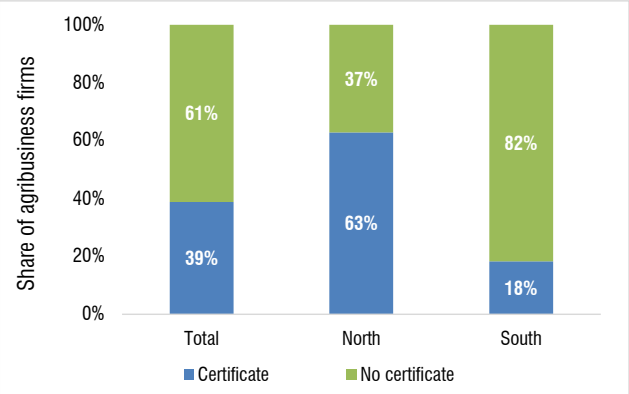
Surveyed farmers were generally happy with the quality of inputs they received. However, 32% said the biggest challenge they faced with accessing inputs was high prices, while 11% said it was a lack of capital, and for 10%, it was a lack of financial support.

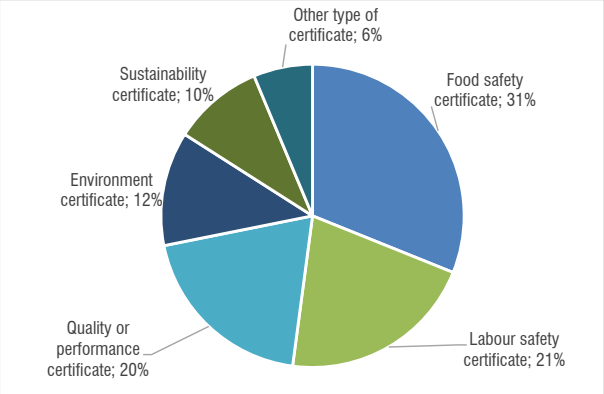
A FOCUS ON QUALITY TO CAPTURE BUYER INTEREST

Holding certifications that show compliance with quality standards and regulations signals product quality to buyers. A recent consumer behaviour study in Iraq reported that product quality was the most important factor that motivated consumers to purchase an item or not.[16] Moreover, ITC's Market Study in Iraq confirmed that food's flavour and physical appearance, particularly vegetables – which can easily be altered during handling – are highly important to Iraqi consumers, even more than its price.[17]

However, despite keen interest by consumers in quality, certification rates are relatively low in Iraq. Approximately 40% of surveyed agribusiness SMEs held a nationally or internationally recognized certificate for their main product, lower than an average of 67% found in other developing countries.[18] The certification rate varied across regions: while 63% of agribusinesses in the northern provinces were certified, only 18% were certified in the southern provinces (Figure 7). The most common certificates held were food safety, labour safety and quality/performance certificates. Environment and sustainability certificates were less common.

Figure 7: Certification levels and types among agribusinesses





Source: ITC agribusiness survey.

The low certification rate could be due to low levels of information about the country's quality infrastructure. Less than 40% of surveyed agribusinesses reported good information availability on standards and certification or good services from inspection and certification bodies. Certificate holders tended to report greater information availability and better service quality than non-holders of certificates. For example, 46% of certificate holders reported good service quality compared to 20% of non-holders, and half of the latter indicated low-level service quality. Therefore, unawareness or inadequate services could have hindered non-holders from obtaining quality certificates.

To offer high-quality output, inputs into the product need to meet quality standards as well. Many surveyed agribusinesses were determined to obtain good-quality products from their suppliers to meet quality requirements. The survey finds that 27% of agribusinesses had quality or food safety protocols with their suppliers, and more than half (54%) provided guidance or training to farmers to meet quality requirements, with 25% of the agribusinesses providing them weekly. Approximately half of the agribusinesses were willing to pay a premium to their suppliers for higher-quality produce. Furthermore, nearly two out of three surveyed agribusinesses also trained their workers on quality related roles and responsibilities.

16. KAPITA Business Hub (2020). *Made in Iraq: A Closer Look Into the Iraqi consumers*. Available from https://kapita.iq/storage/app/media/Research/KAPITA-Made-In-Iraq-Full-En.pdf.

17. Forthcoming ITC publication.

18. Calculated using data from ITC SME Competitiveness Surveys carried out in the Argentine Republic, the Republic of Benin, the Republic of Botswana, Burkina Faso, the Kingdom of Cambodia, the Republic of Ghana, Hungary, the Republic of Kenya, the Republic of the Philippines, the Togolese Republic, Ukraine and the Republic of Zambia. Firms included are agribusiness SMEs belonging to Division 10 'Manufacture of food products' of the International Standard Industrial Classification of all Economic Activities (ISIC).

Certification is even rarer among farmers. Of those surveyed, only 9% held a nationally or internationally recognized certificate, and 45% do not have a quality protocol with their buyers. Certificates included halal, food and labour safety, sustainability and quality certificates. Interest in certification was generally low, with a majority not planning to obtain quality certification in the future despite reporting high capacity to comply with the quality requirements of their main buyers.

GOOD STORAGE FACILITIES TO ENSURE SUCCESSFUL SALES

One of the most critical infrastructures for marketing perishable products is proper cold storage facilities. In the absence of appropriate handling and storage facilities, prolonged exposure to the high temperatures of Iraq, where temperatures can reach 40°C during summer, can easily damage products awaiting processing or in transit to markets.[19] Improved post-harvest and storage facilities would enable farmers to delay sales at market, potentially giving them access to better off-peak prices while maintaining freshness. In this way, their vulnerability would be reduced and resilience improved.

However, visits and interviews with Iraqi farmers revealed a severe shortage in post-harvest facilities and cold storage infrastructure, especially for small farmers.[20] The survey shows that more than 40% of the farmers did not store their products. Tomato and other vegetable farmers mainly used bags or crates to store their products, while animal and meat farmers mainly used chillers or refrigerated and controlled atmosphere storage. Weak storage facilities contribute to post-harvest losses, which 73% of surveyed farmers experienced in the preceding year.

The survey also shows that farmers who did not properly store their products were more likely to have them rejected by buyers due to poor quality: 89% of the farmers who said their products were rejected due to poor quality did not use any storage facility. Investing in good storage and handling solutions such as cold storage and proper packaging for perishable products like meat, fruits, vegetables and dairy is crucial to minimizing rejection and losses, and Iraqi farmers need support to access such infrastructure.

Building market linkages and cooperation among value chain actors

Establishing the right relationships with other actors in the value chain can improve the competitive position of businesses. It can help businesses access market information about customers and suppliers as well as secure financial resources and technologies. There are risks faced when buying from smallholders or selling to intermediaries, from inconsistent quality and quantity of supplies to low prices for their output. Building trust and improved cooperation along the value chain can minimize these risks and guide smallholders in responding to market requirements through quality, market access and technical support.

STRONG FARMER–AGRIBUSINESS PARTNERSHIPS TO SECURE RELIABLE INPUTS

Farmers sell to a variety of different buyers and most have a portfolio of sales to different end markets. On average, wholesalers and final consumers account for the biggest shares of purchases from surveyed farmers in the past year (28% each). This was followed by traders (21%), retailers (11%) and processors (4%).

Stakeholders in the tomato sector in Basrah highlighted that direct sale of fresh tomatoes from farmers to retailers is uncommon. Instead, the value chain includes multiple intermediaries, and the products are exchanged almost exclusively on wholesale markets through licensed agents that hold significant bargaining power over prices and other commercial aspects.

19. ITC (2021). *Climate change risks and opportunities in Iraqi agrifood value chains* – SAAVI. Available from https://www.intracen.org/uploadedFiles/Common/SAAVIreport.pdf.

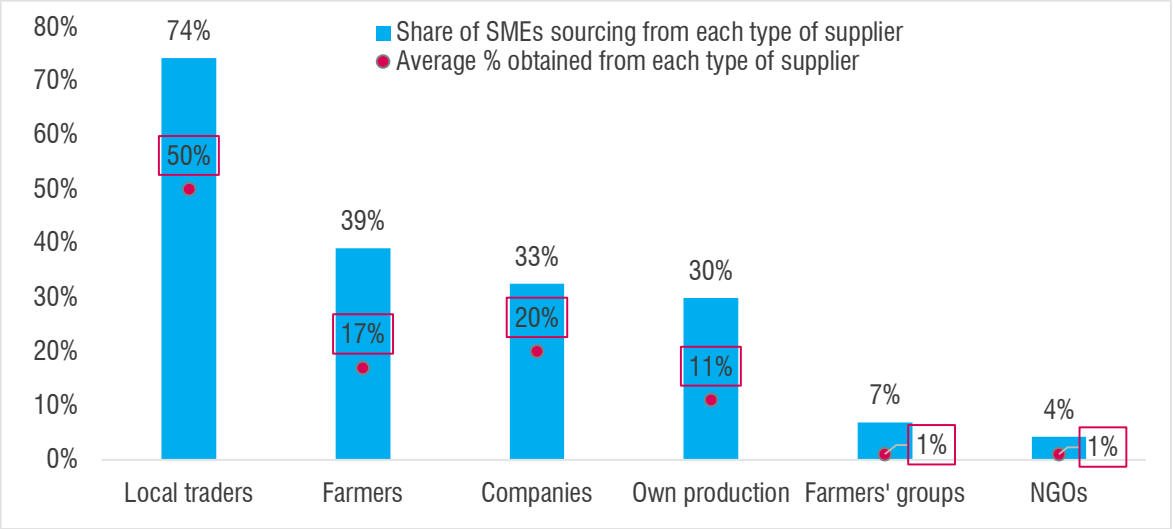
20. ITC (2021). Market Study in Iraq.

Meanwhile, the vast majority (74%) of surveyed agribusiness SMEs primarily sourced their inputs directly from local traders, and 39% sourced directly from farmers (Figure 8). Roughly one in two agribusinesses sourced inputs directly from farmers and traders. At the same time, 32% also made their own inputs. On average, among agrifood companies in surveyed Iraqi districts, approximately half of the raw materials were sourced from local traders, 20% from companies and 17% from farmers.

Less than one out of three agribusinesses that sourced directly from farmers or farmers' groups had a formal contractual agreement with them. When they existed, contracts tended to be written agreements (reported by 56% of respondents) instead of oral and other types of arrangements.

Agribusiness SMEs reported several challenges in terms of sourcing inputs locally. The top constraints were unsatisfactory or inconsistent product quality (32% of respondents), insufficient volume (20%) and scattered suppliers (12%). Tomato and other vegetable businesses in the southern provinces also cited inadequate post-harvest handling as a top constraint in sourcing local inputs, likely heightened by extreme weather conditions such as relatively high temperatures and the storing of products in bags and crates.

Figure 8: Main suppliers of agribusiness SMEs and the share bought from them



Source: ITC agribusiness survey.

The main challenges regarding input sourcing differ based on the nature of the relationship. For example, agribusiness SMEs that conducted quality protocols with their suppliers or provided farmer training or extension services were unhappy primarily with insufficient supply volumes instead of input quality. However, agribusinesses that provided farmers with finance or did not provide any service were the most dissatisfied with the quality of their inputs. Therefore, linkages between farmers and agribusiness buyers can determine the quality of inputs received by value chain actors. Strengthening value chains through better supplier–buyer relationships could improve input reliability and quality for agribusiness buyers.

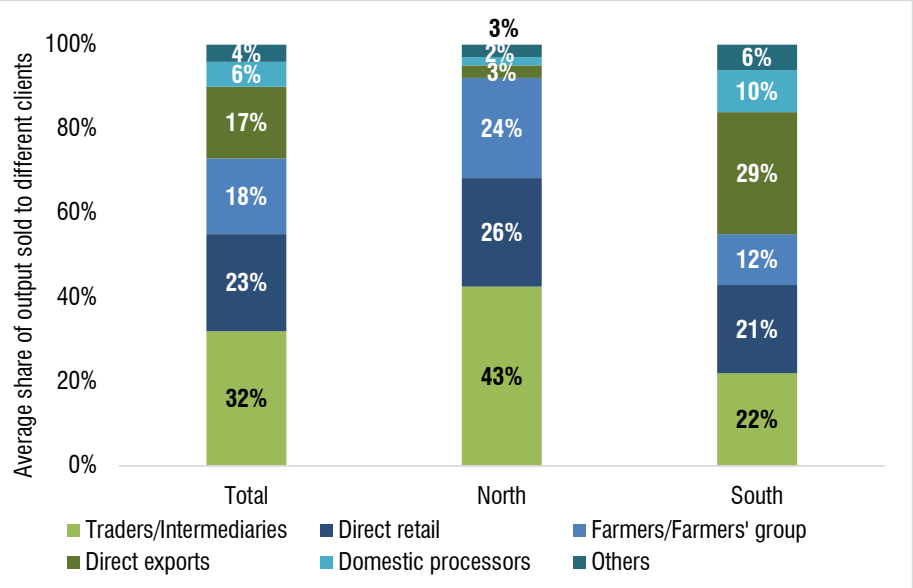
BUYER DIVERSIFICATION AND ENGAGEMENT FOR RESILIENCE

Agribusiness SMEs in Iraq market their output in different ways – direct selling to customers and retailers, selling through traders and intermediaries, or connecting with large multinational and domestic companies in retail and second stage processing. The linkages in each value chain vary across industries and businesses and have different impacts on costs, prices and extent of control of the producers.

Similar to farmers, most surveyed agribusinesses sell to traders or intermediaries. On average, surveyed agribusiness SMEs sold 32% of their output to traders and intermediaries (Figure 9). Additionally, a considerable proportion of buyers were retailers (including supermarkets, restaurants and hotels), farmers and foreign buyers.

These proportions were prevalent in the northern region, but in the south, the agribusiness clientele was dominated by foreign buyers and a larger proportion of domestic processors than in the north. Of southern surveyed agribusinesses, 80% had commercial agreements with their buyers. Among them, 70% relied only on verbal agreements instead of a written contract. Despite this, agribusinesses retained customers rather well, with half of them repeatedly selling to the same customers each time.

Figure 9: Average share of agribusiness clients



Source: ITC agribusiness survey.

Having an online presence is an effective way for companies to engage with customers and suppliers, particularly those that cater to an international customer base. There were 30.5 million internet users in Iraq in January 2021, representing 75% of the population.[21] Approximately one quarter of surveyed agribusiness SMEs had a website from which suppliers and buyers could learn about their offerings, lower than the average for developing countries, at 45%.[22]

Survey results indicate that the probability of agribusiness SMEs having a website increased with the regularity of market research. That is, agribusinesses conducting market research more frequently were more likely to have a business website. Furthermore, those that maintained a website seemed to have better access to markets, buyer–seller platforms, trade fairs and exhibitions (Figure 10). These findings confirm the importance of an online presence for brand awareness and marketing.

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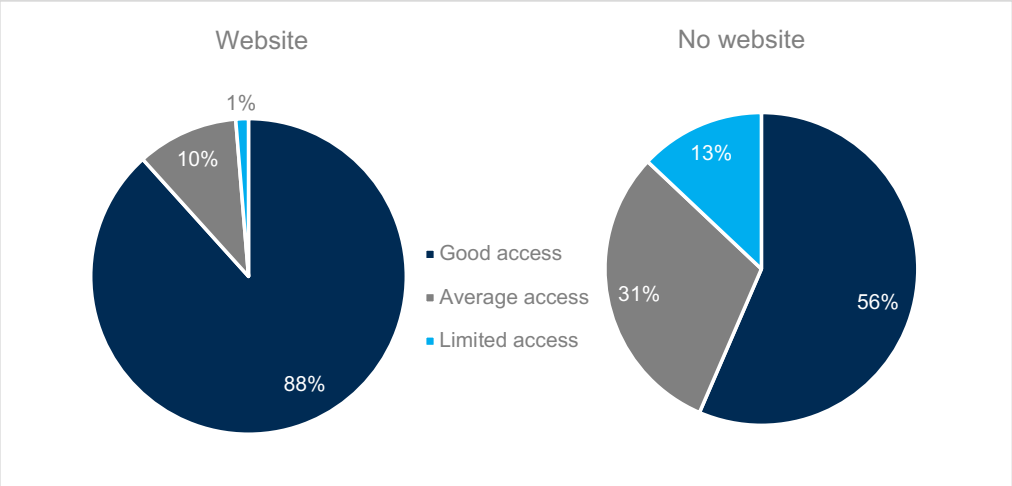
21. DataReportal (11 February 2021). *Digital 2021: Iraq*. Available from https://datareportal.com/reports/digital-2021-iraq.

22. Calculated using data from agricultural and agrifood firms interviewed for the ITC SME Competitiveness Surveys carried out in Argentina, Benin, Botswana, Burkina Faso, Cambodia, Ghana, Hungary, Kenya, Philippines, Togo, Ukraine and Zambia.

Figure 10: Website ownership and access to markets, buyer–seller platforms, trade fairs and exhibitions



Source: ITC agribusiness survey.

INSTITUTIONAL STRENGTHENING TO BOOST LOCAL PRODUCERS

Service providers can help SMEs and farmers access markets and enhance their competitiveness. Business associations, public institutions and unions can help by providing market information and related services.

Membership in a business association is quite common among farmers, with 45% of respondents belonging to a farmer association, including 33% in the north and 56% in the south. The nation's farmers' associations consist of unions of farmer associations such as the Poultry Union, cooperative associations and informal associations or groups at the industry level (e.g. Poultry Association of Thi-Qar). The unions are present in all governorates and have remained key actors in implementing government programmes in the agricultural sector, such as the Public Distribution System, which provides basic food rations to Iraqi households.

However, only 5% of farmers reported receiving good-quality services from their farmers' associations, while 77% reported getting poor-quality services. This is consistent with evidence from the FAO that farmers' organizations in Iraq are weak and ineffective, afflicted by years of conflict and social disruption.[23] Efforts to strengthen these unions can be vital for small farmers and SMEs to participate in and benefit from a well-coordinated value chain.

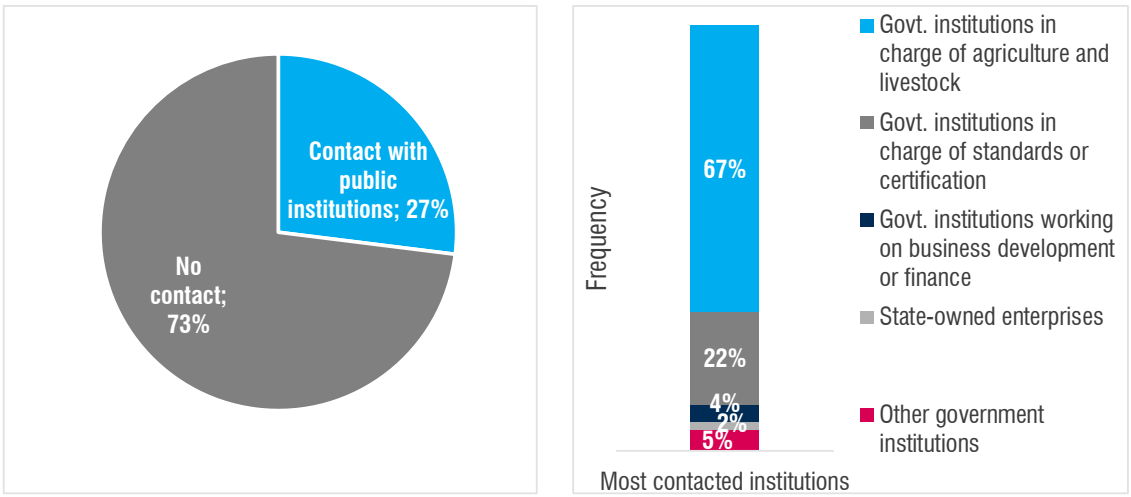
Nine out of 10 agribusiness SMEs said that they did not belong to any business association. Furthermore, just 27% interacted with public support institutions, such as those in charge of agriculture or livestock (Figure 11). The share is much lower than the average for developing countries, where 75% of food manufacturers connect to public institutions.[24]

Even when an agribusiness SME connected with a public institution, it usually did not receive direct assistance from the institution. For example, only 20% of those interacting with public institutions received actual support in product development, business planning or supply chain management. Furthermore, one in two SMEs that contacted these institutions reported low-quality advisory services. Only 27% rated the quality of advisory services to be high. This evidence indicates scope for enhancing access to and the effectiveness of state support for agrifood enterprises in Iraq.

23. International Fund for Agricultural Development (IFAD) (2017). The Republic of Iraq: Smallholder Agriculture Revitalization Project, Design completion report. Rome, Italy. Available from https://webapps.ifad.org/members/lapse-of-time/docs/english/EB-2017-LOT-P-10-Project-Design-Report.pdf.

24. Calculated using data from ITC SME Competitiveness Surveys carried out in Argentina, Benin, Botswana, Burkina Faso, Cambodia, Ghana, Hungary, Kenya, Philippines, Togo, Ukraine and Zambia. Firms included are agribusiness SMEs belonging to Division 10 'Manufacture of food products' of the International Standard Industrial Classification of all Economic Activities (ISIC).

Figure 11: Agribusiness SMEs in contact with public institutions



Source: ITC agribusiness survey.

Resilience in the face of multiple macroeconomic challenges

Firms are regularly exposed to changes in local and global markets. Adequate and sustainable returns can only be achieved if the firm can adapt and respond to these changes in a way that keeps the enterprise afloat –or even grows it. Indeed, to remain competitive, companies must be resilient to crisis through well-adapted strategies that change the business model to take advantage of opportunities in the new context. A firm's adaptive capacity to market trends is determined by factors such as availability and good management of human, technological and financial capital, all of which help firms navigate major economic challenges.

The most recent and far-reaching challenges that farmers and SMEs confront in Iraq today are the COVID-19 pandemic and climate destabilization. Managing change through the strategic management of technology, funding and skills, can help firms build resilience, strengthen competitiveness and better position them to handle these challenges.

MAJOR ECONOMIC DISRUPTIONS POSE CHALLENGES TO IRAQI FARMERS AND SMES

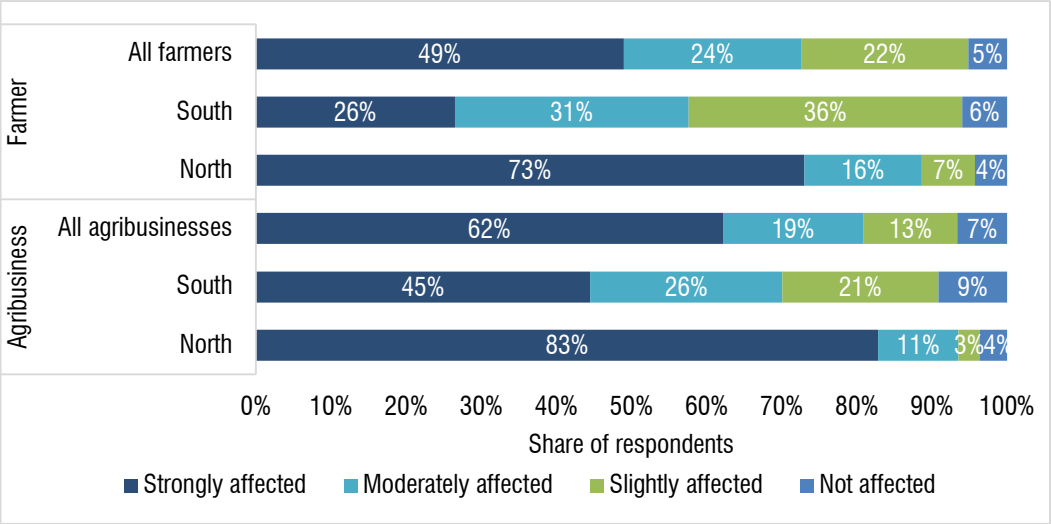
The global economy has witnessed complex and overlapping crises on an unprecedented scale. Extraordinary levels of inequality, environmental degradation, surges in economic uncertainty, conflict and the mounting global public health crisis have brought turmoil to businesses the world over.[25] The complexity and uncertainty of these evolving situations have questioned long-standing business and economic models and required a rethink of the next steps.[26]

The COVID-19 pandemic brought a severe shock to the Iraqi economy and took a heavy toll on businesses. Approximately half of surveyed farmers and 62% of SMEs said they were strongly affected by the pandemic (Figure 12). Farmers and agribusiness SMEs in the northern provinces seemed to be more strongly affected than those in the south. For example, while 73% of farmers in the north were strongly affected, the share was only 26% in the south, and more than 40% were not impacted or only slightly affected. The effects of the pandemic have been experienced by Iraqi SMEs across all sectors of the economy (Box 1).

25. World Economic Forum (WEF) (2021). *The Global Risks Report 2021.* Geneva. Available from https://www.weforum.org/reports/the-global-risks-report-2021.

26. McKinsey & Company. *Risk, resilience, and rebalancing in global value chains.* Available from https://www.mckinsey.com/business-functions/operations/our-insights/risk-resilience-and-rebalancing-in-global-value-chains.

Figure 12: Extent of COVID-19 effects on farms and agribusinesses



Source: ITC agribusiness survey and farmer survey.

Box 1: COVID-19 impacts on small businesses in Iraq

In order to develop a fuller understanding of the impacts of the COVD-19 pandemic on Iraqi SMEs and their priorities for recovery, the United Nations' International Organization for Migration (IOM) in Iraq, the FAO and ITC jointly conducted a panel study following 893 SMEs through four survey rounds from June 2020 to June 2021.1 These included firms in the agricultural sector and food production, as well as a wide range of other sectors of the economy.

While firms have been adaptive in finding ways to manage the challenges brought by the pandemic, it has clearly affected their operations. Employment in SMEs declined dramatically at the beginning of the pandemic, but has recovered considerably since. The average surveyed firm had only one fewer employee in July 2021 than they did in February 2020. Women's employment has been particularly affected during this period; the average number of male workers per female worker in surveyed firms rose from a pre-pandemic level of 14 to 20 by August 2020 before falling to 16 in June 2021. Even with some improvements, SMEs' average revenues in June 2021 were approximately half of their pre-COVID level. Very few firms reported receiving assistance from the government or other organizations, but respondents showed interest in financial programmes, support for self-employed persons, and rent subsidies in particular.

1. ITC, FAO and IOM (2021). *Panel Study IV: Impact of COVID-19 on Small – and Medium-Sized Enterprises in Iraq.* Available from https://www.intracen.org/uploadedFiles/intracenorg/Content/Redesign/Projects/SAAVI_Iraq/IOM%20Iraq%20Panel%20Study%20IV-Impact%20of%20COVID-19%20on%20SMEs%20in%20Iraq,%20Flash%20Report.pdf.

The food and agricultural sector appears to have been the sector least affected by COVID-19 in Iraq due to exemptions that allowed for relatively smooth supply flow to demand areas. However, many agrifood producers experienced significant declines in production, sales and revenues, with some facing the risk of permanently shutting down their business.[27]

The pandemic affected survey respondents in varying ways. Many farmers and SMEs experienced the closing of markets (22% of respondents), which was followed by difficulty accessing transportation (19%), temporary shutdown (19%), higher costs of inputs (15%) and difficulty accessing inputs domestically (12%). Recovery to pre-COVID-19 levels has been slow, with half of the survey respondents expressing serious concerns about business recovery from the COVID-19 crisis.

27. ITC, FAO and IOM (2021). *Panel Study: Impact of COVID-19 on Small – and Medium-Sized Enterprises in Iraq.* Available from https://reliefweb.int/report/iraq/panel-study-impact-covid-19-small-and-medium-sized-enterprises-iraq-enarku.

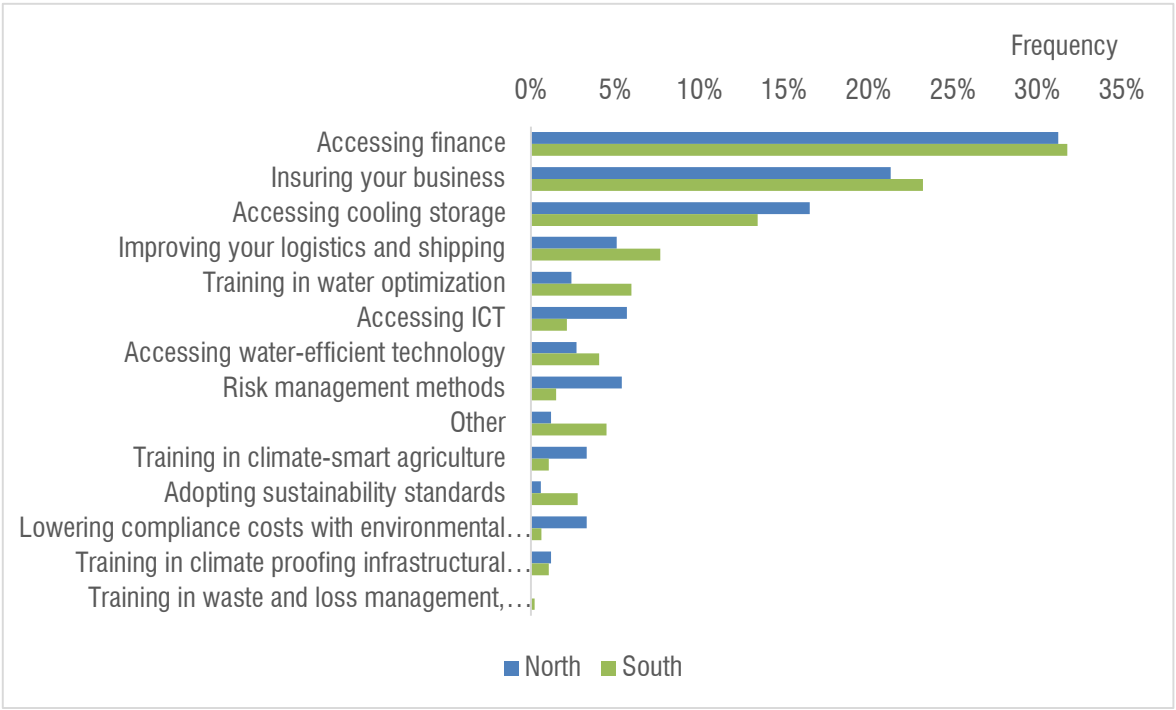
The next crisis threatening on the horizon is climate change. In fact, climate change-induced rising temperatures, recurrent drought, dust storms, erratic rainfall and rising sea levels in Iraq are already posing a significant threat to water availability and overall agricultural production and economic resilience.[28] Indeed, 95% of survey respondents said environmental risks were significant for their businesses, slightly higher than Sub-Saharan Africa's primary sector at 93%.[29]

Changing temperatures and water scarcity were the two most cited environmental risks among both agribusiness SMEs and farmers. Among agribusinesses, decreased air quality was the third most reported, followed by irregular rains. There were also concerns about severe and frequent storms, floods and changing sea levels. More powerful and frequent storms came third among farmers, followed by irregular rains and decreased air quality.

Given these concerns, approximately 40% of the surveyed agribusinesses and 65% of farmers had invested in measures to reduce environmental risks. SMEs in northern Iraq mainly invested in post-harvest infrastructure such as cold storage and transportation means, as well as irrigation systems and soil management practices. In contrast, agribusiness SMEs in the south tended to invest more in measures to reduce workers' heat stress, followed by transportation means and water conservation and purification systems. Among farmers, water conservation and purification systems, power generation systems and measures to reduce workers' heat stress were the top investments, both in the northern and southern regions.

Small agricultural businesses in Iraq often lack the resources and technology to cope with climate stress. That is why nearly all the surveyed agribusinesses said they needed help to deal with environmental issues. The top 3 areas of support companies were interested in receiving were assistance in accessing finance, insuring their business and accessing cooling storage (Figure 13).

Figure 13: Assistance needed by SMEs to tackle environmental issues



Source: ITC agribusiness survey.

28. ITC (2021). *Climate change risks and opportunities in Iraqi agrifood value chains.* Available from https://www.intracen.org/uploadedFiles/Common/SAAVIreport.pdf.

29. ITC (2021). *SME Competitiveness Outlook 2021: Empowering the Green Recovery.* Available from https://www.intracen.org/publications/smeco2021/ITCSMECO2021/.

BUILDING RESILIENCE TO FUTURE CRISES

Small Iraqi agricultural companies have the potential to navigate all these crises and come out resilient by leveraging resources to effect change. However, compared to large companies and farmers, agribusiness SMEs and small-scale farmers have fewer resources and capacities to cope with changing market forces, prepare for potential crises and create safeguards to minimize their risks. Lack of financial resources, adequate human capital and knowledge management make recovery from crises harder.

Firms might have strong ideas on how to change in response to crises, but they need access to finance to implement them.[30] Similarly, workers who possess the right skill sets and know the product and production process well will help implement creative solutions.[31] Furthermore, the ability to continuously transform knowledge and ideas into new products, processes and systems is essential to a company's crisis response.[32]

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Access to finance to implement change

The IOM–FAO–ITC COVID-19 survey in 2020 shows that approximately 6 out of 10 Iraqi SMEs in the food and agriculture sector incurred debt after the pandemic in June 2020. By December 2020, the share had increased to 76%. Most of them borrowed money informally from friends or family, and the use of formal channels, such as bank loans and credits, was very rare.[33]

This trend is similar for the agribusinesses that participated in the competitiveness survey. Most agribusiness owners financed themselves through their own savings. The second most common source of financing was friends and family. Surveyed agribusiness SMEs in northern Iraq only used these two sources of financing, while a few agribusinesses in the south also used microfinance lenders, commercial banks and informal money lenders. Among farmers, 45% had never taken a loan. However, 29% have borrowed from traders or intermediaries, which is the top source of financing, followed by funding from family and friends.

The minimal use of formal financing is likely due to the country's weak banking system and underdeveloped microfinance sector.[34] Though there are signs of improvement, many banks in Iraq have little experience lending to SMEs and, thus, could lack the skills to analyse credit risk and cash flow, which limits financial intermediation.

The main purpose of taking a loan among surveyed agribusinesses was marketing purposes, and a few also borrowed funds for training and purchasing capital. When asked what prevented the agribusinesses from borrowing, 42% answered high interest rates (Figure 14). In addition, 20% of agribusiness SMEs did not borrow, because financial products were not Shari'a-compliant, and 9% said collateral requirements were too stringent.

30. Thorgren, S. & Williams, T. A. (2020). 'Staying alive during an unfolding crisis: How SMEs ward off impending disaster'. *Journal of Business Venturing Insights*, 14, e00187. Available from https://doi.org/10.1016/j.jbvi.2020.e00187.

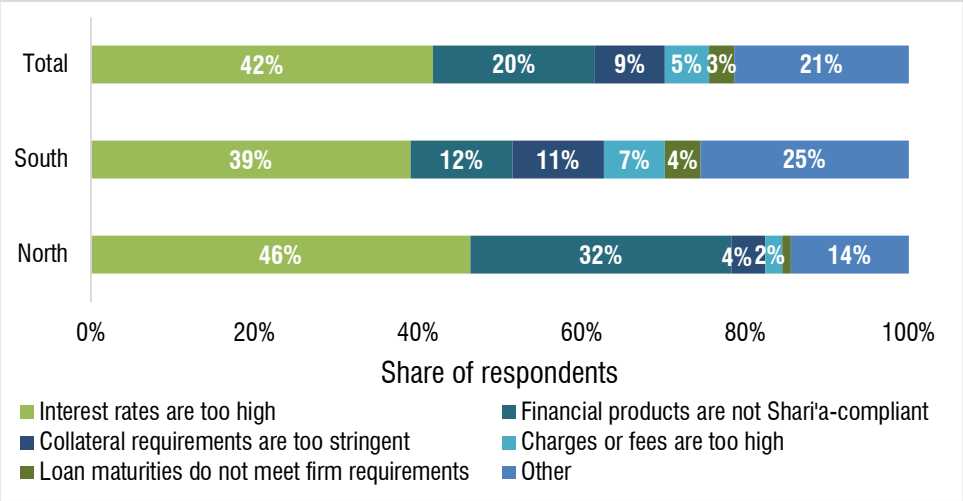
31. Agrawal, S., De Smet, A., Lacroix, S. & Reich, A. (7 May 2020). 'To emerge stronger from the COVID-19 crisis, companies should start reskilling their workforces now' [McKinsey & Company]. Available from https://www.mckinsey.com/business-functions/organization/our-insights/to-emerge-stronger-from-the-covid-19-crisis-companies-should-start-reskilling-their-workforces-now.

32. Battisti, M., Beynon, M., Pickernell, D. & Deakins, D. (2019). 'Surviving or thriving: The role of learning for the resilient performance of small firms'. *Journal of Business Research*, 100, 38–50. Available from https://doi.org/10.1016/j.jbusres.2019.03.006; Lawson, B. & Samson, D. (2001). 'Developing innovation capability in organisations: a dynamic capabilities approach'. *International Journal of Innovation Management*, 05(03), 377–400. Available from https://doi.org/10.1142/S1363919601000427.

33. IOM (2021). *Panel Study: Impact of COVID-19 on Small – and Medium-Sized Enterprises in Iraq.* Available from https://reliefweb.int/report/iraq/panel-study-impact-covid-19-small-and-medium-sized-enterprises-iraq-enarku.

34. World Bank (2019). Iraq Economic Monitor. *Turning the Corner: Sustaining Growth and Creating Opportunities for Iraq's Youth*. Available from https://documents1.worldbank.org/curated/en/848371571505101026/pdf/Iraq-Economic-Monitor-Fall-2019-Turning-the-Corner-Sustaining-Growth-and-Creating-Opportunities-for-Iraq-s-Youth.pdf.

Figure 14: Barriers preventing agribusiness SMEs from borrowing



Source: ITC agribusiness survey.

One out of three surveyed agribusinesses said lack of access to finance was a grave obstacle to their operations. However, there was a significant variation between the two surveyed regions: 45% in the south and 14% in the north said they were severely affected by lack of finance. Moreover, more women-led businesses reported being severely hindered by lack of finance than men-led businesses (56% versus 28%). Iraqi women are often constrained by sociocultural restrictions from freely running their own companies and dealing with banks and other institutions.[35] They also require additional steps to register and start businesses.[36] Indeed, only 6% of surveyed SMEs were owned or operated by women, reflecting women's limited profile in Iraq's business arena.

Skills development and opportunities in expanded female participation

Labour force participation among women is low in Iraq. Despite making up approximately half of the population,[37] only 12% of working-age women were employed or looking for work in 2019.[38] Despite this, women employees were disproportionately affected by the COVID-19 crisis compared to men. The IOM–FAO–ITC COVID-19 survey found that, when employers cut salaries or reduced employment to cope with the pandemic, a higher share of women were laid off or had their wages cut than men.[39]

For companies to improve resilience and navigate crises successfully, they need employees with appropriate skill sets that can help implement adaptive solutions.[40] Surveyed agribusinesses and farmers in Iraq were generally satisfied with the skills of their current workers. However, many agribusinesses found it challenging to find suitably skilled workers in the market, especially female workers (Figure 15).

Only one out of five agribusiness SMEs in the sample had female employees. Processors seemed to find skilled female workers easier to hire; input suppliers and traders, on the other hand, find it more difficult to hire skilled female workers. More than 60% of input suppliers and collectors found it challenging to hire female workers with sufficient skill, while more than half of surveyed processors found it easy. Female workers in the processing industry mainly carry out cleaning, milking and packaging activities. When they work for traders, they are primarily engaged in cleaning, feeding and harvesting, and mainly in cleaning when working for input suppliers.

35. United States Agency for International Development (USAID) (2010). *State of Iraq's Microfinance Industry.* Available from https://www.findevgateway.org/sites/default/files/publications/files/mfg-en-paper-state-of-iraqs-microfinance-industry-jun-2010.pdf.

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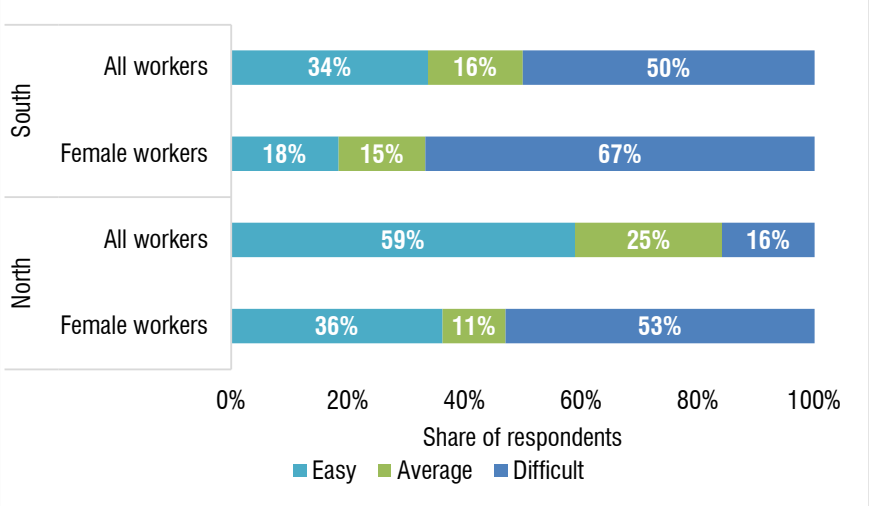
37. World Bank DataBank. Population, female (% of total population). Available from https://data.worldbank.org/indicator/SP.POP.TOTL.FE.ZS. Accessed on 20 August 2021.

38. World Bank Data. Labour force participation rate, female (% of female population ages 15–64) (modelled ILO estimate) – Iraq. Available from https://data.worldbank.org/indicator/SL.TLF.ACTI.FE.ZS?locations=IQ. Accessed on 20 August 2021.

39. ITC, FAO and IOM (2020). Panel Study I: Impact of COVID-19 on small – and medium-sized enterprises in Iraq. Available from https://iraq.iom.int/files/IOM%20Iraq%20Panel%20I%20Study-Impact%20of%20COVID-19%20on%20SMEs%20in%20Iraq%2C%20Flash%20Report%204MB.pdf.

40. ITC (2021). *SME Competitiveness Outlook 2021: Empowering the Green Recovery*, International Trade Centre, Geneva.

Figure 15: Difficulty hiring workers matching agribusiness companies' needs



Source: ITC agribusiness survey.

Shifting towards better technology and value chain upgrades

Many producers are innovators, continuously seeking ways to increase value-added in their offerings. In many cases, this value chain upgrading deploys improved production methods that make processes more efficient and yield output with higher profit margins, which increases the economic benefits of participating in a value chain. Services such as certifications, technical assistance, and research and development are crucial for technological upgrading, higher value-added and access to international markets.[41] This capacity to change for improved market positioning is key for competitiveness and crisis response.

A significant share of Iraqi farmers report being open to changed business models. More than 50% of interviewed farmers had introduced new practices or technologies to improve production in the past year, with one-third switching to better plant and seed varieties. Some also used new techniques for water management and sowing, seeding and plantation. In addition, 45% shifted to high-quality premium products. Approximately 30% of micro and small-scale farms changed to organic farm production compared to only 7% of large and medium-scale farms.

Significant value can also be added without changing the product's physical form by introducing cleaning, grading or labelling activities. Of the surveyed farmers, 26% performed cleaning, sorting or weighing activities, while 21% did packaging and only 1% did grading.

Value chain upgrading was even more popular among surveyed agribusinesses. Approximately 70% of them offered a product that contained significant added value. One-third of respondents sold premium high-quality products they were able to develop after upgrading their production to a special variety or unique breed. Access to more lucrative consumer markets was made possible by the adoption of certificates by 40% of Iraqi agribusinesses, as noted earlier. Organic certification obtained by 15% of agribusinesses SMEs, for example, enabled access to sustainability-minded buyers. Finally, one in five surveyed agribusinesses had upgraded to high-value downstream packaging and branding tasks in the value chain.

Yet the prevalence of innovative strategies differed by regions. While 99% of the surveyed agribusiness SMEs in the north reported shifting to more advanced and high-value products, particularly premium high-quality products (such as a special variety or unique breed), just 46% of agribusinesses in the south offered an upgraded product.

Despite interest in new technologies and practices, SMEs and small-scale farms often lack the knowledge and technical capacities to match and capitalize on them. Governments and business support organizations can provide complementary training or technical assistance to help run and manage the

41. Oddone, N. & Padilla-Pérez, R. (2014). *Upgrading value chains through professional and supporting services: Lessons from three agro-industry chains in El Salvador and Guatemala.* United Nations Economic Commission for Latin America and the Caribbean (ECLAC).

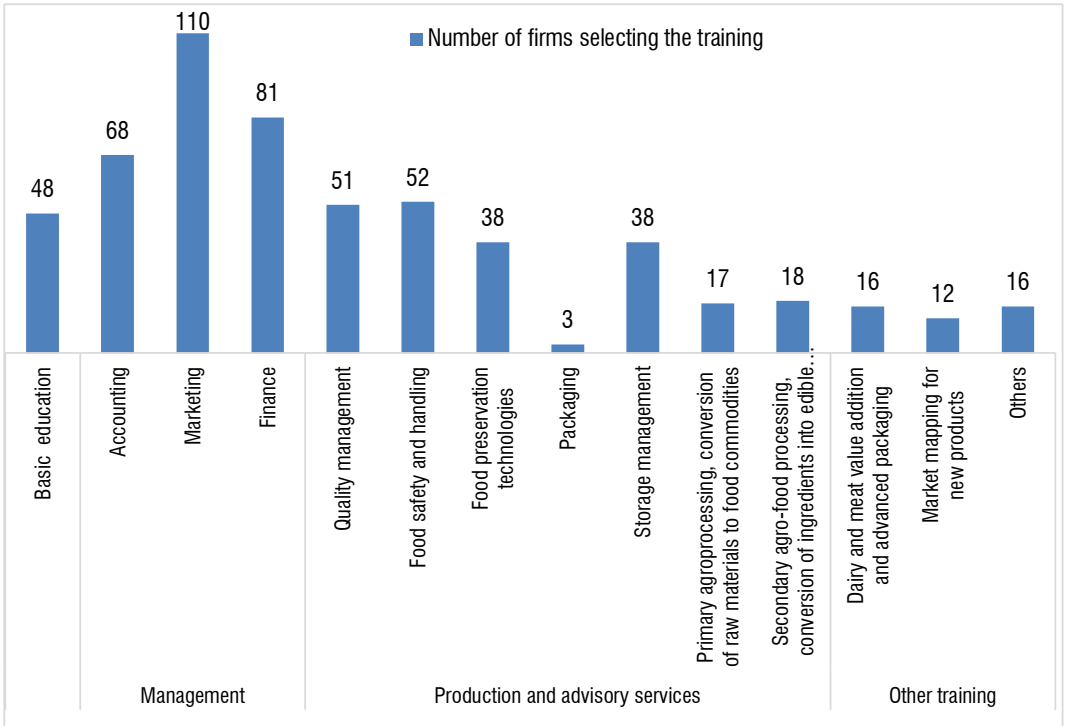
 Fruit and Vegetable Sellers - Bazaar - Erbil - Iraq.

new technologies, and improve marketing skills and resource use to succeed within a value chain.

Out of the 304 agribusinesses surveyed, 77% said they needed some training to improve their operations. Training in basic management skills – accounting, marketing and finance – were the most frequently identified need among interviewed agribusinesses (Figure 16). Among management topics, training in marketing was deemed the most useful, followed by finance, then accounting.

On the other hand, respondent farmers identified the following as the top three most needed trainings to improve agricultural activities: pest and disease control, use of fertilizers, and selecting and buying inputs.

Figure 16: Types of training most useful for agribusiness SMEs



Source: ITC agribusiness survey.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Policy recommendations

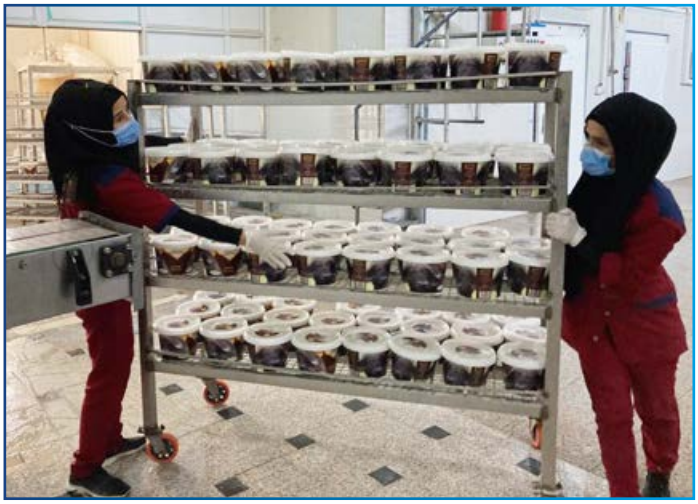
Addressing the challenges identified by farmers and agribusiness SMEs in these surveys to foster the food and agriculture sector's development will require progress on the issues affecting the fundamentals of their competitiveness. In order to effectively compete against imports, Iraqi agriculture and agrifood products will need to be cost-competitive and responsive to the expectations of consumers. Skill development, equipment and input use, ICT use, quality, and storage and logistics capacities are among the most important policy areas for policy reform and other interventions to take place. In addition, strong connections between value chain actors are essential to improving the prospects of agriculture and agrifood products. Claiming more of the market share currently taken by imported products will require strengthening sector organization and developing the capacities of the institutions serving farms and agribusinesses. Fostering capacities for innovation and adaptation to challenging circumstances requires addressing barriers to investment and inclusion.

Access to equipment and inputs

Increasing capital intensity in production and processing and improving access to high-quality inputs will be important to reduce the costs and improve productivity among Iraqi farmers and agribusinesses. As a key input, water management – including its sustainable use – is a central concern for much agricultural production and closely relates to the management of climate change risks. Improved access to finance for expanding adaptation capacities is needed, along with training for farmers and agribusinesses to share best practices. Investment in collective and private water infrastructure will support productive capacities and help to prepare the sector for future challenges if waste can be minimized. Given the scale of the issue, planning and policy in water use will need to be aligned with goals for agricultural development.

Quality improvement

Improvements to product quality take place at the level of the farm or firm, and are supported by training and related activities, as well as the establishment of quality management systems at the institutional level. Relatedly, the limited certification of products, particularly among farmers, could be an area for further work to be done in raising awareness of voluntary certifications relevant to high-potential markets and supporting farmers and agribusinesses in reaching necessary standards or being recognized for their existing practices. This work can be led by support organizations, with the help of the larger buyers that would benefit from expanding their supply networks and having additional information on production conditions and quality. Protocols on quality between buyers and sellers can also help to support quality improvements.



Survey report, page 29.jpg

Storage and transportation

Investment in storage facilities and logistics services underpins the competitive capacities of the entire value chain, including through reducing post-harvest losses, improving quality and enhancing connections with markets. The form and location of expanded capacities will, however, need to be dictated by market pressures, as these are critical in connecting supply and demand, while also recognizing the sector's future growth potential. Cold chain gaps are particularly important to address for meat and dairy products, as well as the storage of other perishable products that could be exposed to high temperatures. Investments in expanding capacity and enhancing reliability are likely to be met with considerable private returns and greater benefits spread across the value chain.

Business support organizations

As these surveys have shown, many farmers and small business owners have not significantly benefitted from services offered by business support organizations such as farmer groups and businesses associations. This finding makes clear a significant shortcoming to be addressed, as business support organizations are a central component of competitive value chains, offering information, targeted assistance and training, facilitating the building of new businesses connections, and advocacy support. In some cases, the founding of new support organizations could be appropriate, where there is sufficient need and a sustainable mode of financing their operations can be found. The rebuilding of existing organizations – many of which have been challenged by prolonged conflict and instability in the country – will also be needed.

Capacity building for institutions involved in policy design and implementation is also needed to ensure the effectiveness of their interventions. At the level of policy design, sector organizations can contribute to the improvement of the business environment where they support accessible and transparent mechanisms for public–private policy dialogue. More generally, improvement in access to information is critical to the design of good policy and management of its implementation. Across support organizations, technical capacities, clear mandates and reliable resources are needed.

Information and communication technologies

Information and communication technologies have had a large impact on Iraq's economic development, and the potential to further transform agriculture and agrifood value chains remains to be realized. As these survey results have shown, most actors across the value chain do not make use of internet-based tools for marketing, researching new business opportunities, or maintaining contact with buyers and suppliers. Used properly, digital technologies and ICT can help agriculture and agrifood value chain actors to expand networks, access inputs, upgrade skills, and identify new business opportunities. These sectors do not operate in a vacuum, and progress on digitalization more generally in Iraq will be needed as well. Skill development – at the level of the user, specialist and expert – will help to incentivize agribusinesses to invest in digital tools.

Access to finance

Access to finance is critical in growing farms and agribusinesses, managing cash flow, and adapting to risk and uncertainty. Increasingly, financial services also need to be adapted to support investment in climate change adaptation and help farmers and agribusinesses to manage climate-related risks, such as those

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associated with extreme weather events. In some cases, regulatory reform or risk-sharing interventions can help to address barriers to accessing finance. New tools such as mobile banking and fintech services can help to expand the reach of financial service providers to previously underserved actors and to improve the efficiency of these services. On the demand side, financial literacy programmes will be important to improve awareness of available services.

Skill development

Improving technical and business skills through training and skill recognition programmes is important to drive improved competitiveness. Agricultural extension services, training programmes, and business management and entrepreneurship training can all contribute to farm – and firm-level productivity directly, as well as raise the returns to investment in new equipment, including new technologies. The recognition of worker skills acquired informally can also be useful, as it facilitates more dynamic labour markets and thus helps to grow aggregate productivity.

Opportunities for women in the sector

The development of agriculture and agrifood value chains in Iraq depends on the inclusion of women, who have largely been left out of the labour force. While the estimated labour force participation rate among males 15 years of age and older is 74.3%, the equivalent rate among females is just 12.1%. Among employed women, relatively few are active in agriculture, when compared with the share of male employment in the sector. However, the potential for growth, opportunities for skill development, and scale of operations in farms and agribusinesses across value chains in the country indicate the presence of opportunities for job creation and entrepreneurship benefitting women. A review of policy barriers, tailored training programmes, and strengthening of support organizations targeting women would all help to foster greater inclusivity.

Publications by SAAVI

Publication	Link to the document	
Domestic market potential assessment: 'Identifying agricultural and agrifood products with potential for production and commercialization in Iraq'	English	Arabic
Climate change and environment mainstreaming: 'Taking stock of climate change and environment risks in Iraq'	English	Arabic
Impact of COVID-19 on SMEs in Iraq (four rounds of survey in collaboration with FAO and IOM)	English	

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