



Ministry of  
**Industry and Commerce**  
Islamic Republic of Afghanistan

# AFGHANISTAN'S NATIONAL EXPORT STRATEGY 2018-2022

## FRESH FRUITS AND VEGETABLES SECTOR

*Harvesting success in regional  
and global markets*



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The International Trade Centre (ITC)

Street address: ITC, 54-56, rue de Montbrillant, 1202 Geneva, Switzerland  
Postal address: ITC Palais des Nations 1211 Geneva, Switzerland  
Telephone: + 41-22 730 0111  
Postal address: ITC, Palais des Nations, 1211 Geneva, Switzerland  
Email: [itcreg@intracen.org](mailto:itcreg@intracen.org)  
Internet: <http://www.intracen.org>

Layout: Jesús Alés – [www.sputnix.es](http://www.sputnix.es)

# AFGHANISTAN

## NATIONAL EXPORT STRATEGY

2018-2022

### FRESH FRUITS AND VEGETABLES SECTOR



Ministry of  
Industry and Commerce  
Islamic Republic of Afghanistan



International  
Trade  
Centre



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Afghanistan Chamber Of Commerce & Industries  
اتاق تجارت و صنایع افغانستان  
د افغانستان د سوداګرۍ او صنایعو اتاق



# ACKNOWLEDGEMENTS

The Fresh Fruits and Vegetables Strategy forms an integral part of Afghanistan's National Export Strategy. It was developed under the aegis of the Islamic Republic of Afghanistan, the leadership of the Ministry of Industry and Commerce (MoIC) and the Afghanistan Chamber of Commerce and Industries, in close collaboration with the Ministry of Agriculture, Irrigation and Livestock, the Afghanistan National Standards Authority and the Afghanistan Women Chamber of Commerce and Industry. The Strategy benefited from the contributions of sector stakeholders and associations, who played an important role in the consultative process. This Strategy was elaborated thanks to the technical assistance of the International Trade Centre (ITC) and falls under the framework of the European Union (EU)-funded 'Advancing Afghan Trade: EU Trade-Related Assistance' project.

This document reflects the ambitions of the public and private stakeholders who defined the enhancements and future orientations for the sector for the purpose of increasing export performance and social dividends.

## NOTE TO THE READER

Afghanistan's NES was developed based on a participatory approach during which over 500 Afghan industry leaders, small business owners, farmers and public sector representatives held consultations to reach consensus on key sector competitiveness issues and priority activities. **These inclusive consultations were held throughout the country, including in Mazar-e-Sharif, Herat, Kandahar and Kabul, with participation of stakeholders coming from Nangarhar Province.**

Besides in-depth research and value chain analysis, these consultations were complemented by:

- **Factory visits** through which supply chain assessments were carried out to gain further knowledge on key issues such as quality procedures, technical skills, lean management, quality of raw materials, access to market, etc.
- **Interviews with domestic, regional and international buyers** to guide the NES with strategic insights and market intelligence as well as buyers' requirements in terms of quality standards, food safety, packaging, buying cycles, distribution channels, prices, etc.
- **Donor coordination meetings** to identify synergies with ongoing/planned initiatives of development partners to eventually result in collaboration during the implementation phase.

**In spirit and in action:** The NES is aligned with existing national and sector-specific plans and policies and builds on ongoing initiatives in areas related to private sector development, regional integration, investment, and youth and women's economic empowerment.

Equally important, the NES initiative already accommodates budgeting to support implementation of critical pilot activities identified during the design process. This will ensure that impact and momentum are generated from early on, and support further resource mobilization and confidence-building.

The principal outputs of the NES Afghanistan design initiative are endorsed, coherent and comprehensive export Strategy documents with a five-year detailed plan of action (PoA) and implementation management framework. These documents include:

1. A main NES document, which contains Trade Support Functional strategies, offering critical support across value chains and acting as enablers for sector development.
2. Individual NES priority sector strategies packaged as separate documents but in alignment with the main NES findings and overarching strategic objectives.

## NES Afghanistan

### Main NES document comprising Trade Support Functional Strategies:

- Quality management
- Trade facilitation
- Trade information and promotion
- Skills development
- Business and professional services
- Access to finance

### Individual NES priority sector documents:

- Saffron
- Fresh fruits and vegetables
- Dried fruits and nuts
- Carpets
- Marble and granite
- Precious stones and jewellery

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Photo: USAID, Farmers working in a field in Surkhrod district of Nangarhar, Afghanistan.

# ACRONYMS

The following abbreviations are used:

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<b>ACCI</b>	Afghanistan Chamber of Commerce and Industries	<b>MoF</b>	Ministry of Finance
<b>ANNGO</b>	Afghanistan National Nursery Growers' Organization	<b>MoFA</b>	Ministry of Foreign Affairs
<b>ANSA</b>	Afghanistan National Standards Authority	<b>MoLSAMD</b>	Ministry of Labour, Social Affairs, Martyrs and Disabled
<b>ARIA</b>	Agricultural Research Institute of Afghanistan	<b>MSMEs</b>	Micro, small and medium-sized enterprises
<b>EU</b>	European Union	<b>NES</b>	National Export Strategy
<b>FAO</b>	Food and Agriculture Organization of the United Nations	<b>PoA</b>	Plan of action
<b>FFV</b>	Fresh fruits and vegetables	<b>PPP</b>	Public–private partnership
<b>HS</b>	Harmonized System	<b>R&amp;D</b>	Research and development
<b>ISPM</b>	International Standards For Phytosanitary Measures	<b>SMEs</b>	Small and medium-sized enterprises
<b>ITC</b>	International Trade Centre	<b>TVET</b>	Technical and vocational education and training
<b>MAIL</b>	Ministry of Agriculture, Irrigation and Livestock	<b>UAE</b>	United Arab Emirates
<b>MoCI</b>	Ministry of Commerce and Industries		





# EXECUTIVE SUMMARY

Afghanistan is a fundamentally agrarian nation, with agricultural production serving as one of the pillars of the economy. Fresh fruits and vegetables (FFV) is perhaps the most significant sector among Afghanistan's agricultural pursuits, in terms of providing an honourable livelihood to millions of Afghan farmers, ensuring household food security, supplying the raw inputs for the dried fruits sector, and keeping fruit and vegetable stalls across the country bursting with healthy, mouth-watering fresh produce.

Moreover, as certain crops offer high economic returns per hectare of land, the FFV sector has the potential to improve the economic conditions of producers, particularly smallholders. Considering the labour-intensive nature of fruit and vegetable production, the sector can also provide gainful employment to young men and women, and hence contribute to poverty alleviation.

Afghanistan possesses ideal climatic and soil conditions for the production of a wide array of FFV, including grapes, pomegranates and melons. Afghan farmers have a comparative advantage over regional neighbours; climates in South Asia are overwhelmingly hot and humid, with Central Asian states to the north experience short growing seasons due to cold temperatures. As a result, the FFV sector has opportunities to respond to unmet consumer demand to both its north and south.

Traditionally, FFV has represented a significant share of Afghanistan's export basket. Fresh fruits also serve as a raw material for the production of Afghanistan's wide array of dried fruit products. In spite of Afghanistan's comparative advantages and its advantageous regional position, the FFV sector has been unable to reach its full potential. Analysis offered in this Strategy paper reveals productivity and cost-related disadvantages at the production level vis-à-vis regional competitors, weak capacities to meet quality and phytosanitary standards, and logistics challenges resulting from Afghanistan's landlocked position. All of these factors are aggravated by a weak national cold chain infrastructure and lack of refrigerated trucks. As a consequence, Afghan exports of FFV remain overly dependent on the Pakistani market.

In the short-to-medium term, Afghanistan has the potential to consolidate sector exports to markets in close geographic proximity, such as India and the Russian Federation, as demand in these target markets continues to rise. The opening of air cargo facilities will strengthen Afghan traders' links to the Indian market, and could even enable exports of FFV to other regional markets that are out of reach at present.

Increasing FFV exports is not simply a logistics puzzle; Afghanistan faces increasingly fierce price competition in domestic and regional markets, where the Islamic Republic of Iran and Pakistan are direct competitors. In the short term, Afghanistan should focus on regaining price competitiveness and expanding into regional markets, predominantly with products that have a medium-to-long shelf life, such as grapes, apples and onions.

In the long term, taking into consideration high transport costs and the perishability of produce, Afghanistan should prioritize efforts to export high-value crops – particularly products with a high-value/low-weight ratio – as a strategy to penetrate global markets. Afghanistan produces crops which hold the potential to reach high-end markets in European countries, such as premium varieties of grapes, pomegranates and mushrooms. However, Afghanistan must first ensure quality and volume of production, as well as improve food safety compliance, to meet standards in highly regulated developed markets.

In support of the Afghan FFV sector, this document aims to serve three purposes:

- Inform stakeholders of recent market trends
- Outline the present status of the sector and its challenges
- Provide a realistic strategy and PoA.

This Strategy is driven by the following overall vision:

“ Afghan fresh fruits and vegetables: harvesting success in regional and global market ”

To achieve this vision, the Strategy focuses on four strategic objectives.

**Strategic objective 1: Increase the volume of production and improve price competitiveness.**

This strategic objective aims to increase volumes of production, gain cost efficiencies through economies of scale, and consequently improve price competitiveness at the regional level.

On the inputs side, the Strategy will seek to improve the availability of domestically produced fertilizers and pesticides, because importing them leads to higher production costs and hence less price competitiveness (particularly vis-à-vis regional competitors). Moreover, measures to





Photo: EPAA pictures, IMG\_0509.JPG

strengthen sector horizontal and vertical coordination will be critical to aggregating and increasing volumes of production. Additionally, associations will receive technical support to organize their operations collectively, for example, through capacity-building in bulk marketing and collective transport.

Specific measures related to commercial farming and smallholders are evaluated as a part of this strategic objective. Activities to support the expansion of commercial orchards will be implemented in parallel with measures to increase smallholders' productivity. This will be accomplished through training on cultivation best practices in farmer field schools across the country, as well as increasing access to working capital for producers.

Finally, investment in research and development (R&D) will be encouraged in several areas, such as improvement of crop varieties and methods to extend the production season. Results of any trials and/or pilot initiatives will be disseminated to sector stakeholders.

**Strategic objective 2: Reduce postharvest losses across the value chain by addressing technical and non-technical issues.**

As well as challenges related to low productivity and low volumes of production, the sector suffers severe postharvest losses. At the technical level, the Strategy will seek to improve the knowledge and implementation of best practices at the different stages of the value chain to increase quality and minimize spoilage of fresh produce by using the existing cold chain infrastructure. At the non-technical level, activities will be geared towards encouraging investment in cold chain infrastructure, including refrigerated trucks.

**Strategic objective 3: Add value by improving postharvest practices and processing capacities.**

This strategic objective will add value to sector outputs through packaging and other forms of value addition. One area of focus will be improving quality and food safety assurance for sector products. Another critical goal will be to increase domestic capacity to provide high-quality packaging products and services, as packaging materials are mainly imported and expensive.

This strategic objective also seeks to increase domestic capacity to add value through processing activities, predominantly by substituting imported juices and tomato pastes (among other products) with domestically produced versions. To accomplish this goal, the Strategy will look at ways to build a pool of Afghan workers with expertise in food processing (with a focus on fruit and vegetable processing).

**Strategic objective 4: Increase the sector's capacity to enter and sustain relationships in domestic and international markets.**

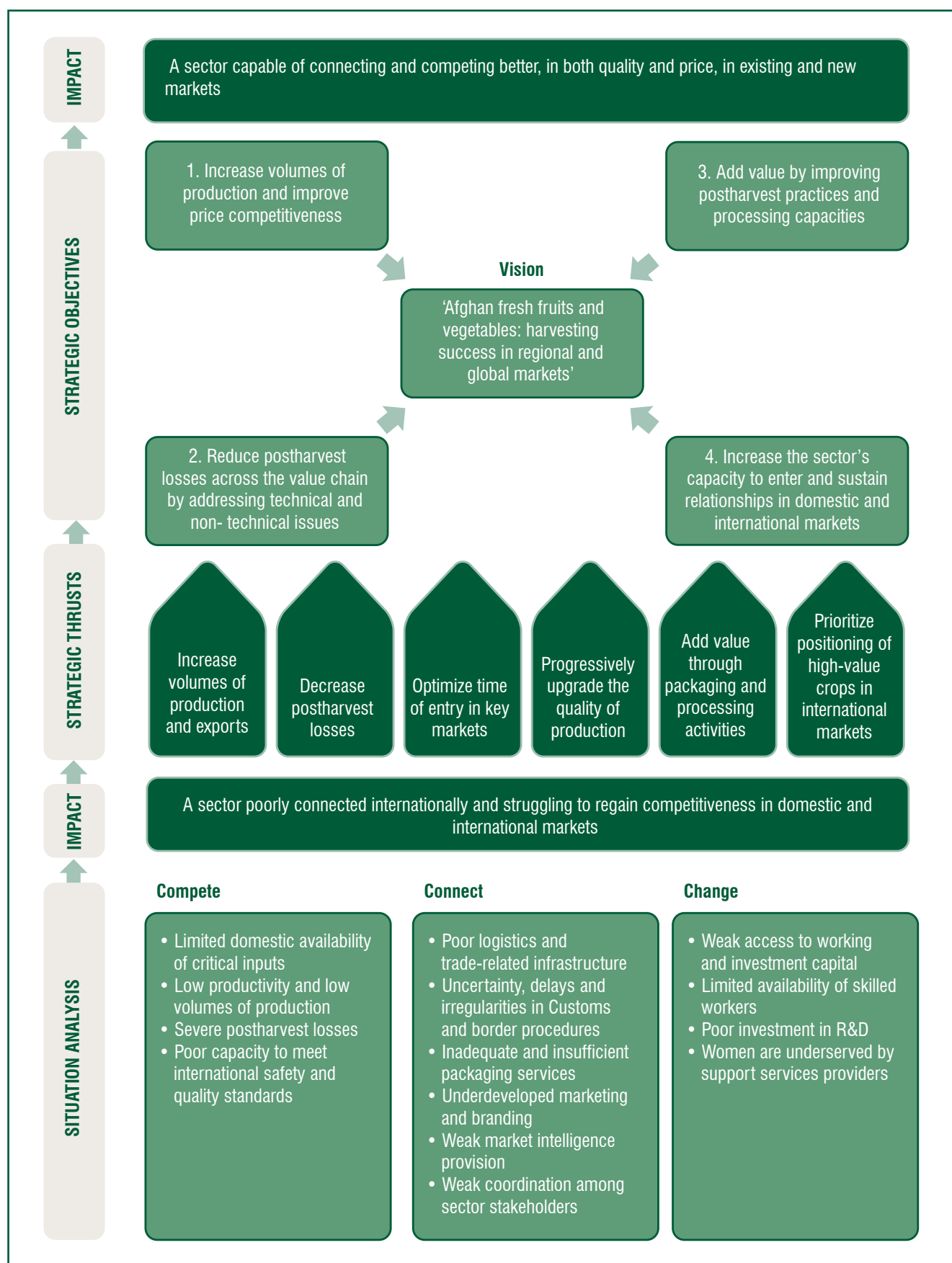
This strategic objective seeks to establish new links with international markets in order to diminish dependence on the Pakistani market. To achieve this objective, the Strategy will build the capacity of Afghan Government officials in international trade. Another area of focus is market intelligence: how to collect information on key markets systematically and disseminate it to sector stakeholders (including smallholders) effectively. Once key markets have been identified, sector enterprises need support to connect to and build relationships with international buyers. The construction of cold storage facilities in key regional markets such as India and the United Arab Emirates (UAE) could be one means to support this objective.

Logistics is one component of this objective, while marketing and branding are others. Marketing activities must be pursued in order to build a national brand for Afghan FFV in regional and international markets. At present, Afghan FFV have little global visibility (if any), while bulk quantities of Afghan produce flow into the Pakistani market with no packaging or branding. The overarching goal is to ensure that if someone is eating an Afghan grape (or any other type of fruit or vegetable) somewhere in the world, they know that it is a product of Afghanistan.

Figure 1 captures the FFV sector vision and strategic objectives.



Figure 1: Fresh fruits and vegetables sector strategy – theory of change

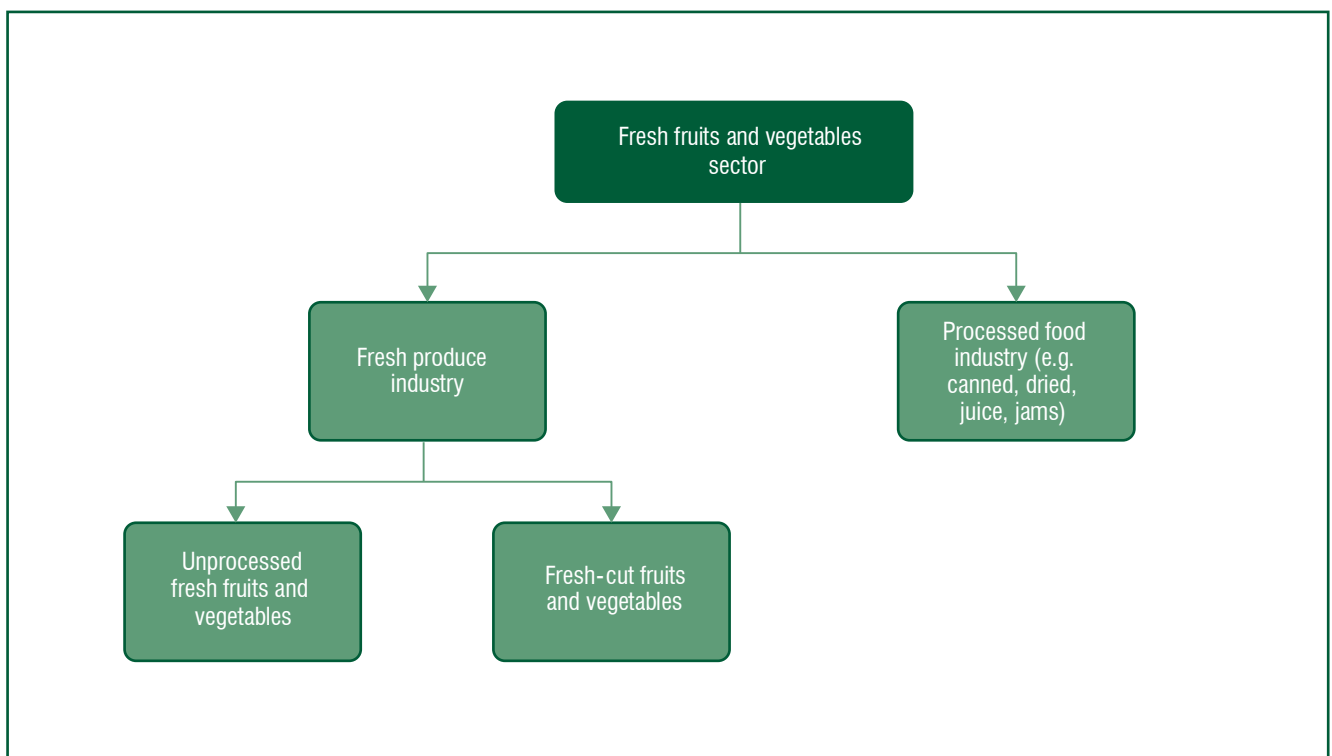




# TRAJECTORY OF THE GLOBAL SUPPLY CHAIN AND ENTRY POINTS FOR AFGHAN EXPORTERS

## PRODUCT MAP

The FFV sector comprises a wide array of products, which allows for a broad spectrum of applications in both fresh and processed form.



Within the food industry, FFV are sold unprocessed, fresh-cut and as raw material for the processed food industry.

cases, minimal value addition is undertaken in the form of peeling, halving, wedging, slicing and trimming.

### Fresh produce industry

The global fresh food market is a vast industry, which is estimated to grow to 2.4 billion tons by 2021 at an annual growth rate of over 3% during the forecast period. Within the fresh produce industry, fruits and vegetables are sold to consumers in unprocessed, raw form, without having undergone any thermal processing or preservation. In some

### Processed food industry

The processed food industry encompasses all businesses which alter FFV to create a value added food product for consumption. These products tend to have significantly longer shelf lives than FFV. Primary product categories in this industry include canned fruits and vegetables, juices, jams, and frozen fruits and vegetables.



# HEALTHY OUTLOOK FOR THE GLOBAL FRESH FRUITS AND VEGETABLES INDUSTRY

Global production of fruits and vegetables has experienced sustained growth over the past few years. According to the Food and Agriculture Organization of the United Nations (FAO), worldwide production of fruits stood at roughly 965 million tons in 2013, while production of vegetables totalled approximately 1.39 billion tons in the same year. Production growth is largely driven by increases in cultivated land in Asia, particularly China, the world's largest producer of FFV.

On the demand side, growth in consumption is driven by several factors, including the rise of vegetarianism, substantial increases in income and rising urbanization in developing

countries. Income growth and urbanization are correlated with higher rates of fruit and vegetable consumption, which indicates a positive future for the sector as cities grow and incomes rise in many highly populated developing countries.

Demand is also driven by better access to information about healthy eating habits, in addition to campaigns by international and national organizations to promote the consumption of FFV. Fresh fruits are the second most common global snack, while vegetables are the third. In the African and Middle Eastern regional markets, consumers rank fresh fruit as their first choice among snack items.

## Box 1: Health benefits of fruits and vegetables consumption

Fruits and vegetables are considered foundational components of a healthy diet, with a recommended minimum daily intake of 400 grams (excluding potatoes and other starchy tubers) to help prevent micronutrient deficiencies. According to the World Health Organization International Agency for Research on

Cancer, consumption of fruits and vegetables may lower the risk of contracting cancer. Considering the positive attributes of fruits and vegetables, the FAO and World Health Organization have collaborated to lead a global initiative to promote the consumption of fruits and vegetables for health.

Source: FAO.

With advancements in logistics and cold storage technology, the sale of FFV is becoming more globalized. Key dynamics and trends within the industry are explained below.

### Several factors determine prices and influence global trade

A natural trade obstacle in this sector is perishability. Perishability of fresh produce can limit its transport over long distances, although this depends on the shelf life of particular crops. Perishability of the crop and the availability (or lack thereof) of cold storage facilities consequently play a major role in determining trading partners and how goods are delivered to markets. Certain fruits, such as bananas and citrus products, have longer shelf lives and can therefore be shipped by cost-effective sea freight. Other premium-priced fruits can be transported by expensive air freight while still remaining profitable.

In the case of landlocked countries such as Afghanistan, the costs incurred in cross-border FFV trade can have a significant negative impact on export volumes. Particularly for highly perishable fresh produce, delays at border crossings can undermine trade by increasing transportation costs. This, in turn, leads to higher prices in the market and less

competitiveness. In the worst case scenario, transport and Customs delays can lead to partial or even full loss of shipments due to spoilage.

Weather conditions can have a significant impact on the supply side in terms of the volume, quality and availability of farm outputs. This impacts the FFV sector in two ways: extreme weather conditions affecting farm yields, and changing seasons that dictate when and where each crop can be cultivated and harvested. Droughts can devastate harvests for years, while heavy rain and/or snowfall can result in crop damage. The seasonality of crops is a driver for counter-season trade between southern and northern hemisphere countries. In the last several decades, improvements in production methods and advances in transport have contributed to smoothing out global prices for FFV throughout the year. These advances in technology have also allowed FFV to be shipped to destinations far from the point of origin while still maintaining product quality.

At the demand level, prices are influenced by a variety of elements, including variety, size, brand and 'organic' certification (among other factors). Demand for competing products, seasonality of supply and changes in consumer preferences also influence prices.

Significant technology improvements, R&D and innovation are shaping production

Significant investments in R&D are flowing into the FFV sector. Specialized plant breeding companies are constantly developing new fruit and vegetable varieties, with the objective of improving crop resistance to pests and diseases, obtaining higher yields and enhancing quality and taste.

### Proliferation of food safety and quality standards requirements, leading to increased vertical coordination

The global FFV supply chain is increasingly buyer-driven, in which buyers determine certain conditions or requirements for fresh produce. As a consequence of the proliferation of food safety and quality standards, there is greater interest in food supply chains and the traceability of raw materials. This has led to an increase in vertical coordination, i.e. actors along the value chain maintaining closer communication and, whenever possible, synchronizing their activities to maximize gains for all parties.

### Transparency and traceability requirements in the supply chain will remain high

One of the main global trends for the sector is the increasing consumer demand for transparency and authenticity when it comes to the fresh produce they are buying. Advances in technology and access to information enable greater transparency in terms of where and how produce was cultivated and processed. Common information required is place and date of harvesting, production methods and level of adherence to sustainability principles. To satisfy consumer demand for this information, new tools are now available to improve supply chain transparency, from QR codes to traceability apps for smartphones.

### While demand for differentiated products is increasing among importers, exposure to branding is still limited for consumers

Compared with other sectors, the FFV sector has limited branding opportunities (the world-famous 'Chiquita banana' being a rare exception). Nevertheless, retailers in developed markets are increasing their demand for differentiated products. In the case of fresh produce, this can entail a particular type of packaging, supplying a premium variety or complying with a specific production certification system, such as fair trade or organic production.

### Functional and intelligent packaging to extend the life of fresh products

Packaging not only serves as a marketing tool but also plays a critical role extending shelf life and maintaining the quality and freshness of products: innovations in packaging are continuous, with remarkable contemporary breakthroughs already influencing the industry. Innovation in packaging is



Photo: EPAA pictures, IMG\_1325.JPG

expected to continue, ranging from higher development and use of bio-packaging materials to the inclusion of even more specific sensors to measure real-time shelf life. Additionally, convenience is a key factor to consider for packaging of fresh products, as lifestyles are becoming faster-paced. Consumers increasingly demand food in suitably portioned 'grab and go' sizes as snacks. Tailored portions such as do-it-yourself fresh packs (selected ingredients to complete a recipe) are also becoming more popular.

### Digitalization is also reaching the fresh produce market through new distribution channels

In large markets such as the UAE, European countries, and particularly China, online sales of FFV are expected to increase. Although selling fresh produce online is challenging for businesses, large firms and even digital platforms outside the sector are investing in developing their e-commerce services and making deliveries, particularly in cities with concentrations of high-income consumers. Massive technology companies such as Google and Amazon are already offering these services to consumers in joint ventures with grocery partners such as Whole Foods.

### Increased interest of consumers in 'super fruits'

There is increasing global interest in so-called 'super fruits', an informal label for fruits that have significant potential to benefit health owing to their high content of vitamins, antioxidants, polyphenols and other beneficial nutrients. An increasingly popular 'super fruit' is the pomegranate, which grows widely in southern Afghanistan. Although consumption of 'super fruits' is on the rise, this type of fruit is mostly purchased by relatively wealthy consumer groups and specialized import companies.

## Box 2: Powerful pomegranates: a rising super fruit

Pomegranates are considered super fruits because they have several health-related attributes. Pomegranates are packed with antioxidants, with almost three times the total antioxidants present

in green tea. Health benefits associated with pomegranates include a boost in resistance to viruses and tumours, in addition to being an excellent source of vitamins and folic acid.

### The popularity of organic FFV products will remain high

Important markets for certified 'organic' products are Switzerland, Germany and France, among other developed markets. The organic market is still considered a niche, although it is expected to grow in the future. Consumption of organic products is driven by health benefits as well as better taste. Notably, demand for organic produce in the European market often exceeds supply, which creates

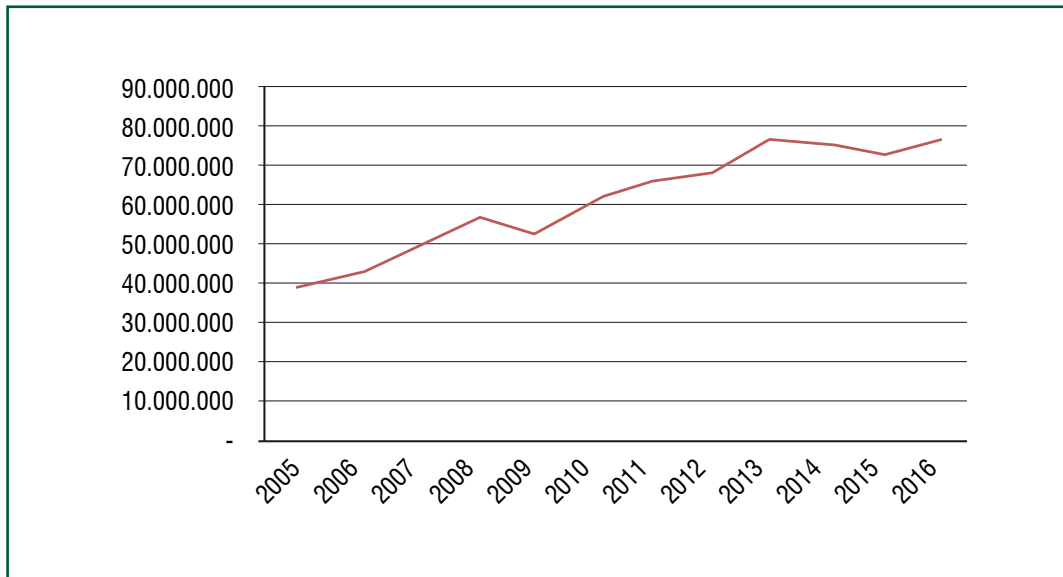
opportunities to find buyers and profit from better margins. Nevertheless, European regulations for organic produce can be challenging for agricultural enterprises in developing countries. As for super fruits, the organic market is of particular importance within the high-end market. Accordingly, premium prices are paid for exotic, high-quality organic fruits and vegetables that are valued both for their taste as well as the wholesome narrative attached to the product.

## Box 3: Implications for Afghanistan

- The position of Afghanistan can improve, particularly at the regional level, as the number of middle- and high-income consumers continues growing in emerging neighbouring economies.
- Packaging is crucial for Afghanistan, not only for marketing but also to extend the shelf life of fresh produce.
- Investments in R&D and technological improvements are occurring in all regions. Emphasis on obtaining higher yields and optimizing the use of water should be the focus of technology investments in Afghan fruits and vegetables production.
- As food safety and quality standards requirements become more important for more markets each day, Afghan exporters will need to improve their ability to meet these requirements in order to diversify their export destinations.
- New sourcing strategies, such as joint ventures with international buyers, should be considered and incentivized.
- Afghan exporters can benefit from the rising popularity of certain fruits – such as pomegranates – by promoting their health benefits through marketing.
- The niche organic market is expected to grow in the future, as organic products are increasingly appealing to high-income consumers. Many Afghan FFV would likely qualify to be certified 'organic' if the administrative capacity existed for them to undergo the rigorous certification process. Nonetheless, it should be noted that it requires 2–3 years to obtain organic certification, in addition to targeted financial investment.

## EMERGING ECONOMIES ARE GAINING GROUND AS SUPPLIERS IN GLOBAL MARKETS

Figure 2: World exports of fresh fruits and vegetables, 2005–2016 (US\$ thousands)



Source: ITC.

Worldwide, exports of FFV exceeded US\$ 76 billion in 2016, almost double their value in 2006 (US\$ 43 billion). This development reflects a greater awareness of the health benefits of FFV consumption among consumers, as well as an increase in demand from developing countries.

In terms of global leaders in the export of FFV, Spain is at the top. Spain possesses a sunny, warm climate, which is suitable for the cultivation of a wide range of produce. Spain accounted for 14% of world exports in 2016, worth US\$ 10.8 billion. The Netherlands is the second-largest exporter of FFV, with 2016 exports reaching US\$ 7 billion and representing 9.25% of global exports in the sector. The Netherlands is itself a modest producer and primarily serves as a re-export hub in the European region. The third-largest exporter of FFV is the United States of America, which actually experienced negative average annual growth between 2012 and 2016. The United States recorded an export value of US\$ 6.6 billion in 2016: 8.6% of global exports for the sector.

Right behind the leaders from developed markets are China and Mexico, two emerging economies with steadily increasing global export share. Between 2012 and 2016, China's FFV exports grew at an annual average of 11.90%, with Mexico's FFV exports growing by 9.04% during the same period. Italy, France and Belgium are other large European exporters of FFV after Spain, with global export



Photo: EPAA pictures, IMG\_1675.JPG

shares of 5.36%, 3.32% and 2.54% respectively. At the bottom of the leader board for FFV exports are South Africa and New Zealand.



Table 1: Main world exporters of fresh fruits and vegetables

Exporters	Exported value in 2016 (US\$ thousands)	Annual growth 2012–2016 ( % )	Share in world imports ( % )
Spain	10 763 828	1.24	14.06
Netherlands	7 077 683	-1.58	9.25
United States	6 615 307	-1.17	8.64
China	6 334 139	11.90	8.28
Mexico	6 195 858	9.04	8.09
Italy	4 106 362	-0.78	5.36
Chile	3 652 153	2.09	4.77
France	2 542 074	-1.51	3.32
South Africa	2 205 638	2.92	2.88
Belgium	1 946 316	1.17	2.54
New Zealand	1 894 507	9.97	2.48

Source: ITC.

The forces driving global trade of FFV vary largely by product, and it is therefore difficult to make generalizations. Although interregional trade has increased over the years, leading suppliers of fresh produce still tend to export to markets in close proximity. This can be explained, in part, by the perishable nature of fresh produce and the existence of regional trade agreements.

Spain mainly ships its products to other European markets, namely Germany, France, the United Kingdom of Great Britain and Northern Ireland, the Netherlands and Italy. Similarly, the Netherlands has buyers in Germany, the United Kingdom, Belgium, France and Norway. The Netherlands is notably a direct importer of fruits and vegetables from developing countries for re-export within the European region. Over 50% of America's exports of FFV go to neighbouring Canada, and 8.8% go to neighbouring Mexico. China primarily exports FFV to Viet Nam, Thailand, Hong Kong (China), the Russian Federation and Malaysia. The fifth-largest global exporter, Mexico, mainly ships to the United States, which accounts for a whopping 97.6% of Mexican fresh produce exports.



Photo: EPAA pictures, IMG\_2374.JPG

Figure 3: Main trade partners of the largest world exporters

Spain US\$10.8 billion	Netherlands US\$7.1 billion	United States US\$6.6 billion	China US\$6.3 billion	Mexico US\$6.2 billion
<ul style="list-style-type: none"> <li>Germany 27%</li> <li>France 16.8%</li> <li>UK 14.2%</li> <li>Netherlands 8.2%</li> <li>Italy 5.2%</li> </ul>	<ul style="list-style-type: none"> <li>Germany 37.3%</li> <li>UK 12.9%</li> <li>Belgium 6.9%</li> <li>France 4.8%</li> <li>Norway 3.6%</li> </ul>	<ul style="list-style-type: none"> <li>Canada 53.8%</li> <li>Mexico 8.8%</li> <li>Rep. of Korea 5.3%</li> <li>Japan 4.9%</li> <li>Chinese Taipei 4.4%</li> </ul>	<ul style="list-style-type: none"> <li>Vietnam 18.8%</li> <li>Thailand 15.6%</li> <li>Hong Kong (China) 14.8%</li> <li>Russian Fed 8.6%</li> <li>Malaysia 8.5%</li> </ul>	<ul style="list-style-type: none"> <li>United States 97.6%</li> <li>Guatemala 0.7%</li> <li>Canada 0.5%</li> <li>Japan 0.3%</li> <li>UK 0.1%</li> </ul>

Source: ITC.

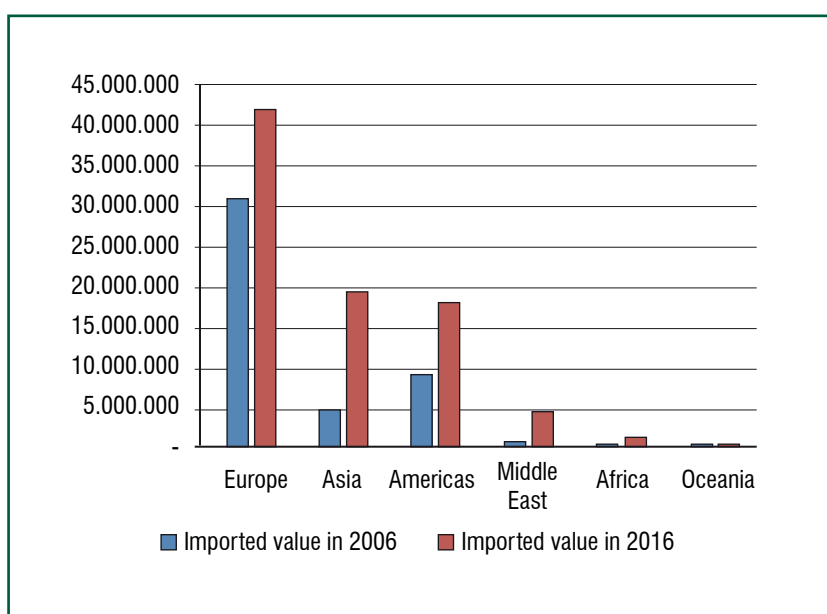


## DEMAND HAS INCREASED IN ALL REGIONS, PARTICULARLY IN THE EUROPEAN AND ASIAN MARKETS

Consumption of FFV increased in all regions of the world over the last decade. The fastest growth occurred in Asia, where imports have almost quadrupled since 2006. American demand for fresh produce has almost doubled within the past 10 years, with imports of FFV topping US\$20.5 billion in 2016. As a regional bloc, Europe

consistently recorded the highest demand for fresh produce between 2006 and 2016, with imports reaching US\$32.5 billion in 2016. An emerging market for the fresh produce sector is the Middle East, where imports of FFV reached US\$4.8 billion in 2016, four times what they were in 2006.

Figure 4: Imports by world region, 2006 and 2016 (US\$ thousands)



Source: ITC.

Global trade of FFV is dominated by three main regions: Europe, North America and Asia. Traditionally, trade of FFV has been predominately intraregional, although this is less and less the case with each passing day. A wide array of factors contribute to the expansion of fresh produce trade outside of regional blocs, such as an increased number of trade agreements, as well as better technology which has enabled shipments of produce to markets that were previously unreachable due to the perishability of produce.

In the not so distant past, the offerings in the fresh produce section of American and European grocery stores were dictated by the seasonality of crops. Now grocery stores in developed markets offer a full selection of FFV year-round thanks to advancements in greenhouse technology as well as imports from the southern hemisphere (which experiences summer while the United States and Europe are in the middle of winter). Demand for tropical fruits, particularly bananas, has contributed to a substantial increase in the volume and variety of fruits and vegetables traded worldwide.



Photo: Fruits & Vegetables, FOX20234.jpg

## A CLOSER LOOK AT DEMAND IN REGIONAL MARKETS

Considering Afghanistan's deficiencies in transport capacity and cold chain infrastructure, and its landlocked position in Central Asia, markets in close geographic proximity hold the most significant opportunities for increasing exports in the short and medium terms. These target markets are the Middle East,<sup>1</sup> South Asian Association for Regional Cooperation countries,<sup>2</sup> Central Asian Republics,<sup>3</sup> greater China,<sup>4</sup> the Russian Federation and Belarus.

The Russian Federation accounts for almost 4% of global exports of FFV. Imports of fresh produce to the Russian Federation have decreased since 2012, predominantly because of the Russian ban on imports of produce originating from the EU and Turkey. Roughly 19% of the Russian Federation's fresh produce imports are citrus fruits, which are difficult to grow in the country due to unsuitable climate conditions. Tomatoes are the second most imported fresh produce product, accounting for 15% of the Russian fresh produce import basket. Fresh apples, oranges, grapes and pears are also imported in significant volumes.

In contrast with the Russian Federation, China's imports of FFV are growing in value. Imports have increased at an average annual rate of 11.97% over the past five years, reaching a total import value of US\$3 billion in 2016. Strong economic and population growth is responsible for this positive trend. The main product imported by China for this sector is cherries, representing 26% of total fresh produce imports. Pomegranates, grapes, kiwifruit, apples and plums also represent a significant portion of China's import basket of fresh produce. China has little need to import fresh

vegetables, which are produced locally in sufficient quantities to satisfy domestic demand.

Hong Kong (China) is another target market for Afghan fresh produce, and serves as a major re-export hub in Asia. Hong Kong (China) imported US\$2 billion of FFV in 2016, including US\$0.5 billion in cherries alone. Most of these cherries (estimated to be around 65%) end up being re-exported to mainland China. After cherries, Hong Kong (China)'s second-largest import is grapes, accounting for 22% of total imports. Other notable imports include oranges, apples and pomegranates. Similarly to mainland China, Hong Kong (China) predominantly imports fruits rather than vegetables.

Belarus, located north of Ukraine in Eastern Europe, is a hot market for FFV. Average annual growth in imports of fresh produce to Belarus increased at a remarkable average annual rate of 46.12% between 2012 and 2016. This demand is driven by rapid economic growth after a period of financial distress that ended in 2000 and an EU ban on imports of Russian agricultural products, which has converted Belarus into a –temporary– major entry point to the EU market for FFV. Belarus imported US\$1.3 billion in FFV in 2016.

Other markets of interest are located in the Middle East, including the UAE, Saudi Arabia, Kuwait and Egypt. All of these countries are experiencing stable growth in fresh produce imports due to increases in population. In East Asia, Chinese Taipei is an enticing destination: imports of FFV increased by an average annual rate of 12.53% between 2012 and 2016. In South Asia, the Indian market offers significant opportunities as a destination for fresh produce, with an impressive average annual growth rate of 9.98% between 2012 and 2016.

Looking at this list, it is apparent that Afghanistan has considerable options when it comes to high-growth destination markets for FFV. The main challenge is getting Afghan produce to these target markets with minimal spoilage, relying on ground and sea transport and being subjected to procedures at multiple border control points.

1.– Bahrain, Egypt, the Islamic Republic of Iran, Iraq, Jordan, Kuwait, Lebanon, Oman, the State of Palestine, Qatar, Saudi Arabia, Syria, Turkey, UAE, Yemen.

2.– Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, Sri Lanka.

3.– Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan.

4.– Mainland China, Hong Kong (China), Macau, Chinese Taipei.

**Table 2: Reachable import markets' imports**

Reachable import markets	Imported value in 2016 (US\$ thousands)	Annual growth 2012–2016 ( % )	Share of world exports ( % )
Russian Federation	3 193 724	-15.25	3.93
China	3 152 151	11.97	3.88
Hong Kong (China)	2 057 114	7.82	2.53
Belarus	1 253 651	46.12	1.54
UAE	1 188 789	2.64	1.46
Saudi Arabia	1 120 530	6.49	1.38
Chinese Taipei	793 621	12.53	0.98
Kuwait	475 661	9.32	0.59
Egypt	393 029	8.72	0.48
India	356 102	9.98	0.44

Source: ITC.

## MAIN REGIONAL IMPORTERS OF FRESH FRUITS AND VEGETABLES

### Fresh grapes

Grapes are the single largest export for Afghanistan across all sectors. In terms of the previously identified target markets, China is the largest importer of grapes, with US\$630 million in imports in 2016. Chinese demand for grapes has increased at an average annual rate of 3% over the past five years. At present, the Chinese are predominantly importing grapes from Chile, Peru and Australia, all of whom benefit from easy access to sea shipping. These three countries have increased their production and improved their

positioning by entering the market at times of low supply and high prices.

Hong Kong (China) is the second-largest importer of fresh grapes among the target markets. Growth in demand from Hong Kong (China) exceeded even that of mainland China, with 13% average annual growth in grape imports between 2012 and 2016. With US\$460 million in grape imports, Hong Kong (China) accounts for 5% of the global import share. The Russian Federation and the UAE are other countries experiencing high growth rates in terms of demand for grapes. Belarus is another target market for Afghan grapes, with US\$96 million in grape imports in 2016. However, demand for grapes in Belarus declined rapidly between 2012 and 2016.

Table 3: Reachable markets' imports of fresh grapes

Reachable importers	Imported value in 2016 (US\$ thousands)	Annual growth 2012–2016 ( % )	Fresh grapes	
			Share of world imports ( % )	
China	629 772	3	7	
Hong Kong (China)	459 945	13	5	
Russian Federation	184 646	6	2	
Belarus	95 637	-23	1	
UAE	84 833	49	1	

Source: ITC.

### Fresh apples

Apples are an important export product for the Afghan FFV sector. Among the target markets identified earlier in this section, the Russian Federation imports the largest quantity of apples. Overall, the Russian Federation accounts for 5% of all global imports of apples, with US\$370 million in imports in 2016. Since 2012, though, Russian demand for apples has decreased at an average annual rate of 17%. Egypt is another significant importer of apples among the

target markets, with imports reaching US\$329 million in 2016. Egypt has seen demand for apples grow over the last five years, at an average annual rate of 9%. One of the target markets with the fastest growth in demand for apples is Belarus, with average annual growth of 47% between 2012 and 2016. In 2016, apple imports to Belarus reached US\$309 million. Chinese Taipei and India are also worth mentioning as target destination markets for apples, holding world import shares of 4% and 3%, respectively.

Table 4: Reachable markets' imports of apples

Reachable importers	Imported value in 2016 (US\$ thousands)	Annual growth 2012–2016 ( % )	Fresh apples	
			Share of world imports ( % )	
Russian Federation	370 430	-17	5	
Egypt	329 147	9	4	
Belarus	308 582	47	4	
Chinese Taipei	274 745	14	4	
India	237 800	5	3	

Source: ITC.

## Melons (melons and watermelons)

Middle Eastern countries such as the UAE and Kuwait are important export destinations for melons (both melons and watermelons). The UAE recorded US\$43.7 million in melon imports in 2016, with Kuwait importing US\$30.9 million the same year. Both markets have seen negative growth in melon imports since 2012. China is the second-largest melon importer among the target markets, with imports valued at US\$32.8 million in 2016.

Demand from China is decreasing, though, with negative average annual growth of 15% over the past five years. Hong Kong (China) is the fourth-largest melon importer on the target list, with average annual growth increasing at a rate of 7% between 2012 and 2016. Imports of melons to Hong Kong (China) stood at US\$25 million in 2016. The Russian Federation is another notable melon importer to Afghanistan's north, although demand has decreased at an average annual rate of 13% over the last five years.

**Table 5: Reachable markets' imports of melons and watermelons**

Importers	Imported value in 2016 (US\$ thousands)	Melons (melons and watermelons)	
		Annual growth 2012–2016 ( % )	Share of world imports ( % )
UAE	43 712	-1	1
China	32 806	-15	1
Kuwait	30 951	-2	1
Hong Kong (China)	24 993	7	1
Russian Federation	14 850	-13	0

Source: ITC.

## Other fruits (including pomegranates)

Pomegranates are grouped into an 'other' Harmonized System (HS) code (081090). Therefore, official import statistics specific to pomegranates are not available. The best-consolidated market for pomegranates worldwide is the European market. However, demand in Asia and the Middle East (particularly the UAE), is slowly growing, thanks to greater consumption of both unprocessed pomegranates and pomegranate juice. Asian demand for pomegranates is concentrated largely in Hong Kong (China), Indonesia, India (also a large producer), Malaysia and Japan, due to increasing awareness of the health benefits of this 'super fruit'.<sup>5</sup>

5.– Prospectiva 2020 (2015). *World Pomegranate Market: Supply, Demand and Forecast*.

## Onions

Saudi Arabia is the largest importer of onions among the target markets, with a 5% share of global onion imports. The volume of Saudi onion imports has increased at an average annual rate of 7% since 2012. After Saudi Arabia, the UAE is the second-largest importer of onions in the region, with imports valued at US\$76 million, representing 2% of world import share. Bangladesh is another target market with high growth in onion imports. Bangladeshi imports of onions increased at an average annual rate of 43% between 2012 and 2016. In 2016, Bangladesh imported US\$58 million of onions. The Russian Federation and Sri Lanka are two additional large importers of onions among the target markets. While Russian onion imports declined at an average annual rate of 15% over the last five years, imports to Sri Lanka increased by 14% during the same period.

**Table 6: Reachable markets' imports of onions**

Reachable importers	Imported value in 2016 (US\$ )	Annual growth 2012–2016 ( % )	Onions
			Share of world imports ( % )
Saudi Arabia	149 649	7	5
UAE	75 740	5	2
Bangladesh	58 114	43	2
Russian Federation	56 111	-15	2
Sri Lanka	55 614	14	2

Source: ITC.



## Tomatoes

The Russian Federation accounts for 38% of global imports of tomatoes, although this figure may decline in the future considering the negative growth in demand. Belarus, on the other hand, is a fast-growing export destination for tomatoes, with average annual growth in imports of 51% between 2012 and 2016. Total Belarusian imports of tomatoes hit US\$217 million in 2016. The UAE, Pakistan and Saudi Arabia are other high-potential target export destinations for Afghan tomatoes, as all of these countries have been experiencing positive average annual import growth rates over the last five years. Their shares of global tomato imports are 10%, 9% and 8% respectively.



Photo: Fruits & Vegetables, FOX20192.jpg

Table 7: Reachable markets' imports of tomatoes

Tomatoes			
Reachable importers	Imported value in 2016 (US\$ )	Annual growth 2012–2016 ( % )	Share of world imports ( % )
Russian Federation	490 582	-14	38
Belarus	216 831	51	17
UAE	124 869	6	10
Pakistan	120 746	1	9
Saudi Arabia	99 394	9	8

Source: ITC.

## REGIONAL COMPETITORS POSE CHALLENGES IN BOTH DOMESTIC AND TARGET MARKETS

### Islamic Republic of Iran

Due to similar climate conditions, the Islamic Republic of Iran and Afghanistan have a similar export basket when it comes to FFV. Further heightening competition, both countries harvest each competing crop at the same time of the year, while also looking for buyers in the same target markets within the region. With total fresh produce exports valued at US\$225 million, the Islamic Republic of Iran is a significant player in the global FFV market, with global and regional clout likely to increase in the future. Impressively, Iranian exports of fresh produce have doubled in the past 10 years. The Islamic Republic of Iran has over 50 million hectares of land suitable for agriculture, with low prices of FFV achieved through both industrial-scale farming and currency depreciation.

The main Iranian export destinations in 2016 were the Russian Federation (US\$157 million), Kuwait (US\$22 million), Pakistan (US\$8 million) and Oman (US\$8 million). The most

significant Iranian fresh produce exports were cucumbers (US\$65 million), kiwifruit (US\$56 million), watermelons (US\$19 million), grapes (US\$14 million) and apples (US\$13 million).

The Islamic Republic of Iran exported US\$14 million of fresh grapes to world markets in 2016. The largest importer of Iranian grapes was the Russian Federation (US\$12 million) followed by Pakistan (US\$1.7 million). Although Afghan grapes are still much higher in value than Iranian grapes, the latter are continuously gaining market share in Pakistan, having gained price competitiveness, and pose a threat to Afghan grape exports in this market in the future.

The Islamic Republic of Iran is also a leading exporter of pomegranates. Both Afghanistan and the Islamic Republic of Iran export pomegranates to Pakistan, although Iranian exports to this market are larger. Similarly to exports of grapes, the Islamic Republic of Iran is slowly increasing its share of pomegranate exports to Pakistan. When it comes to Iranian apples, again, the main export destination market is Pakistan, with an export value of US\$6 million. In this

product category, Afghanistan severely outperforms its neighbour to the west, with US\$26 million in apple exports to Pakistan in 2016.

However, the Islamic Republic of Iran is better positioned than Afghanistan to export processed fruits and vegetables, having invested considerable resources in advanced processing technology. Afghanistan is a major importer of Iranian fruit juices, tomato paste and pickled vegetables, for example. Domestically produced Afghan processed foods are simply not able to compete with their Iranian competitors on quality, and often Afghan products cannot even beat their Iranian counterparts on price.

Enabling factors	Deterring factors
<ul style="list-style-type: none"> <li>• Growth in production and exports of fresh produce</li> <li>• Suitable climate for cultivation of FFV</li> <li>• Growth in the processed food sector</li> <li>• Competitiveness partly based on currency depreciation</li> </ul>	<ul style="list-style-type: none"> <li>• Threat of renewed sanctions</li> <li>• Political instability negatively affecting export stability</li> <li>• Absence of a NES</li> </ul>

## Turkey

Turkey reported total FFV exports valued at US\$1.5 billion in 2016, almost double its exported value in 2006. However, droughts and other negative climate conditions have affected Turkey's agricultural production. In response, the Turkish Government implemented policies to support the agricultural sector, which have yielded positive results and higher fresh produce exports. Turkish Government support has taken the form of organic farming policies, certification of seeds and seedlings, investment incentives, agricultural credits and other measures.

In 2016, the top export destinations for Turkey's fresh produce were Iraq (US\$279 million), the Russian Federation (US\$234 million), Germany (US\$170 million), Ukraine (US\$115 million) and Belarus (US\$105 million). The main Turkish export varieties were mandarins (US\$322 million), tomatoes (US\$240 million), cherries (US\$182.5 million), oranges (US\$180 million) and grapes (US\$104 million).

Tomatoes are one of the most important products for both the Turkish and Afghan fresh produce export basket. Top export destinations for Turkish tomatoes were Belarus (US\$42 million), Iraq (US\$32 million) and Saudi Arabia (US\$27 million). Turkey is the main supplier of tomatoes to the Belarusian market, with Afghanistan far behind in export volumes.

Turkish and Afghan grapes also compete in the Belarusian market, although Afghan traders lag far behind their Turkish counterparts. In 2016, Turkey exported US\$26 million in grapes to Belarus, while Afghan traders supplied a mere US\$716,000 in the same year.

Turkey is the third-largest exporter of 'other fruits' (the HS category that includes pomegranates) with exports valued at US\$104 million in 2016. Belarus is the main Turkish destination for this category in the region. Afghanistan only recently accessed the Belarusian market, with significantly smaller export volumes.

Enabling factors	Deterring factors
<ul style="list-style-type: none"> <li>• Great diversification in exported varieties and export destinations</li> <li>• Strong, established ties with buyers in export destinations</li> <li>• Stable, high volume of supply</li> <li>• Support schemes through the Government to boost exports in the agricultural sector</li> </ul>	<ul style="list-style-type: none"> <li>• Unstable quality (has had shipments rejected in Western markets due to unsafe levels of pesticides and/or insecticides)</li> </ul>

## Pakistan

Pakistan exported US\$213 million of FFV in 2016. Despite security issues and an energy crisis, the fresh produce sector has shown impressive growth over the past 10 years, with total exports for the sector tripling in value. The significant increase in export volume can be attributed to several factors, including stricter policies regulating produce quality, as well as increasing price competitiveness.

Pakistan's main export destination for fresh produce in 2016 was the Russian Federation (US\$87 million), followed by Indonesia (US\$20 million), Sri Lanka (US\$19 million), Saudi Arabia (US\$15.5 million) and Malaysia (US\$13.5 million). A 2005 free trade agreement between Pakistan and Sri Lanka grants Pakistan preferential market access in the form of tariff concessions. Malaysia is an important export destination for Pakistan, especially for vegetables. Again, a preferential trade agreement bolstered Pakistani exports in the sector, as a result of the 2008 Malaysia–Pakistan Closer Economic Partnership Agreement. Middle Eastern countries – namely Saudi Arabia, Kuwait (US\$9 million), Bahrain (US\$8 million) and Oman (US\$5 million) – are all rapidly increasing their demand. Pakistani FFV exporters have also built trade ties with Central Asian countries such as Kazakhstan (importing US\$12 million of Pakistani fresh produce in 2016).

More than half of Pakistani exports of fresh produce are mandarins, which grow exceptionally well in Pakistan's warm and dry climate. Potatoes are the second most exported product for the sector, representing about a quarter of Pakistan's fresh produce export basket. Onions, 'other fruits' (which includes pomegranates), mushrooms, oranges and melons fill out the rest of Pakistan's fresh produce export basket.

Due to smuggling along the Afghan-Pakistani border, it is likely that a large amount of Afghan fresh produce entering Pakistan is undocumented. When it comes to potatoes and onions, Pakistan is likely acting partially as a re-exporter, bolstering exports of its own domestically cultivated yields with cheap (and often smuggled) Afghan produce. Pakistan is consequently able to be a major supplier of these products to its trade partners in the Middle East and South Asia.

Pakistan and Afghanistan compete on the Belarusian market in the mushroom trade. According to reported export data, Pakistan supplied Belarus with US\$1.7 million in mushrooms in 2016, with Afghanistan leading its neighbour with exports of US\$2 million in the same year. For both

countries, Belarus is the only export destination for mushrooms, creating dependence on this market.

Enabling factors	Deterring factors
<ul style="list-style-type: none"> <li>Established export network for FFV</li> <li>Re-exporting hub for Afghan fresh vegetables</li> <li>Free trade agreements with Sri Lanka and Malaysia benefit exports of fresh produce</li> <li>Diversified export destinations</li> <li>Diversified export basket of FFV</li> <li>Effort of Government to improve quality of exported FFV</li> <li>Price competitive</li> </ul>	<ul style="list-style-type: none"> <li>Security issues negatively affect exports</li> <li>Energy crisis</li> <li>Unfavourable exchange rate fluctuation</li> <li>Dominance of Afghanistan in fresh fruit exports</li> </ul>

## India

As with Pakistan, Indian exports of FFV have nearly tripled in value over the past 10 years. In 2016, total fresh produce exports out of India verged on US\$1 billion, reaching US\$992 million. India's main export destinations for fresh produce in 2016 were the UAE (US\$181 million), the Netherlands (US\$102 million), Malaysia (US\$84 million), Bangladesh (US\$81 million) and Nepal (US\$70 million). Onions were the most valuable product within the Indian FFV export basket, with 2016 exports standing at US\$382 million. Other notable Indian fresh produce exports include grapes (US\$219 million), other fruits including pomegranates (US\$81 million), tomatoes (US\$59 million) and potatoes (US\$59 million).

Nearly all Indian tomato exports were destined for Pakistan (99%), with India responsible for 70% of all Pakistani tomato imports. India and Afghanistan are therefore in direct competition when it comes to supplying Pakistan with tomatoes. While it may appear that Afghanistan is being sorely outperformed by India in this market, undocumented (i.e. smuggled) tomatoes crossing the Afghan-Pakistani border may make the competition closer than it appears in available data.

Enabling factors	Deterring factors
<ul style="list-style-type: none"> <li>Suitable climate for FFV cultivation</li> <li>High production volumes</li> <li>Large variety of products in the sector</li> <li>Proximity to countries with rapid economic and population growth</li> </ul>	<ul style="list-style-type: none"> <li>Growing domestic demand may stunt export volumes</li> <li>Lack of technological advancement in harvesting and an underdeveloped supply chain</li> </ul>

## China

In 2016, China was the fourth-largest exporter of FFV worldwide. For this sector alone, total exports in 2016 reached US\$6 billion. Chinese exports of fresh produce have experienced phenomenal growth in the past 10 years, with total value increasing by a factor of five. South Asian countries –including Japan and the Republic of Korea– accounted for much of that volume, with the Russian Federation another major destination market.

The Kazakh market was also an important export destination for both Afghanistan and China, although again Afghan exporters were wildly outperformed. China exported US\$140 million of fresh produce to Kazakhstan in 2016, with Afghan exports nowhere close (US\$39,000 in the same year).

Afghanistan directly competes against China in the Indian market, although Afghan trade volume is dwarfed by that of China (US\$4 million in 2016 from Afghanistan compared with US\$122 million from China). Over 70% of China's exports of FFV to India were fresh apples, although India also receives shipments of Chinese pears and grapes. China is the main supplier of fresh grapes for India, and the third-largest supplier in the world after the United States and Peru.

Enabling factors	Deterring factors
<ul style="list-style-type: none"> <li>High production volumes</li> <li>Continuous growth in sector exports</li> <li>One of the most powerful suppliers of FFV in the South Asian region</li> </ul>	<ul style="list-style-type: none"> <li>Increasing domestic demand may slow growth in sector exports</li> <li>Poor reputation for quality</li> </ul>

### Box 4: Implications for Afghanistan

- Considering Afghanistan's landlocked geography, weak logistics capacity and deficient transport infrastructure, markets in proximity are crucial for sector exports.
- Although Afghanistan remains highly competitive in the export of grapes, other products such as potatoes and tomatoes (and tomato-based products) face increasing price competition from neighbouring countries such as the Islamic Republic of Iran and Pakistan.
- Time of entry is a crucial factor to be considered by Afghan exporters, particularly for achieving higher profit margins. Delaying sales of fresh produce requires strong cold storage capacity, which Afghanistan lacks at the moment.
- Policies by competitor countries aiming to support fresh produce production and exports should be examined and, if relevant, adapted to the Afghan context.







# PEELING THE ONION: VALUE CHAIN ANALYSIS OF AFGHANISTAN'S FRESH FRUITS AND VEGETABLES SECTOR

## CURRENT VALUE CHAIN AND OPERATIONS

### PRODUCTION OF FFV

Afghanistan has very few large-scale fruit producers. Key actors are smallholders growing fruits in their own family orchards. The same holds true for the production of vegetables. Farmers usually contract the sale of their crop before harvesting, based on an estimate of the upcoming yield. This practice is necessary for farmers with limited savings, as buyers will often make advance payments to farmers in order to finalize the deal. Few independent farmers have the available cash and transportation resources to take their produce to market themselves, and instead negotiate for optimal prices.

Afghanistan's most dominant fresh fruit product is grapes, followed by apples and apricots. All three of these fruits are cultivated throughout the country. Cherries are grown in Kabul Province, while citrus fruits flourish in the warmer weather of southern Afghanistan, particularly in the south-eastern provinces of Kunar, Laghman and Nangarhar. Pomegranates are harvested in the southern part of the country, while melons are cultivated in abundance in the northern provinces of Farah, Jawzjan, Faryab, Baghlan and Samangan.

Production of vegetables largely takes place in the provinces of Parwan, Kapisa, Nangarhar, Bamyan and Balkh. Tomatoes are grown in plentiful quantities around the northern provincial capital of Mazar-e-Sharif, while potato cultivation is concentrated in the provinces of Bamyan, Nangarhar, Panjshir, Parwan, Samangan, Sar-e Pol, Takhar, Uruzgan and Wardak. Onions grow exceptionally well in the warmer climates of Paktia, Herat and Kandahar.

Fresh fruits generally garner higher prices on the market than their dried counterparts. Consequently, farmers and traders focus on pushing most of their fresh fruit stock into the fresh produce market. Approximately 75% of total farm

production is currently sold on the fresh market, while excess supply is designated for drying or consumed privately. Due to damage and spoilage resulting from rough ground trips in lorries with no refrigeration capacity, an inordinate quantity of fresh produce is lost to spoilage, with much of the remainder losing value due to damage.

The main production inputs needed to cultivate FFV are listed below, with a note about their availability in Afghanistan:

- **Seeds:** high-quality seeds are usually imported (domestic seeds lack quality consistency);
- **Fruit tree saplings:** some farmers prefer imported saplings over domestic saplings, as domestic varieties sometimes carry diseases or have other undesirable qualities;
- **Arable land:** abundant supply available, although much arable land is unused or underutilized;
- **Row planters:** crucial for some vegetable varieties, with limited use at present;
- **Water:** scarce in some areas of the country, with irrigation systems underdeveloped in many agricultural communities;
- **Fertilizers:** the majority are imported, with fragmented distribution systems;
- **Pesticides:** primarily imported, costly and consequently difficult to access;
- **Labour:** abundant unskilled workers, with a limited pool of skilled agricultural experts;
- **Sulphur:** used to enhance growth of fruit trees, difficult to access.

Several inputs that could improve the quality and volume of yields are either not used due to lack of knowledge about their application or are difficult to access due to limited availability. Producers rely heavily on imports of seeds and fruit tree saplings, as the supply of domestically produced saplings is insufficient to meet local demand. Production

is largely undertaken using outdated cultivation methods, which are inefficient and achieve low yields. This can be attributed to limited access to modern machinery, agricultural extension services and high-quality inputs, which prevents smallholders from adopting high-tech production methods.

### Box 5: The role of women in the fresh fruits and vegetables sector

Women play a major role in Afghanistan's agriculture sector. Approximately two-thirds of the female labour force works in this sector at some level. Occupational and vertical segregation is persistent in the country; women are mostly at the lower levels of the value chain, performing manual labour such as weeding, harvesting and postharvest sorting. Few women own land or have control over the crops they tend. Males dominate most trade-related activities (e.g. purchasing inputs and negotiating sales of produce).

Women often manage small orchards and vegetable gardens, either at their homes or at jointly managed smallholdings. Depending on the region, women are able to participate as day labourers picking fruit at their own family farm and neighbouring farms, as well as sorting produce in their homes. Although men negotiate the major bulk sales of produce, in certain regions – such as Badakshan, Baghlan, Daykundi and Bamyān – women do sell vegetables at the market.

## PROCESSING OF FFV

Only well-connected farmers sell their FFV directly to local consumers without the produce passing through any other value chain steps. Fresh fruits are usually stored in a traditional *Kishmish Khana* (literally meaning 'raisin house' in Persian), a storage facility to which farmers bring their produce until it is transported to processing facilities or markets farther afield. Regional traders collect FFV either from the *Kishmish Khana* or directly from smallholders, with non-refrigerated trucks used to move produce from point to point. Only a handful of refrigerated, modern 10-ton trucks are available in Afghanistan.

Traders are responsible for organizing the collected harvest, employing drivers for collection, and packaging produce for transportation. After the produce is collected from rural smallholders and aggregated at storage points, traders pass on the fresh produce to domestic value addition facilities, where fruits and vegetables are cleaned, graded, sorted and packed. The scarcity of adequate packaging material and crude packing methods lead to excess damage during subsequent transport. A small portion of fresh produce yields are sold to domestic food processing enterprises that produce dried fruits, fruit juices, jams, pickled vegetables, snack foods and other items.



Photo: Fruits & Vegetables, FOX25892.jpg

## DISTRIBUTION

After the processing stage, small and large wholesale hubs (*Mandvi*) serve as collection points for produce in every major urban centre. Afghanistan's six major urban centres – Kabul, Khost, Mazar-e-Sharif, Herat, Jalalabad and Kandahar – all have *Mandvi* markets for every type of fresh produce product. Local retailers and export traders will visit the *Mandvi* in each major city to examine produce and make purchases.

## DOMESTIC MARKET

Local retailers in villages and urban centres have several options for stocking up on fresh produce; they can pick up produce from the closest *Mandvi*, buy directly from smallholders or make purchases from the closest *Kishmish Khana*. Fresh fruits popular among Afghan consumers include domestically produced grapes, apricots, apples, almonds, pomegranates, citrus fruits, melons, cherries and plums. Popular fresh vegetables include carrots, cauliflower, cucumbers, eggplants, okra, onions, garlic, peppers and potatoes. The higher the quality of FFV, the higher the price on the domestic market.



Photo: Fruits & Vegetables, FOX25890.jpg

## INTERNATIONAL MARKET

### Fresh fruits

Export traders procure their fresh fruits from local farmers, retailers and *Mandvi* wholesale hubs. They consolidate produce, arrange packaging (or do it themselves), and generally sell in bulk quantities to international markets. In the last several years, a limited but growing number of Afghan exporters have developed the capacity to package produce in retail-ready plastic containers. Profit margins vary from product to product but estimates are that grape exports to Pakistan achieve a profit margin of 4%–16%.

The main export destinations for Afghan fresh fruits in 2016 were Pakistan (91% of total fruit exports) and Belarus (5.3% of total exports). Significantly lower amounts were exported to India, France, Senegal, Kazakhstan, Bahrain and Canada in 2016. In the same year, Afghanistan's primary export product (across all sectors) was grapes, with US\$72.5 million in export value. The main export destinations for Afghan fresh grapes were Pakistan (US\$71.5 million), Belarus (US\$716,000) and India (US\$133,000). Fresh apples were the second most valuable sector export for Afghan traders, with a total export value of US\$29 million in 2016. As with fresh grapes, the greatest share went to Pakistan (US\$18 million), followed by India (US\$1.4 million), Belarus (US\$203,000) and Kazakhstan (US\$39,000). Fresh

melons generated US\$3.6 million in export sales, while watermelons earned Afghan exporters US\$3 million. The main destinations for melons (of all types) were Pakistan, India and Bahrain.

### Fresh vegetables

The main export destinations for Afghan vegetables were Pakistan (90% of total vegetable exports), and Belarus (10%). Less significant export volumes were shipped to India, Switzerland and France. Tomatoes, with an exported value of US\$17 million, were the top vegetable export from Afghanistan. Of the US\$17 million in tomato exports in 2016, US\$16.5 million was generated in sales to Pakistan. After Pakistan, Belarus received US\$668,000 of tomatoes in 2016. When it comes to onion exports, Pakistan was again the primary destination market, with US\$8.4 million in imports of Afghan onions in 2016. India was the second-largest destination market for Afghan onions, with a mere US\$32,000 in export volume. Other top high-value exports include US\$2.3 million of cucumbers exported to Pakistan, and US\$2 million of mushrooms sold to Belarus. Potatoes are also an important export from Afghanistan. However, based on desk research and consultations, the reported exported value of potatoes likely underestimates the total value of exports.

Figure 5: Current value chain – fresh fruits in Afghanistan

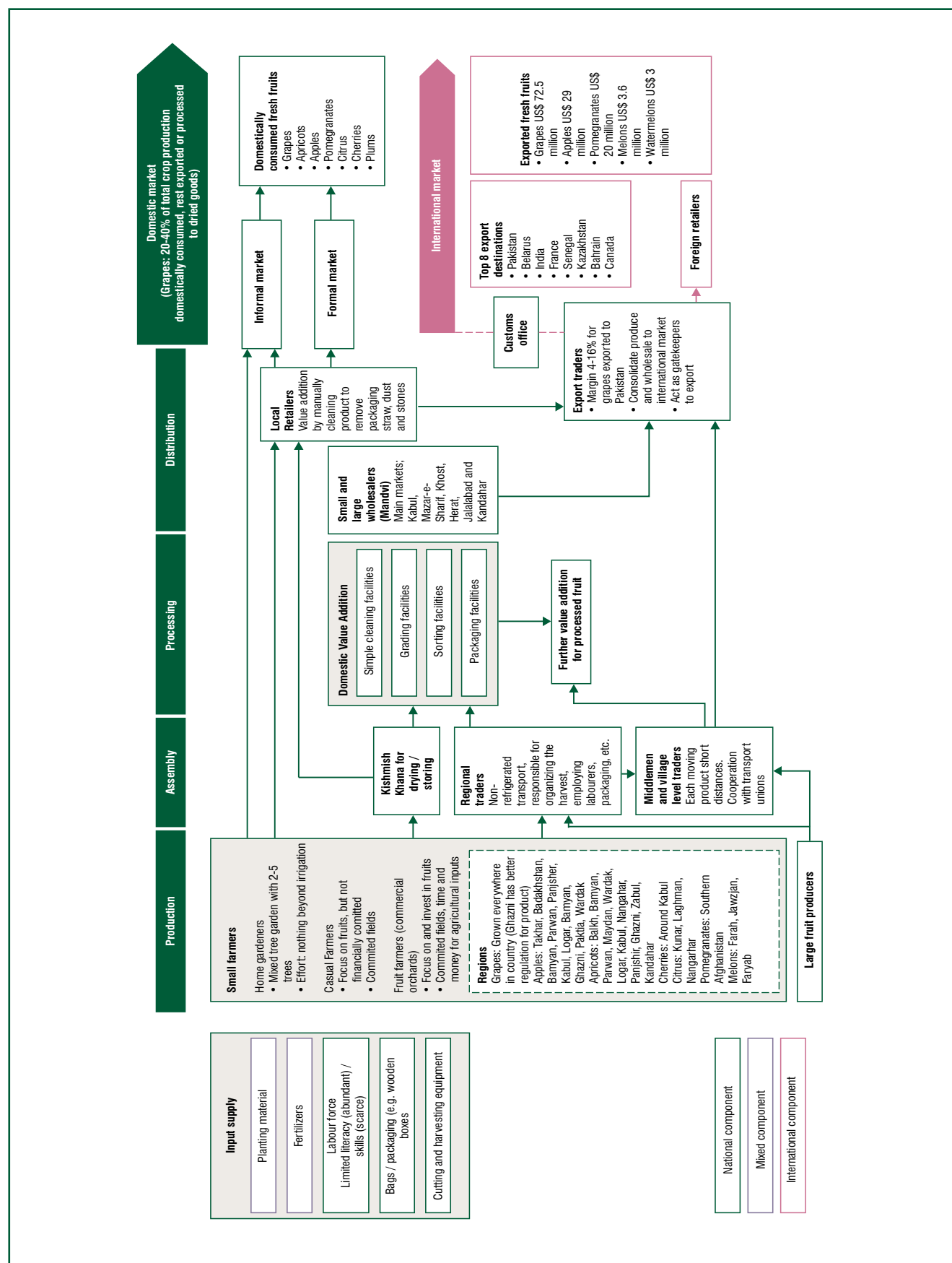
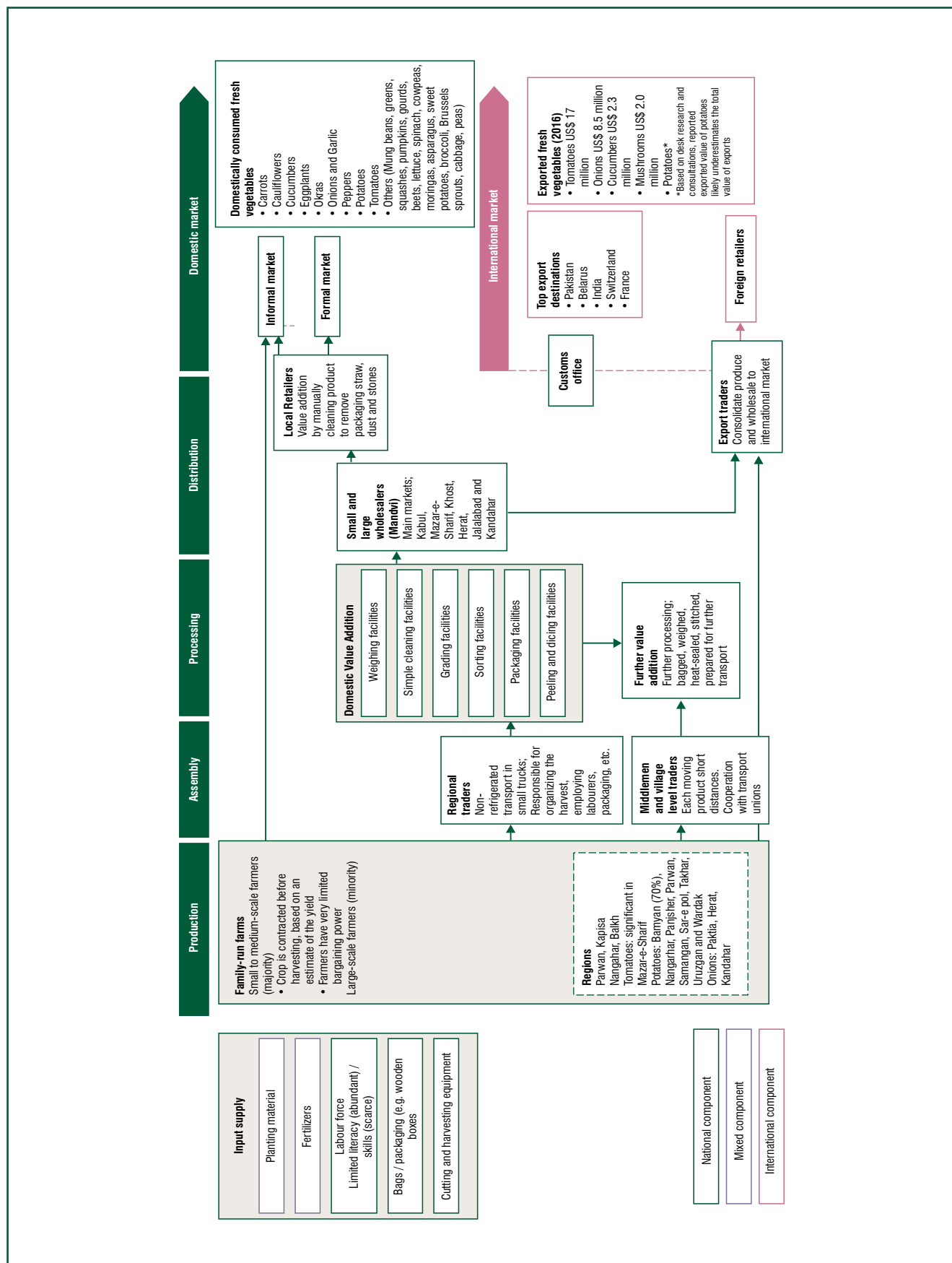


Figure 6: Current value chain – fresh vegetables in Afghanistan





## MARKET DYNAMICS PROMOTE LOW PRICE RATHER THAN HIGH QUALITY

The marketing chain for FFV involves local and regional traders and wholesalers, as well as national and international traders and wholesalers. Thousands of middlemen and traders operate at the local level in direct contact with producers. They work independently or for larger traders and wholesalers. Conversely, there are in general few large traders and market aggregators. It is important to highlight that social networks still influence how products are sold and cross borders. These networks are based on ethnicity, family relations and cross-border networks. While social networks facilitate informal credit, they may hinder the optimization of market opportunities by hampering contractual relations outside of them.

Wholesale markets are highly speculative and prices are rather volatile, which creates risks for sector stakeholders. Moreover, because of the lack of cold storage facilities, marketing of FFV occurs right after harvesting to minimize potential losses. With enormous volumes of fresh produce dumped into the market within a relatively short time frame, FFV are sold by farmers at relatively low prices. Additionally, there is usually little grading of produce, so farmers are not rewarded with better prices for high-quality yields. The natural consequence is that there is a lack of economic incentives to improve the quality of production.

## SUBSTANTIAL POSTHARVEST LOSSES AFFECT VOLUME AND CONSISTENCY OF PRODUCTION

In Afghanistan, postharvest losses of FFV are substantial, reaching as much as 50% to 60% of total production, although there is not enough reliable data available in many situations. This deficiency severely degrades the ability of Afghan traders to establish relationships with international buyers, who have three main requirements: shipments of bulk quantities, consistent supply of produce and consistent quality. Besides limiting export potential, loss of produce following the harvest also contributes to food insecurity, especially during Afghanistan's severe winters. Several issues along the value chain contribute to this problem. They can be categorized as technical and non-technical issues.

On the technical side, farmers' lack of awareness of and training in best postharvest practices – such as proper handling, sorting and grading of products – are immediate causes of postharvest losses. Farmers' lack of knowledge of quality standards and food safety issues, packaging and marketing also contribute to fresh produce losses. This lack of awareness and poor training of producers regarding these issues is mainly caused by insufficient and poor provision of agricultural extension services and lack of coordination among sector stakeholders.

On the non-technical side, there are several causes for loss of harvest, mainly related to the weak cold chain infrastructure and low number of refrigerated trucks in the country, which are vital for perishable products such as FFV. Another major issue is poor packaging. The paucity of packaging facilities and packaging input materials are also among the main causes of food spoilage and waste.

Proper packaging of fresh produce can help reduce spoilage by providing protection from damage during handling, transport and storage.

Access to adequate cold storage facilities is also limited nationally. There are approximately 3,164 cold storages with more than 120 000 metric tons overall capacity in the country. While the current need of cold storage space is calculated to be roughly 290 000 metric tons.<sup>6</sup> Consequently, produce remains in inappropriate storage conditions for long periods, which affects its shelf life and quality. Low availability of storage facilities also limits households' capacity to sell produce after harvest, which is when prices are higher. Traditional storage facilities are substandard, being primarily partly underground cellars, which are meant to maintain fruits and vegetables in a cool environment and prevent spoilage. Cellar size varies from small rooms to large spaces. These facilities are a low-cost, easy-to-build alternative to modern storage facilities but humidity and temperature are not controlled in these cellars. Therefore, there is a high likelihood of spoilage, as farmers indicate 30–35% of products spoil once in these cellars.

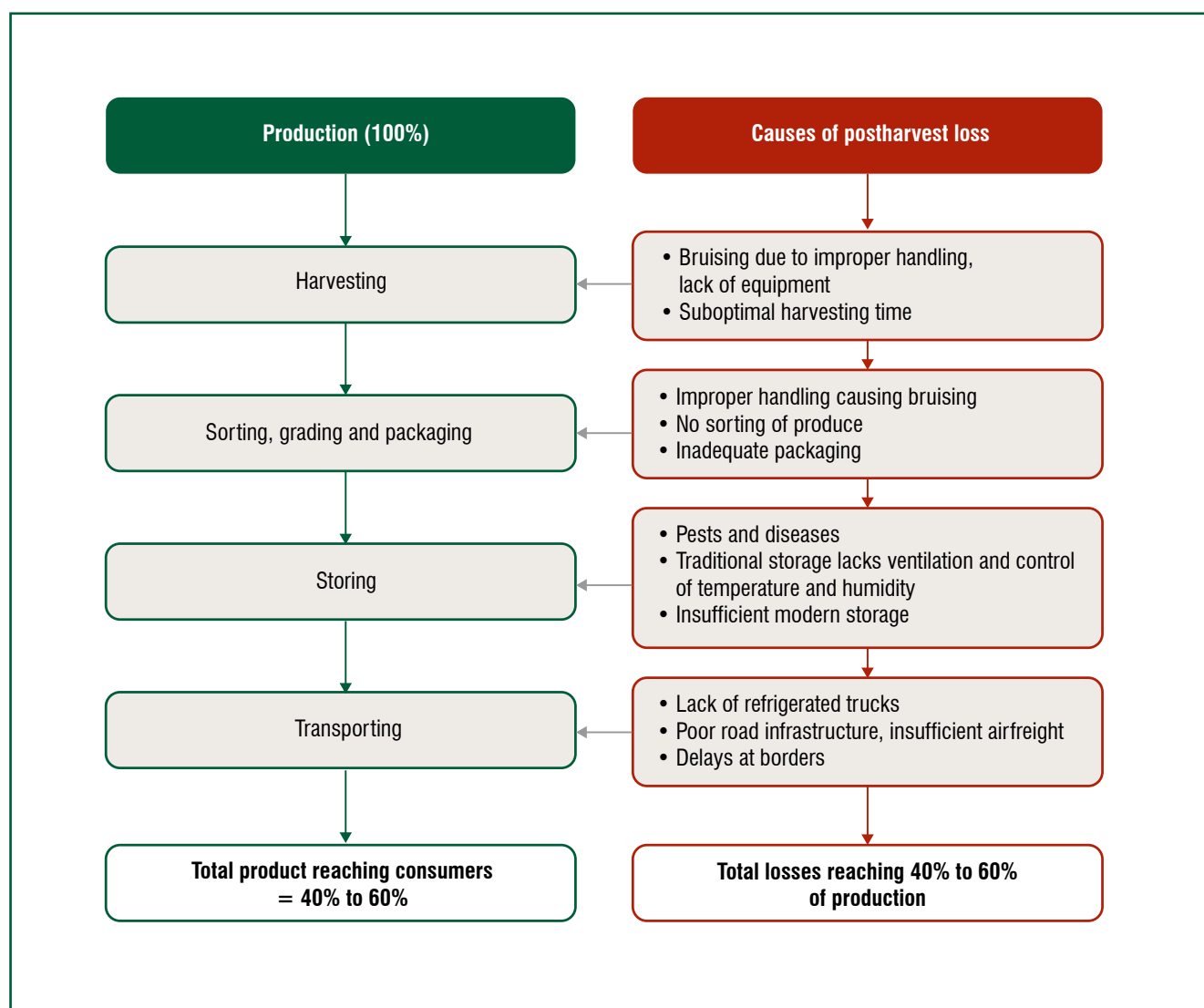
On the other hand, modern storage facilities with temperature and humidity control are expensive to operate for most producers. Investment in storage facilities is partially inhibited by the lack of availability and high cost of land in the country. Moreover, land acquisition can be a long process

6.– Office of the Economic Advisor (2017): Cold Storage Industry of Afghanistan.

in Afghanistan, lasting up to seven years. These modern facilities are also not designed to accommodate smaller quantities, as they lack separate compartments with controllable temperatures. Using these storage facilities is thus prohibitively expensive for small firms because they must cover the cost of using the whole space. Another challenge is the difficulty maintaining a constant supply of electricity, which is vital for these facilities. At present, electricity supply is unreliable (particularly in rural areas) and expensive.

Finally, lack of refrigerated trucks and poor road infrastructure are also root causes for the substantial postharvest losses in this sector, especially considering that air freight options are limited and costly. Investment in refrigerated transportation has been deterred so far because of the uncertainty of profit margins in current trade, difficulties crossing borders for transit trade, and security risks.

**Figure 7: Technical and non-technical causes of postharvest losses in Afghanistan's fresh fruit and vegetables sector<sup>7</sup>**



7.– There are some discrepancies regarding estimated percentages of post-harvest losses. The World Vegetable Center (2014) estimates post-harvest losses of around 60% for Afghan vegetables and fruits. See: World Vegetable Center (2014) "Cutting food losses in South Asia". Available at: <https://avrdc.org/cutting-food-losses-south-asia/>

While other sources indicate 40% of losses for all agricultural products. See: Office of the Economic Advisor (2017) "Cold storage industry of Afghanistan". Available at: <http://afghaneconomics.com/research/rs16.html>

## LOGISTICAL CHALLENGES DELAY DELIVERY AND DEGRADE QUALITY

Afghanistan's landlocked geography and poor road infrastructure pose severe challenges to exporting FFV. This has resulted in weak connectivity with international markets, and even difficulties with distribution within Afghanistan. If border crossings were expedited and refrigerated trucks available, Afghan traders could transport shipments by ground to Karachi Port in Pakistan or the newly inaugurated Chabahar Port in the Islamic Republic of Iran. Afghan fresh produce could then be loaded onto refrigerated cargo ships. At present, though, the Karachi Port option is not particularly appealing, as Afghan shipments face severe challenges related to transit of vehicles through Pakistan.

Not only are delays common at the Afghanistan–Pakistan border due to obstacles created by Pakistani Customs officials but there are also frequent incidences of corruption. Shipments of Afghan FFV are particularly vulnerable to corrupt officials, as an entire truckload of produce can rot in a matter of days if 'speed money' is not paid. Furthermore, Afghan traders have pointed to periodic

border closures initiated by the Pakistani Government, which tend to occur at the height of the postharvest season when millions of dollars of fresh produce stands by to cross the border. The Chabahar Port option may become viable in the future but only time will tell if this trade route will lead to significant increases in exports by sea freight.

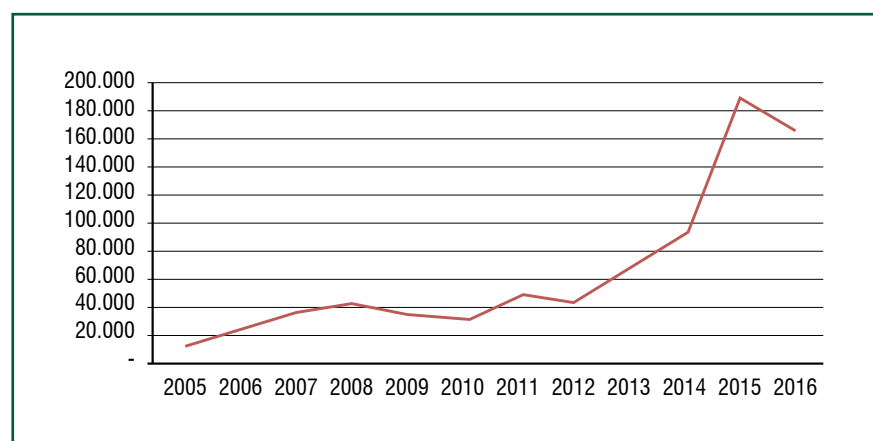
One remarkable trade-related development in 2017 was the launch of a dedicated air corridor between Afghanistan and India. A key component of this initiative has been subsidized airfares and expedited Customs clearance on the Indian side. At present, 1–2 cargo flights per week fly out of the airports of Kabul and Kandahar, with FFV representing much of the cargo volume.

Despite several positive transport developments in 2017, producers and traders still suffer from the spoilage of their fresh produce due to lack of shipping options. These issues translate into higher transportation costs, higher rates of spoilage and less competitive prices of products.

## AFGHANISTAN'S CURRENT EXPORT PERFORMANCE

FFV exports accounted for around 21% of total Afghan exports in 2016, valued at nearly US\$ 168 million. Promisingly, sector exports have increased by a factor of seven over the last 10 years. With the addition of more export destinations, the Afghan FFV sector has grown strongly since 2012. In particular, remarkable growth in shipments to India has boosted the fresh produce sector's export performance.

**Figure 8:** Afghan exports of fresh fruits and vegetables, 2005–2016 (US\$ thousands)



Source: ITC.

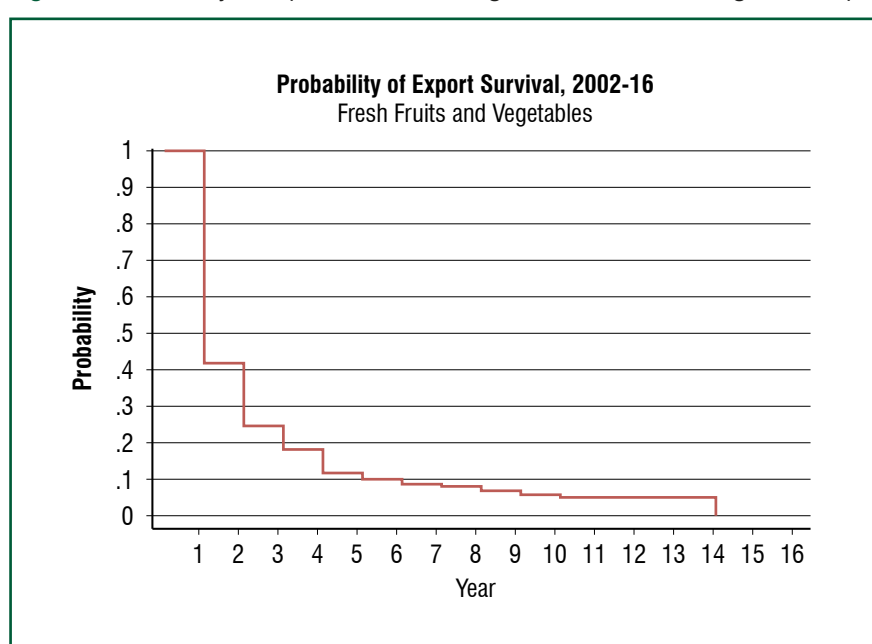


## SURVIVABILITY AND SUSTAINABILITY OF EXPORT RELATIONSHIPS

Although the sector has been able to achieve impressive export growth, difficulties in maintaining stable export relationships threaten the realization of its full potential, as export relationships have tended to be short-lived. The drop in exports to certain markets after the first year indicates that while buyers were initially pleased with the product, in the medium-term Afghan exporters were not able to effectively respond to buyers' requirements.

ITC has developed a method to estimate the probability that an export relationship survives after an initial sale takes place. According to ITC calculations for the Afghan FFV sector, the probability of export relationships surviving after the first year is only around 40%. The probability of maintaining a relationship for five years is only around 10%. Enterprises will need to improve their ability to maintain stable relationships with foreign buyers in the future if export development is to be sustained.

**Figure 9: Probability of export survival for Afghan fresh fruit and vegetable exporters, 2002–2016**



Source: ITC.

## Afghanistan's export basket has begun to diversify, but limitations remain to diversify destination markets.

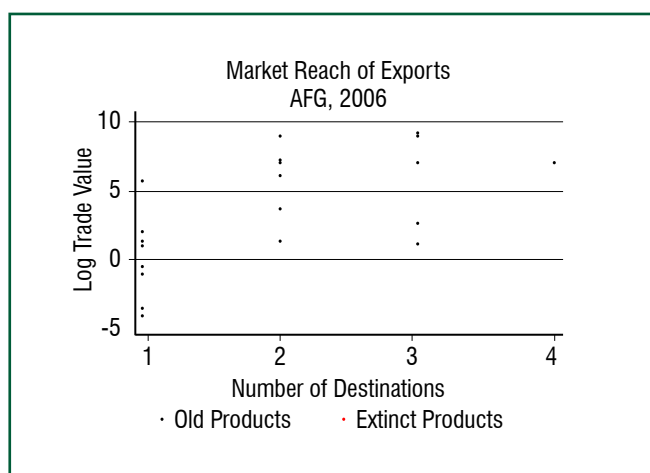
Figures 10 and 11 provide a comparison between the sector's export basket in 2006 and 2016. The figures compare the number of products and the number of markets reached by each variety of fruit or vegetable. The horizontal axis presents the number of markets reached, while the vertical axis shows the value of the export flow (in logs). Each dot represents a variety in the export basket of the FFV sector. Red dots appear when the basket contains varieties which existed in 2006 but not in 2016 (extinct products). Products which were not exported by Afghanistan in 2006 but were exported in 2016 appear in green (new products).

Comparing the two charts, it is clear that Afghanistan's FFV sector has been able to reach a larger number of markets over the last decade. In 2006, fresh produce only reached a maximum of four export destinations. Ten years later, in 2016, the sector's products managed to reach up to seven destinations, which indicates greater export reach and diversification in export destinations. During this period, Afghan traders have been able to increase the number of products they are able to export, which bodes well for the long-term sustainability of the sector.



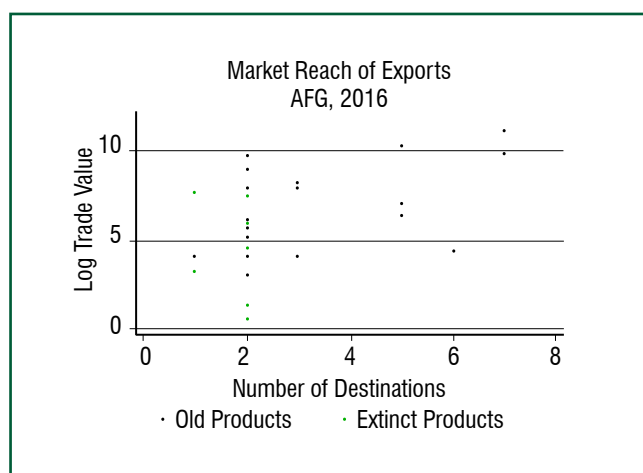
Photo: Fruits & Vegetables, FOX25906.jpg

**Figure 10:** Market reach of Afghan fresh produce exports, 2006



Source: ITC.

**Figure 11:** Market reach of Afghan fresh produce exports, 2016



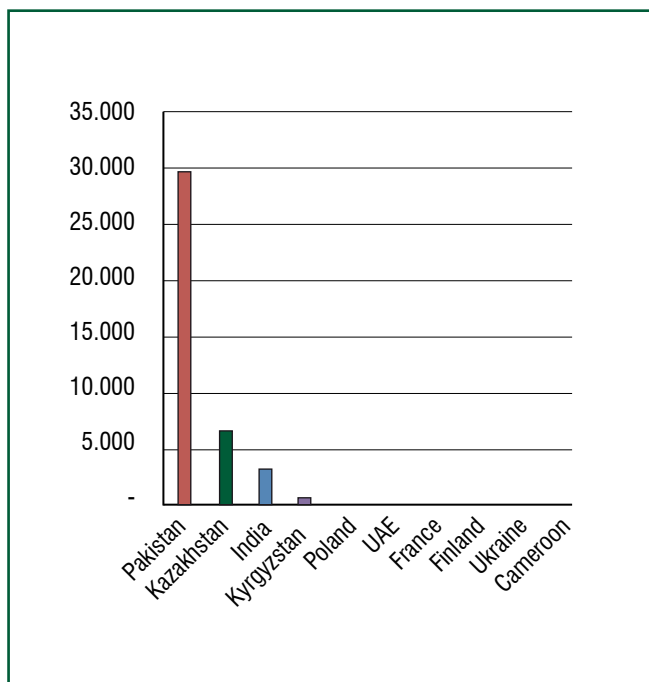
## Pakistan remains the main export destination

Pakistan remained the most important export destination for Afghan FFV throughout the period between 2008 and 2016. Since 2008, Kazakhstan has lost importance as an export destination, with Belarus and India now trailing Pakistan as the second and third most significant export destinations, respectively. Kyrgyzstan was the fourth most important export destination for Afghan fresh produce in 2008 but by 2016 it had been bumped off the top 10 list. During this eight-year period, Afghan traders were able to access a number of new markets in different regions, including France and Switzerland in Europe, Senegal in Africa, Bahrain in the Middle East, Canada in North America and Malaysia in East Asia.

## Grapes continue to lead exports but other fresh produce is gaining importance

Grapes remain the highest-value item in the Afghan FFV export basket. While grapes were responsible for 83% of sector exports in 2008, this percentage had dropped to just 43% by 2016. This change in percentage does not indicate a decline in grape exports (they are still the number one Afghan export across all sectors) but rather that Afghan traders are selling a much larger variety of fresh produce than eight years ago. Apples, pomegranates, melons, watermelons and tomatoes now stand beside grapes as major sector exports. The overall trend for the sector is that fresh fruits are earning far more in export sales than their fresh vegetable peers.

Figure 12: Afghanistan's top 10 export destinations for fresh fruit and vegetables, 2008 (US\$ thousands)



Source: ITC.

Figure 13: Afghanistan's top 10 export destinations for fresh fruit and vegetables, 2016 (US\$ thousands)

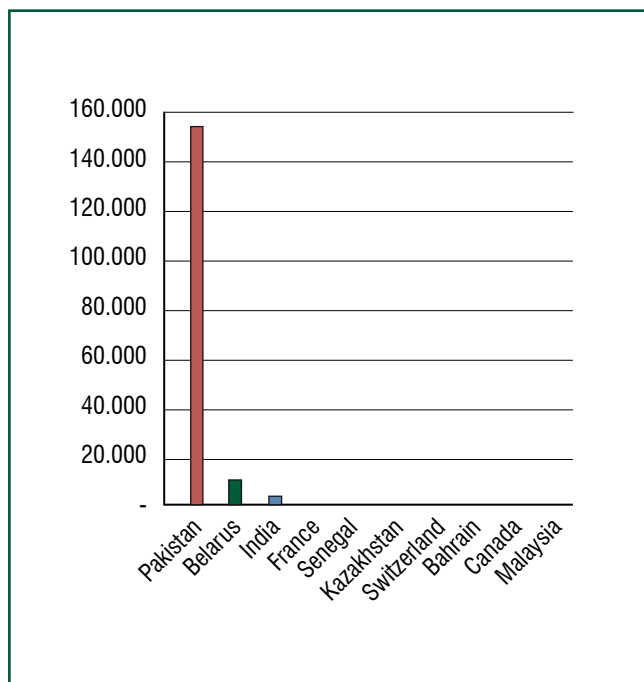
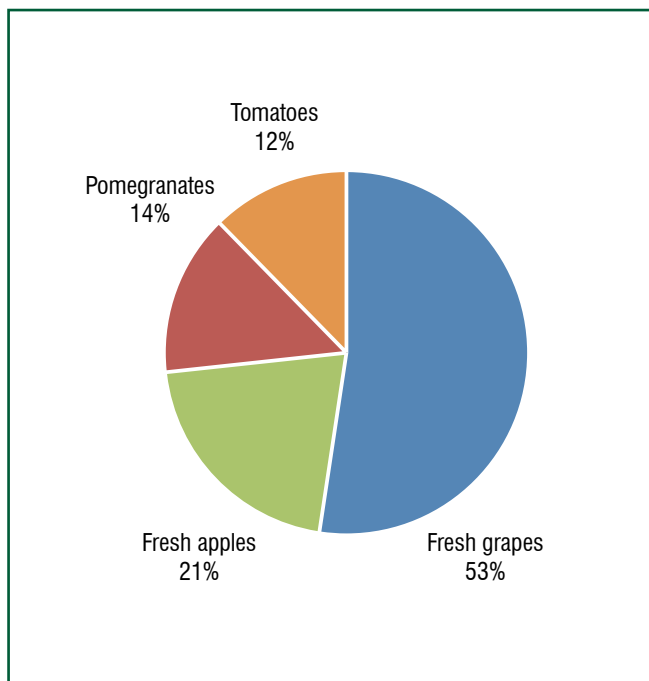
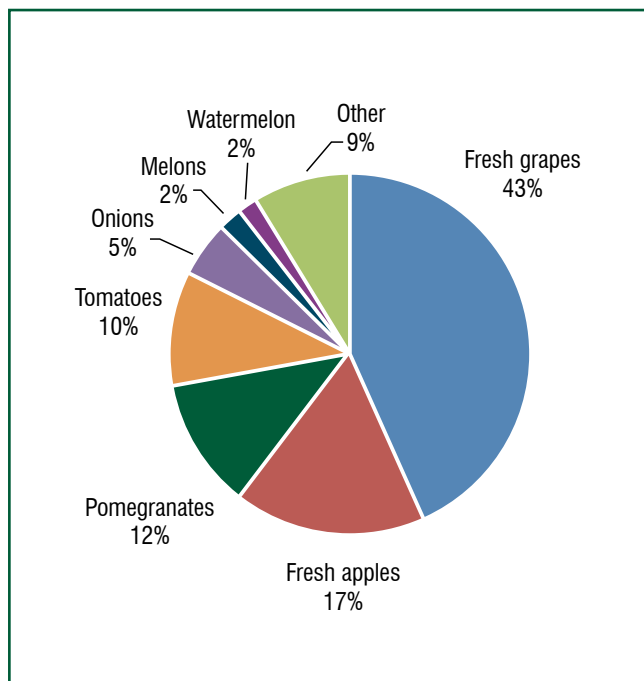


Figure 14: Afghanistan sector export basket, 2008



Source: ITC.

Figure 15: Afghanistan sector export basket, 2016



## AFGHANISTAN'S LEADING FRESH VARIETIES

### FRESH FRUITS

#### Fresh grapes

Pakistan is the most important export destination for grapes, with 99% of Afghanistan's grapes shipped to its southern neighbour. Despite the overwhelming volume of Afghan grapes heading to Pakistan, Afghan traders have made

inroads with grape sales in a number of new markets. These markets include Belarus, France and Senegal. Two other destination markets over the last several years have been India and France, with remarkable export growth in both these countries. Grape exports to India grew at an average annual rate of 91% between 2012 and 2016, with 43% an average annual rate growth of grape exports to France during this same time period.

Table 8: Afghanistan's main import markets for fresh grapes

Importers	Exported value in 2016 (US\$ thousands)	Annual growth ( % )	Fresh grapes
			Share of Afghan exports ( % )
World	72 503	45.81	-/-
Pakistan	71 551	45.00	98.69
Belarus	716		0.99
India	133	91.00	0.18
France	76	43.00	0.10
Senegal	27		0.04

Source: ITC.

#### Fresh apples

Apple exports stood at US\$28.9 million in 2016, with average annual growth of 71% since 2012. The main export destination was Pakistan, where 91% of apple exports were shipped. India is another significant importer of Afghan apples, with US\$2.1 million in imports in 2016. Other importers of Afghan apples include Belarus, Senegal and France.

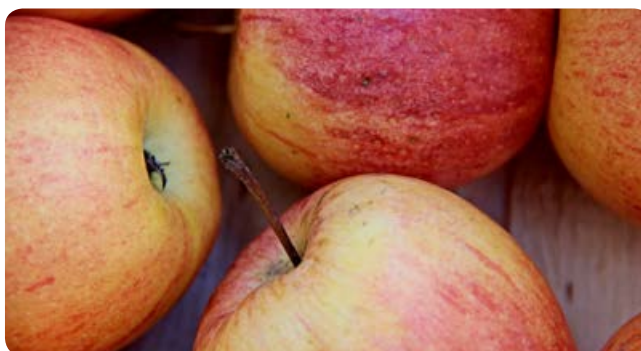


Photo: pixabay, apple-3160533.jpg

Table 9: Afghanistan's main import markets for fresh apples

Importers	Exported value in 2016 (US\$ thousands)	Annual growth ( % )	Fresh apples
			Share of Afghan exports ( % )
World	28 890	71.44	-/-
Pakistan	26 179	67.00	90.62
India	2 140		7.41
Belarus	378		1.31
Senegal	186		0.64
France	7	-6.00	0.02

Source: ITC.



## Melons

Afghan melons only recently joined the sector export basket, with exports valued at US\$6.6 million in 2016. The primary

export destination was Pakistan, which received 97% of exported Afghan melons. India and Bahrain were two new export destinations for Afghan melons in 2016.

**Table 10: Afghanistan's main import markets for fresh melons and watermelons**

Importers	Exported value in 2016 (US\$ thousands)	Annual growth ( % )	Melons (melons and watermelon)
			Share of Afghan exports ( % )
World	6 617	-/-	-/-
Pakistan	6 407	25	97
India	199		3
Bahrain	11		0

Source: ITC.

## Pomegranates

Although pomegranates do not have an individual HS code and are included under HS code 081090, it is likely that, for Afghanistan, most exports under this code are in fact pomegranates, considering the significant production of this fruit in the country, particularly compared to the other fruits covered under this code.

As with other exported fresh fruits from Afghanistan, Pakistan was the most important export destination for other Afghan fruits including pomegranates. India was the second-largest importer of the variety with a share of 7% of Afghan exported other fruits, including pomegranates. Other importers were Belarus and Kazakhstan, markets which have only recently become export destinations for this product.



Photo: comments 9 3 18, pomegranate-58554.jpg

**Table 11: Afghanistan's main import markets for pomegranates**

Importers	Exported value in 2016 (US\$ thousands)	Annual growth ( % )	Other fruits (including pomegranate)
			Share of Afghan exports ( % )
World	28 890	71.44	-/-
Pakistan	18 062	54.00	91.67
India	1 400		7.11
Belarus	203		1.03
Kazakhstan	39		0.20

Source: ITC.

## FRESH VEGETABLES

### Tomatoes

Afghanistan exported US\$ 17 million in tomatoes in 2016. Tomato exports have grown rapidly, at an average annual rate of 66% between 2012 and 2016. The vast majority of tomato exports (96% of total) were shipped to Pakistan. The remaining 4% of tomato exports in 2016 were sent to Belarus, with an export value of US\$ 668,000.



Photo: comments 9 3 18, By The Photographer (Own work) [CC0], via Wikimedia Commons.jpg

Table 12: Afghanistan's main import markets for tomatoes

				Tomatoes
Importers	Exported value in 2016 (US\$ thousands)	Annual growth ( % )	Share of Afghan exports ( % )	
World	17 160	66.07	-/-	
Pakistan	16 492	65.00	96.11	
Belarus	668		3.89	

Source: ITC.

### Onions

Afghan onion exports grew at an average annual rate of 6% between 2012 and 2016, which is comparatively less than other sector products. The total exported value stood at US\$8.4 million in 2016, with the majority of that amount going to Pakistan. India is a new destination market for Afghan onions, although the export value was a mere US\$32,000 in 2016 (less than 1% of total onion exports).



Photo: comments 9 3 18, (CC BY 2.0) Mike Licht.jpg

Table 13: Afghanistan's main import markets for onions

				Onions
Importers	Exported value in 2016 (US\$ thousands)	Annual growth ( % )	Share of Afghan exports ( % )	
World	8 432	5.96	-/-	
Pakistan	8 400	6.00	99.62	
India	32		0.38	

Source: ITC.

### Mushrooms

Mushrooms are also a promising crop currently being cultivated, and their production is being encouraged by international organizations and development partners. It is worth mentioning that they are mainly exported to Belarus (roughly

US\$2 million in 2016), although this data may be underestimated because unrecorded exports to Pakistan have been reported. Afghan mushrooms – mainly dried – are shipped through Pakistan to third countries under the Pakistani trademark, after being further processed and packed there.

## 'MUSH' ROOM FOR IMPROVEMENT: A SERIES OF CHALLENGES PREVENTING SECTOR GROWTH

### Key issues constraining the sector's ability to compete/connect/change

The following section analyses sector challenges across three levels – firm capabilities; institutional and trade support; and national environment, policy and regulations. Three dimensions of competitiveness of Afghanistan export were analysed.

**Compete:** Issues limiting the sector's capacity to compete in national and foreign markets. This includes challenges related to access to inputs, productivity, national infrastructure, quality management and complying with standards, among others.

**Connect:** Issues restraining connectivity to suppliers, markets and clients. This dimension includes challenges related to market information, marketing and trade promotion, branding and trade agreements, among others.

**Change:** Issues limiting the sector's capacity to change, innovate and tap into emerging trends. This dimension relates to challenges accessing trained/skilled labour, intellectual property protection, institutional support to innovate, investment promotion and protection, corporate social responsibility and youth and women's employment, among other issues.

### COMPETE

The FFV sector has significant growth and export potential. However, sector competitiveness is currently limited by low levels of production and high postharvest losses, as well as a poor capacity to meet quality and food safety standards in international markets.

#### Farmers have limited capacity to engage in market-oriented production

Weak dissemination of market information to stakeholders at the production level limits their ability to plan and organize production strategically, based on market prices and demand. Moreover, producers have poor knowledge of fruit varieties that fetch premium prices in foreign markets. Underlying root causes include the near complete absence of information about prices in international wholesale markets, the fragmented nature of the market (i.e. insufficient producer cooperative structures), and the lack of communication channels for farmers and traders to coordinate and to exchange market information.

Value chain segment	Production
Severity	● ● ● ● ●
PoA reference	Activities 1.4.1. to 1.4.5, 1.7.1 to 1.7.4, 4.1.4

#### Key operational costs are higher throughout the value chain, making Afghan exporters less price competitive

The cost of production inputs (e.g. fertilizers and labour), are higher in Afghanistan than in regional countries, which negatively impacts price competitiveness for Afghan FFV. This weakness is exacerbated by the continuous depreciation of the Pakistani and Iranian currencies, allowing both of these neighbouring countries to sell fresh produce to foreign buyers at inordinately low prices. Another obstacle that hurts the price competitiveness of Afghan exporters is the high cost of packaging materials, which again is more expensive to procure for Afghan traders and sector enterprises than their peers in regional countries. Finally, transport costs are high both as a result of Afghanistan's landlocked geography as well as illegal taxes and bribes in transit and at the borders.

Value chain segment	All segments
Severity	● ● ● ● ○
PoA reference	Activities 1.3.1 to 1.3.3, 3.5.2, 3.5.3

## Limited domestic availability of critical inputs constrains growth and quality of production

Production levels are constrained by the limited availability and inconsistent supply of critical inputs for production. Domestically produced fruit tree saplings are scarce, which has resulted in producers resorting to more costly imports. The sector is also dependent on imported fertilizers and pesticides, which creates difficulties for producers in terms of access and affordability. Fragmented distribution networks and weak links to suppliers are underlying root causes behind the limited availability of inputs for production. Water for irrigation is another key input, with current irrigation systems outdated or in disrepair, and farmers rarely using specialized technology to optimize use of water.

Value chain segment	Inputs/production
Severity	● ● ● ○ ○
PoA reference	Activities 1.3.1 to 1.3.3

## Low production yields are partly explained by outdated farming methods

A heavy reliance on outdated production methods creates inefficiencies and limitations in terms of productivity. Explanatory factors behind the limited adoption of advanced cultivation techniques are the lack of knowledge of better production methods and difficulty accessing capital, combined with a risk-averse mentality that inhibits reform.

Advanced cultivation methods could be promoted through provision of agricultural extension services, which is currently limited by numerous obstacles. These include the lack of female extension service providers, the low presence of extension agents at the provincial level, insufficient ongoing in-service training offered to extension service agents, and difficulty retaining qualified staff due to uncompetitive salaries.

Besides the expertise to use advanced cultivation methods, farmers also need capital to purchase modern machinery and high-quality production inputs. This issue needs to be addressed through institutional support in the form of financial instruments that increase access to capital. With more capital, Afghan farmers can purchase more and better-quality inputs, including high-yield fruit tree saplings, fertilizers, pesticides and planting/harvesting machinery.

Value chain segment	Production
Severity	● ● ● ● ●
PoA reference	Activities 1.4.1. to 1.4.5, 1.5.1 to 1.5.6, 1.6.1 to 1.6.3

## Severe postharvest losses are mainly caused by rough handling and weak cold chain infrastructure

Substantial postharvest losses are linked to careless post-harvest handling, a weak cold chain infrastructure and a dearth of refrigerated trucks. As explained in previous sections, the causes of postharvest losses can be categorized as technical and non-technical. At the technical level, there are inadequate postharvest practices among value chain actors and poor knowledge regarding cold supply management.

At the non-technical level, low levels of investment (among other factors) has resulted in a scarcity of cold storage facilities and refrigerated trucks. Moreover, existing cold storage facilities are frequently not up to international standards, as they lack controls for moisture, temperature and air flow. With few (if any) long-term cold storage options, producers and traders are forced to dump their fresh produce into the market as fast as possible, resulting in sub-optimal prices.

Value chain segment	Production/distribution
Severity	● ● ● ● ●
PoA reference	Activities 2.1.1 to 2.1.3, 2.2.1 to 2.2.5

## The sector has poor capacity to meet international safety and quality standards

On the production side, there is poor understanding of quality control and food safety management practices across the value chain. Several factors contribute to lower produce quality, including poor grading and sorting at the farm level, as well as substandard processing and packaging methods. As a result, much of Afghanistan's fresh produce does not comply with international market requirements.

FFV are often exposed to contaminants in wholesale markets (e.g. untreated well water) as well as high levels of moisture that allow bacteria to grow. Moreover, although most production is performed without chemicals such as pesticides, there is no control or enforcement of standards when it comes to chemical residue on fresh produce. Additionally, products are rarely sorted or graded, leaving farmers little incentive to work towards high-quality, premium-priced yields.

As a result, noteworthy Afghan fruits such as fresh grapes and apricots are currently considered 'inadmissible' to enter the United States market, as per regulations of the Animal and Plant Health Inspection Service. Obtaining access to the United States market is a process that usually takes several years.





Photo: Fruits & Vegetables, FOX20212.jpg

## Box 6: List of fruits and vegetables approved for the United States market

### All countries (no permit required)

- |                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• Aloe vera (above-ground parts)</li> <li>• Bat nut or devil pod (<i>Trapa bicornis</i>)</li> <li>• Cannonball fruit</li> <li>• Chinese water chestnut</li> <li>• Coconut</li> <li>• Corn smut galls</li> <li>• <i>Cyperus</i> corm</li> </ul> | <ul style="list-style-type: none"> <li>• Edible flowers (inflorescences only)</li> <li>• Garlic cloves, peeled</li> <li>• Ginger root</li> <li>• Lily bulb (<i>Lilium</i> spp.)</li> <li>• Maguey leaf</li> <li>• Matsutake</li> <li>• Mushroom</li> </ul> | <ul style="list-style-type: none"> <li>• Palm heart, peeled</li> <li>• Peanut</li> <li>• Pomegranate arils</li> <li>• St. John's Bread</li> <li>• Singhara nut (<i>Trapa bispinosa</i>)</li> <li>• Tamarind</li> <li>• Truffle</li> <li>• Water chestnut (<i>Trapa natans</i>)</li> </ul> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Source: United States Department of Agriculture.

Likewise, lack of uniformity in shape and colour of produce, for example, can affect the entrance of certain fruits –such as grapes– to the EU, under the European Specific Marketing Standards regulation. In terms of appearance, in many cases, fruit have irregular sizes and different colours, as well as bruises because of poor packaging. The lack of uniformity is caused by the range of varieties used and the propagation of species being done without grafting, among other reasons.

On the institutional side, there is weak Government capacity to perform phytosanitary and quality control testing. This is mainly due to the extremely limited number of testing

facilities that can confirm that fresh produce meets international standards. Many existing laboratories are poorly equipped and staffed, while other advanced donor-funded laboratories cannot recruit and retain qualified staff due to uncompetitive salary scales. Finally, the traceability of produce –a common requirement for developed markets– is essentially non-existent.

Value chain segment	All segments
Severity	● ● ● ● ○
PoA reference	Activities 3.2.1, 3.2.2, 3.3.1 to 3.3.5

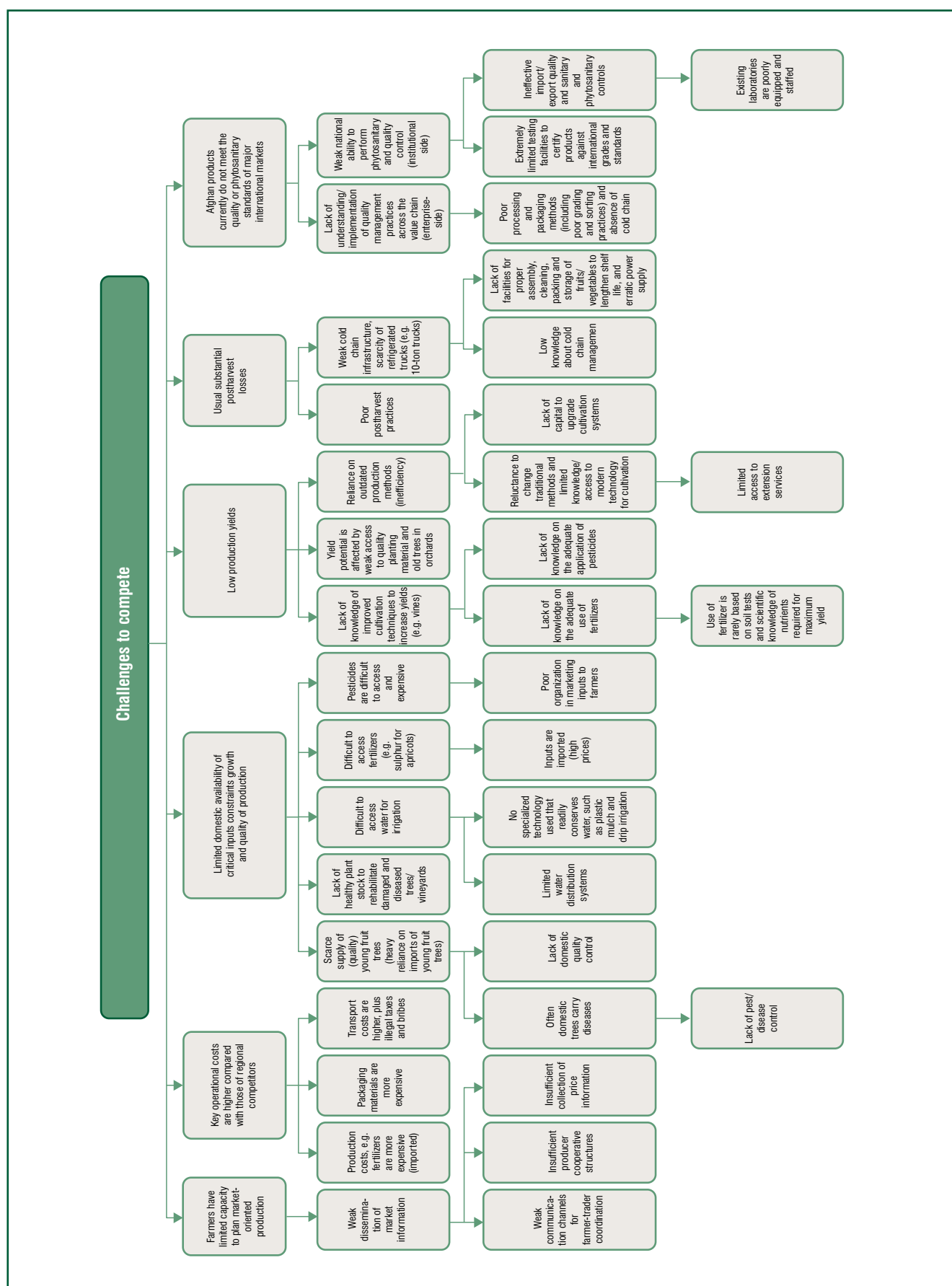




Photo: Fruits & Vegetables, FOX20223.jpg

## CONNECT

Besides factors which limit the sector’s ability to compete in international markets, additional constraints affect the ability of sector enterprises to connect with international buyers.

### Poor logistics and trade-related infrastructure create challenges for Afghan exporters

As discussed in previous sections, Afghanistan’s land-locked geography limits transport options for exporting FFV. Depending on the product, Customs delays and poor road infrastructure inhibit the export of certain types of highly perishable fresh produce. Recent success launching the Afghanistan-India air corridor, as well as the inauguration of the Chabahar Port route through the Islamic Republic of Iran, hold great promise. With that said, the air corridor still lacks cold storage facilities at the airports in Kabul and Kandahar, while the Chabahar Port route remains unproven as a major transit route for exports of Afghan fresh produce. Main activities aiming at addressing these issues are covered under the Afghanistan NES document, under the section on Trade Facilitation.

Value chain segment	Distribution
Severity	● ● ● ● ○
PoA reference	Activity 1.1.2, 4.2.3

### Uncertainty and irregularities in Customs and border procedures harms traders’ capacity to access distant markets

Customs delays and uncertainty, as well as burdensome border procedures, negatively impact exporters on several fronts. Instances of corruption and excessive bureaucracy preparing for Customs clearance create needless burdens for traders, who are often required to obtain an assortment of certificates from various Government agencies prior to export.

Another major obstacle for Afghan traders is uncertainty over transit of goods. Although high-level transit agreements have been hammered out between the Afghan Government and its neighbours, the implementation of these agreements has been spotty at best. Many Afghan trucks loaded with fresh produce are forced to offload cargo on the Afghan side of the border and then use trucks operated by the import/transit country to continue the voyage to the buyer. This additional step causes damage to fresh produce from rough handling during the transfer, as well as increasing the rate of spoilage as a result of hours (if not days) of delays. Finally, the additional hassle of transferring goods from one truck to another at borders decreases the incentive of Afghan traders to invest in refrigerated trucks, as they cannot be used beyond Afghanistan’s borders.

Value chain segment	Distribution
Severity	● ● ● ● ●
PoA reference	Activities 2.2.1, 2.2.5





Photo: Fruits &amp; Vegetables, FOX25921.jpg



Photo: Airport, FOX27133.jpg

## Packaging services and materials are inadequate

Deficiencies in packaging of produce is another factor limiting the export capacity of the sector. These shortcomings in packaging have three significant ramifications: produce is less able to withstand long voyages, the produce is less attractive to international buyers and shipments may not comply with packaging regulations in developed markets.

Addressing the packaging challenge will not be easy, as facilities for packing fresh produce are limited and often employ substandard methods. Little consideration is given to packaging best practices for each specific type of fresh fruit and vegetable. A final element of this dilemma is cost, as most packaging material must be imported at great expense.

Despite these critical weakness, a few measures have been taken to alleviate this situation. Activities to be considered include spreading awareness of target market packaging requirements, as well as planning and implementing training for sector enterprises on how to comply with mandatory packaging requirements in target markets, such as International Standards For Phytosanitary Measures (ISPM) 15 (a requirement in the EU and India).

Value chain segment	Marketing/distribution
Severity	● ● ● ● ○
PoA reference	Activities 3.5.1 to 3.5.3

## Marketing and branding of Afghan FFV is still underdeveloped

There is poor promotion of Afghan products in international markets, with no national 'Made in Afghanistan' brand to distinguish Afghan fresh produce from competitor varieties.

Value chain segment	Marketing
Severity	● ● ● ○ ○
PoA reference	Activities 4.4.1, 4.4.2

## Gathering market intelligence has not been prioritized

There have been minimal efforts to collect and disseminate market information to sector stakeholders.

Producers and exporters remain largely ignorant of prices, import regulations and preferential tariff rates for Afghan imports in target markets. This appears to be the result of a complete lack of any programme by Government or non-government agencies to gather market intelligence on behalf of sector producers and exporters.

The consequence of this intelligence shortcoming is that export relationships in key target markets have been difficult to develop. Afghan traders simply do not have the necessary information to look at a target market, evaluate the consumer landscape, note prices for key products and make a decision about whether or not to enter the market (and time entry to achieve optimal prices).

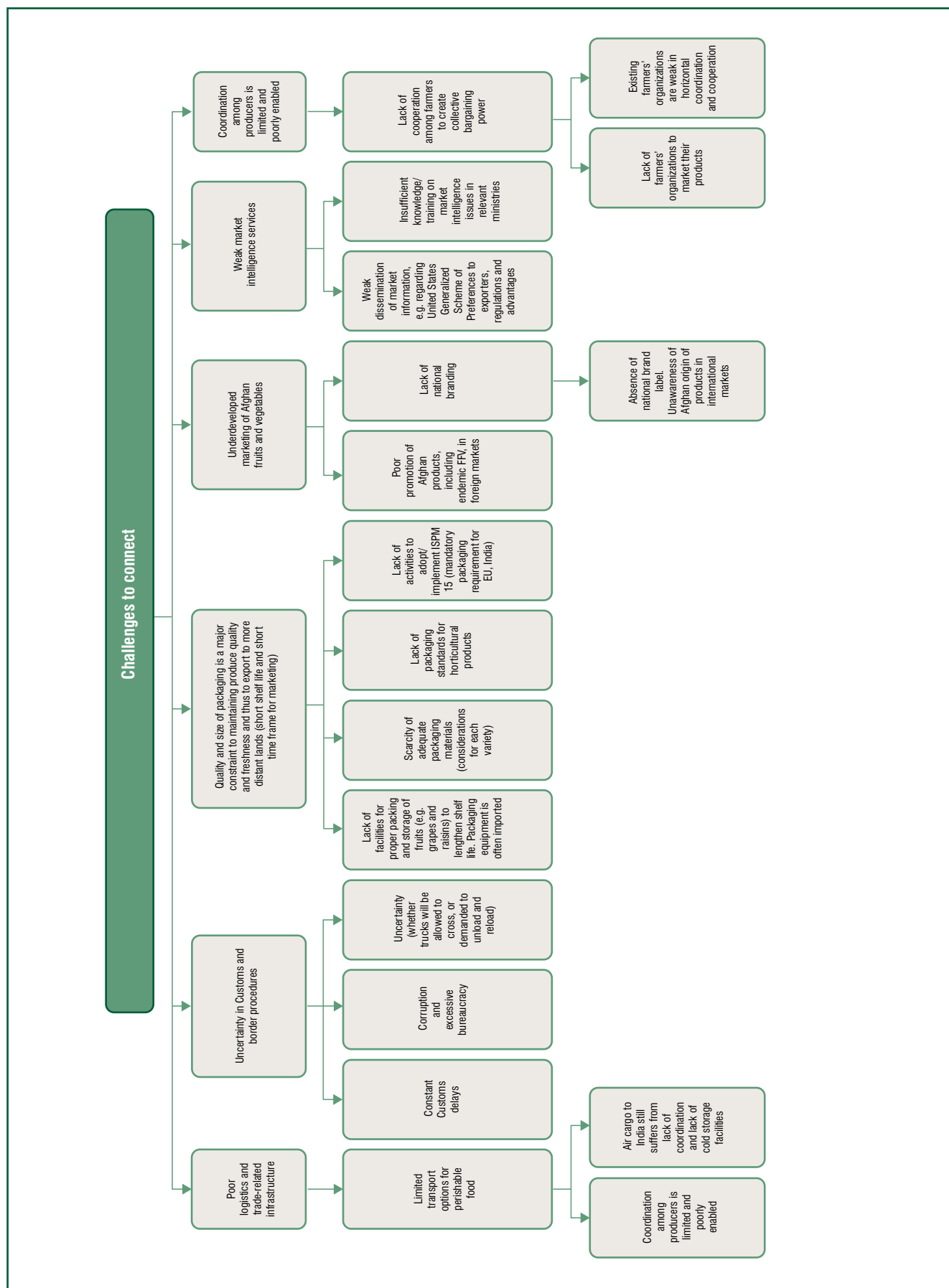
Value chain segment	All segments
Severity	● ● ● ○ ○
PoA reference	Activities 4.1.1 to 4.1.4,

## Small-scale production hampers volume and consistency of fresh produce

The fragmented and small-scale nature of fruit and vegetable cultivation in Afghanistan leads to relatively low yields with inconsistent quality. Additionally, it creates difficulties in terms of efficiently distributing inputs to producers. Cost savings by collective bargaining can be achieved through stronger producer organizations and increased horizontal coordination among farmers.

Value chain segment	Production
Severity	● ● ● ● ○
PoA reference	Activities 1.1.1 to 1.1.3, 1.2.1, 1.2.2





## CHANGE

At present, the Afghan fresh produce sector has demonstrated minimal capacity to innovate and diversify production. Changes across the value chain are necessary for the sector to achieve its full potential.

### Limited access to finance prevents upgrades in production and processing capacity

The improvement of current value chain operations is inhibited by limited access to finance. Working capital is needed to purchase production inputs like quality seeds and fertilizer, while investment capital is needed to procure up-to-date farming equipment and establish new commercial farms and orchards.

Another area where investment capital is sorely needed is in food processing. With only a handful of food processing facilities in operation, the vast majority of juices, jams, pickled vegetables and potato snacks are imported from abroad, adding to Afghanistan's massive trade deficit. Moreover, the deficiency in domestic food processing capacity represents a major opportunity cost for Afghan FFV producers, as the glut of supply during the postharvest period results in low prices in the fresh produce market. If more of this postharvest supply could be diverted to the food processing industry, prices in both domestic and international markets would increase.

In terms of institutional support, financial services for the fresh produce sector are difficult to access in rural areas and do not meet sector needs. Cultural and religious factors also need to be addressed by commercial banks, as many sector producers and enterprises may be more inclined to use a financing instrument if it is sharia-compliant in structure. The consequence of limited access to finance through formal lending institutions is that opportunistic traders step in to fill the void, making advance cash payments to smallholders for crops at suboptimal prices.

Value chain segment	All segments
Severity	● ● ● ● ○
PoA reference	Activities 3.4.1 to 3.4.4

### Limited availability of agricultural expertise

The Afghan labour market does not have enough skilled agricultural workers or workers with expertise in food processing. This has contributed to the weak capacity of the Afghan economy to develop strong food processing enterprises that can compete with imported products. At present, much of the food processed in Afghanistan is low quality, or worse, unsafe for human consumption. This can be addressed, in part, through the development of education programmes in food processing, both at the university level as well as through focused technical and vocational training programmes.

Value chain segment	All segments
Severity	● ● ● ● ○
PoA reference	Activities 3.1.1 to 3.1.2

### Poor investment in R&D inhibits progress

Sector development is severely constrained by a lack of investment in R&D. Focused research is sorely needed to improve production practices, while at the same time sector producers and enterprises must be made aware of technology and methods that have already been developed. Factors inhibiting sector R&D include a massive brain drain of agricultural scientists, as well as the poor state of the Agricultural Research Institute of Afghanistan (ARIA). ARIA lacks up-to-date machinery, financial support and laboratories, as well as access to arable land and irrigation systems to plant test crops.

Value chain segment	All segments
Severity	● ● ● ○ ○
PoA reference	Activity 1.6.3.

### Women are marginalized within the sector, limiting their contribution

In spite of women's prominence in horticulture, limited support services are available to them. As women are restrained from interacting with men, suffer from mobility constraints and have limited access to land, they participate mostly in the lower stages of the value chain. Moreover, women are directly affected by challenges accessing credit because they lack collateral; and challenges participating in training opportunities because they have limited interaction with men and do not own land, which is a selection criterion to participate in extension training. Because women are not able to receive training, the sector's capacity to improve in terms of quality control and food safety is inhibited. Women's producer associations also need more support. The Ministry of Agriculture, Irrigation and Livestock (MAIL) and development partners are promoting these associations, which could undertake collective investments or trading activities.

Value chain segment	All segments
Severity	● ● ● ● ○
PoA reference	Activities 1.1.3, 1.5.4

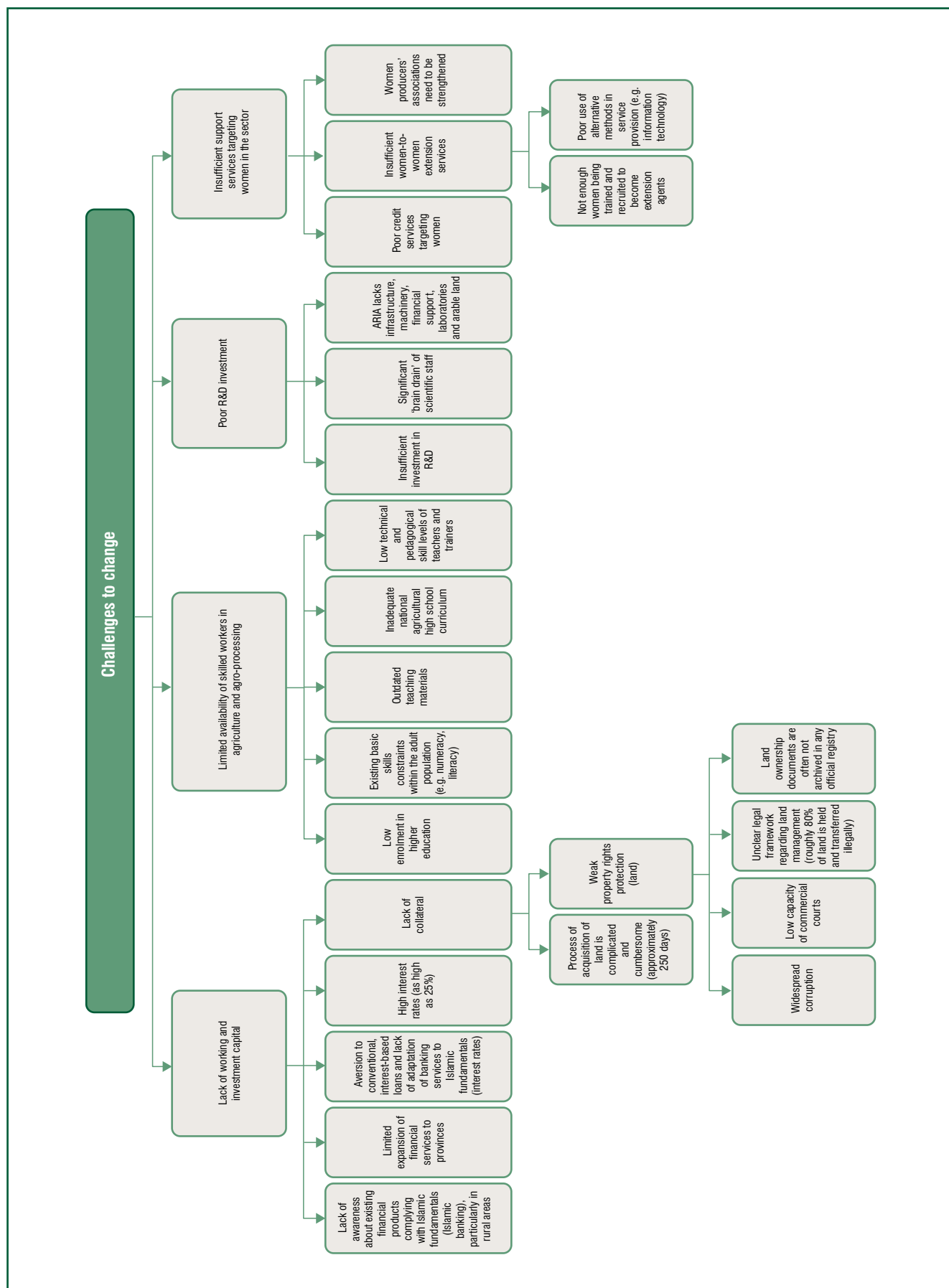






Photo: cc flickr - Todd Huffman, Irrigated farm fields in Afghanistan



# YIELDING BETTER RESULTS: POSITIONING AFGHANISTAN'S FRESH FRUITS AND VEGETABLES SECTOR IN THE GLOBAL MARKET

This Strategy aims to have the following impact.

- Increase Afghanistan's exports of FFV, in terms of volume and value.
- Strengthen efforts to decrease postharvest losses.
- Optimize time of entry in key markets.
- Expand market access with existing transport infrastructure.
- Progressively increase value addition by increasing processing capacity for products based on FFV.
- At the regional level, improve Afghanistan's price competitiveness and consistency of production. Differentiated policies should be considered, both to intensify commercial farming and to support smallholders.
- At the global level, position Afghanistan by prioritizing high-value –and particularly high-value / low-weight ratio– FFV products.

The increasing demand for FFV in markets close by, such as India and the Russian Federation, offers significant opportunities for Afghanistan to consolidate and expand sector exports to these markets. Moreover, the opening of air cargo facilities connecting Afghan traders to the Indian market will further boost exports by reducing spoilage from arduous (and often unrefrigerated) ground transport. Shipping by air is not cheap, though, which may limit exports by air to highly perishable and high-value/low-weight fresh produce.

While future prospects are generally positive, Afghanistan faces severe competition in regional markets from neighbouring exporting countries, such as the Islamic Republic of Iran and Pakistan. Both of these countries have significantly improved their price competitiveness vis-à-vis Afghan producers over the last several years. Afghan fresh produce has lost competitiveness in price as a result of several factors, including the continuous depreciation of competitors' currencies, as well as higher costs of production inputs such as fertilizers.

Diversifying Afghanistan's export destinations has been inhibited by its landlocked geography, poor transportation infrastructure and weak cold chain infrastructure. Consequently, Afghanistan has relied heavily on Pakistan as a destination market for its fresh produce.

Considering the Afghan FFV sector's strengths, weaknesses and opportunities, this Strategy outlines both short-term and long-term courses of action to take to allow the sector to achieve its full potential. They are summarized here:

- **Short-term:** At the domestic and regional level, Afghanistan should regain price competitiveness and expand destination markets, particularly for key products with medium-to-long shelf life, such as grapes, apples, onions and potatoes. At the same time, the sector can consolidate its position in exports of products with short shelf life, such as tomatoes, in current markets (e.g. Pakistan) and add value by improving sorting, grading and packaging.
- **Long-term:** At the global level, Afghanistan is better suited to compete in high-quality, high-value/low-weight ratio FFV products, targeting high-end markets to mitigate air freight cost disadvantages. Afghan products that fall into this category are premium varieties of grapes, pomegranates and mushrooms. Most agricultural products in Afghanistan are cultivated using low levels of pesticides and fertilizers (if any at all). As a result, organic certification of such products from internationally recognized bodies can strengthen Afghanistan's positioning in developed markets.

This overall direction is attainable for Afghanistan during the five-year Strategy time frame. To position themselves in international markets, Afghan exporters must take the following steps:

- **Increase volume of production:** Measures must be taken to expand commercial farming in the country, in parallel with supporting smallholders. The former will entail facilitating access to investment capital to establish commercial orchards. The latter will involve a mix of activities, such as expanded use of farmer field schools to train farmers in agricultural best practices, promoting producers' associations, enhancing coordination within existing associations, and improving the quality of agricultural extension services.
- **Decrease postharvest losses:** Postharvest losses occur at several stages of the value chain. At the current technology levels, efforts to ameliorate postharvest losses will focus on increasing the skills and capacities of relevant actors throughout the value chain. In parallel, measures to encourage investments in cold chain infrastructure and refrigerated trucks will enable Afghan exporters to reach distant markets by reducing food spoilage. This issue will also be critical to reducing the dependence of Afghanistan on out-of-season imports of FFV, which are driven by a lack of adequate cool and cold warehouses to store produce.
- **Optimize time of entry in key markets:** By improving cold chain infrastructure, along with tracking price movements in target markets, Afghan traders can identify the optimal times of entry into markets in order to maximize profits.
- **Expand market access with existing transport infrastructure:** While there are several ongoing infrastructure projects that will better connect Afghanistan to regional and global markets, certain measures can be implemented at the national level to minimize transport time for exports and thus reduce losses due to spoilage. Among these measures, streamlining border and airport Customs procedures in order to reduce Customs delays will be crucial. Streamlining phytosanitary procedures can also significantly reduce transport delays for fresh produce exports.
- **Progressively increase value addition:** Improving the quality of production is vital for all relevant markets, as Afghanistan is better suited to compete on quality rather than price for most crops. Sorting and grading of products should be conducted at the farm level, with price differentiation based on quality, in order to create economic incentives among producers to increase quality of production. Poor packaging practices can lead to goods being damaged in transit, diminishing quality and thus the value of shipments. To address this issue, the Afghan packaging and labelling industry must continue to build its capacity. This will also enable Afghan products to go directly on shelves at retail locations in destination markets. Lastly, the capacity to process fruits and vegetables must be improved, as the Afghan domestic market is dominated by juices, tomato pastes, potato chips and pickled vegetables (among many other products) that are currently imported from the Islamic Republic of Iran and Pakistan.
- **At the regional level, improve Afghanistan's competitiveness:** This can be accomplished by adopting measures to increase agricultural yields and improve their consistency, while also reducing production costs. Investments in the energy sector are an important component of this objective, as stable power supply is a critical input for effective cold chain infrastructure. In order to boost yields, links must be developed between farming communities and suppliers of key inputs such as fertilizers. Another step to increase yields is to encourage the aggregation of land, which will create more opportunities to achieve economies of scale and thereby improve price competitiveness.
- **At the global level, position Afghanistan by prioritizing horticulture products which hold high value, and particularly high-value/low-weight ratios.** Afghanistan produces certain fruit and vegetable crops which have great potential in developed countries' high-end markets. Among these products, Afghan grapes, pomegranates and mushrooms hold the most significant opportunities – particularly in European markets – in the long-term, considering the strict requirements these markets hold in terms of food safety and quality assurance. These products are characterized by their high-value/low-weight ratio, which compensates relatively higher transport costs, which would be incurred when exporting mushrooms, for example, as they are time-sensitive products and would need to be transported by air freight. Pomegranates can be transported by sea or air and they hold opportunities in high-end markets in European countries, where they are becoming increasingly popular. To capitalize on these products, Afghan exporters will need to be able to ensure food safety as well as consistency of production, packaging and processing operations. Quality assurance will be key in market niches, where Afghan products will compete based on these aspects. Additionally, promoting and facilitating organic certification could further strengthen Afghan exporters positioning in these markets.

## Fruits



Apples

- **Medium shelf life**
- **Main varieties:**  
Red Delicious, Golden Delicious and Gala
- **Harvest:**  
Late August to early November
- **Potential markets:**  
Short to medium-term: Pakistan, India, Russian Federation, UAE

- **Medium shelf life**
- **Main varieties:**  
Over 100 varieties, among them: Shondokhani, Kishmishi (or Thompson seedless) and Taifi
- **Harvest:**  
Mid July to late September
- **Potential markets:**
  - Short to medium-term: Pakistan, India, Russian Federation, UAE
  - Long-term: Germany



Grapes



Melons and Watermelons

- **Medium shelf life**
- **Harvest:**  
Mid July to late October
- **Main varieties:**  
Zarmati, Jintoor, Arkani, Zarda
- **Potential markets:**  
Medium-term: UAE

- **Medium to long shelf life**
- **Main varieties:**  
Jumbo, Bandana
- **Harvest:**  
Early September to late November
- **Potential markets:**
  - Long-term: Germany, Netherlands



Pomegranates

## Vegetables



Onions

- **Long shelf life (2-3 months)**
- **Harvest:**  
Early September to late November
- **Potential markets:**  
Short to medium term: Russian Federation, UAE

- **Long shelf life (storage for a few months)**
- **Main varieties:**  
Safed gul, Be gul, Sabz gul, Lavkar, Chandramukhi, Cardinal and Desiree
- **Harvest:**  
Late August to early October
- **Potential markets:**  
Short to medium-term: Russian Federation



Potatoes



Tomatoes

- **Short shelf life (less than 10 days)**
- **Harvest:**  
May–August
- **Potential markets:**
  - Short to medium term: Consolidate position in Pakistan, Belarus
  - Value added products: Russian Federation

- **Short shelf life (less than 10 days)**
- **Harvest:**  
Two harvest seasons possible: March and October
- **Potential markets:**
  - Short to medium-term: Belarus
  - Long-term: United Kingdom



Mushrooms





Photo: Fruits & Vegetables, FOX15818.jpg

## MARKET IDENTIFICATION

The following section provides insights into market development opportunities relevant to the Afghan FFV sector. Key markets with short-term opportunities to increase exports are selected based on factors such as existing trade relationships, geographic proximity and cultural affinity. These factors form the foundation for optimism about expanded trade ties in the future. In the medium-to-long term, it is expected that the evolving capacities of Afghan exporters and a steadily improving business environment will contribute to the success of exporters in penetrating new markets. Products listed under the short-term section will also hold export potential in the medium-to-long term, unless specifically mentioned.

### SHORT-TERM TO MEDIUM-TERM PHASE

#### Domestic market

*Products: Melons, fruit juices (e.g. apple, pomegranate, peach), tomato sauce, potato chips*

Despite strong national production of melons in Afghanistan, the country faces import competition from neighbouring countries. Melons from the Islamic Republic of Iran and Pakistan are preferred over domestically produced melons because they possess better physical variability and cosmetic appearance. Addressing these quality issues would lead to better prices and higher appreciation in the domestic market.

Although national production of fruits is strong in Afghanistan, the domestic market relies heavily on imports of processed fruit products. Fruit juices and jams are two such examples and are primarily imported from the Islamic

Republic of Iran and Pakistan. The fruit juice market is considered the largest and fastest-growing industry subsector for processed fruit in Afghanistan, with estimates indicating a yearly growth rate of roughly 15%. Given the high domestic demand for juices, significant opportunities lie mainly with apple, pomegranate, melon, grape and cherry flavours.

Another missed opportunity for Afghan fruit producers is in the area of jams, jellies and fruit concentrates. The Islamic Republic of Iran has traditionally been the main supplier of jams, jellies and marmalades for the Afghan domestic market. Manufacturing fruit jams and jellies requires relatively low investment and minimal processing. Thus, a crucial opportunity for import substitution lies in scaling up the current small production of processed fruits in Afghanistan to satisfy domestic demand.

Similarly, local demand for tomato paste is substantial. Tomato paste is a staple in Afghan cooking, with sales estimated to be between US\$8 and US\$16 million. However, tomato paste is currently being imported from the Islamic Republic of Iran and Pakistan. Afghanistan has high levels of tomato production, while also having high domestic demand for tomato paste – the only missing ingredients are investment capital and food processing expertise.

In the last few years, potato production in Afghanistan has experienced sustained growth. Despite abundant supply, production of processed potato products is nearly non-existent. Potato chips, for example, are very popular in the Afghan market, with various brands on the shelves of every neighbourhood shop. The vast majority of these snacks are imported from Pakistan and the Islamic Republic of Iran, with a handful of domestically produced Afghan potato snack brands fighting for shelf space. Further studies are needed to assess actual and forecast national demand for this product category, and the means to increase domestic production.

Table 14: Short-to-medium term market opportunities

Target market	Product	Key success factors	Distribution channel	Afghan fresh fruits and vegetable exports to market 2016 (US\$ thousands)	Annual growth of sector imports all suppliers 2012–2016 ( % )	Annual gross domestic product growth estimates 2017–2021 ( % )
Pakistan <sup>1</sup>	Apples, grapes, tomatoes, tomato-based products, apricots, watermelons	<ul style="list-style-type: none"> <li>Optimal entry timing</li> <li>Price competitiveness</li> </ul>	Wholesalers, supermarkets	179 456	7.87	5.56
India	Apples, grapes	<ul style="list-style-type: none"> <li>Quality standards</li> <li>Optimal entry timing</li> </ul>	Wholesalers, supermarkets	78 807	8.69	7.73
Russian Federation	Tomato paste, potatoes, onions, mushrooms, apples, grapes	<ul style="list-style-type: none"> <li>Sizing and grading</li> <li>Price competitiveness</li> </ul>	Wholesalers	-	-12.21	1.42
Belarus	Mushrooms, tomatoes	<ul style="list-style-type: none"> <li>Optimal entry timing</li> </ul>	Wholesalers	10 519	35.64	7.40
UAE	Apples, onions, grapes, mushrooms, melons and watermelons	<ul style="list-style-type: none"> <li>Sorting and grading</li> <li>Sanitary safety and quality standards (low pesticides levels)</li> <li>Price competitiveness</li> <li>Building trusting relationships</li> </ul>	Wholesalers, distributors (with direct links to retailers)	4 523	2.57	3.17

## Pakistan

*Products: Apples, grapes, tomatoes, tomato-based products, apricots, watermelons*

Due to the limited ability of Afghan exporters to access international markets, the vast majority of Afghanistan's fresh produce is shipped to neighbouring countries, primary among them being Pakistan. Demand in Pakistan for Afghan FFV is sizeable, although returns for Afghan traders are marginal; Pakistani buyers have enormous leverage setting prices, as Afghan traders know their produce will rot if they fail to find a buyer. Out of necessity, Pakistan must remain a target market in the short and medium terms, although the power balance in this relationship can be shifted if and when Afghanistan expands its cold storage capacity and is able to exhibit patience when negotiating with buyers across the border.

Looking at specific products, the Pakistani market for fresh apples represents an attractive opportunity for Afghan exporters. Pakistani imports of apples have increased steadily in recent years, from 9,208 tons in 2008 to roughly 60,000 tons in 2015. Popular varieties include Royal Gala and Sweet Gold, both of which are produced in Afghanistan. The urban markets of Islamabad, Lahore and Karachi offer opportunities for higher returns, with supermarkets such as Metro Cash & Carry and Hyperstar selling to high-income consumers. They are also approachable for prior vendor registration and offer higher potential for well-graded, staged supply, requiring 3.5–16 kg packaging.

Pakistan is also a net importer of tomatoes, although its demand for tomatoes is largely being met by India (roughly 76% of Pakistani tomato imports in 2015). Besides tomatoes, Afghan exports of several key sector products to Pakistan are currently at suboptimal volumes and prices. These include grapes, watermelons and fresh apricots. For all three of these products, higher prices could likely be obtained by optimizing time of entry. Again, cold storage capacity is a prerequisite for this course of action.

## India

*Products: Apples, grapes*

India represents an important destination market for Afghan apples. While Afghan traders enjoy tariff preferences exporting to India, producers must improve the grading and quality of produce if they are to sell at premium prices. Red apples, such as the Afghan-produced Gala variety, are the most popular among Indian consumers. Distribution channels for apples in India are large wholesale markets in Delhi, although Mumbai, Kolkata, Bangalore and Chennai also host major wholesale operations. Besides wholesalers, Indian supermarkets and hypermarkets also require regular supplies of apples in bulk quantities. However, these buyers are uncompromising when it comes to consistency in quality and professional packaging.





Photo: USAID, Rural Business Support Project in Afghanistan1.jpg

Besides apples, Afghan exporters have an opportunity to vastly increase their exports of fresh grapes to India. In 2015, Indian imports of fresh grapes stood at roughly US\$ 12 million. Very little of that amount consisted of Afghan grapes. As in the case of the Pakistani market, Afghan exporters can increase their profit margins by optimizing their time of entry in the market (prices tend to be higher in October and November). On a positive note, exports to India have already increased significantly since the launch of the Afghan-India air corridor.

## Russian Federation

*Products: Tomato paste, potatoes, onions, mushrooms, apples, grapes*

The Russian Federation represents a largely untapped market for Afghan exports of FFV, as well as minimally processed food products. In terms of vegetables, mushrooms, potatoes and onions are items largely imported by the Russian market. Mushroom consumption is high in the Russian Federation, although a ban imposed on mushroom imports from Poland has caused a decrease in imports since 2015. Afghanistan could step in to meet Russian demand for mushrooms but they would have to be transported via air freight considering the highly perishable nature of this product. Potatoes are another staple food for Russians, with demand currently unmet by domestic production. Potatoes are hardy enough to make long ground voyages but getting Afghan potatoes to the Russian market would still require transit through several Central Asian states (which is easier said than done).

When it comes to fruits, the Russian Federation is one of the largest apple importers in the world. The most popular apple varieties include Red Delicious, Golden Delicious and Granny Smith, all produced commercially in Afghanistan. Like potatoes, apples are able to survive long trips by ground, but delays at border crossings going through Central Asia currently make Afghan exports of apples to the Russian Federation a difficult proposition. Likewise, the Russian Federation is also one of the top importers of grapes worldwide (and is already a buyer of Afghan grapes). If Afghan traders can successfully maintain grape supplies in cold storage for several months after the harvest, they can achieve optimal prices between January and April. The distribution channels for the Russian market are expected to be wholesalers. Major importers of fruits in the Russian Federation are Tander CJSC, Megafruit Ltd and Glavprodimport Ltd.

## Belarus

*Products: Mushrooms, tomatoes*

Belarus has significantly increased its imports of FFV in the past five years. In 2016, Belarus was the primary destination for Afghan fresh mushrooms and is actually the fourth-largest importer of mushrooms worldwide. Notably, Belarus is positioned as a re-export hub for fresh mushrooms, with the Russian Federation being the primary destination once minimal value addition has taken place. Belarus is also the second-largest export destination for Afghan tomatoes, with the potential to increase export volumes once barriers to trade are further reduced.

## UAE

*Products: Apples, onions, grapes, mushrooms, melons*

Dubai is a central hub for FFV import and re-export. Suppliers to this market, who are often integrated with distribution companies, can distribute directly to wholesalers, supermarkets, hotels and regional wholesale markets. Regarding domestic wholesale markets, the Al-Aweer market in Dubai is of particular importance. This market includes 15–20 of the UAE's largest direct importers with prominent fruit, vegetable and juice brands (e.g. Barakat and Fresh Fruits). Moreover, the growth of real estate, high levels of migration to urban areas and increasing tourism, combined with limited domestic capacity for food production, are spurring growth in food imports.

The top Afghan fresh produce product exported to the UAE is apples, although there is high demand in the Emirates for many other FFV that are produced in Afghanistan. Demand for onions grew at an average annual rate of approximately 19% between 2012 and 2015. Grapes and mushrooms are also in high demand in the UAE, with US\$111 million of grape imports in 2015, along with US\$16 million of mushroom imports. While Afghanistan has a competitive advantage producing both of these products, its share of imports to the UAE is close to zero. This represents a near complete failure to penetrate this critical regional market. ITC has calculated that Afghan melons also have significant potential for export to the UAE, although export levels at present are either nil or insignificant. Mushrooms exported from Afghanistan to the UAE would have to be transported by air freight, given their short shelf life.

Two major obstacles for Afghan exports to the UAE are phytosanitary regulations and expectations of pre-shipment



Photo: Fruits & Vegetables, FOX20225.jpg

value addition. The UAE is a highly regulated market for food products, with requirements set by the Gulf Cooperation Council Standardization Organization. As a developed market, even wholesale buyers in the UAE expect fresh produce to be graded, sorted and professionally packaged prior to shipment. Another significant weakness for Afghan exporters is that the Islamic Republic of Iran – which has a fresh produce product basket very similar to Afghanistan's – has direct access to the UAE via a short sea voyage. This puts Afghan exporters at a severe price disadvantage compared with their Iranian competitors. Considering the emphasis on freshness by regional consumers, demand for ready-to-eat products (e.g. pre-cut vegetables, fruits and juices) is steadily increasing. At the moment, Afghan products compete directly with low-cost Iranian products, so price competitiveness will be an important factor to consider.

## LONG-TERM PHASE

Table 15: Long-term market opportunities

Target market	Product	Key success factors	Distribution channel	Afghan fresh fruits and vegetable exports to market, 2016 (US\$ thousands)	Annual growth of sector imports, all suppliers, 2012–2016 ( % )	Annual gross domestic product growth estimates 2017–2021 ( % )
United Kingdom	Mushrooms, dried mushrooms	<ul style="list-style-type: none"> <li>Sanitary safety and quality standards (pesticide levels)</li> <li>Food certifications (e.g. British Retail Consortium)</li> </ul>	Specialized importers (wholesalers)	-	0.97	1.80
Germany	Grapes, pomegranates	<ul style="list-style-type: none"> <li>Sanitary safety and quality standards</li> <li>Price competitiveness</li> </ul>	Wholesalers	61	-0.13	1.41
Netherlands	Pomegranates	<ul style="list-style-type: none"> <li>Sanitary safety and quality standards</li> </ul>	Importers (wholesalers)	-	-2.62	2.42



## United Kingdom

*Products: Mushrooms, dried mushrooms*

The United Kingdom is the largest global market for mushrooms (fresh or chilled), with imports growing at an average rate of 5% between 2012 and 2016. However, Afghanistan's exports of mushrooms to this market are non-existent. Demand is driven by high consumption all year around, which usually peaks in September and November. Both cultivated and wild mushrooms do well in this market. The United Kingdom is also becoming an important market for dried mushrooms, with an average annual growth rate of 7% for imports between 2012 and 2016.

Considering the high global prices for mushrooms, Afghan traders have an opportunity to use expensive air freight to deliver shipments of mushrooms to the United Kingdom and still generate profits. For such an effort to be successful, though, Afghan traders would have to take steps to ensure their shipments comply with British packaging and food safety requirements, which may begin to change as the United Kingdom prepares to leave the EU single market.

## Germany

*Products: Grapes, pomegranates*

Germany is the third-largest importer of grapes in the world, with imports of US\$675 million in 2016. Little of this amount is supplied by Afghanistan. Considering the preference for seedless grapes among European consumers, Afghanistan's Thompson Seedless variety would likely be best suited for this market.

Germany is also an important market for pomegranates as consumption continues to increase. Pomegranates hold the most promising opportunities when minimally processed, for example, by removing the tasty seeds (arils) and packaging them as 'ready-to-eat' snacks. The best entry time for pomegranates in this market is between March and May, which is several months after Afghanistan's harvest period for pomegranates. Consequently, cold storage is a must in order to obtain optimal prices. There are also profit opportunities based on special varieties of organically certified high-quality pomegranates, which are sold at premium prices in this market.

In Germany, Afghan products benefit from the most favourable regime available under the EU's Generalized Scheme of Preferences, which grants duty-free, quota-free access to the EU for exports of all products. However, strong competition and high levels of quality and food safety requirements present daunting obstacles for Afghan exporters when it comes to both grapes and pomegranates. In order to comply with EU import regulations and establish long-term ties with German buyers, Afghan exporters must improve their capacities in grading, sorting, packaging and consistent shipment delivery.

## Netherlands

*Product: Pomegranates*

The Netherlands is the largest importer of pomegranates from non-European countries and acts as a re-export hub for pomegranates in Europe. Wholesalers order pomegranates from various global suppliers and then distribute to various retailers, with supermarkets being the primary sales point for high-income Dutch consumers. As the Netherlands is a member of the EU, export requirements for the country are comparable to those for Germany.

### NES focus

Afghanistan has significant opportunities for diversification but current challenges on the supply side (e.g. productive capacity), institutional side (e.g. quality control, connecting with buyers) and market-entry side (e.g. movement of goods across borders) are preventing Afghan exporters from unleashing their full potential. The NES will enhance the ability of Afghan FFV exporters to tap into these opportunities by:

- Stimulating the adoption of enhanced processing and packaging methods and the development of cold chain services and good practices;
- Strengthening the Afghan standardization, quality, accreditation and metrology infrastructure;
- Building a demand-driven skills pipeline based on market requirements;
- Improving Customs relations and coordination with neighbouring countries.



# STRATEGIC OPTIONS FOR THE AFGHAN FRESH FRUITS AND VEGETABLES SECTOR

## VISION

The Afghan FFV sector is united by the following vision:

“ Afghan fresh fruits and vegetables:  
harvesting success in regional  
and global market ”

In order to fulfil this ambitious vision, the following strategic objectives have been identified. These objectives provide a framework for developing solutions over the next five-year time frame. They are as follows.

### STRATEGIC OBJECTIVE 1: INCREASE VOLUMES OF PRODUCTION AND IMPROVE PRICE COMPETITIVENESS

This strategic objective has the goal of increasing volumes of production and achieving cost savings through economies of scale, and consequently improving the ability of Afghan exporters to compete with other regional fresh produce suppliers on price.

On the inputs side, the limited availability of domestically produced fertilizers and pesticides results in higher production costs and hence less price competitiveness for Afghan products, particularly vis-à-vis regional competitors. To address this weakness, links must be strengthened between Afghan producers and input suppliers, as well as supporting the domestic production of these critical inputs. Strengthening existing commercial nurseries across the country and supporting the establishment of new nurseries will further support this objective by facilitating access to higher-quality planting materials without high import costs. These measures will diminish costs of production while also resulting in higher yields per hectare.

In order to increase volumes of production, it is critical to strengthen sector coordination by facilitating the registration of new associations through relevant Government bodies, and efforts to decentralize the registration of such associations will be key. Sector associations and farmers must become more nimble in responding to market trends, and this can only be accomplished by disseminating market research and promoting market-oriented production. In parallel, the sector will benefit from improved coordination between the various actors involved in the value chain, including farmers, intermediaries, exporters and researchers, among others.

Adopting best farming practices will be crucial for smallholders to attain higher yields. This will be achieved through a combination of policies, including the establishment and expansion of farmer field schools in major agricultural areas of the country. Improving the reach and quality of agricultural extension services, including the training and recruitment of female extension service providers, is another critical action to achieve success within this objective. This will require effort to increase the capacity of extension workers, identify incentives to improve retention rates for qualified technical staff, extend their presence across the country and adopt alternative channels for remote delivery of extension services. Training alone, though, will be insufficient to maximize smallholders' yields. Farmers must have better access to working capital to pay for improved production methods, such as trellising for grapes. Measures will also be explored that facilitate the expansion of commercial orchards.

This strategic objective will also encompass activities aimed at increasing investment in R&D for the sector. R&D is crucially needed in several areas, such as improvement of crop varieties and methods to extend production seasons. Results of trials and pilot initiatives must be disseminated to sector stakeholders at all stages of the value chain.







Photo: Fruits & Vegetables, FOX20203.jpg

## STRATEGIC OBJECTIVE 2: REDUCE POSTHARVEST LOSSES ACROSS THE VALUE CHAIN BY ADDRESSING TECHNICAL AND NON-TECHNICAL ISSUES

In addition to low productivity and low volumes of production, the Afghan FFV sector is constrained by severe postharvest losses. At the technical level, inadequate handling of produce following the harvest and poor knowledge of cold chain management contribute to postharvest losses. At the non-technical level, the sector must strengthen and increase the availability of cold chain infrastructure. Refrigerated trucks are a key component to achieve success in this area, as most produce is exported using road transport.

At the technical level, activities must be undertaken that build the capacity of value chain actors to reduce postharvest losses with available resources. This will require collaboration with regional and international partners to share expertise in this area. Once best practices are identified, practical guidelines and recommendations can be developed to ensure maximum quality and minimum spoilage of fresh produce, even with the current limitations in cold chain infrastructure. These best practices would include practical advice regarding optimal harvest times, handling recommendations and packing advice, at a minimum. Recommendations will be disseminated through practical

workshops organized for value chain actors such as small-holders and sector enterprises. Awareness-raising campaigns can also be organized that target producers and sector actors involved in postharvest activities.

At the non-technical level, the focus will be on encouraging investment in cold chain infrastructure, including refrigerated trucks. To achieve this objective, a cold chain scheme will be developed to promote investment in and establishment of cold chain infrastructure companies outside major trading hubs across the country. The cold chain scheme would consist of a package of economic incentives, such as partial grants, tax incentives and facilitation of land purchase/leasing. In parallel, import regulations for cold chain equipment, including import duties, should be revised. Lastly, considering Afghanistan's inconsistent power supply, R&D to identify energy-efficient alternatives, such as solar-based cold chain equipment, will be encouraged.

Addressing weaknesses related to cold chain infrastructure would also have a positive impact on the marketing of FFV from the farmers' perspective. As produce is now sold at the peak of harvesting time, farmers receive relatively low prices for their products owing to excess supply dumped into the market within a short time frame. Increasing farmers' access to adequate cold storage facilities can potentially ameliorate this situation and lead to higher prices during peak harvest times, as well as high prices for several months following the harvest.

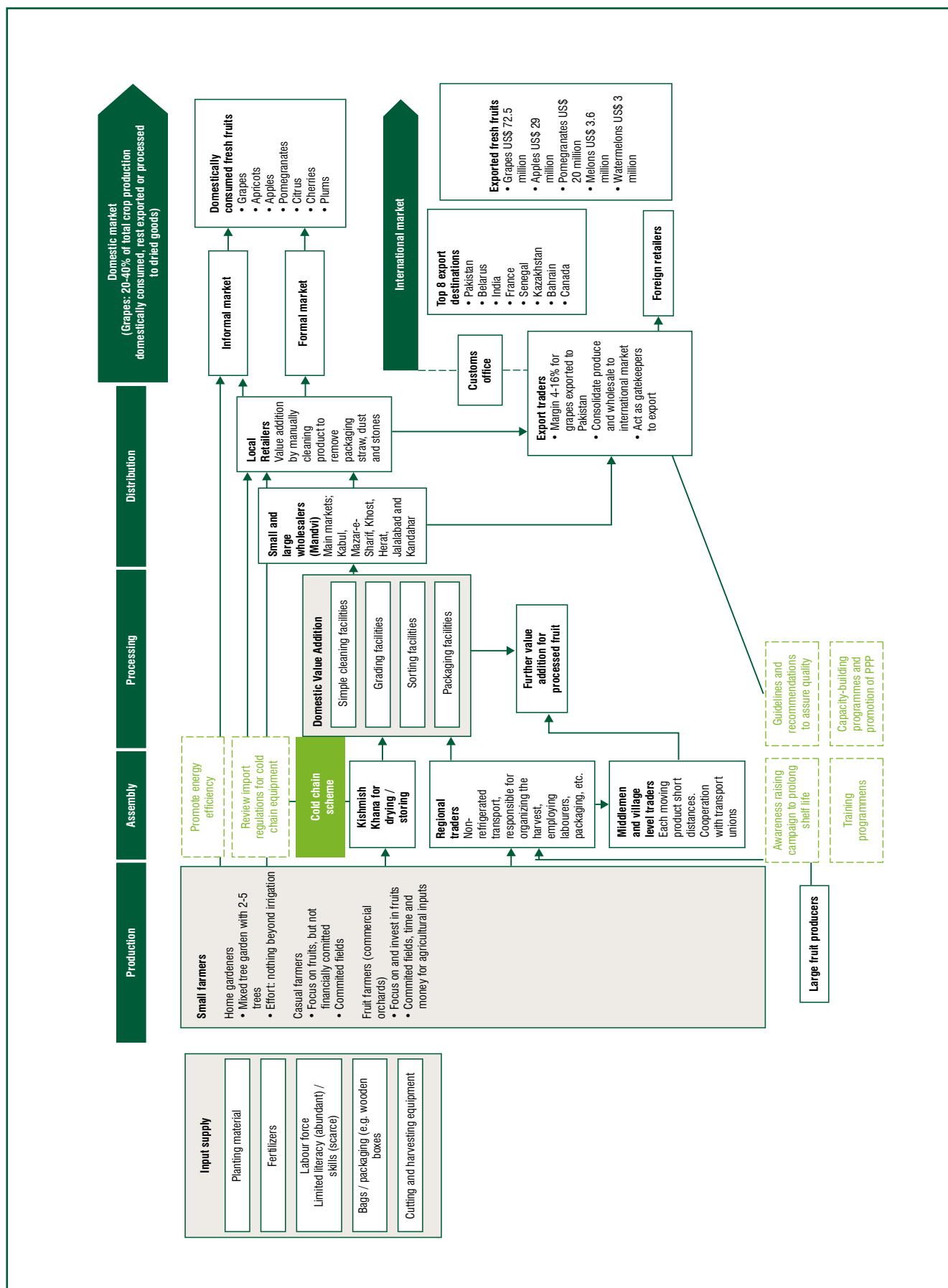




Photo: Fruits & Vegetables, FOX20194.jpg

### STRATEGIC OBJECTIVE 3: ADD VALUE BY IMPROVING POSTHARVEST PRACTICES AND PROCESSING CAPACITIES

In-country value addition to Afghan FFV will be critical to better position Afghan produce in regional markets, as well as to penetrate developed markets in the medium-to-long term. Types of value addition to be prioritized include advanced packaging and food processing.

In order to realize this objective, measures will include capacity-building of sector firms, media campaigns to spread awareness, demonstrations of best practices in farmer field schools, and workshops targeting sector associations. In parallel, upgrading quality-testing infrastructure is a must to authenticate the quality (or lack thereof) of Afghan produce designated for export. Private investment in laboratory services and quality certifications should be encouraged, while also enhancing the capacity of existing Afghan Government laboratories, with a focus on incentives to hire and retain qualified staff.

Besides measures to improve the quality of produce, another critical area is Afghanistan's domestic capacity to provide high-quality packaging services. The limited

availability of high-quality domestically produced packaging materials increases costs for sector enterprises, as they must import these products. Piloting the establishment of a packaging factory to meet sector demand is a key activity to be pursued under this strategic objective. At the same time, companies will receive training on the technical details for crop-specific packaging suitable for each target market.

Moreover, this strategic objective will seek to increase domestic capacity to engage in food processing activities in which FFV constitute the primary raw input. Currently, Afghanistan's ability to process food domestically is extremely limited. As a consequence, processed fruit and vegetable products, such as juices, tomato pastes, pickled vegetables and potato-based snacks are mostly imported from neighbouring countries. Promoting investment in processing companies (including foreign direct investment), will be one of the main activities aimed at addressing this issue. A complementary measure will be building a pool of skilled labour in food processing. At present, many of the existing food processing operations in Afghanistan do not operate to international standards when it comes to hygiene of workers and sanitation of facilities. Activities must be considered that address these critical deficiencies, which may include short courses on food processing developed by the Afghan Government or its international development partners.



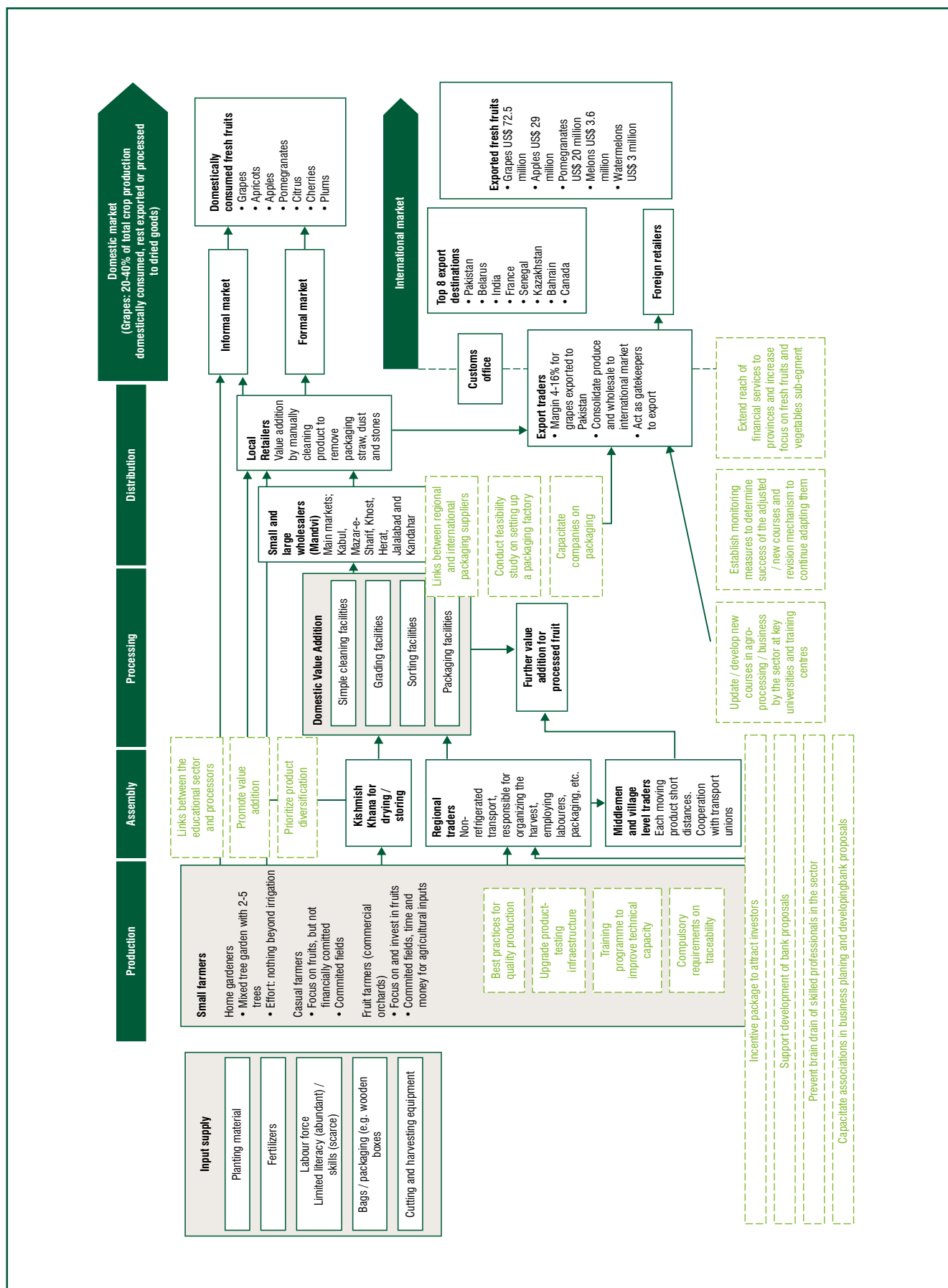






Photo: Fruits & Vegetables, FOX16067.jpg

## STRATEGIC OBJECTIVE 4: INCREASE THE SECTOR'S CAPACITY TO ENTER AND SUSTAIN RELATIONSHIPS IN DOMESTIC AND INTERNATIONAL MARKETS

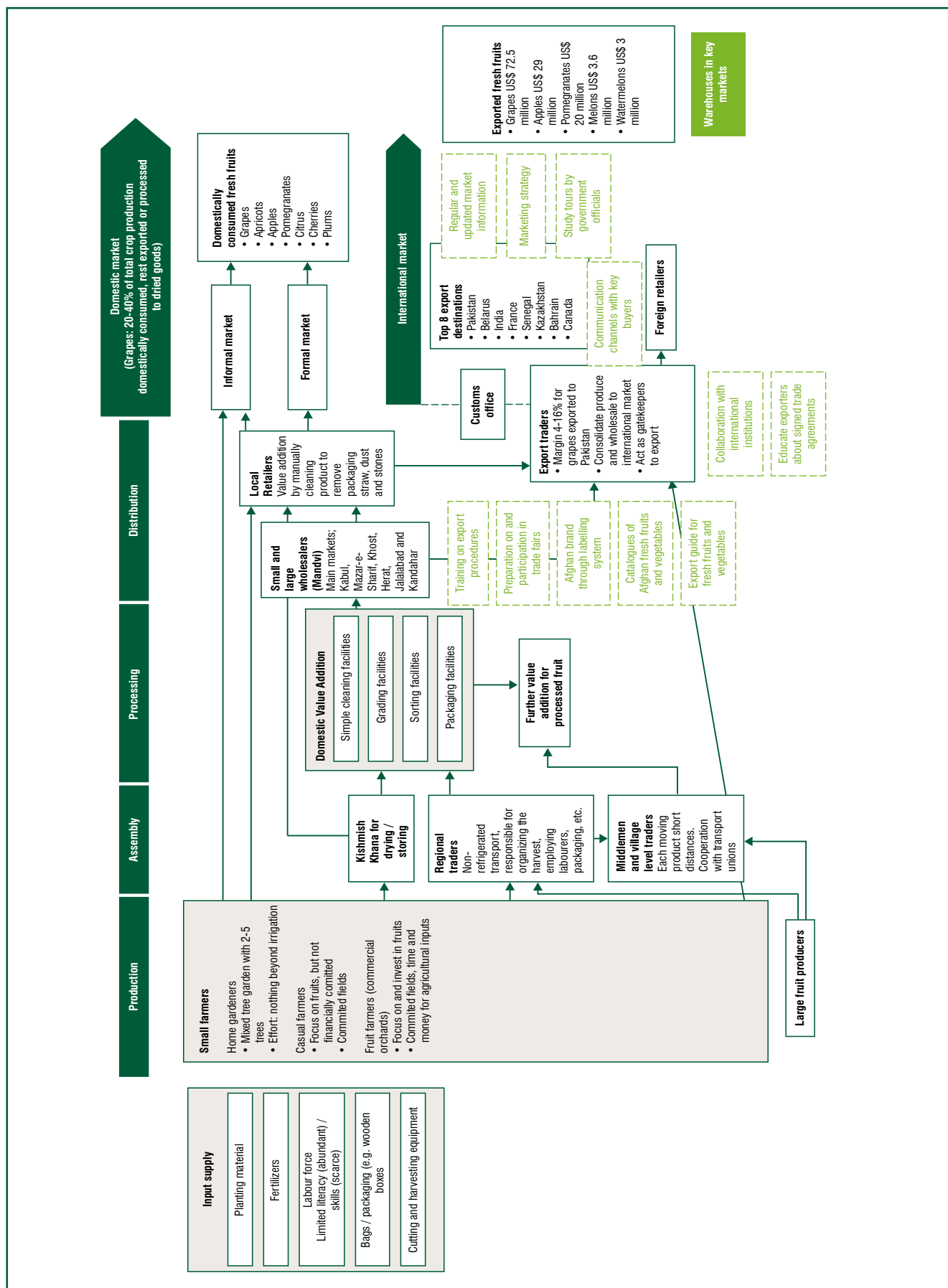
Afghanistan's FFV exports remain extremely dependent on the Pakistani market. In order to diminish this dependence and reduce the vulnerability of Afghan exporters, it is imperative for the sector to diversify export destinations.

To achieve this strategic objective, Afghan Government officials stationed at embassies and consulates in target markets must be tasked with preparing market studies and detailing the nuances of import requirements. To capitalize on information collected by the Afghan Government's foreign missions, there must be a central agency that coordinates market intelligence gathering and prepares reports for sector producers, enterprises and exporters. In parallel, measures must be taken to build the capacity of sector

enterprises in the area of export procedures, with detailed information provided about import requirements for all target markets. At the state level, the Afghan Government can continue its work pushing for trade agreements with other nations that help Afghan exporters minimize time clearing Customs controls in target markets and transiting through neighbouring countries.

At the global level, Afghan FFV have little visibility. To build a national brand for Afghan FFV in regional and international markets, marketing activities such as the development of catalogues that can be disseminated to potential buyers will be pursued.

Another key element under this objective is improving in-market support. This can be accomplished by facilitating the participation of sector enterprises in relevant international fairs and exhibitions, as well as the organization of business-to-business meetings to help Afghan sector enterprises build ties with international buyers. Support for the establishment of warehouses in upcoming target markets, such as India and the UAE, will be promoted through investment incentive packages.



# MOVING TO ACTION

## KEY REQUIREMENTS FOR EFFECTIVE IMPLEMENTATION

The development of the future value chain for the Afghan FFV sector is a five-year project defined through a consultative process between Afghan public and private sector stakeholders. Achieving the strategic objectives and realizing the future value chain depends heavily on the ability of sector stakeholders to start implementing and coordinating the activities defined in the PoA.

The PoA in and of itself will not alone suffice to ensure the sector's sustainable development. Such development will require the coordination of various activities. While the execution of these activities will allow for the PoA's targets to be achieved, success will ultimately depend on the ability of stakeholders to plan and coordinate actions in a focused, deliberate fashion. Seemingly unrelated activities must be synchronized across entities in the public, private and development sectors, with the additional need for local communities to participate.

To ensure the success of the PoA, it is necessary to create an appropriate framework for implementation. The following section presents some of the key conditions considered necessary for successful implementation.

## ESTABLISH AND OPERATIONALIZE A PUBLIC AND PRIVATE SECTOR COORDINATING BODY AND EXECUTIVE SECRETARIAT

### FFV sector steering committee

A key success criterion for the FFV PoA is the ability to coordinate activities, monitor progress and mobilize resources for implementation. It is recommended that a steering committee comprised of the key public and private sector entities be formed or supported (if a similar entity already exists). This will function as an information-sharing platform, with balanced representation of all major FFV stakeholders.

Overall it is proposed that the steering committee be responsible for the following tasks related to PoA implementation:

- Coordinate and monitor the implementation of the PoA;
- Identify and recommend allocation of resources necessary for the implementation of the PoA;
- Assess the effectiveness and impact of the PoA;
- Ensure consistency with the Government's existing policies, plans and strategies, and align institutions' and agencies' internal plans and interventions with the PoA;
- Elaborate and recommend revisions and enhancements to the PoA so that it continues to best respond to the

needs and long-term interests of the national business and export community;

- Propose key policy changes to be undertaken, based on Strategy priorities, and promote these policy changes among national decision makers;
- Guide the sector secretariat in the monitoring, coordination, resource mobilization, and policy advocacy and communication functions to enable effective implementation of the PoA;
- Provide the sector secretariat with the mandate and the necessary resources to fulfil its functions in an effective manner.

### Composition of the sector steering committee

It is recommended that the FFV steering committee be comprised of key entities involved in the sector, with special focus on ensuring equitable involvement of both the public and private sectors.

### Secretariat

A secretariat will assist the steering committee by acting as an operational body responsible for the daily coordination, monitoring and mobilization of resources to implement the PoA. It is proposed that it take on this role with technical support from key ministries and technical agencies. The secretariat will be composed of 1–2 technical operators.

The core responsibilities of the sector secretariat should be to:

- Support functioning of the FFV steering committee;
- Collect and manage data to monitor progress and impact of PoA implementation;
- Liaise with and coordinate development partners for PoA implementation;
- Elaborate project proposals and build partnerships to mobilize resources to implement the PoA;
- Follow up on policy advocacy recommendations from the FFV steering committee;
- Ensure effective communication and networking for successful PoA implementation.

Both the FFV steering committee and its secretariat will work hand-in-hand with existing entities established to streamline government operations and enhance donor operations. These include the NES secretariat and others. It is possible that the secretariat will be accommodated as part of an existing entity with an extended mandate and resources allocated to it.







# STRATEGIC PLAN OF ACTION

Strategic objective 1: Increase volumes of production and improve price competitiveness.											
Operational objectives	Activities	Priority 1=high 2=med 3=low	Implementation period					Targets*	Lead and supporting implementers		
			2017	2018	2019	2020	2021			2022	
1.1. Strengthen associations operating in the sector.	1.1.1. Encourage the development of farmers' associations and their integration into larger sector associations. <ul style="list-style-type: none"><li>Review the registration options for farmers' associations through the relevant government bodies. Consider and inform producers that currently cooperatives are subject to 20% tax annually, which leaves them less capable of competing. Consider decentralization of approval for applications and address issues to streamline the registration process.</li><li>Encourage the development of farmers' associations by doing business such as farming, input distribution, storage, processing, trading, etc. with associations rather than with individual farmers.</li></ul>	2							<ul style="list-style-type: none"><li>Registration of unions / associations is revised and corrective measures are integrated</li><li>At least 100 members of associations participate</li></ul>	Ministry of Economy), Ministry of Justice	
	1.1.2. Carry out an institutional benchmarking programme for sector associations to improve their performance by measuring the effectiveness and efficiency of their business practices. The programme should survey all activity areas, including strategy and governance, resources and processes, products and services, and results measurement.	2							<ul style="list-style-type: none"><li>Institutional benchmarking programme operational and benefiting 10 sector associations</li></ul>		
	1.1.3. Capacitate associations (with a set quota of women's associations) in business and financial planning and advocating for the sector. <ul style="list-style-type: none"><li>Conduct workshops and short trainings to micro, small and medium-sized enterprises (MSMEs) in the sector to capacitate them in business planning, financial skills (e.g. proper record keeping) and developing bank proposals to enhance their financial standing should they ever apply for loans.</li><li>Through a series of workshops, radio programmes and the development of outreach material such as brochures, create awareness among farmers and local communities of relevant and available financial services for the sector in Islamic banking.</li><li>Coach association leaders in market information and bulk marketing.</li><li>Train leaders of farmers' associations to mediate with external resource institutions, such as the Government and financial institutions.</li></ul>	1							<ul style="list-style-type: none"><li>Between 10 and 15 sector associations participate in capacity-building training, out of which five are women's associations</li></ul>		Ministry of Commerce and Industries (MoCI), Afghanistan Chamber of Commerce and Industries (ACCI)
	1.1.4. To facilitate the integration of the value chain and provide a supportive business environment for farmers, assess the feasibility of establishing "commodity markets" at major cities and market centres for fruits and vegetables	2							<ul style="list-style-type: none"><li>One feasibility study conducted</li></ul>		MAIL, sector associations, MoCI
1.2. Increase coordination for sector development efforts.	1.2.1. Establish a working group for the FFV sector (e.g. a board). Working group to be a high-level platform composed of public and private sector stakeholders, including sector firms, associations, e.g. Union of Fruits and Vegetables, among others. <ul style="list-style-type: none"><li>The working group is to stimulate dialogue and coordination with sector stakeholders through regular meetings.</li><li>Additionally, such a platform will ensure implementation of this Strategy, resource mobilization and policy advocacy.</li></ul>	1							<ul style="list-style-type: none"><li>Working group (e.g. board) for the sector established</li><li>Meetings of working group are held monthly</li></ul>	MAIL, sector associations	
	1.2.2. Create technical commissions within the high-level platform to oversee the development, implementation and operation of technical activities within the field of their specific commission. <ul style="list-style-type: none"><li>Create a committee within the working group, e.g. committee on skills development, comprising private and public sector stakeholders, to reinforce involvement of the private sector in extension services and upgrade agribusiness-relevant training and education.</li><li>Create a technical committee within the working group, e.g. a committee on cold chain development, comprising private and public sector stakeholders, including representatives from relevant ancillary services' firms such as transport companies. The committee will help promote and develop cold chain infrastructure based on sector needs.</li></ul>	2							<ul style="list-style-type: none"><li>Committee on skills development and committee on cold chain development formed and operational</li><li>Meetings of committees are held every two months</li></ul>	MAIL, sector associations	
1.3. Improve productivity by enhancing the availability of quality (non-seed) inputs.	1.3.1. Promote investment in domestic fertilizer production. <ul style="list-style-type: none"><li>Identify investment opportunities to:<ul style="list-style-type: none"><li>Set up fertilizer production plants in key subnational locations (close to major consumption or input supply centres). Take into consideration region / crop-specific fertilizer requirements.</li><li>Establish storage facilities for fertilizers in central nodes (public-private partnership (PPP)). Fertilizers could then be distributed by wholesalers and retailers from these central nodes.</li></ul></li><li>Develop investment incentives to revitalize the domestic fertilizer industry for domestic consumption (and potential regional export) by revamping existing production and potentially supporting new fertilizer plants.</li><li>Support the development of bank proposals for identified investment opportunities in domestic fertilizer production.</li></ul>	3							<ul style="list-style-type: none"><li>Three fertilizer plants set up in main producing provinces</li></ul>	MoCI (Afghanistan Investment Support Agency), MoF	

\* Targets are indicative only and will be the subject of further refinement at beginning of the implementation management stage. Similarly, the lead and supporting implementers column remains indicative because implementation will require collective efforts, for which additional institutions may be added.

Strategic objective 1: Increase volumes of production and improve price competitiveness.									
Operational objectives	Activities	Priority 1=high 2=med 3=low	Implementation period					Targets*	Lead and supporting implementers
			2017	2018	2019	2020	2021	2022	
<b>1.3. Improve productivity by enhancing the availability of quality (non-seed) inputs.</b>	1.3.2. In a multi-stakeholder setting, develop a plan for the sale of environmentally friendly, affordable pesticides to producers (including a distribution model). Specifically promote the sale of biopesticides and pesticides of plant origin.	3						<ul style="list-style-type: none"> <li>• Distribution model developed</li> </ul>	MAIL
	1.3.3. Develop an export assistance network directory for sector companies. <ul style="list-style-type: none"> <li>• Develop a comprehensive database (including contact details) on:               <ul style="list-style-type: none"> <li>– Operating companies engaged in the supply of critical inputs / services (e.g. fertilizers, pesticides, equipment, packaging materials, transport companies) to fruit and vegetable growers.</li> <li>– Product design and development companies.</li> <li>– Available quality certification bodies.</li> <li>– Export marketing and promotion.</li> <li>– Statistical and credit information.</li> <li>– Focal points in relevant ministries.</li> </ul> </li> <li>• Disseminate the database as a yellow book to be available to key stakeholders (producers, exporters) through a catalogue, websites and posters in local markets (particularly to increase dissemination to farmers' associations), among others.</li> </ul>	3						<ul style="list-style-type: none"> <li>• Yellow book developed and disseminated</li> </ul>	MoCI, MAIL, Central Statistics Organization, MoFA
<b>1.4. Ensure and promote the use of certified, market-oriented seeds and young trees.</b>	1.4.1. Support the strengthening of existing commercial nurseries in the country	3						<ul style="list-style-type: none"> <li>• Census updated</li> </ul>	MAIL, Afghanistan National Nursery Growers' Organization (ANNGO)
	1.4.2. Support the establishment of fruit tree nurseries in key locations. If considered necessary, support the establishment of new nurseries. <ul style="list-style-type: none"> <li>• Identify locations with potential for the establishment of fruit tree nurseries based on enabling factors such as accessibility of water, land and weather-related issues (soil, weather patterns), the existence of fruit growers and markets. In parallel, facilitate access to land.</li> </ul>	2						<ul style="list-style-type: none"> <li>• At least 500 nurseries established in key locations, including Kandahar and Mazar-e-Sharif</li> </ul>	MAIL, Ministry of Economy, Afghanistan Independent Land Authority, Afghanistan National Horticulture Development Organization
	1.4.3. Support existing efforts to develop a certified fruit trees programme.	3						<ul style="list-style-type: none"> <li>• Assessment of existing certification programmes available</li> <li>• Proposal for strengthening and expanding available schemes is developed and corrective measures are in place</li> </ul>	MAIL, ANNGO
	1.4.4. Launch an initiative to multiply improved seed varieties. Particularly, considering the official seed production system (ARIA, Improved Seeds Enterprises, and private companies) do not produce sufficient quantities of seeds (i.e. vegetables), design and launch an initiative focusing on vegetable seed production. <ul style="list-style-type: none"> <li>• Establish seed multiplication partnerships by increasing technical cooperation and coordination with seed industries and institutes through monthly meetings.</li> <li>• Support seed enterprises to produce improved / certified vegetable seeds.</li> <li>• Strengthen existing seed multiplication initiatives, such as the above-mentioned.</li> </ul>	2						<ul style="list-style-type: none"> <li>• Programme for multiplication of improved seed varieties launched</li> </ul>	MAIL, ANNGO, MoCI

Strategic objective 1: Increase volumes of production and improve price competitiveness.										
Operational objectives	Activities	Priority 1=high 2=med 3=low	Implementation period					Targets*	Lead and supporting implementers	
			2017	2018	2019	2020	2021			2022
1.4. Ensure and promote the use of certified, market-oriented seeds and young trees.	1.4.5. Develop a multi-tier programme to promote the use and cultivation of high-yielding market-driven crops to farmers, farmers' associations, cooperatives and unions, as a means to both increase yields and improve the dissemination of market information and input distribution services. Promote specific varieties based on local agroclimatic conditions, predictable market demand and market performance.	2							<ul style="list-style-type: none"> <li>A plan to promote high-yielding seeds is developed</li> </ul>	MAIL, ANNGO, MoCI
	<ul style="list-style-type: none"> <li>Set up an institutional and technical framework to design and implement the programme. Among the main activities, include:                             <ul style="list-style-type: none"> <li>Create mother tree nurseries; to function also as demonstration farms for best practices on seed selection, production and quality control, targeting farmers and extension agents through the provision of participatory trainings. Provide technical support to farmers on variety selection (high-quality and disease-free varieties) and intensive cultivation of fruits / vegetables.</li> <li>Organize periodic informational meetings between traders, processors and representatives of farmers associations to exchange information on market-related issues such as pricing and varietal market requirements. Provide coaching during meetings to optimize information flow and relevance.</li> <li>Design and roll out short courses to strengthen the marketing skills and market information knowledge of extension staff. Topics to include: market opportunities for local varieties, such as niche markets (including organic) and premiums.</li> </ul> </li> </ul>									
1.5. Increase the quality of and access to extension services.	1.5.1. Reinforce the implementation and enforcement of the Strategic Framework of MAIL on extension services.	2							<ul style="list-style-type: none"> <li>Strategic Framework of MAIL on extension services revised</li> <li>Minimum service standards developed</li> </ul>	MAIL, Ministry of Labour, Social Affairs, Martyrs and Disabled (MoLSAMD), Ministry of Education, Ministry of Higher Education, Ministry of Communications and Information Technology
	<ul style="list-style-type: none"> <li>Define roles and responsibilities of institutions in extension services provision and formalize them through memorandums of understanding.</li> <li>Harmonize extension services by developing minimum service standards and suggest steps to improve coordination between the public sector, private sector and development agencies.</li> <li>Request advice on best practices and minimum service standards of extension services from India.</li> </ul>									
	1.5.2. Identify incentives to extend the presence of extension agents across the country.	3							<ul style="list-style-type: none"> <li>Survey conducted</li> <li>Incentives identified</li> </ul>	MAIL, MoLSAMD
	<ul style="list-style-type: none"> <li>Conduct a survey to identify potential incentives (e.g., financial, housing, travel allowances, medical allowances, educational allowances for children, etc.) for extension agents to work in the most difficult areas.</li> <li>Identify and establish rewards and incentives to motivate qualified extension agents, such as opportunities to continue higher education, and encourage them to form professional societies.</li> </ul>									
	1.5.3. Create a scheme to increase the retention of qualified management and technical staff in extension services.	2							<ul style="list-style-type: none"> <li>Scheme to retain qualified management and technical staff in extension services developed</li> </ul>	MAIL, MoLSAMD, Ministry of Higher Education, Ministry of Education
	<ul style="list-style-type: none"> <li>Develop a career structure for public sector extension personnel as part of a scheme to improve rewards and incentives.</li> <li>Provide continuous training to extension personnel as part of their career development.</li> <li>Provide training in technical and managerial skills to extension personnel to enable them to occupy higher positions.</li> </ul>									
	1.5.4. Develop a programme to certify female extension service providers.	2							<ul style="list-style-type: none"> <li>At least 50 female extension service providers are recruited and trained</li> </ul>	Ministry of Women's Affairs, MAIL, MoLSAMD, Ministry of Higher Education, Ministry of Education
	<ul style="list-style-type: none"> <li>Train women extension service providers to enable women-to-women service delivery at every stage of the value chain, with particular emphasis on the early stages of the value chain (e.g. harvesting, sorting) where there is a strong female presence.</li> </ul>									
	1.5.5. Design and implement solutions for remote delivery of extension services.	2							<ul style="list-style-type: none"> <li>Agricultural television programme and four radio spots are developed and broadcast</li> </ul>	MAIL, MoLSAMD, Ministry of Communications and Information Technology
	<ul style="list-style-type: none"> <li>Launch an agriculture coaching television programme and develop radio spots to reach farmers in rural areas, to overcome limited mobility.</li> <li>Develop a programme to introduce a free 'farmer helpline' through MAIL, using mobile phones and in partnership with mobile service providers, to function on a daily basis. Features would include the registration of farmers for the helpline service and the establishment of a central office operated by agricultural experts. This service would be able to provide information to illiterate people in rural areas. The farmer helpline will also support the identification of common problems and trends faced by sector farmers</li> </ul>									



Strategic objective 1: Increase volumes of production and improve price competitiveness.									
Operational objectives	Activities	Priority 1=high 2=med 3=low	Implementation period					Targets*	Lead and supporting implementers
			2017	2018	2019	2020	2021	2022	
<b>1.5. Increase the quality of and access to extension services.</b>	1.5.6. Capacitate input dealers to provide extension services.	2							MAIL, Ministry of Education, Ministry of Higher Education MoLSAMD
	<ul style="list-style-type: none"> <li>Through short courses and workshops, encourage input dealers to provide extension services to farmers.</li> <li>Train input dealers in:               <ul style="list-style-type: none"> <li>Best practices for production in the sector.</li> <li>Use of certified inputs.</li> </ul> </li> <li>Proper application of inputs (e.g. doses of fertilizers).</li> </ul>							<ul style="list-style-type: none"> <li>An annual short course is rolled out, benefitting 50 input dealers yearly</li> </ul>	
<b>1.6. Promote knowledge of best practices in the sector.</b>	1.6.1. Design a master training programme to foment best practices in the sector.	1							MAIL, Ministry of Education
	<ul style="list-style-type: none"> <li>Committee on skills development to support the design of a master training programme on best practices in production, harvest and postharvest handling.</li> <li>Develop curricula and training materials.</li> <li>Identify key farmers' organizations, cooperatives and unions to serve as nuclei for select pilot initiatives:               <ul style="list-style-type: none"> <li>Evaluate the reach of farmers' organizations and their past work in the sector value chain.</li> <li>Evaluate the implementation capacity of selected organizations and create a profile for each organization.</li> </ul> </li> <li>Train facilitators in modules including:               <ul style="list-style-type: none"> <li>Production, postharvest and planning for farmers.</li> <li>How does the market work?</li> <li>What is value added?</li> <li>What do buyers want? (domestic and foreign buyer requirements).</li> <li>Contracts, negotiations and building relationships.</li> </ul> </li> </ul>							<ul style="list-style-type: none"> <li>Master training programme designed</li> <li>At least 50 facilitators are trained</li> </ul>	
	1.6.2. Roll out the master training programme in the main producing provinces of Afghanistan:	1							MAIL, Ministry of Education, Ministry of Communication and Information Technology
	<ul style="list-style-type: none"> <li>Develop demonstration plots in farmer field schools to showcase the use of alternative growing systems (e.g. different systems of grape trellising) and stimulate discussion of their potential benefits.</li> <li>Through practical training (e.g. in farmer field schools), capacitate farmers in best farming practices, covering harvesting and postharvest handling, with an emphasis on sanitary and phytosanitary issues and technical barriers to trade. Topics to include:               <ul style="list-style-type: none"> <li>Pre-harvesting:                   <ul style="list-style-type: none"> <li>Proper use of certified seeds.</li> <li>Practical demonstrations of best practices on production practices, e.g. thinning, pruning, recommendations of fertilizers and pesticides (including enabling the identification of altered pesticides).</li> <li>Improving methods of irrigation management (Improved, low-cost and water saving technology).</li> </ul> </li> <li>Harvesting:                   <ul style="list-style-type: none"> <li>Best practices in harvesting techniques (e.g. timing of harvest). Create awareness on loss of quality, uniformity and product value (e.g. ideal harvesting time to maximize sugar content) when practising inadequate harvesting methods.</li> </ul> </li> <li>Postharvest:                   <ul style="list-style-type: none"> <li>Sorting, grading of products.</li> <li>Pest control in storage facilities.</li> </ul> </li> </ul> </li> <li>Complement practical training with dissemination of information on best farming practices through other channels, including workshops to farmers' associations, radio programmes, posters and leaflets.</li> </ul>							<ul style="list-style-type: none"> <li>Master training programme rolled out and benefitting 2,000 farmers</li> </ul>	

\* Specific actions to improve irrigation management systems have been outlined by the Executive Committee on Private Sector Development, Working Group 2: Agriculture, Trade and SMEs (Private Sector Reform Priority #1). The Fresh Fruits and Vegetables Strategy is aligned to and supportive of these efforts.

Strategic objective 1: Increase volumes of production and improve price competitiveness.									
Operational objectives	Activities	Priority 1=high 2=med 3=low	Implementation period					Targets*	Lead and supporting implementers
			2017	2018	2019	2020	2021		
1.6.6. Promote knowledge of best practices in the sector.	1.6.3. Support the sector with effective R&D and best practices development. <ul style="list-style-type: none"><li>Encourage R&amp;D activities related to fruit and vegetable products. Topics to include:<ul style="list-style-type: none"><li>Basic research for new varieties production (e.g. vegetable hybrid seed production).</li><li>Pest control.</li><li>Postharvest management.</li><li>Improvement of crop varieties (high-yielding resistant varieties and hybrids).</li><li>Methods to extend season production (greenhouse horticulture production, low tunnel propagation of seedlings).</li><li>Innovations in packaging.</li><li>Alternative storage methods.</li></ul></li><li>Disseminate results through trials and demonstrations to producers' associations.</li><li>Develop pilot initiatives and apply pilot demonstration trials (field experiments) to new varieties, new crops and new production technologies.</li><li>Organize exchange programmes between Afghan MSMEs, producers' associations, agronomists and extension workers with their peers in other countries (e.g. India, Pakistan) to encourage exchange of best practices.</li></ul>	3							<ul style="list-style-type: none"><li>Ten research studies conducted on different topics</li><li>Five pilot demonstrations per year</li><li>Two flagship projects per year</li><li>Two exchange programmes organized per year</li></ul> <b>Afghanistan Research and Evaluation Unit,</b> Plant Biotechnology Laboratory, MAIL, Ministry of Rural Rehabilitation and Development (Afghanistan Institute of Rural Development), Ministry of Public Health
	1.7.7. Strengthen and expand commercial farming.	1.7.1. Train commercial orchard managers through the design and development of short courses on: <ul style="list-style-type: none"><li>Identification of good quality planting material.</li><li>Efficient use of water and alternative irrigation systems.</li><li>Business and orchard management and mechanization (economic return on investment; shortest lead time to first commercial harvest; consistency of production, including yield and quality).</li><li>Marketing, meeting market demand (market-oriented varieties, with long shelf life and easily transportable).</li></ul> 1.7.2. Facilitate access to governmental lands for commercial purposes relevant for the sector. As a priority, facilitate access to land for the establishment of commercial high-density orchards and vineyards. This will involve clear and transparent processes for purchasing and leasing land. <ul style="list-style-type: none"><li>Develop an inventory of available land, taking into account production areas, basic infrastructure available (e.g. water) and transport routes. Develop a comprehensive corresponding report for each identified available land area.</li><li>Disseminate the list through workshops and other dissemination channels, such as posters and newsletters, at the national and provincial levels. Target audience should be associations and producers, and diaspora associations. Provide assistance for land registration, as required.</li></ul> 1.7.3. Design and establish an agriculture investment fund. <ul style="list-style-type: none"><li>Establish a task force composed of commercial banks, sector associations and other relevant stakeholders.</li><li>Undertake a detailed baseline diagnosis of the supply and demand for agricultural finance based on Islamic banking principles at the country level. Assess and identify solutions for various categories of farmers, such as nursery managers, smallholders, commercial farmers and agribusinesses, along with larger commercial farmers and corporate agribusinesses, through a participatory process.</li><li>Provide a particular focus to support the development of credit programmes to improve access to finance for the establishment of commercial orchards</li><li>Based on findings, develop affordable loans for each category.</li></ul> 1.7.4. Conduct capacity-building workshops targeting farmers and associations on financial instruments available for the sector (e.g. including services available through the proposed agriculture investment fund).	2						<ul style="list-style-type: none"><li>Four short courses developed</li><li>Short courses benefit 50 commercial orchard managers per year</li></ul> <b>MoCI, MAIL</b>
		2						<ul style="list-style-type: none"><li>An inventory of available government land in at least five provinces is created</li><li>At least 15–20 reports are developed and disseminated</li></ul> <b>MoF, MAIL</b>	
		2						<ul style="list-style-type: none"><li>Agriculture investment fund operational</li></ul> <b>MoF, MAIL, High Economic Council</b>	
		3						<ul style="list-style-type: none"><li>At least 500 producers, commercial farmers and corporate agribusinesses receive capacity-building workshops</li></ul> <b>MoF, MAIL</b>	

Strategic objective 2: Reduce postharvest losses across the value chain by addressing technical and non-technical issues.									
Operational objectives	Activities	Priority 1 = high 2 = med 3 = low	Implementation period					Targets	Lead and supporting implementers
			2017	2018	2019	2020	2021		
2.1. Build technical capacities to reduce postharvest losses at current infrastructure levels.	2.1.1. Technical committee on cold chain development to lead the following activities: <ul style="list-style-type: none"> <li>Develop guidelines and recommendations to assure maximum quality and minimum spoilage of FFV</li> <li>Increase collaboration and cooperation with governments such as those of India, the Netherlands and France to increase knowledge exchange on available technologies through capacity-building programmes and promotion of PPPs, including exchanges of business delegations.</li> <li>Considering current cold chain infrastructure gaps, and develop practical guidelines and recommendations to assure maximum quality and minimum spoilage of FFV.</li> <li>Identify best practices to overcome cold chain infrastructure deficiencies through practical advice in alignment with food safety recommendations, at all value chain stages, such as: <ul style="list-style-type: none"> <li>Production</li> <li>Harvest <ul style="list-style-type: none"> <li>Optimum harvesting times for each crop</li> </ul> </li> <li>Handling recommendations.</li> </ul> </li> <li>Postharvest treatments <ul style="list-style-type: none"> <li>Packing advice to avoid deterioration (e.g. stacking)</li> <li>Encourage value added services, including grading and sorting</li> <li>Cooling and transport options (e.g. how to create air flows for bulk loads).</li> </ul> </li> </ul>	1						<ul style="list-style-type: none"> <li>Guidelines developed</li> </ul>	ANSA, MAIL, Ministry of Transport and Civil Aviation
	2.1.2. Develop a training programme (cold chain training), targeting key actors across the value chain to disseminate recommendations to producers and companies, and capacitate them through workshops. <ul style="list-style-type: none"> <li>Design a curriculum and training materials in conformity with developed guidelines and tailored to relevant value chain actors such as producers, as well as operating staff of existing facilities.</li> <li>Train facilitators on developed guidelines and support existing / new training and vocational programmes.</li> <li>Support private-sector-led professional development opportunities for experts and companies wishing to train their staff.</li> <li>Roll out the training programme through tailored short courses.</li> </ul>	2						<ul style="list-style-type: none"> <li>Training programme designed and rolled out</li> <li>Short courses delivered annually</li> </ul>	ANSA, MAIL
	2.1.3. Design and roll out a campaign (e.g. manuals, posters, leaflets, website publication) targeting farmers and postharvest actors (harvesting, packaging, transport operators) on best practices to prolong the shelf life of fresh produce, based on the guidelines developed.	2						<ul style="list-style-type: none"> <li>Annual campaign rolled out in five main producing provinces</li> </ul>	MAIL, ANSA
	2.2. Upgrade cold chain infrastructure.	2.2.1. Enhance and develop cold chain services through the development of a cold chain scheme. <ul style="list-style-type: none"> <li>Based on ongoing and existing research regarding the cold chain infrastructure needs of Afghanistan (e.g. Roots of Peace <i>Cold Chain Infrastructure Assessment as Part of Commercial Horticulture and Agricultural Marketing Project</i>), promote the establishment of specialized agricultural FFV logistics and transportation companies ((immobile infrastructure at farm gate (e.g. packhouses), storage (e.g. bulk cold warehouses) and cold distribution hubs (e.g. cold store for last-mile access to markets).</li> <li>Develop a scheme for the promotion of needed cold chain services, based on institutional support and economic incentives for cold chain enterprises to start and grow operations. Incentives to be considered: <ul style="list-style-type: none"> <li>Partial grants / tax incentives for cold chain infrastructure development (including the transport sector). Comprehensive Agriculture and Rural Development – Facility to increase the ratio to finance cold storage projects from 60:40 to 80:20.</li> <li>Land facilitation.</li> </ul> </li> </ul>	1					<ul style="list-style-type: none"> <li>Cold chain scheme developed</li> </ul>	MoCI (Afghanistan Investment Support Agency), MoF, Ministry of Transport and Civil Aviation
	2.2.2. Review import regulations (particularly import duties) for cold chain equipment, including refrigerated vans. Consider reducing or exempting cold chain equipment from import duties to promote investment in and establishment of cold chain infrastructure.	2						<ul style="list-style-type: none"> <li>Import regulations revised and corrective measures / policies integrated</li> </ul>	MoCI

Strategic objective 2: Reduce postharvest losses across the value chain by addressing technical and non-technical issues.									
Operational objectives	Activities	Priority 1 = high 2 = med 3 = low	Implementation period					Targets	Lead and supporting implementers
			2017	2018	2019	2020	2021	2022	
<b>2.2. Upgrade cold chain infrastructure.</b>	2.2.3. Develop a model to establish / rehabilitate crop-specific storage facilities in rural areas, using local materials and building on existing techniques. Consider the repurposing of refrigerated shipping containers for building cold storage. <ul style="list-style-type: none"> <li>Considering power shortages, focus on promoting energy efficiency – such as cold-chain solar equipment or the use of biogas – and low carbon imprint technologies through R&amp;D and investment incentives.</li> </ul>	2						<ul style="list-style-type: none"> <li>Model designed and rolled out</li> </ul>	MAIL
	2.2.4. Based on assessments of the cold chain sector, establish large storage facilities through PPPs outside major markets, i.e. Kabul, Herat, Mazar-e-Sharif, Jalalabad and Kandahar, as PPPs. <ul style="list-style-type: none"> <li>Pilot the establishment of four large multi-crop storage facilities, following crop-specific requirements for storage (based on international standards).</li> </ul>	1						<ul style="list-style-type: none"> <li>Establish four large storage facilities outside major markets</li> </ul>	Da Afghanistan Bank, MAIL
	2.2.5. Establish adequate 'cold facilities' at airports (e.g. air cargo corridor with India) in order to maintain precise and continuous temperature conditions in transit. <ul style="list-style-type: none"> <li>Train handling staff to ensure adherence to standard operating procedures.</li> </ul>	1						<ul style="list-style-type: none"> <li>One cold chain facility at the airport</li> <li>At least 10 handling staff trained</li> </ul>	MoCI



Strategic objective 3: Add value by improving postharvest practices and processing capacities.										
Operational objectives	Activities	Priority 1 = high 2 = med 3 = low	Implementation period					Targets	Lead and supporting Implementers	
			2017	2018	2019	2020	2021			2022
3.3.1. Upgrade skills in agro-processing.	3.3.1.1. Introduce institutionalized arrangements such as an advisory councils to design and implement a skills policy, including private sector recommendations, to help ensure that education and training programmes are relevant to the needs of the sector.	1							• Sector skills council established	Ministry of Education, MoLSAMD, MAIL
	• Set up an institutional and technical framework within the sector coordination platform, such as a sector skills council, to be responsible for planning and monitoring industry-related training and skills development. Sector skills council to be composed of private sector representatives, relevant universities, and technical and vocational education and training (TVET) institutions, as well as ministries in related sectors and the Ministry of Women's Affairs.									
	• Identify a private sector interlocutor to be responsible for communication with academia. The interlocutor must have influence and the support of other private sector stakeholders.									
3.3.2. Build firms' capacities to manage their supply chain in line with international food safety practices.	3.3.1.2. The sector skills council will identify job roles and the competencies required for each job role in alignment with the National Occupational Skills Standards.	2							• Relevant curricula revised yearly	Ministry of Education, MoLSAMD, MAIL
	• Skills council to discuss / revise existing relevant National Occupational Skills Standards for the sector.								• Main job roles and competencies identified	
	• Skills council to review curricula yearly, as well as sector-relevant courses, and present proposals for development of new courses to be agreed by Ministry of Education.									
3.3.3. Improve food safety and quality assurance.	• Establish monitoring measures to determine the success of the adjusted / new courses and revision mechanisms to continue adapting them as the sector evolves.	3							• Incentives developed and integrated in national policy	MoLSAMD
	• Conduct in-service training to teachers and instructors in new/adapted courses of key universities and training centres.									
	3.3.1.3. Prevent 'brain drain' of skilled professionals in the sector.									
3.3.2.1. Increase firms' capacities to implement food safety management systems in the supply chain through rolling out short courses.	• Develop incentives to improve local labour-market conditions in order to prevent emigration of skilled professionals in the sector.	1							• Three short courses targeting 30 SMEs annually	ANSA, MoCI MAIL, ACCI
	• Develop curricula and course materials on the following topics: – Business management – Food safety management.									
	• Prepare training manuals accordingly.									
3.3.2.2. Organize study tours for select firms to understand food safety requirements and best production and processing practices in key locations (e.g. UAE).	• Conduct courses to sector small and medium-sized enterprises (SMEs) and exporters.	3							• One study tour a year benefiting at least five SMEs	MoCI MAIL, ACCI
3.3.3.1. Upgrade product testing infrastructure.	• Undertake a campaign to encourage investment in a state of the art laboratory, sampling and testing facility, based on market potential.	2							• At least two testing facilities established in key locations outside Kabul	Ministry of Public Health, MAIL, MoF, MoCI (Afghanistan Investment Support Agency)
	• Lobby investors and testing firms to allocate resources to identified potential product testing facilities.									
	3.3.2. Design and implement mechanisms to ensure the timely dissemination of test reports on plant diseases to farmers and traders.		2							
3.3.3. Improve the technical capacity for food safety and quality assurance in relevant institutions.										
3.3.3.2. Establish a training programme to certify auditors in Hazard Analysis and Critical Control Points. International Organization for Standardization 2000, British Retail Consortium, Social Accountability 8000, etc. to accelerate the process of higher standardization. Extend the number of laboratory staff to key provinces.	• Establish a training programme to certify auditors in Hazard Analysis and Critical Control Points. International Organization for Standardization 2000, British Retail Consortium, Social Accountability 8000, etc. to accelerate the process of higher standardization. Extend the number of laboratory staff to key provinces.	1							• Training programme conducted to 20 certified auditors per year	ANSA

Strategic objective 3: Add value by improving postharvest practices and processing capacities.									
Operational objectives	Activities	Priority 1 = high 2 = med 3 = low	Implementation period					Targets	Lead and supporting implementers
			2017	2018	2019	2020	2021		
<b>3.3. Improve food safety and quality assurance.</b>	3.3.4. Enhance the ability of local export quality management service providers through a training of trainers, to enable them to offer services and support to SMEs in export quality management on a long-term basis.	1						<ul style="list-style-type: none"> <li>Training of trainers rolled out and conducted to 50 quality management service providers</li> </ul>	ANSA
	<ul style="list-style-type: none"> <li>Identify host institutions to offer training and advisory services in quality management.</li> <li>Identify and select core teams of trainers and advisers.</li> <li>Develop diagnostic tools on the technical capacities of service providers in quality management.</li> <li>Prepare and implement technical workshops on quality management.</li> <li>Prepare and implement workshops on training and advisory skills.</li> <li>Provide guidance and technical support to local service providers to develop and manage their services.</li> </ul>								
<b>3.4. Stimulate the establishment and upgrade of processing capacities.</b>	3.3.5. Develop and apply traceability to companies in the FFV sector.	2						<ul style="list-style-type: none"> <li>At least 5% of production has a traceability system</li> </ul>	MAIL, MoCI, ANSA
	<ul style="list-style-type: none"> <li>Considering compulsory requirements on traceability in key target markets – e.g. EU – and the need to protect the reputation of Afghan products, develop and apply traceability to the FFV sector, starting with a small number of producing enterprises exporting fresh produce and then expanding the system. Traceability to cover inputs, production and distribution.</li> <li>Provide ongoing guidance and technical support.</li> </ul>								
	3.4.1. Support the maintenance / expansion of industrial parks in main producing areas. Ensure the quality of infrastructure such as electricity and water supply in industrial parks by proper maintenance and upgrading of management systems.	1						<ul style="list-style-type: none"> <li>Independent study carried out and corrective measures in place</li> <li>Pilot project designed and implemented</li> </ul>	MoCI, Afghanistan Chamber of Industries and Mines
	<ul style="list-style-type: none"> <li>Undertake an independent study to assess the level of service support, technical capacities and implementation of activities in industrial parks supporting sector firms.</li> <li>Based on identified gaps and flaws, design and implement corrective measures and tailored workshops for industrial parks' management staff (e.g. bookkeeping).</li> <li>Conduct feasibility studies in major locations for the establishment of agro-focused industrial parks, as a public-private investment.</li> <li>Develop a pilot project in a select location for an agro-focused industrial park, with basic infrastructure that sector entrepreneurs can lease for the setting up of food processing and ancillary units.</li> </ul>								
	3.4.2. Create links between the education sector and agribusiness processors to introduce low-cost solutions to rehabilitate inoperative processing machinery.	2						<ul style="list-style-type: none"> <li>Course developed and rolled out in three TVET institutions</li> </ul>	MoCI, MoFA, Ministry of Education, MoLSAMD
	Add operation, maintenance and repair of common agribusiness processing machinery to training programmes in key TVET institutions and universities. Assess the skill requirements for the performance of these activities. Adjust the TVET curriculum accordingly.								
	3.4.3. Organize equipment buyer-seller meetings in Kabul attended by equipment manufacturers and suppliers as well as potential buyers (unions, firms, etc.).	2						<ul style="list-style-type: none"> <li>Annual buyer-seller meeting in Kabul</li> </ul>	ACC, Afghanistan Chamber of Industries and Mines, MoCI
	<ul style="list-style-type: none"> <li>The events should be linked to the sector (e.g. processing opportunities for FFV) with introductions by regional and international companies and value chain actors.</li> <li>Equipment suppliers will be invited to attend in addition to value chain stakeholders.</li> </ul>								
	3.4.4. Support the identification of product diversification options through processing (e.g. fruit juices, separating pomegranate seeds) in domestic and international markets, based on sounds market assessments.	2						<ul style="list-style-type: none"> <li>At least 10 SMEs are supported to upgrade processing operations</li> </ul>	MoCI, MoFA
	<ul style="list-style-type: none"> <li>Establish a grant scheme to promote increasing the level of processing and value addition in the sector, leading to reduced waste. Scheme to cover setting up of new units and modernization / expansion of existing units.</li> <li>An indicative list of activities which may be undertaken by processing units is given below:               <ul style="list-style-type: none"> <li>Sorting, grading, washing, peeling, cutting, sizing</li> <li>Blanching, extraction, pulping</li> <li>Drying, de-hulling, splitting, colour sorting</li> <li>Packaging facilities like canning, vacuum packaging and bottling, among others.</li> </ul> </li> </ul>								

Provide support to sector associations and firms to submit applications through workshops.

Strategic objective 3: Add value by improving postharvest practices and processing capacities.									
Operational objectives	Activities	Priority 1 = high 2 = med 3 = low	Implementation period					Targets	Lead and supporting implementers
			2017	2018	2019	2020	2021	2022	
<b>3.4. Stimulate the establishment and upgrade of processing capacities.</b>	3.4.5. Promote investment in agro-industry (focused on fruits and vegetables processing).	1							MoCI, MoFA
	<ul style="list-style-type: none"> <li>Update existing list of investment attraction opportunities (continue updating list as the sector evolves).</li> <li>Facilitate the participation of business associations in investment missions and exhibitions to promote investment opportunities in the sector.</li> <li>Through online videos, concept notes and brochures, among other communication materials, showcase investment opportunities in the sector.</li> </ul>							<ul style="list-style-type: none"> <li>List of incentives developed</li> <li>Two investment missions a year</li> </ul>	
<b>3.5. Improve packaging practices.</b>	3.5.1. Capacitate companies and sector associations on technical requirements for packaging, based on international market requirements.	2							ANSA, MoCI
	<ul style="list-style-type: none"> <li>Capacitate companies through appropriate training focused on packaging (crop-specific). Modules to include:               <ul style="list-style-type: none"> <li>Types of packaging material.</li> <li>Design and selection of packaging material.</li> <li>Food packaging machinery options.</li> <li>Labelling and legislation, such as the ISPM 15 regulation for packaging and the United States Food, Drug and Cosmetic Act, section 409.</li> <li>Compliance with environmental concerns and legislation of key destination countries.</li> <li>Reusing and recycling of packaging.</li> <li>Marketing advice on how to improve packaging for more profitable and successful access to domestic and export markets and for reduced product losses along the value chain.</li> </ul> </li> <li>Compile and disseminate case studies describing how companies can reduce food waste through new product-packaging solutions.</li> <li>Prepare training manuals targeting food chain actors, accordingly.</li> </ul>							<ul style="list-style-type: none"> <li>Modules developed</li> <li>Training manuals developed</li> <li>Fifty SMEs trained per year</li> </ul>	
	3.5.2. Create links between regional and international packaging suppliers and domestic companies.								
	<ul style="list-style-type: none"> <li>Through the organization of fairs, create business links between packaging suppliers (domestic and international) and domestic companies.</li> </ul>							<ul style="list-style-type: none"> <li>One fair per year</li> </ul>	
	3.5.3. In alignment with activity 2.2.3. (storage in rural areas), develop a programme to add services and adapt established storage units to 'packhouses' (e.g. see India model). 'Pachouses' to be used for temporarily storing, cleaning, grading and packing farm produce.	2							MAIL, MoCI
	<ul style="list-style-type: none"> <li>Conduct a feasibility study.</li> <li>Develop requirements (e.g. size, ventilation, material) for packhouses, in alignment with international standards and considering available construction materials.</li> <li>Consider the provision of adequate equipment such as weighing machines and grading tables, among others.</li> <li>Pilot packhouses in main production provinces.</li> </ul>							<ul style="list-style-type: none"> <li>Twenty packhouses established per year</li> </ul>	

Strategic objective 4: Increase the sector's capacity to enter and sustain relationships in domestic and international markets.										
Operational objectives	Activities	Priority 1 = high 2 = med 3 = low	Implementation period					Targets	Lead and supporting implementers	
			2017	2018	2019	2020	2021			2022
4.1. Enhance the quality and dissemination of market intelligence services.	4.1.1. Develop short courses to enhance international business capacities of sector enterprises. Courses should cover: <ul style="list-style-type: none"><li>• Understanding doing business in Afghanistan, include taxation coaching.</li><li>• Exporting from Afghanistan: export procedures, incoterms, preferential tariff treatment.</li><li>• Negotiation skills and customer relationship management.</li><li>• Promotion and branding for food companies.</li></ul>	1							• Three short courses conducted to 50 SMEs annually	MoCI
	4.1.2. Review / update existing <i>Export Guide for Fresh Fruits and Vegetables Exporters</i> (i.e. Roots of Peace). <ul style="list-style-type: none"><li>• Review target markets to be addressed in the publication, such as the Russian Federation and Middle Eastern countries, tailoring the export guide to focus on the products with the highest market opportunities in such countries.</li><li>• Include the following key information:<ul style="list-style-type: none"><li>– Market prospects and emerging trends (including product definitions in terms of popular varieties and forms of consumption, and processed fruit and vegetable products with export potential, e.g. canned tomatoes).</li><li>– International trade agreements with selected target markets, if applicable.</li><li>– Risks of entering the market.</li><li>– Packaging legislation (ISPM 15).</li><li>– Respect for target market procedures.</li><li>– Legal procedures.</li><li>– Distribution channels and directory of main buyers in target markets.</li><li>– Trade fairs available in-country.</li><li>– Prices.</li><li>– Contact details of trade attachés.</li></ul></li></ul>	2							• Guide revised and updated	MoCI, MoFA, ANSA
	4.1.3. Carry out capacity-building workshops targeting producing and exporting companies in the sector to increase their knowledge of key markets' regulations on importing FFV, e.g. EU, the Russian Federation and the UAE. <ul style="list-style-type: none"><li>• Capacity-building workshops to focus on:<ul style="list-style-type: none"><li>– EU legislation, which sets general and specific marketing standards for the minimum quality and the minimum maturity of all FFV. Marketing standards relate to quality, grading, weight and size, packaging, storage and transport; and presentation, origin and labelling.</li><li>– United Nations Economic Commission for Europe standards accepted in lieu of general marketing standards.</li><li>– Specific marketing standards for: apples, peaches and nectarines, table grapes and tomatoes.</li><li>– Traceability requirements.</li><li>– Indian import requirements, e.g. Food Safety and Standards Regulations, 2011, ISPM 15 requirements.</li></ul></li></ul>	2							• Three annual workshops conducted to 50 SMEs	MoCI, ACCI
	4.1.4. Ensure a regular flow of information is provided on market intelligence. <ul style="list-style-type: none"><li>• Through a website, newsletter and text messaging for registered users (e.g. sector associations), ensure regular and up-dated market information about the sector is available.</li><li>• Information to include: demand for specific fruit and vegetables varieties in key markets, prices, seasonal demand (and profit margins), etc.</li></ul>	1							• Market intelligence dissemination mechanisms in place and operational	MoCI, Ministry of Communication and Information Technology



Strategic objective 4: Increase the sector's capacity to enter and sustain relationships in domestic and international markets.								
Operational objectives	Activities	Priority 1 = high 2 = med 3 = low	Implementation period 201720182019202020212022	Targets	Lead and supporting Implementers			
4.2. Improve links with target markets.	4.2.1. Create communication channels with key buyers in international markets. <ul style="list-style-type: none"><li>Organize trips to key international markets. Liaise with main buyers in-country, maintain active communication and open dialogue to establish key times of the year when Afghan produce is needed.</li><li>Assist MSMEs to participate in international trade fairs through grant programmes, loans, etc.</li><li>Organize business-to-business meetings with international clients to encourage potential international business.</li></ul>	2		<ul style="list-style-type: none"><li>Two annual trips to international markets (five firms participating)</li><li>Ten firms participate in trade fairs annually</li><li>One annual business-to-business meeting</li></ul>	MoCI, MoFA			
	4.2.2. Train enterprises on how to prepare for market development and participation in trade fairs: <ul style="list-style-type: none"><li>Preparing promotional materials in the language and culture of the host country.</li><li>Presentation and visibility (including digital marketing).</li><li>Managing supply and demand.</li><li>Identifying and targeting potential buyers.</li></ul>	2		<ul style="list-style-type: none"><li>At least 50 SMEs participate in training</li></ul>	MoCI, MoFA			
	4.2.3. Evaluate the feasibility of establishing warehouses (as public-private sector investment) in key markets, such as India and UAE, through feasibility studies. Develop a model for establishing warehouses as a PPP <ul style="list-style-type: none"><li>Pilot a warehouse in a target market, accordingly.</li></ul>	2		<ul style="list-style-type: none"><li>Pilot the establishment of one warehouse in a key target market</li></ul>	MoCI, ACCI			
	4.3. Enable entering niche markets by supporting organic production and certification.	4.3.1. Support the development of organic producers by: <ul style="list-style-type: none"><li>Developing guidelines for organic agriculture based on relevant certification bodies in target markets (e.g. specific EU legislation to market products as 'organic').</li><li>Offering information on how to diversify their products and providing information about viable organic produce in demand in international markets.</li><li>Assessing and disseminating information about the marketability of organic products.</li><li>Introducing mechanisms (e.g. radio spots) to disseminate relevant information about: pest control, and market prices for organic fresh produce.</li></ul>	2		<ul style="list-style-type: none"><li>Afghan organic farming protocol developed</li><li>Report produced on the study of the marketability of at least two organic sector products internally and externally</li><li>Support at least five SMEs to increase their share of organic products</li></ul>	MoCI, ACCI, MAIL		
	4.3.2. Explore partnerships with international certification bodies for organic production.	2		<ul style="list-style-type: none"><li>At least two memorandums of understanding signed with international certification bodies</li></ul>	MoCI			
	4.3.3. Develop a scheme for organic certification, prioritizing specific fruit and vegetable products (e.g. pomegranates, mushrooms, grapes).	2		<ul style="list-style-type: none"><li>Scheme developed and in place, prioritizing two specific fruits and vegetables</li></ul>	Da Afghanistan Bank, MoF, MAIL, MoCI			
4.4. Enhance the visibility of Afghan FFV in regional and global markets.	4.4.1. Review / update existing FFV catalogue (online / printed) to be disseminated among potential buyers. <ul style="list-style-type: none"><li>Catalogue to include:<ul style="list-style-type: none"><li>Leading Afghan FFV products</li><li>Regions of production</li><li>Availability chart by variety</li><li>Certifications available</li><li>Afghan exporters' directory.</li></ul></li><li>Publish catalogue and booklets for FFV varieties in Afghanistan.</li><li>Develop communication and marketing materials to promote endemic varieties (properties, attributions) in key markets, based on market demand assessments.</li></ul>	2		<ul style="list-style-type: none"><li>Catalogue revised and disseminated in key markets through commercial attachés and public / private sector websites</li></ul>	MoCI, ANSA, MoFA			

Strategic objective 4: Increase the sector's capacity to enter and sustain relationships in domestic and international markets.								
Operational objectives	Activities	Priority 1 = high 2 = med 3 = low	Implementation period					Lead and supporting implementers
			2017	2018	2019	2020	2021	
<b>4.4. Enhance the visibility of Afghan FFV in regional and global markets.</b>	4.4.2. Explore the development of geographical indications for specific fruit and vegetable crops such as red Kandahari pomegranates.	3						MoCI
	<ul style="list-style-type: none"> <li>• Pilot this initiative by conducting a cost-benefit study on the development of a geographical indication for red Kandahari pomegranates. Study to consider:</li> <li>• Product characteristics and potential in domestic and foreign markets.</li> <li>• Capacity to strengthen the cohesion of producer groups and other operators who will be pillars of the geographical indication.</li> <li>• Review / set up standards (i.e. code of practice) circumscribing a product's geographical region of production.</li> <li>• Design of a mechanism to effectively attribute the right use of the geographical indication within the established boundaries.</li> <li>• Potential to establish a traceability system, among others including potential marketing strategies.</li> </ul>							
<b>4.5. Encourage local consumption of sector products.</b>	4.5.1. Assess market dynamics for local consumption of FFV and disseminate information to relevant private sector stakeholders.	2						MoCI, ACCI
	<ul style="list-style-type: none"> <li>• Assess, through a targeted baseline study, demand and supply of local supermarkets and consumers. Identify consumers' attitudes towards buying locally produced FFV.</li> <li>• Communicate baseline study findings to sector associations, cooperatives and unions through workshops.</li> </ul>							
	4.5.2. Develop a national campaign (It's Great, It's Afghan Made) promoting the local consumption of domestically produced FFV, to support local producers competing against imported produce. Explore the possibility of creating / strengthening business links between sector associations and institutions involved in school meal programmes in the country (e.g. World Food Programme).	2						MoCI, ACCI

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International  
Trade  
Centre

**Street address:** ITC  
54-56, rue de Montbrillant,  
1202 Geneva, Switzerland

**Postal address:** ITC  
Palais des Nations,  
1211 Geneva 10, Switzerland

**Telephone:** +41-22 730 0111  
**Fax:** +41-22 733 4439  
**E-mail:** [itcreg@intracen.org](mailto:itcreg@intracen.org)  
**Internet:** [www.intracen.org](http://www.intracen.org)

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