



QATAR AGRICULTURE
SECTOR OVERVIEW
2020



INTRODUCTION

This agriculture sector overview (“**Overview**”) has been prepared by Consulting HAUS LLC and seeks to provide a summarized view of the agriculture sector in Qatar based on information collected from various published sources such as the Planning and Statistics Authority (“**PSA**”) and information gathered via primary market interviews with a cross section of market participants in Qatar.

After assessing the various sources of data, and taking into consideration the primary market research, the Overview concludes upon the market opportunity for agriculture projects (with a focus on fresh produce) in the coming years.

Users are encouraged to undertake their own independent research before making any business-related decisions based on the content of the Overview.

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AN INTRODUCTION TO CONSULTING HAUS LLC

CONSULTING HAUS LLC IN QATAR

Established a little over a year ago, Consulting HAUS LLC has emerged as Qatar's only boutique corporate finance firm with a focus on supporting SMEs and large corporates. During the first year of operations we oversaw the successful delivery of several strategic engagements including:

- The provision of project management services to the founding board of a bank;
- Supporting successful Tawteen applicants to prepare detailed market, technical and financial feasibility studies;
- Undertaking a number of high-profile valuation assignments including purchase price allocations and intangible asset valuations;
- Being appointed as sell-side advisors to a number of companies including a market leading manufacturing company and one of the newest most technologically advanced health centers in Qatar; and
- Restructuring a group of gyms, following which an investor was found to support an expansion plan.

In 2019, we also implemented our virtual CFO services which are specially aimed at supporting SMEs to improve performance, manage cash and drive value.

In 2020, our focus will remain on maximizing the value of our clients' businesses by providing hands on support and being seen as an extension to our clients' management teams.



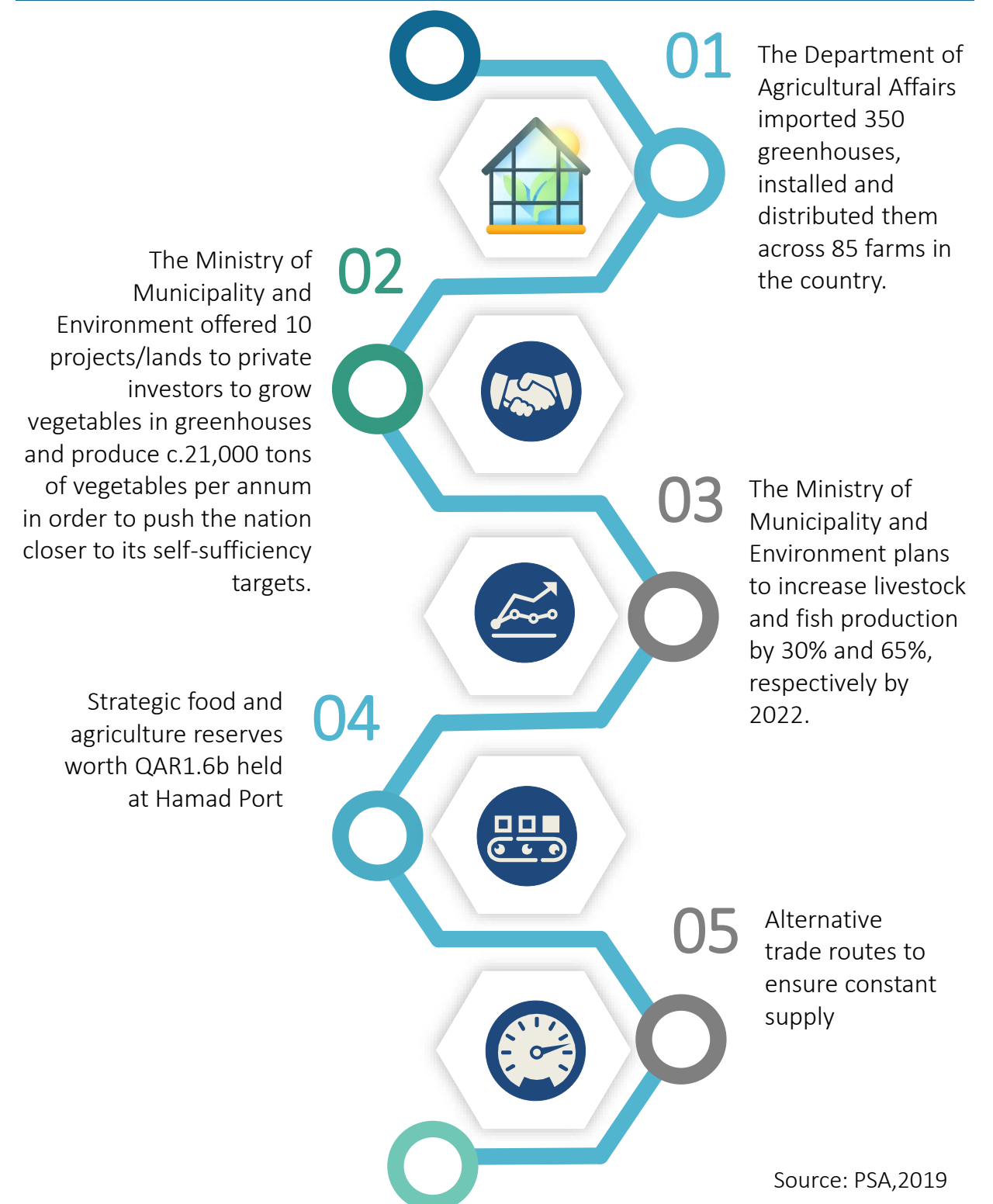
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THE RECENT COVID-19 CRISIS HAS FURTHER AMPLIFIED THE NEED TO INCREASE THE LEVEL OF FOOD SECURITY BY INCREASING THE SUPPLY OF LOCAL FRUITS AND VEGETABLES...

OVERVIEW

- Due to the harsh climate conditions, freshwater scarcity and the poor soil quality, the agriculture sector is one of the most difficult sectors to develop in Qatar. During 2018, c.90.0% of Qatar's food requirement was covered by imports and the agricultural trade deficit stood at QAR4.38b.
- The high dependence on foreign food imports was highlighted during the blockade that was imposed on Qatar by a number of neighboring countries during 2017 (the "Blockade").
- Following the Blockade, the government took decisive action to increase the level of food security which included supporting the establishment of Qatar's largest dairy farm (Baladna Food Industries W.L.L) and launching a number of initiatives to support and encourage the production of local produce. These initiatives also support the targets of Qatar's National Food Security Program ("QNFSP") which is aimed at developing recommendations for food security and seeking international organizations and NGOs to better utilize resources and develop agricultural technologies to increase productivity and efficiency.
- The recent COVID-19 crisis has further amplified the need to improve the level of food security by increasing local supply of fruits and vegetables.
- Whilst recent initiatives have been put in place to reduce the reliance on imports (particularly in relation to basic food/agriculture products), Qatar is still highly reliant on global supply chains to satisfy local demand for basic food items.

RECENT DEVELOPMENT TO IMPROVE FOOD SUPPLY



Source: PSA,2019

QATAR HAS 13 INITIATIVES TO MAKE ITS FOOD SYSTEM MORE ROBUST AGAINST POTENTIAL SUPPLY SHOCK SCENARIOS IN THE FUTURE...

FOOD SECURITY STRATEGY INITIATIVES

DOMESTIC MARKETS

- Streamline the domestic go-to-market model (farmgate to retail) to ensure transparency in the price setting process and assist farmers in improving their productivity and quality of produce
- Establish integrated food waste program, including collection and treatment / alternative usage of organic waste
- Optimize and simplify the governance of food standards in Qatar, to monitor food safety in the country and to supervise quality certification more effectively

STRATEGIC RESERVES

- Leverage the private sector to store a broad range of products to act as a permanent short-term buffer against shocks to the system
- Put in place strategic reserves of perishables and select non-perishables as an insurance against potential trade and production disruptions
- Increase potable water reserves as an insurance against potential crisis scenarios, balancing risk-exposure and 'insurance' cost
- Reduce net depletion of the aquifer by optimizing water usage in agriculture



INTERNATIONAL AND TRADER LOGISTICS

- Geographically diversify trade partners for critical commodities to reduce Qatar's exposure to external factors by having 3-5 partners per critical commodity
- Proactively put in place contingency plans to limit the impact of trade shocks or other unexpected disruptions

DOMESTIC SELF SUFFICIENCY

- Increase vegetable production by establishing a hydroponics greenhouse cluster to reach 70.0% self sufficiency for certain greenhouse vegetables
- Expand and improve production capacity for red meat (fattening units and breeding farms for sheep and goat) and fisheries (fish farms)
- Cap production of fresh milk and poultry to 100% self-sufficiency by discontinuing tenders and redirecting capacity to other purposes (shifting poultry surplus to egg production)
- Reduce ground water-based fodder production by switching to treated sewage effluent

Source: PSA, 2019

IN 2019 MME OFFERED 10 PLOTS TO PRIVATE INVESTORS TO GROW C.21,000 TONS OF VEGETABLES USING MODERN GREENHOUSE TECHNOLOGIES...



GOVERNMENT INITIATIVES

- There are several government initiatives that have been introduced in the last few years to boost the agriculture sector, the main ones being:
 - i. Supporting open field agriculture by supplying free low-tech greenhouses thereby increasing the productivity of these farms as well as the quality of their produce;
 - ii. In 2019, the Ministry of Municipality and Environment (“MME”) announced measures to increase the rate of self-sufficiency in vegetables production. As part of these measures, the ministry offered 10 projects/lands to private investors to grow vegetables in greenhouses and produce approximately 21,000 tons of vegetables per annum in order to push the nation closer to its self-sufficiency targets;
 - iii. Ensuring that produce can always be sold in the market at attractive prices. This was achieved via the introduction of several programs to facilitate the supply chain of the agriculture sector (further details provided on page 9). For example, Mahaseel has direction to purchase the produce from any farmer no matter of the type, quantity or quality and offers fixed prices for each grade (i.e. grade A, B or C). The fixed prices are a way of providing indirect subsidies to local farmers;
 - iv. Increase the level of financial support provided to agriculture projects by providing cheap finance via Qatar Development Bank; and
 - v. Ensuring that land-owners are honoring their agricultural land licenses by conducting regular site visits and checks. In the event land allocated for agriculture is being used for another purpose, the government will clear the land and request the owner to establish agricultural operations.

THE TOTAL VEGETABLE CONSUMPTION IN QATAR INCREASED AT A CAGR OF C.8.6% FROM 2016 TO 2018 AS COMPARED TO GROWTH IN LOCAL SUPPLY OF 18.0% OVER THE SAME PERIOD...

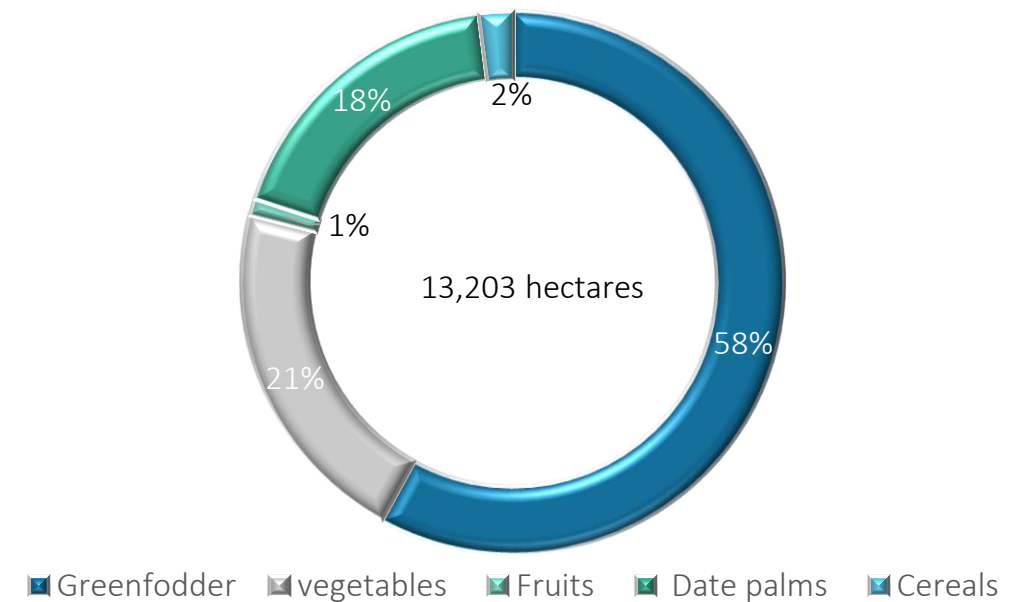
QATAR MARKET

- Qatar's climate is characterized by low rainfall and high temperature. Despite these challenges, the country has made tremendous efforts over the last few years by adopting sustainable and smart agriculture techniques such as hydroponics, smart irrigation and aquaponics that improved the optimum utilization of arable land and quality of fruits and vegetables.
- In 2018, the total cultivable area was c.65,000 hectares out of which only 20.3% (i.e. c.13,203 hectares) was cultivated. The majority of the area (58.0%) was used for green fodder (animal feed), 18.3% was used to plant date palms (this includes road-sides and spaces in the city), 21.0% for vegetables, 2.0% for cereals and 0.6% for fruits.

SELF-SUFFICIENCY

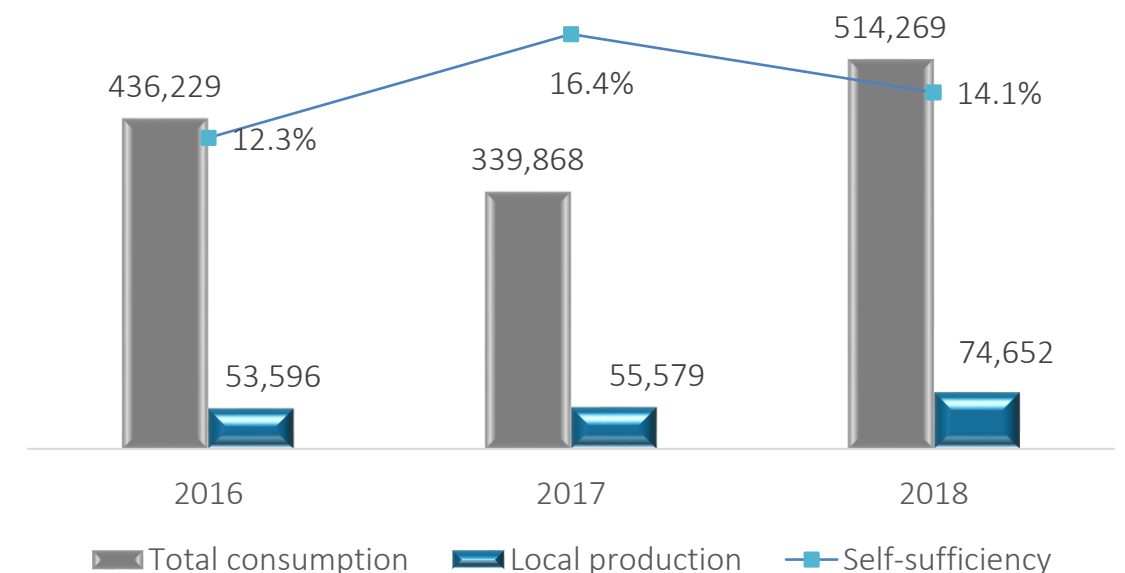
- The recent initiatives taken by the government have resulted in the overall self-sufficiency ratio for vegetables increasing from 12.3% in 2016 to 14.1% in 2018 and this trend is expected to continue over the coming years.
- As illustrated by the adjacent chart (bottom right) there was a spike in the overall self-sufficiency ratio in 2017, however, the self-sufficiency ratio was skewed by the significant reduction in imports as a result of the Blockade.
- Based on QNFSP strategy for 2018-2023, the government targets to increase the self-sufficiency of certain vegetables to 70.0% by 2023 (up from 20% in 2018).
- The government also aims to convert 110 hectares of land to high tech green houses using hydroponics technology to achieve 70.0% self-sufficiency for a number of specific greenhouse vegetables.
- It is worth noting that the self-sufficiency ratio of vegetables is seasonal, and in order to understand the true self-sufficiency of a particular fruit or vegetable, it is important to look at the monthly (rather than annual) self-sufficiency ratios. As an example, the annual self-sufficiency ratio for tomatoes in 2018 was 35%, however, the ratio in February 2018 exceeded 70.0% but reduced to zero in the summer months with the local demand being satisfied through imports.

AGRICULTURE LANDS SPLIT (%) BY TYPE OF CULTIVATION



Source: PSA,2018

TOTAL PRODUCTION, CONSUMPTION OF VEGETABLE (TONS) AND SELF-SUFFICIENCY (%) IN 2018



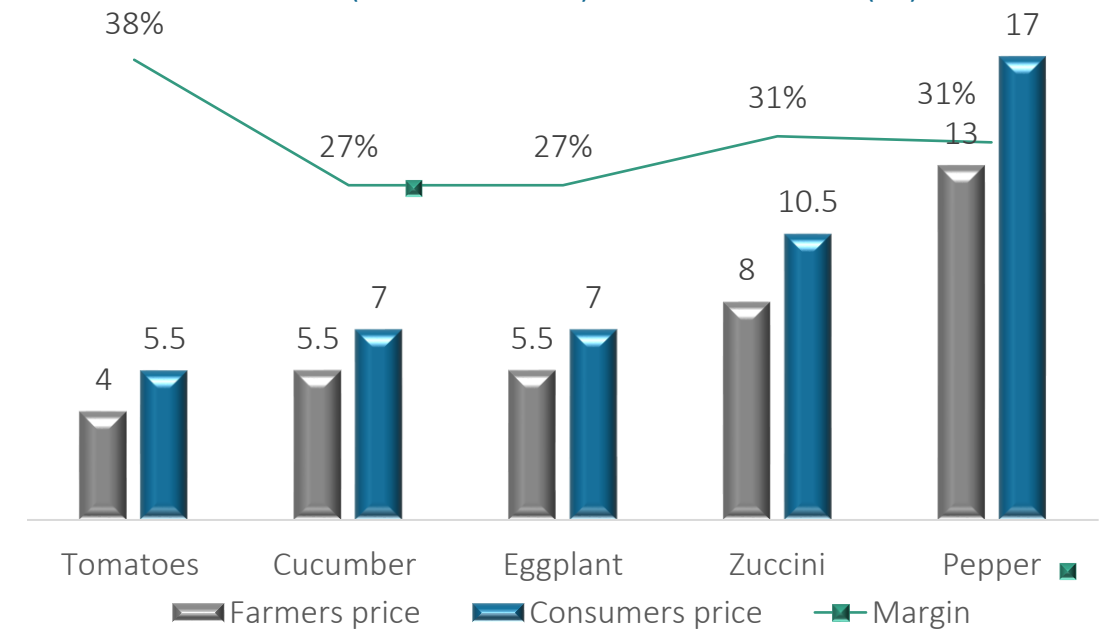
Source: PSA,2018

THE LATEST INITIATIVES BY THE GOVERNMENT ENSURES MINIMUM PRICE GUARANTEE FOR THE LOCAL FARMS...

PRICES FOR VEGETABLES

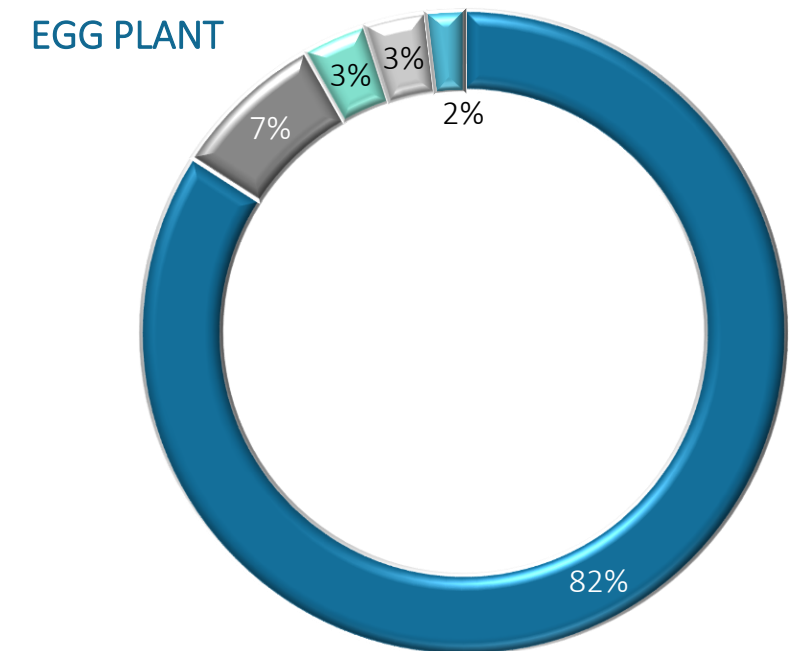
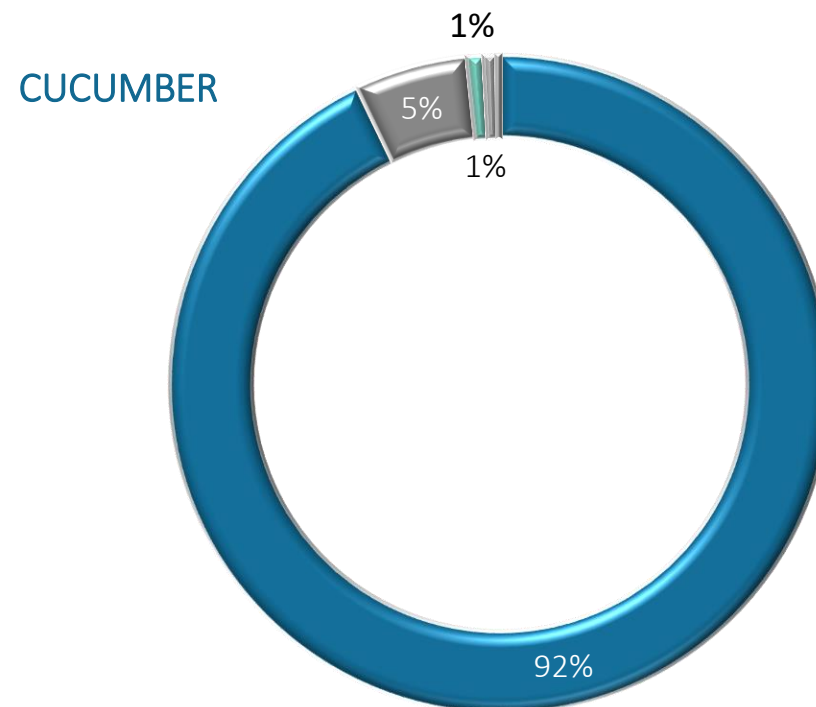
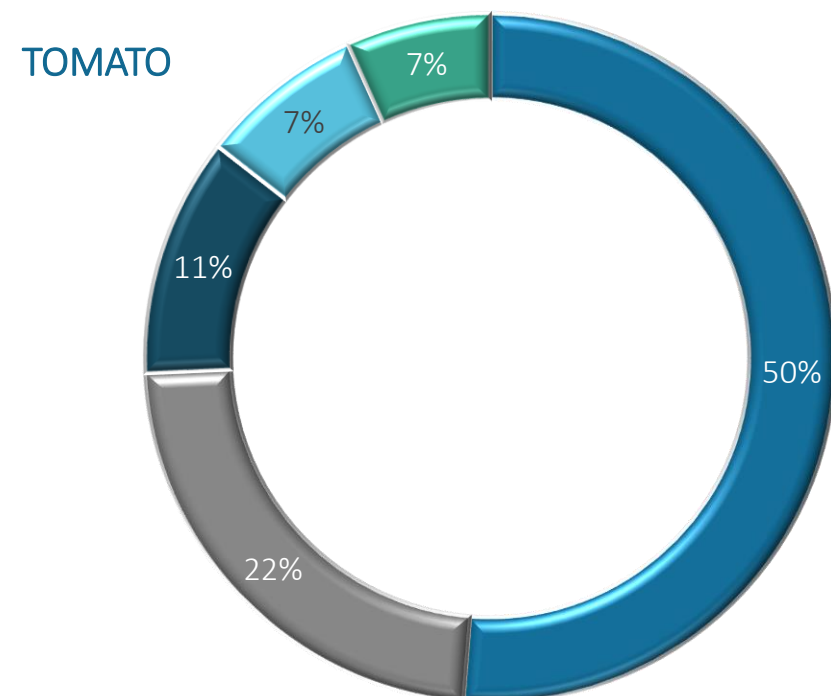
- The price of vegetables is influenced by following parameters:
 - The country of origin;
 - The season;
 - Organic and inorganic; and
 - Grading and quality.
- The introduction of the minimum price guarantee for local farmers makes green house farming an attractive and lucrative sector.
- The prevailing market prices in 2020 together with the estimated margins are detailed in the adjacent chart.

VEGETABLE PRICES (QAR PER KG) AND MARGIN (%)



SNAPSHOT OF TRADE PARTNERS FOR PERISHABLE VEGETABLES (2018)

Source: MEC,2020

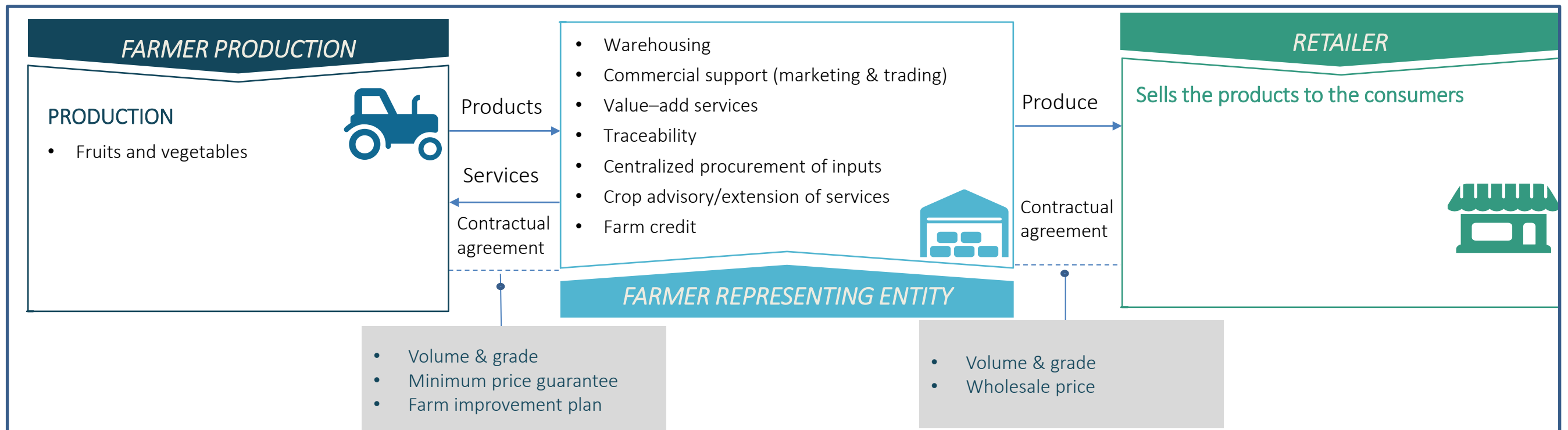


■ IRAN ■ INDIA ■ TURKEY ■ MOROCCO ■ JORDAN
■ IRAN ■ INDIA ■ LEBANON ■ BANGLADESH
■ SRI LANKA ■ IRAN ■ INDIA ■ LEBANON ■ BANGLADESH ■ PAKISTAN

Source: PSA,2020

THE FARMER SUPPORT PROGRAM HAS BEEN ESTABLISHED TO SUPPORT FARMERS BY SHARING KNOWLEDGE AND HELPING WITH WAREHOUSING, DISTRIBUTION AND OTHER KEY SERVICES...

SUPPORTING THE DOMESTIC MARKET



DISTRIBUTION CHANNELS

MAHASEEL

- A marketing and agricultural services company established in 2018 by Hassad Foods.
- Purchases produce from farmers, regardless of product, based on 3 different pricing models: daily, weekly and long-term.
- Provide logistical support where the farmers only need to deliver their produce to a Mahaseel warehouse using pre-provided Mahaseel crates.
- Offers favorable payment terms to the farms of only 10 days regardless of whether the products were sold or not.
- This program is specific to products grown in greenhouses or net houses.

QATAR FARMS

- This program is aimed at less advanced farms with a low budget and thus does not require the produce to be grown in greenhouses which leads to lower quality produce.
- Qatar farms does not require the registered farmers to pack their products.
- This program has helped market c.4,750 tones of local vegetables since its launch in 2018 with 140 farms utilizing the program.
- The price fluctuation risk is subsidized which means that the farms under this program are shielded from this risk.

QATAR PREMIUM PRODUCT

- This program is tailored to the 'high-end' products and larger farms.
- Under this program, farms benefit from special prices (usually higher than the other two programs), however, the products that qualify for this program must be of a high grade and must be ready packed (i.e. ready for sale in supermarkets etc.).
- To achieve the higher-grade products, the produce must be grown in hi-tech greenhouses (generally using hydroponic technology).

REFORMS IN PRIVATE INVESTMENTS AND INITIATIVES TO INCREASE THE SELF-SUFFICIENCY WILL DRIVE THE GROWTH AGRICULTURE SECTOR GOING FORWARD...



STRENGTHS

- The large hydrocarbons revenues have allowed the government to develop ambitious and well funded development plans such as those outlined in Qatar National Vision 2030 and QNFSP.
- Qatar agriculture industry is developing due to increasing demand, availability of advanced technologies, low water requirement in horticulture process and government initiatives.
- The demand for perishable crops is high.
- The sector is largely shielded from macro-economic and political risks as fresh agricultural products are a basic requirement of modern-day society.
- Projects have low to medium capex requirements, high margins and low pay back periods.



WEAKNESSES

- Water constraints, extreme temperatures and unavailability of agriculture land are the major constraints in crop production in Qatar.
- The limited groundwater that permits agriculture in some areas is being depleted so rapidly that the level of saltwater is increasing making the soil inhospitable to all but the most salt-resistant crops.
- Achieving high crop yields all year round requires investment in more expensive technologies that enable production to continue in the summer months.



OPPORTUNITIES

- Large market gap/opportunity for locally grow fruit and vegetables.
- The government aims to achieve self-sufficiency and reduce the reliance on imports.
- The government has initiated a number of programs such as minimum price guarantee, technology support and distribution through various government entities to support the local farms.
- Cheap finance is available.
- Benefit from direct and in-direct subsidies.
- Limited competition.



THREATS

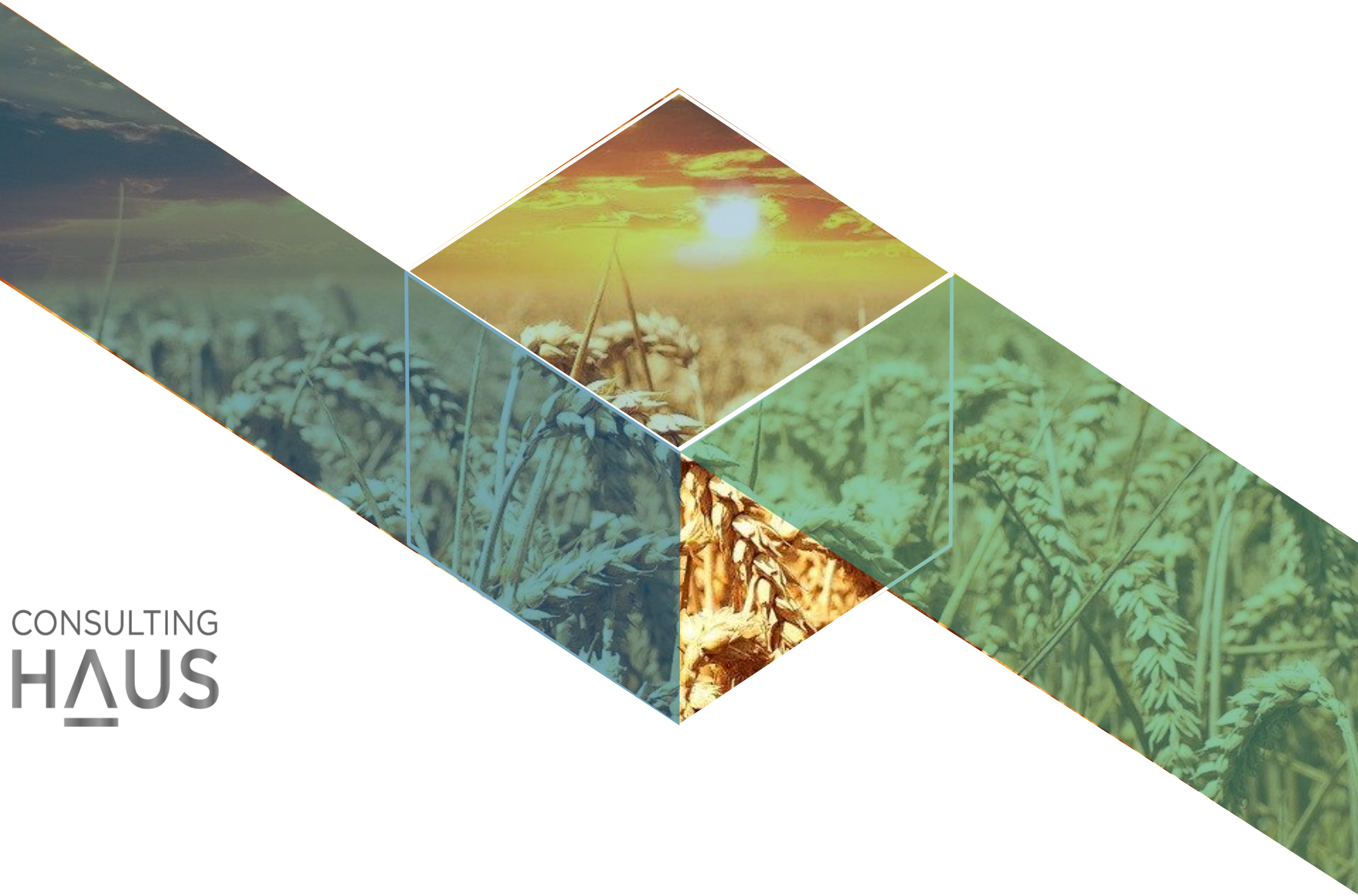
- Oil price fluctuations impact government spending which in turn could effect the sector. However, due to healthy financial reserves coupled with the strategic importance of the sector, agriculture projects are expected to witness continued government support going forward (regardless of fluctuations in the oil prices).
- Regional security threats are heightened owing to GCC involvement in the conflicts in Iraq, Syria, Yemen and Libya.
- The harsh climate and lack of ground water for irrigation.
- Increased costs associated with purifying water in the event the salt content continues to rise.

AS A RESULT OF THE BLOCKADE, AND MORE RECENTLY THE COVID-19 CRISIS, THE GOVERNMENT HAVE TAKEN SIGNIFICANT STRIDES IN IMPROVING FOOD SECURITY...



CONCLUSIONS

- The agriculture sector is expected to witness sustainable growth in the coming years supported by favorable governmental initiatives. Existing farms are expanding their production and new farms are entering the market to take advantage of the favorable conditions.
- The government aims to set-up 110 hectares of greenhouses to produce items such as tomato, cucumber, zucchini etc. and increase the self-sufficiency of these vegetables to 70.0% by 2023. This has created a significant market opportunity.
- Other recent government initiatives such as engaging in PPP initiatives, providing financial support and introducing 'one-stop-shop' distribution channels such as Mahaseel, Qatar Farms and QPP have provided a significant boost to the sector.
- Going forward, additional initiatives are envisaged such as imposing stringent food safety regulations which will act as a barrier to entry against low quality and cheaper imports that may have been exposed to harmful chemicals and pesticides.
- Finally, in addition to increasing the amount of local produce, Qatar has also reduced the risk of its global supply chain by developing strong relationships with a number of global trade partners thereby diversifying the risk associated with imports.
- Overall, the foundations required to ensure growth in the agricultural sector are now in place. Investors are keenly assessing the potential of the sector which offers attractive returns, short pay back periods and is largely immune to downturns in the economy.



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