

FOOD SECURITY IN QATAR - LULU HYPERMARKET

Covid-19 Response Report

Introduction to research partner: Lulu Hypermarket



Mohamed Althaf (left), Director of Lulu Group International, receives the Corporate Social Responsibility (CSR) Award 2021 in the Best Company in the Private Sector category

COMPANY BACKGROUND

Lulu Hypermarket is a fast-growing retail chain that has operated in Qatar since 2000. The company's diverse 14-store portfolio consists of hypermarkets, supermarkets, department stores, express stores, shopping malls and a webstore as of June 2021, with plans to add further stores over the next 18 months. Lulu Hypermarket in Qatar forms part of Lulu Group International, which operates 210 stores across 22 countries.



PANDEMIC EXPERIENCE

The pandemic created disruption in global retail supply chains, as well as cost pressures related to reduced capacity inside malls and stores. Retail staff had a frontline role in ensuring consumers could access essential food, medical and hygiene products. As such, Lulu stores in Qatar had to contend with the twin challenges of keeping staff and customers safe amid the pandemic. The company was a pioneer in implementing social-distancing and hygiene measures inside stores, as well as maintaining strict policies regarding the wearing of protective equipment. It also enhanced its e-commerce offering, and engaged closely with local and international suppliers to ensure food stocks were maintained. Its efforts to continue safe operations and support staff and the wider community were recognised with the Corporate Social Responsibility (CSR) Award 2021 in the Best Company in the Private Sector category.

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Resilience

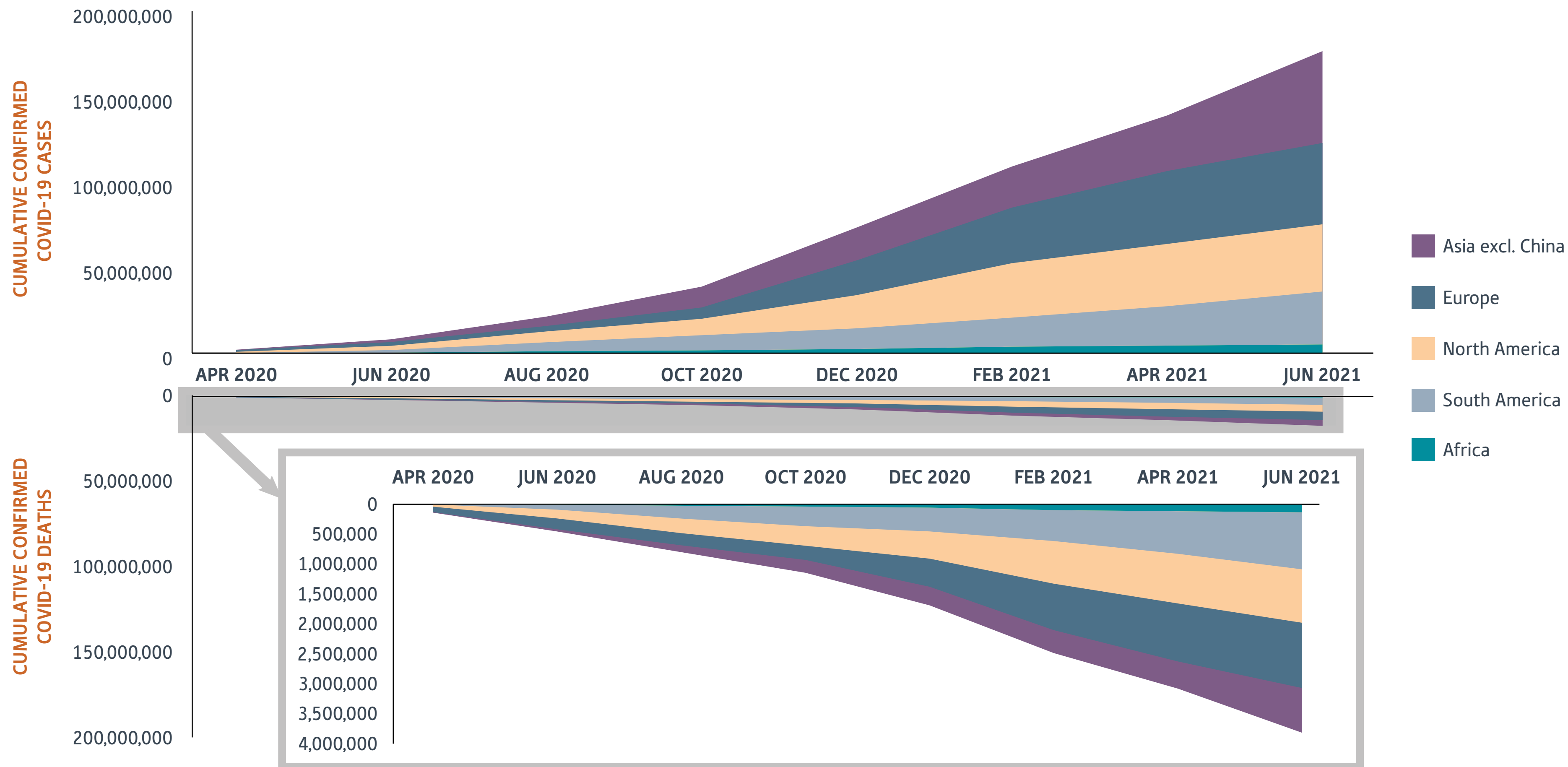
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Response

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Reinvention

Fast-spreading virus has posed unprecedented challenges for the world's policymakers

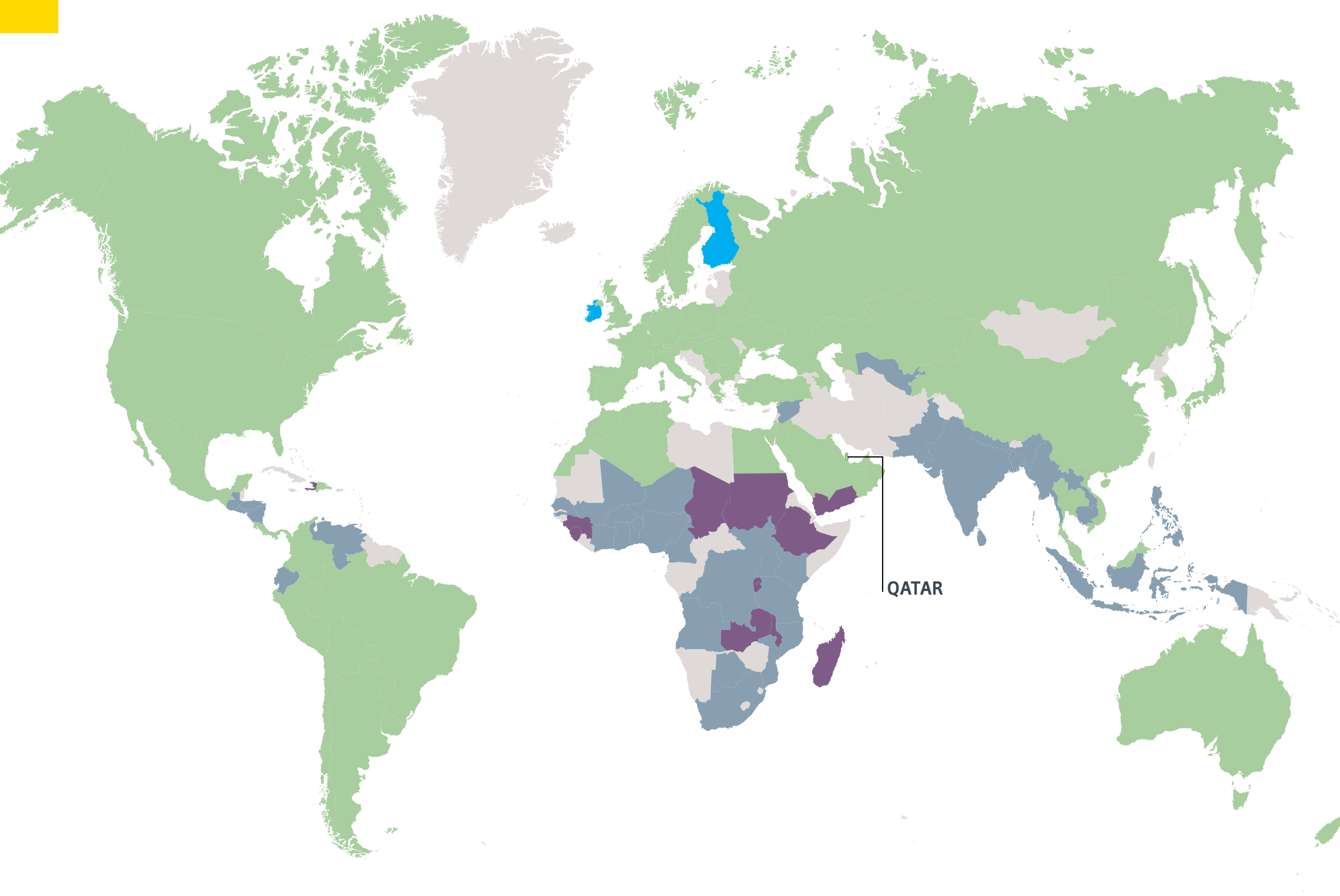


Disjointed response

While Covid-19 quickly reached all continents following the initial outbreak in Asia in late 2019, the reaction of governments has been disjointed. The developed world was badly hit early on, but superior health and digital infrastructure, coupled with the capacity to leverage fiscal tools to address the pandemic's economic consequences, have put those countries in a better position for recovery in mid-2021. Many lesser developed countries, meanwhile, are struggling to contain new waves as the virus mutates. The pandemic has posed a broad range of problems for the world's policymakers, including in food security amid severe disruption to production and supply chains.

Covid-19 threatens hard-won gains in addressing global food security challenges

Tracking food security performance in 2020



Best performers

Finland Ireland

Good performers

Netherlands	Denmark	Costa Rica	Panama	Colombia
Austria	Italy	South Korea	UAE	Ukraine
Czech Republic	France	Uruguay	Malaysia	Argentina
UK	Norway	Australia	Bulgaria	Azerbaijan
Sweden	Portugal	Kazakhstan	Mexico	Morocco
Israel	Singapore	Kuwait	Peru	Algeria
Japan	Belgium	Chile	Turkey	Tunisia
Switzerland	Romania	Oman	Dominican Republic	Egypt
US	Belarus	Hungary	Bahrain	Paraguay
Canada	Russia	Qatar	Brazil	Jordan
Germany	Poland	KSA	Thailand	Vietnam
New Zealand	Spain	China	Serbia	Bolivia
	Greece	Slovakia		

Moderate performers

Indonesia	India	Mali	Niger	Uganda
El Salvador	Philippines	Pakistan	Burkina Faso	Venezuela
Honduras	Botswana	Cambodia	Tanzania	Angola
Ecuador	Sri Lanka	Côte d'Ivoire	Laos	Dem. Congo
South Africa	Nicaragua	Uzbekistan	Senegal	Mozambique
Myanmar	Ghana	Bangladesh	Benin	Nigeria
Guatemala	Nepal	Tajikistan	Togo	Syria
		Kenya	Cameroon	

Improvement needed

Guinea	Madagascar	Sierra Leone	Sudan
Chad	Burundi	Malawi	Yemen
Rwanda	Ethiopia	Zambia	
Haiti			

Steady progress

The pandemic has posed acute international challenges in terms of food security and nourishment. Food prices across a subset of 13 categories, including produce, meats, dairy and grains, have broadly risen, even when accounting for inflation. This picture stands in contrast to the hard-won steady progress the world has made over the past decades in fighting food insecurity – namely, by resolving internal conflicts, improving socio-economic conditions, and mitigating the risks of natural hazards, climate change and pests. The onset of Covid-19 saw unemployment spike and disposable incomes fall, particularly in developing countries.

Resilience

Was Qatar's economy capable of withstanding the shock of the pandemic?

How did the 2017-20 trade dispute imposed by some neighbouring countries impact Qatar's food security?

Has the country developed a clear and effective food security strategy?

To what extent do Qatar's food security initiatives align with global programmes?

Response

How did the pandemic impact food security in the Gulf?

Which international events are focused on tackling global food security challenges in 2021?

In what ways can Qatari farmers be supported to scale up production?

What were the challenges in creating a safe food retail environment?

Reinvention

What is the investment climate in relation in agri-tech?

How can vertical farming and other innovations be deployed in Qatar's agriculture sector?

To what extent is nutrition important in addressing food security challenges?

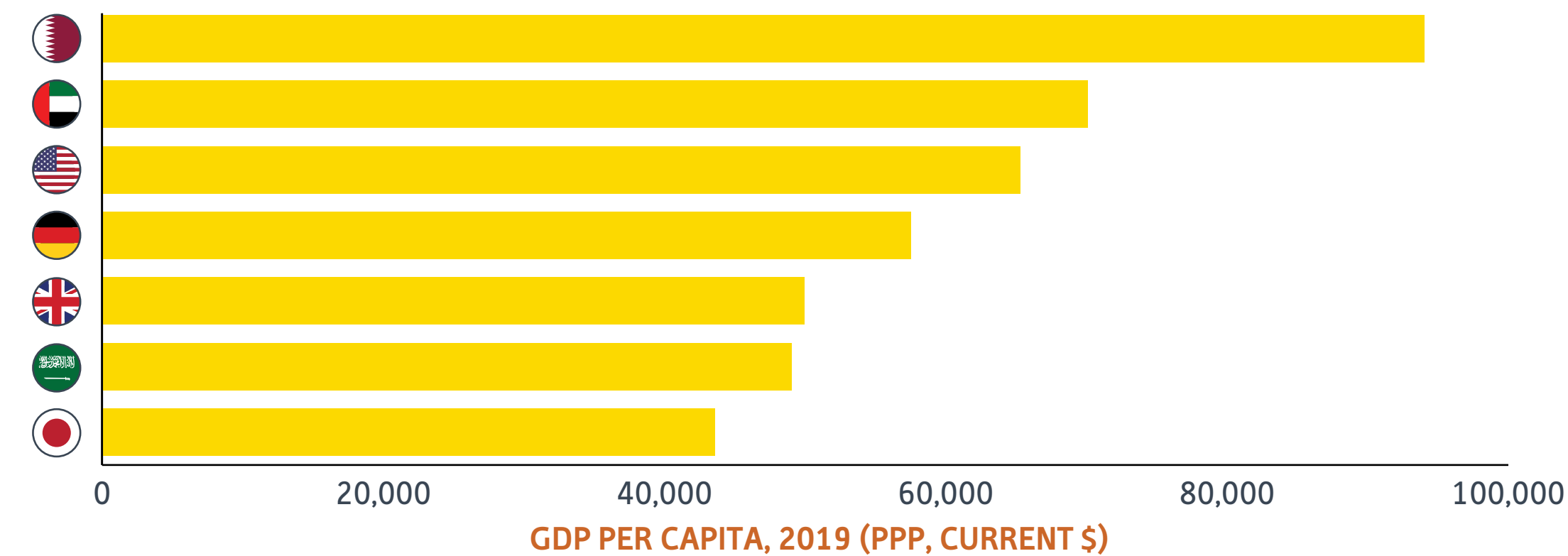
In what ways can sustainability be enhanced in food production and retail?

Qatar entered the pandemic with a strong and increasingly diversified economy

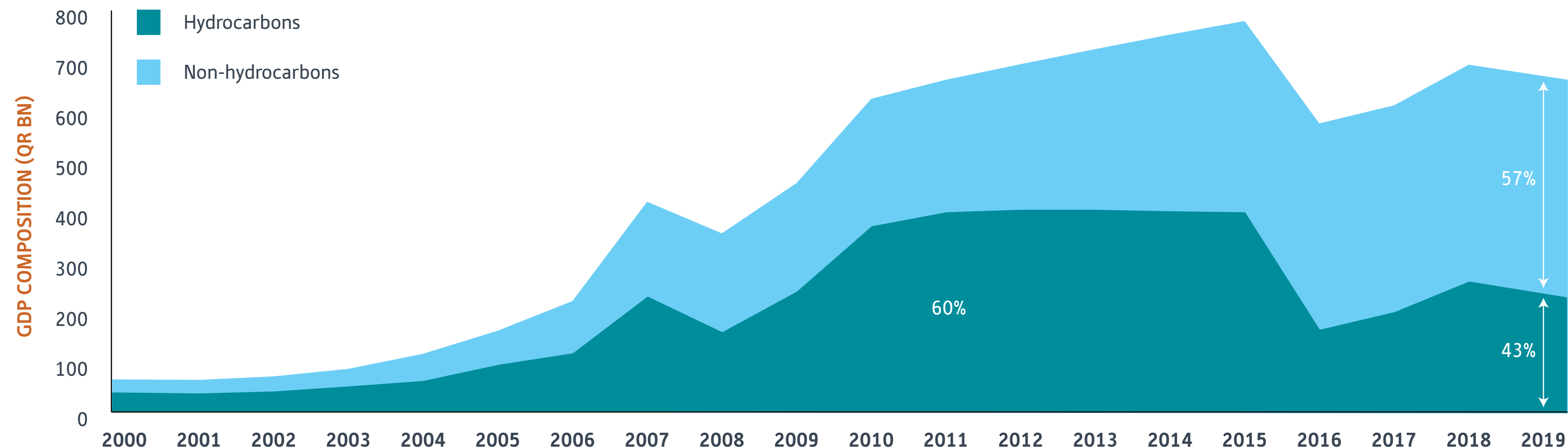
The only GCC country to maintain a positive fiscal balance pre-pandemic

Fiscal balance, 2019 (% of GDP)	
Qatar	1.4
Kuwait	-9.6
Oman	-7.1
Bahrain	-10.6
KSA	-4.2
UAE	-1.0

Qatar entered the pandemic with one of the world's highest GDP per capita rates



Diversification efforts were having a positive impact on the economy before the pandemic



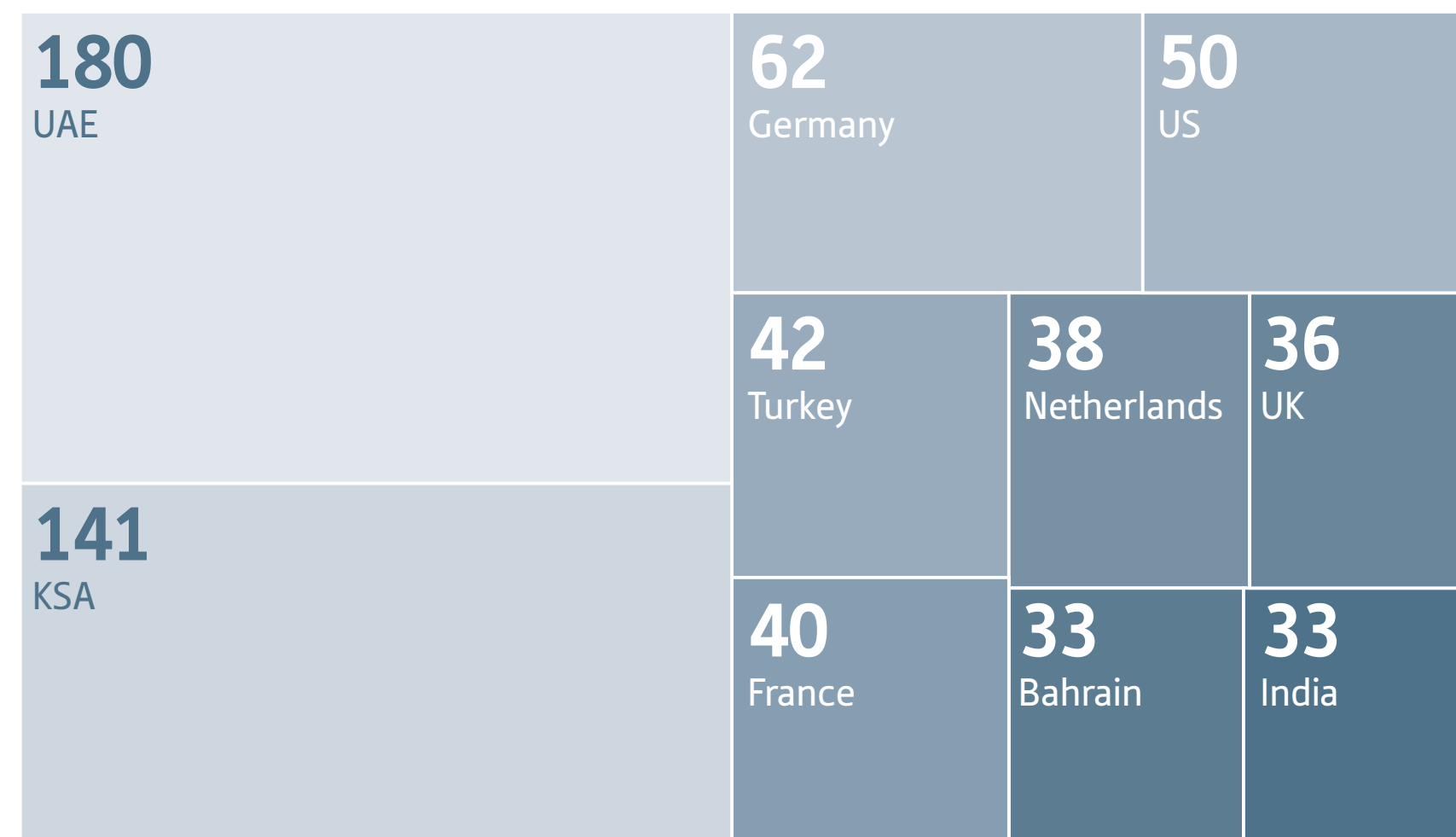
Stable conditions

Owing to its vast natural gas reserves, Qatar has developed into one of the world's wealthiest countries over recent decades. Liquefied natural gas receipts and fiscal responsibility at the government level meant the country entered the pandemic with robust public finances. Aware of the fact that the long-term depletion of energy reserves will eventually erode a key natural advantage, policymakers have focused on utilising resource wealth to invest in economic diversification and self-sufficiency programmes designed to generate new growth engines and enhance national resilience. Such efforts proved to be beneficial in coping with the fallout from Covid-19.

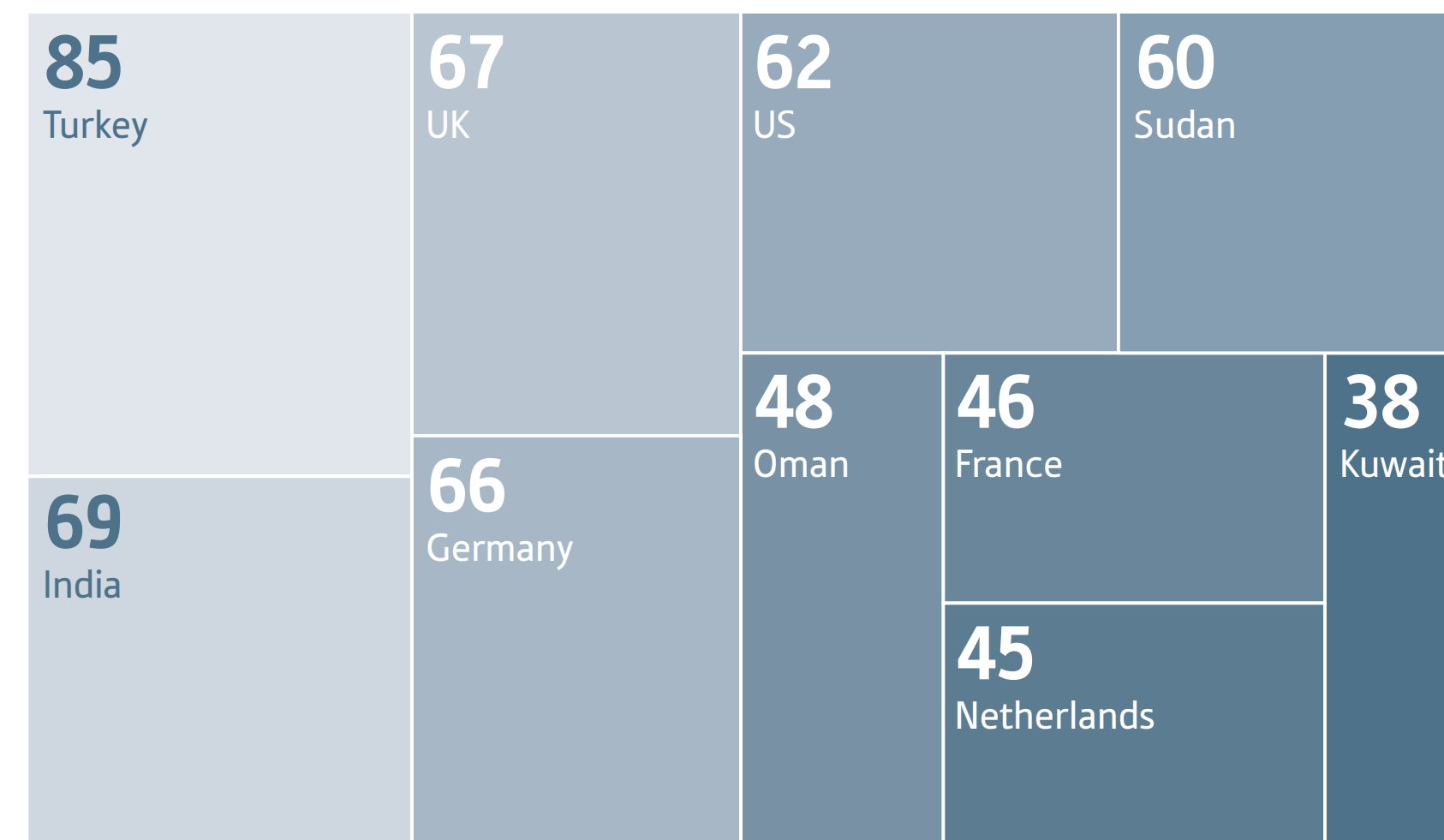
Regional trade disruption spurred Qatar to enhance food security efforts

Qatar diversified its food trade partners away from the UAE and KSA

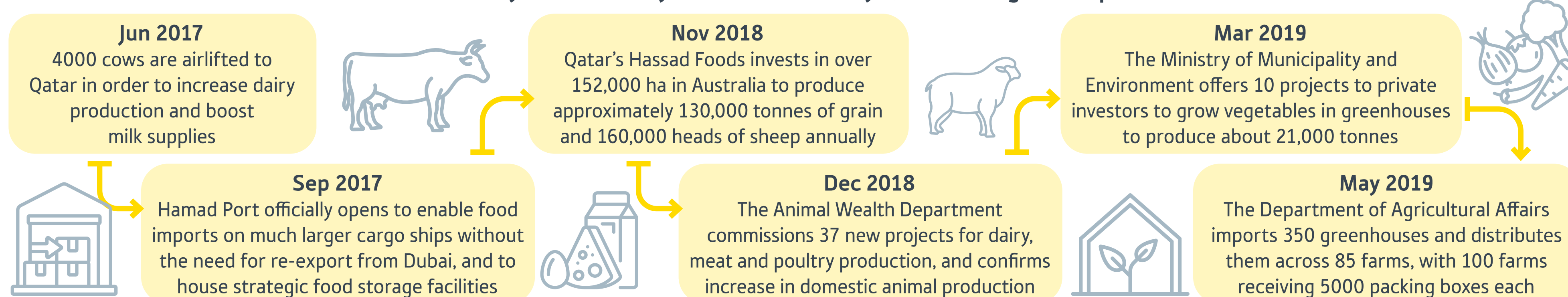
TOP-10 FOOD IMPORT COUNTRIES BY VALUE, 2016 (\$ M)



TOP-10 FOOD IMPORT COUNTRIES BY VALUE, 2018 (\$ M)



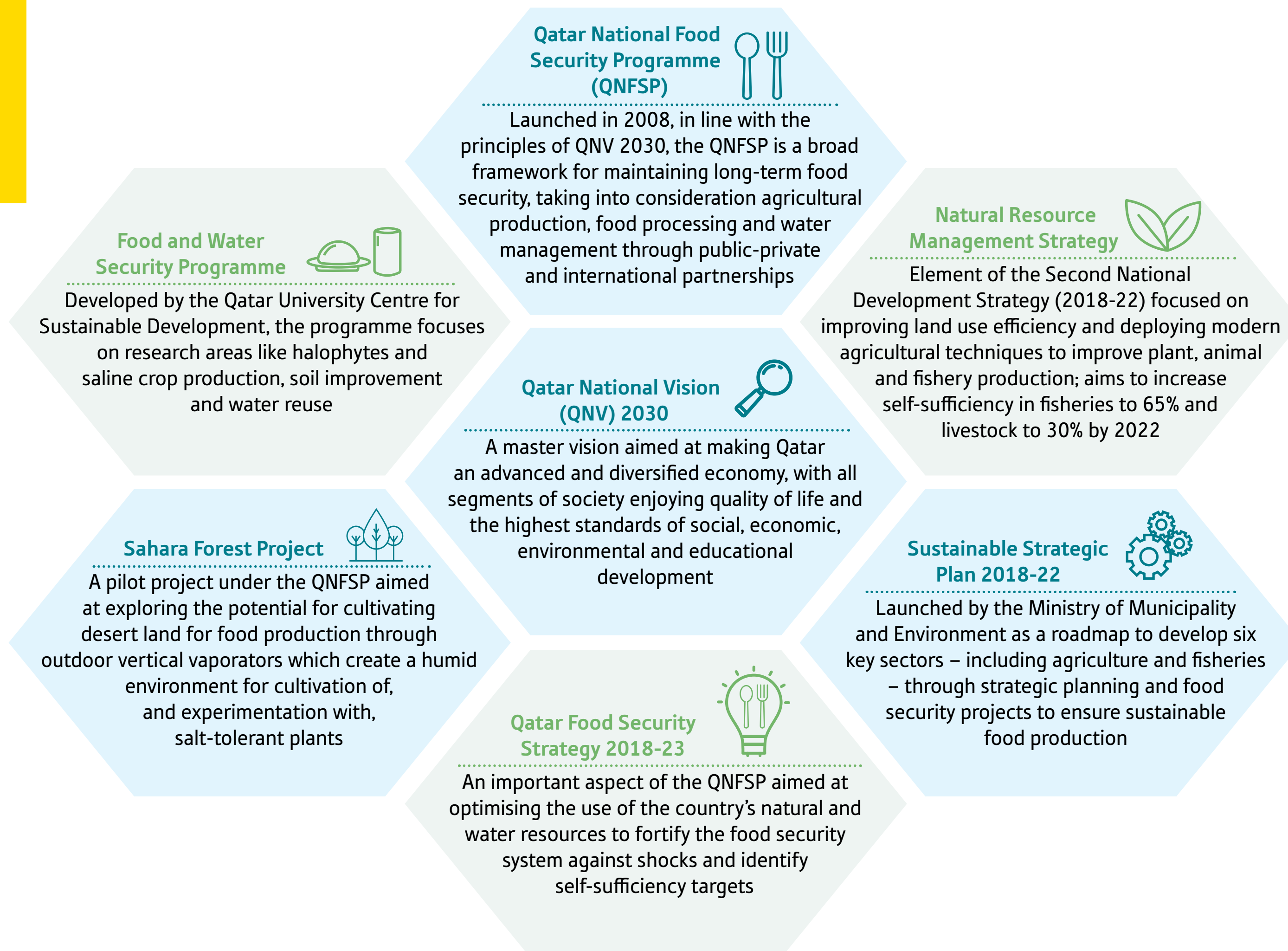
Key food security measures taken by Qatar during the dispute



Against the odds

Qatar found itself in a precarious situation in 2017 when differences with Saudi Arabia, the UAE, Bahrain and Egypt led those countries to initiate a trade dispute. Later joined by several other countries in the region, the dispute forced Qatar to end its reliance on food imports from Saudi Arabia and the UAE and diversify its trade partners – with Turkey, India and the UK taking on a more prominent role in supplying the country. In addition, Qatar scaled up food production at home and invested in overseas farms. By doing so, it was successful in maintaining food supplies for its population despite the disruption – boosting long-term resilience in the process.

Long-term food security targets guided by dedicated strategies



Programmes under Qatar Development Bank



Livestock Finance Programme provides funding for livestock sector projects, up to QR750,000 per farm and QR250,000 per estate



Fisheries Financing Programme offers support for fisheries projects, up to QR350,000 for boats and QR250,000 for equipment



Agricultural Financing Programme allocates up to QR1m for greenhouses, irrigation and desalination projects



Greenhouse Financing Programme dedicates 100% funding of up to QR70,000 for building urban-scale greenhouses

Qatar's food production landscape, 2017-19



Number of farms tripled from 1400 to 4200



Production of local vegetable increased from 50,000 tonnes to 66,000 tonnes, raising the self-sufficiency rate from 15% to 24%



Production of dairy products increased from 60,000 tonnes to 220,000 tonnes



Fresh poultry increased from 10,000 tonnes to 22,000 tonnes, exceeding the self-sufficiency target with 24%



Production of eggs increased from 4000 tonnes to 10,000 tonnes

Qatar champions food security programmes in line with global initiatives and targets

Faced with the challenge of producing food under harsh climatic conditions, Qatar is implementing programmes to help farmers overcome water scarcity and low-nutrient soil, in line with global targets on climate-smart agriculture. Qatar also supports the International Fund for Agricultural Development, which seeks to provide smallholder farmers with assistance to mitigate climate-related risks

Qatar is advancing agricultural development by funding research and using the latest technologies in the fields of engineering and agriculture. Through the Food Security Call programme implemented by the Ministry of Municipality and Environment and the Qatar National Research Fund, the country is developing new planting methods, irrigation systems and crop varieties in line with global initiatives

As a country that widely deploys vertical farming, hydroponic greenhouses and other technological methods of urban agriculture in an effort to build self-sufficiency, Qatar is aligning its agricultural production with the FAO's Urban Food Agenda programme, a flagship initiative to enhance sustainable food production and nutrition in urban and peri-urban areas, as well as nearby rural spaces

The Ministry of Municipality and Environment has initiatives to foster urban-rural linkages and collaboration between local farmers and large retailers. This aligns Qatar with the FAO's Food for the Cities Initiative, which aims to address the challenges urbanisation poses to food production by building resilient food systems



The country has adopted the UN SDGs as a strategic framework to achieve its long-term national development priorities, including in the area of food security. In particular, SDG 2 – which focuses explicitly on ending hunger, achieving food security, improving nutrition and promoting sustainable agriculture – has been incorporated into the QNFSP.

As part of the UN FAO, Qatar is a party to the Save Food Initiative, a global scheme aimed at reducing food loss and waste. The Ministry of Municipality and Environment's Food Waste Management Programme was launched to reduce food waste in Qatar with the help of smart technologies.

The development of green spaces and urban forests is important for improving food systems and environmental sustainability. Through the Park & Plant and Plant Million Trees initiatives implemented in Doha, Qatar is aligning with the UN Green Cities Initiative, which seeks to create sustainable cities and maximise green spaces to generate agricultural produce and forestry.

Strongly committed

Faced with the challenges of water scarcity, harsh climatic conditions and infertile soil, Qatar has developed wide-ranging policies and strategies to achieve food security by 2030. While the prosperous country does not require financial assistance from foreign partners and international institutions to advance its food security ambitions, it seeks to align and harmonise its local strategies with global initiatives and targets, especially those falling under UN Sustainable Development Goal (SDG) 2 (zero hunger) and the UN Food and Agriculture Organisation (FAO). It has also been contributing to global partnerships and supports other countries in addressing food security and climate change through the Qatar Fund for Development.

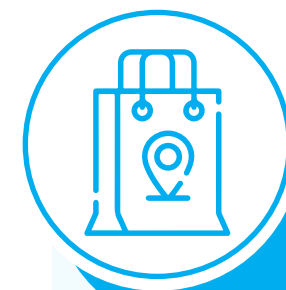
CASE STUDY: Lulu's long-standing track record of supporting Qatar's food security efforts

How Lulu was strengthening food security prior to Covid-19



Enhanced storage capacity

- Lulu has worked to diversify its food sourcing and expand its storage capacity
- The stock holding period has increased from 15 days to two months
- The strategic storage period for fast-moving commodity lines such as rice, flour, cooking oil, and long-life milk has risen from three to six months
- Lulu's logistics facility in Qatar has been upgraded to accommodate ambient, chilled and frozen goods
- Lulu has committed to investments in three advanced warehouses, with work under way on land allotted by Manateq
- The firm's retail storage area has reached 3m sq ft



Local procurement

- Lulu provides dedicated retail space and point-of-sale terminals for locally manufactured food products
- The company has started sourcing its private label products locally, ensuring uninterrupted supplies and stock availability
- Lulu engages closely with local farmers through a variety of support schemes and promotional initiatives to enhance supply and demand (see slide 19)
- Lulu has a comprehensive network of export distribution centres in 22 countries that ensures an uninterrupted flow of food shipments. These include facilities recently opened in the UK, the US and Europe.



Geographically diverse retail space

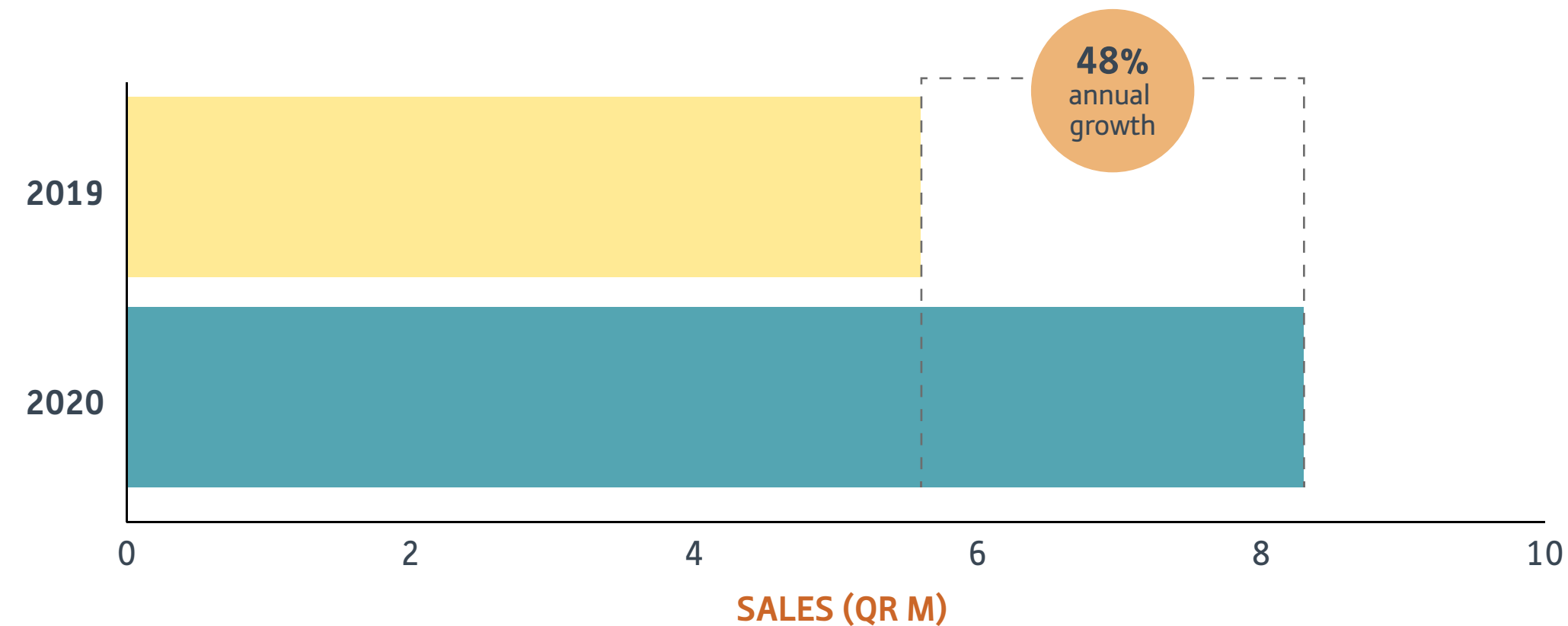
- Lulu entered the pandemic with a diverse portfolio of 12 stores serving a wide variety of geographic areas and social segments in Qatar
- Lulu stores provide an extensive variety of fresh and frozen food products and consumer staples from local and international sources
- Partnerships with local producers ensure that fresh and healthy food items are available at affordable prices
- Lulu opened two new stores in Qatar in 2020 despite the pandemic
- The firm's retail portfolio in Qatar will reach 22 stores by 2022, spanning hypermarkets, supermarkets, department stores, express stores, shopping malls and an online store (see slide 26)

Local partner

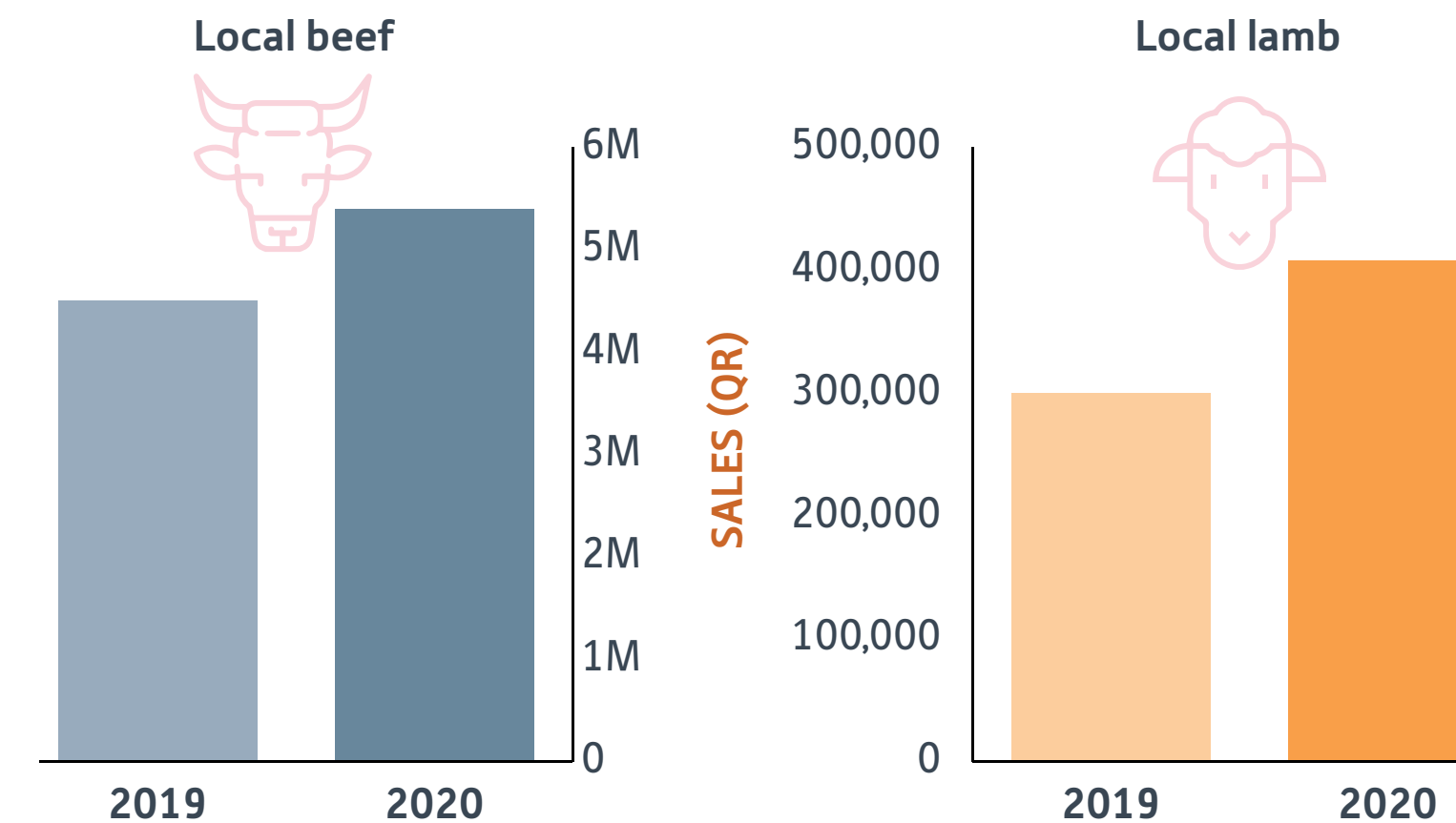
Lulu has made concerted efforts to support Qatar in its endeavours to strengthen national food security since it opened its first store in the country in 2000. As it continues to expand its retail footprint in Qatar, Lulu is engaging closely with domestic farmers to ensure a consistent and high-quality supply of local produce, which is marketed in dedicated in-store spaces. In tandem with this initiative, Lulu continues to expand its storage capacity in the country to ensure reliable stocks of staple foods, which hedges against disruption in global supply chains. This strategy is supported by a global network of export distribution centres that are located in 22 countries.

CASE STUDY: Strong supply chains and storage capacity helped Lulu meet heightened demand during the pandemic

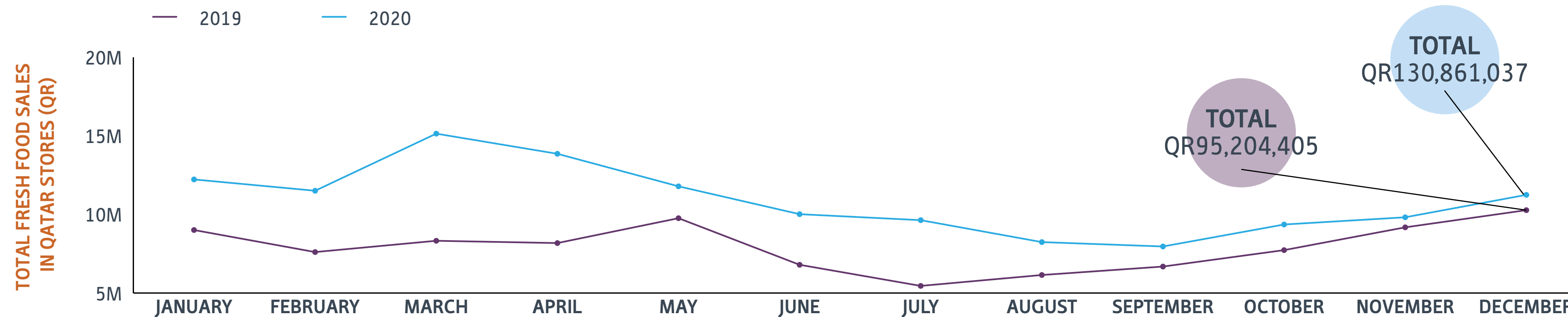
Total sales of Qatar-branded products on the rise



Local meat products experienced an uptick in demand



Fresh food sales increased by 37% across Lulu's Qatar stores in 2020



Significant growth

Thanks to ongoing investment in logistics facilities and storage capacity, combined with sustained engagement with local producers, Lulu was able to meet heightened demand for food products in 2020 as consumers spent more time at home during the Covid-19 pandemic. The company generated growth of 10-12% across all categories in 2020, which it says was achieved without any inflation in food prices from transferring the “pandemic cost” onto the consumer. Notably, Lulu experienced growth of 37% in the fresh food category, supported by the opening of two new stores over the course of the year. Locally produced food witnessed higher sales in most categories.

Resilience

Qatar entered the pandemic with a strong and stable economy capable of withstanding sudden shocks

The trade dispute with several neighbouring countries helped Qatar to scale up domestic food production and diversify its trade partners

Qatar has long-standing food security policies and self-sufficiency strategies that have generated positive results

The country's food security policies align with global strategies from the UN

Response

How did the pandemic impact food security in the Gulf?

Which international events are focused on tackling global food security challenges in 2021?

In what ways can Qatari farmers be supported to scale up production?

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Reinvention

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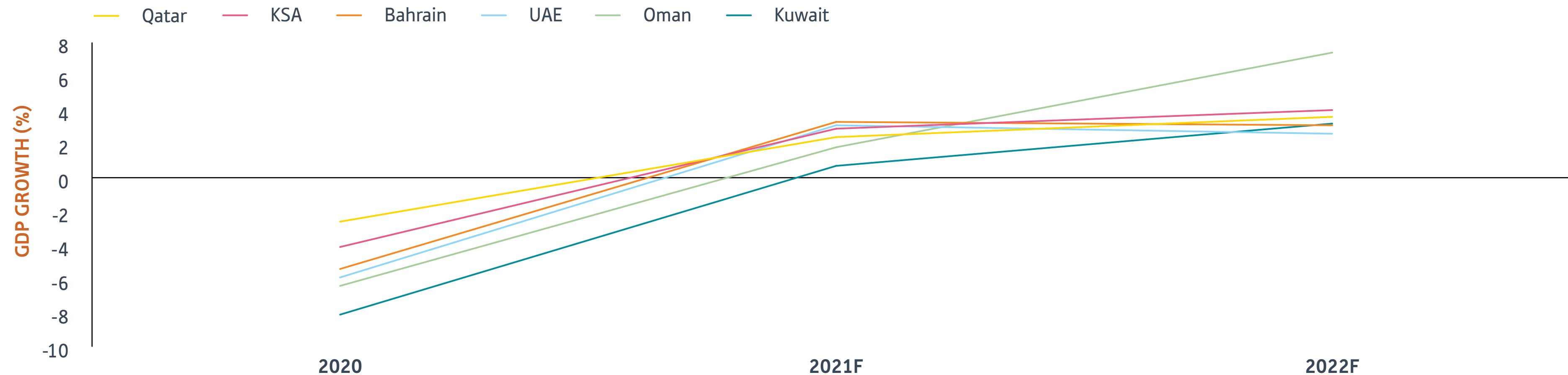
How can vertical farming and other innovations be deployed in Qatar's agriculture sector?

To what extent is nutrition important in addressing food security challenges?

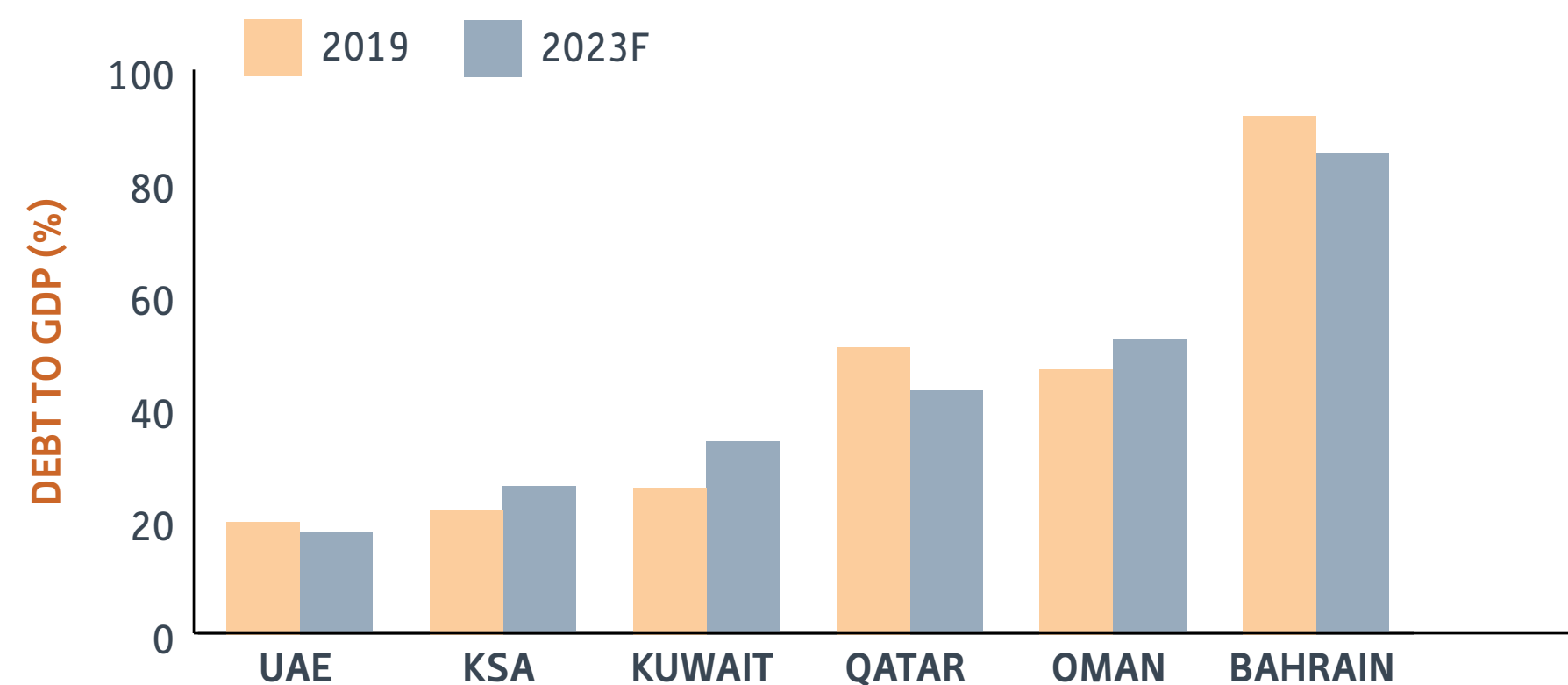
In what ways can sustainability be enhanced in food production and retail?

Qatar managed to withstand the most severe pandemic-related economic challenges

Qatar absorbed the economic impact relatively well

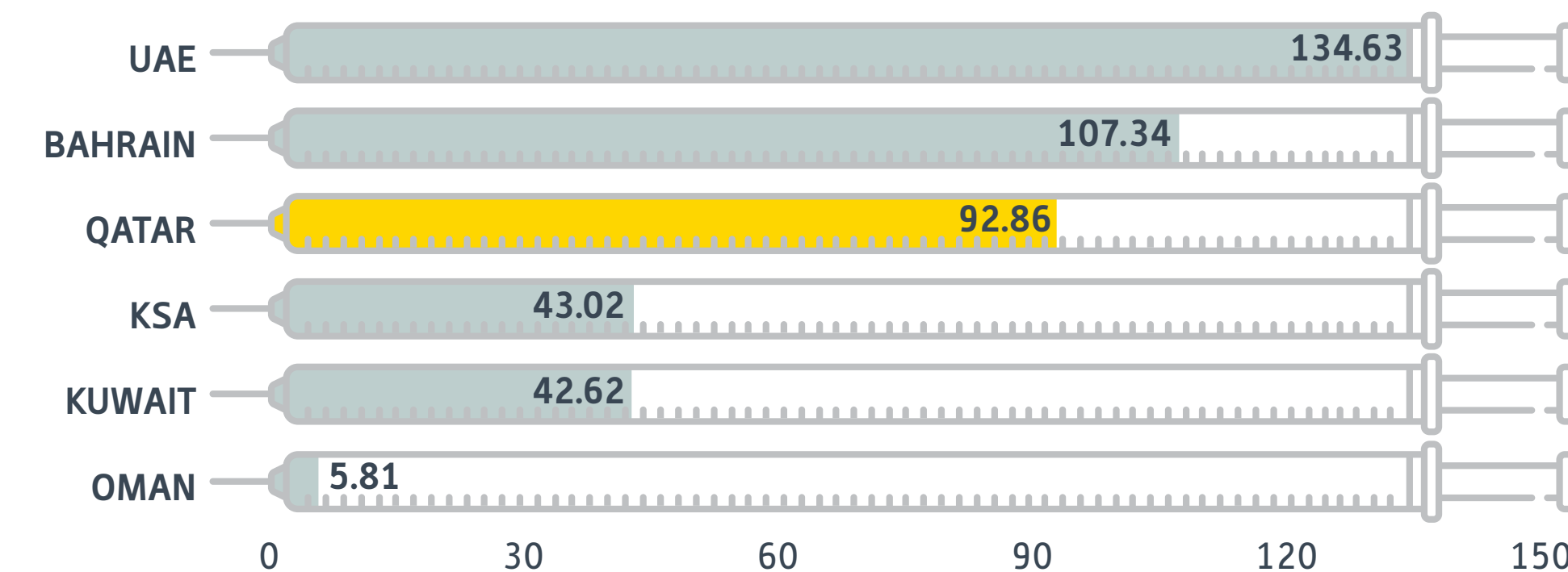


Qatar's public debt-to-GDP ratio projected to fall



Advanced vaccine rollout in the GCC bodes well for regional recovery

Vaccine doses administered as of June 6 (per 100 people)

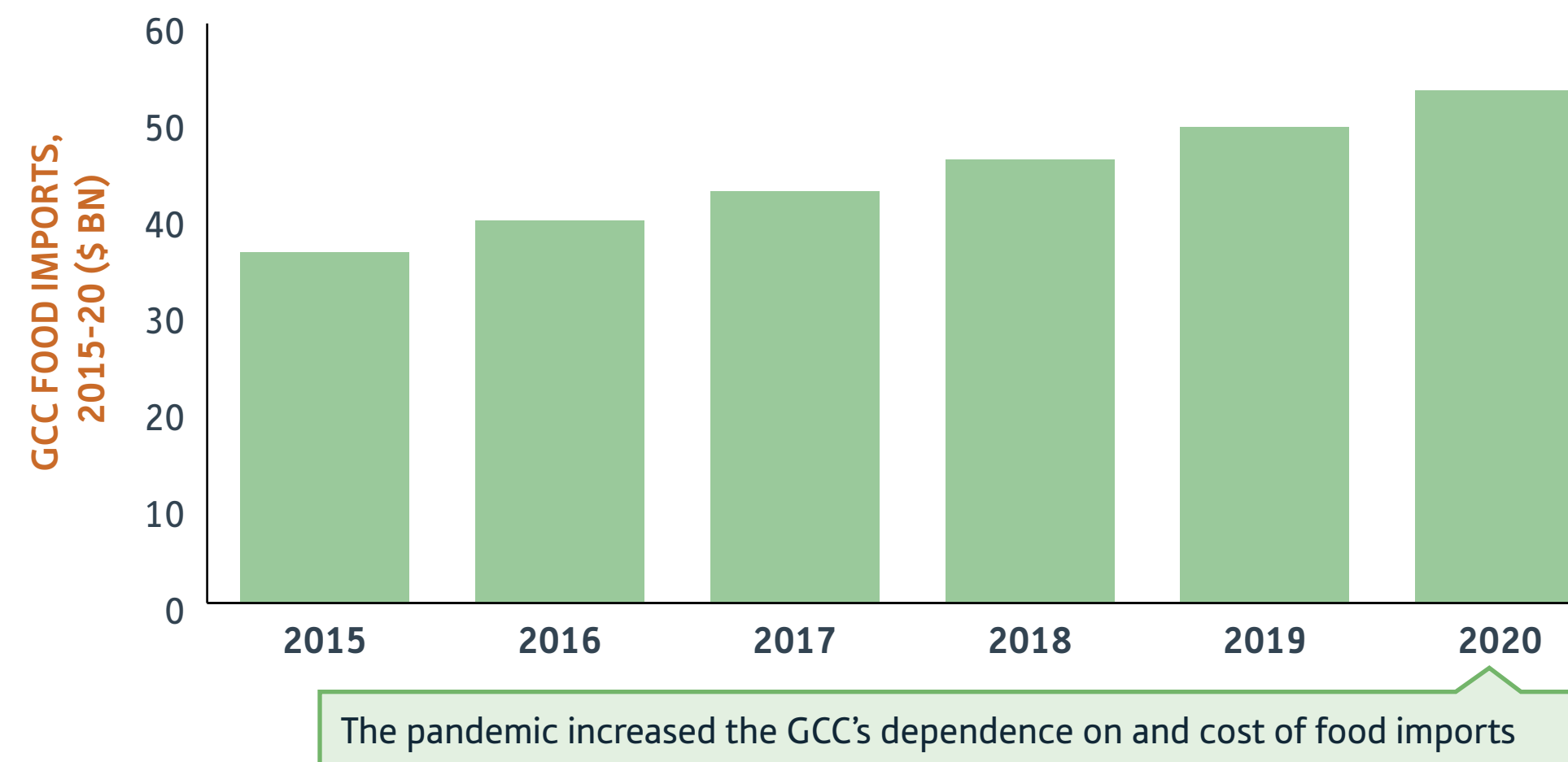


Robust response


Thanks to pre-existing macroeconomic strengths, Qatar experienced the lowest GDP contraction in the GCC in 2020, aided by supportive fiscal and monetary measures for vulnerable sectors, and efforts to maintain robust supply chains for essential goods. The economy is positioned for a strong rebound in 2021 as travel restrictions slowly ease and pent-up demand is released in the national and global economy. In turn, this should boost sales of consumer goods – including quality, locally produced food items. The recovery will be assisted by an efficient and effective national vaccination programme that is allowing for a gradual return to pre-pandemic normality.

GCC countries made concerted efforts to prevent pandemic-related food shortages

Despite efforts to enhance GCC food production, imports have been rising



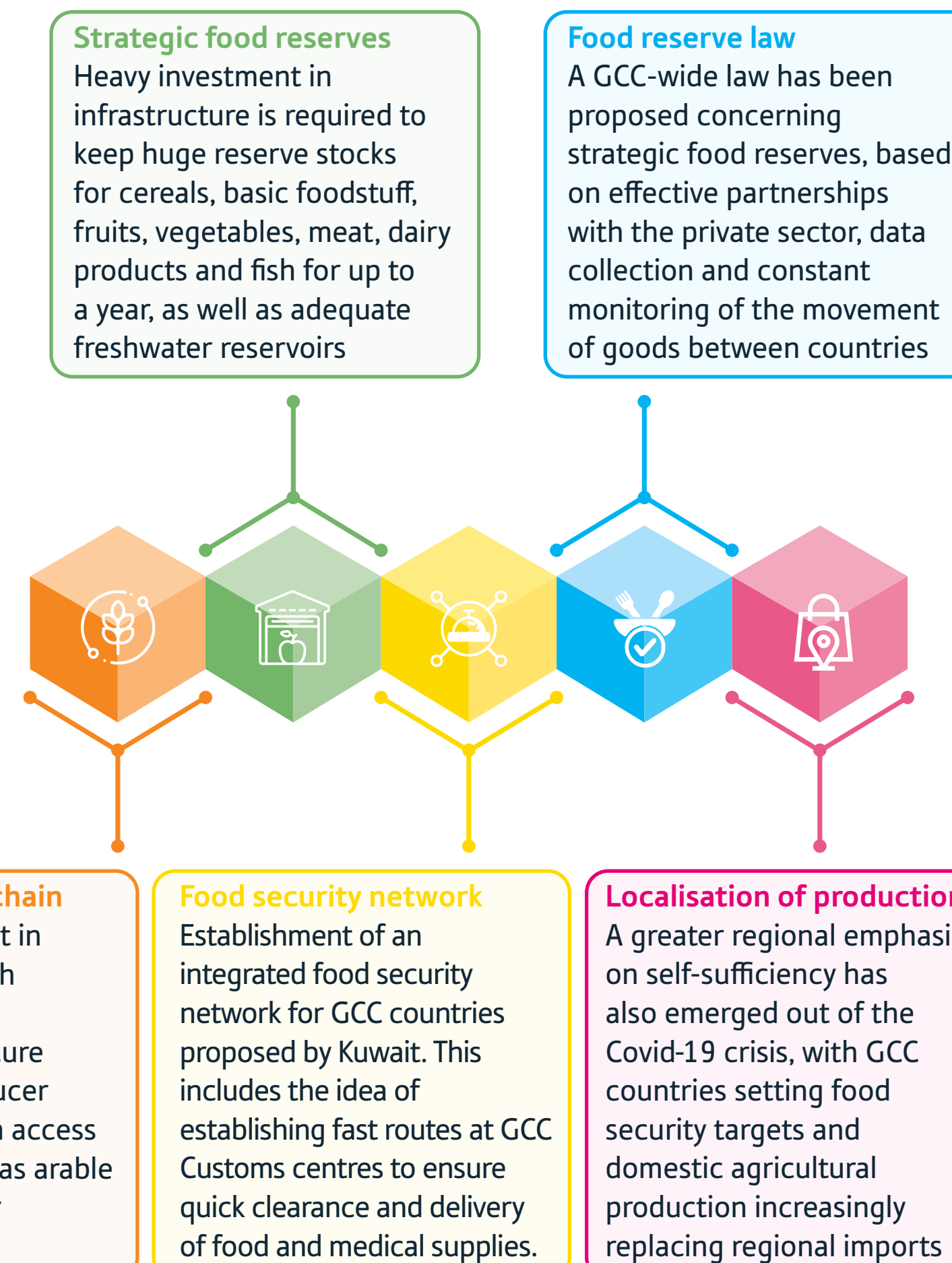
GCC rankings in the Global Food Security Index, 2020

	Kuwait	33rd
	Oman	34th
	Qatar	37th
	KSA	38th
	UAE	42nd
	Bahrain	49th

Qatar had already ramped up food production in the lead-up to the pandemic and ranked first in the Middle East in 2019's Global Food Security Index, although this position slipped slightly in 2020. The country's overall ranking was brought down by a low score in the natural resources and resilience category; however, this does not take into account innovative solutions being developed to overcome natural limitations.

**The Global Food Security Index takes into consideration the affordability/cost of food, as well as availability and quality, in 113 countries. GCC countries ranked relatively highly, although they lack a conducive climate, fertile soil and potable water resources.*

Regional efforts to achieve food security

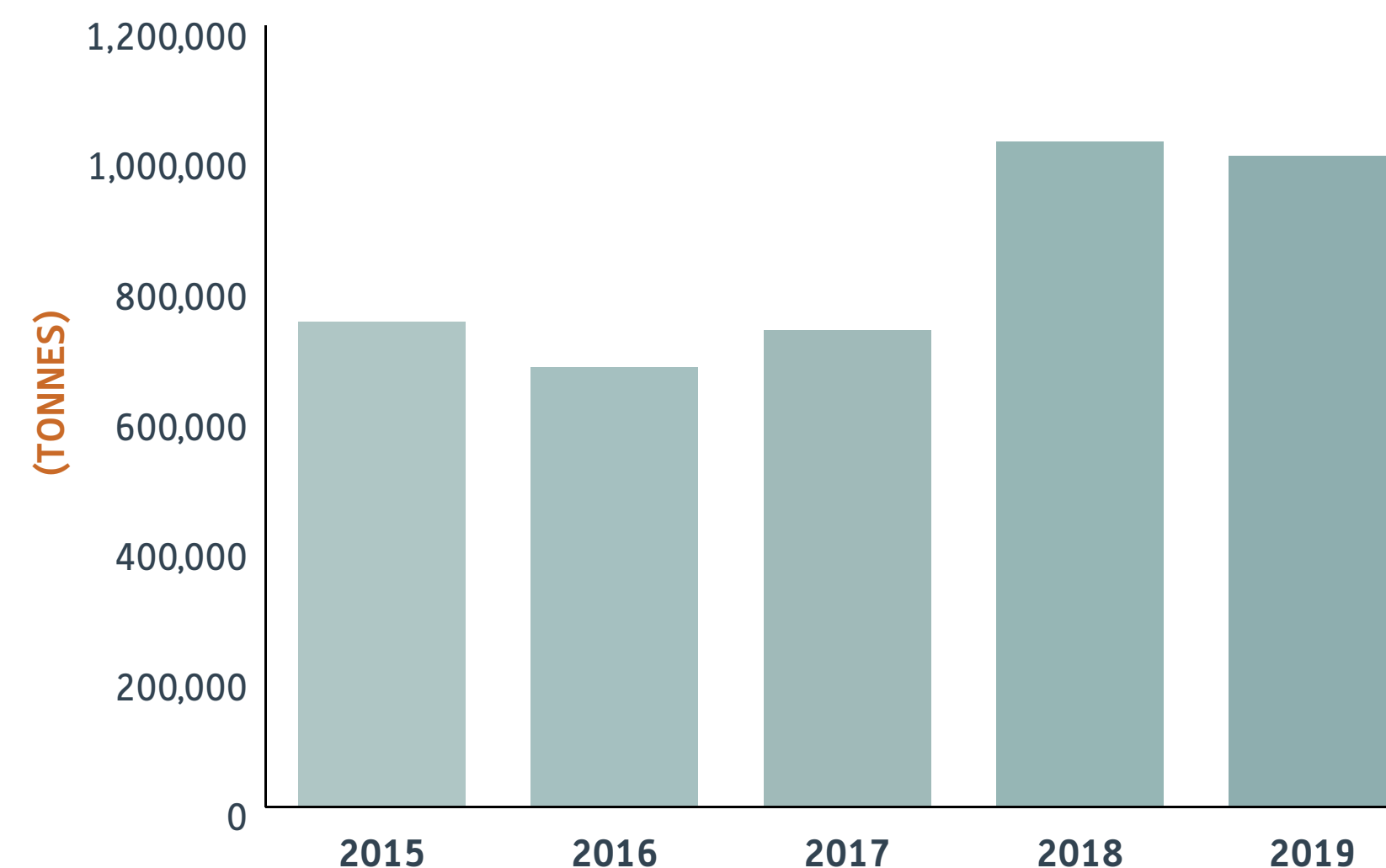


Overcoming challenges

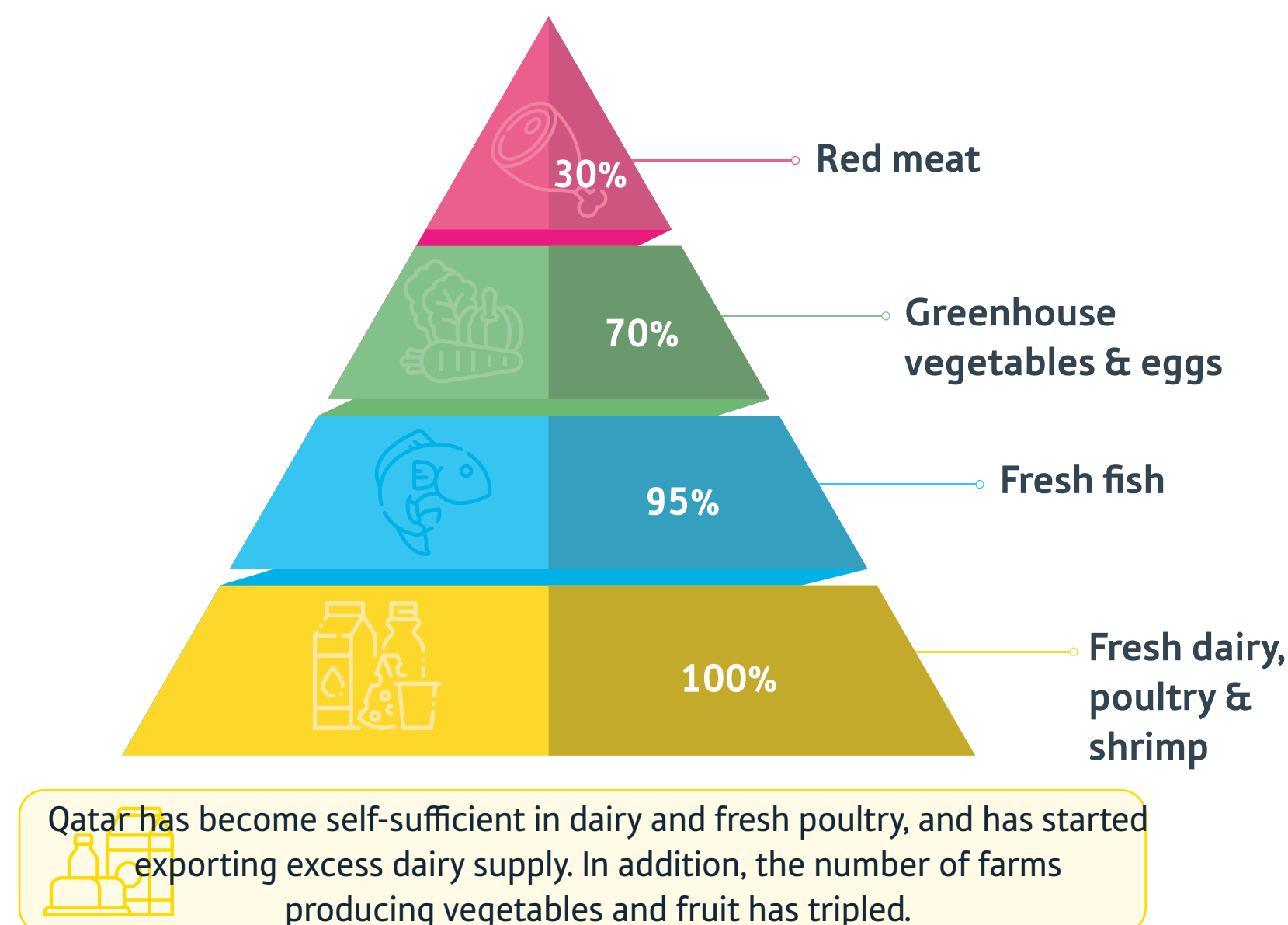
The disruption to global trade flows created by the pandemic posed significant food security challenges for the Gulf region, which is characterised by water scarcity and a lack of arable land. This underlined the need for GCC countries to accelerate existing food security programmes and priorities, as well as develop new solutions to more immediate challenges. Although areas of competition exist in certain key sectors in the GCC, agriculture and food security is a particular area where the region can benefit from enhanced coordination and integration to address shared challenges and enhance the region's resilience by reducing dependence on food imports.

Qatar has made significant progress in increasing food production and meeting self-sufficiency targets





Agricultural production in Qatar, 2015-19



Food security to be enhanced by 2023 self-sufficiency targets



How Qatar is improving its food security

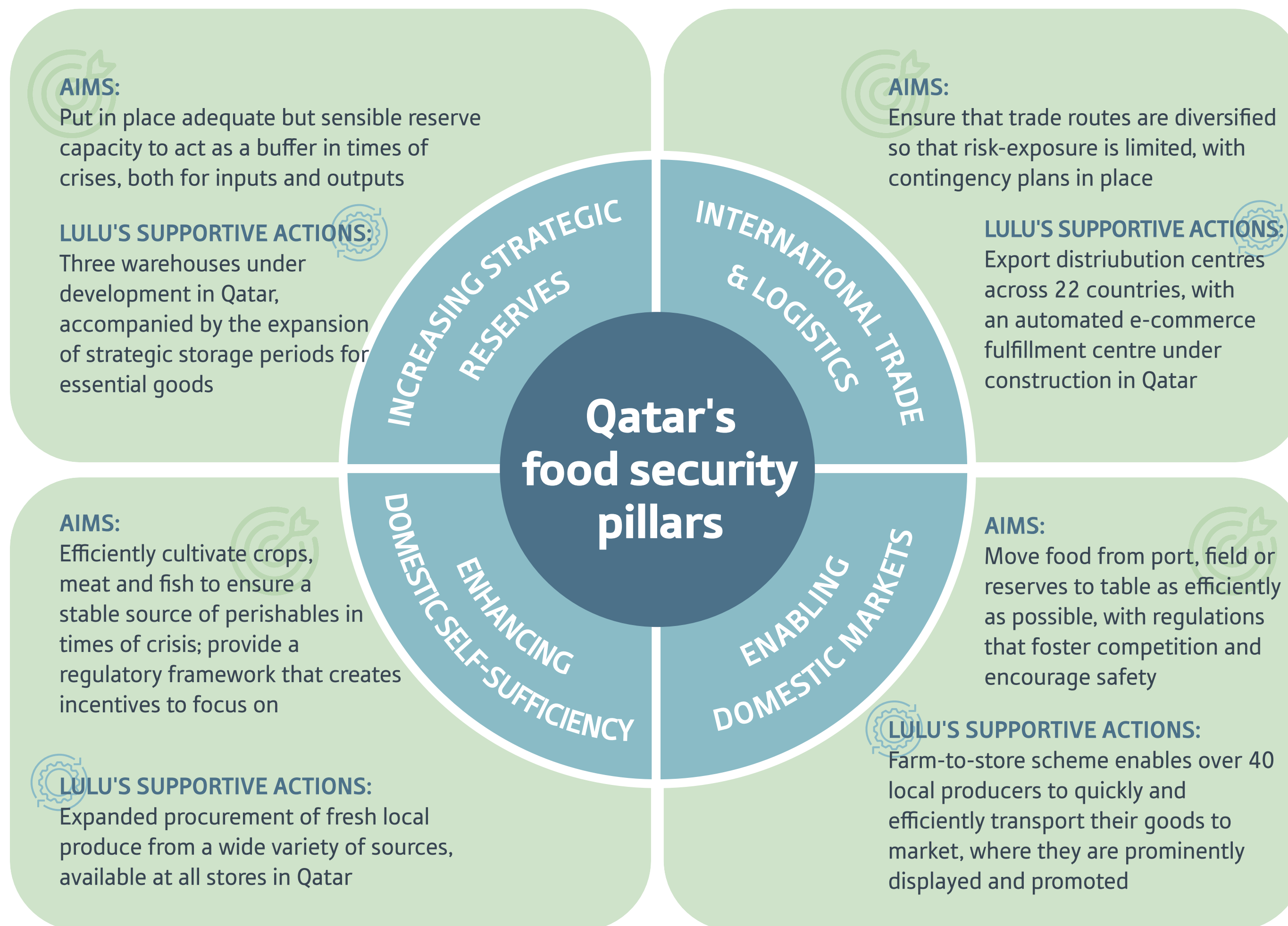
-  **1400+ farms** with special facilities and agricultural techniques
-  **530,000-sq-metre** food security facility at Hamad Port storing rice, sugar and edible oils
-  **3500+** high-tech greenhouses planned over 110 ha
-  **Plant factories** planned to ensure production of leafy vegetables year-round

-  **Overseas agricultural projects** in Australia and Sudan, with planned projects in Kenya, Brazil, Argentina, Turkey and Ukraine
-  **Food-processing clusters** with refrigerated logistics and warehousing in Umm Alhoul Free Zone
-  **R&D investment** in vertical and hydroponic farming as well as advanced greenhouse solutions
-  **Offshore aquaculture projects** for fish production of up to 4000 tonnes annually

Building resilience

As the pandemic exposed the fragility of regional food supply chains and encouraged Gulf economies to develop their domestic food industries, Qatar was in somewhat a better position than its neighbours as it had already begun concerted efforts to boost domestic production and diversify imports after a regional trade dispute began in 2017. Qatar's strategy is based primarily on increased investment in, or support for, innovative agri-food businesses, both domestically and overseas, in an effort to maintain reliable and sustainable food supplies. Through Qatar's National Food Security Programme and related initiatives, there has been a notable increase in agricultural and livestock production since 2017.

Four pillars underpin the national food security agenda, backed by strategic actions from private stakeholders



Overcoming water scarcity

Qatar has developed a number of desalination facilities to secure sustainable supplies of potable water, including:

Ras Abu Fontas A2 (2015):

36m

imperial gallons per day

Ras Abu Fontas A3 (2016):

36m

imperial gallons per day

Umm Al-Houl Combined Cycle Power Plant (2019):

136m

imperial gallons per day

Integrated approach

Qatar's food security plan is underpinned by four pillars that helped it to mitigate the challenges of the pandemic in relation to supply chains relatively well. Two pillars are focused on boosting the capacity of local farmers and manufacturers to produce quality consumable items and move them to market; one is focused on diversifying trade partnerships to hedge against over-reliance on individual source markets; and one is focused on boosting national strategic reserves of essential items in order to prevent shortages during times of crisis. Food retailers in the country have a role to play in ensuring the success of these pillars through strategic policies and investments.

Food security prioritised as Qatar cooperates with international community on making production systems sustainable and equitable

“The most important thing is to join efforts and political will to create a healthy and stable environment to achieve professional integration, to share knowledge, to benefit from other successful international experiences, and to cooperate fully with the FAO and other relevant UN agencies... and focus on investments in the sectors of agriculture, water, livestock, fish and all other sectors related to food security.”

- Abdulaziz bin Ahmed Al Malki Al Jehni, Qatar's Ambassador to Italy and Permanent Representative to the UN Agencies in Rome

Key themes to be addressed by the UNFSS 2021



Approaches to meet the objectives of the UNFSS

Food systems dialogues



Ahead of the summit, over 100 UN members, including Qatar, are engaging in dialogue events on key food systems themes and identifying ways to strengthen them. The International Chamber of Commerce Qatar co-convened the MENA region's dialogue and the Ministry of Municipality and Environment's Food Security Department actively participates in discussions with other governments

Advocacy & capacity-building



Raising awareness by engaging a wide range of constituencies to shape the narrative and inspire action on food systems in support of the SDGs. Also, through the competition, Best Small Business: Good Food for All, the best small and medium-sized enterprises from across the world that are engaged in transforming food systems will be supported to sustainably scale up their businesses

Knowledge & policy development



Through dialogues and other initiatives, new ideas and solutions will emerge to improve food systems in line with the summit's objectives. These can then be further developed by the Scientific Group, an independent body of leading international researchers and scientists

Digital & community engagement



Digital tools will allow the summit to be accessible to all, which will support knowledge management across all action tracks, enable outreach and monitor progress. Local communities will be encouraged to take part in discussions and implement recommended actions.

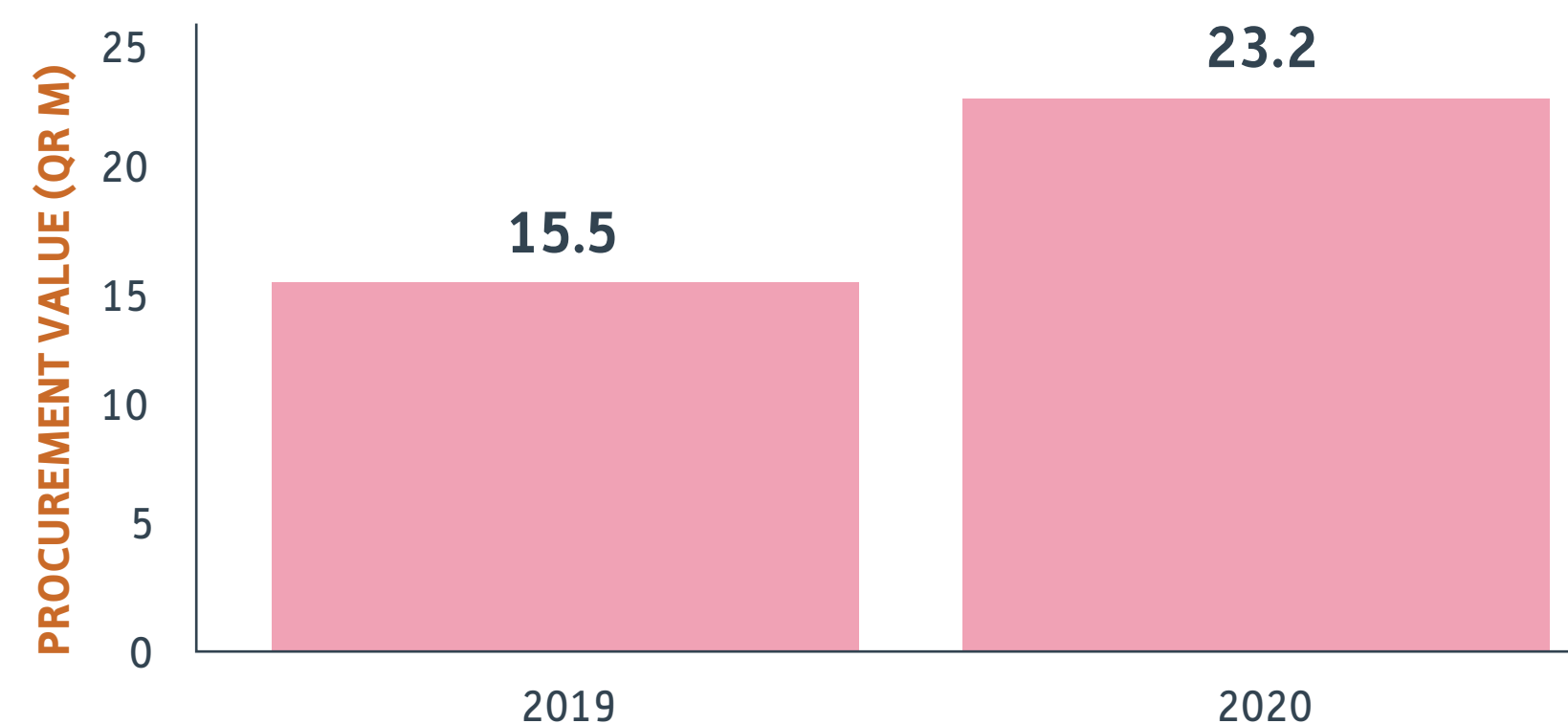
Multilateral collaboration

As part of the UN's Decade of Action to achieve the SDGs by 2030, the UN launched the Food Systems Summit (UNFSS). Due to be held in September 2021, the UNFSS will act as a platform to improve global food production for healthier, more sustainable and equitable food systems.

With more than 35 UN agencies taking part, Qatar's participation in the UNFSS will offer an opportunity for the identification of pathways to strengthen national food systems through dialogue and engagement with a wide range of stakeholders, in addition to providing a catalyst for related research and development.

CASE STUDY: Lulu actively supports Qatari farmers to meet domestic demand

Purchases from local farmers up 49% in 2020



Initiatives adopted by Lulu to promote local farmers



Farm-to-store programme

Pioneer programme helping local farmers align their production plans with store demand for fresh food by ensuring that all harvests reach the store in less than two hours and giving over 40 farms access to markets



Buyback programme

Programme to purchase excess produce from farmers in an effort to redistribute them within the domestic market and reduce wastage and losses



Qatar Dates Week festival

Week-long programme in partnership with the Ministry of Municipality and Environment in all Lulu stores ins Qatar to promote local varieties of dates and help farmers access marketing opportunities



Festival of Qatari Farms Products

Annual programme organised by Lulu and the Ministry of Municipality and Environment to promote local products including meat, poultry, vegetables, fruits, honey and dairy. Some 120 local farms showcased over 25 varieties of fruits and vegetables in 2020.



Qatar Farms programme

Part of the Ministry of Municipality and Environment's Qatar Farms programme, Lulu has partnered with over 60 farmers to produce new fruit and veg varieties, which it offers at prices 25% below imported products



Premium Qatari Vegetable programme

Ministry of Municipality and Environment programme adopted by Lulu in 2017 as an opportunity for Qatari farmers to market locally produced vegetables at affordable prices without an intermediary



Qatari Products Our First Choice

Programme organised by Lulu since 2010 to encourage customers to buy local food and non-food products, and contribute to supporting local farmers and producers



Made in Qatar Festival

Annual programme organised by Lulu to promote Qatari food and non-food products

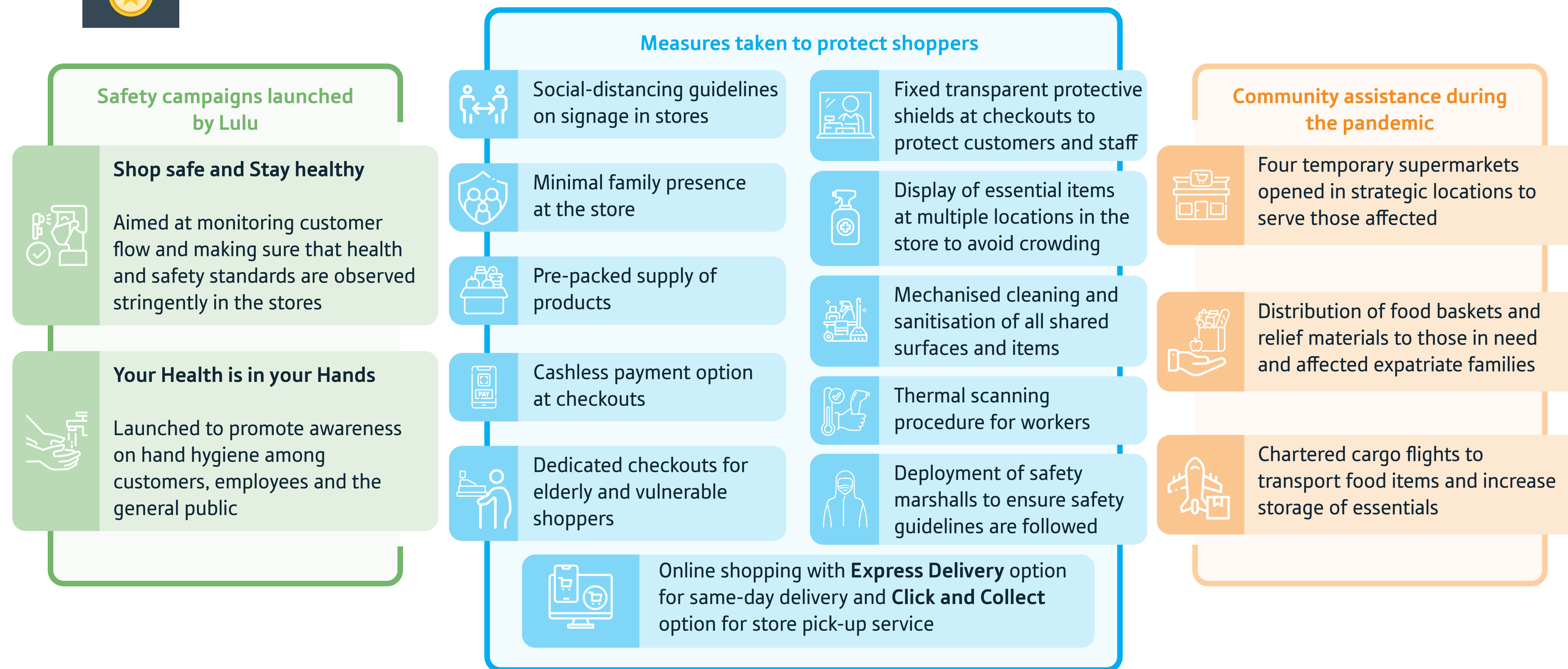
Buying local

Having developed long-standing partnerships with Qatari farmers, Lulu stores are an important vehicle for marketing and distributing locally produced food items. In turn, this is contributing to the fulfilment of Qatar's self-sufficiency targets and helping to achieve the National Vision 2030 goal of diversifying the broader economy. Through partnerships with the Ministry for Municipality and Environment, as well as its own initiatives, Lulu's focus on local products is helping to maintain reliable food stocks, while also raising quality, expanding varieties and ensuring affordable prices for consumers. Lulu also uses algorithms to predict demand and help local farmers plan accordingly.

CASE STUDY: Lulu receives award in recognition of its effective response to the pandemic



Corporate Social Responsibility (CSR) Award 2021 in **Best Company in the Private Sector** category for contribution to the fight against Covid-19



Making an impact

As the global pandemic disrupted human interactions and livelihoods, Lulu responded by increasing health and safety protocols, and devising strategies to enhance food security. Proactive measures were taken to ensure good hygiene and social distancing could be practiced effectively in stores. Food security was prioritised by expanding storage capacity for essential items and distributing food baskets to affected communities, while digital solutions were adopted to enhance e-commerce and online shopping capabilities in response to rising demand. Lulu's efforts to mitigate the challenges of the pandemic within its business sector and the wider community were recognised at the eighth annual CSR Awards.

Resilience

Qatar entered the pandemic with a strong and stable economy capable of withstanding sudden shocks

The trade dispute with several neighbouring countries helped Qatar to scale up domestic food production and diversify its trade partners

Qatar has long-standing food security policies and self-sufficiency strategies that have generated positive results

The country's food security policies align with global strategies from the UN

Response

The pandemic helped to foster greater collaboration among GCC members in tackling common food security challenges

The September 2021 UN Food Systems Summit should lead to enhanced international engagement to address problems

Retail chains are supporting Qatari farmers by providing guaranteed, dedicated space for locally grown produce

Social-distancing protocols, personal protective equipment and cashless payment options created a safe food retail environment

Reinvention

What is the investment climate in relation in agri-tech?

How can vertical farming and other innovations be deployed in Qatar's agriculture sector?

To what extent is nutrition important in addressing food security challenges?

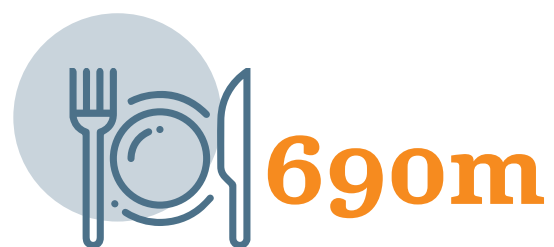
In what ways can sustainability be enhanced in food production and retail?

Climate change and human health risks necessitate the adoption of sustainable food security solutions

Undernourishment projected to rise in many emerging regions



* 2030 projections do not take into account the impact of the Covid-19 pandemic



690m

people in the world have a lack of food security



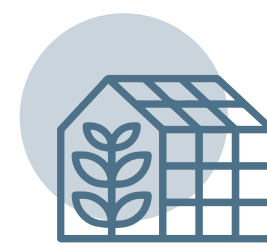
840m

people will lack proper access to food by 2030 based on current trends



\$1.3trn

in estimated diet-related health costs linked to mortality and non-communicable diseases by 2030, under current food consumption patterns



\$1.7trn

in estimated diet-related social costs of greenhouse gas emissions associated with current dietary patterns by 2030



1 in 33

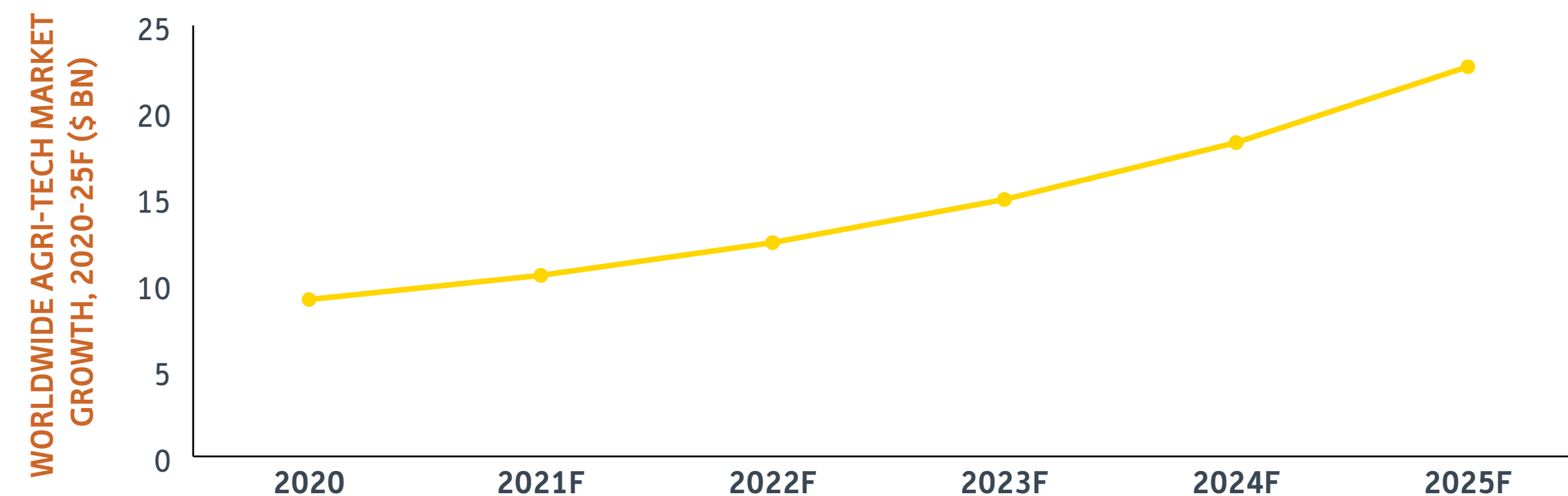
people worldwide expected to need humanitarian assistance to meet basic needs like food and water in 2021

New approaches

The impact of the Covid-19 pandemic on global food supplies is being seen by some experts as a harbinger of the disruption that climate change will bring to the planet over a longer period – with many communities pushed towards food insecurity due to the fragility of current systems in the face of changing weather patterns. As such, global attention is increasingly turning towards making food production more resilient and sustainable, with a focus on how it is grown, what is being consumed and ways to reduce waste. Looking ahead, new approaches will be needed to ensure crop productivity does not come at the expense of the environment or nutrition.

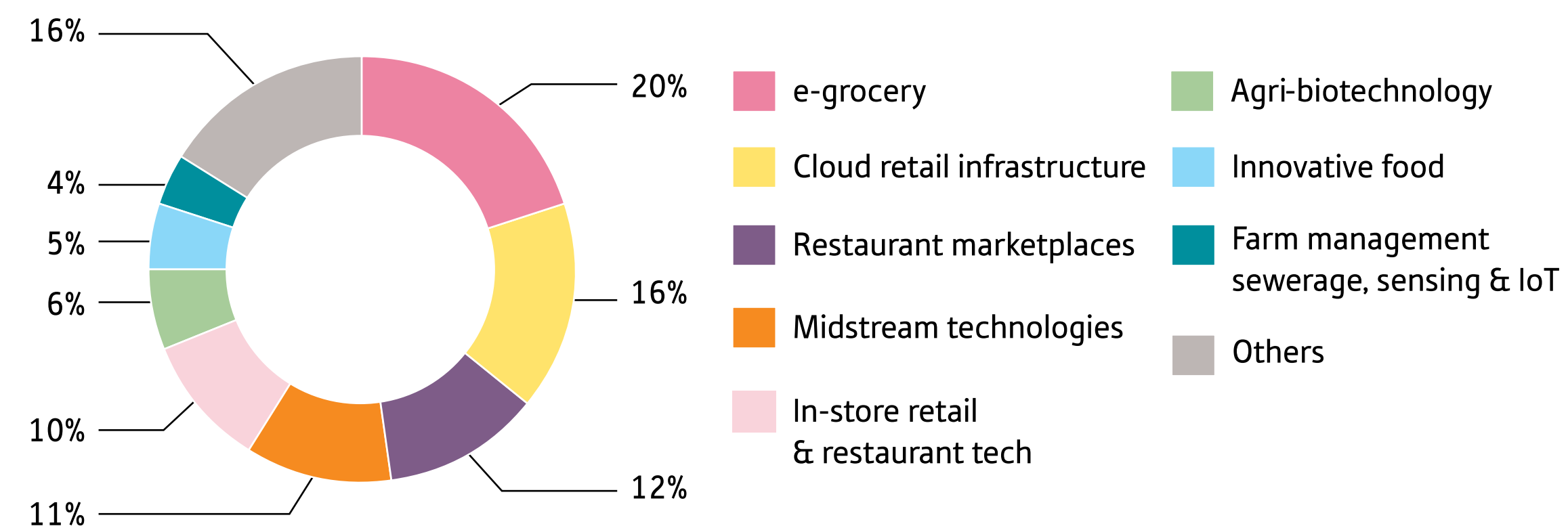
Global agri-tech revolution could help address production challenges

Global agri-tech market expected to experience a post-pandemic boom





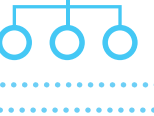





Majority of tech investments focused on consumption rather than production

Global investment in agriculture & food technology by segment, 2019



Benefits of agri-tech

Innovation	Uses
 Internet of things (IoT)	Process optimisation through sensor technologies and monitory solutions integrated in the farming process
 Smart farming	Adoption and combination of smart-tech (software, cloud, IoT, data and automation) to raise productivity
 Drones & satellites	Monitoring, mapping and quality control
 Big data & artificial intelligence	Crop management, automation of recommendations, information control and tracking
 Bio-tech	Improve adaptability of seeds through tech and biological algorithms
 Precision farming	Satellite, drone imagery, and data to optimise strategies and improve crop efficiency
 Robotics & automation	Irrigation systems, water usage tools, robotics manipulation and other tools to increase efficiency
 Vertical farming	Controlled-environment agriculture to optimise space and inputs

Rebalancing act

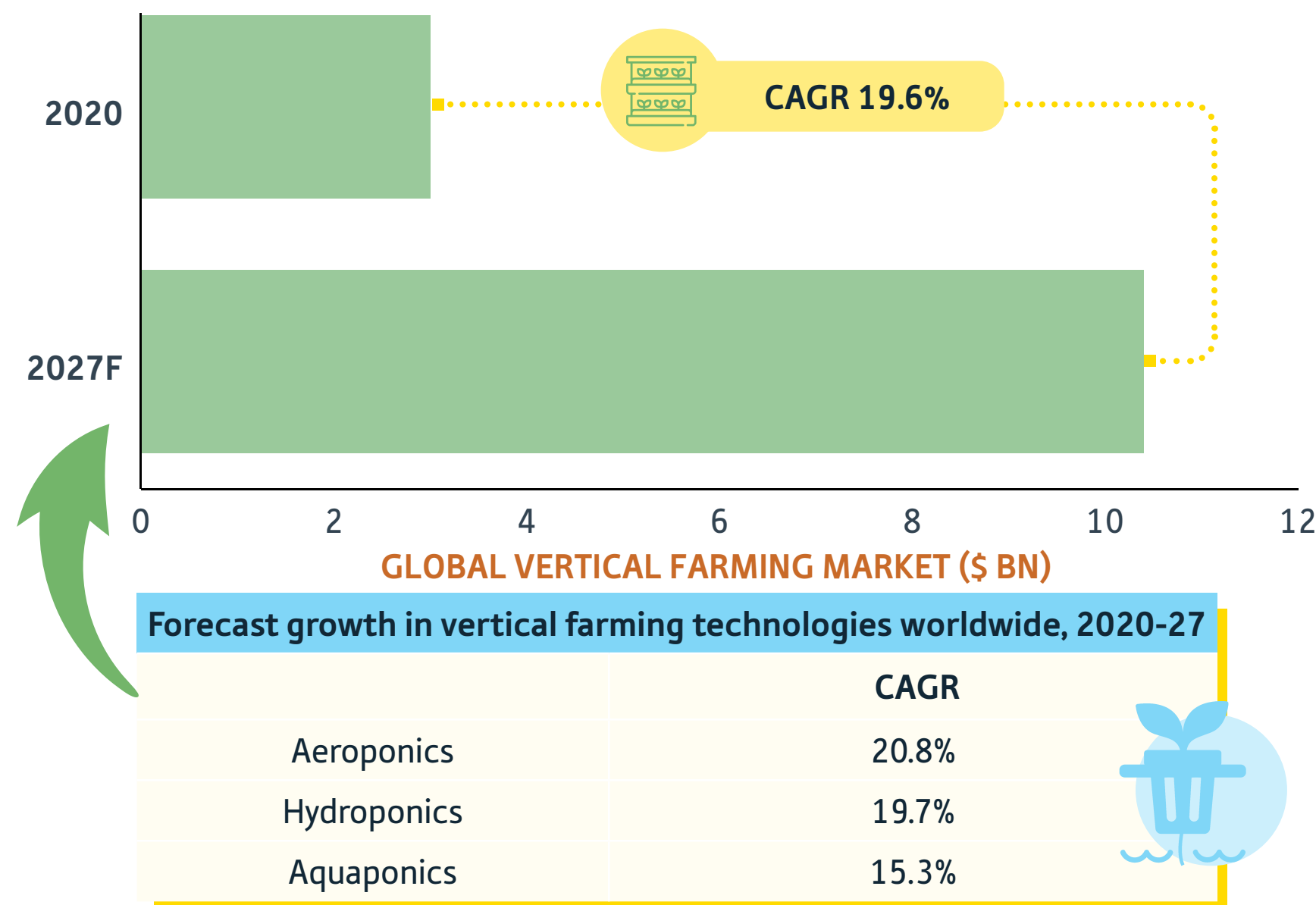
Agri-tech innovations offer the potential to enhance global food security in the face of challenges such as climate change and undernourishment. Agri-tech was a priority for GCC governments before the outbreak of Covid-19 but has taken on renewed importance due to pandemic-related supply pressures. Qatar and other GCC member countries have fertile technology ecosystems and deep pools of public and private capital that can be channelled towards agri-tech innovation. Globally, agri-tech funding is projected to increase significantly in the medium term, but the international food security situation would benefit from a rebalancing of investment flows from consumption to production.

Vertical farming and hydroponics hold potential for Qatar to mitigate natural challenges to food security

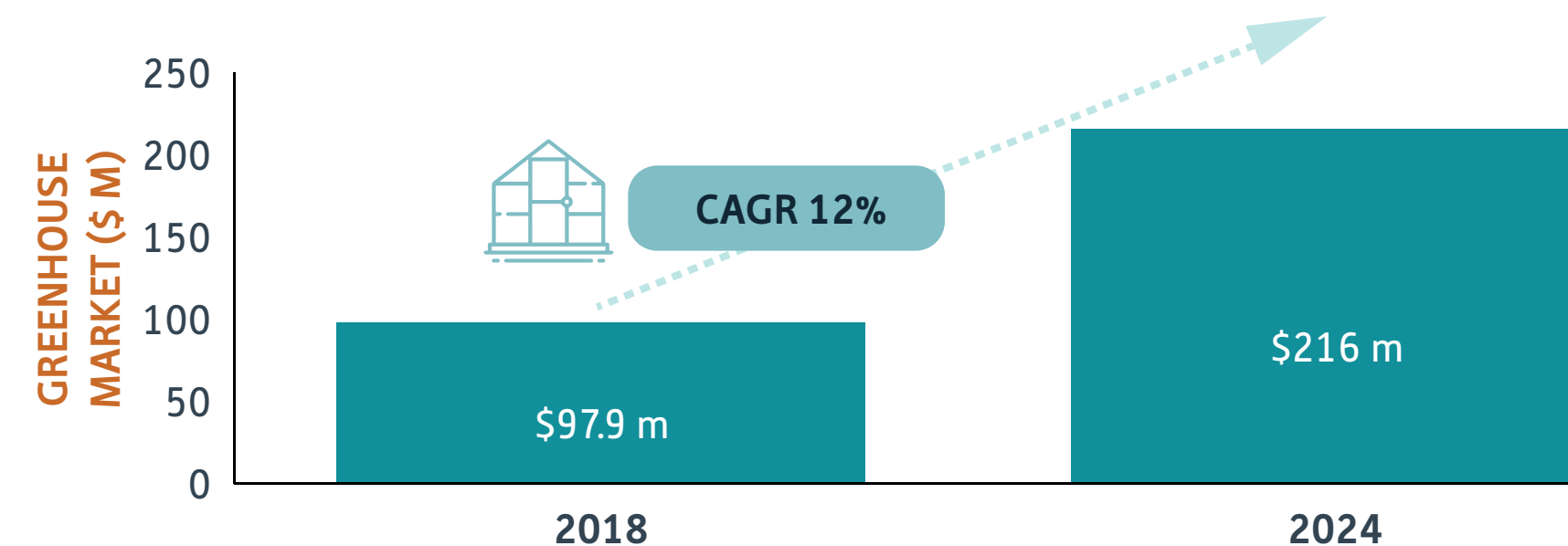
10 advantages of hydroponic and vertical agriculture systems

- 1 Hydroponic systems use approximately 80-99% less water than open-field agriculture
- 2 Suitable across diverse climates and agro-ecological zones, including arid areas
- 3 Positive impact on the environment and on natural resource management
- 4 Impact minimisation as production area is separated from the wider natural ecosystem
- 5 Can be deployed in both urban and rural areas
- 6 Independent from external conditions and climate hazards
- 7 Simplified supply chain and reduced logistics cost due to the minimisation of distances between producer and consumer
- 8 Consistency in food production
- 9 Space optimisation
- 10 Reduction in the use of chemicals and pesticides

Global vertical farming market set for significant growth



Greenhouse technology adoption is in the rise in Qatar

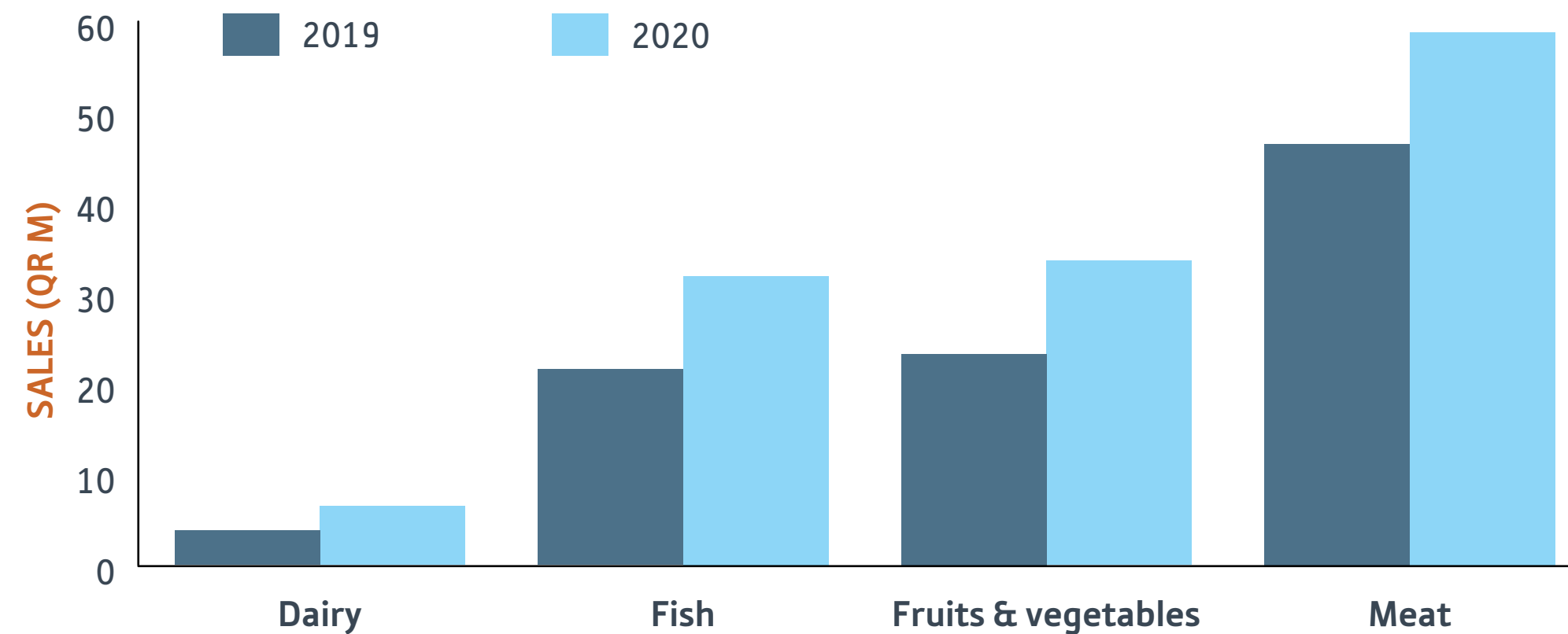


Sustainable optimisation

The geography and climate of Qatar make it extremely challenging for traditional agriculture to thrive in the country. In order to enhance food security, Qatar aims to develop a national agricultural production system that can meet the needs of its population. Technological innovations such as hydroponics – growing produce without soil using mineral nutrient solutions – and vertical farming – growing crops in vertically stacked layers in a temperature-controlled environment – are increasingly being deployed in Qatar alongside more conventional greenhouses to ramp up domestic production. Such techniques help Qatar to improve food security in a sustainable way by optimising water consumption and soil usage.

CASE STUDY: Healthy food options take centre stage in stores as consumer awareness grows

Lulu's sales of fresh food increased in all categories in 2020



Objectives of the UN IYFV 2021 supported by Lulu



Promoting diversified, balanced, and healthy diets through fruit and vegetable consumption

Raising awareness of the nutrition and health benefits of consuming fruits and vegetables



Reducing losses and waste in fruits and vegetables through sustainable consumption

New healthy food options offered by Lulu



Low-sugar pastries and confections



Reduced salt in hot meals



Sunflower oil instead of palm oil to enhance sustainability



Dedicated store sections for vegan, gluten-free, organic, probiotic and superfood options

All categories have an online presence and options for home delivery, including click-and-collect and express one-hour delivery



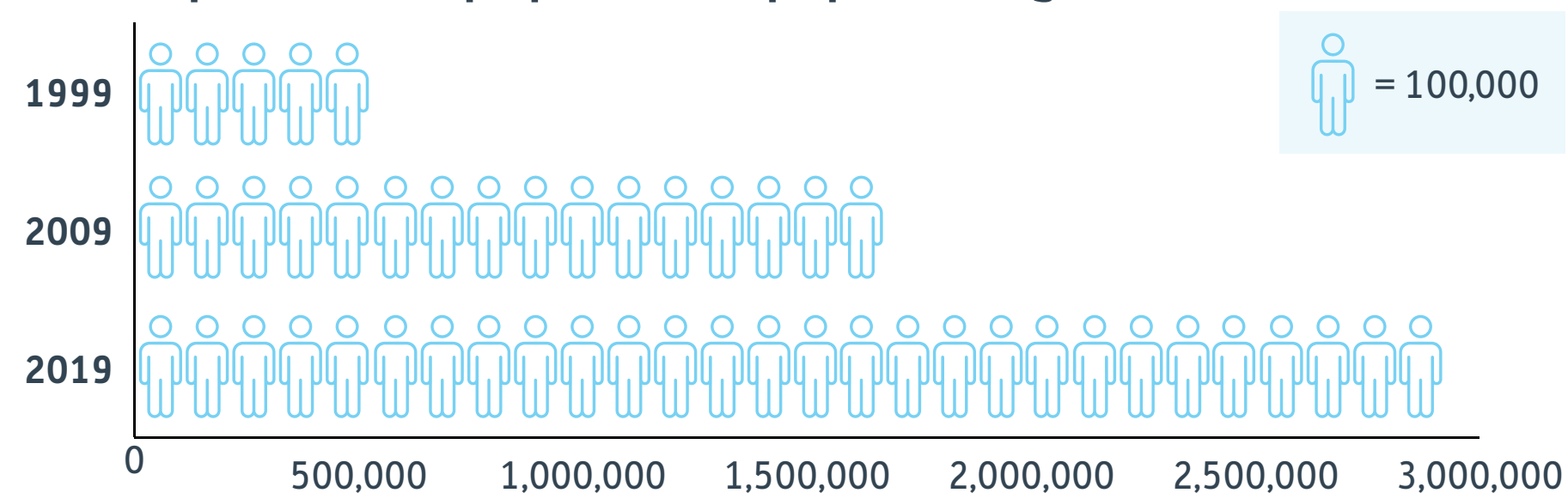
Promoting well-being

With more Qatari consumers looking to improve their well-being and lifestyle, Lulu is adapting its product offerings to provide a diverse range of fresh and wholesome food options to help consumers adopt better eating habits. By including a wider array of fresh fruits and vegetables in its stores across Qatar, Lulu is also playing its part in supporting the UN's International Year of Fruits and Vegetables (IYFV) 2021, a global campaign which seeks to promote the consumption of fresh fruits and vegetables. To this end, Lulu is working to roll out dedicated sections in its stores for specific healthy food options and will also be enhancing its local production capacity.

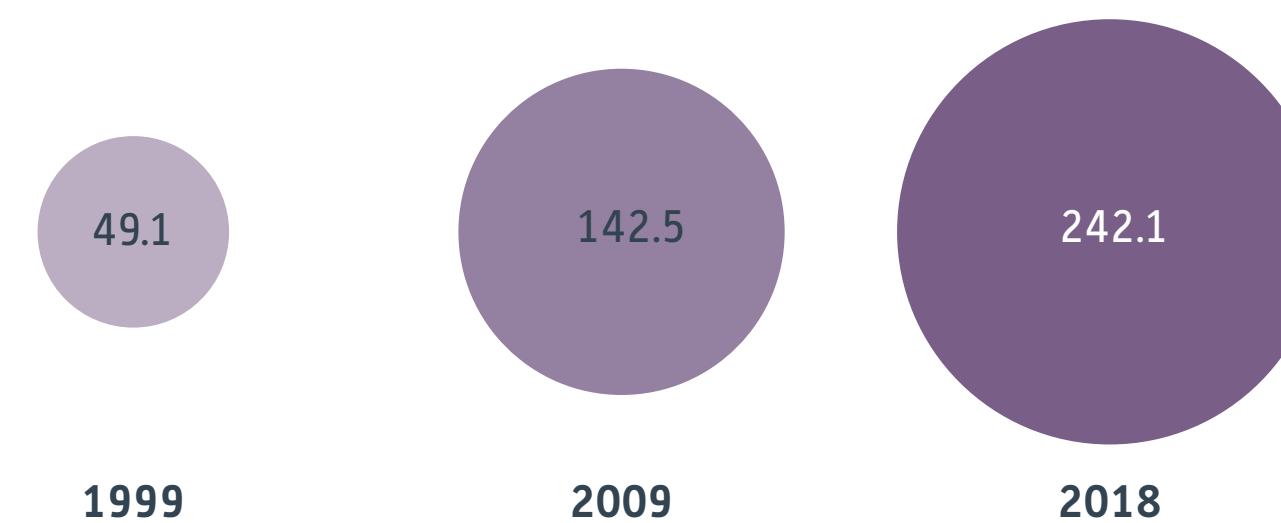
CASE STUDY: Expansion of Lulu's retail footprint into previously underserved areas boosts food accessibility



Lulu's expansion keeps pace with population growth



Population density in Qatar (people per sq km)



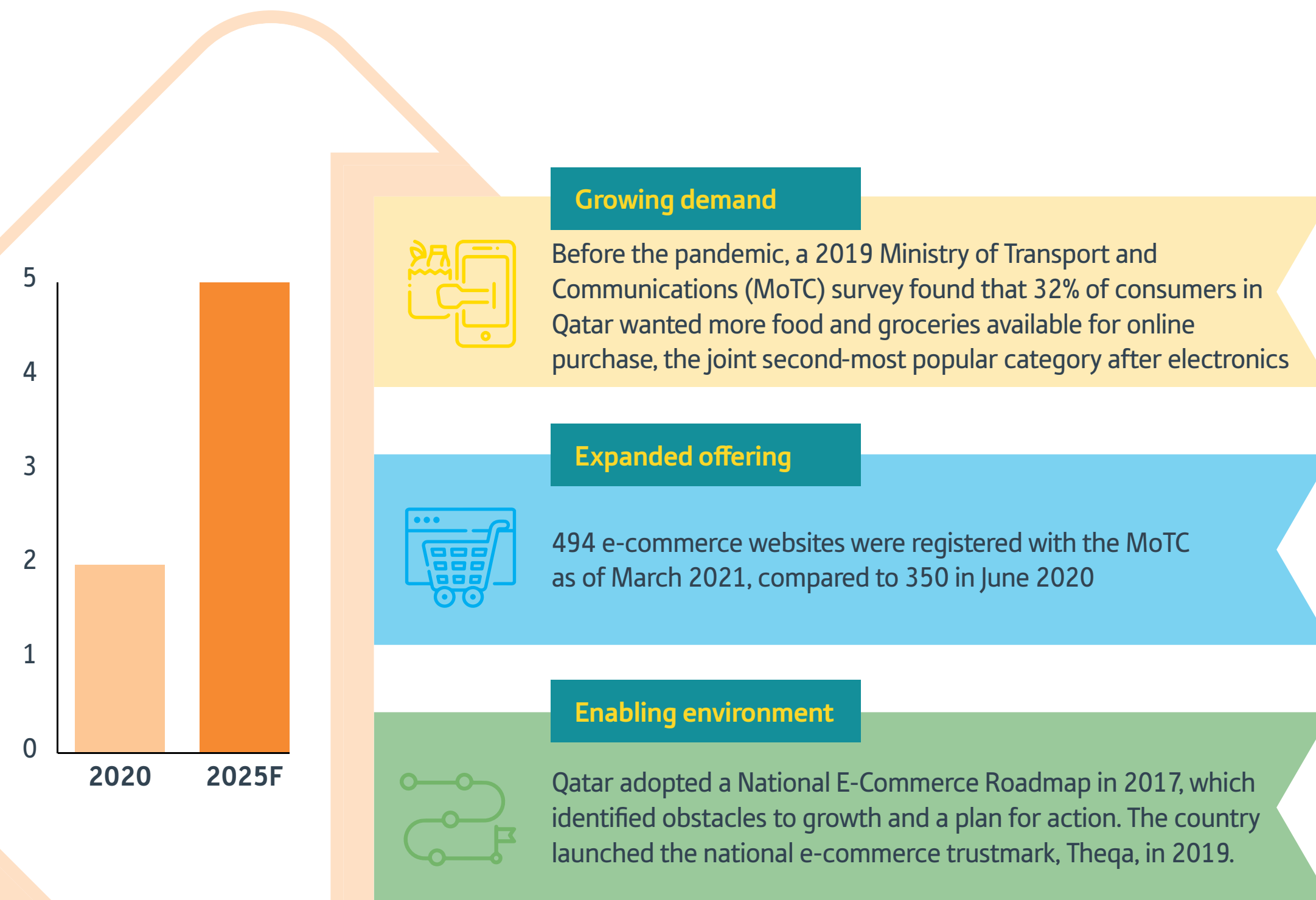
Rapid population growth has created new demand for essential food retail services in areas of Doha and beyond

Growing in tandem

Over recent decades, Qatar's rapid economic development and proliferation of mega-infrastructure projects have helped to attract a large influx of international workers to the country. As a result, new urban and suburban real estate developments have sprung up in Doha and its environs to cater to the needs of a diverse range of residents. In tandem with this, major supermarket chains like Lulu Hypermarket have expanded their footprint to ensure that the residents of fast-growing settlement areas have access to essential food retail services. Lulu now has a diverse portfolio of stores across the country, employing some 4500 staff.

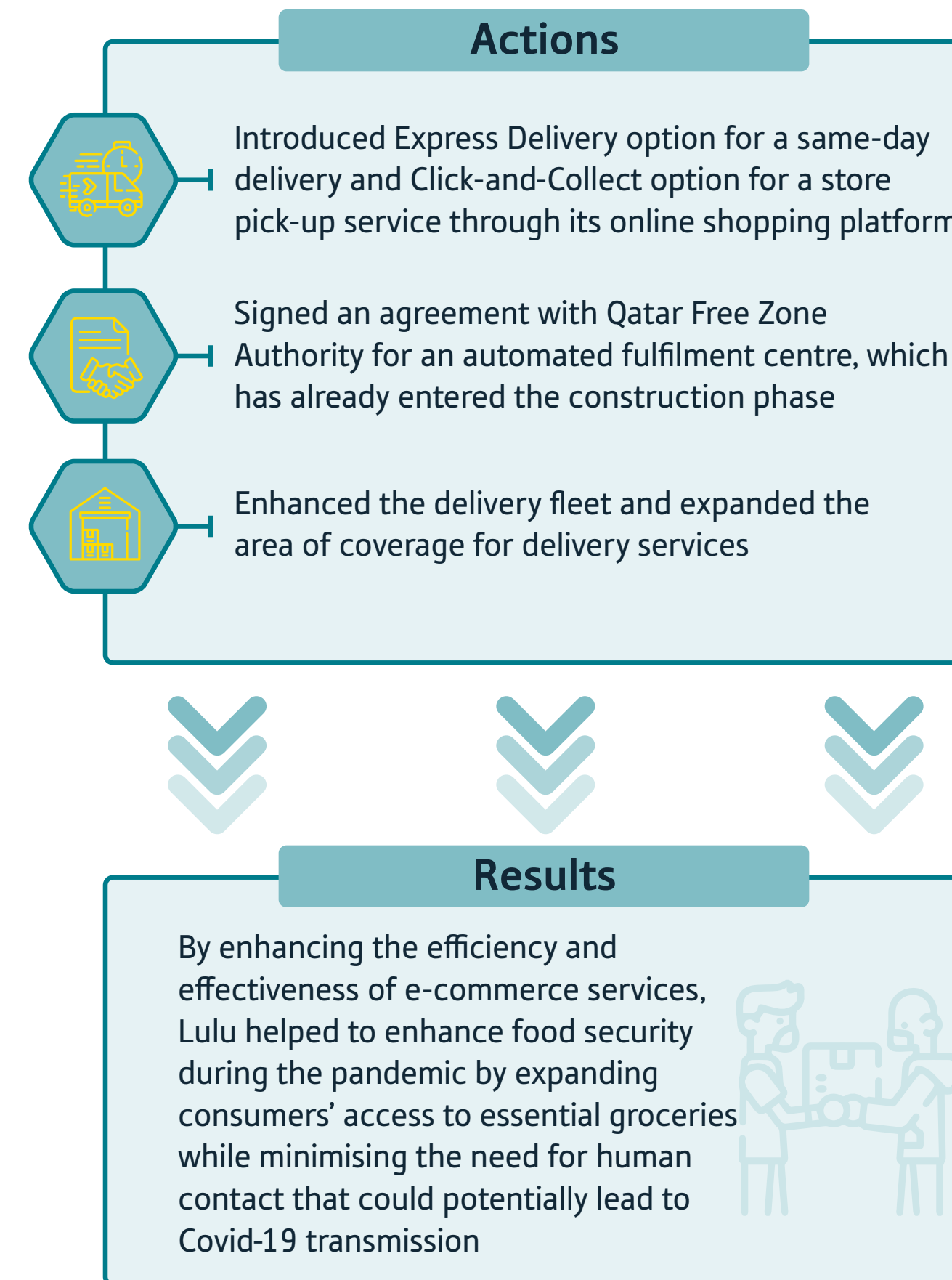
CASE STUDY: E-commerce and omnichannel solutions help to expand the reach of food retailers across Qatar

E-commerce market size* in Qatar, 2020-25F (\$ bn)



* Estimates adjusted for the impact of Covid-19

Lulu strengthens e-commerce and omnichannel offering

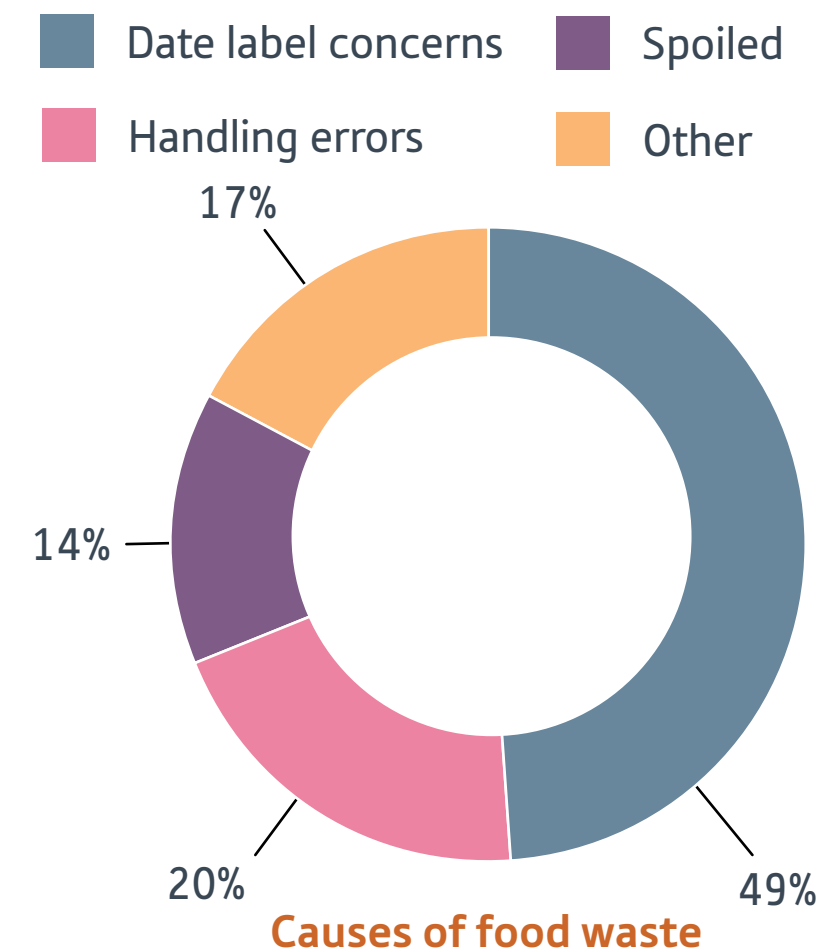


Evolving tastes

Social distancing and the accelerated migration to e-commerce during the Covid-19 pandemic have changed the face of food sales and forced retailers to adapt to rapidly evolving consumer demands. As a result, Lulu had to accelerate its pre-existing strategies for digital transformation and omnichannel retail solutions to keep pace. Omnichannel retail is a multiplatform approach to sales that seamlessly blends the customer experience between online and offline channels. With a mall culture firmly embedded among the increasingly tech-savvy Gulf consumer class, Lulu is placing omnichannel retail at the centre of its strategy for post-pandemic growth in Qatar and the region.

CASE STUDY: Food retailers have a key role to play in the transition to a sustainable economic model

Global food retailers face waste challenges



Global retailers generate **10.5m** tonnes of surplus food annually, nearly **35%** of which goes to landfill or is incinerated as waste

ReFED estimates global food retailers could make significant cost savings through adopting waste reduction solutions, including:

Enhanced demand planning	\$5bn
Decreased transit time	\$2bn
First expired, first out	\$2bn
Intelligent routing	\$2bn

“As part of our commitment to Qatar National Vision 2030, we have been actively working to curb carbon emissions, reduce food waste and promote healthy eating. As an essential service, we believe the retail sector also has a responsibility to reduce our impact on the environment”

Mohamed Althaf,
Director of Lulu Group International

Actions at Lulu to support sustainability

- Championing plant-based food options with sections totalling 5000 sq metres across all stores
- Introducing biodegradable shopping bags made from potato starch and giving customers the option of using reusable shopping bags
- Introducing a “borrow a bag” programme to encourage customers to think about reusable bags
- Establishing a policy around the correct collection and disposal of used cooking oil
- Designing new buildings with energy efficiency in mind and shifting to LEDs
- Introducing energy-efficient refrigeration units and bakery ovens
- Educating staff about water usage and recycling
- Working with Lulu’s local and international suppliers to reduce packaging and encourage recycling
- Trialling innovative food waste solution ORCA, which recycles food waste by breaking it down mostly into water, as well as some carbs, fats and proteins, which are then repurposed
- Opening waste recycling kiosks where customers can safely dispose of used batteries

Responsible consumption

Lulu Hypermarket has joined the Ellen MacArthur Foundation as a network member to facilitate collaboration in accelerating the transition to a circular economy. A circular economy model minimises waste and pollution, maximises resource efficiency, and promotes the reuse, sharing, repair, refurbishment and recycling of materials. Concrete actions taken at Lulu to support a circular economy model include the segregation of packing cartons and paper waste, which is collected by approved recycling partners and converted into reusable products. Customers will soon be offered a refill option in selected grocery categories, enabling them to refill their containers when they run out.

Mohamed Althaf, Director, Lulu Group International



————— “ —————
To us, food security means that food is not only available, but also sustainably sourced, affordably priced and easily accessible
————— ” —————

How would you evaluate the food security situation in Qatar compared to the rest of the region during the Covid-19 pandemic, and what factors enhanced the country's resilience in this area?

ALTHAF: Qatar faced serious challenges and supply chain disruptions in 2017 when trade restrictions were imposed by some Gulf neighbours. The country quickly learned from this experience and was able to develop effective solutions. Qatar diversified its sources of food imports, recalibrated various supply chains, upgraded logistics capabilities with a new port, streamlined cargo movements at the airport, and enhanced storage and cold-chain facilities. As a result, the country was in a relatively resilient position in terms of food security when the pandemic began.

In what ways were domestic food production and consumption patterns impacted by the pandemic, and how will this disruption shape future development of the food retail segment?

ALTHAF: There was a decisive shift in consumer preferences towards local produce and healthier food during the pandemic as consumers became more health-conscious. Shoppers preferred less-processed food, and showed increased interest in organic options and products with the potential to boost the immune system. We also witnessed a boom in home baking and culinary experimentation as people found themselves with more leisure time at home due to travel restrictions, curbed business hours and a ban on large gatherings.

What is your assessment of the local innovation ecosystem when it comes to the deployment of agri-tech solutions to mitigate challenges such as water scarcity and desertification?

ALTHAF: The pandemic highlighted food security challenges and led to a re-evaluation in the way that technology is employed in agriculture. New technological solutions like vertical farming are generating increased attention, and both public and private sector stakeholders are exploring options to reduce import dependency and shorten the distance between growers and consumers. Climate-sensitive practices to extend growing seasons and more diverse crop selections are also being actively explored.

Where do you see nutrition and the expansion of healthy food options strengthening long-term food security in Qatar, and what can be done to ensure nutritious food is available at affordable prices?

ALTHAF: To us, food security means that food is not only available, but also sustainably sourced, affordably priced and easily accessible. Lulu has already made commitments to reduce fat, sugar and salt in all in-house products by 30%, and we have the largest selection of fresh produce available in Qatar. We are also pioneers in offering plant-based protein products not only in the specialty vegan category, but across product groups in our stores. All in-store, ready-to-eat meals contain balanced nutrition, and Lulu carries a dedicated “free from” organic label to help people make informed, healthy choices.

Resilience

Qatar entered the pandemic with a strong and stable economy capable of withstanding sudden shocks

The trade dispute with several neighbouring countries helped Qatar to scale up domestic food production and diversify its trade partners

Qatar has long-standing food security policies and self-sufficiency strategies that have generated positive results

The country's food security policies align with global strategies from the UN

Response

The pandemic helped to foster greater collaboration among GCC members in tackling common food security challenges

The September 2021 UN Food Systems Summit should lead to enhanced international engagement to address problems

Retail chains are supporting Qatari farmers by providing guaranteed, dedicated space for locally grown produce

Social-distancing protocols, personal protective equipment and cashless payment options created a safe food retail environment

Reinvention

The global agri-tech segment is poised for a post-pandemic investment boom

Vertical farming and hydroponic techniques can help Qatar compensate for a lack of arable land

Food retailers have an important role to play in ensuring healthy food options are widely available at affordable prices

A reduction in food waste, packaging and plastic bags could enhance sustainability in food retail

6 Key Takeaways

1

Self-reliance

The trade dispute with several of Qatar's neighbours in 2017-20 had the unintended consequence of strengthening its food security position, as it spurred the country to ramp up domestic production capacity and diversify global trade partners, thereby easing reliance on larger GCC countries for imports.

2

Strategies

A number of integrated strategies and programmes are guiding Qatar's long-term food security priorities and enhancing self-sufficiency in essential food items. Qatar's actions in this area align with global targets put forward by the UN and are helping to boost the country's performance in international indexes linked to food security.

3

Farm to store

Food retailers like Lulu have an important role to play in supporting Qatari farmers' efforts to scale up production and move their goods to market quickly and efficiently. Lulu has numerous promotional activities around local produce and engages deeply with domestic farms to ensure their items reach the shelves in a quick and reliable fashion.

4

Safety

Food retailers were on the front line of the pandemic response, as they had to remain open safely to ensure customers could access essential items. As such, they had to take great care to ensure the safety of staff and shoppers by maintaining strict social distancing, personal protection and hygiene procedures, as well as e-commerce and digital payment options.

5

E-commerce

The expansion of e-commerce offerings and related last-mile delivery services and storage infrastructure should support Qatar's food security goals over the long-term by increasing the options available to consumers and ensuring essential food items are always available, even during times of crisis.

6

Innovation

Qatar is working to overcome water scarcity and infertile soil by applying innovative techniques like vertical farming and hydroponics. After the pandemic exacerbated challenges around food security, the global agri-tech market is poised for an investment boom, with Qatar and other GCC members facing similar challenges at the forefront.

