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AZERBAIJAN

PRIVATE SECTOR ACTIVITY (PSA) Quarterly Progress Report

Year I. Quarter 2: January I – March 31, 2020



Private Sector Activity

Quarterly Progress Report

January 1 – March 31, 2020

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Acronyms

| | |
|---------|---|
| ABPEA | Azerbaijan Berry Producers and Exporters Association |
| AFSA | Azerbaijan Food Safety Agency |
| AFSI | Azerbaijan Food Safety Institute |
| AHPEA | Azerbaijan Hazelnut Producers and Exporters Association |
| ASAU | Azerbaijan State Agricultural University |
| AzPromo | Azerbaijan Export and Investment Promotion Foundation |
| B2B | Business-to-Business |
| BDS | Business Development Services |
| BMSB | Brown Marmorated Stink Bug |
| BSP | Business Service Provider |
| CBI | Center for the Promotion of imports for developing countries |
| CNFA | Cultivating New Frontiers in Agriculture |
| DAIM | State Agricultural Development Centers of the Ministry of Agriculture |
| DAS | Deputy Assistant Secretary of State |
| ERC | Environmental Review Checklist |
| GAP | Good Agricultural Practices |
| HACCP | Hazard Analysis and Critical Control Points |
| HSE | Health, Safety, and Environmental |
| ICD | Islamic Cooperation for Development |
| ICT | Information and Communication Technology |
| IPM | Integrated Pest Management |
| IR | Intermediate Result |
| MELP | Monitoring Evaluation & Learning Plan |
| MoA | Ministry of Agriculture |
| MOU | Memorandum of Understanding |
| PERSUAP | Pesticide Evaluation Report and Safer Use Action Plan |
| PMP | Performance Monitoring Plan |
| PPE | Personal Protective Equipment |
| PPEAA | Pomegranate Producers and Exporters Association of Azerbaijan |
| PVE | Preventing Violent Extremism |
| PY | Project Year |
| ROC | Record of Compliance |
| SEDA | Socioeconomic Development Activity |
| SMB | Small and Medium Business Development Agency |
| SME | Small and Medium-Sized Enterprise |
| STTA | Short-Term Technical Assistance |
| TA | Technical Assistance |
| TTF | Technology Transfer Fund |
| USACC | United States-Azerbaijan Chamber of Commerce |
| VC | Value Chain |

Executive Summary

The USAID Private Sector Activity (PSA) is a \$15 million five-year project that is utilizing a partnership and co-investment approach to support a more resilient Azerbaijan economy and improve the business enabling environment. Supporting the non-oil sector, by improving the competitiveness of the private sector (with a special emphasis on agriculture and other rural economic activities), building capacity of business support services, and reducing the barriers that hinder the development of micro, small, and medium enterprises (MSMEs), will help contribute to a more secure and sustainable Azerbaijani economy.

Following the start-up and planning phase of the Activity in the first quarter, second quarter efforts were directed towards identifying new beneficiaries and concepts, meeting with partnering governmental entities and international organization and specifying areas of collaboration with them, carrying out in-depth assessments of the agritourism value chain (VC) and other VC gaps, and carrying on implementation of activities started during the previous quarter and under the predecessor project. PSA also jointly implemented a public event and a series of trainings with partners, and began planning for several upcoming public events, study tours and export promotion visits. Highlights of these activities are presented below.

On February 21st, Azerbaijan State Agricultural University (ASAU) hosted a PSA-supported scientific and practical conference entitled, “Intensive Horticulture in Azerbaijan: Achievements, Perspectives, Problems and Solutions.” About 95 individuals attended the event, including four USAID beneficiary farmers, representatives of DAIMs from Terter, Goranboy, Goygol, Goychay, Samukh, and Gedebe regions, representatives from the Scientific Research Institute, as well as ASAU agronomists, professors, and graduate students. In addition to professors and researchers from ASAU, presenters included agronomist Jabbar Heybatov, whom PSA supported to attend and lead a session on the current situation in intensive orchard management, the advantages of intensive orchards, as well as existing challenges and possible solutions. Heybatov also provided extensive answers to questions posted by the audience.

Over the course of the quarter, PSA had a number of meetings with Ferrero, a global leader in hazelnut production and processing, which is partnering with the Activity in Azerbaijan. Based on recent discussions, PSA developed a list of proposed joint activities in the hazelnut value chain. Ferrero provided initial positive feedback on all of PSA’s proposed activities, and emphasized their willingness to signing a three-party MOU with PSA and ASAU to work on developing a hazelnut curriculum for a certificate program in hazelnut production.

Throughout the reporting period, PSA focused intensively on agritourism activities. International expert Ms. Sandra Willett conducted an Azerbaijan Agritourism Assessment through a visit to Azerbaijan in February and submitted her final report later in the month. Jointly with the Agro Procurement and Supply (APS) company under the Ministry of Agriculture, PSA organized a series of two-day agritourism and ecotourism business trainings activities in Lankaran, Ismayilli, and Zagatala regions for local farmers and other businesses interested in launching or expanding agritourism operations. The training was provided by international experts from Turkey with

extensive experience conducting training in Azerbaijan. In all, 56 farmers and agribusiness entrepreneurs attended the trainings.

As part of its efforts to expand collaboration with the Ministry of Agriculture, PSA met with representatives of the Ministry's Agrarian Services Agency (ASA) to discuss possible collaboration, especially with the Agency's subordinate State Agricultural Development Centers (DAIM), which are tasked with providing agricultural extension-type services. Initial opportunities for collaboration identified included jointly conducting need-based trainings for farmers in communities and DAIM offices, engaging PSA STTA to build capacity of both DAIM centers and laboratories operating under ASA (especially soil labs), joint development and oversight of demonstration plots in order to model good agricultural practices for farmers. Next, PSA visited ASA's DAIM centers in the regions to analyze their strengths and weaknesses and identify specific opportunities for collaboration.

During the Activity's second quarter, PSA also hired a Business Enabling Environment Manager, who started actively meeting with agricultural associations, confederations, and public unions, as well as the Small and Medium Business Development Agency to identify existing administrative, business environment, and technical challenges, and propose PSA activities to address them.

Towards the end of the quarter, PSA's ability to conduct field work was hampered due to the COVID-19 pandemic and the resulting government lockdown in Azerbaijan. The introduction of travel restrictions and other preventative measures taken by the GoAJ and the private sector resulted in the postponement of several future activities and multiple planned in-person meetings. A joint U.S. Commerce Department-U.S.-Azerbaijan Chamber of Commerce certified trade mission to Azerbaijan, which would have included various project partners from Oklahoma from the private and state educational sector was postponed, as were a regional tourism trade show in Georgia, an environmental conference to be held at ASAU, and various other planned activities. Initially in order to protect project staff and beneficiary health, PSA voluntarily shifted to a teleworking regime, but this was followed shortly thereafter by a government lockdown in Azerbaijan that would have legally necessitated such a step in any case. PSA staff were able to adjust to the new operating environment and successfully maintained momentum for implementation via phone, email, and frequent videoconferencing.

Detailed PSA Progress by Activity and Component

Operations

Staffing

On January 7th, 2020, PSA's newly hired Accountant/Office Manager, Shahriyar Bayramzade, commenced work on the project. On February 25th, newly hired Mr. Elsevar Guliyev assumed the role of Business Environment Improvement Manager on the Activity. The search for DCOP candidates continued during the quarter and three new well-qualified applicants were selected for phone interviews with a team of CNFA HQ and Azerbaijan staff. Based on these interviews, two semifinalists were chosen and one of them will be proposed to USAID for the position in mid-

April 2020. PSA also started the process of recruiting local agronomy consultants for each of the project's targeted value chains to provide field-based trainings and individual consultations, develop training videos and curricula, oversee demonstration plot activities, and help coordinate other project work in the regions. Once the DCOP and agronomists are aboard, PSA will be fully staffed, except for its subcontractor Nathan Associates, whose role overseeing the Activity's Component 3 activities is on hold for now due to a shortfall in available USAID funding.

Subcontracting

As noted above, a shortfall in available USAID funding caused CNFA to suspend Component 3 activities and thus active implementation by Nathan Associates, whose subcontract was formally subjected to a stop-work order as of February 6, 2020. This suspension is for an initial period of 90 days, i.e., through May 6, 2020, upon which CNFA will either further extend this stop-work order or, should incremental USAID funding be identified, rescind it in order to resume joint implementation of Component 3.

During the quarter, CNFA drafted and finalized a new subcontract with WCC International, whose role on PSA will continue to be devoted primarily to facilitating trade linkages between U.S. and Azerbaijani agribusinesses, as well as public-private partnerships, academic collaboration, government-to-government exchanges, as well as agribusiness forums between the two countries. The new subcontract will be effective as of April 1, 2020.

Consulting with Stakeholders and Donors

Legal Registration

After nearly five years of attempts to legally register a CNFA branch in Azerbaijan, last year the branch received its official registration certificate, valid as of July 17, 2019. In Azerbaijan, however, the *project* itself must obtain registration from the Ministry of Justice as well. Thus, during the quarter, CNFA submitted an additional application to register the PSA Project. CNFA submitted its PSA registration package to the MoJ on February 19, 2020. CNFA has checked in with the Ministry periodically since then, but each time has been told that the application is still under review.

Document and Deliverables Submission

CNFA submitted the following deliverables and other documents to USAID during the quarter:

| Document | USAID Submission Status | Submission Date(s) | USAID Approval/ Acknowledgement |
|---|-------------------------|--------------------|---------------------------------|
| 1. Quarterly Reports | | | |
| (September-December 2019 report was submitted in December 2019) | | | |
| 2. Program Design | | | |
| PSA PYI Work Plan | Submitted | January 25, 2020 | Approved |
| PSA Value Chain Prioritization and Gaps Assessment | Submitted | February 18, 2020 | Acknowledged |

| | | | |
|--|-----------|-------------------|--------------|
| Azerbaijan Agritourism Assessment | Submitted | March 20, 2020 | Acknowledged |
| MEL Plan | Submitted | February 29, 2020 | Pending |
| PSA Grants Manual (revision) | Submitted | March 27, 2020 | Pending |
| 3. Other Documents and Deliverables | | | |
| Weekly Updates | Submitted | Weekly | Various |
| Research Report “Main trends in Azerbaijan's 2019 foreign trade” | Submitted | January 24, 2020 | Acknowledged |
| Research Report “Main trends in Azerbaijan’s banking sector in 2019” | Submitted | February 17, 2020 | Acknowledged |
| Research Report “Potential Effects of Reduced Oil Prices on the Azerbaijani Economy” | Submitted | March 17, 2020 | Acknowledged |

Program Activities

COMPONENT ONE: Developing A More Diversified Non-Oil Economy

Agritourism Value Chain

- **Field-Based Agritourism Training:** PSA and APS, within the scope of the “From Village to City” Project, jointly organized a series of two-day agritourism and ecotourism business trainings for local farmers and other interested businesses in Lankaran, Ismayilli, and Zagatala regions. The training was provided by Dr. Ishil Keskin Shahan and Soner Shahan, Turkish experts from GET AHEAD International Career Development and Business Services LLC, which is certified by Pearson BTEC. Training topics included options for starting up and expanding agritourism businesses, keys to success in agritourism, steps taken towards achieving targets, and developing visions and mission statements to improve business operations. The experts explained to the farmers that agritourism was not only about having a tourist to purchase food and drinks or walk through an orchard, but could also allow them to be directly engaged in farm activities, thus enabling them to become a farm worker for a day or even an hour so that they can better understand the life of farmers. During the training, the farmers admitted that they had not previously understood the essence of agritourism and needed to learn more about this business opportunity. At the end of the trainings, the trainers presented certificates to the trainees. Many attendees requested that the experts visit their farms to provide recommendations on how to prepare to improve existing or introduce new agribusiness goods and services. In all, 56 farmers and agribusiness entrepreneurs attended the trainings.
- **Azerbaijan Agritourism Assessment:** PSA conducted an agritourism assessment in Azerbaijan with STTA consultant Sandra Willett. Together with PSA staff, Ms. Willett held multiple meetings with representatives from the State Tourism Agency (STA), Azerbaijan Tourism Board, as well as regional tourism offices and information resources centers in the regions, and visited various centers of rural tourism across the country. The STA helped PSA to identify a list of stakeholders to meet with, including tourism agencies, travel agencies,



Farmers attending the agritourism training in Ismaili

national parks, as well as strawberry and citrus growers to identify the current situation, gaps, and needs for the future. Meetings were also held with private sector representatives and NGOs such as Intellect Youth Organization, and South Pearl Travel Agency, which are involved in agritourism and ecotourism. Ms. Willett provided an initial presentation of her findings and recommendations to USAID Mission staff on February 14th and the final draft of her written assessment was submitted to USAID on March 20th. Next quarter, after the assessment is translated into Azerbaijani, PSA will share its findings and recommendations with the STA and other relevant organizations in order to inform the finalization of a work plan for collaboration.

- PSA developed a preliminary **Agritourism Activity Plan for PYI** that includes five proposed activities, such as a training program and product development, along with estimated budget needs and implementation phases. This was drafted in line with recommendations made in the aforementioned Azerbaijan Agritourism Assessment. In addition to the STA, PSA will engage other stakeholders, such as the Agro Procurement and Supply company (APS) and GIZ, in implementation of the Activity Plan. As one of its major areas of focus, PSA will facilitate coordination among public and private sector agritourism stakeholders.
- **PSA Support for Strategic Road Map:** PSA was invited to discussions on the Activity Plan for implementation of clause 3.5.2 (rural tourism activities) of the 2020 Strategic Road Map for Tourism. The Activity Plan consists of sections such as Institutional and Legal Norms, Improvement of Infrastructure and Facilities, Marketing and Promotion, Business Relations, and Trainings. The Ministry of Economy, Ministry of Agriculture, Institute for Standardization, Tourism Agency, Tourism Bureau, PSA/USAID, GIZ, ABAD, and Association of Rural Women discussed activities envisaged by this clause of the Strategic Roadmap (including agritourism development) and made suggestions. Proposals will be consolidated and sent to the Cabinet of Ministers for review and approval. Considering its active role, PSA was invited to join the Rural Tourism Subcommittee to be established by the State Tourism Agency and the Institute for Standardization. In this subcommittee, PSA will participate in the development of a uniform standard for rural guesthouses. PSA and its partners are already benefitting from the links resulting from such collaboration. For example, PSA has linked Coca-Cola, APS, and GIZ with one another, and they are now collaborating on joint activities. STA and APS had been planning to establish separate Rural Tourism Associations, but thanks to PSA's proposal, they decided to create a single association.

Berry Value Chain

- **Berry VC overview:** Over the past five years, CNFA has closely worked with Berry growers in Azerbaijan. As a result, Azerbaijan strawberry production rose to 22,000 MT, elevating Azerbaijan to the top 30 producing countries. While production was previously focused only in the south and west, there is currently expansion into the northern region as well. Thanks to recommendations and support from various ASAP STTA assignments, local growers started to diversify berry production into blueberry, raspberry, and blackberry production, establish old storage facilities, as well as start exploring opportunities for producing value-added berry products, as described below.
- **Mirismayil Guliyev** is a successful PSA beneficiary who has strawberry production and a cold storage facility. He has already started building a cleaning, sorting, and packing operation

for value-added products. Mr. Guliyev has completed building the facility for producing clamshell containers and has bought the first part of a clamshell packaging production line, which will enable local growers to improve their postharvest and export activities. This will be the first facility in Azerbaijan to produce these containers and make them available for purchase by all interested farmers. Previously, farmers packed berries in cardboard and wooden boxes, as well as plastic buckets, but this type of packing is required to export berries to the Gulf.

- **Study Trip to Georgia:** Fresh berries have become widely recognized as all natural, healthy, and undeniably nutritious. As such, there is an ever-increasing demand for fresh berry wholesalers in markets around the world. Recognizing that this demand is unabated, opportunities for smallholder and commercial berry farmers are clear. From the beginning PSA focused on to promote the diversification of the berries such as blackberry, raspberry, and blueberry in three main regions of Azerbaijan. PSA's big strawberry beneficiaries started to plant blackberry, raspberry, and blueberry. For now, beneficiaries need to get good practices on developing berries apart strawberry. In order to support diversification of berry production in Azerbaijan, PSA is organizing a Study Trip to production operations in Georgia for a variety of berries. Georgia has already developed a broader range of berry production and introduced improved modern new varieties. PSA has completed a initial list of interested and qualified participants for the trip who are willing and able to cover their own travel costs.
- **STTA on Berry Production:** PSA drafted a scope of work and posted an announcement for its recruitment of an international expert to conduct an STTA assignment in Azerbaijan. The goal of the assignment will be to provide training and TA in the latest agronomic practices in strawberry, raspberry, and blueberry production, produce or modify training and reference materials on production and postharvest handling, and assist in the design of video training modules on these topics.
- **New Farmers and Concepts:** A new potential beneficiary named Iskandar Sharifov planted a 21-hectare strawberry farm in Lenkaran with the support of former ASAP agronomist (and potential future PSA agronomist) Adalat Nehmatov. This is the largest strawberry production farm in Azerbaijan at present. Sharifov expressed his interest in accessing trainings, TA, and TTF assistance from PSA, in particular to support his desired construction of a cold storage facility for his produce. Another new potential beneficiary, Ibrahim Abiyev, has established an 11-hectare strawberry operation in Masalli, also with support from Adalat Nehmatov. Masalli is a new district for PSA, as berry production in the south has been mostly focused in Jalilabad to date. Abiyev has also expressed interest in PSA assistance. PSA introduced this project to AKIA, which showed interest in financing the purchase of some of the cold storage equipment required for this project.
- **Goygol DAIM Center:** During the quarter, PSA visited the DAIM Center in Goygol along with local agronomist Karam Najafov and Turkish agronomists Emre Bicer and Ismayil Aydoghan, who are currently providing consultancy services in western Azerbaijan to several growers, including Azer Amiraslanov, who generously made them available for PSA's periodic use free of charge. DAIM specialist Adil Krimzadeh arranged for the team to inspect three plots of land that may be used for the establishment of a raspberry demo farm. The agronomists considered all relevant parameters, such as the suitability of the land, access to water, soil quality, and the host farmers' experience. They also recommended conducting soil and water tests and the Goygol DAIM promised to help the farmers with these analyses.

Based on the preliminary findings, one plot was deemed unfit for use as it was located far from the town center and other farms, which would make it difficult for PSA and DAIM to regularly monitor farm activities and use the demo to train other farmers. The remaining two plots of land, however, appeared suitable for establishing a demo farm, provided the soil and water analyses prove satisfactory. (See the *Agrarian Services Agency and DAIM Centers subsection of Cross-Cutting Activities for more information on visits to and planned work with DAIM Centers.*)

- **Shahriyar Jafarov:** This farmer in Shamkir has a 15-hectare farm (nine ha of raspberries, including three ha of the local Goygol variety, and six ha of the local Shamkir variety, which produces larger berries) within three km of Goygol. The farmer started to grow the Shamkir variety this year; however, his irrigation system does not comply with irrigation requirements as it includes only a small water reservoir and a pumping unit. PSA is considering establishing a demonstration plot on this operation, starting with upgrading of the irrigation system, which requires a separate, higher-capacity pump, a fertilizer tank, and water filters. The demo would entail either transforming three hectares of newly planted production or planting a new 0.20-0.30-hectare raspberry demo field. The irrigation improvements would be supplemented by ongoing PSA support, in collaboration with the Shamkir DAIM center, for the application of good agricultural practices. Another possible form of collaboration could be to support the introduction of processing here. Although Goygol grows a significant amount of raspberries, there are no processing facilities to add value to the fruit. Thus, the farmer is interested in FTF matching investment support to help establish a small processing line that would cut product losses by enabling the preservation and sale of surplus raspberries or those with cosmetic defects.
- **Fuad Babayev:** This farmer in Shamkir has a two-hectare plot of land (one hectare of raspberries including mainly the Goygol variety, and 0.30-0.40 hectares of the Shamkir variety) in Goygol. The field is equipped with two water tanks that are designed for irrigation. The farmer plans to install an additional tank. The farmer also has a primitive storage facility and an office building. During the evaluation process, experts that PSA brought to the site advised installing a proper irrigation system that includes all necessary water filters, fertilizer tanks, pumping units, and other controls for potential demo farm establishment. PSA, in collaboration with the Shamkir DAIM center, would consider supporting upgrading of the irrigation system as well as technical assistance and oversight in application of good agricultural practices.
- **Elshan Guliyev:** The farmer has a 14-hectare plot of land (including 4.5 ha of strawberries and two ha of cucumber greenhouse) in Chobanabdalli, Samukh. He also has a 0.33-hectare strawberry greenhouse located two kilometers from Ganja, as well as a small poultry and goat operations with an artificial pond. Guliyev plans to transform his operation into an agritourism destination in the future as well. The farmer's immediate focus is on expanding his existing strawberry field, and planting new raspberry fields, which could benefit from PSA assistance. He also plans to export his produce to the Gulf market in the future, and asked to be included in the list of PSA's Dubai study tour participants. He is interested in both hosting a PSA Demo Plot as well as in TTF support for building a cold storage facility to serve the growing number of berry producers in Samukh.

Hazelnut Value Chain

- On March 3rd, AHPEA made a **major achievement in lobbying for an “Export Promotion” amendment**. Previously, exporters of agricultural goods were required by the Customs authorities to provide CMR – transport documents verifying the acceptance of the load by the importing company – proving that the goods arrived in the country of destination, and a handover act with a stamp and special notes. Exporters who were unable to provide such documents couldn’t receive the special “Export Promotion” status, which provides a subsidy of 3% of the exported value to the exporter. It should be noted that only agricultural exports to Russia were eligible for this refund because Russia still employs an outdated system of physically stamping customs documentation. Because EU countries, where most Azerbaijani hazelnuts are being exported, do not deal with stamps anymore, but have adopted an online notification system, hazelnut exporters couldn’t benefit from the export promotion provision that the government enacted in 2016. Over the last two years, AHPEA lobbied the government to remove this barrier, which created a disincentive to trading with EU countries. After many official letters, meetings, and roundtable discussions with the Ministry of Economy (including the Tax Authority), Customs Committee, and Ministry of Agriculture, in early March the government lifted this requirement and declared that export documentation originated in the country will be sufficient to receive the “Export Promotion” document and, as a result, a refund.

According to the amendment, exporters of the raw kernels are eligible for the 3% refund and exporters of value-added (roasted, chopped, chocolate-covered, glazed, etc.) will receive a 6% refund. The amendment will be applied to all transactions going forward, as well as retroactively to six months ago, September 2019, when the latest sales season for hazelnut exporters began.

PSA contacted its beneficiaries engaged in the processing and exporting of hazelnuts to solicit their feedback on the amendment. Jaarchi Hajiyev, who was assisted by the previous ASAP project, heard this news from PSA for the first time, and was understandably pleased. As a potential exporter of roasted hazelnuts, this will enable him to adopt a more aggressive pricing strategy in order to increase his competitiveness in the international marketplace. Ismail Orujov, the leader of AHEC, said that he is expecting to receive a refund of at least \$20,000 this year as a result of his international exports. PSA will work with its beneficiaries to evaluate the financial gains obtained by hazelnut exporters thanks to the new amendment. While the new regulation applies to all non-oil exports, it is of particular relevance to the hazelnut industry due to the predominance of its exports to EU markets.

- **AHPEA to submit a list of recommendations to the GoAJ:** For the past several months, AHPEA has been preparing a list of recommendations for the Government of Azerbaijan to help improve the hazelnut sector in the country. PSA reviewed the final version of the document and held ongoing consultations with the leadership of the association. The recommendations cover many areas, such as production, grower training and technical assistance, creation of a growers’ database and registration of the hazelnut farmers according to the cadaster system, creation of the local hazelnut standards for sorts, grades and seedlings, enhancement of the tax systems, establishment of a laboratory in Zagatala, access to finance creation of a price board or commodity exchange for hazelnuts, and export promotion. They will likely be submitted to the GoAJ in April.

While the recommendations are addressed to the Ministry of Economy, various parts of it correspond to other government bodies, including the Ministry of Agriculture, SMB, AFSA, CBA, and others. Over recent months, PSA held many working sessions with AHPEA discussing the recommendations and contributing to the formation of concepts in the document. Since its registration in 2016, the ASAP project and now PSA have been supporting the development of the hazelnut association in Azerbaijan. These efforts include renovation and furnishing of a training room, the design and delivery of training for thousands of growers, the delivery of long-term ToT programs, equipping of the Farmer Machinery Center in Zagatala, introduction of international food quality standards and facilitation of new export deals for the members of the association. All of these efforts helped enable AHPEA to reach a new level, where they can now generate recommendations, share with the government, and conduct professional lobbying activities to help improve the entire industry.

- **AHEC launches first hazelnut specialty store in Zagatala:** PSA beneficiary AHEC, seeing demand in the domestic market for high-quality hazelnuts, both in-shell and kernels, decided to launch Findiq, a specialty store. Through the new retail outlet, the consortium sells hazelnuts and walnuts of various calibers in several packages of different sizes. The retail outlet is selling packaged hazelnut kernels, roasted hazelnuts, and hazelnut paste in jars with honey and

syrup. For now, the paste is made in small quantities without specialized equipment. In the future, AHEC plans to



AHEC's first hazelnut specialty store

adopt value-adding technology and offer quality a more diverse line of hazelnut-based products. PSA is considering supporting the group to process hazelnuts into a spread. Ingredients would all be organic: hazelnuts, cocoa, honey, and hazelnut oil. PSA is conducting research on spread-making equipment to suggest to the beneficiary.

- **Turning a processor into an exporter:** Project beneficiary Jaarchi Hajiyev, who received TTF assistance under the previous ASAP project to establish a roasting facility in Zagatala, reported that he purchased 1,300 MT of inshell hazelnuts from regional growers and sold 500 MT of kernels this past season. He started to roast kernels last year, selling 10 MT of the new product for a price premium of 1.5-2 AZN per kg. For Hajiyev, this year started with a new order from Bravo supermarket chain for five MT of roasted, blanched and vacuum-packed hazelnuts. However, the order requires packaging and labeling of the commodity. Mr. Hajiyev requested that PSA help him with the branding development as well as graphic composition of the label for his products. PSA drafted and posted a solicitation for a graphic development studio to create print and digital promotion materials for Hajiyev. The Project aims to help Mr. Hajiyev to develop a brand, logo, and labels for his products, including roasted hazelnuts.

- **AHPEA plants new hazelnut and prune nursery using equipment provided to Mukhakh Agricultural Machinery Center:** Taking advantage of the season when orchard trees are dormant, the Azerbaijan Hazelnut Producers and Exporters Association (AHPEA) planted two hectares of land with hazelnut saplings to establish a nursery to supply healthy saplings to members of the association and other growers in the community. In addition, the association leadership has also planted three hectares of plums. Both new plots are located in Aliabad, one of Zagatala region’s largest settlements. During soil preparation and plantation, the Valtra tractors and other equipment from the Mukhakh agricultural machinery center were used by the association members and agronomist.



AHPEA's nursery in Mukhakh

- **PSA prepares for multifaceted partnership with Ferrero:** During the quarter, PSA held a number of meetings with Ferrero, a global leader in hazelnut production and processing, on initiating a partnership with the Project. Based on recent discussions on collaboration, PSA developed a list of proposed activities to perform in the hazelnut value chain. In early January, Ferrero’s regional consultant Domenico Manfredi expressed a desire to travel to Azerbaijan to visit PSA beneficiaries and evaluate the level of technical interventions performed by the USAID predecessor project in previous years. Thus, PSA conducted a trip to the northwest together with Mr. Manfredi. Ferrero’s representative visited a hazelnut nursery and a drying/storing facility in Gakh, a demo plot, agricultural machinery center and the AHPEA training room in Zagatala, which was equipped by PSA’s predecessor project. Manfredi was pleased with what he observed in the region. Upon returning to Baku, he met with PSA to respond to PSA’s proposals for collaboration. Ferrero responded positively to all the points proposed by the Project, including:

- Production and use of Ferrero training materials in PSA grower trainings and other educational events;
- Development of a training-of-trainers (TOT) program with the active participation of ASAU, AHPEA, and other large players in the hazelnut industry;
- Mutually managing demo plots with Ferrero, performing joint training activities on the basis of these orchards, including establishing jointly managed demo plots with a certified variety, using a formalized grading and labeling system to enable growers to more predictably and efficiently set up new production fields;
- Organizing a study tour to Italy for Azerbaijan’s hazelnut processors and exporters in collaboration with Ferrero, which has state-of-the-art processing facilities in Italy; and
- Signing an MOU between USAID and Ferrero detailing the aforementioned detailed action plan for collaboration.

- **Community-owned drying and storage facility is nearing the completion of construction.** PSA continues to monitor the



Status of the community-owned drying and storage facility in Turajli as of the end of the quarter

completion of the construction of a community-owned hazelnut drying and storage facility in Gakh region, which was supported by PSA's predecessor USAID ASAP project. The final major stage of construction was completing the installation of the roof and, after the materials were delivered to Gakh from Sumgait, the beneficiary completed the construction of the building. Currently, operator Najaf Mirzayev is finishing the interior of the facility. Soon the dryers will be installed. The drying facility will be fully operational in the summer, and will begin receiving hazelnuts shortly after the harvest.

Orchard Fruit Value Chain

- **Ravan Mamadzade:** in response to a request from USAID, a PSA representative contacted this farmer from Barli village in Guba region, Mr. Ravan Mamadzade. The farmer owns 20 hectares of intensive and traditional orchards (apples, nectarines, pears, and plums). In addition to the existing orchards, the farmer plans to plant 1.2 ha of almonds. The farmer requested project support to address his main problem, a lack of cold storage.
- **Novruz Shirinov:** This farmer has ten hectares of land (two hectares of plums, seven hectares of cherries, and a hectare of sour plums) in Guba. He procures cherries, apples, plums, peaches, and persimmons from local farmers for export. Last season, he exported a total of 1,950 MT of fruits (1,000 MT of apples, 540 MT of cherries, 200 MT of peaches, 150 MT of persimmons, and 60 MT of plums), including a total of 1,784 MT of fruits procured from local farmers, and the rest from his own production, to Kazakhstan, Ukraine, Moldova, and Russia. Over the long term, the farmer plans to transition exports to the Gulf market. He is currently renting cold storages to keep his produce for export, but he needs proper grading lines and his own cold storage facility to further increase his exports. Thus, he has requested PSA assistance to build such a facility, which will enable him to procure more fruit from local farmers and to access the Gulf market. Mr. Shirinov is currently negotiating with AKIA and the Ministry of Economy to receive a soft loan in order to build a 1,000-1,200-MT-capacity cold storage. PSA informed the farmer that it will soon be accepting concept notes for those interested in applying for TTF support.
- **Elchin Hasratov:** The farmer has a 35-hectare plot of land (including 24 hectares of intensive apple and pear orchards and a semi-intensive cherry orchard) in Gullar, Guba. He also procures fruits from local farmers for export. Last year, Mr. Hasratov exported a total of 1,470 MT of fruits to international markets, including 1,200 MT of produce that he had procured from local farmers. He started negotiations with some buyers to export his produce to the Gulf markets this year. However, he needs proper cold storage and grading lines to bring his produce into line with international market requirements. He requested project assistance to help him access the Gulf market. The next step will be visiting his farm to look into appropriate assistance options.
- **Tural Gasimli:** This young farmer has 25 ha of intensive and semi-intensive fruit orchards in Abasbeyli village of Shamkir region. He is also engaged in persimmon storage and export. He owns cold storage with a capacity of up to 500 MT. He is also engaged in production of ice for herb exporters (this ice is used in packaging herbs for export in order to increase shelf life and prevent spoilage during transport). The farmer is planning to construct a new cold storage and logistics center. He is interested in expanding his exports from Russia to Middle Eastern countries and expressed an interest in participating in the PSA trade mission to Dubai.

- **Eldar Zalov:** The farmer informed the project that, although access to labor is limited due to movement restrictions in response to the coronavirus pandemic, leading to less intensive cultivation, cultivation work is nevertheless ongoing. He is continuing to prune and establish new orchards, since if he fails to complete these activities in time, it may lower productivity. Based on Jabbar Heybatov's TA, the farmer planted a new 6.5 ha orchard (3 ha of apples and 3.5 ha of nectarines). In addition, he made plans for establishing a sorting area in the future. If he will succeed in obtaining a loan or other support, he is planning to establish the calibration and packaging facility. Zalov also indicated that he has started preparing for the cherry season as well. He purchased plastic boxes for packaging and started clearing free space and cleaning the cold storage. He will start buying cherries in mid-May for possible direct export to Dubai or export sale through a broker.
- **Agrosert LLC:** This company was established in 2015 and is located in Ganja city. It offers certification of agricultural and food products, preparation of technical terms and their introduction into the state register of the Azerbaijan Food Safety Agency (AFSA), calibration of measuring tools, and agronomic consultancy services. The company has provided certification services to such companies as Gabala Konserv, Aspi-Agro LLC, Gedebey Mineral sulari LLC, MAYBO LLC, and Xanni LLC. At present, based on the needs of farmers and agronomists, the company is able to create an Agricultural Artificial Intelligence (AAI) program to provide for the mobile diagnosis of diseases and insects that are damaging crops. This program would be used via smartphones and would provide brief descriptions of plant diseases and insects, a wide range of detailed photos of the pests and disease symptoms, and information on pesticides (name, description, usage guidelines). In parallel, biological treatment options would also be described. The program would be downloaded onto a smartphone, and by scanning the plant with the phone's camera for 1-2 minutes, the AI-driven app would diagnose the problem and propose relevant treatment options. The company has already finalized research and identified the required materials and software to create the application. However, Agrosert does not have sufficient resources to cover all required costs on its own, and thus is seeking outside financial support.

Pomegranate/Persimmon Value Chain

Pomegranate and persimmon growers applied the required seasonal disease control, fertilization, and pruning activities in their orchards, but they also requested additional technical assistance from PSA on pest management, irrigation, and soil analysis. PSA noted that it would be able to provide such assistance from its soon-to-be-hired agronomist after the quarantine situation in the country is relaxed. Updates on project activities and beneficiaries are as follows.

- **AzGranata:** In 2017, with coordination by ASAP, U.S. Embassy Economic Officer Mr. Timothy Finnegan and his father William (president and founder of Painpath) visited pomegranate processors AzGranata LLC and Aznar LLC. During the visit, the visitors learned about the production and marketing efforts of the companies and planned to provide them with some linkages to potential U.S. buyers and other partners. As a final thought, Mr. Finnegan recommended visiting or exhibiting at **The Fancy Food Show** in the U.S. AzGranata decided to exhibit at the 2020 Fancy Food Show in San Francisco to promote its products, including alcoholic drinks. AzGranata's participation in January 2020 encountered some obstacles from a logistical point of view. Due to miscommunication between

AzGranata and the trade fair organizers, AzGranata was unable to clear its product samples through U.S. Customs, despite PSA efforts to assist. The other problem related to its stand, as AzGranata had failed to arrange for construction of a stand in the space it had rented. Thus, company representatives resorted to using booths of other participants to promote its products. Despite these problems, AzGranata was nevertheless able to initiate discussions with several potential U.S. buyers. Having seen the successes of Aznar’s pomegranate seed exports, AzGranata spent over \$250,000 to purchase a pomegranate seed production line (as noted in ASAP reporting) and started to process the waste after the pressing of pomegranate seeds. Over 10 containers (180 MT in total) of pomegranate seeds have been exported to Germany this season, generating \$250,000 in sales. Thanks to a trade lead made at the SIAL Paris exhibition in 2016 with the USAID ASAP support, the company also exported a container of fresh pomegranates to France for \$26,000.

- **The Pomegranate Producers and Exporters Association of Azerbaijan (PPEAA)** is in the contracting stage with the EU for its STEP (Support to Effectiveness in the Pomegranate Value Chain) project. In May 2020, all contracting work should be completed and PPEAA will start its project in seven central regions of Azerbaijan. On January 31st USAID and PSA staff attended the 6th General Assembly of PPEAA, where the STEP project’s award was announced. USAID Mission Director Mr. Jay Singh made a speech at the event on collaboration between USAID and PPEAA.

- PSA met with Mr. Vagif Taghiyev, the head of the **Azerbaijan Pomegranate Producers and Exporters Cooperative (APEC)**, in their office in Baku to discuss export opportunities to the Gulf countries and the U.S., joint project development with ASAU on student training on the pomegranate farm, and other possible PSA support for postharvest improvements.



A photo from “Juiceletter,” IFU’s newsletter

- **Mr. Rashad Shirinov, Red Valley LLC:** Last year’s production and sales of over 500,000 AZN exceeded the results from previous years. All fresh exports continued to be sent to Russia. The company also met with Interpak company from Ganja and agreed to produce pomegranate sauce from its lower quality fruit. The product will be packaged and sold to the Netherlands. Shirinov also wants to open a pomegranate aril producing facility in Baku. During the discussions, possible support for these initiatives was discussed.
- **Mr. Eyvaz Samadov**, a pomegranate grower in Goychay, is interested in building a cold storage for of his and neighboring growers’ pomegranates and persimmons. As this would be a very new business for him, PSA recommended that he visit USAID beneficiaries’ cold storages and also linked him to GNS Cold Storage Systems Company, which is a professional cold storage design and construction firm. GNS provided Samadov with recommendations and designs for his potential cold storage.
- **Antim LLC (Vaqif Taghiyev):** USAID visited the company, which has 200 hectares of pomegranate production, with a 50 MT/day capacity processing line, and a 5,000 MT cold storage in Borsunlu village, Goranboy. For next season, they are planning to start exporting

pomegranate and pomegranate concentrate to the U.S. and EU. They are planning to renovate their cold storage and purchase packaging equipment. PSA also discussed with one of the founders, Mr. Tarlan Hamidov, potential exports to the Middle East and Europe. *(All PSA Program Staff later held a follow-up meeting with Hamidov to discuss how he could help arrange the planned PSA trade mission to Dubai, including desired B2B meetings during the trip.)*

- **IFU Juiceletter:** In its December 2019 issue, the International Fruit and Vegetable Juice Association (IFU) Juiceletter (i.e., newsletter) provided an overview of the Azerbaijani pomegranate value chain, its varieties and processed products, export, and promotional activities conducted by both the public and private sectors. It noted that “a home without a pomegranate attracts a doctor,” and emphasized the links to this traditional fruit in the culture and cuisine of the region going back to ancient times. The article also mentioned Azerbaijan’s rank among pomegranate-producing countries and described the annual pomegranate festival in Goychay. The newsletter is available at https://cdn.ymaws.com/ifu-fruitjuice.com/resource/resmgr/newsletter/ifu_juiceletter_dec2019mod6.pdf?mc_cid=1057bb4d79&mc_eid=c878256905
- PSA met with **Mr. Ahmad Rahimov**, a farmer with 20 hectares of persimmon production in Goychay region. Mr. Rahimov had heard about several cold storage facilities built with ASAP support and wanted to see if he might be eligible for assistance as well. Ahmad’s initial plan is to develop technical specifications for the development of a 1,200-MT-capacity cold storage for persimmons. He requested TTF support for this project, which he anticipates would generate at least a 30% increase in profitability from his sales. PSA plans to provide the potential beneficiary with a Request for Concept Note next quarter so that he can draft and submit his concept to the project. As this would be a new business area for him, PSA recommended that the farmer visit USAID beneficiaries’ cold storages. The project also linked him to GNS Cold Storage Systems Company, which is a professional cold storage design and construction firm. GNS provided him with recommendations and a design for constructing the potential cold storage.
- **AOPE:** On December 25th, 2019 PSA met with the Azerbaijan Organic Producers and Exporters Association (AOPE) and discussed possible collaboration. (This was not reported in the previous quarterly report because the USAID-mandated due date of that report was December 13, 2019.) Four main areas of cooperation were discussed: 1. Organization of agricultural forums in four regions of Azerbaijan (Baku, Ganja, Lankaran, and Guba) on organic production and export opportunities; 2. A B2B meeting with BioFach representative in Nuremburg, Germany on gaining a CIS distributorship for AOPE; 3. Capacity building for farmers through DAIM and SMB on organic production; 4. A B2B meeting with the UAE Chamber of Commerce and Azerbaijani Trading company in Dubai on organic export opportunities to the Gulf countries. For the first and third activity, AOPE received a positive response from the Ministry of Agriculture and SMB. For the second activity, AOPE is in the process of obtaining permission. For the fourth activity, AOPE has already set up a meeting and is interested in collaborating with PSA. PSA’s role would be to provide expertise, TA on establishing a demo plot for organic production, and/or capacity building materials development and promotional activities. Later, after USAID issued a Broad Agency Announcement (BAA) soliciting ideas for building the capacity of business and professional associations, PSA started providing assistance to AOPE (as well as to other associations) to help it better understand the solicitation and provide independent feedback on its concept.

Perishable Vegetable Value Chain

Perishable vegetable VC producers are facing difficulties with sales of their tomatoes due to the COVID-19 pandemic and the resulting economic damage both in Azerbaijan and abroad. Decreased demand from Russia, due to much of the food service industry being shut down, has led to decreased prices. These circumstances are causing some producer-exporters and traders to refrain from exporting to Russia and focus more on selling to the domestic market. Updates on project activities and beneficiaries are as follows.

- PSA met with Mr. Tural Nagizade, owner of **Rovshanoghlu Agro LLC**, a greenhouse producer and input and service supplier in Aliyagublu village in Shamkir region. About 200 hectares of small and medium greenhouse production are served by this primitive operation. Fuel waste (mazut) is used for heating in most of the greenhouses due to the expense of installing and supplying a gas heating system. Mr. Nagizade's greenhouse seedling production is 1 million units per year. The price of each seedling is 0.12 AZN, which is double the production cost. Besides tomato production, Mr. Nagizade is also engaged in input (fertilizer) and service provision. He provides these services via his own LLC. The company employs local and Turkish agronomists, who conduct services for farmers. Small farmers who purchase fertilizers usually are provided



Rovshanoghlu LLC's greenhouse vegetable seedling production

services free of charge. Large farmers (with one hectare or more), however, are usually charged for the services. The farmer is planning to further develop his consultancy services by establishing a laboratory for soil, water, and leaf analyses. He is planning to expand exports to Dubai and the wider Gulf. To support this effort, he needs to build a cold storage facility. The company's cold storage construction plan also evaluated as a potential PSA TTF project, as well as recommending a business plan to AKIA.

The entrepreneur is open to innovative ideas and eager to utilize all forms of assistance that will be offered by PSA. Nagizade immediately requested that his agronomist and agronomist assistants begin using the book for client information records recommended by PSA. Mr. Nagizade plans to buy a one-hectare advanced greenhouse to transfer his vegetable seedling operation there from his current primitive greenhouse. PSA recommended that his Turkish agronomist, Mr. Emre Bicheren, provide information to PSA for developing a manual of recommendations on greenhouse vegetable production. Later, this material could be provided to farmers buying inputs from Rovshanoghlu. PSA also recommended that the company attend Caspian Agro 2020 to meet several soil and water lab equipment suppliers.

- PSA met with Anar Hasanov, the owner and manager of **Samukh Toxum LLC**, who is a very progressive producer of vegetable seeds, and has high quality processing technology and packaging and labeling. He would like to request PSA matching funding for the purchase of a

harvester and tractors for better cultivation of the production of a group of 12 farmers who sell seeds to him.

- PSA met with **Fikrat Malikov** from Zayim village of Shamkir region. Fikrat produces vegetables twice a year: from the end of October through mid-March and from late March through June. The first round of production produces 150 MT and the second results in 200-250 MT. The average price for tomatoes is 3 AZN/kg for this year. To make the production more efficient, he is planning to develop a two-hectare advanced non-soil-based greenhouse. This would allow him to increase productivity by at least 30%. Fikrat also is planning to develop a 600-MT-capacity cold storage to help him regulate the pricing of tomato and persimmon sales. For this effort, he would like PSA support.
- **Barakat Seed Production Cooperative:** The Head of Samukh DAIM Rahil Hasanov arranged for PSA to meet with Olga Babayeva, Manager of Barakat Seed Production Cooperative. The cooperative has a total of 70 hectares of land owned by about 200 households, including over 1,000 family members. The land is currently planted with coriander, dill, spinach, onions, garlic, alfalfa, and cereals (barley, wheat, etc.) for seed production. Members divide the total net income among themselves under the supervision of an accountant. Most of the seeds produced are sold through Samukh Toxum LLC on a contract basis. The seeds are cleaned and packaged in line with required standards. The cooperative is currently negotiating with government authorities to drill an additional artesian well in order to meet irrigation requirements. The farmers also need deseeding equipment to obtain perishable vegetable seeds for cucumbers, tomatoes, eggplants, and melons. That will allow them to supply the market with more high-quality seeds. Cooperative members cannot receive loans from banks as only property from Baku or Ganja would be accepted as collateral.

Cross-Cutting and Collaborative Efforts

PSA Project Year I Work Plan

Following the original submission of PSA's PYI Work Plan in December 2019, and in response to USAID's feedback, PSA expanded and provided more detail in a revised draft that it submitted to the donor on January 21st. This draft was presented to USAID at a meeting in the PSA office on January 23rd and feedback from the ensuing discussion informed some final revisions that were incorporated into the subsequent draft that was submitted to USAID on January 25th. USAID provided formal approval of the Work Plan on January 28th. On February 6th, the PSA Chief of Party presented an overview of the approved Work Plan activities for USAID's wider staff at a meeting at the Mission in Baku.

Azerbaijan Fruit and Vegetable Value Chain (VC) Prioritization and Gaps Assessment

In November 2019, **CNFA** subcontracted SEEDEV, a **consultancy** based in Serbia with substantial experience in agricultural research and analysis around the world, including the Caucasus, to conduct a Value Chain Prioritization and Gaps Assessment for Azerbaijan's horticultural sector, and fielded a two-person team's visit to Azerbaijan under the assignment

later that month. Based on extensive statistical analysis, and drawing on significant previous field research in Azerbaijan, as well as close dialogue with PSA project staff, SEEDEV delivered a presentation on its findings to USAID in December 2019, followed by drafting and submission of its final report in January 2020. As a result of its findings and recommendations, PSA selected the Berry, Hazelnut, Orchard Crop, Perishable Vegetable, and Pomegranate/Persimmon Value Chains, together with Agritourism, as its focus areas for Component One of the Activity. The PSA Chief of Party presented an overview of the Assessment's findings and conclusions to USAID at the aforementioned meeting at the Mission on February 6th. (See the final draft of the Value Chain Prioritization and Gaps Assessment in Appendix F of the present report.)

Facilitating Marketing, Sales, and Exports

- **PSA and APS agree on joint collaboration on export promotion and marketing assistance to Azerbaijani SMEs:** PSA met with the Agro Procurement and Supply to discuss several ways to jointly assist Azerbaijani exporters, such as:
 - Supporting Azerbaijani agribusinesses with potential for starting and expansion of exports;
 - Supporting national and regional branding and marketing campaigns, as well as firm-level promotion;
 - Seeking opportunities to support the creation of an Azerbaijani Pavilion as a regular presence at the international wholesale distribution warehouses; and
 - Acquiring space on international trade floors for new local brands.

As a result of the meeting, the partners decided to concentrate on fewer but more concrete activities, with the aim of yielding tangible results within a shorter timeframe. Two activities were outlined for immediate cooperation:

1. **Export Training:** Training aimed at preparing local agribusinesses for exporting. In particular, organizing a food safety workshop and development of promotional materials for future participants of international trade fairs. This workshop will help us identify potential candidates to receive ongoing assistance in these two areas.
2. **Dubai Trade Mission:** Organizing a trade mission to the UAE for 10-15 high-value fresh fruit and vegetable producers ready to meet international food quality requirements. PSA sent an initial concept of the UAE trade mission to APS. On the basis of this document and ongoing discussions, the partners will develop a detailed program for the activity. PSA has reached out to the producers and exporters of agricultural goods and about 20 agribusinesses have expressed their interest in joining the trip. They represent a variety of products including apples, cherries, tomatoes strawberries and hazelnuts. It is expected that APS will nominate participants of its own, whom they will share with PSA.

As part of planning for the trade mission, PSA and APS Assistant to the Chairman Vugar Namazov also met with Sanan Nasibli, Head of the Dubai Chamber of Commerce's Office in Azerbaijan. The attendees discussed potential visits and opportunities to promote trade and exports of fresh Azerbaijani products to the Gulf region. Mr. Nasibli proposed his organization's assistance in organizing meetings at the Dubai Chamber, providing information sharing and necessary training and use of a training facility once in the UAE, and assistance in accessing

discounts on transportation and accommodations for the group. This assistance was offered to PSA free of charge.

Originally, organizers set the initial date of the trade mission for immediately after the anticipated completion of the USACC Trade Mission to Azerbaijan on April 10th, but new tentative timing for the mission is now November 2020, providing that the safety and travel situation in the region is restored.

Facilitating Linkages with U.S. Agribusinesses

Among its various objectives, PSA seeks to modernize Azerbaijani agriculture by strengthening access to U.S. agribusiness technologies in the country. Thus, during the quarter PSA continued its efforts to facilitate the establishment of new or deepened business linkages between Azerbaijani companies and foreign, primarily American, companies, as follows.

- **U.S. Firm Trécé Visits Azerbaijan and Plans Cooperation with ASAU.** On January 22, PSA facilitated a meeting between representatives of U.S. agribusiness Trécé and the leadership of Azerbaijan State Agricultural University (ASAU) in Ganja. The purpose of the meeting was for the U.S. firm to present its pest monitoring and control products and seek collaboration to demonstrate their benefits for agricultural production. Bill Lingren, founder and CEO of Trécé, also led a training on pest monitoring and control for nearly 30 young faculty, researchers, and graduate students from ASAU's Agronomy Department. The parties, which had originally met at the USAID-sponsored Oklahoma-Azerbaijan Agricultural Forum in November 2019, agreed to establish demonstration plots for these products on ASAU and farmer-owned land plots starting in April of this year (although COVID will obviously necessitate a postponement of this activity). This collaboration will both promote the products and contribute to the university's research efforts.

On January 23, PSA organized a meeting between representatives of Trécé and the management and leading experts of the Agricultural Services Center (ASC), under the Ministry of Agriculture. At the meeting, Yagub Jafarov, Head of the Phytosanitary Division of the ASC, commented on the quality of Trécé monitoring and exclusion detection products and expressed a desire to establish demonstrations together with the U.S. company to track the potential infestation of dangerous pests. The parties agreed to continue developing a partnership and meet once again in the spring of 2020 in Azerbaijan to identify the targeted pests and areas for monitoring, in conjunction with the ASAU.



PSA, Trécé, and ASAU planning cooperation

The result of the discussions with the Azerbaijani partners, Trécé offered new technologies for detecting certain invasive species including Spotted Wing Drosophila – SWD, (*Drosophila suzukii*) and Japanese Beetle – JB, (*Popillia japonica*), as well as management of *Cydia Pomonella* and *Tuta absoluta*, which are key established insect pests in Azerbaijan in pome fruit and tomatoes, respectively. PSA is currently discussing these proposals with both partners. Technical implementation would consist of identifying three to five four-hectare

apple sites with varieties susceptible to the pest and identical management practices for treatment comparisons. PSA will assist ASAU to select locations with a history of moderate and evenly distributed codling moth populations with moderate to high damage and/or with high cumulative seasonal trap captures during the previous season. In addition, PSA will be working with ASA and other potential partners to establish traps at airports, seaports to track potential JB infestation. Monitoring for JB will assess the level of the population and the risk of entry into JB-free areas.

- **Meeting with DTN:** DTN is an American company based in Burnsville, Minnesota that specializes in subscription-based services for the analysis and delivery of real-time weather, agricultural, energy, and commodity market information. DTN is signing an MOU with CNFA to collaborate in various countries on provision of weather services to farmers. In Baku, PSA hosted DTN's VP of Sales to discuss potential collaboration, including DTN donating up to 5 refurbished weather stations to the project and 6-12 months of weather forecasting services that would be piloted and demonstrated in various parts of the country, possibly in conjunction with ASAU, agricultural associations, and/or DAIM centers. PSA is currently exploring how it would get the weather stations into the country and what associated costs it might entail to implement these pilots.
- **NPC Agro Consulting** is a start-up agribusiness based in Ganja that has requested PSA support in improving and promoting its Dr. Agro smartphone application among farmers. Dr. Agro is an easily installed app that utilizes American technology to provide cultivation, budgeting, weather alarms, and other information for over 38 crops. NPC is also working on gaining a distributorship for Irrrometer, a U.S.-manufactured irrigation timing device that PSA's predecessor ASAP project did much to promote in Azerbaijan.
- **2019 Caspian Agro Results Update:**
 - **Brandt Company**, one of the exhibitors at Caspian Agro 2019 under the USAID/U.S. Embassy pavilion, is selling inputs and agronomic services to several Azerbaijani cotton cooperatives through Agrobest, its distributor for Tukey and Azerbaijan. They are currently conducting production trials in Azerbaijan, utilizing their fertilization and plant protection programs. The results of these trials will inform next season's sales and marketing activities in Azerbaijan. They have expressed interested in exhibiting at the U.S. Pavilion at Caspian Agro again this year if possible.
 - **Soil Biotics'** Azerbaijani representative Mr. Nariman Zulfugarov has requested PSA support to link the company with potential agribusinesses that might be stakeholders in the sales of their organic products in Azerbaijan. PSA will try to explore the possible collaboration of Soil Biotics with ASAU and the Research and Plant Protection Institution through the development of demo plots. PSA also informed Soil Biotics about the U.S. trade delegation that will be visiting Azerbaijan in April 2019.
- **2020 Caspian Agro Exhibition:** Due to the success of the USAID-U.S. Embassy Pavilion at last year's Caspian Agro agricultural exhibition, USAID and the U.S. Embassy Commercial Section agreed to collaborate again this year in order to continue to promote U.S. linkages. During the quarter, PSA booked a 36 m² space in Hall #4 of the exhibition, gathered bids for stand construction, and disseminated information sheets and application forms for U.S. firms interested in exhibiting. The Project contacted a wide variety of U.S. companies, including Sensitech, Trécé, and DTN, as well as to other high-tech agricultural companies such as NPC

Agro, Provitaz, and Progress LLC. Late in the quarter, the exhibition organizer announced that Caspian Agro had been postponed from its originally planned May 19-21, 2020 dates to November 22-25, 2020 due to the COVID-19 outbreak. PSA informed all potential exhibitors of the change in dates, but reassured them that USAID and the U.S. Embassy would be providing the same exhibiting opportunity to U.S. businesses at the rescheduled exhibition.

Access to Finance

PSA engaged in the following Access-to-Finance-related activities during the quarter:

- PSA drafted three **analytical reports/briefing notes** requested by USAID: “Main trends in Azerbaijan's 2019 foreign trade,” “Main trends in Azerbaijan’s banking sector in 2019,” and “Potential effects of reduced oil prices on Azerbaijan’s Economy.” (See the full briefing notes in Appendix D of the present report.)
- PSA had an initial meeting with the Director of Corporate and SME Lending of **Kapital Bank**. Potential areas for cooperation and referring PSA beneficiaries to the bank, as well as terms and conditions of available credits and credit limits, were discussed. It was agreed to hold regular follow-up meetings.
- PSA met with the Corporate Lending Director of **AG Bank**. The potential areas for cooperation with the bank were discussed. Unfortunately, the Bank doesn't provide business loans at present, but it was agreed to have a follow up meeting in early summer, as they plan to restore lending this year.
- In connection with **Lindsay Corporation’s** request that PSA help it in its U.S. linkages efforts, the project contacted Mr. Anar Azimov from AKIA to clarify the status of implementation of the subsidy mechanisms overseen by the Agency. AKIA confirmed that it is already actively providing the subsidies in accordance with the e-system announced last year, including subsidized credit for the procurement of inputs and machinery, including center-pivot irrigation systems, which are the heart of Lindsay’s business. So far, most PSA beneficiaries report actively using this facility, although the available funding does not always meet their needs.
- PSA drafted an initial proposal with **AMFA** for both an agricultural finance conference and financial literacy trainings. However, in existing situation it was agreed with AMFA that the conference would be shifted to autumn, but that it would be possible to conduct the trainings online.

Food Quality and Safety

PSA's food quality and safety activities this quarter included the following:

- PSA completed an initial audit and preliminary recommendations on Organic Standards and Certification for **Absheron Saffron Company**.
- **Azerbaijan State Agricultural University** requested PSA support in developing a curriculum in Food Quality and Safety trainings. PSA started to develop syllabus on Quality and Food Safety that will be offered as a course next semester.

- The **EU-funded Slow Food Project** requested, and PSA agreed, to support the former's beneficiaries to develop HACCP programs and food safety procedures.
- PSA agreed with ADA University, Coca-Cola, and the Ministry of Environment to discuss supporting a **Sustainable Water Management Conference** originally scheduled for May 2020 in Baku. The stakeholders are all aware of major problems in the usage of water resources in Azerbaijan. Thus, even Azerbaijan's biggest business groupings are interested in accessing expertise from abroad on how to develop a road map for more sustainable water management. The parties agreed to organize a conference with three panels addressing water management in agricultural production and processing. Due to COVID-19, however, this planned event has been postponed indefinitely.

Food and Agriculture Organization of the United Nations (FAO)

Potential collaboration with FAO on Strengthening Agricultural Advisory Services.

FAO, which is starting a new two-year program called Strengthening Agricultural Advisory Services, initiated a partnership with PSA in this sphere. There are two main objectives of the program: institutional capacity building of service providers and establishing two pilot projects, one in Guba and another in Ganja. FAO also envisions a small activity targeted at reviewing the current regulation on government extension services and providing suggestions. PSA informed about its planned collaboration with government agencies presenting relevant agricultural services and especially DAIMs. PSA noted that there's much room for collaboration on improving the capacity of Azerbaijan's agricultural advisory services, both public and private. FAO's local partner in this project is the Agrarian Science and Innovation Center, under the MoA. The FAO representatives expressed great interest in meeting with PSA staff in the near future for more detailed discussions on developing plans for collaboration.

International Finance Corporation (IFC)

PSA held a meeting with the International Finance Corporation of the World Bank Group (IFC). IFC is implementing the Azerbaijan Investment Climate And Competitiveness Project and thus initiated the meeting as part of its search for opportunities to develop contract farming in Azerbaijan. PSA shared its previous experience with contract farming in Turajli, Gakh, as well as its work with the Atababa cooperative in the same region and other relevant instances. The visitors seemed impressed and proposed to collaborate on these efforts once their project is fully operational. IFC's local beneficiary in this project is AKIA, under the MoA.

Agrarian Services Agency and DAIM Centers

PSA met with Mr. Seymur Movlayev, chief of the Agrarian Services Agency under the Ministry of Agriculture, and Mr. Khalid Babayev, director of the Laboratory, Expertise and Certification Center of ASA, to discuss possible collaboration, especially with the State Agricultural Development Centers (DAIM), which operate under ASA. Initial collaboration opportunities included jointly conducting need-based trainings for farmers in communities and DAIM offices, engaging STTA to build DAIM capacity and laboratories operating under ASA (especially soil labs), developing demonstration plots together with DAIMs and using them to disseminate good agricultural practices to farmers. In addition, the parties agreed that there is a great need for development of a fertility map of arable land in Azerbaijan and for installation of weather stations

to share weather information with farmers. Implementation of such a pilot project was tentatively agreed to be conducted in Khachmaz region, in part due to the diversity of crops produced there. As a next step, PSA visited ASA’s DAIM centers operating in the regions and researched their strengths and weaknesses. Initial visits were made to centers in Shamkir, Goygol, and Samukh regions.

Most of DAIM centers are located in new standalone two to three-story buildings, often with the same layout and design. They are quite spacious and well equipped, boasting both offices and training rooms. Some of them have laboratories on their territories as well. For all DAIMs operating in the country, the priorities are livestock, dairy, cotton and other field crops like wheat, barley, and alfalfa. Four of the 5 DAIMs visited in the Northwest mentioned that farmers are tired of coming to the DAIM training rooms for training, but PSA’s initial impression is that the problem is that the DAIM staff doesn’t have the required knowledge and skills to conduct effective trainings or provide advanced production information.

Representatives from the centers identified the following priority activities requiring support:

- Engaging local and international experts to conduct trainings for farmers;
- Developing training and information materials (especially on innovative technologies) based on the needs of DAIM centers and disseminating to farmers;
- Developing information about documentation and other requirements for exporting to Europe and the Middle East and making this information available online;
- Developing farmers’ handbooks and video materials (and their provision to farmers) on cultivation, storage, packaging, and other topics for orchards (especially intensive), vegetables and other value chains;
- Supporting the development of demonstration plots based on community needs; and
- Facilitating experience exchange among DAIM specialists and with foreign experts.

In the table below is an overview of the DAIMs visited, their focus areas, initial PSA impressions of their capacity, and plans for collaboration or support during PYI:

| # | Name of the DAIM Center | Areas of Focus | Impressions | Intended PSA Assistance |
|----|-------------------------|---|---|---|
| 1. | Aghdash | Priority: Livestock, field crops, Possibility: persimmon, greenhouse, pome fruits | Chairman is motivated for cooperation with PSA and instructed his team to support Activity’s intervention | Several proposals for pome fruit demo plot development and request for assisting in involving investor for persimmon processing |
| 2. | Goychay | Priority: Livestock, field crops, Possibility: pomegranate, persimmon, greenhouse, sour plum | The chairman was proactive, created team of volunteers for learning and assisting the work of DAIM, but the feedbacks on him from the other DAIM chairmen is that he is | Demo plot for pomegranate at support center belonging to Ministry of Agriculture |

| # | Name of the DAIM Center | Areas of Focus | Impressions | Intended PSA Assistance |
|----|-------------------------|---|--|--|
| | | | not easy person to get along with | |
| 3. | Kurdamir | Greenhouse, Pomegranate | Is too busy mostly with dairy and field crops. But would like to increase the focus on the greenhouse production as well | Provide professional level advisory for perishable vegetable greenhouses |
| 4. | Jalilabad | Field crops, Strawberry, Grape, Sour Plum | Most of the team was quite senior, which might mean outdated knowledge in production, but they have a very strong relationship with Adalat Nehmatov and were open to cooperation at all levels | Demos on strawberry production |
| 5. | Masalli | Field crops, Strawberry, potato | The chairman was young, but not knowledgeable and experienced in general and on project operations. But was open for cooperation | Will reconsider potential for collaboration in future project years |
| 6. | Zagatala | Field crop, Hazelnut, Persimmon | The chairman was well informed about ASAP activities and therefore was very willing to cooperate with PSA | Trainings and TA Demo plots and TTFs more |
| 7. | Balakan | Field crop, Hazelnut, Persimmon | The team was also aware of ASAP activities and showed interest in PSA activities. They mentioned that fruit drying an action part of the region's production | Fruit drying TTF |
| 8. | Gakh | Field crops, Hazelnut | Is interested in investments like the project in Turajli | TTF and demo plot activities |
| 9. | Sheki | Field crops, Hazelnut | The chairman thinks there is no sense in conducting training and TA as people need more support for financing, admin. issues and accessing market | Will reconsider potential for collaboration in future project years |

| # | Name of the DAIM Center | Areas of Focus | Impressions | Intended PSA Assistance |
|-----|-------------------------|---|--|--|
| 10. | Shamakhi | Open field vegetable, Grape, Intensive orchards | The chairman is a very talented and motivated young person with an excellent foreign education and experience. Understands the Project's activities well and is very proactive | Intends to organize a food festival via demonstration of open field vegetable production where PSA may be involved |
| 11. | Oghuz | Hazelnut, walnut, apple | Did not show much interest in cooperation | Will reconsider potential for collaboration in future project years; There is potential for agritourism |
| 12. | Gabala | Field crops, hazelnut, walnut, apple | The chairman has not shown much interest in PSA supported training and TA, but they welcomed the possibility for investment | Interested only if any reasonable investment especially for crop production |
| 13. | Goygol | Field crop, Vegetable, berry | The chairman was very motivated, knowledgeable person. In comparison with other DAIMs there staff was consisting of young people interested in developing their skills. | Raspberry demo plots, TTFs on berry production, Study trips and study exchanges for the DAIM team members |
| 14. | Samukh | Vegetable, Vegetable seed, Strawberry, Intensive orchards | The chairman is very talented and motivated person with an excellent experience and is very proactive | TTFs on cold storages, and seed production TA and trainings Demos on raspberry and strawberry |
| 15 | Shamkir | Field crop, Greenhouse, Pome and Stone fruits | The chairman is new in his position and inexperienced related to the project (like PSA) activities, but was open for cooperation. The DAIM does not have knowledgeable experts | Will reconsider potential for collaboration in future project years |

(More detailed information on each of the DAIM centers visited is provided in Appendix C of the present report.)

AFAQ - Azerbaijani Women in Agriculture

PSA met with Azerbaijani Women in Agriculture (AFAQ), a program of the Agricultural Procurement and Supply (APS) company of the Ministry of Agriculture. AFAQ's has three main activity areas:

1. Technical Assistance,
2. Trainings
3. Establishment of Groups of Women Farmers

AFAQ works closely with the Azerbaijan Rural Women's Association (ARWA) and will provide support via technical assistance and training. Depending on the need, PSA may also provide demonstration plot and TTF support for specific activities. Potential concepts such as persimmon pre-processing at the community level and homemade pomegranate products (juice, narsharab sauce) were discussed. The AFAQ program shared a list of possible beneficiaries interested in receiving various kinds of tools, equipment and training from PSA. PSA reviewed the presentation and provided feedback on support that might potentially be provided, mainly for horticultural agribusinesses. PSA visited a rural women's group in Osmanli village of Sabirabad region that was established a year ago by 13 female members. All members are vegetable growers who decided to join efforts to reduce production costs and boost profitability. The farmer group, which is led by Alma Jafarova, produces tomato seeds, seedlings, and open field fresh tomatoes for the domestic market. All production is done on the roughly 10 hectares of land owned by members. Production is conducted in primitive conditions, mostly by hand. Annual tomato and other vegetable seedling production is about 100,000 units and the revenue from the seedlings is usually between 2,000-5,000 AZN. The women's group engages in joint cultivation and sales. For cultivation, neighboring village women sometimes also join and are paid for their labor. The group does not have sufficient financial resources to modernize its production. Given the climate in the village, the members are convinced that a modern 150-200 m² greenhouse would be very effective for tomato and tomato seedling production. Their main request from PSA is matching funding for such a project, as well as technical assistance on cultivation and input supply. This support would serve as a demonstration plot that might be copied by other women's groups. The group would be able to contribute 10-15% of the total cost of the project.

Azerbaijan Food Safety Agency (AFSA)

- **AFSI Team Attending Trainings in Dubai:** During the first week of March, the USAID PSA facilitated attendance by four laboratory technicians from the Azerbaijan Food Safety Institute (AFSI) at a training program on Next Generation DNA Sequencing (NGS). The five-day course, which took place in Germany, empowered the participants to apply genomics techniques to DNA sequencing in the laboratory. But due to COVID 19 the trainings postponed and rescheduled to June.
- In follow-up to the Food Additives Conference that was organized by PSA, Coca-Cola, and AFSA in November 2019, the project facilitated Coca-Cola bringing in STTA on lab-based toxicity analysis for AFSA. Due to COVID-19, this STTA assignment has been pushed back to June 2020 for now, but the situation on the ground will ultimately determine whether the timing needs to be pushed back again.

Youth Engagement

AMAL (Increasing Agrarian Business Project): PSA met with staff of AMAL, which is jointly implemented by AKIA and FAO, to discuss potential collaboration. AMAL mainly works with youth and is implementing the Young Farmers Project, Pilot Project, and Youth Support Project. AMAL already developed a 50-hectare lemon orchard in Lankaran, 15-hectare tea plantation and 3-hectare tea nursery in Masalli, and a 25-hectare vineyard in Shamakhi region. AMAL also assisted in the restoration of 130 ha of lemon and grape orchards in Lankaran and Shamakhi regions. In addition, it developed the AMAL Winter and Summer Academies, where selected students and young graduates from different regions attend workshops and trainings on topics such as Market Value Chain, Modern Agriculture, and Gender Equality for 10 days. 428 youth from 21 regions have already been trained on business planning by AMAL. Later, 226 of them applied for low-interest (6% annual) credit and they were all linked to AKIA. Fifty youth from 100 shortlisted applicants were able to obtain credit and the total amount of lending to them was 225,000 AZN. Rural lending will be continued in the future as well. AMAL is planning to appoint volunteer “ambassadors” in the regions to serve as a bridge between the local population and AMAL for the purposes of information transfer. The project also intends to establish agricultural fields and demonstration plots for youth. AMAL would like to sign an MOU with PSA on future collaboration, such as organizing the certification program of AMAL Academy, study trips, and joint TTF investments in production and post-harvest handling.

Supporting innovation and youth entrepreneurship with SUP.AZ initiative. As reported previously, PSA was contacted by a local acceleration and incubation center established under ASAN Service with two funding proposals to support youth entrepreneurship and the use of AI and other types of IT in agriculture. The first proposed activity is a “Hackathon,” which is an intense competition of business ideas within a limited timeframe (usually a weekend) in a conference hall facility. Participation in the competition would be open to about 50 business creators, students, researchers, entrepreneurs, associations, developers, users, job seekers, designers, and domain experts. Together they form teams to take on, over the course of 48 hours, one of the challenges to be proposed by the organizers or one open challenge. The second activity is a workshop targeted at informing the audience of the new technological trends in agriculture, such as precision agriculture, use of robotics and AI in agriculture, and vertical farming in controlled environments. Both events would be held in Ganja. During the quarter, PSA worked with SUP.AZ and sent it follow-up questions requesting a more detailed program description and budget. The initial proposals include budgets of \$6,000 for the Hackathon and \$14,000 for the workshop event, but due to COVID-19, PSA and SUP.AZ will now explore options for holding one or both of the events remotely.

Azerbaijan State Agricultural University (ASAU)

- **Collaboration on Demonstration Activities:** During the quarter, PSA and ASAU reached tentative agreement on joint demonstration activities for practical use in its educational and extension efforts in both production and postharvest operations. PSA will support ASAU to initiate and oversee berry and intensive orchard production through the planting of berries and intensive orchards (an estimated 0.5 hectares each of apples, cherries, nectarines/peaches, and strawberries). Although COVID-19 and other complications have made it impossible to launch the demo orchards this spring, PSA will guide ASAU in starting

soil preparation now in advance of planting the saplings next winter. On the postharvest side, PSA will support the university to design and equip a small-scale cold storage facility. These demonstrations will add important capacity to ASAU's education and extension efforts, because although ASAU offers students courses on intensive orchard cultivation and cold storage, there are no facilities at the university to provide practical training and demonstrations in these areas.

- On February 21, 2020, ASAU hosted a PSA-supported scientific-practical conference on **“Intensive Horticulture in Azerbaijan: Achievements, Perspectives, Problems and Solutions.”** Attendees found the conference very interesting and interactive. The estimated number of actual participants was 95 persons, including four USAID beneficiary farmers from Samukh, Shamkir, Goygol and Guba, and select PSA staff.



USAID COR and PSA staff visiting ASAU

Other attendees included orchard growers, representatives of DAIM centers from Terter, Goranboy, Goygol, Goychay, Samukh, and Gedebey regions, representatives from the Scientific Research Institute, agronomists, and ASAU professors and graduate students. Among the speakers there were ASAU faculty, as well as agronomist Jabbar Heybatov whom PSA supported to attend and present on the current situation in intensive orchard management, the advantages of intensive orchards, as well as existing challenges and possible solutions. Heybatov also provided extensive answers to questions posted by the audience. PSA distributed 60 copies of the training manual on Intensive Apple Orchard Management that was developed by the ASAP project. ASAU Rector Dr. Ibrahim Jafarov indicated that the conference was very successful and thanked USAID for the support, noting that close cooperation with



Jabbar Heybatov delivering a presentation on intensive orchard management at a February 2020 horticultural conference at ASAU in Ganja

USAID and PSA has been already begun. ASAU was also planning to hold an **International Scientific Practical Conference on Challenges of Agricultural Science in the Context of Global Climate Change** from April 29-30, 2020. However, due to current circumstances the conference was cancelled.

- **PSA strives to connect ASAU and OSU through two new funding resources made available by USAID's U.S. Global Development Lab.** As ASAU has a signed Memorandum of Understanding with Oklahoma State University (OSU) and another U.S. university, PSA proposed to deepen the relationships among the institutions by developing innovative ideas for joint development, research, and implementation. PSA assisted ASAU to develop a concept for submission to the Global Development Lab. The first funding resource, Building Research and Innovation for Development, Generating Evidence, and Training (BRIDGE-Train), is aimed at supporting institutional partnerships between Higher Educational Institutions (HEIs) in USAID Partner Countries and U.S.-based HEIs to develop research, innovation, and training centers for knowledge development aimed at addressing

local and/or national development priorities. The second funding opportunity is Bringing Research to Impact for Development, Global Engagement, and Utilization (BRIDGE-U), which aims to engage such HEIs to promote the effective utilization of existing research outputs for development programs, policies, and practice. PSA facilitated communications, including a conference call, between the two universities, which led to the partners drafting and submitting a concept note to the Lab. ASAU has noted that the joint work on the concept note brought the two parties closer together. In parallel, ASAU developed a joint concept paper with the University of Maryland as well, but could not submit it successfully due to miscommunication within the University of Maryland system, as another department submitted a concept earlier and only one application per lead applicant was permitted.

- **Follow-On ASAU-OSU links:** During a meeting at ASAU with rector Mr. Ibrahim Jafarov, vice rector Ramin Mammedov, and the head of the Department on International Affairs, Ms. Zumrud Ganifayeva, PSA discussed planned activities and cooperation. Rector Jafarov indicated that after the Oklahoma Forum, despite the links established with OSU, PSA support for effective communication to further this collaboration was needed. Plans were made to host Dean Kluver of OSU's School of Global Studies and Partnerships at ASAU so that they could better get acquainted with one another and the respective capacities and needs of each institution, in view of launching student and faculty exchanges, as well as a dual-degree program that the United States-Azerbaijan Chamber of Commerce is helping to facilitate. Unfortunately, the COVID-19 outbreak has postponed plans for such travel for now.
- PSA developed a list of **training modules on food safety** for ASAU and is working on converting these modules into a syllabus for a course in accordance with the University's requirements. *(For more information, see the Food Quality and Safety section of the Cross-Cutting chapter of this report.)*

Azerbaijan Rural Women's Association (ARWA)

During the quarter, PSA met multiple times with the ARWA chairman Mrs. Gulbaniz Ganbarova. The association was established in November 2018 under the World Bank-funded AZRIP project (Azerbaijan Rural Investment Project) and registered by the Ministry of Justice of the Republic of Azerbaijan. The Association has five women founders. They currently have 14 employees, but over half of them are working as volunteers, due to the association's limited finances. The group's only office is in Baku. In all, the Association works with 32 active¹ Women Development Groups (with a total of 462 members) in 14 regions (Balakan, Zagatala, Ismayilli, Lankaran, Masalli, Neftchala, Goranboy, Agdam, Barda, Agdjabadi, Imishli, Saatli, Sabirabad, and Beylagan). These groups are engaged mainly in agricultural activities (such as cotton growing, silkworm breeding, tobacco production, poultry, animal husbandry, vegetable growing, and fruit drying) as well as tailoring, carpet weaving, and baking. Each group has its own



PSA representatives meeting ARWA to discuss potential collaboration

¹ There are an additional 6 women's groups that are currently inactive.

funds. These funds have been generated from the revenue and membership fees of group members. In total, 32 groups have more than \$143,500 in their own funds. These funds are used to expand the group members' businesses. More developed groups are using some of these funds to provide loans to group members.

Forming of groups and identification of potential members is often assisted by municipalities, which in some cases also serve as members of the groups. Women who learn about the group activities sometimes apply for membership on their own. The capacity development of groups was planned to take place in three stages: 1) organizational structure (conducting of trainings), 2) management of microfinance, and 3) certification of products, packaging, and access to markets. However, while the first category of assistance was fully implemented by the association through 2018, when it was still funded by the World Bank, the second and third categories of assistance were not provided due to a lack of funding.

Challenges:

One of the challenges is related to attracting young married women, since there are no kindergartens in villages and young women need to take care of their children by themselves. Another challenge is linked to the prevailing limited access to bank loans for expanding businesses.

Needs:

Despite the fact that the association has an office in Baku, it has insufficient equipment, particularly computers, printers, and projectors. There is a desire to establish 10 new women's groups, but funding is insufficient to do so. There are also opportunities to transform the farms of some women's groups in Ismayilli and Balakan into agritourism destinations. Women groups also need to enhance their financial skills and knowledge, increase their product quality, acquire processing equipment (farm implements for production, small greenhouses, packaging and labeling resources, and so on). Such assistance could help members make their businesses more sustainable.

Mrs. Ganbarova stressed that apart from business, women's groups address social issues in their communities, such as early marriage, improvement of roads and other infrastructure, and communicate these issues to the relevant state institutions. She also emphasized a desire to sign an MOU with PSA to outline further collaboration. It was agreed to organize field-based meetings in the coming month for PSA with the established business groups in selected rayons in order to more concretely identify the needs of the groups and determine what types of assistance PSA could realistically provide.

COMPONENT TWO: Improving The MSME Business Enabling Environment

Business Enabling Environment Improvement

PSA's new Business Enabling Environment Manager began work during the quarter and was engaged in the following activities during the period:

- PSA held meetings with **Associations of Producers and Exporters of Berry, Organic Products and Milk**. The parties discussed existing administrative, business environment, and technical challenges, such as acceleration of export procedures, webpage design and production of fake goods. The common problems of producers were identified for development of a joint action plan. PSA also met with the **Association of Beekeepers, Meat and Meat Product Manufacturers Public Union, and Azerbaijan Entrepreneurs Confederation**, among other member-based organizations. A few highlights from the discussions are as follows:
 - **Association of Beekeepers:**
 - Needs assistance in developing a webpage;
 - Lack of information and coordination between beekeepers and farmers prevents use of bees as pollinators. The Ministry of Ecology and Natural Resources owns forest lands that have been leased to farmers for establishing orchards, but the Association does not have access to that list. Linking the farmers and beekeepers to one another could be a win-win effort, as farmers would benefit from the increased rate of pollination and thus higher yields from bee pollination, while beekeepers would generate extra revenue from higher quality honey and the bee rental fees;
 - The association would like to initiate the mapping of honey production in collaboration with Ministry of Ecology and Natural Resources and, potentially, PSA.
 - **Meat and Meat Product Manufacturers Public Union:**
 - This public union includes the main meat product manufacturers of Azerbaijan. Mr. Fuad Gulubeyov, the head of the union, is interested in collaboration with PSA and requested assistance in implementing HACCP and other food safety standards that the industry is finding to be costly.
 - **Azerbaijan Entrepreneurs Confederation:**
 - The Confederation is a member-based organization (MBO) with 38 regional branches and entrepreneurs from a broad range of fields, including but not limited to agriculture and agribusiness. Mr. Khagan Hummatzade the Deputy Secretary General, invited PSA to participate in events and regional meetings of the Confederation and provide requested technical assistance, particularly in crop forecasting for entrepreneurs.
- PSA met with Nicat Hajizade, head of the **Export Support Center**, and discussed issues of institutional support to exporters. Topics addressed included:
 - The Export Support Center emphasized its eagerness to receive TA from PSA on improving its service delivery.
 - PSA will help associations to obtain evidence of origin, phytosanitary, veterinary and food safety certificates via the Center, which many beneficiaries do not know about.
 - The Export Support Center has proposed broad cooperation between PSA, associations, and the State Custom Committee on establishing a “green corridor” for perishable products. PSA will support the establishment of a platform for Public-Private Partnership. However, exporters must obtain two certificates from different state organizations (a certificate of quality from the Food Safety Agency and a certificate of origin from the Ministry of Economy) before reaching Customs. The Export Support Center has combined these services into one window, but still does not offer a green

- corridor. The Export Support Center is trying to introduce a joint "green corridor" documentation procedure. PSA will conduct outreach to associations so that they learn about this and other services of the Center that can help increase their efficiency.
- The Center plans to design and create a new web platform for optimization of export-related operations, such as applying for certificates, obtaining information on various countries' import rules, transportation tariffs, and other relevant topics. The head of the Center, Mr. Nicat Hajizade, requested that PSA provide support in the design of the web platform. The web platform will be made operational after the threat from the COVID-19 pandemic has diminished. Early next quarter, Mr. Hajizade will provide PSA with detailed information on its requested assistance from the project.
 - The Business Enabling Environment Manager attended meetings of PSA specialists with **Goygol and Samukh DAIMs, berry producers, the head of Barakat Cooperative Olga Babayeva, and agronomists Karam Najafov, Emre Bicher and Ismayil Aydogan**. As a result of these conversations, the following administrative barriers and challenges were identified:
 - Challenges:
 - Farmers do not have plant production manuals showing best practices. In particular, there is a need for production manuals for cherries, apricots, peaches, and persimmons.
 - DAIM highlighted the necessity of obtaining seasonal weather averages for farmers. PSA may request this information from the National Department of Hydrometeorology of the Ministry of Ecology and Natural Resources of the Republic of Azerbaijan, as PSA's BEE Manager has a contact at the Department.
 - Administrative barrier:
 - Olga Babayeva emphasized that transfers to the social insurance fund are a major burden on cooperatives. The Ministry of Economy requires that cooperatives hire at least five workers per hectare, which is often more than is needed. Because transfers to the social insurance fund for each worker are 62.50 AZN per month, this entails multiple additional costs, and thus one suggested change would be to decrease the number of required workers per hectare. PSA can hold consultations with the Ministry of Agriculture and Ministry of Economy and SMB on resolving this situation.
 - PSA participated in a meeting with the **EU-funded COVCHEG Azerbaijan Project**, which stands for Community-based Value Chain Enhancement in the Greater Caucasus Mountains area. Mr. Yaqub Zeynalzade, Assistant Project Manager, requested that PSA help draft a business plan for the Gabala hazelnut producers' community. The business plan would be submitted to the SMB Agency to request financing for the purchase of equipment. (As background, COVCHEG started 18 months ago and gathered a group of small hazelnut producers (1-2 ha each) in two villages with 15 hectares of perennial plants overall. The program aims to save local hazelnut varieties and help small producers to boost production through TA. In the future, COVCHEG plans to establish several communities, including one in Gakh, and then join them into one larger cooperative). COVCHEG would like to purchase hazelnut de-shelling and packaging equipment for the community's annual 20 MT crop and has applied to SMB for financial support to make this purchase. SMB requires a business plan to document the repayment ability of the community.

- PSA held a phone conversation with the head of the **Meteorology Center of the Ministry of Ecology and National Resources**, Mrs. Sevinc Ahmadova. Mrs. Ahmadova shared with PSA the technical parameters of the agrometeorological forecast provided by the Center and highlighted that currently services are being improved. The forecast provided by the center is theoretically available for an as-yet undetermined fee, which could be interpreted as an administrative barrier. The Center also requested from PSA a sample U.S. agrometeorological forecast to use to potentially improve the quality of the selected parameters and presentation of the forecasting service currently offered in Azerbaijan. In addition, PSA provided to the Azerbaijan Meteorological Center 60-day free access to the database of WeatherSentry, a weather information and forecasting system offered by **DTN**, a U.S. service provider. PSA is currently facilitating a discussion of opportunities for broad collaboration between DTN and the Meteorological Center, including a possible demonstration activity with weather-monitoring equipment to be donated by DTN.
- Crop forecasting is another serious challenge for growers in Azerbaijan. PSA held a phone conversation with Mr. Tarlan Askerov, the Ministry of Agriculture's head specialist of the **Department of Plant-Growing Monitoring**. Crop forecasts are prepared by the Ministry of Agriculture based on information from the State Statistical Committee, and are shared only with governmental structures, not farmers. To investigate how to address this challenge, including possible provision of technical assistance to the Ministry, PSA will meet with Mr. Firdovsi Fikratzade, head of the MoA's Agricultural Economics Research Center after pandemic-related restrictions are eased.
- PSA discussed implementation progress for new agricultural credit products for farmers and cooperatives with Mr. Kanan Hasanov, the Credit Component Coordinator of the **World Bank's Agricultural Competitiveness Improvement Project**, which collaborated with AKIA to design the new products. The new credit program is intended to provide financing for small farmers in amounts of 1,000-15,000 AZN at an annual interest rate of 7% with no collateral, but only a guarantee. The duration of the loans will be negotiated between the bank and the farmer. Mr. Hasanov highlighted the project's interest in providing credit to associations supported by PSA.

Azerbaijan Small and Medium Business Development Agency (SMB)

- **PSA continues researching possibilities of collaboration with SMB:** In late December 2019 (after submission of the previous PSA Quarterly Report), the project met with the Head of SMB's International Relations Department Rufat Atakishiyev and the Head of its Department of Strategy and Project Management Emil Ismailkhanov to discuss projects of mutual interest to PSA and SMB for potential joint implementation. The parties discussed many topics that need to be addressed in order to improve the SME business climate, from both an operational and legislative standpoint. PSA and SMB agreed to discuss the opportunities internally and, having selected the issues of highest priority, develop a



A roundtable discussion at the SMB office

Memorandum of Understanding, and begin cooperation in 2020.

On January 28, 2020, SMB initiated a planning session dedicated to the formulation of collaboration with PSA, including seven different departments of the agency. Specific activities, with the potential of yielding tangible results within a shorter timeframe were outlined for collaboration:

1. Capacity building of the SME Development Center at the first SME House in Khachmaz region;
2. PSA will also consider engaging international experts to support the SME Development Center in the areas designated for business startups, foundations, and business organizations;
3. Support the institutional capacity building of industry associations, including basic organizational management training, introduction of organizational management tools and documentation and targeted assistance designed to improve member services or facilitate advocacy activities;
4. Supporting AzRISB project through selection of the key sectors (value-chains) and developing a holistic development approach.

Based on the agreements reached, PSA has drafted a revised MOU document to help initialize targeted assistance to Azerbaijani SMEs.

- **PSA organized a roundtable discussion with agribusinesses and the SMB Agency:** On February 19th, PSA organized a meeting between Tamerlan Vahabov, the newly appointed advisor to the SMB Chairman, and representatives of local agribusiness SMEs, with a focus on horticultural production, processing, and exporting. The purpose of the meeting was to help Vahabov better understand the entrepreneurs' challenges and needs. PSA worked with its list of beneficiaries to invite the entrepreneurs to the SMB head office, where, besides Vahabov, SMB attendees included Fuad Hasanov, Head of the Strategy and Business Development Department, and other agency representatives. PSA beneficiaries in attendance included leaders in their respective value chains from the regions of Jalilabad, Goychay, Goranboy and Zagatala. Each participant was given an opportunity to present the limiting factors and bottlenecks in their industry. They tried to focus on broad issues that were impeding the development of the players in their sectors and regions. Having noted all the problematic issues, the SMB representatives assured the group that they would convey these issues to the relevant government authorities, such as the Ministry of Economy and Ministry of Agriculture. During the meeting, Vahabov gave several recommendations, advising some participants to contact AKIA and explained the mechanisms the government uses to assist agricultural producers through this agency.
- PSA's newly hired Business Enabling Environment Manager also met with **Mehman Abbas, the Deputy Chairman of the SME Development Agency (SMB)**. The parties discussed potential PSA assistance to SMB. SMB supports the idea of PSA establishing a web platform for associations and is ready to provide any required technical assistance in this effort. SMB requested that PSA engage one or more expert consultants on Investment Banking practices and SME Cluster development. SMB also requested a sample U.S. association charter to use to help develop Azerbaijani associations. PSA provided the **SMB Agency** with a sample of an association charter from a U.S. association in response to SMB's request. During the follow up call with Mr. Mehman Abbas, Deputy Chairman of SMB, PSA discussed the Agency's request for technical assistance from an investment banking specialist in more detail. SMB will draft and submit a draft proposed scope of work for such an

assignment to PSA. Mr. Mehman Abbas also emphasized a desire to collaborate with PSA on SME cluster development and association development.

- **The first SMB House opened in Khachmaz:** The first Small and Medium Business House (SMB House) was launched on February 7 in Khachmaz. The event was attended by relevant

government agencies, entrepreneurs operating in the Guba-Khachmaz economic region, and members of the media. The SMB House is a single space



First SMB house opens in Khachmaz

where government and business render services to private sector MSMEs. This type of one-stop shop for MSMEs is providing support to entrepreneurs in launching startup projects, developing business and marketing plans, improving business knowledge, registering entrepreneurial activity, obtaining licenses, and facilitating access to finance, accounting, import-export clearance, logistics and infrastructure networks, internal and external markets, and export promotion. In total, approximately 200 Government-to-Business (G2B) and 100 Business-to Business (B2B) services will be provided through the SMB House in the initial stage. Service offices, meeting rooms, and conference halls will also operate here. PSA is in the process of signing an MOU with the SMB Agency to continue providing support to SMB house operations, as well as improve business startup incubation and business accelerator labs; research, resource, and learning centers; entrepreneurship and innovation centers; and business mentoring and coaching.

COMPONENT THREE: Supporting Azerbaijan's Economic Reforms

Over the first three months of the project, PSA received requests for assistance from five government agencies to support their efforts to enact government reforms in order to support accelerated private sector development. The government entities are: The Center for Economic Reforms Analysis and Communication (CAERC), Azerbaijan Accreditation Center (AzAK), State Tourism Agency (STA), Agency for Agro Credit and Development (AKIA), and the Small and Medium Business Development Agency (SMB Agency). The previous ASAP project already had ongoing work with the Azerbaijan Food Safety Agency (AFSA). The policy-related elements of this work will be covered under Objective 3, while the implementation work is being covered under Objective 1. PSA planned to jointly develop and implement action plans with these agencies. In addition, based on meetings and research to date, there are priority government agencies that PSA could possibly collaborate with in PY1: the Ministry of Economy, Ministry of Agriculture, and the Central Bank. Therefore, activities under Objective 3 were divided into supporting government agencies in their reform agendas where those agencies have already

expressed interest and continuing to identify and engage additional government agencies as interests or needs would emerge.

However, in accordance with guidance received from USAID on January 17, 2020, PSA placed further implementation of Objective 3 activities on hold until receiving further instructions from the Project’s Contracting Officer’s Representative (COR). An unexpected shortfall in available USAID funding necessitated the donor to instruct CNFA to suspend Component 3 activities and thus active implementation of the component, overseen by CNFA subcontractor Nathan Associates, whose subcontract was formally subjected to a stop-work order as of February 6, 2020. As previously noted, this suspension is for an initial period of 90 days, i.e., through May 6, 2020, upon which CNFA will either further extend this stop-work order or, should incremental USAID funding be identified, rescind it in order to resume implementation of Component 3.

Cross Cutting Activities

Monitoring, Evaluation and Learning (MEL)

Last quarter, PSA submitted to USAID a Monitoring, Evaluation, and Learning (MEL) Plan reflecting PSA’s strategy for tracking progress and measuring achievement of the Activity’s objectives, goals, and contract deliverables. After reviewing the Plan, USAID MEL team and COR held a meeting this quarter with the PSA COP and MEL and Communications Manager. During the meeting, USAID requested that the MEL plan be transferred to an updated USAID template, and that several new indicators and other details be added to the Plan. After completing the required revisions, the MEL Plan was resubmitted to USAID in late February 2020. In late March, USAID sent a standard indicator for PSA to add to the PSA MEL plan.

Environmental Management and Monitoring

During the first quarter of 2020, the PSA Environmental Compliance and Monitoring Specialist was mainly engaged in coordination with an international consultant that was working remotely with the project to revise its PERSUAP. A scope of work (SOW) was drafted earlier in the quarter for a STTA assignment to conduct this work and a successful candidate was selected and contracted in March 2020 with a Period of Performance between March 12 and April 7, 2020. PSA expects to submit the PERSUAP revision to USAID early in Quarter 3.

ERC and ROC Table for Quarterly Report:

| | Name of the ERC | Sector | Region | Type of Activity | Beneficiary Name | Environmental Reviewer | USAID ERC Status | ERC Date Approved | ROC Status |
|---|--|----------|--------|------------------|------------------|------------------------|------------------|-------------------|------------|
| I | Installation of Hazelnut Drying Equipment in Najaf Mirzayev’s Facility in Gakh Rayon | Hazelnut | Gakh | TTF | Najaf Mirzayev | Elvin Sadikhov | ERC approved | December 18, 2018 | Ongoing |

Appendices

A. PSA Year One Performance Monitoring Plan (PMP)

B. Short-Term Technical Assistance/International Assignments

C. Field Visit Notes of DAIM Centers

D. Financial Research Reports

E. Azerbaijan Agritourism Assessment

F. Azerbaijan Fruit and Vegetable Value Chain (VC) Prioritization and Gaps Assessment

APPENDIX A: PSA Year One Performance Monitoring Plan (PMP)

| # | Indicators | Actuals | | | | | Targets | Details |
|--|---|-------------------|----------|----------|----------|----------|------------------|--|
| Objective I: More Diversified Non-Oil Economy | | | | | | | | |
| 1. | Dollar value of cost-share leveraged from grant recipient organizations | B | H | O | P | V | \$0.3 mln | |
| | | 0 | 0 | 0 | 0 | 0 | | |
| 2. | Percentage change in value of agricultural exports to markets in Europe, Middle East, and Asia | Reported Annually | | | | | 2% | |
| 3. | Value of agricultural exports to markets in Europe, Middle East, and Asia | Reported Annually | | | | | 2% | |
| 4. | Percentage change in quantity of Private Sector Activity-targeted farm products exported | Reported Annually | | | | | 5% | |
| 5. | Percentage change in sales by assisted enterprises | Reported Annually | | | | | 4% | |
| 6. | Number of individuals in the agricultural system who have applied improved management practices or technologies with USG assistance | Reported Annually | | | | | 2,000 | |
| 7. | Percentage change in sales of beneficiary households engaged in targeted sectors | Reported Annually | | | | | 4% | |
| 8. | Number of food safety and quality standards or practices adopted | 3 | | | | | 15 | Absheron Saffron has adopted the following elements of Organic certificate: <ul style="list-style-type: none"> • Personal hygiene • Storage management • Infrastructure improvement |
| 9. | Number of firms receiving USG assistance that have obtained certification from (an) international quality control institution(s) in meeting minimum product standards | 0 | | | | | 0 | |
| 10. | Number of new jobs created in PSA-targeted regions | Reported Annually | | | | | 20 | |
| 11. | Female participation in PSA-assisted activities designed to increase access to productive | 0 | | | | | 70 | |

| # | Indicators | Actuals | | Targets | Details |
|--|---|-------------------|----------|---------|---|
| | economic resources | | | | |
| 12. | Percent change in revenue as a result of provision of agritourism activities introduced or improved with USG assistance | Reported Annually | | 0% | |
| 13. | Value of agriculture-related financing accessed as a result of USG assistance | 0 | | \$0.2M | |
| 14. | Number of business loans to private sector facilitated under the activity | 0 | | 2 | |
| 15. | Value of U.S. business and academic exports to Azerbaijan in targeted sectors | Academic | Business | \$1M | |
| | | 0 | 0 | | |
| 16. | Number of new PSA-facilitated business deals between U.S. and Azerbaijani companies | 0 | | 1 | |
| 17. | Number of new PSA- facilitated academic, government, and NGO exchanges or linkages between or through U.S. and Azerbaijani institutions | 4 | | 5 | 3 - SMB was linked with: <ul style="list-style-type: none"> • New York representation of U.S. Small Business Administration (SBA); • U.S. Commercial Service's New York City Export Assistance Center; • New York Small Business Development Center 1 - Azerbaijan State Agricultural University was linked to Oklahoma State University |
| 18. | Percent of individuals who complete USG-assisted workforce development programs | 91% | | TBD | Out of 56 agritourism training attendees, 51 completed the training |
| Objective 2: Improved Business Environment for Micro, Small and Medium-Sized Businesses | | | | | |
| 19. | Number of economic administrative barriers removed for MSMEs | 0 | | 0 | |
| 20. | Ratio of number of recommendations provided to GoAJ reformers responsible for improvements in business enabling environment to number of technical and policy recommendations implemented by the GoAJ | Reported Annually | | 15% | |

| # | Indicators | Actuals | Targets | Details |
|---|---|-------------------|---------|---------|
| 21. | Number of new legislative acts improving the business environment | 0 | 0 | |
| 22. | Number of facilitated exchanges between/by business associations, MSMEs, and the GoAJ | 0 | 5 | |
| Objective 3: Support for Azerbaijan's Economic Reforms | | | | |
| 23. | Number of economic reforms implemented through assisted agencies | 0 | 0 | |
| 24. | Ratio of number of recommendations provided to Azerbaijani reformers responsible for improvements in economic diversification and the enabling environment for business to number of technical and policy recommendations implemented by the GoAJ | Reported Annually | 15% | |

APPENDIX B: Short-Term Technical Assistance/International Assignments

| # | Name/Functional Area of Expertise | Purpose of Trip | In-Country Dates |
|----|--|--|---|
| 1. | Ivana Markovic and Goran Zivkov, SEEDDEV | Azerbaijan Fruit and Vegetable Value Chain (VC) Prioritization and Gaps Assessment | November 4- January 17 (contracted dates) |
| 2. | Sandra Willett, Agritourism Value Chain | Azerbaijan Agritourism Assessment | February 2-15, 2020 |
| 3. | Dr. Oliver Macdonald, Environmental Compliance | PERSUAP Revision (remotely conducted assignment) | March 12 – April 7, 2020 (contracted dates) |

APPENDIX C: Field Visit Notes on DAIM Centers

PSA staff field visits notes on the meetings with each of the DAIM centers made to explore opportunities for collaboration:

- **Aghdash DAIM:** PSA met with Khalid Babayev, representative of the Agricultural Services Agency (ASA) of the Ministry of Agriculture (MOA), Aghdash DAIM Manager Farhad Aliyev, and agronomist Rahil Ismayilov to discuss potential cooperation. ASA and DAIM expressed the need for training young specialists in orchard management and establishing demo plots to introduce advanced production technologies to Azerbaijani agriculture. PSA also met with ASA Deputy Chairman Zamil Hasanov to discuss how PSA could provide initial support to DAIM centers. Potential areas of PSA support may include building the capacity of DAIM staff, organizing study tours and trainings for young DAIM specialists, establishing demo farms, and bringing international experts to Azerbaijan to provide TA and trainings to DAIM.
- **Goychay DAIM** hired 14 youth as volunteers. The volunteers learn management, agricultural practices and make field visits with DAIM staff. Mr. Elchin Ismayilov, the head of Goychay DAIM, noted the lack of professional agronomists in the pomegranate value chain. He is also dissatisfied with the activities of associations and cooperatives operating in the pomegranate VC. In his opinion, being a member of an association when one has a half hectare of traditional pomegranate production that produces less than 5 MT will be beneficial neither for associations/farmer groups nor for the farm itself. Regarding collaboration with USAID on capacity building, he thinks it would be more effective to focus on the development of a pomegranate demonstration plot with a selected local variety that would be useful for the fresh market than to simply provide theoretical trainings to such growers;
- **Kurdamir DAIM** has no department or specialist group providing services on horticultural topics. As the region is focused mostly on livestock and field crop production, all efforts are given to these activities. In recent years, growers have demonstrated significant interest in greenhouse vegetable production, and are generating good profits. Unfortunately, the DAIM center does not have the resources to provide them with better service on production. Mr. Elshan Jabrayilov, head of Kurdamir DAIM center, noted that it would be great if PSA could introduce high-quality consulting services to pomegranate and greenhouse producers through DAIMs.
- **Jalilabad and Masalli DAIMs:** PSA met with ASA DAIM experts and managers in Jalilabad and Masalli to discuss potential entry points for mutual cooperation. Strawberry growers from both regions considered it expedient to work with PSA and requested the project to provide agricultural TA and training to farmers or farmer groups (including STTAs, study tours or exchange programs for DAIM experts) in order to improve and expand their business operations.
- **Zagatala and Balakan DAIMs:** PSA met with the heads and experts of the DAIM centers in Zagatala and Balakan to discuss potential cooperation. They DAIMs reported

that hazelnut growers and dried fruit (persimmon) processors from both of the rayons would like to receive from PSA agricultural TA and training (including STTAs, study tours or exchange programs for DAIM experts) in order to improve and expand their business operations. The next step will be a meeting with DAIM-supported hazelnut producers to provide them with detailed information about PSA, and initiate TA and training to interested farmers.

- **Gakh DAIM:** The director Mr. Mahammad Fataliyev provided very brief information on the region's agriculture. There are 11,000 ha of hazelnut orchards in the region, which has a population of 55,000. He believes it would be good to develop demonstration
- **Sheki DAIM:** Mr. Nuraddin Ibrahimov, deputy director of the Sheki DAIM Center, noted that apart from technical support with trainings, there is a need for financial assistance as well.
- **Shamakhi DAIM:** PSA met with Mr. Etibar Muradli, head of DAIM Center in Shamakhi, and also in attendance was the Baku-based Mr. Yagub Zeynalli, assistant project manager of a Slow Food project. Mr. Muradli was appointed to director position of less than a year ago. He also is managing the soil and water laboratory, which he is trying to enable to provide more accurate test results than do other labs in the country. In addition, Muradli has leased several extra rooms within the DAIM building to outside organizations to generate some additional revenue. Because Shamakhi region does not specialize in the VC that are planned to be supported by PSA, he proposed following approach to collaboration on technical and financial topics: Mr. Muradli would like to organize a three-day Agricultural Festival in Shamakhi. He would like to organize an open field demo plot for potential vegetable seed and input suppliers operating in Azerbaijan. He would provide them with land with access to water where they could plant test plots whose results could be subsequently shown to attendees at the Festival. In addition, he would like to involve other agricultural farms and processors to participate in this event. Visitors, companies, organizations involved in agriculture from neighboring regions and Baku would have chance to see Shamakhi's agricultural potential. There would be a forum for development of agricultural opportunities in the region by speakers, who could serve on several panels and represent government, the private sector, and NGOs. Mr. Muradli promised to provide PSA with a concept note that outlines the proposed activity. Mr. Yagub Zeynalli, for his part, represents Slow Food, which is implementing an EU-funded project on agritourism and organic production. He previously met with PSA to discuss agritourism collaboration, but a future meeting will be set up with him to discuss potential collaboration on organic production and training.
- **Sheki DAIM:** Mr. Nuraddin Ibrahimov, deputy director of the Sheki DAIM Center, noted that apart from technical support with trainings, there is a need for financial assistance as well.
- **Gakh DAIM:** The director Mr. Mahammad Fataliyev provided very brief information on the region's agriculture. There are 11,000 ha of hazelnut orchards in the region, which has a population of 55,000. He believes it would be good to develop demonstration plots, encourage cooperatives, and provide material and financial support to farmers.
- **Oghuz DAIM:** The PSA representative met with Mr. Azad Aliyev, head of the Oghuz DAIM center. There are a number of household strawberry growers and dairy producers in the region. Due to a lack of access to financial resources (Aliyev reported that only one

person in the region was able to receive government subsidized credit, in the amount of 30,000 AZN), local farmers cannot develop and expand their businesses. Only outside rich people come to Oghuz to purchase or rent land, and develop intensive orchards here. There is an Agropark with 4,000 ha of intensive production in Sheki and Oghuz regions. Mr. Aliyev also thinks there is no need to train farmers in Oghuz, but only to provide financial and material support for the increasing their production and sustainable development. This center seemed busier than most of the other DAIMs visited, with a steady stream of farmers that the DAIM staff appeared to be assisting to apply for various government subsidies.

- **Gabala DAIM:** Mr. Rahib Ahmadov, the head of the Gabala DAIM, mentioned a Russian company that provided wide range of support to crop producers in Gabala region. He also mentioned that, with the help of Ferrero company representative, they established a nursery with 400,000 hazelnut and mulberry saplings. Now, DAIM is looking for farmers to sell and/or give them to for planting, but there is little demand because there is a major shortage of free space in Gabala at present in which to plant the saplings. Mr. Ahmadov also does not think that capacity building of farmers is needed currently. In his opinion, development of demo plots, particularly in crop production with financial support from donor, would be more interesting for farmers.
- **Goygol and Samukh DAIMs:** The heads of both of these DAIMs mentioned that they are ready and eager to cooperate with USAID/PSA. They indicated that in order to increase the efficiency of the trainings and services provided to farmers it is important to establish demo plots, because farmers believe more readily in what they see than what they hear. The head of Goygol DAIM, Mr. Atesh Avazov, mentioned that the main product grown in his region is raspberries, and it would be good if PSA would focus on berries here, including establishing demo plots and introducing processing. The Head of Samukh DAIM Mr. Rahil Hasanov indicated that farmers in the region are engaged in production of different fruits, vegetables, and berries, as well as vegetable seeds. He mentioned that VVB and APS are supporting the establishment of a modern vegetable seed sorting and packaging area in this region, and that based on his initiative, they established a seed producers cooperative that brings together small farmers. PSA may consider supporting this cooperative as well. Another possible cooperation area could be support in establishing intensive orchards and berry growing demo plots. PSA visited areas recommended by Goygol and Samukh DAIMs for potential berry demonstration plots, as well as with the Barakat Seed Production Cooperative.

APPENDIX D: Financial Research Reports

- 1. Research Report: “Main trends in Azerbaijan's 2019 foreign trade”**
- 2. Research Report: “Main trends in Azerbaijan’s banking sector in 2019”**
- 3. Research Report: “Potential Effects of Reduced Oil Prices on the Azerbaijani Economy”**

Main trends in Azerbaijan's 2019 foreign trade

January 24, 2020

Introduction

2019 was favorable for Azerbaijan in terms of foreign trade,¹ and the fact that there was no sharp drop in oil prices in world markets was crucial. According to the Central Bank's monetary policy review for the first nine months of 2019, the average price for Brent crude oil over the January-September period was \$64.8.² Experts estimate that based on the real demand for foreign currency in the economy, and especially on international transactions, a crude oil price above \$55 is sufficient to provide the country with a surplus in its balance of payments and trade.

Balance of Payments Analysis: Key Trends

Over the first nine months of 2019, the volume of capital inflows into Azerbaijan as part of current operations totaled \$19.62 billion, and the amount of foreign currency outflows from the country totaled \$15.61 billion. In current operations, there was a surplus of \$4 billion.

Compared to the same period in 2018, the volume of inflows into Azerbaijan in the current account fell by about \$1.8 billion (8.3%), while outflows dropped by \$710 million (4.3%). The current account surplus decreased by \$1 billion (21.3%) in 2019 compared with the first nine months of the year before as a result of the greater decrease in inflows compared to outflows.

As a noteworthy negative trend, it should be noted that the current account's non-oil deficit has grown by approximately \$408 million (8.5%) to \$5.2 billion.

Over January-September of 2019, as part of current operations, the oil and gas sector brought in \$13.908 billion, or 71%, while the non-oil sector accounted for \$5.708 billion (29%).

Over the first 9 months of this year, in current accounts, 76.6% of revenues were generated by commodity exports, 14.6% by service exports, and 8.8% by initial and recurring revenues. Over the same period of 2018, commodity exports accounted for 71.7% and service exports for 18.9%. While the amount of commodity exports in absolute terms remains almost the same (an increase of 0.2%), service exports fell by \$1.184 billion (30%), income from initial revenues fell by \$288.5 million (23%), and income in the current account from recurring revenues fell by \$109 million (10%).

The sharp decline in revenues in the balance of services is due to the tourism sector. The export of tourism services in January-September of 2019 amounted to \$1.414 billion. This is about half (56%)

¹The latest official data on the balance of payments is for the first 9 months of 2019.

²Retrieved from: <https://uploads.cbar.az/assets/10f30b8fb0eaba16484a704c4.pdf>

of what it was the previous year and represents a decrease of \$1.097 billion dollars. Meanwhile, revenues from the export of transportation services fell by \$72 million (8%). Over the first 9 months of this year, there was a total deficit in the balance of services amounting to \$1.841 billion. This is an increase of \$532 million (41%) compared to the previous year.

In terms of initial revenues, foreign payments decreased by about \$331 million to \$2.427 billion. Of these payments, \$1.447 billion came from the repatriation of revenues from international oil and gas companies. In addition, during the period under review, in the securities portfolio, \$356.1 million was paid to non-residents, while \$331.9 million went to foreign loans. In addition, the income earned by non-residents working in Azerbaijan and taking their earnings out of the country is also included in the amounts of these payments.

Foreign revenues in the form of Azerbaijan's primary revenues are mainly derived from interest from the management of foreign currency reserves, profits from foreign direct investment, interest from foreign deposits of the local financial and business sectors, and so on.

Recurring revenues on the balance sheet are two times higher than foreign payments, totaling \$761 million. About 91% of the inflow is due to remittances sent by citizens living abroad to their families, while 6% comes from humanitarian and other forms of assistance.

Trade Balance Structure: Key Changes

Over January-August 2019, ³ compared with the same period last year, foreign trade turnover increased by 3.158 billion (16%), reaching \$22.9 billion.

A large-scale expansion in imports played a decisive role in the growth of foreign trade turnover. The expansion of imports accounted for 80% of the total increase in turnover, while exports accounted for 20%. During the period under review, exports increased by 4.9%, or \$630 million, to \$13.5 billion, while imports increased by \$2.5 billion, or 37%, to \$9.38 billion. If import operations accounted for 35% of total foreign trade turnover during the first 8 months of 2018, this figure rose to 41% in the same period of the current year. As a result of the faster growth of imports, the positive balance in foreign trade decreased by 32%, or \$1.879 billion, to \$4.138 billion.

Although there has been a significant increase in the share of the non-oil sector in exports, in absolute terms exports of non-oil and gas sector products are still small.

According to statistical data, the share of non-oil exports increased from 8.5% to 9.5%, and the absolute value increased by \$184 million (16.8%) to \$1.277 billion. When looking at the structure of non-oil exports by commodity groups, the biggest groups are food products, metallurgical products, plastic products, chemical products, and raw cotton. Over the first 8 months of 2019, food products comprised 33% (\$418.5 million) of total non-oil exports, plastic products comprised 10.7% (\$136.8 million), metallurgical products made up 9.6% (\$122.6 million), raw cotton accounted for 8.3% (\$106.4 million), and chemical products comprised 5.3% (\$68.5 million).

³Customs Statistics of Azerbaijan's Foreign Trade retrieved from:
https://customs.gov.az/modules/pdf/pdffolder/84/FILE_94D804-50BC0F-E1409A-8D89FA-A10549-4D8860.pdf

During the same period, five countries (Russia, Turkey, Switzerland, Georgia, and Italy) accounted for \$961.4 million or 75.3% of non-oil exports. Over the same period in 2018, this figure was \$820 million, or 74.9%. There was also a high concentration of exports in terms of exporter entities. Over the first eight months of 2019, the 20 largest exporter entities accounted for 56.5% of non-oil exports, or \$722 million. Over the same period in 2018, these figures were 40%, or \$437 million. The main factor in the sharp increase in imports (37%) over the first eight months of 2019 was the expansion of public sector imports.

The public sector accounted for 89% of the total increase in imports, while the private sector accounted for 11%. Over the first eight months of 2019, compared to the same period the previous year, public sector imports increased by \$2.245 billion (almost tripling) to \$3.512 billion, while private sector imports increased by \$62 million (1.2%) to \$5.270 billion. During the period under review, the share of public sector imports in total imports increased from 18.5% to 37.5%.

In the structure of imports, most significant are machinery and equipment (\$1.710 billion or 18.2%), food products (\$997 million or 10.6%), vehicles (\$749.1 million or 8%), and ferrous metal products (\$646 million or 6.9%).

Conclusion

As we see from the above information, the overall picture of the country's foreign trade is positive. There is a surplus in the country's balance of payments, thanks to stable oil prices and to incremental increases in the country's non-oil exports. But of the aforementioned trends, two negative tendencies are noteworthy. First, Azerbaijan's income from the export of services, i.e., tourism, fell in comparison with the previous year. This means that the country is doing something wrong, as it says it wants to attract more tourists. The second negative trend is the growth in the public sector's imports. This is directly related to the Government's increased share of expenditures in the economy or, in other words, the increased expenditures from the State Oil Fund. In essence, the more the Government invests, the more it imports from abroad.

Main trends in Azerbaijan's banking sector in 2019

February 17, 2020

Introduction

The relative stability observed in recent years in Azerbaijan's banking sector continued through 2019 as well. Although the number of banks has not changed, their branches and staff have expanded. According to the Central Bank of Azerbaijan,¹ in 2019 the number of bank branches increased by 1 to 509, and the number of bank offices² increased by 3 to 133. As for the number of employees, there were 17,415 individuals employed in the banking sector in 2018, but by the end of 2019 the number increased to 19,460. As of the end of 2019, the number of employees per bank was 649, compared to 580 at the beginning of the year.

Analysis

Banks grew in 2019. According to the Central Bank's statistics, during 2019 banks' assets increased by 4.1% from 29.5 billion Azerbaijani manats (AZN) to AZN 32.7 billion. The main driver of asset growth was credit investments (+20.6%), cash (+12%) and nostro accounts³ (+67%).

Concentration of banking assets. The banking sector has tended toward concentration since 2018, and this continued in 2019. According to the Azerbaijan Bank Association's statistics, in 2018 the market share of the top five banks in the banking sector was 65.6%, and in 2019 this rose to 67.8%.⁴ The concentration level was mainly stimulated by the growth of the assets of the International Bank of Azerbaijan (IBA). The market share of the largest bank in the country increased from 26.9% to 29.7%. The assets of the second and third largest banks, Pasha Bank and Kapital Bank, decreased during this period, their shares falling from 15.9% to 14% and from 12.8% to 12.6%, respectively. The fourth and fifth biggest banks, Khalg Bank and Bank Respublika, strengthened their positions.

Banks' increased lending. Banks showed increased lending activity in 2019. In comparison with 2018, the value of loans increased from AZN 13 billion to AZN 15 billion. As a result of the increase, the share of credit investments in total assets increased from 42.8% to 45.5%.

¹ General information on financial market participants: <https://www.fimsa.az/uploads/5/31-dekabr-2019-cu-il-tarixine-olan-bank-sektorunun-esas-gostericileri.pdf>

² In Azerbaijan, bank offices are similar to bank branches, but they are easier to open and provide a more limited range of services.

³ A nostro account refers to an account that a bank holds in a foreign currency in another bank. Nostros, a term derived from the Latin word for "ours," are frequently used to facilitate [foreign exchange](#) and trade transactions. The opposite term "[vostro accounts](#)," derived from the Latin word for "yours," is how a bank refers to the accounts that other banks have on its books in its home currency.

⁴ Azerbaijan Banks Association: <https://aba.az/en/banklar/renkingi%c9%99r/>

Increases in the volume and share of consumer loans continued in 2019. Compared to the previous year, the share of consumer loans among total loans increased from 40.9% to 45.6%.⁵ The value of loans made to households increased during this period, reaching AZN 6.1 billion, the highest it has been since 2015. During this period, the share of loans in trade and services fell from 18.3% to 16.3%, the construction and real estate sector rose from 3% to 3.1%, the share of loans for transportation and communications decreased from 10.5% to 7.9%, and the share of loans for industry and manufacturing increased from 5.4% to 5.7%. Despite the recent increase in the government's efforts to develop the agricultural sector, there has been no significant increase in bank financing to this sector. In 2019, the value of financing of the agricultural sector increased by 16%, but its share remained stable at 3.6%.

Manat lending increased. The currency structure of loans shows that in contrast to foreign currency lending, there has been an increase in lending in the national currency. Manat loans rose by 12.8% over 2019 to AZN 9,107.3 million. This is the highest lending has been since the 2015 devaluations. Loans in foreign currency decreased by 3.8% to AZN 4,758.2 million during this period. Loans in AZN increased mainly in the form of long-term loans.

Problem loans decreased. As a result of the steps taken in relation to the presidential order addressing the problem loans of individuals, in 2019 the share of overdue loans declined from 12.2% to 10.8%. The value of problem loans decreased by 6.3% in 2019 from AZN 1.59 billion to AZN 1.49 billion. At present, the share of problem loans in manats (8.3%) is less than the share of problem loans in foreign currency (15.5%). Although the presidential order and the relevant support that followed helped to resolve overdue loans, the problem remains. Banks are forced to increase their allocations to targeted reserves as the number of overdue loans increases, or as the amount of time they are overdue, grows. The value of targeted reserves for loan repayment losses increased by AZN 5 million over 2019 to AZN 1.484 billion. At present, the bulk of problem loans are business loans. Although the presidential order helped the public, it did not fully solve the banks' problems.

Deposits increased. As banks gradually move away from foreign liabilities, especially after the aforementioned 2015 devaluations of the manat, and don't have many options for loans from other banks and financial institutions, banks are more interested in attracting deposits. Analysis of banks' liabilities shows that their dependency on deposit resources continued to increase in 2019. Despite the apparent liquidity in the banking sector, deposits increased by 13%, reaching AZN 24.7 billion.⁶ The currency structure of deposits shows that the stability of the manat contributed to the growth of deposits in AZN. Deposits in manats increased by 9.7% in 2019, while foreign currency deposits fell by 1.1%. The public's savings in the national currency increased by 19.8%, the deposits of financial institutions by 27.8%, and the deposits of non-financial institutions decreased by 0.1%. The public's savings in foreign currency decreased by 8.4% and the deposits of financial institutions by 0.6%, but the deposits of non-financial institutions increased by 3.6%.

The Law on Full Deposit Insurance was amended on February 19, 2019, and the mechanism for full deposit insurance was extended for one more year. According to the law, the public's deposits are fully insured at the annual interest rate, regardless of the currency. Azerbaijan's Deposit Insurance Fund has lowered the maximum interest rate on deposits in the national currency from 15% to 10%, and for foreign currency from 3% to 2.5%, as of July 1, 2019. If the term of the law is not extended, the amount of compensation for fully insured deposits will be regulated by the Deposit Insurance Law, which has been in effect since

⁵ Sectoral breakdown of loans <https://www.cbar.az/page-42/monetary-indicators#page-2>

⁶ Deposits and savings in credit institutions <https://www.cbar.az/page-42/monetary-indicators#page-1>

December 29, 2006. According to Article 26.1 of that Law, insured deposits up to AZN 30,000 AZN would be fully compensated by the Deposit Insurance Fund.

The level of dollarization has decreased. The dollarization of the banking sector continued to decrease in 2019. This trend was observed in both credit investment and deposit attraction. In 2015, the rate of dollarization (49.4%) reached its highest point since 2006, but with the stabilization of the manat's exchange rate there has been a decrease in dollarization. In 2019, the share of loans in foreign currency decreased from 38% to 34.3%. This is the lowest it has been since 2014. The stability of the manat and the low return on foreign currency deposits supported de-dollarization. The decreasing trend of dollarization in total deposits has continued, dropping from 65.3% at the beginning of the year to 63% in 2019. The lowest level of de-dollarization was recorded in the public's savings. During this period, the dollarization of deposits decreased from 62.5% to 56.0%. Due to the devaluation, the share of foreign currency in the deposits of financial institutions with the highest level of dollarization (89.1%) fell to 67.6%. In the deposits of non-financial institutions, however, the level of dollarization increased from 66.4% at the beginning of the year to 67.2%.

Conclusion

In general, economists consider 2019 to have been a year of stability and growth for Azerbaijan's banking sector. Banks increased their credit and deposit portfolios, which shows that they have improved their public reputation, which was damaged following the devaluation. There are more bank offices and more bank employees at the end of the 2019, which means more interaction between the banks and potential borrowers. The stability in the exchange rate played a crucial role in the de-dollarization process and the share of manat loans and deposits increased. The situation of problem loans eased in 2019, and the government's support should be emphasized here, as it compensated some of the losses that borrowers incurred as a result of the devaluation of the manat. Unfortunately, the concentration of banking assets increased in 2019 and a limited number of bigger banks are even larger and stronger now. This means that monopolization in the banking sector has increased, which has negatively affected the quality and cost of services that banks offer. In addition, the banking sector was the subject of a major reform closer to the end of the year, as the Azerbaijani president gave supervisory authority over the banking sector back to the Central Bank, though we have yet to see any major changes introduced by the Central Bank in this area.

Potential Effects of Reduced Oil Prices on the Azerbaijani Economy

March 17, 2020

Introduction

World oil prices have declined sharply in the past several weeks. There are several reasons for this decline, including the outbreak of COVID-19, which started to hurt demand for oil and the disagreement between the Organization of the Petroleum Exporting Countries (OPEC) and Russia on cutting the production of oil by 1.5 million barrels per day. The five-year agreement, which was concluded in 2015 to limit the supply and regulate world oil prices, is expiring this April and the parties could not achieve a deal to prolong the agreement. Since the price of Azerbaijan's main export product is decreasing, this cannot go on without hurting Azerbaijan. Fearing devaluation of the local currency as a result of the country's decreased income, people have been flooding bank branches since March 10th, eager to exchange their money into USD. In this brief report, we will look at how the drop in oil prices can hurt Azerbaijan's economy, the state budget, and the financial sector. The report has been drafted based on information about the market and Azerbaijan's budget, media reports on the Azerbaijani Government's actions and plans, as well as discussions with independent economists and bankers.

Oil prices are decreasing

As a response to decreased demand for energy resources in the world market, initially due to decreased demand in China that then spread across Asia and Europe as a result of the COVID-19 outbreak, world prices for oil have been decreasing since the start of the year. The steady fall of the price of Brent crude from \$68.91 on January 6, 2020 to \$49.99 on March 5 was followed by a sharp decrease after the major oil-producing states could not agree on a deal to limit world oil production, launching a trade war.¹ The market reacted sharply to these events and the price for Brent further declined, reaching \$33.85 when the markets closed on March 13, 2020. This is more than a 50% decline in prices, which will affect the economies that largely depend on income from oil exports. As COVID-19 spreads further in the world each day, and more countries limit work and travel, the demand for oil is expected to continue to decline and keep downward pressure on the price of oil indefinitely.

Potential effects on Azerbaijan's budget

Azerbaijan's economy is dependent on revenues from oil exports, and the revenues of Azerbaijan's state budget are generated mainly by oil exports. The 2020 budget envisions 47% of budget revenues, or 11.35 billion AZN, being transferred directly from the State Oil Fund. On March 11th, the second working day after the OPEC-Russia deal failed, the Cabinet of Ministers convened for an extraordinary meeting to discuss "The situation in the global energy markets and its effects on the Azerbaijani economy." The

¹ Bloomberg: <https://www.bloomberg.com/quote/CO1:COM>

meeting was followed by a statement to the public.² According to the statement, the Government of Azerbaijan is not going to make any changes to the state budget and will spend as much of its resources in the State Oil Fund as needed to implement the state budget as is. According to the law on the state budget,³ the government will exchange \$6.69 billion in 2020 to implement its transfers to the state budget as planned and the reduced prices for oil will not change the government's plan on spending resources from the State Oil Fund. According to the statement, the COVID-19 outbreak and relevant government measures to curb the effects of the outbreak will result in a reduction of certain budget expenditures, such as travel and transportation of government employees, cancellation of certain events, and others. But beyond that, all other budget expenditures and investments will be implemented as planned for 2020 and savings from some line items will be used to finance unforeseen activities, such as the fight against COVID-19.

Potential effects on the financial sector

Having experienced the devaluations of 2015, Azerbaijanis took the sharp oil price decline very seriously and rushed to banks to exchange their manats into USD on March 10th. The Cabinet of Ministers and the Central Bank Chairman's statements that the Government of Azerbaijan does not have any plans to devalue the manat did not assuage the public, as it had heard similar promises before the sharp devaluations in 2015 as well. As a result, long queues formed in front of bank branches. The statement that followed the Cabinet of Ministers' meeting urged the people to stay calm and refrain from rashly exchanging their manats into USD. The Central Bank Chairman promised that the market will be provided with as much USD as needed. In response to the increased demand for USD, the Central Bank carried out additional auctions to offer USD to banks.

At the same time, the Central Bank has been implementing measures to prevent an illegal exchange market from forming. All exchange operations over USD 100 require an identification card and all exchange operations over 15,000 AZN need to be reported to the Central Bank. According to several bankers I've talked to, these additional measures also slow down the process, result in extended queues in front of bank branches, and cause additional worry in people that the devaluation threat is real.

Another factor that has put Azerbaijani banks under stress in recent weeks is the situation regarding the government's guarantee on deposits. The law on a blanket guarantee of deposits for three years, which was adopted in March 2016 and then prolonged for an additional year in March 2019, expired on March 4, 2020. Since the law was not extended, people started to withdraw their deposits from banks, leading to major liquidity problems at certain banks, as deposits are a major source of funds for most banks. At last on March 15th, the Parliament adopted an amendment to the law on blanket guarantees of deposits in banks for an additional nine months.⁴

Conclusion

Both international and local experts agree on the impossibility of forecasting the future price of oil, as it will depend largely not only on the supply, but also demand, which is greatly affected by the continued

² Cabinet of Ministers Statement: <https://cabmin.gov.az/az/article/712/>

³ State Budget of Azerbaijan for 2020: <http://www.maliyye.gov.az/static/243/dovlet-budcesi-hagginda-azerbaycan-respublikasinin-qanunu>

⁴ Law on extending full guarantee of deposits: <https://www.cbar.az/press-release-2527/on-extension-of-blanket-guarantee>

coronavirus outbreak. At present, both Russia and OPEC countries have plans to reduce prices, the world demand for oil is decreasing every day, and this is expected to continue for the foreseeable future.⁵

According to independent economists, the Government of Azerbaijan has all the resources to implement the State Budget for 2020 as is without making any changes, even if world prices for oil drop below \$30 per barrel. The large cushion that the State Oil Fund offers can keep the State Budget safe throughout the year, although the price per barrel of oil was forecasted at \$55 per barrel in the State Budget. Thus, the state budget expenditures will stay largely untouched if the government continues to think as it does today. Also, according to both pro-government and independent economists, the government does not need to devalue the Azerbaijani manat to finance the state budget thanks to the State Oil Fund's reserves. But all agree that the Government of Azerbaijan will probably reconsider its decision if the oil price goes below \$30 per barrel and stays there for a period of 3-4 months or more.

⁵Global Oil Use Heads for Record Annual Drop as Virus Spreads <https://www.bloomberg.com/news/articles/2020-03-15/global-oil-demand-heads-for-record-annual-drop-as-virus-spreads>

APPENDIX E. Azerbaijan Agritourism Assessment



USAID
FROM THE AMERICAN PEOPLE

AZERBAIJAN

USAID PRIVATE SECTOR ACTIVITY (PSA) Azerbaijan Agritourism Assessment

*Sandra Willett
March 2020*



Prepared for review by the United States Agency for International Development under USAID Contract No. 72011219C00001, Private Sector Activity (PSA) implemented by CNFA.

Disclaimer: The author's views expressed in this publication do not necessarily reflect the views of USAID or the United States Government.

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Acronyms

| | |
|--------|--|
| ADB | Asian Development Bank |
| ATAA | Association of Travel Agencies of Azerbaijan |
| CSR | Corporate Social Responsibility |
| DMO | Destination Management Organization |
| EU | European Union |
| FAO | Food and Agriculture Organization |
| GIZ | The Deutsche Gesellschaft für Internationale Zusammenarbeit |
| MSME | Micro, Small and Medium Enterprise |
| MoA | Ministry of Agriculture |
| PSA | USAID Private Sector Activity Project |
| SME | Small and Medium Enterprise |
| SRRD | Support to Rural and Regional Development |
| UNESCO | United Nations Educational, Scientific and Cultural Organization |
| UNDP | United Nations Development Programme |
| UNWTO | United Nations World Tourism Organization |
| USAID | United States Agency for International Development |

Executive Summary

In many regions around the globe, farmers are recognizing the need and desire to diversify their farm products and supplement their agricultural incomes. Concurrently, recognition of the benefits of tourism is being acknowledged as a major contributor to GDP, job creation, local economies and investment. Though “tourism” is a single sector, it is made of numerous tangible and intangible elements that both affect and are affected by many other sectors. It therefore has the potential to be economically beneficial in numerous sectors and to the entire local economy.

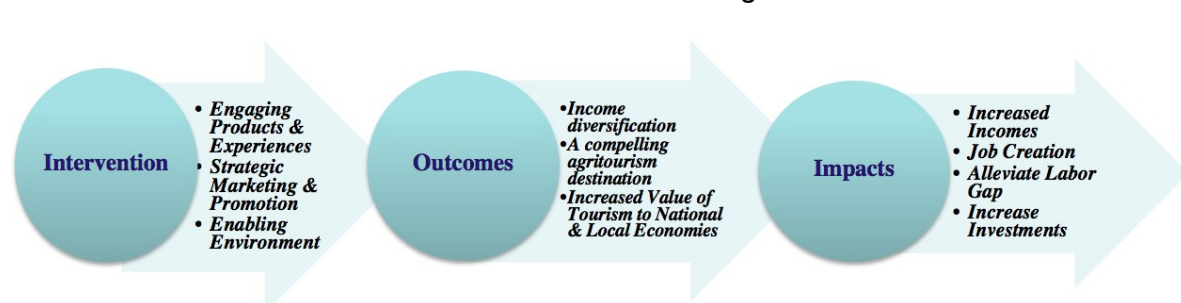
With a diversified regional offering of quality produce, culture and heritage, Azerbaijan has a strong opportunity to diversify the list of product and service offerings through agritourism. Agricultural tourism increases the potential for higher margins, both on-farm and off-farm sales, of value-adding products and services, and for further diversifying the product line of the farm operation and in turn ability to export.

However, agritourism and related niche tourism segments, while growing in demand as well as value of economic returns, are becoming increasingly globally competitive as they are recognized by both developed and developing tourism economies as strong economic sources of income to the national economy, and in particular to rural communities.

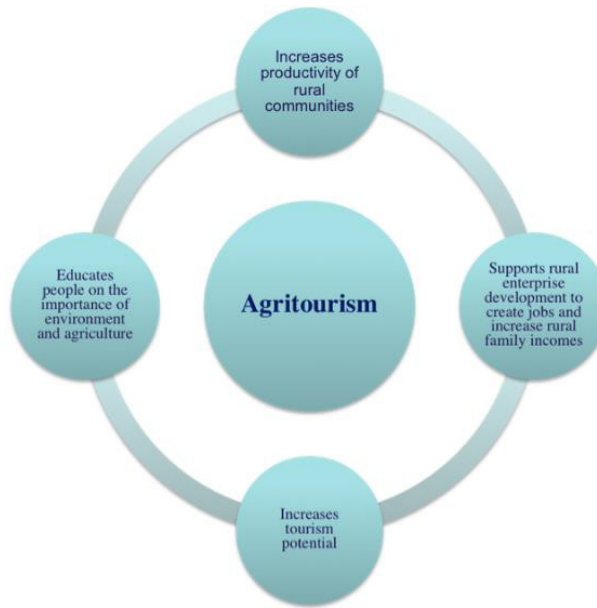
A key strength supporting the potential growth of the agritourism sector in Azerbaijan is the government's focus on developing both tourism and agritourism in a post-oil economy. Agritourism has been highlighted as a potential opportunity for development at a national level, with activities being undertaken throughout the country (to varying degrees), at a regional level, and at a local level through local representatives, individual entrepreneurs, tourism and agriculture stakeholders, NGOs, and donor projects.

One of the factors that robust developed and developing tourism and agritourism economies share is a partnership between the public and private sector in development, implementation and management. A national and regional approach ensures a top-down and bottom-up approach to effective development and sustainable growth. In the case of Azerbaijan, development of the sector is being driven by the public sector and, while there is engagement with the private sector at various stages, it is not a shared vision, there is no formal partnership in planning, strategy development, implementation, or management.

The objective of an agritourism economy is to promote sustainability and competitiveness in rural communities through the production of products, experiences and services that link agricultural activities to tourism in ways that foster food security, environmental sustainability and sustainable use of natural and cultural resources, validate traditional knowledge, and lead to sustainable livelihoods.



Strengthening links between agriculture and tourism through clear focus on regional economic development agendas is critical. Forging these links capitalizes on the inherent ability of a tourism sector to diversify the regional economy, stimulate entrepreneurship and investment, and assist in social development in rural communities. These linkages offer opportunities in agricultural production, create employment throughout the tourism value chain, and build resilience and sustainability of regional economies.



With a focus on the most successful strategic outcomes, a successful agritourism destination focuses concurrently on the driving forces of Product and Experiences, Marketing and Promotion, and the Enabling Environment. The activities represented within each driver individually and collectively help drive growth to the sector, while the enabling environment provides the foundations conducive to agritourism development and economic advantages.



Report Objectives and Development Methodology

This report is aimed at conducting a rapid assessment of gaps in the developing agritourism sector in Azerbaijan and providing recommendations on a range of activities that the USAID Private Sector Activity (PSA) might undertake to address those gaps. Special consideration was given to strategic activities and interventions, in line with international best practice, and achievable within the project's lifetime, that could support an enabling environment during the current stage of the sector's development, drive success, and provide for a sustainable platform for growth moving forward.



The report was drafted following a two-week fact-finding mission to Azerbaijan in February 2020 that included meetings and interviews with both public and private sector stakeholders in Baku and three regions of Azerbaijan (Lankaran, Sheki and Quba), as well as a rapid desk research review. Meetings were undertaken with government agencies such as the State Tourism Agency, the Azerbaijan Tourism Board, Agro Procurement and Supply, and the representatives of two national parks (Shirvan National Park and Hirkan National Park); with members of the private sector including the Association of Travel Agencies in Azerbaijan, tour operators, farmers, agritourism operators in the regions and those that wish to get engaged on this sector; with donors and/or projects or donor beneficiaries (e.g., USAID, GIZ, EU, UNDP, etc.); and a review of a wide range of reports, studies and research undertaken directly and indirectly related to agritourism and, where relevant, tourism in general.

Defining Agritourism

It is an EXPERIENCE! One that provides connection to nature, rural areas and the outdoors. It can be romantic, healthy and quiet, and may involve adventure, education and/or learning.

May be a product food, specialty products, crafts

May be a service information, demonstration, participation, activity, etc.

Farm Destination

While there are many definitions, when it relates to on-farm activities, agritourism can be defined as visiting a working farm or any agricultural, horticultural, or agribusiness operation for the purpose of enjoyment, education, or participation in the activities of the farm or operation. Examples include:

Experiences

- Farm stay
- Bed and Breakfast (B&B)
- Farm events (e.g., harvest)
- Pick your own fruit/vegetable
- Working farm holiday
- Farm education

Products

- Oils
- Soaps
- Arts & crafts
- Fresh foods
- Processed farm produce such as jams, ice cream, etc.

Farm Stay Rural Ireland



www.agritours.ie

Kates Berry Farm



<https://katesberryfarm.com/>

Pacific Hazelnut USA

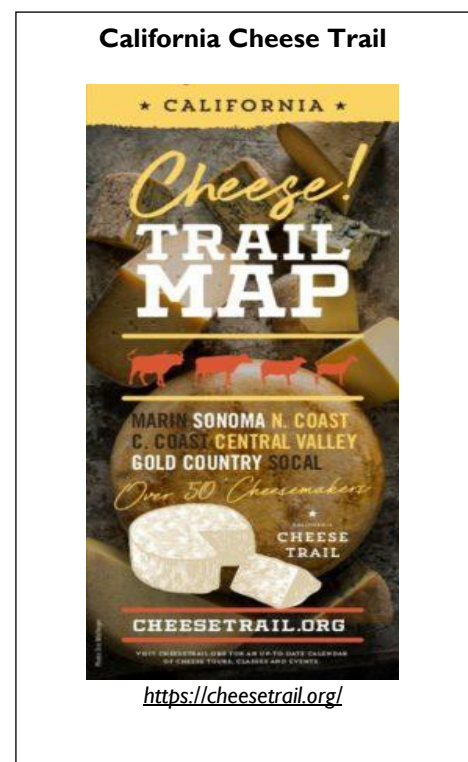


<https://www.pacifichazelnut.com/factory-tours.html>

Regional Destination

Successful agritourism destinations offer a range of off-farm activities as well. Examples include:

- Festivals;
- Events;
- Regional food outlets;
- Food trails;
- Wine trails;
- Culinary experiences such as cooking schools/classes;
- Farmers' markets;
- Opportunities to see products being made; and
- Make your own... (e.g., bread, local dish, etc.)



Around the world, Agritourism has become vitally important to farmers due to two main developments:

- Pressures from increased consolidation and productivity thanks to new and more expensive technology have forced farmers, especially those with smaller or less technically sophisticated operations, to use diversification strategies to increase their income opportunities; and

- The growing market demand for more non-urban vacation experiences and interest in travel within a rural environment.

Tourists are seeking “rural” destinations because of:

- A desire to escape city life/urban centers;
- Growing interest in natural environments;
- Search for less commercialized and inexpensive holiday alternatives; and
- Interest in authentic culture, farming heritage, good quality local foods and lifestyles.

These factors, in combination with better access to rural areas, are making agritourism a popular form of diversification for a growing number of farmers, rural communities, and tourism operators.

What is Being Sold?

Experiences

- Connection to Nature/ Rural/Outdoors
- Healthy, Quiet, Romance, Adventure
- Education, Learning – Local Culture

Agritourism Basics

- Have something for visitors to see
- Have something for them to do
- Have something for them to buy

To What Sectors Does Agritourism Belong?

Agritourism is a link in a quality territorial system that integrates agricultural, tourist, environmental, cultural and historic resources.

Agritourism Benefits

The potential benefits of agritourism development extend to farmers, rural communities, and tourism operators, and in turn have strong potential to contribute to the regional and national economy. Agritourism supports the objectives of attracting increased numbers from higher potential markets, increased length of stay, increased tourist spending and tourism receipts, and increases the value of tourism to rural communities.

Farmer Benefits

- Improving incomes and revenue streams
- Supports additional on-farm revenues directly to family members
- Expanding farm operations
- Utilization of farm-based products in innovative ways
- Developing new consumer market niches

- Increasing awareness of, and in turn demand for, local agricultural products
- Improved living conditions, working areas and farm recreation opportunities

Community Benefits

- Diversification and strengthening of the rural economy via job and income creation
- Additional revenue generated for local businesses and services from tourists
- Increased protection of rural landscapes and natural environments for residents as well as tourists
- Upgrading and revitalization of community facilities for residents and visitor
- Preserved local traditions, arts and crafts
- Promotion of inter-regional, inter-cultural business and communication supported
- Ongoing use of local agricultural products and services promoted
- Active business environment in attracting other businesses and small industries promoted

Tourism Benefits

- Diversification of mix of tourism products and services available to visitors
- Supports increasing tourism flows into rural regions
- Supports an increase in length of stay
- Increases season length during traditionally off-peak periods
- Uniquely positions rural regions in key tourism markets
- Increased contributions of foreign currency to local businesses and local economy

What, Where & Who of Agritourism



Agritourism, one of the fastest growing segments of the travel industry, includes visits to working farms, wineries and agricultural industries. Agritourism destinations offer a huge variety of entertainment, education, relaxation, outdoor adventures, shopping, and dining experiences.

Agritourism connects a farm and its products to

- other tourism operations
- other regional retail outlets

Agritourism can be offered on the farm or within the region, offering different but complementary products and experiences.

| Farm Destination | Regional |
|---|---------------------------------------|
| Experiences | Festivals |
| Farm stay | Regional food |
| Farmhouse meals | Food trails |
| Pick your own fruit/vegetable | Wine trails |
| Working farm holiday | Participatory culinary/cooking lesson |
| Farm education “open farm” | Food stalls |
| Cooking with the farmer/learning to | Farmers markets |
| Products | Make your own... |
| Fresh foods | Seeing products being made |
| Secondary products (e.g., jam/cheese) | Food tastings |
| Byproducts (e.g., oils, soaps, candles) | Events e.g., food and wine matching |

Who is the market?

- Those that are already coming to the region who could spend more time and/or money.
- Those that would come if there were more options.
- Those that want what the region offers.

Of particular interest are related tourism niches that individually and collectively have a large overlap with agritourism while maintaining their own area of focus. While this report aims to address agritourism, it is important to note these niches as primary source markets as they develop in Azerbaijan.

Related Niche Tourism

Ecotourism: According to the International Ecotourism Society, ecotourism is responsible travel to natural areas that conserves the environment and improves the well-being of local people. It is about uniting conservation, communities, and sustainable travel. This means that those who implement and participate in ecotourism activities should follow the ecotourism principles of minimizing impact, building environmental and cultural awareness and respect, providing positive experiences for both visitors and hosts, providing direct financial benefits for conservation, providing financial benefits and empowerment for local people, raising sensitivity to host countries' political, environmental, and social climate. While a concept document¹ with recommendations has been developed, it is critical that ecotourism practices be considered in all agritourism strategies and interventions in Azerbaijan.

Food Tourism: Internationally, the demand for food tourism and experiences, the popularity of farmers markets, and the appreciation of artisan producers are all on the rise, an increasing number are voting with their feet and with their wallets for authentic, good, clean and fair food – whether it be food that is produced locally or which is imported such as fair-trade tea, etc.

Culinary tourism does not have to mean gourmet food. It is increasingly about unique and memorable experiences. It includes the dining experience itself, a taste of how it should be, but it also an awareness that supporting such endeavors has the ability to generate rural development. It helps to diversity revenue sources, and improves rural employment and income levels.

Local foods – both produce and secondary products – are disappearing. To counteract this effectively, potential must be measurable and implementable, via better prices, quantities produced, and numbers employed. Producers must have economic assurance about their future, economic objectives, and environmental objectives.

The Slow Food movement continues to grow around the world. With the aim of preventing the disappearance of local food cultures and traditions, as well as counteracting the rise of a fast lifestyle and combating people's dwindling interest in the food they eat and where it comes from, the global movement now engages millions of people in over 150 countries.

¹ Concept on Sustainable Development of Ecotourism in Azerbaijan (GIZ)

Slow Food believes food is tied to many other aspects of life, including culture, politics, agriculture and the environment. Through our food choices we can collectively influence how food is cultivated, produced, and distributed, and as a result bring about great change.

In Azerbaijan, an EU-funded Slow Food project is currently in its second year of a program and is due to end in 2021. Its focus is on mapping of agrobiodiversity and traditional products, implementation of food value chain local pilot projects, implementation of rural tourism projects in pilot areas, a national campaign to promote local food consumption and sustainable food choices, an international campaign to promote rural tourism in Azerbaijan, and on participation in international events to promote food value chain and rural tourism projects.

Since 2010, UNESCO has accepted local food as an Intangible Cultural World Heritage. This status can provide tourism destinations with a competitive advantage and help them develop their brand image around it.

Examples of food cultures in developing tourism economies include:

Azerbaijan – dolma making and sharing tradition

Azerbaijan, Iran, Kazakhstan, Kyrgyzstan and Turkey – flat bread making and sharing culture

Georgia – Ancient Georgian traditional Qvevri wine making method

Tajikistan – Oshi Palav, a traditional meal

Uzbekistan – Plov culture and tradition

Rural Tourism: There are numerous definitions of rural tourism. Generally, it focuses on sustainable improvement to the quality of life of rural people, the poor in particular; encompassing a wide range of attractions and activities that take place in agricultural or non-urban areas, offering visitors the opportunity to directly experience agricultural and/or natural environments.

Sustainable Tourism: Focus on making a low impact on the environment and local culture, while helping to generate employment and future employment for local people.

Adventure Tourism: the Adventure Travel Trade Association (ATTA) defines adventure tourism as containing three main components for the traveler: 1) physical activity, 2) a connection to nature and the environment and 3) an immersive cultural experience. As tourism is one of the largest employers on the planet, it has a major impact on peoples' economic well-being and the planet's health. Furthermore, adventure tourism is inextricably dependent on human- and nature-capital; protection and promotion of these resources is key.

Responsible Tourism: focuses on making better places for people to live in and better places for people to visit. Responsible Tourism requires that operators, hoteliers, governments, local people and tourists take responsibility and take action to make tourism more sustainable

Pro-Poor Tourism: Focus on net benefits to poor people from tourism. It is an approach to tourism development and management as opposed to being a specific product or niche sector.

World Tourism Trends

Responsible Tourism

The trend in demand for responsible tourism is continuing to rise and greater account is being taken of the congestion that tourism generates and of the negative effects on resources and host communities that can come with it. Although some developers are giving extensive emphasis to Corporate Social Responsibility (CSR), in many destinations are still to include it as a basic requirement in development and potential for growth/sustainability. Green practices, such as reducing waste and emissions, using alternate energy sources, and producing natural products, have become something of a “me too” cause in recent years. Yet companies and destinations with a history in green innovation have reaped the most benefits and are making real cost savings, and will continue to do so during both periods of economic recession and growth. Green Key program for hotels for example, are ethical but also have potential to be marketed.

Community Based Tourism

There is a growing demand for transparency in social and economic benefit to communities and tourism contribution to preservation and promotion of cultural heritage. There is a growing support by the international tourism trade, including major international operators, to recognize destinations and businesses who are actively addressing these sustainability themes, incidentally this trend is in-line with the growing requirement of international agriculture buyers/importers and their market in regards to product source, fair trade etc. There is an increasing trend among tour operators in transparency in their choice of suppliers based on these themes. To support the development of community-based tourism, the implementation of ongoing tourism awareness and training plans is required as a priority.

Culinary Tourism

The tourism market internationally is increasingly being influenced and motivated by food and culinary experiences. Visitors are increasingly demanding a wide range of quality dining experiences and the availability of these experiences are influencing both destination choice and the perception of the quality of the overall holiday experience and satisfaction criteria. In addition, there is a growing demand for a variety of quality, authentic local food and culinary specialties. Tourists want to try distinctive foods that reflect the tradition, heritage and culture of a place, and which preserve traditional forms of agriculture and cultural heritage. As food, regional dishes and dining events are a major component of Azerbaijan’s history and culture, from authentic dishes to seasonal dishes, Azerbaijan and its regions have an enormous opportunity to benefit from this growing market if the range of experiences that visitors can partake in are increased and promoted, and if standards and quality are aligned with international best practice.

Digital Tourism

The trend in digital tourism continues to grow at an exponential rate, resulting in changes to the tourism supply chain and transformation of effective tourism marketing across the purchase cycle. Today's tech savvy traveler, whether 65 or 25, uses technology at every stop of their travel experience. They are being influenced on destination choice online, they are being motivated to actually choose destinations to research through online influences, they undertake pre-trip research online, packaging and booking and paying online and they post travel reviews and recommendations to their networks

during and post travel - thereby influencing their peers in destination choice. Global online travel bookings are growing at twice the rate as is the overall market. (Phocuswright).²

Aging Populations

Increases in the proportions of older persons (60 years or older) are being accompanied by declines in the proportions of the young (under age 15). By 2050, the number of older persons in the world will exceed the number of young for the first time in history. By mid-century, there will be some 2 billion older persons, a tripling of this age group in a span of 50 years. Marked differences exist between regions in the number and proportion of older persons. In the more developed regions, almost one fifth of the population was aged 60 or older in the year 2000; by 2050, this proportion is expected to reach one third.

Halal Tourism

According to ITB World Travel Trends 2019, Muslims will make up approximately 25% of the world's population by 2030 and in some Muslim-dominated markets a thriving middle-class is emerging with growing buying power and a new consumer behavior that includes an increase in international trips. With strong growth forecast, halal travel offers huge growth potential for destinations around the world. Meeting criteria for halal certification for most agricultural produce and agritourism byproducts is not considered complicated, however, having certification is a strong asset.

Developing Agritourism Resources

The high potential for agritourism development in many regions means it is critical that mechanisms be created to nurture and support the industry's growth. Starting a new endeavor or expanding an existing agritourism business requires planning, partnerships, and digging in deep to understand topics such as risk management and land-use policy. In the case of Azerbaijan, where agritourism (and to a larger extent, tourism in general) is in its infancy and there is a mandate to develop and grow the sector, it is imperative that a strong foundation is set in place that facilitates growth, develops and provides the resources required, directs farmers to existing resources and provides a forum to gather feedback from farmers and other regional stakeholders. One of the most effective ways involves developing a form of Agritourism Resource Center that can provide a 'one stop shopping' support for nascent and established agritourism operators.

Services Provided

Agritourism Resource Centers generally provide an ever-evolving set of services customized to their stakeholders. These services and resources reflect a combination of the capacities of the organization to develop and deliver them, as well as the industry and government issues and priorities that require attention. While it is not unusual for many of these services to be promoted as being part of a centralized 'one stop shop' office, in many cases such 'support products' are delivered by specialized suppliers such as specific government agencies, commercial consultancies, non-government organizations, universities, etc.

² Global Online Travel Overview 2019

Information– providing customized (often contract-based) contacts, references, background information, and supporting documentation in hard copy and /or digital formats.

Technical Summaries – preparing tailored (often contract-based) agritourism policy, planning, development, and management reports on specific issues in hard copy and/or digital formats.

Newsletters - periodic digital and/or hard copy newsletters concerning agritourism business topics such as new products and services, market trends, management strategies, legislation changes, upcoming conferences, etc.

Conferences and Workshops - periodic regional and national workshops on agritourism issues, business management, partnership development, leadership and management strategies, emerging legislation interpretations, etc.

Product Quality Assurance Programs - development and delivery of quality assurance programs for approved agritourism products and services.

Marketing and Promotion Programs - development and management of web-based agritourism business directories, destinations, products and services. Development and distribution of agritourism, advertising and public relations information with tourism industry, agricultural and community partners, etc.

Risk Management Programs - development and management of agritourism risk management insurance programs in conjunction with insurance companies

Human Resource Recruitment – development, management, and delivery of agritourism labor force recruitment, training, and retention programs

Advocacy - providing advocacy positions and lobbying support for initiatives requiring the approval of governments and other stakeholder organizations (e.g., facilitating legislation, funding and technical support, etc.

Reference Centers – collecting, classifying and distributing print and/or digital book, periodical, report, audio-visual materials on issues related to various agritourism management issues

Information Resources

An effective Agritourism Resource Center provides leadership in the development and distribution needed to support the development of competitive agritourism products and services. Information should relate to specific planning, development, and management issues deemed to be particularly important to key stakeholders. An important role is to actively work with its partners to establish these priorities. Required and effective information generally covers particular themes:

- Understanding agritourism markets and their behaviors
- Assessing agritourism’s fit with current farming operations
- Dealing with government policies
- Addressing financial considerations

- Establishing effective marketing programs
- Developing customer-friendly service programs
- Creating responsive risk management programs
- Establishing credible product and service quality standards
- Building strategic partnerships
- Managing agritourism product development opportunities

Agritourism Resource Center Models

Agritourism is recognized as a viable contributor to agriculture, tourism and regional economies, and with it the accelerating recognition of the need to nurture the sector's development as a business. Therefore, comprehensive support systems, designed to nurture the development of this sector are growing. In general, Agritourism Resource Centers operate as one of three models with each providing varying types and levels of 'one-stop shopping' services.

The Government Agency Service Model

With roots in interests associated with agricultural land, food security and food quality, a growing number of governments are developing agritourism units, usually within ministries responsible for agriculture. They are supported primarily via on-going government funding for a small group of 'agritourism specialists' and related administrative staff. At times, they receive additional resources for 'one-off' projects that foster public-private sector partnerships with farming organizations (e.g., training workshops, research, and quality standards program development) or through development projects, etc. They provide "one-stop shop" information to both established agritourism operators and prospective operators concerning:

- Policy and regulatory requirements;
- Business development and management resources;
- Incentives such as available grants, access to finance, etc.;
- Relevant training programs; and
- Product and service promotional opportunities.

Some government-run resource centers play a proactive role in helping industry and community organizations fund and manage applied research projects designed to address current and emerging agritourism challenges (e.g., market research, risk management, market development, etc.).

The Self-Regulating Service Model

In some areas, Agritourism Resource Centers exist as part of a self-regulating industry organization, specifically designed to be at arm's length from government control. Typically, they are initially funded by a government grant or public-private sector agreement covering a prescribed incubation period, e.g., 3-5 years, and are then expected to be self-sustaining. Usually their mandate includes:

- Sharing and coordination of information on farm business management practices which prevent duplication, encourage cost-sharing, and build partnerships;
- Acting as a dialogue forum on farm business management issues; and
- Assisting in the development and distribution of information concerning products and services which help increase the competitiveness of agritourism businesses.

The University Extension Service Model

Agritourism has emerged in recent years as a new 'product line' for some post-secondary academic institutions. Typically, they are supported by a combination of funding, including:

- University budgets for core faculty and administrative staff; and
- Government contracts for limited term, e.g., 3-5 years, for ongoing program initiatives (such as education and information dissemination); and shorter-term contract-based consulting and research for specific industry and government agencies.

Background – Tourism and Regional Tourism in Azerbaijan

Tourism in Azerbaijan

According to the most recent available World Travel and Tourism Council figures,³ in 2017 travel and tourism directly supported 173,500 jobs (3.8% of total employment) in Azerbaijan. This was expected to rise by 4.7% in 2018 and a further 3.1% per year to 246,000 jobs (5.3% of total employment) in 2028.

Visitor exports generated AZN 5.59 billion (USD 3.24 billion), 16.5% of total exports in 2017. This was forecast to grow by 9% in 2018, and grow by 6.1% annually, from 2018-2028, to AZN 11.03 billion (USD 6.39 billion) in 2028, 19.6% of the total.

Travel and tourism investment in 2017 was AZN 486.3 million, 2.9% of total investment (USD 281.8 million). It was expected to rise by 5% in 2018, and rise by 4.2% annually over the next ten years to AZN 773.7 million (USD 448.2 million) in 2028, 3.2% of the total.

Leisure travel spending (inbound and domestic) generated 81.1% of direct travel and tourism GDP in 2017 (AZN 6.07 billion) compared with 18.9% for business travel spending (AZN 1.41 billion). Leisure travel spending was expected to grow by 5.2% in 2018 to AZN 6.39 billion, and rise by 6.1% per year to AZN 11.52 billion in 2028. Business travel spending was expected to grow by 10.6% in 2018 to AZN 1.56 billion, and rise by 6.2% per year to AZN 2.86 billion in 2028.

Domestic travel spending generated 25.3% of direct travel and tourism GDP in 2017 compared with 74.7% for visitor exports (i.e., foreign visitor spending or international tourism receipts). Domestic travel spending was expected to fall by 1.9% in 2018 to AZN 1.86 billion, but rise by 6.1% annually to AZN 3.35 billion in 2028.

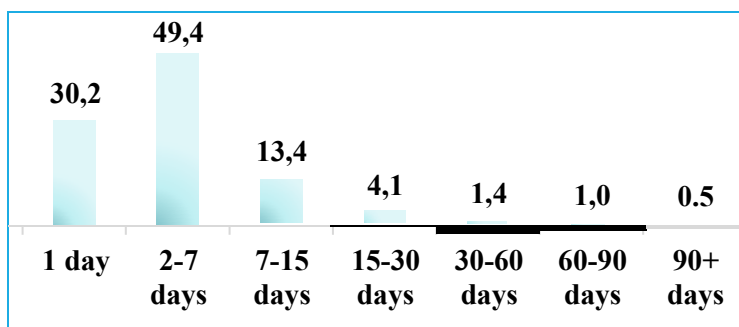
Regional Tourism

Length of Stay in Regions

According to research by the State Tourism Agency,⁴ the mean length of stay of those who travel to regional areas in Azerbaijan is 6 days.

³ WTTC Travel & Tourism Economic Impact 2018 Azerbaijan

⁴ Report of Azerbaijan Regional Tourism Destination Survey



Source: State Tourism Agency

Length of Stay by Region

Of those who travel to the regional areas of Baku, Lankaran, Quba, Ganja, and Sheki, approximately one-third spend one day and approximately half spend 2-7 days.

| | Baku | Lankaran | Quba | Ganja | Sheki |
|------------|-------|----------|------|-------|-------|
| 1 day | 25.6% | 23% | 35% | 34% | 37% |
| 2-7 days | 45.4% | 43% | 51% | 51% | 59% |
| 7-15 days | 21.1% | 16% | 8% | 11% | 3% |
| 15-30 days | 5.2% | 9% | 2% | 3.0% | 0.9% |
| 30-60 days | 1.6% | 4% | 0.8% | 0.8% | 0.2% |
| 60-90 days | 1.0% | 4% | 1% | 0.0% | 0% |
| 90+ days | 0.1% | 1% | 1% | 0.4% | 0% |

Source: State Tourism Agency

Length of Stay in Regions Azerbaijani vs. Foreign

The average length of stay in those regional areas is similar for Azerbaijani visitors as it is for foreign visitors, though it is not clear how many of the foreign visitors are foreign nationals residing in Azerbaijan.

| Length of Stay | Azerbaijani | Foreign |
|----------------|-------------|---------|
| 1 day | 32.1% | 28% |
| 2-7 days | 48.6% | 50% |
| 7-15 days | 11.3% | 16% |
| 15-30 days | 3.8% | 4% |
| 30-60 days | 1.8% | 1% |
| 60-90 days | 1.5% | 0.5% |
| 90+ days | 0.7% | 0% |

Source: State Tourism Agency

Agritourism in Azerbaijan

The activities represented within each pillar of Product and Experience and of Marketing and Promotion individually and collectively, help drive growth to the sector, while the enabling environment platform provides the foundations conducive to agritourism development and economic advantages. To be effective, they must be developed in tandem, with each pillar, as well as the enabling environment, informing each other on the development of strategic objectives and also the activities and interventions required to reach those objectives.



Strengths and Weaknesses

Products and Experiences

| Strengths | Weaknesses |
|---|--|
| <ul style="list-style-type: none"> • Natural assets • National environment • Regional diversity • Development activities • Latent desire • Culture & Hospitality • Market • Festivals | <ul style="list-style-type: none"> • Industry engagement • Market driven products and experiences development • Trails and clusters • Number of Experiences • Level of engagement • Interpretation • Range of products for purchase • Branding • Events, festivals and off farm experiences |

The culture, heritage, and regional diversity of Azerbaijan is a key strength in potential authentic stories to tell through products and activities. There have been and continues to be an increase in products and experiences both on the farm and off the farm. However, the number of products (including farmhouse accommodation) and experiences, type of experiences based on market need, and the level of engagement for tourists in existing experiences remains low. In addition to a reported lack of knowledge in the types and “how-to’s” in set up of agritourism products and experiences, for all

potential agritourism businesses, including significant sized farms with engaged entrepreneurs, there are prohibitive factors specific to smallholder farmers who cannot afford to address requirements such as food safety certification, packaging, etc.

The level of interpretation and engaging the visitor with various authentic stories offers great potential and opportunity. There is great potential to increase the range of products. A number of farmers are providing farm-related products such as jams; however, for many visitors the story of “jam,” such as how it is consumed in Azerbaijan, i.e., from a spoon while drinking tea as opposed to on toast, is an example of a cultural story that could be told. While work is being undertaken on handcrafts, a national strategy on the development of handcrafts, including agritourism-driven items, would increase the product offering, increase the number of those engaged/employed, support an increase in the value of agritourism/tourism to the economy, and support protection of cultural heritage.

While there is a growing number of outlets, both online and offline, for authentic agritourism products through projects such as Village-to-City, ABAD, and so on, the baseline is low and the range of authentic products and outlets does not meet the potential. While some trails are being developed, there is potential to increase the number and type of trails based on experience/length of time available in the region, etc.

While agritourism trails could be developed based on particular products (e.g., a Honey Trail, as well as general agritourism trails that include an offering of a range of products and experiences), developing clusters based on existing visitor hubs – e.g., based in Sheki and travelling out from Sheki – increases the spread of tourism into rural areas and offers potential for targeted growth and the creation of further tourism hubs as tourism numbers grow. In addition, the offering of multi-country trails, such as those offered by international operators such as Intrepid and Peregrine, which provide fixed-date tours that include both Azerbaijan and Georgia for tour group visitors looking for an authentic cultural experience incorporating food and agritourism, highlights the potential for multi-country trails and tours for tour groups, but also suggests the need for multi-country trails for independent travelers who do not want to travel on pre-set dates or in a tour group.

Marketing and Promotion

| Strengths | Weaknesses |
|---|--|
| <ul style="list-style-type: none"> • Agro Procurement and Supply • State Tourism Authority • Engagement • Food in International Marketing • Branding (Village to City) | <ul style="list-style-type: none"> • Marketing capabilities of farmers/support • Cross promotion of products and experiences • Awareness • Access to information for tourists • Targeted promotion – purchase cycle |

Marketing and promotional activities with a local food and culture focus are being undertaken both internationally and domestically, with both visitors and, to some extent, the travel trade. With new resources such as national tourism representation in key markets, and the level of awareness and consideration of Azerbaijan as a destination likely to increase, it is critical that this translates to the regions. New concepts such as the Village-to-City branding for fresh and processed produce are positive solutions in a developing agritourism destination. However, lack of engaging content on individual agritourism product/experiences and lack of marketing capabilities of individual operators/farmers or marketing and promotion services for micro agritourism businesses, reduces both potential visitor motivating factors and engagement, as well as the ability of operators/farmers to promote their businesses. Further, as the private sector, such as tour operators, are not engaged in development of the sector from the outset, there is limited awareness of the products and experiences being developed and therefore they are not being considered in the design or promotion of their product offering to partners internationally.

There is a lack of cross-promotion of agritourism business by produce, e.g., honey, and by region, e.g., agritourism operators promoting each other within a region or at key locations, such as national parks providing information/relevant agritourism produce through their ticket offices.

While to some extent this is being addressed by individual projects, there is an overall lack of information for tourists on agritourism products and experiences for those visitors that may consider Azerbaijan or individual regions as a destination, those that are planning to visit, or those that are in country or in the region and looking for things to do. According to Phocuswright, 85% of U.S. travelers, for example, use mapping apps during their time in destination. While markets differ, according to Phocuswright, 53% of travelers book activities within 7 days, 20% of which were on the same day.

Enabling Environment

| Strengths | Weaknesses |
|--|---|
| <ul style="list-style-type: none"> • Government engagement • Volume of development & output growth • Training • DMOs • TICs | <ul style="list-style-type: none"> • Strategy – implementation plan • Cohesive approach • Silos • Agritourism resource & toolkit • Regulatory environment • Risk management • Workforce development • Skills – Tourism, Business, Soft • Language • Question of environmental protection • Question of insurance risk • Question of access to finance |

A key strength supporting potential growth to the agritourism sector is the government focus on developing both tourism and agritourism. Agritourism has been highlighted as a potential opportunity for development at a national level with activities being undertaken throughout the country (to varying degrees), at a regional level, and at a local level through local representatives and agencies. A wide variety of tourism research has been/is being undertaken and it is influencing key strategic decision-making and planning.

While much work is being undertaken throughout the country and there is strong government and government agency support and activities, agritourism in Azerbaijan is very much in its nascent stage. While there has been private sector engagement such as when new products and experiences have been developed (e.g., the "fam" (familiarization) visits facilitated by the USAID PSA project in coordination with Agro Procurement and Supply Company in December 2019), the need for an agritourism/rural tourism association has been recognized by various government agencies. The State Tourism Agency has developed an Action Plan Strategic Road Map 2020 Development of Rural Tourism that is being implemented and does go a way to address a number of the gaps/sector weaknesses highlighted in this report.

Very positively, the State Tourism Agency highlighted the need and started implementing the roll-out of Destination Management Organizations (DMOs) throughout the country, with an initial three DMOs already functioning in the key areas of Sheki, Quba and Lankaran. Employing 4-5 staff members in each region, their role is focused on product development, marketing communications and HR and standards. Encouragingly, in each of the three regions visited, the DMO Directors are motivated, proactive and focused on delivering their work plan in their region, while being engaged on a national level through direct line reporting to the STA in Baku; some level of private sector engagement does seem to be underway; and while the role of the DMO is on tourism in general, agritourism has been highlighted as a key area of focus.

However, as yet there is no association or working group that includes both the public and private sector in developing and implementing an agritourism strategy that is focused on product and experience development based on market demand, in tandem with the creation of an enabling environment as a platform to support growth of the sector. To support ownership, efficacy, success and sustainability, an agritourism strategy is developed with both the private and public sector engaged at all stages of strategy, including strategy development and implementation.

There is no one-stop-shop agritourism resource for farmers who have a potential interest in agritourism, but don't have an understanding of what it is, what they need to consider in regards to feasibility, regulations, etc. Questions such as those related to tax legislation have been highlighted as a barrier to entry for many farmers, so provision of information that answers these questions is crucial. A number of elements of the enabling environment as it relates to policy and regulatory environment are currently being addressed. For example, there are activities in place with objectives to address the law as it relates to tax legislation and standards for rural guesthouses. There is no agritourism-specific resource that both represents farmers and provides information or guidance to them on which laws and regulations specifically apply to and impact them. While an Agritourism Resource Center of sorts is required, as outlined under the Agritourism Resource chapter, it is not a requirement to create a new entity to play this role. A possible solution to be considered could sit under the remit of the State Tourism Agency DMOs as they are rolled out. As outlined above, DMOs are already engaged with stakeholders in the region and engaged in the sector in regards to driving growth. DMO workplans already include some of the requirements and do include activities that address some of the challenges,

so while further human resources would likely be required within each DMO, expanding mandates to include the provision of information and training for farmers could be a possible strategic solution.

While some support does exist, such as the GIZ program that has included resources, such as a guesthouse handbook, and will roll out much needed training, there is no specific agritourism handbook outlining specific information on the why, how, who, where, when of starting or running an agritourism business. An agritourism handbook, online and in print, tailored to answer questions farmers have or don't know to ask, that outlines or provides guidance on the potential of agritourism, risk management, business plan development, etc. or what potential solutions do exist, would support farmers/entrepreneurs who are already engaged in agritourism have potential interest in being involved and help raise awareness with those who have not yet considered agritourism.

While there is a justifiable requirement for food safety certification, current regulations automatically impede the potential for smallholder farmers to benefit/get involved/increase the product offering in agritourism. Further, international best practice as well as STA research⁵ suggests the need for training in areas such as safe food handling.

There are key questions surrounding risk management, insurance risks and requirements, access to finance, environmental risk management, etc. However, some of the individual elements are being considered, such as a potential new ADB-supported project addressing access to finance for agritourism development. If there were an effective Agritourism Resource Center, these are some of the areas that could be addressed.

While much needed and effective training has been undertaken or is planned and supported by donor projects such as USAID PSA, GIZ and EU's Slow Food Project, SRRD, and other activities, there is no resource to fulfill farmer specific requirements and support farmers before, during, and after rollout of an agritourism activity. Feedback and international best practice suggests the need for ongoing guidance and mentorship and training. Having trained trainers/mentors in the regions over the long term would support developing agritourism, a sustainable solution following the life of donor projects, and a sustainable regional agritourism sector moving forward.

Potential Project Interventions

There are a number of areas that need to be addressed, focusing on key areas of support possible within the PSA Project timeline and budget. Consideration has been given to strategic, achievable solutions, that are possible within the current environment, support a strong agritourism framework, support sustainability and, where possible, are aligned with PSA's Work Plan. While not exhaustive, consideration has been given to the opportunity to facilitate activities generated by an industry working group and/or an agritourism strategy as they evolve.

I. Facilitate Agritourism Working Group – PPP

While there is need for an agritourism/rural tourism association, as highlighted, there is also a need for the private and public sector to work together on developing an agritourism strategy focusing on products and experiences that are developed based on market demand, ensuring private sector engagement and ownership; on market and promotion focused on the rollout of agritourism

⁵ Analysis of Regional Tourism in Azerbaijan – Restaurants, Hotels & Wineries

experiences and the creation of an enabling environment that is created in conjunction with and according to the needs of the sector.

While there are many and varied definitions of a PPP, in this case it is meant as an alliance or a form of cooperation between government and private sector stakeholders that agree to work together to reach the common goal of a robust agritourism sector, while jointly assuming the risks and responsibilities and sharing resource competencies. It is the pursuit of a common objective through collaboration of the public sector actors who generally have responsibility for the development, governance, institutionalization and sustainability of the sector to support growth in agritourism and the value to the economy, and the private sector stakeholders, who generally have a vested interest.

While the three areas of Product and Experience development, Marketing and Promotion, and Enabling Environment have distinctive challenges and opportunities, there is a vast overlap with both opportunities and impact feeding across each category.



To use the example of tour operators as private sector stakeholders, they understand what their visitors require and can provide valuable input into the highest priority requirements in regards to the type and location of product and experience development; they will also play a key role in promoting the sector to their international and local partners, requiring both advance planning and also ownership and buy-in of the sector; through their international networks they aim to fulfill demand of the international tourism sector and promote local experiences to their network; they represent the customer who requires an experience that will fulfil on or exceed expectations; and therefore they have an interest in quality and service standards, certification, and so on.

An important consideration in the objective of a multi-stakeholder partnership, is to include representation of small and medium-sized enterprises that will both develop the products and experiences and require support in doing so.

Facilitating a formal industry working group that is responsible for implementing as well as designing a strategy would support a top-down and bottom-up approach, support more focused efforts, alleviate bottlenecks, and maximize sustainable success. Facilitating such a partnership would align the sector with international best practice and support a platform for sustainable growth within and after the lifetime of the PSA project.

While PSA could facilitate the working group, with responsibility for coordination of the meetings, minutes, sourcing experts and/or providing relevant solutions as they arise, in order to support

ownership and sustainability, it is not recommended that PSA undertake the role of Chairperson. The Chairperson could either be an individual from the Agro Procurement and Supply company tasked with developing agritourism or from from the State Tourism Agency (which based on its current mandate may have more longevity as well as vested interest), or could be nominated by the industry working group.

The objective of the working group would be to implement, as well as develop, an agritourism strategy, with regular meetings planned in line with key objectives. Monthly meetings would be recommended for a formal working group with more regular meetings undertaken by sub-groups as required.

Three sub-groups could be Product and Experience Development; Marketing and Promotion, and Enabling Environment – while developing detailed strategies, these sub-groups would need more regular meetings such as weekly, while during implementation may only require once meeting prior to the main group meeting. Sub-groups (that could include further participants as necessary for individual activity) could be tasked with developing/implementing the strategy/workplan activity, with the team leader of the sub-group reporting back, and gathering feedback, at each industry working group meeting. It is imperative that each stakeholder representative has the opportunity to provide input on all areas of business – e.g., while a tour operator may be directly tasked within the product and experience development sub-group, their input in service and quality standards that meets customer requirements is critical.

The agenda for each working group meeting should include

- A review of the minutes and resulting action plan undertaken at the previous meeting
- A report from each sub-group/relevant stakeholder in regards to each action
- Next steps
- Other business and relevant news and updates
- Assignment of actions to relevant stakeholder with timelines

Distribution of minutes to each working group member should be undertaken within two working days to ensure clear communication in allocation of tasks and responsibilities.

Industry working group focus

Plan – Implement – Report – Plan

Potential Members (e.g.)

Agro Procurement & Supply company

State Tourism Agency

Ministries of Agriculture, Education, Environment, Ecology & Natural Resources

National Association of Rural Municipalities of Azerbaijan

Association of Travel Agencies of Azerbaijan

Tour Guides

Azerbaijan Hotel Association

Farmers Associations

Participation in Donor/Project Coordination Meeting Group

As a new donor/project coordination meeting group has been established by the EU SRRD Project, it is also recommended that an appointed representative or the heads of each sub-group participate in the meetings with the objective of providing feedback on strategy development and implementation, as well as sourcing solutions/partners for projects highlighted within the workplan. While it may not be necessary to attend each meeting, attending once every three months would be advisable.

II. Implement a Regional Facilitative Train-the-Trainer/ Facilitator Program

While the need for an Agritourism Resource Center has been highlighted above, ongoing support for existing and potential agritourism operators is critical. Trainings being undertaken are transformational, however the resource availability of agritourism development facilitators/mentors and trainers is critical to development and to sustainability. A train-the-trainer program of facilitative trainers, available in the regions, would provide an invaluable resource in regional areas. A potential partner in rolling out this intervention could be the DMOs who already include many direct and indirect agritourism-related activities in their work plans. While additional human resources would likely be required within each team, there is a potential for these train-the-trainer/facilitator trainings to be undertaken by some existing staff members. Having these resources in place would also provide sustainability for trainings undertaken by other donor projects in regional areas.

Example Areas of Training

Developing Agritourism Products and Experiences – e.g., Physical interventions, experience implementation, safe food handling, pricing, etc.

Agritourism/Tourism Soft Skills – e.g., Hosting visitors, developing and sharing information/stories, communications, conflict resolution, etc.

Agritourism Start-up – e.g., Business plans, available access to finance, regulatory requirements, opportunities, feasibility studies, etc.

III. Agritourism Handbook

Develop a print and online (print-friendly) Agritourism Handbook for farmers (or an aspiring farmer), those that have a tourism business that works with farmers, or budding entrepreneurs with no land but an agritourism venture idea. Having the Handbook's content in the form of PDF documents would also allow for downloading and printing as needed.

Chapters and topics could include:

- What is agritourism?
- Why get involved?
- Market trends in agritourism
- Assessing potential for agritourism
- Complying with legal and regulatory requirements
- Managing risk
- Developing an agritourism business plan
- Marketing your agritourism venture
- Developing and delivering a compelling visitor experience
- Agritourism resources

IV. Agri-Food Processing Intervention

While not purely an agritourism challenge, it has been highlighted that many smallholder farmers do not have the means to process produce in line with food safety requirements. Lack of food safety certification, branding, packaging, eamd so forth is a barrier to the agritourism market. If a group of farmers had access to a low-cost facility, this would alleviate this barrier and enable more farmers to operate/benefit from agritourism. The intervention could be undertaken as a pre-determined farmer community/common-use facility or with a single benefactor who provides a low-cost, fee-based solution within a geographic area. Consideration should be given to seasonality, e.g., as the hazelnut processing season generally lasts from August through December, having a facility that can process hazelnuts and dried fruits would ensure year-round use, or at least extend the season.

Benefits

Allows for food safety certification

Allows smallholder farmers to get involved

Further activities could include joint branding/labelling – with traceability to individual farms on rear label

Cross-selling of community products

Addresses costs (printing, etc.)

Supports year-round sale of produce

Increases quality agritourism product offerings

Supports export opportunities

V. Small Grants Program

The areas of required support for existing agritourism operators to fully leverage potential and for those that wish to commence operations are vast. While access to information and mentoring is critical, financial support that is provided to complete a step that supports an increase in operators that are “market ready” would support a potential increase in the number of agritourism operators and increase the product/experience offering of those already involved.

Possible interventions to be undertaken by PSA could include support in physical interventions such as signage, seating areas, and/or interpretation and presentation of experiences in specific regional areas, and they in turn could be used as pilot projects. While the specific guidelines for a small grants program would need to be developed, DMOs in Lankaran, Sheki and Quba have commenced gathering an inventory of potential operators requiring specific support, making the State Tourism Agency, and their DMOs specifically, ideal partners in the roll-out of the program. However, if PSA facilitates an industry working group and the development of an agritourism strategy, a small grants program could be rolled out to support key activities highlighted within the resulting strategy, aimed at supporting an overall strategy element and more likely to support successful outcomes.

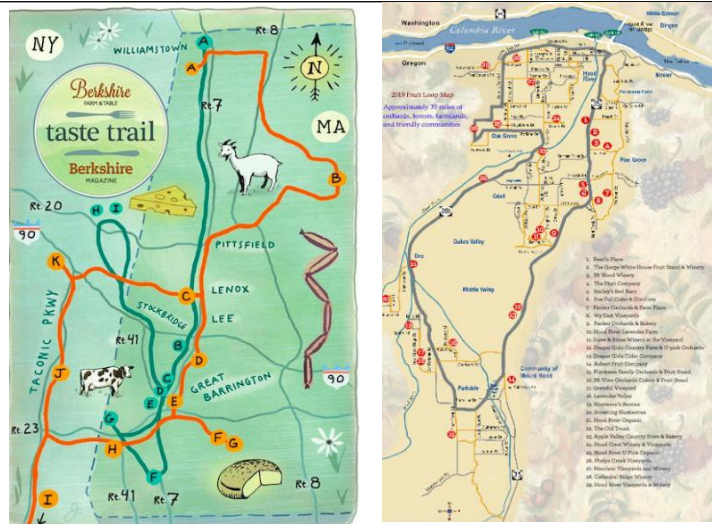
VI. Pilot Trail Development (include map/create your own map)

While DMOs have developed hard copy maps for the regions of Quba, Sheki, and Lankaran that include markings for existing agritourism facilities, the maps do not allow space for information on the actual agritourism business, the experience, or contact details. With such a large proportion of visitors wanting to book/organize activities at short notice while traveling, having the facilities to do so both

fulfills market demand and also increases the potential of an increased number of activities during a visit, as well as increased spend and value to the region. While there is demonstrated potential for visitors in country, an online map with engaging content for each visitor option highlighted on the map would increase engaging content available during pre-trip planning as well as the ability to add additional visitor options to the map as more agritourism providers are business ready and/or are in season.



A map (right) that highlights products and experience, provides contact details and information on the facility and the experience on offer, and is downloadable/printable increases engagement for potential visitors. For example. See the following link to a map of the Hood River Fruit Loop trail in Oregon:



<https://hoodriverfruitloop.com/travel-tips/fruit-loop-map>

A trail map based on individual experiences, such as the following Berkshire Loop map (above left) , provides an opportunity to highlight particular produce in the region, e.g. berries in the South, or honey in the Northwest:

<http://www.berkshirefarmandtable.org/taste-trails-cheese/>

A map that allows visitors to see options based on accommodation, experiences, agritourism outlets and so on and then allows them to plan their own trip, and download a personalized map to their phone/ (or a printable version for those who do not have mobile data access on the road) would both provide engaging content and also enhance the visitor experience.

VII. Study Tours

Study tours are already included in the USAID PSA Work Plan. Where relevant, extending these study tours to include a focus on agritourism would provide an opportunity to increase knowledge of types of products and experiences and most importantly, the key success factors of successful agritourism destinations. For maximum results, the study tour should include members/stakeholders from both the private and public sectors. For example, a Study Tour to Oregon, which is a strong example of a successful agritourism destination, has already been considered by PSA. While experiencing actual agritourism products and experience is important, a study tour should include visits to and meetings with resource organizations and individuals that support the sector too, such as the Oregon Agritourism Network, Agritourism Resource and Industry Organizations in Oregon, Travel Oregon, universities, agritourism farms and other agritourism-related businesses.

Conclusion

The development of agritourism in Azerbaijan is growing, as is the market for agritourism products and experiences. However, as the international demand for agritourism grows, along with the value of economic returns nationally and to regional and rural areas, it is becoming increasingly competitive as a growing number of developed and developing economies leverage the opportunity and thereby increase the range and value proposition in the marketplace.

It is therefore critical that a robust framework and platform for the sector is developed, that there is a sector wide approach in the development of agritourism in Azerbaijan, protecting, preserving and presenting the unique assets and thereby unique selling points, that the country and the regions offer; developing products and experiences, and services that meet and exceed market demand; marketing and promotion to the highest potential markets, attracting more visitors, increasing tourism spend and increasing the value of agritourism in rural areas.

While it cannot be the role of the PSA Project to develop agritourism overall, there is enormous potential in supporting key areas that will have a significant impact on the foundations of the agritourism sector, thereby enabling growth now and sustainable success after the life of the PSA Project.

Bibliography and Reports Reviewed

| | |
|--|--|
| Analysis of Regional Tourism in Azerbaijan | State Tourism Agency of the Republic of Azerbaijan |
| ASAN Pilot Survey Tourism Satisfaction Results | State Tourism Agency of the Republic of Azerbaijan |
| Action Plan Strategic Road Map 2020 Development of Rural Tourism | State Tourism Agency of the Republic of Azerbaijan |
| Draft Tafsiliati Plan - The Tourism Strategic Road Map Detailed Plan | State Tourism Agency of the Republic of Azerbaijan |
| Year Book 2019 | State Tourism Agency of the Republic of Azerbaijan |
| Report of Azerbaijan Regional Tourism Destination Survey | State Tourism Agency of the Republic of Azerbaijan |
| Report of Marketing Research with Tourists Leaving Country | State Tourism Agency of the Republic of Azerbaijan |
| Strategic Roadmap for Development of Specialised Tourism Industry in Republic of Azerbaijan | Center for Analysis of Economic Reforms and Communication |
| Travel and Tourism Economic Impact 2018 Azerbaijan | World Travel and Tourism Council |
| Azerbaijan's Tourism Sector – Opportunities and Obstacles | Center for Economic and Social Development (CESD) |
| Azerbaijan, 2019–2023 ^[1] _{SEP} —Promoting Diversified and Inclusive Growth | Asian Development Bank |
| World Travel Trends 2018 2019 | IPK International for ITB Berlin |
| The Development of Ecotourism in the World: Azerbaijan Case | 8th Silk Road International Conference “Development of Tourism in Black and Caspian Seas Regions” |
| Strategic roadmap for vocational education and training sector in the Republic of Azerbaijan | State Tourism Agency of the Republic of Azerbaijan |
| Concept on Sustainable Development of Ecotourism in Azerbaijan | GIZ |
| Sowing the Seeds for Sustainable Development: Supporting small businesses in north-west Azerbaijan | UNDP, EU, State Tourism Agency |

**APPENDIX F. Azerbaijan Fruit and Vegetable Value Chain
(VC) Prioritization and Gaps Assessment**



USAID
FROM THE AMERICAN PEOPLE

AZERBAIJAN

VALUE CHAIN PRIORITIZATION, ANALYSIS, AND ACTION PLANS

USAID PRIVATE SECTOR ACTIVITY IN AZERBAIJAN



REVISED FINAL REPORT

2020

Prepared for review by the United States Agency for International Development under USAID Contract No. 72011219C00001, Private Sector Activity (PSA) implemented by CNFA.

VALUE CHAIN PRIORITIZATION, ANALYSIS, AND ACTION PLANS

USAID PRIVATE SECTOR ACTIVITY IN AZERBAIJAN SEEDDEV

USAID Contract

Implemented by CNFA

Submitted to:

Samir Hamidov

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Submitted by:

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USAID Contract

72011219C00001

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DISCLAIMER

The author's views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

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TERMS AND ACRONYMS

| ACRONYM | DESCRIPTION |
|--------------|--|
| ABAD | ASAN Support to Family Business |
| AFSA | Azerbaijan Food Safety Agency |
| AKIA | Azerbaijan Agency for Agro Credit and Development |
| ASAP | Agricultural Support to Azerbaijan Project |
| AZN | Azerbaijani Manat |
| BRC | British Retail Consortium |
| CIS | Commonwealth of Independent States |
| COMTRADE | UN COMTRADE is a repository of official international trade statistics |
| DAIM | State Agrarian Development Centers of the Ministry of Agriculture |
| EDF | Entrepreneurship Development Foundation |
| EU | European Union |
| EU 15 | EU Member States Accessed to EU before 2004 |
| EUROSTAT | Statistical Office of the European Union |
| FAO | Food and Agriculture Organization |
| FAS | Foreign Agricultural Service |
| FSSC | Food Safety System Certification |
| FVO | Food and Veterinary Office |
| GABA | Ganja Agribusiness Association |
| GDP | Gross Domestic Products |
| GI | Geographical Indication |
| GlobalG.A.P. | Global Good Agricultural Practices |
| GoAJ | Government of Azerbaijan |
| HACCP | Hazard Analysis and Critical Control Points |
| HS | Harmonized System |
| ICT | Information and Communications Technology |
| IFS | International Featured Standards |
| IPM | Integrated Pest Management |
| ISO | International Organization for Standardization |
| ITC | International Trade Center |
| MAP | Medicinal and Aromatic Plants |
| MENA | Middle East & North Africa |
| MoA | Ministry of Agriculture |
| MRL | Maximum Residue Limits |
| MT | Metric Ton |
| NGO | Non-Governmental Organization |
| NMS | New Member State (EU Member States Accessed to EU after 2004) |
| OHSAS | Occupational Health and Safety Assessment Series |
| PPEAA | Pomegranate Producers and Exporters Association of Azerbaijan |
| PSA | Private Sector Activity in Azerbaijan |
| SME | Small and Medium Enterprise |
| SPS | Sanitary and Phytosanitary |
| SSC | State Statistical Committee |
| U.S. | United States |
| UAE | United Arab Emirates |
| ULO | Ultra-Low Oxygen |

| | |
|-------|--|
| UN | United Nations |
| USAID | United States Agency for International Development |
| USD | United States Dollar |
| USDA | United States Department of Agriculture |
| UTZ | program and label for sustainable farming |
| VC | Value Chain |
| VCAP | Value-Chain Action Plan |

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I EXECUTIVE SUMMARY

The objective of this Value Chain Prioritization, Analysis and Action Plans report is to assist the USAID Private Sector Activity in Azerbaijan (PSA) to identify priority value chains, identify gaps in the selected value chains, and develop Value-Chain Action Plans (VCAP) to achieve improvements in the selected value chains.

This document will first offer a general overview of agriculture in Azerbaijan, followed by a detailed discussion of the value-chain analysis and selection process. Following these general sections, the document will offer detailed value-chain analyses and action plans for each of the selected product groups, with a focus on particular products:

- Berries: Focus on strawberry, considering raspberry, blueberry, blackberry (Group I: Priority Group)
- Perishable Vegetables: Focus on tomato (Group II: Market Diversification and Quality Group), considering pepper and cucumber (Group III: New Technology Dissemination Group)
- Nuts: Focus on Hazelnut (Group I: Priority Group)
- Pomegranate: (Group I: Priority Group)
- Persimmon: (Group II: Market Diversification and Quality Group)
- Stone Fruits: (Group III: New Technology Dissemination Group)
- Pome Fruits: Focus on apple (Group II: Market Diversification and Quality Group)
- Table grape / Kiwi / Feijoa (Group III: New Technology Dissemination Group)

Figure I: Value Chain Groupings



II OVERVIEW OF AZERBAIJAN AGRICULTURE

The agricultural sector of Azerbaijan contributes 5.6% of the country's GDP, but it is a key employer providing employment for about 36.4% (1.75 million jobs) of the country's labor supply and generating two-fifths of household incomes in rural areas. The total gross output of agriculture in 2017 was 6.58 billion AZN, of which 3.01 billion AZN was attributed to plant products and 3.57 billion AZN to livestock products. The value of the output of the food industry has been increasing continuously – from 7.03 billion AZN in 2012 to 9.72 billion in 2017.

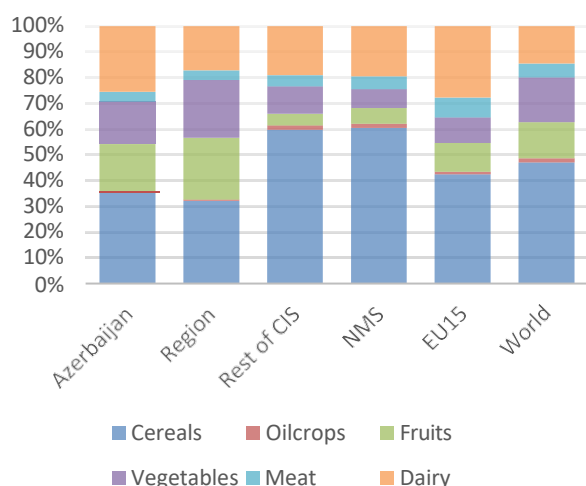
The arable land resources in Azerbaijan are limited. Azerbaijan has over 4.5 million hectares of agricultural land, of which only 1.67 million hectares were sown area in 2017.

II.1 STRUCTURE

Structure of production. In the structure of the production, 37% are cereals, 33% fruits and vegetables and 27% dairy in terms of volume. The structure of the production is more diversified than in countries in the region where cereal production prevails.

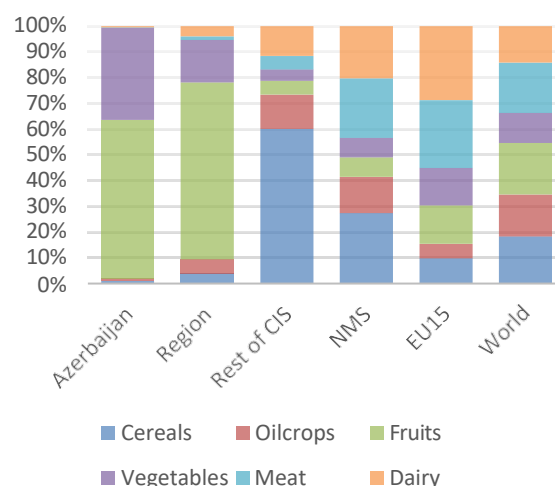
Food processing industry. Share of the food processing in overall manufacture industry in Azerbaijan in 2017 was 7.4% with a decreasing trend from 2015 *in percentage terms* but increasing in value from 2.3 billion AZN to 3 billion AZN.

Graph 1: Comparison of the Structure of Production of Different Groups of Agricultural Products (volume, MT)



Source: UN FAO

Graph 2: Comparison of the Export Structure of Different Groups of Agricultural Products (value, USD)



Source: COMTRADE

Farm structure. Five years after the transition in 1996, 1.46 million out of 1.7 million hectares of land had been privatized, creating approximately 800,000 small farms, leading to extreme land fragmentation. Consequently, family farms, with around 93% in total number of farms, dominate the total number of farms. Viable companies have also invested in agriculture and today Azerbaijan has a dual structure of production, dominated by big companies and farmers on one side and small-scale producers on the other. Small farmers and individual farmers with 0-10 hectares of land make up 87.6% of the land base; growing mid-sized farmers with 10-50 hectares comprise 0.3% of the land base; and companies with land over 50 hectares have 12% of the land. The average farm size among family farms is 1.6 hectares per household, while among enterprises the average size is 132 hectares. In 2017, 1,727 agricultural enterprises¹ and 955 individual entrepreneurs² operated under tax registration.

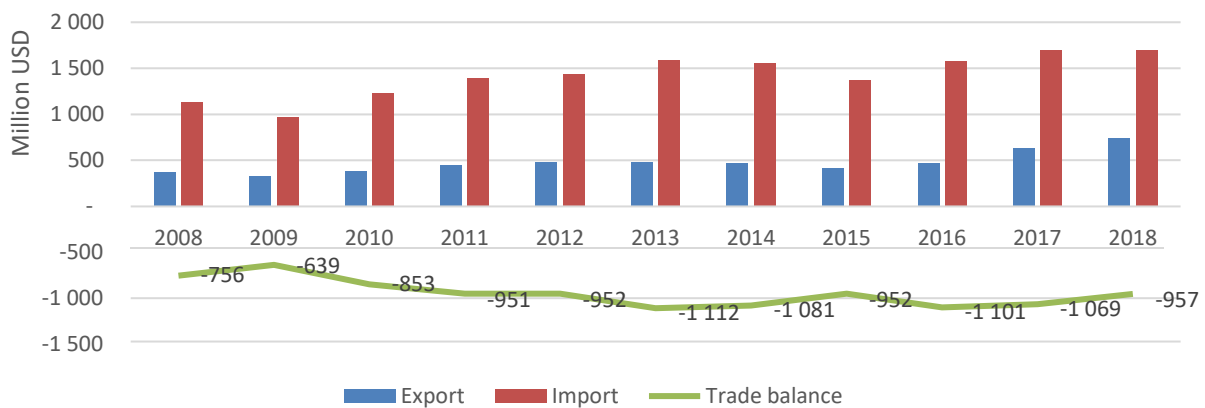
¹ Agricultural enterprises (joint stock companies, collective enterprises, cooperatives)

² Private owner – citizen (individual) engaged in agriculture sector and registered by tax authority having certificate of registration without becoming the legal entity

Agricultural employment. In 2017, the number of people employed in agriculture was 1,752,900 (36.4% of the country's total employment). The number of hired workers in agriculture was 49,400 or 3.2% of the total paid employees in Azerbaijan.

Trade. Azerbaijan is a net importer of cereals (wheat, rice and maize), potatoes (Azerbaijan was a net exporter until 2011), meat (except poultry), dairy products, fish and vegetable oils. Azerbaijan's agricultural exports are still relatively small and lagging behind world trends, with the structure of exports concentrated in fruits and vegetables. About 70% of the export share is from fruits and 28% of the export share is from vegetables. The main export market is the Russian market.

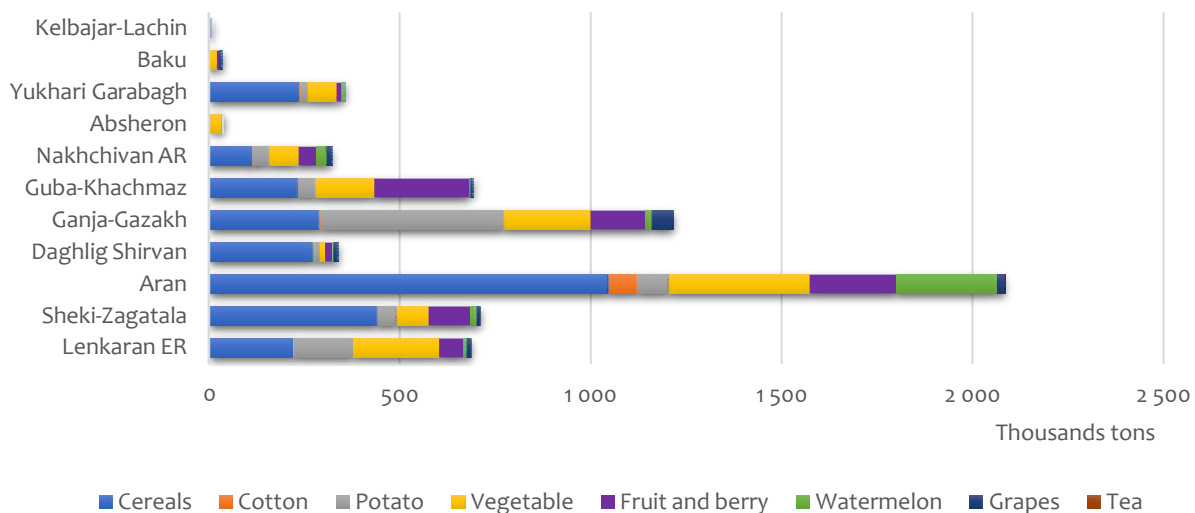
Graph 3: Agricultural Trade Balance Azerbaijan



Source: COMTRADE

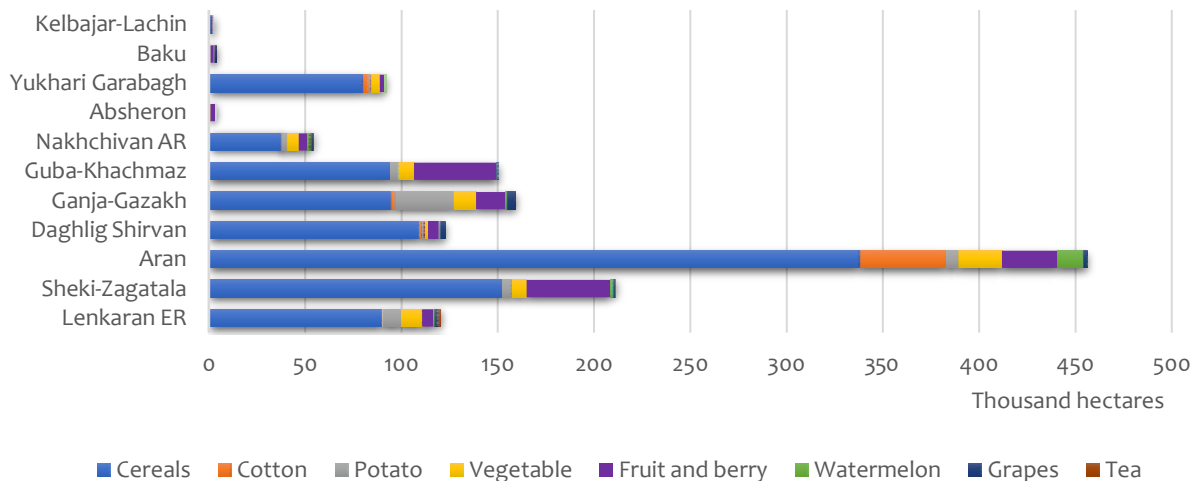
Regional production distribution. Azerbaijan has diversified climatic and land conditions that allow for the production of various crop types, from Mediterranean (citrus, olives) to typical continental crops. The main production is in the Aran region (although it is also by far the largest region by total land area). Only in Absheron and Baku region are cereals not dominant by area harvested. In addition, in Lankaran, Ganja-Gazakh, Nakhchivan and Guba-Khachmaz, the quantity of other crops produced is higher than cereals.

Graph 4: Agricultural Production in Regions (2013-2017)



Source: SSC

Graph 5: Area Harvested in Regions (2013-2017)



Source: SSC

Agricultural financing. In Azerbaijan in 2018, 30 banks were operating, out of which 15 were banks with a foreign capital share. Analysis of bank lending (performed in 2018 by Baku Research Institute) showed that apart from the construction and property sector, all sectors experienced growth. Lending to the trade and service sector rose by 0.4%, industry and manufacturing 9.1%, transportation and communication 14.4%, agriculture and processing 8.1% and consumer loans 9.7%. The share of loans for agriculture was about 3.8% (approximately 460 million AZN). In 2017, investments in fixed assets in agriculture were 617.8 million AZN, increasing twice over the 2014-2016 period and comprising 3.4% of total investments.

II.2 MAIN TRENDS

Production. Overall agricultural production in terms of quantity increased from 2012-2017 faster than the world average growth, but was still slower than in CIS countries and the NMS.

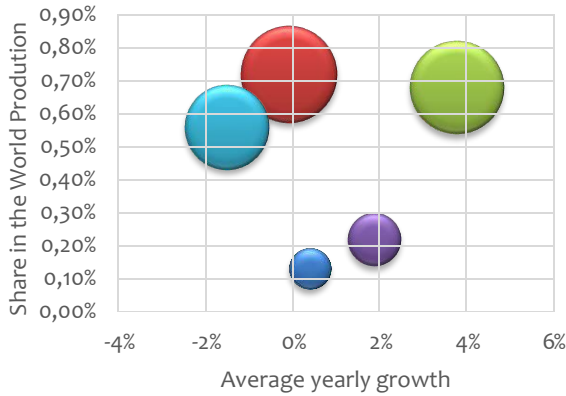
Several fruit sectors (apple, strawberry, citrus and hazelnuts) have increasing production trends, while the production of persimmon and pomegranate is stagnating. Apple production increased to 275,000 MT in 2017. Pomegranate has stable production of 150,000 MT and persimmon 140,000 MT.

Introduction of new technologies. New plantings are introducing new approaches to fruit growing based on high density orchards, modern varieties, special trellising and pomological interventions, irrigation and intensive use of fertilizers and pesticides.

Restructuring in the sector. Large-scale fruit producing companies use modern technologies and knowledge.

Trade. Agricultural trade increased 13% faster than average world growth over the 2013-2018 period. Export is accelerating primarily due to increases in the fruit sector (from 170 million USD in 2013 to 330 million USD in 2018) and vegetables (from 50 million USD in 2013 to over 200 million USD in 2018).

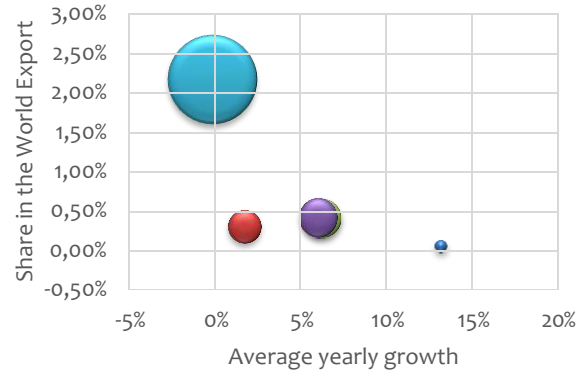
Graph 6: Average Agricultural Production (World growth = 0, 2012-2017)



● Azerbaijan ● Region ● Rest of CIS ● NMS ● EU15

Source: UN FAO

Graph 8: Average Agricultural Export (World growth = 0, 2013-2018)



● Azerbaijan ● Region ● Rest of CIS ● NMS ● EU15

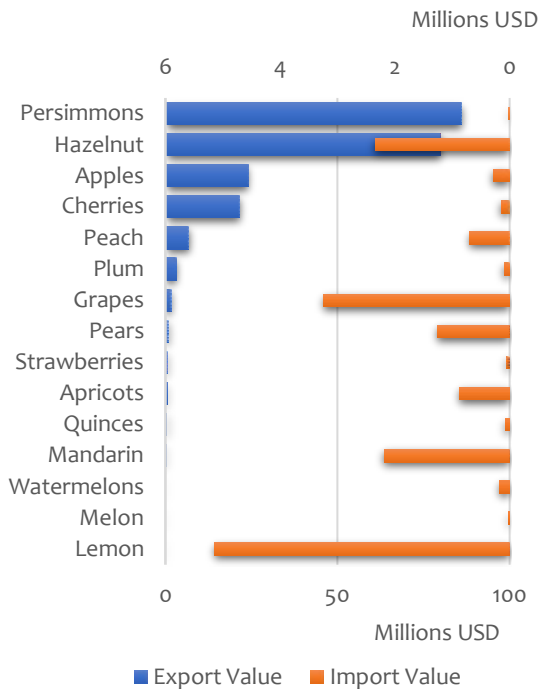
Source: UN FAO

Graph 7: Av (World gro

Source: COM

Devaluation of the local currency has positively impacted price competitiveness of Azerbaijan products in export markets, making Azerbaijan more price competitive for agricultural goods in international markets. Russia is the dominant market for all exported agricultural products; however, there are signs of market diversification in the case of apples, berries, stone fruits, and persimmon, following the lead of hazelnuts and pomegranate, which have already diversified their markets.

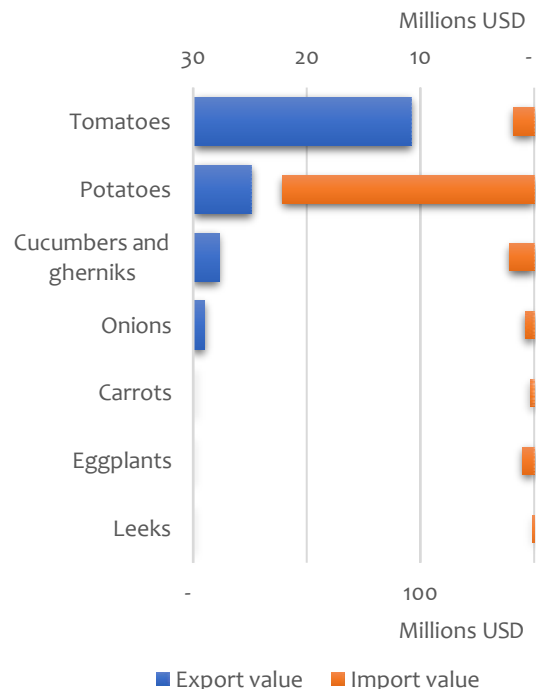
Graph 9: Fruit Trade – Export and Import (Value) 2013 – 2018



■ Export Value ■ Import Value

Source: COMTRADE

Graph 10: Vegetable Trade – Export and Import (Value) 2013 – 2018



■ Export value ■ Import value

Source: COMTRADE

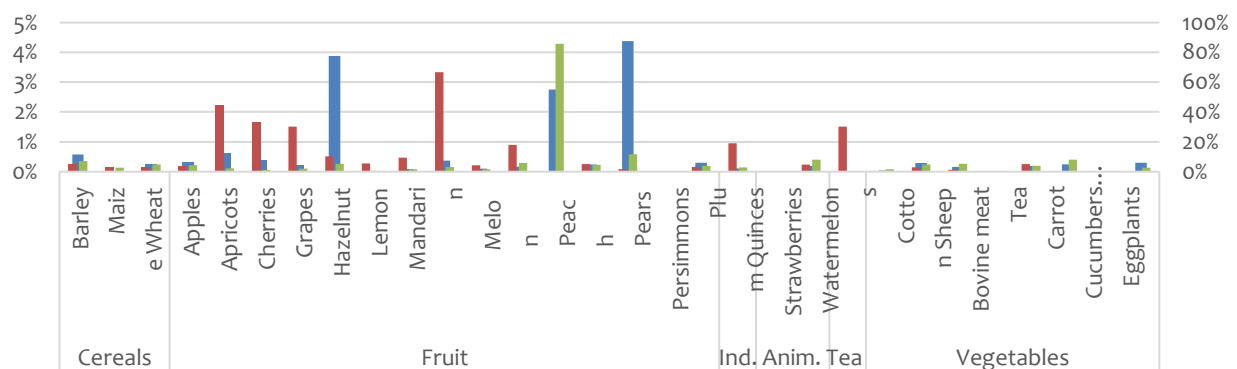
Imports and the trade deficit in agriculture have been stable over the last several years and have remained at a level of 1.7 billion USD of imports and around 1 billion in trade deficit. A unique characteristic of Azerbaijan is that many products that are exported are also imported.

II.3 COMPARATIVE ADVANTAGES

Azerbaijan has many comparative advantages, and while some of them are being exploited, others have yet to be utilized. Below are the main comparative advantages that need to be better utilized:

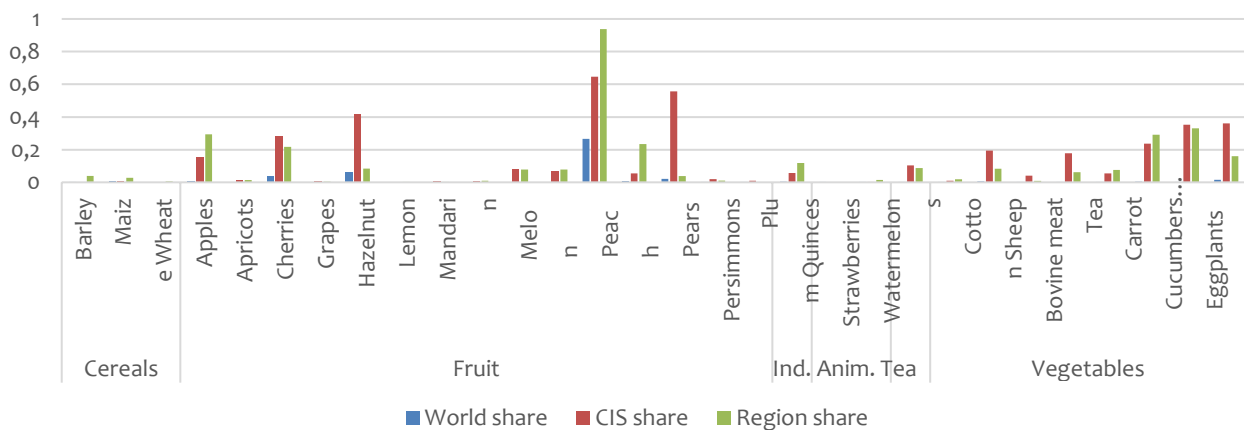
- Family farms, around 93% of the total number of farms, dominate in terms of total number. They are more vital and sustainable. On the other hand, comparative advantages also include large farms, since they are leaders in innovations, implementation of new modern technologies and becoming regional models for the rest of the farming community.
- Good market access, in particular to Russian and Middle Eastern markets. This is a result of the improved infrastructure and good geographical position, together with the fact that many individual traders and companies have good connections and representatives in those markets.
- Good agroclimatic conditions, especially for fruit and vegetable sector, providing diversification of products, season and markets.
- Already established trading channels for existing exports which can be diversified to other products.
- Diversified production portfolio and opportunities to diversify products. Azerbaijan's Gini coefficient is 0.86 (Turkey 0.9, Morocco 0.91) which would be significantly lower if there were no strong signals and subsidies for growing food security crops, in particular wheat.³

Graph 11: Azerbaijan Production Share in World (left), Region and CIS (right)



Source: FAO

Graph 12: Azerbaijan Export Share in World, CIS and Region



Source: COMTRADE

- Good entrepreneurial attitude among stakeholders involved in agriculture.

³ The Gini index measures the degree of inequality in the distribution of family income in a country. The more nearly equal a country's income distribution, the lower its Gini index. The more unequal a country's income distribution, the higher its Gini index. If income were distributed with perfect equality the index would be zero; if income were distributed with perfect inequality, the index would be 100.

- The Government of Azerbaijan (GoA) strongly recognizes the importance of agriculture and agribusiness in achieving economic growth and social stability in rural areas, ensuring food security and driving diversification beyond oil.
- The GoA seeks to improve the market situation through: liberalization of input supply market by cancellation of state monopoly company Agroleasing, which created market distortions; significant effort of the GoA to improve the financing focused on investments (AKIA and EDF credit lines).
- Capacity for MoA policy implementation has increased. There is serious investment in building capacity in the support institutions in agriculture at the national and regional level.

Figure 2: Support Institutions in Agriculture



- The competitive costs of seasonal labor (10-12 AZN per day).
- High level of subsidies in comparison with the region:
 - Agriculture is exempt from taxes;
 - Customs privileges are applied to most production equipment imported for the agriculture and processing industries;
 - A subsidy of 50 AZN is provided for each hectare of sown areas
 - Subsidy of 50% of the cost of fuel and motor oils used for agricultural production;
 - The rate for each 1,000 cubic meters of irrigation water has been fixed at 0.5 AZN for those engaged in agricultural production;
 - 70% of the price of the fertilizers, pesticides and industrially produced biohumus is paid from the GoA budget;
 - Subsidies are given for the production and sale of seeds and seedlings (0.5 AZN /kilogram certified seeds and 0.20 AZN per plant out of the certification scheme);
 - To support the purchase of agricultural machinery and equipment, 40% of their purchase price is paid from the state budget;
 - 50% of the insurance premiums on agricultural property is paid by the state; and
 - The subsidy program includes state preferential loans by the Entrepreneurship Development Fund (EDF).
- MoA has introduced a new and improved subsidy scheme and implementation body, the Azerbaijan Agency for Agro Credit and Development (AKIA).

II.4 CHALLENGES

There are many challenges facing Azerbaijani agriculture: external, internal, structural, market, production, directly linked with agriculture and value chains, and not connected to agriculture but influencing it significantly. Some of them are easy solved and it is worthwhile to invest efforts to resolve them (either at

the country, group or individual level), while some take time and investment beyond the scope of the project. Below are listed the primary challenges:

- Mid-size producers, which usually carry the agriculture sector in other countries, are missing. Experience from other countries shows that the mid-sized farming segment is typically a growth sector which results from land consolidation among small-scale farmers as well as fragmentation of larger farmers.
- Small producers are still not market oriented and not willing to cooperate to improve input purchase or product marketing.
- Although improving, support institutions are not yet delivering adequate services, especially to the small-scale farmers who most need it.
- Access to finance, in particular for small and medium producers, is complicated. Also, collateral in rural areas is not considered by the banks, only Baku city collateral is accepted.
- The annual interest rate for national currency loans for the country as a whole is 14.2%; the figure for Baku is lower at 12%, while for the regions it ranges from 16% to 25%. This is high in comparison to the main competitors in Europe.
- Lack of educated agronomists with relevant knowledge of modern technologies.
- Small number of SME initiatives in the food processing sector due to restricted competitiveness in the local market, due to presence of large companies and a lack of understanding that the processing industry is not based on nonmarketable, lower-quality inputs.
- The Russian market is not stable or predictable although some relationships are stable and historic. Regardless, dependence on one export market – Russia – is very risky.
- GoAJ provides support to agriculture which has a positive effect on agricultural development but also creates many market distortions, dead weight and bad investments, and sends misleading market signals.
- Although the input market is developing, quality control of inputs should be strengthened. Often, Azerbaijan producers don't have access to the best seed and planting material due to registration or intellectual property issues.
- Lack of irrigation and limited access to water.
- A challenge for the domestic agricultural supply chain is compliance with quality, food safety and environmental standards of modern food retail channels, and with international standards.
- Contract farming is still not in common practice.
- Few associations at the state level. Lack of farmers' associations to support farmers' initiatives (bottom-up approach) aimed at collectively marketing their produce or purchasing inputs.
- Lack of investments to adopt international good agricultural practices and techniques to be competitive in the market especially among small-scale farmers.
- Limited access to high-end markets; small farmers do not meet the requirements of the market (cold chain, GlobalG.A.P.) and their volumes are too small to be attractive to traders involved in supplying supermarkets or selling to foreign markets.
- Competition in international horticultural markets is strong and organized, with growing presence of competitors from CIS countries and Central Asia.
- Poor environmental management at the farm level.

III PRIORITIZATION AND SELECTION

The approach to value-chain selection was developed and agreed with USAID and it is based on the positive experience from other countries where a similar methodology was utilized. This methodology is based on extensive study which included position, competitiveness and specific product analysis for a wide range of products. This approach to value-chain selection has the advantage of capturing synergies across similar product value chains. Grouping products and targeting product groups will allow PSA to:

- Be focused yet flexible;
- Leverage logical synergies between products;
- Avoid market distortion;
- Have country-wide impact;
- Maximize multiplication effect; and
- Account for absorptive capacity.

Figure 3: Steps in the Selection Process

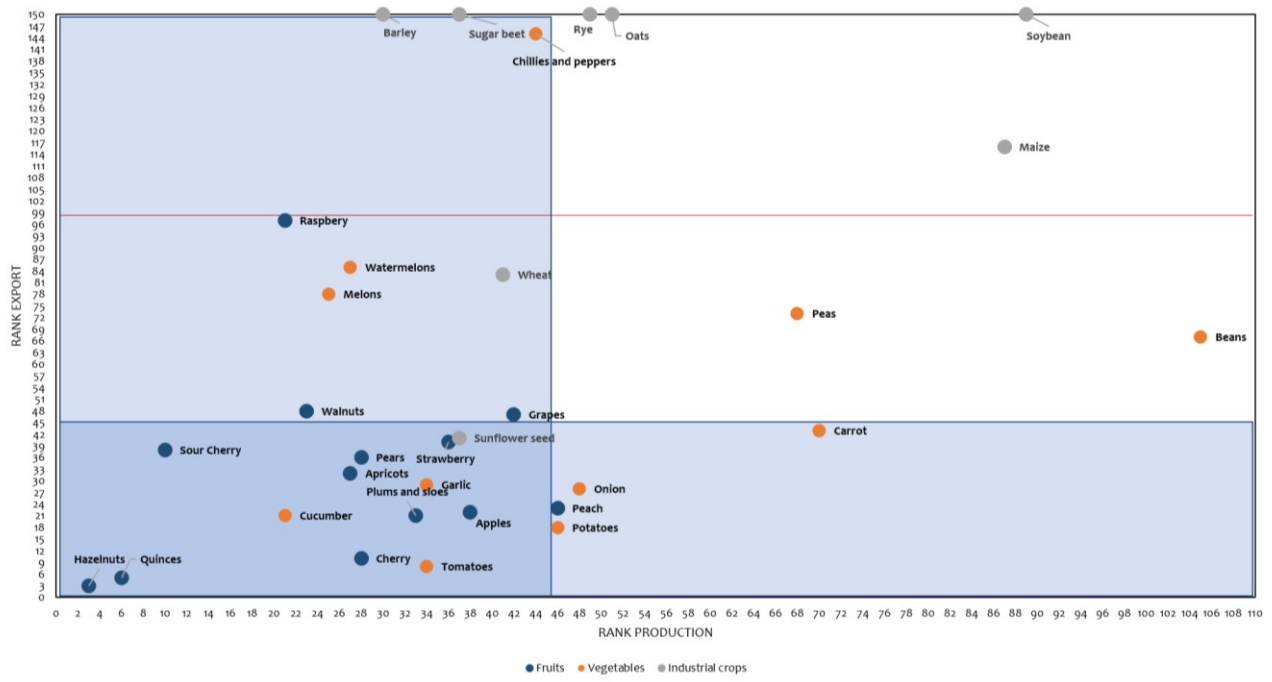


Step 1: Data collection. All relevant data was collected including: production, harvest area, trade, unit values, and prices. Analysis drew on all available data and reports including FAO, EUROSTAT, International Trade Center, Trade Map and UN COMTRADE official statistics; all available Azerbaijan official statistics and data received; and other reports including the OECD-FAO Agricultural Outlook and the World Bank Doing Business Report.

Step 2: Comparison analysis. Comparison analysis was used to rank all products in the area harvested/production (x axis) and value and quantity (y axis) and compared to 188 countries worldwide and 47 countries in Europe and the CIS.

Below is presented one of 8 combinations: World/production/export. Position analysis helped to identify that: cucumber is high on the list, pepper is surprisingly low, hazelnuts are in 3rd place in exports and production in the world. Group of stone fruits (sour cherry, cherry, apricots) together with pome (apple and pear) are high in position at both axis (much better among EU), which provides clear potential for those products.

Graph 13: Position Analysis Azerbaijan in World – Production / Value of Export



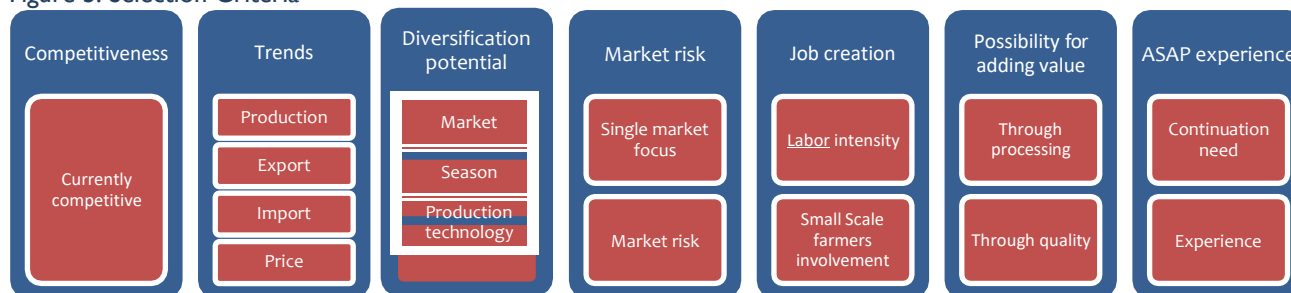
Step 3: Grouping the products. Then, products were grouped based on value-chain commonalities in storage, investment, and marketing, taking into account Azerbaijan’s specific characteristics and products grown. Based on this approach, the value-chain analyses that follow will use the following product groupings:

Figure 4: Grouping Products

| A | Fruits | B | Vegetable | C | Grapes |
|----|---------------------|----|-----------------------------|----|------------------|
| 1 | Apple group | 6 | Perishable | 8 | Table grapes |
| 1 | Apple | 23 | Watermelon | 38 | Table grapes |
| 2 | Peer | 24 | Melon | D | Herbs & MAPs |
| 3 | Quince | 25 | Tomato | 9 | Herbs |
| 2 | Stone fruit | 26 | Pepper | 39 | Herbs |
| 4 | Sour cherries | 27 | Cucumber | 10 | MAPs |
| 5 | Cherries | 28 | Zucchini | 40 | MAPs |
| 6 | Peach and nectarine | 29 | Lettuce, radish and chicory | 11 | Tea ad olives |
| 7 | Apricot | 30 | Beans | 41 | Tea |
| 8 | Plums | 31 | Eggplant | 42 | Olives |
| 9 | Persimmon | 7 | Non perishable | E | Crop production |
| 10 | Kiwi | 32 | Potato | 12 | Cereals |
| 3 | Berries | 33 | Carrot and parsley | 43 | Wheat |
| 11 | Raspberries | 34 | Cabbage | 44 | Barley |
| 12 | Strawberries | 35 | Cauliflower and broccoli | 45 | Maize |
| 13 | Blueberries | 36 | Onion | 13 | Industrial crops |
| 14 | Blackberries | 37 | Garlic | 46 | Soybean |
| 4 | Nuts | | | 47 | Sunflower seed |
| 15 | Hazelnuts | | | | |
| 16 | Walnuts | | | | |
| 17 | Almonds | | | | |
| 5 | Citrus fruits | | | | |
| 18 | Feijoa | | | | |
| 19 | Pomegranate | | | | |
| 20 | Oranges | | | | |
| 21 | Lemon | | | | |
| 22 | Mandarins | | | | |

Step 4: Criteria identification. The criteria were linked with PSA objectives and indicators and proposed criteria were coordinated and discussed with USAID.

Figure 5: Selection Criteria

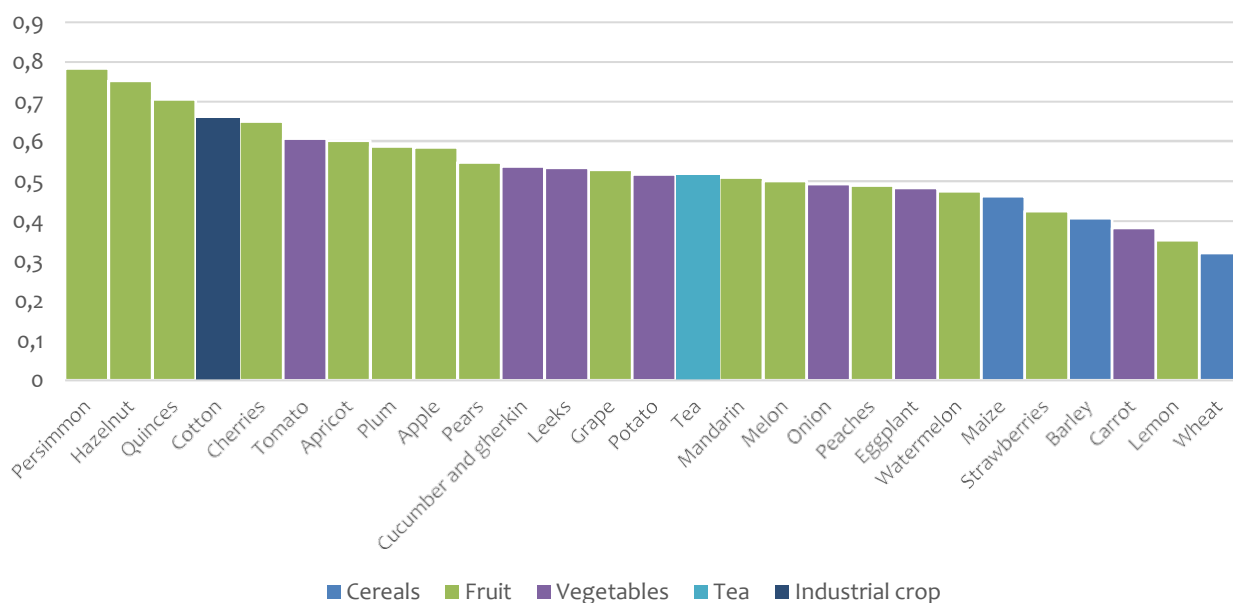


Step 5: Competitiveness analysis of the most important products grown in Azerbaijan.

Competitiveness was one of the key criteria in the selection process and offered a first lens through which to examine product selection. Competitiveness was examined both in relation to the world, and in relation to CIS countries, and while both were analyzed, for scoring purposes the world data was used.

- The most competitive products produced in Azerbaijan in relation to the world are persimmon, hazelnut, and quince.
- Cotton is among the most competitive in the world, but not in the CIS, since few countries in the world are producing cotton, which is not the case in the CIS.
- Apricot, cherry, sour cherry, and plums are better positioned in the world (EU as well) than in the CIS, which shows potential for accessing those markets.

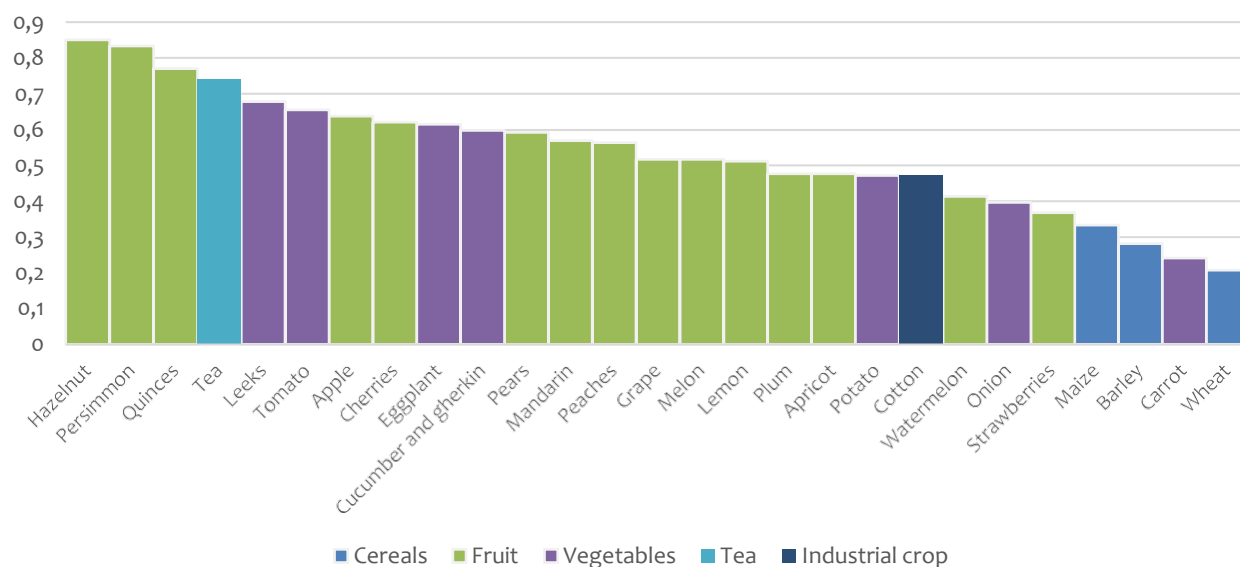
Graph 14: Competitiveness in Relation to the World



Source: SEEDDEV competitiveness analysis

With slight shifts along the scale, some of the product become less competitive in relation to the CIS, but generally there are no major changes. Hazelnuts dominate, followed by persimmons and quince.

Graph 15: Competitiveness in Relation to the CIS



Source: SEEDEV competitiveness analysis

These competitiveness scores were then incorporated into the broader scoring table.

Step 6: Scoring data collection. Filling in the complete scoring table required additional data collection drawn on different data bases, experience or interviews (ASAP experience).

Table 1: Detailed Scoring Methodology

| Criteria | Ranking method |
|--|--|
| 1. Competitiveness | <ol style="list-style-type: none"> The rank of product is based on Competitiveness index The position of the products in relation to competitiveness position 2010 -2015 |
| 2. Trends | <ol style="list-style-type: none"> Trends in production during 2013 – 2018 period Trends in export during 2013 – 2018 period Trends in import during 2013 – 2018 period Trends of farmgate price Trends of export unit price |
| 3. Potential for diversifications | <ol style="list-style-type: none"> Export market – Demand in CIS, European, and world markets Potential for season extension Potential for production improvements |
| 4. Market risk | <ol style="list-style-type: none"> Single market focus – Research how diversified is current market by calculation of Gini index (if needed) Research possibility for losing this single market, looking at the trends at the market where the export is concentrated. |
| 5. Job creation | <ol style="list-style-type: none"> Number of days per production year: 5 > 250, 4: 150 - 250 days, 3: 100 – 150, 2: 50 to 100, and 1 < 50 (>250 raspberry, strawberry, gherkins, 150 - 250 pepper and blueberry, 100 - 150 apple, cherry, plum, sour cherry, 50 - 100 peach, apricot, pear, potato, carrot, onion, tomato, < 50 quince) Number of small-scale farmers involved in production (high score) vs few large producers (low score) |
| 6. Possibility for adding value | <ol style="list-style-type: none"> Through processing Trough quality |

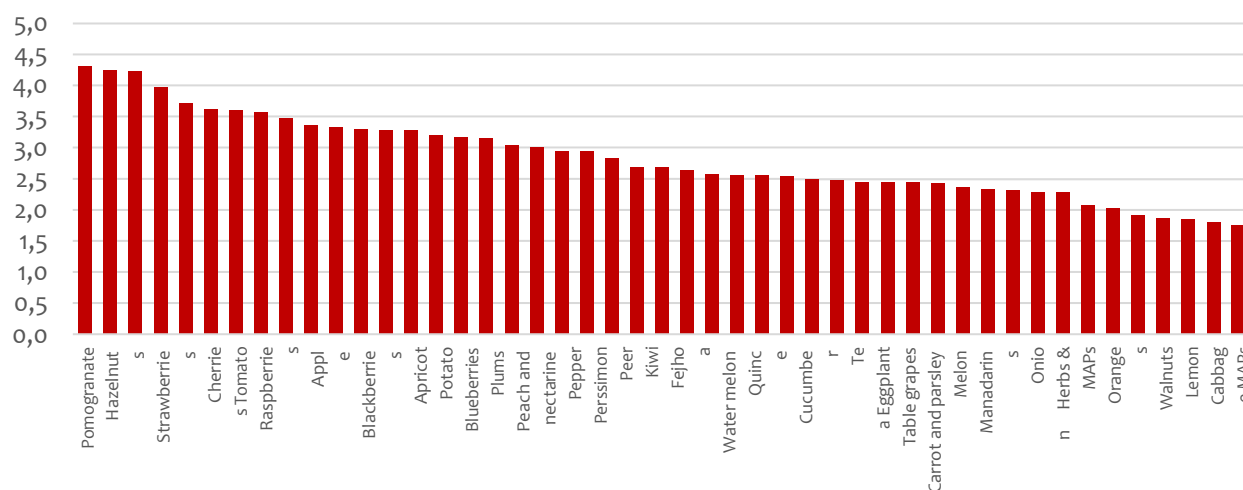
Giving different score for those products which have higher potential for processing or quality example: stone fruits has many options for processing (drying, canning, juicing, freezing) which is less the case for non-perishable vegetables and even less with cereals.

7. ASAP recommendation

1. Need for continuation. If sustainability is not yet reached with previous beneficiaries/sectors/products
2. Experience based on previous work

Step 7: Scoring. After collecting all necessary data, scoring was performed by giving marks from 1-5, where the highest mark means better position (better trend, more competitive, more labor needed, less risky). The average mark for group - competitiveness, trends, diversification potential, market risk, job creation, possibility for adding value, ASAP experience (group trends consist of production, export, import, and price) is taken into account for final scoring.

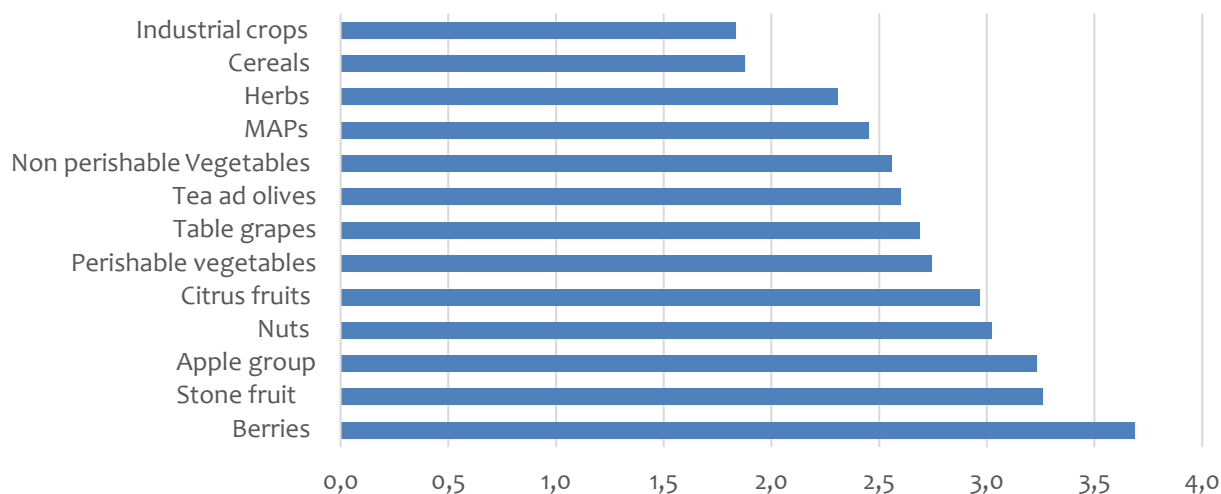
Graph 16: Rank at the Product Level after Scoring



Source: SEEDDEV calculation

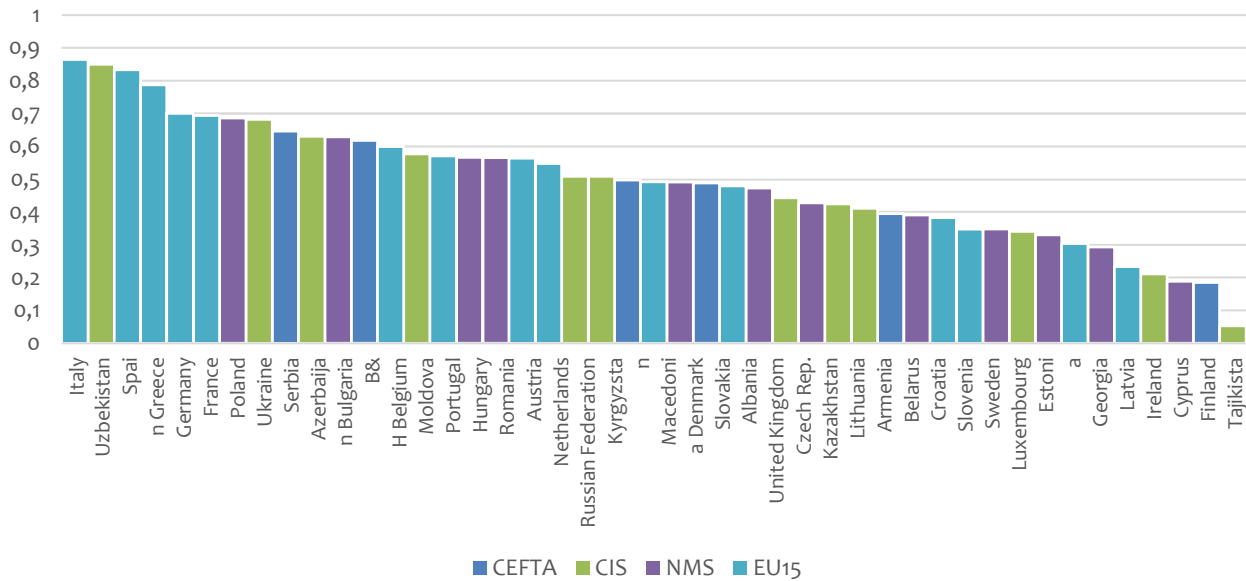
As described above, products were considered individually and as a group, with groupings by value-chain commonalities rather than strictly agronomic considerations. When groups of products were aggregated and ranked using the same criteria, the results were slightly different, since the same group may contain highly ranked and lower-ranked products.

Graph 17: Group of the Products' Rank



Step 8: Specific product competitiveness. For the main products for which comparative data existed at the world level, competitiveness analysis was performed. This allowed comparisons of level of competitiveness vis-à-vis other countries and not only between products in Azerbaijan.

Graph 18: Index of Competitiveness



It was discovered that cherry is high on the list of competitive countries. Only two CIS countries are better positioned than Azerbaijan.

Step 9: Dilemma analysis. Focus was given by performing a detailed analysis of each product that was studied. For example, dilemma analysis was used to help to answer the following questions:

- Is it possible to diversify the apple, tomato and potato markets?
- What is the possibility that Azerbaijan producers lose the Russian market for tomato and apple?
- Why do peppers have low results in Azerbaijan?
- What is the expectation for local berry demand?

Step 10: Preparation of the activity table. The problems, gaps throughout the value chains, and opportunities are not the same for all products analyzed. Consequently, the selected products should not all have identical activities. Together with PSA staff and selected stakeholders, an activity table was prepared.

Table 2: Activity table

| | PRIORITY GROUP | | | MARKET DIVERSIFICATION & QUALITY GROUP | | | NEW TECHNOLOGY DISSEMINATION GROUP | | | |
|-----------------------------|----------------|---------|-----------|--|-----------|--------|------------------------------------|-----------------|--------|-------------|
| | Pomegranate | Berries | Hazelnuts | Tomato | Persimmon | Apples | Stone fruits | Perishable Veg. | Grapes | Kiwi/Feijoa |
| TA activities | | | | | | | | | | |
| Work with input suppliers | | | | | | | | | | |
| Export market access | | | | | | | | | | |
| Local market access | | | | | | | | | | |
| Developing knowledge | | | | | | | | | | |
| Sharing knowledge | | | | | | | | | | |
| Aggregations & Associations | | | | | | | | | | |
| Grants | | | | | | | | | | |
| Nurseries | | | | | | | | | | |
| Greenhouse production | | | | | | | | | | |
| Open field production | | | | | | | | | | |
| Precooling and cold storage | | | | | | | | | | |
| Post-harvest | | | | | | | | | | |
| ULO storage | | | | | | | | | | |
| Processing | | | | | | | | | | |

Step 11: Presentation to USAID and discussion about selected products. All the results and dilemmas were presented to the USAID and a final round of discussion was conducted that led to final acceptance and rejection. For example, at this stage it was decided to remove potatoes from Group II, based on the following process:

| | |
|---|---|
| Step 1: Data collection | Potato has very good set of data which are collected and analyzed. |
| Step 2: Comparison analysis | 44 th place in area harvest, 46 th in production and 18 th in export is at the level of overall position in agricultural land availability (46 th) and better than average export. |
| Step 3: Grouping | Potato is grouped in the non-perishable vegetables, together with onion, carrot, and garlic. |
| Step 4: Criteria identification | All identified criteria are applied for tomato same as for other products. |
| Step 5: Competitiveness analysis | Potato was ranked as 14 th at the list of competitive products in Azerbaijan in comparison with World and 19 th in comparison with CIS countries among 27 analyzed products. |
| Step 6: Data collection for scoring | There was no problem to collect all needed data. |
| Step 7: Scoring | Potato's position after scoring was 10 th among 47 products and perishable vegetables were 9 th among 13 groups of products. |
| Step 8: Specific product competitiveness | Potato's competitiveness at the product's level in comparison with other countries' potatoes was ranked 13 th among 45 European and CIS countries. |
| Step 9: Dilemma analysis | Specific dilemma solving show us that potato can be exported only for two months to Russia, that there are no signs (as with other products in Group II) that market started to be diversified, nor that this is possible without large structural changes. |
| Step 10: Activity table | Very focused activities are identified as possible |
| Step 11: Presentation and discussion with USAID | Discussion led to the conclusions that potato should not be selected |
| Step 12: VC analysis report | Final decision not to include potato in the selected group of products |

Step 12: Final decision and value-chain analysis report. Based on assessment of both the individual product results and the grouped product results, as well as extensive key stakeholder discussions, PSA made the following target product selections:

Table 3: Selected Products and Groups of Products

| | Group I: PRIORITY GROUP | Group II: MARKET DIVERSIFICATION & QUALITY GROUP | Group III: NEW TECHNOLOGY DISSEMINATION GROUP |
|------------------------------|--|--|---|
| Main characteristics: | Competitive, good trends, diversified market, increased demand | Large Russian export-oriented products | Have potential due to some competitive advantage but small in size |
| Main objectives: | Replicate good trends: production, export, number of farmers | Diversify export and prepare products for new market opportunities | Introduce new technology and promote VC |
| Beneficiary focus: | All potential VC actors | Those who are ready to diversify market | Lead farmers willing to introduce new technology |
| Activity focus: | Dealing with all gaps through VC | Market access, quality improvement, post-harvest preparation | New varieties, other inputs introduction, demonstration plots, new marketing technologies |

| | | | |
|----------------------------------|---|--|--|
| <p>Selected products:</p> | <ul style="list-style-type: none"> • Berries – Focus on strawberries / considering raspberries, blueberries, blackberries • Nuts: Focus on Hazelnuts • Pomegranate | <ul style="list-style-type: none"> • Perishable Vegetables – focus on tomato considering pepper and cucumber (although Group III) • Pome Fruits – Focus on apples • Persimmon | <ul style="list-style-type: none"> • Stone Fruits • Table grapes/Kiwi/Feijoa |
|----------------------------------|---|--|--|

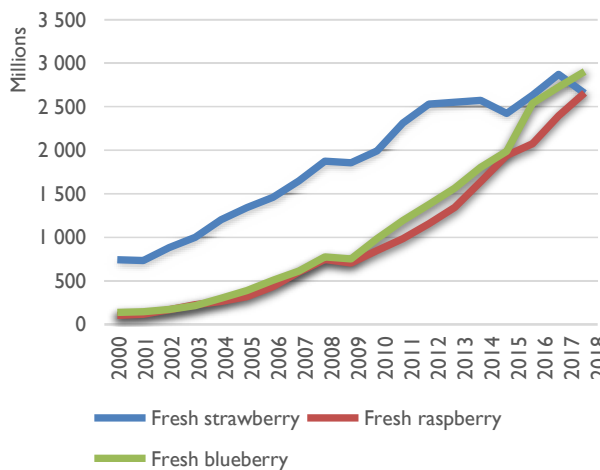
IV BERRIES

Global demand. The berry market is a growing market driven by consumer demand. Several factors occurred parallelly and attracted consumers:

- 1) Health trend and demand for natural products, organic products, superfoods (super fruits);
- 2) Increased demand for convenience food; and
- 3) Versatility and availability during a very short summer season changed to availability throughout the year.

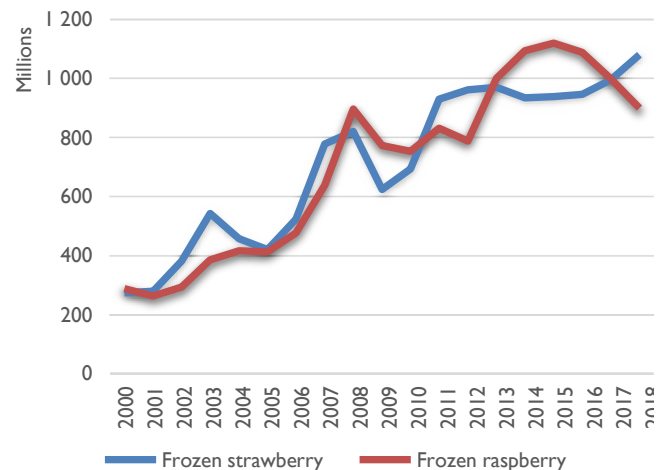
While the global value of fresh strawberry exports has increased four times since 2000, the global export of fresh blueberries and raspberries increased by 21 times. The strawberry frozen market has been increasing slowly but steadily. Berry production and processing are versatile and have diversified over time from fresh fruit into frozen, extracts, juices, pulps, dried, beverages, oils and other highly specialized ingredients and products.

Graph 19: Fresh Strawberry, Blueberry and Raspberry Global Export Value



Source: Trade map

Graph 20: Frozen Strawberry, Blueberry and Raspberry Global Export Value

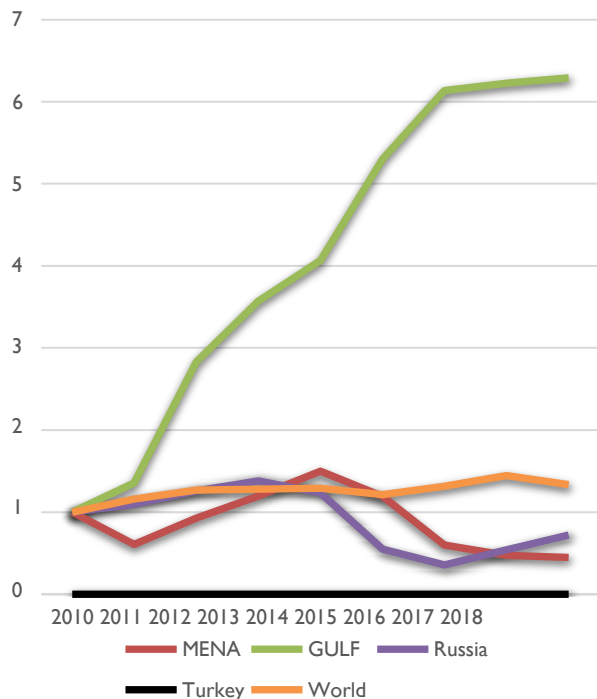


Source: Trade map

Growing sector in Azerbaijan. According to State Statistical Committee (SSC) data, berry production in 2016 was about 2,201 MT and by 2018 production had increased ten times to 20,830 MT. The harvested area in 2018 was 3,320 hectares and the major production regions are Lankaran, Ganja and Guba-Khachmaz. The size of the sector determines not only the quantity but also the quality of the product by the extended season and diversified offer. Strawberry production has to be extended to other berry production and to expand the cold chain into frozen products to provide a market for the surpluses in the peak season.

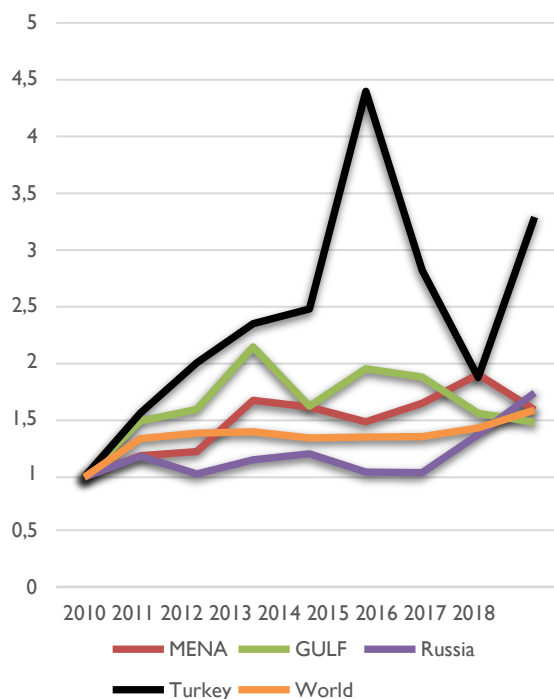
Demand in export markets. Middle Eastern countries are importers of strawberries and becoming consumers of fresh raspberries. The demand for fresh strawberries in this market increased several times in the last eight years. In well-organized markets such as in the Middle East, demand is consistent throughout the year and well-established supply chains are already present.

Graph 21: Base Import Index at Several Markets – Fresh Strawberries 2010-2018 (2010=1)



Source: COMTRADE

Graph 22: Base Import Index at Several Markets – Frozen Strawberries 2010-2018 (2010=1)



Source: COMTRADE

Domestic market opportunities. There is potential to increase the domestic demand further. It requires the improvement of quality, but also packaging in convenient boxes (125 or 250 grams instead of the most common 500 grams) for retail sale. There are also domestic market opportunities in extension of production to other berries such as raspberries, blackberries and blueberries.

Labor intensity. Indicative number of working labor days for strawberry is 283 days and 10 mechanization working hours per hectare.

Profitability. Azerbaijani producers are exporting strawberries when they can get the price over 1.5 USD. Average selling price in the 2019 season was from \$1.2 to \$3.5. Marketing export costs per 10-ton vehicle are 4,800 AZN for the customs tariff fee, 1,000 AZN for the market entrance fee, and 2,800 AZN for transport in a refrigerator truck. Besides the high marketing costs, the gross margins are over 50% (according to information provided by producers).

Graph 23: Cost of Production for Selected Groups of Products at Private Farms in Azerbaijan (AZN/kilogram)



Source: SSC

IV.1 KEY CHARACTERISTICS OF THE BERRY VALUE CHAIN

In Azerbaijan, there is no certified strawberry planting material. The common practice is propagation from current production and scattered attempts for establishment of nurseries. ASAP raised awareness of this issue, and the Azerbaijan Berry Producers and Exporters Association developed an initiative for establishing a nursery.

At present, there are nine strawberry varieties registered in the Azerbaijani Variety Register. Producers are purchasing new varieties in Italy and Spain and other countries and introducing them into production. Various berry varieties have been introduced into production in Azerbaijan, but there is lack of a systematic approach and research on the fruit varieties in Azerbaijani growing conditions. There is an urgent need for variety modernization.

The food safety system is advancing under the authority of Azerbaijani Food Safety Agency (AFSA). AFSA is responsible for the phytosanitary system (pesticide registration), phytosanitary monitoring and risk assessment, and issuing and control of phytosanitary certificates. AFSA is also the National Plant Protection Organization responsible for the major SPS issues. AFSA is also conducting the legislative approximation process related to phytosanitary issues, developing standard operating procedures, and creating a register of phytosanitary food business operators.

The value chains in the strawberry sector are still not developed and structured. Based on value-chain actors and their relationships, three major types of developments are noticeable:

1. Small producer/local market. Short chain is important for the strawberry marketing keeping in mind that berries have to be marketed within a few hours or precooled to 4 C within two hours. Thus, small producers are selling the berries at local green markets or local retail shops.
2. Extended chain with integrator. In the future this will be the prevailing structure of the value chain. Aggregators with cold storage capacities are the central players in strawberry value chains. In Azerbaijan, at present, those are large producers or emerging companies or traders which are collecting and marketing products. In most cases, they are supplying the traders, which are then supplying to the retail market or exporting the berries.
3. Export-oriented strawberry chain. Several companies are involved in strawberry production with acreage above 20 hectares. They are targeting the export market and exporting directly or via traders.

The strawberry producers are profiled as the ones with production on more than 10 hectares and aggregating other producers as well as medium producers growing on one to several hectares. In Jalilabad there are 35-40 producers with more than 5 hectares and 3 producers with over 20 hectares. The leaders were supported already under ASAP, and improved production technology, established the cold chain and started to address challenges by creating an association.

The second group of producers, medium-sized ones, have clear business ideas about the necessity to diversify their household economy to more profitable non-traditional production, but still are not able to eliminate obstacles to development (financing, land, knowledge).

The fresh strawberry supply chain is much more sensitive compared to frozen and more demanding than the regular fruit supply chain. While other fruits are mostly selected after harvesting according to criteria such as dimensions, weight, color and main quality characteristics, berries for the fresh market are selected directly during harvest. After harvest berries require specific handling to maintain the freshness and quality of the fruit, which involves more limited delivery times and more controlled conditions such as temperature and post-harvest treatments and more optimized transfers from production to the stores. Fresh strawberries require the direct consignment distribution method and it is necessary to consider the need for frequent deliveries and development of a short order-to-delivery system due to the perishability of the product.

In the frozen strawberry chain, the integrator is a cold storage with freezing capacities and -18 C capacities for storing the frozen product. These capacities usually are dealing with several types of berries and stone fruits to improve the sustainability.

Trading companies specialized in marketing fruits and vegetables, including strawberries, usually already have cold chain organization as well as customers for fresh or frozen products and are also aggregators. They are influencing diversification of production.

IV.2 KEY CHALLENGES AND SPACE FOR IMPROVEMENT

Input supply. Strawberry varieties in production in Azerbaijan are rapidly changing. The majority of the producers are setting up new orchards with varieties imported from EU nurseries. However, there is a need for a systematic approach, development of a nursery with a certification scheme and introduction of new varieties, but with full respect of plant breeders' rights.

There is an urgent need for pesticide registration and regulations that will not only improve food safety, but also attract the best competition in the pesticide market. Pesticide residue monitoring would support the sector to decrease the MRL risk and support the producers to export the product to higher-value markets.

Production. There is a lack of knowledge and lack of technical experts on production technologies (fertigation, irrigation, plant protection, post-harvest management, cold chain organization, marketing strategies, costs of the production, farm management).

Cold chain organization. Cold chain constraints are a critical issue in the berry value chain, and while cold storages are an important element in the cold chain, they are not the only one. More small pre-cooling facilities in the field or in an area with concentrated production would help greatly in preparing products for market and increasing shelf life. There is also a need for improved knowledge of harvest and post-harvest techniques, storage maintenance, and cold storages to preserve the cold chain.

Marketing. Market access is constrained by a lack of export market linkages, as well as a lack of awareness of Azerbaijani strawberry production in the export markets.

Rationale for Including Berries in Group I: Priority Group

- Even though the sector is not among the most competitive ones at present, there are several reasons for focusing on it 1) growing demand in Europe and other markets; volumes and values are increasing year on year. Consumers are more health conscious and buy more berries. 2) Berry production is typically small-scale farmer intensive production that generates income and employment in rural areas.
- Potential for diversification at the household and production level to other berries (raspberry, blackberry, red and black currant, blueberry), but also to stone fruits and perishable vegetable (similarities in pest management, irrigation, fertilization, cold chain organization and marketing).
- Several options for production approach – open field/greenhouse, primocane/floricane varieties (for raspberries), and out of season production.
- Demand for semi- processed (frozen) berries in the processing industry and for processed products due to traditional use in sweets.
- Fresh berry market is more profitable and has export potential in the Middle East and CIS countries.
- Berry cold storage and transport hubs can serve many small growers and provide them with technical advice, centralized buying and other support services.

IV.3 RECOMMENDATIONS FOR DEVELOPMENT

There are two clear and distinct opportunities for development of the strawberry value chain: one for higher-value production and distribution of fresh fruits, and one for development of a frozen strawberry value chain oriented primarily at processing and the export market. While these share similar needs across inputs and production, the two chains then diverge and will be treated differently.

PSA will emphasize research-based decision making on the introduction of new varieties and diversification of berry production to minimize risks, improve product offerings and market access, and develop a sustainable fruit sector.

PSA activities should be directed towards the development of nurseries with capacity to multiply high-quality planting material. For intensive and profitable berry production, it is important that the plants are grown by specialized growers and that no plants are used from their own reproduction.

PSA should identify and work with innovative producers willing to adopt new technologies and leverage these producers to disseminate knowledge and practices to wider numbers of growers, including developing an

online Production Guide for strawberry and other berries. As producers seek to access new markets, they will be supported in achieving necessary certifications including, as appropriate, Organic and GlobalG.A.P.

The present harvesting (marketing) season is about three months in open field production and 6-8 months in greenhouses. This can be expanded by diversification to different varieties as well as by improved growing practices in greenhouses. The costs of production in greenhouses are higher, but according to producers' experience the profit is 30% higher.

Increases in production will soon require solutions other than fresh product marketing. One potential solution is freezing the berries (quick freezing tunnels, sorting lines, - 18 C regime cold storage) and marketing to the frozen fruit market or to the processing sector. This will require support in meeting and obtaining quality certifications for processing facilities such as ISO, IFS, BRC, and HACCP.

For the export market, PSA might focus on strengthening of packaging, branding, and advertising materials, while in the domestic market PSA should support producers to build awareness and increase consumption through educational and promotional events.

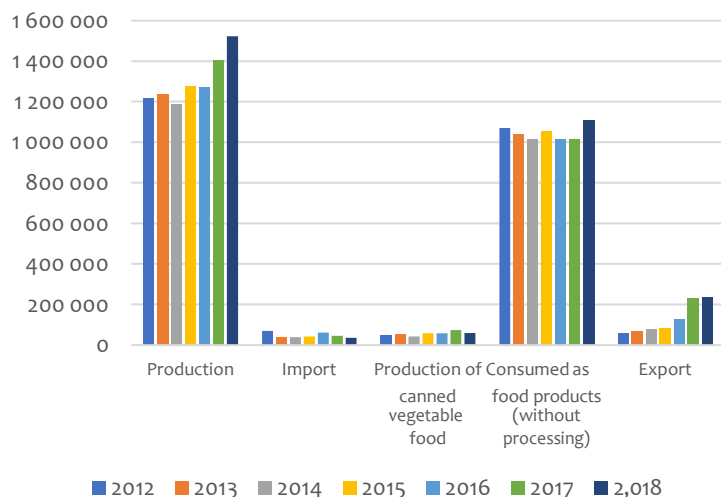
Table 4: Berry Action Matrix

| BERRY VALUE CHAIN ACTION MATRIX | | |
|--|---|--|
| Group I: Priority Group (Rationale) | | |
| Context & Trends | Gaps & Challenges | PSA Interventions & Investments |
| <p>Azerbaijan</p> <ul style="list-style-type: none"> • Significant area and production increases in the last two years of strawberry production • Increased cold storage capacities • Increased local demand for berries • Liberalization of the input market (pesticides, fertilizers) • New varieties are introduced – 9 varieties in the Variety register and 10 in experimental fields • Present harvesting (marketing) season is about 3 months in open field production and 6 to 8 months in the greenhouse production • Specialization of producers • Aggregators are present: cold storage owners, lead farmers, traders, exporters • Market is already diversified • Labor days for strawberry - 283 days, mechanization working hours – 10 (per hectare) • Strawberry production margins are over 50% <p>World</p> <ul style="list-style-type: none"> • Berry production has become global –large suppliers are organizing production in different climatic zones • Decreasing demand for frozen berries due to increased off-season production in southern hemisphere • Frozen berry products have become a commodity • Increasing supply and demand for frozen berries • Growing demand in world and trade increase of fresh berries • Competitive development of new varieties but controlled by the large berry producers and traders • Demand for fresh strawberries in the Middle East market increased by several times over the last eight years | <p>Input Supply:</p> <ul style="list-style-type: none"> • Planting material production is not well organized • Systematic development of introduction of new varieties • To develop nurseries with certification schemes • Respect Plant Breeders Rights <p>Production:</p> <ul style="list-style-type: none"> • Berry producers and support services (extension, consultants) are lacking knowledge and experience with high quality input application • Lack of knowledge on production technologies (fertigation, irrigation, plant protection) and application of new generation of fertilizers • Lack of drip irrigation and water sources <p>Cold Chain Organization</p> <ul style="list-style-type: none"> • Lack of knowledge about post-harvest techniques • Lack of small pre-cooling facilities at the farmer’s field (or in area with concentrated production) • Lack of freezing capacity <p>Marketing</p> <ul style="list-style-type: none"> • Missing links with foreign buyers of fresh and frozen berries • Foreign buyers don’t know about production increases | <ul style="list-style-type: none"> • Development of diversified fresh market berry chain and strengthened frozen strawberry chain • Research-based introduction of high-quality planting material and new varieties • High quality inputs: fertilizers, pesticides, herbicides • Diversification of production • Adoption of new technologies and dissemination to wider numbers of growers • Support in obtaining production certifications (i.e., GlobalG.A.P.) • Plastic tunnels for fresh berry production • Sensors and fertigation equipment for large farms • ICT platforms for sharing knowledge among producers, advisors, buyers • Small pre-cooling facilities at the farm or close to the farm • Cold storage • Investments in processing to support increased production: <ul style="list-style-type: none"> ○ Freezing tunnels for quick freezing ○ Processing equipment for drying or lyophilization ○ Improved packaging, branding, and advertising: ○ Sorting and packing equipment for small (0.5 kilogram retail) and bulk packages (5-20 kilograms) ○ Small 250-500 gram boxes for packaging fresh berries |

V PERISHABLE VEGETABLES

Vegetables are an important part of the economy, rural life and consumption in Azerbaijan. Perishable vegetables grown in Azerbaijan include tomato, cucumber, eggplant, lettuce and other leaf vegetables, and cabbage (categorized as perishable or non-perishable depending on variety). For the purpose of this report, perishable vegetables focus on tomato, cucumber, pepper, and eggplants. All of these products have the same investment needs, often they are produced by the same farmers, traded by the same traders and sold in the same points of sale. Despite these supply chain commonalities, they are significantly different in market size, product demand, consumption, competitiveness level, and export potential. Due to its high importance, development potential, and interesting trends, specific attention is given to the tomato.

Graph 24: Trends in Vegetable Production Processing and Trade (volume, MT)



The average production of vegetables in 2013-2018 was 1,316,240 MT and although it has grown significantly since 2017 it is at the level of average world growth over that period.

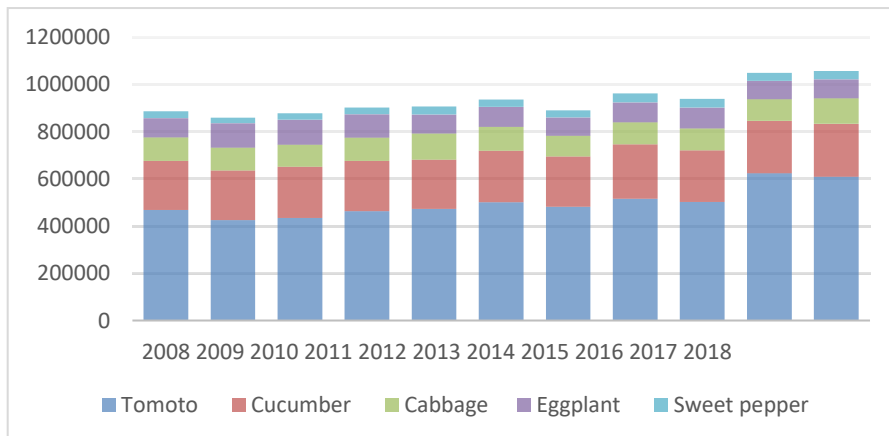
Vegetables were cultivated on 69,300 hectares and in the last 10 years the area has been decreasing. Perishable vegetable is around 60% of the area planted and 69% of vegetable production. In the same period, the export growth is faster than average growth by over 20 percentage points led by the tomato export increase.

Source: SSC

Perishable vegetables are produced in all countries of the world and are in wide use, but the specific products in this group differ based on the consumption patterns and production conditions in different parts of the world. Typically, in European countries, tomatoes, peppers and cucumbers dominate. One characteristic of Azerbaijan is very low production and consumption of peppers. On the other hand, Azerbaijan has high consumption and production of eggplants (more than two times higher than pepper).

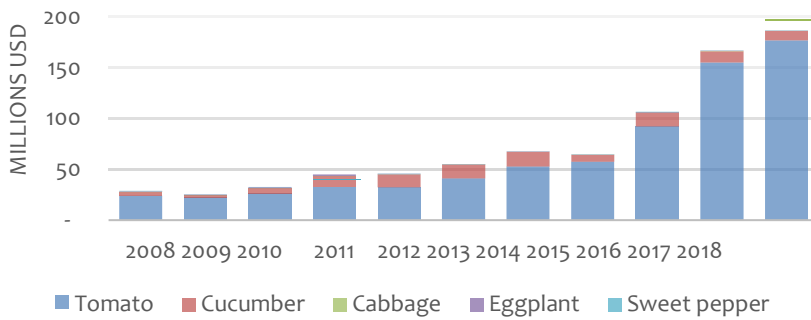
More than a million metric tons of the main perishable vegetables are produced in Azerbaijan. Significant growth has been achieved since 2014, when tomato production increased by 130,000 MT in four years. Besides increases in quantity, there are also structural changes (more indoor production with modern greenhouses) and quality improvement.

Graph 25: Production, Export and Import of Perishable Vegetables



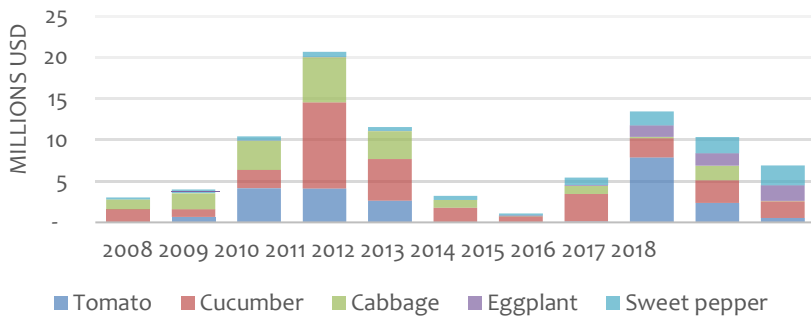
- Tomato is the most produced perishable vegetables at over 600,000 MT in 2018
- Export of tomato reached 177 million USD in 2018
- Production of cucumber is stable at 220,000 MT, and eggplants at 75,000 MT.

Export



- Import of pepper increased by ten times in four years, from 0.25 million USD in 2014 to 2.5 million in 2018.
- Similar figures of import (2.4 million USD) and similar increasing trends are observed in eggplants.

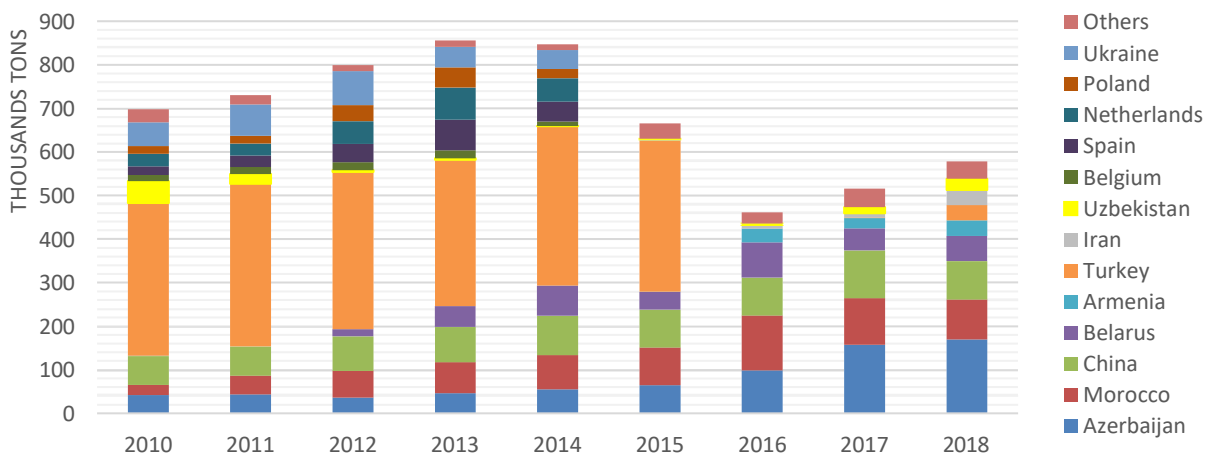
Import



Source: COMTRADE

Tomato production is increasing, and exports even more significantly, reaching 177 million USD. The dominant market with above 99% share is Russia. Azerbaijan's share of tomatoes in overall Russia imports in 2018 was above 28%, increasing from the 3.7% that was recorded in 2013. What are the main drivers for the increase and how sustainable is it? What will happen in future, is it needed and possible to diversify tomato market? Those are the main questions that will define future trends in tomato production and export, as well as determining whether the tomato value chain should be selected for support through PSA.

Graph 26: Russian Import Structure of Tomato



Source: COMTRADE

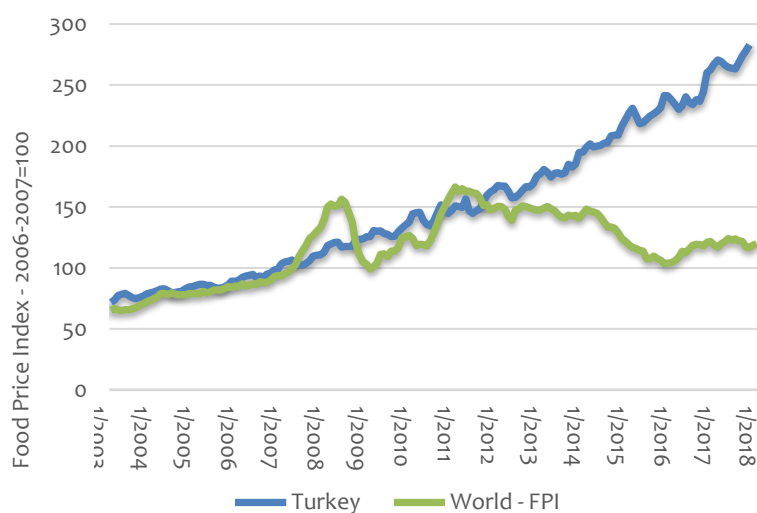
Exports of tomatoes have increased due to internal and external factors, as well as Azerbaijani supply and demand in the Russian market.

External factors that are influencing the tomato market:

- Russian trade sanctions affecting trade with EU countries, Ukraine and Turkey;
- Turkey losing competitiveness due to its macroeconomic problems (see Graph 26);
- Decrease in consumption and import from 2014 in Russia;

- Sanctions that increase price/decrease quality of tomato consumed; and
- Investment in the Russian market in tomato production and re-establishing trading channels from 2016.

Graph 27: Food Price Index in Turkey and World (2006-2007=100)



Turkey is facing macroeconomic problems, redirecting their exports to satisfy increased local consumption. Food prices are increasing faster than overall prices in Turkey. As of March 2019, the Turkish food index was 23.4% higher than the core index level [0.6% higher in the EU; 5.6% lower in the US]

This, together with the fact that Turkey is still a highly protected market (Producer Support Estimates as % of gross farm incomes, averages 26% in 2014 – 2016)

Source: World Bank staff using data from FAO

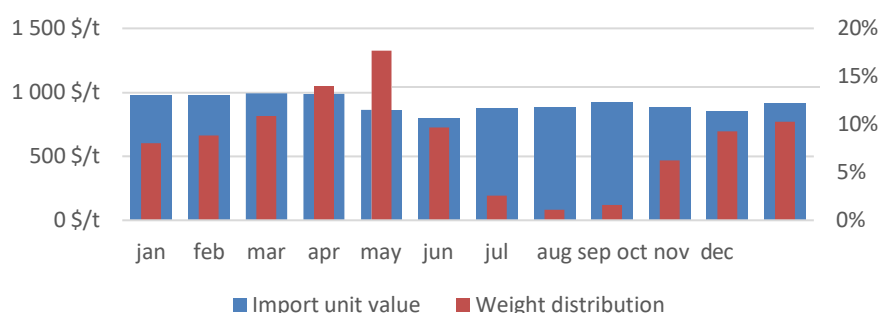
Internal factors that are influencing the tomato market:

- Significant investment potential supported by GoAJ investment support programs that coincide with favorable external factors; and
- Introduction of new technology in tomato production, post-harvest management and logistics that result in knowledge buildup.

There are also threats that positive export trends will not continue:

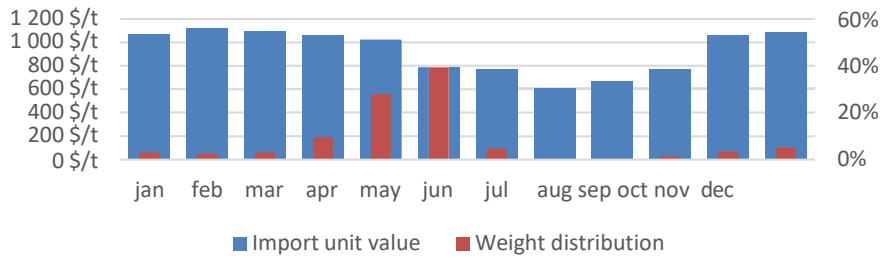
- Russian producers are establishing indoor modern production of tomato;
- Uzbekistan, Iran and others are having significant investment and export growth;
- Turkey’s currency devaluation will foster decreases in imports and prices; and
- Complacency with current situation among producers in Azerbaijan.

Graph 28: Azerbaijan Export, Russia and UAE Import of Tomato – Prices and Time Russian Import



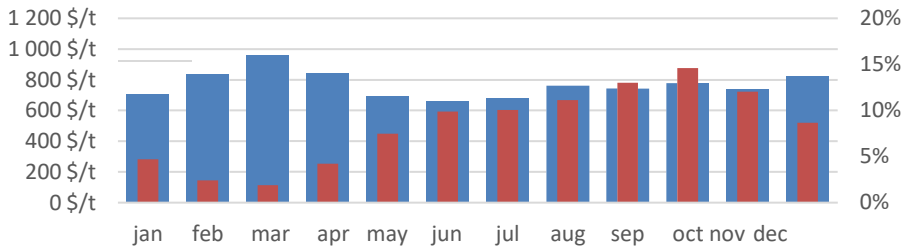
- 67% of Azerbaijan’s tomato export is in May and June. May is the month when Russia has the highest demand for tomato.
- In those two months prices are the lowest in UAE.

Azerbaijan Export



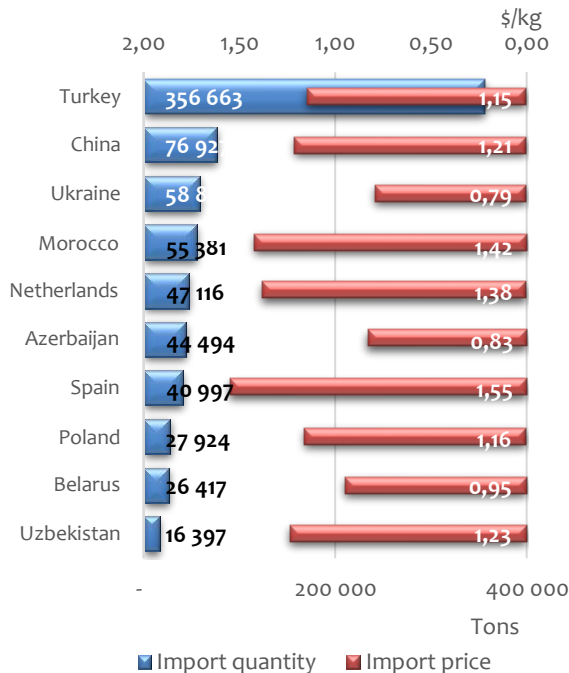
- Azerbaijan exports small quantities of tomato in other months. Organizing production and increasing export in April to Russia and September and October to UAE could be a goal.

UAE Import

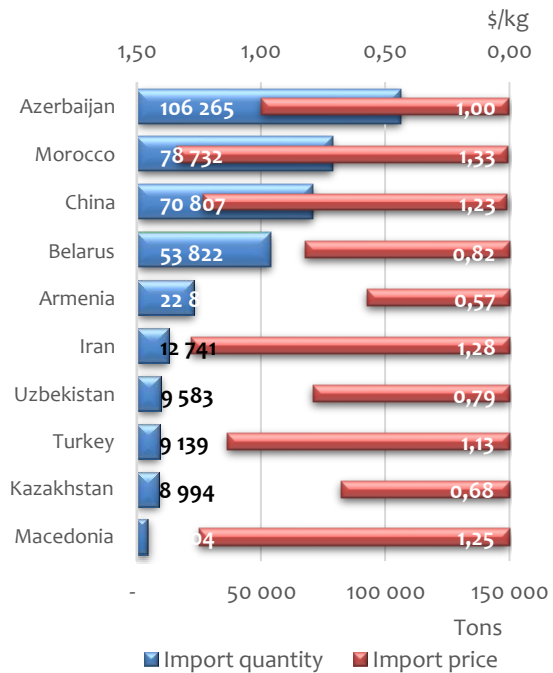


It is not needed to diversify fully since the Russian market will continue to be the main export destination for tomatoes from Azerbaijan. Additionally, market diversification has already started to happen since 2018 with export of tomato to Latvia, Hungary, Estonia, Poland, UAE, Georgia, Qatar, Ukraine, and Belarus, besides existing exports to Russia and Kazakhstan.

Graph 29: Share and Price of the Tomato Import to Russia 2010-2014



Graph 30: Share and Price of the Tomato Import to Russia 2015-2018



Azerbaijan's main competitors in the Russian market are Morocco, China (higher quality and out of season), Belarus, and Armenia (price competitiveness). Azerbaijan producers are positioned in the middle quality category.

Azerbaijan managed to increase the average price of exported tomato from 0.83 to 1 USD positioning at the mid-price level.

Morocco, China, and Uzbekistan reduced the average export prices from 2015-2018 in comparison with 2010-2014 at the Russian market.

Consequently, it is worthwhile for PSA to invest in tomato, especially in market diversification, because:

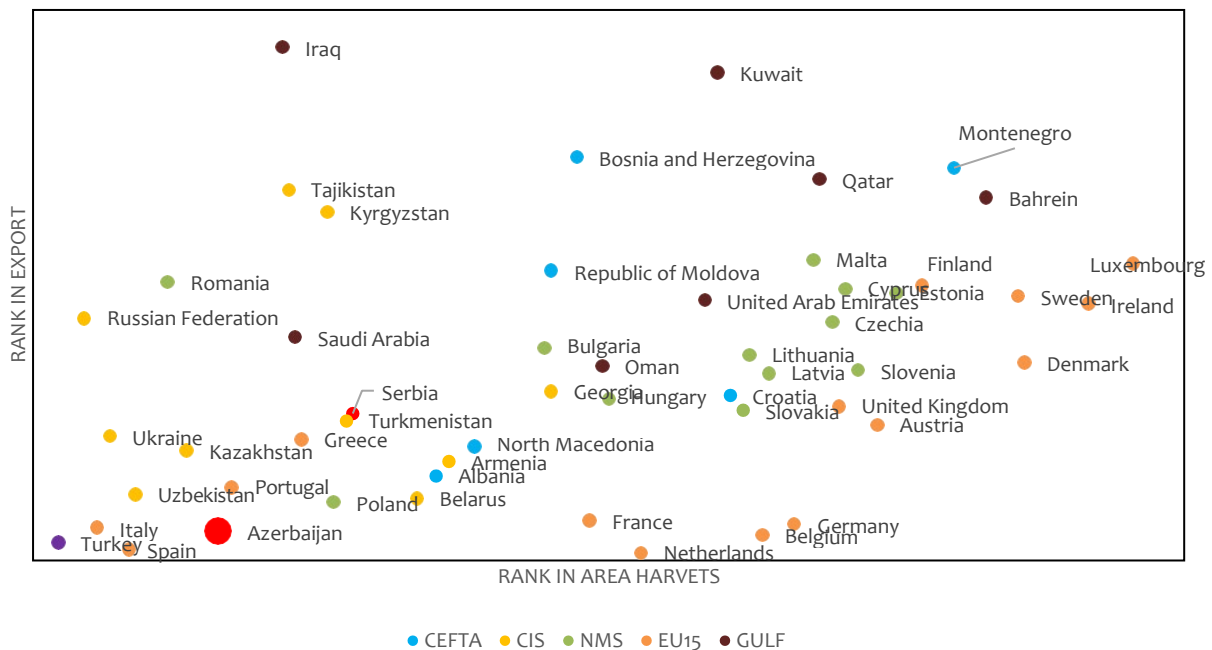
- There is potential for export of tomato to other countries, especially the Middle East markets and the EU in the period out of May and June targeting the middle quality category; and
- Producers will continue to export to Russia regardless of the threats because Azerbaijan has enough competitive advantages:
 - Lower transport cost than main competitors (Morocco, China, Iran, Turkey, Uzbekistan);
 - Good trading infrastructure with many traders and trucks;
 - Expectation that Russian consumption will continue to increase; and
 - External factors will not be changed: sanctions to EU will continue, Turkey will continue to have high prices.

To be able to continue good export trends and diversify the market further, investment is needed throughout the value chain as described in the recommendations later in this section.

V.1 KEY CHARACTERISTICS OF THE PERISHABLE VEGETABLES VALUE CHAIN

In Europe, the main consumption trends of perishable vegetables are quality and varieties orientation. This was followed by price increases. The main priorities are: good taste and high level of brix (tomatoes above 10 brix level, peppers above 11, cucumbers above 9), different colors of tomato and pepper, product diversification into cherry, cocktail, roma, heirloom, and other varieties of tomatoes, bell, jalapeño and other types of peppers, and year-round availability of products (through indoor production or import). Supermarkets in Western European countries and the U.S. are not very interested in low quality perishable vegetables and seasonality almost doesn't exist. The average import price for tomatoes for the 2012-2017 period in Germany was 1.9 USD/kilogram based on Germany's demand for higher quality produce and higher out-of-season consumption. Most of these consumption trends are also already present in Azerbaijan and those that are not, will very likely become popular soon enough.

Graph 31: Rank in Area Harvest and Export of Tomato in 2018 in Comparison with World Countries

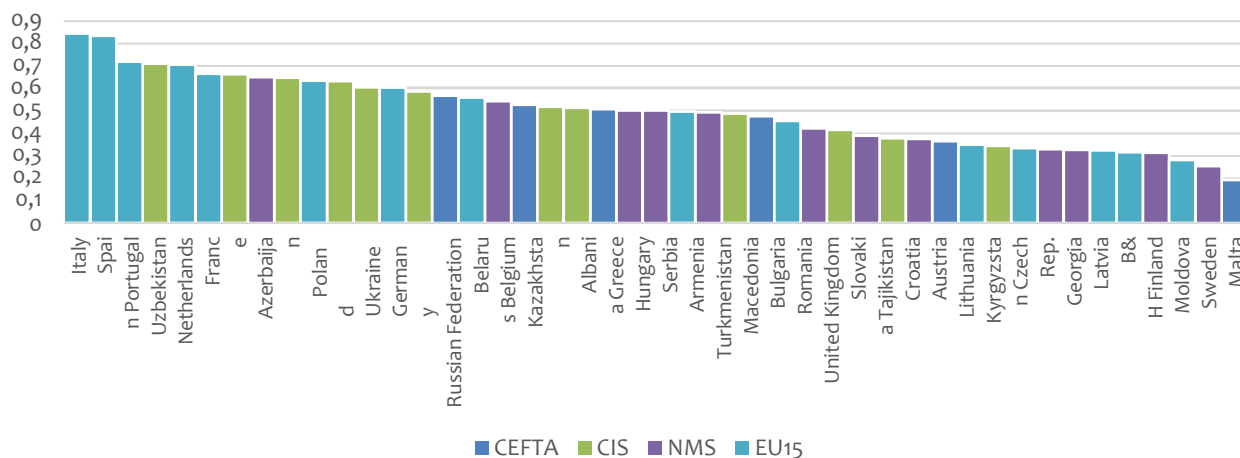


Source: FAO, COMTRADE, processing SEEDV

In 2018, Azerbaijan with 21,330 hectares was ranked 29th among world countries in area harvested under tomato and, with 177 million USD of tomato exports, was 8th in exports.

Lack of knowledge. Although significant improvement has been made in recent years, largely due to foreign experts (mainly from Turkey), there is still significant room for yield and technology improvement, in particular plant feeding using fertigation.

Graph 32: Index of Competitiveness Tomato



Source: COMTRADE, FAO, ITC, calculation SEEDEV

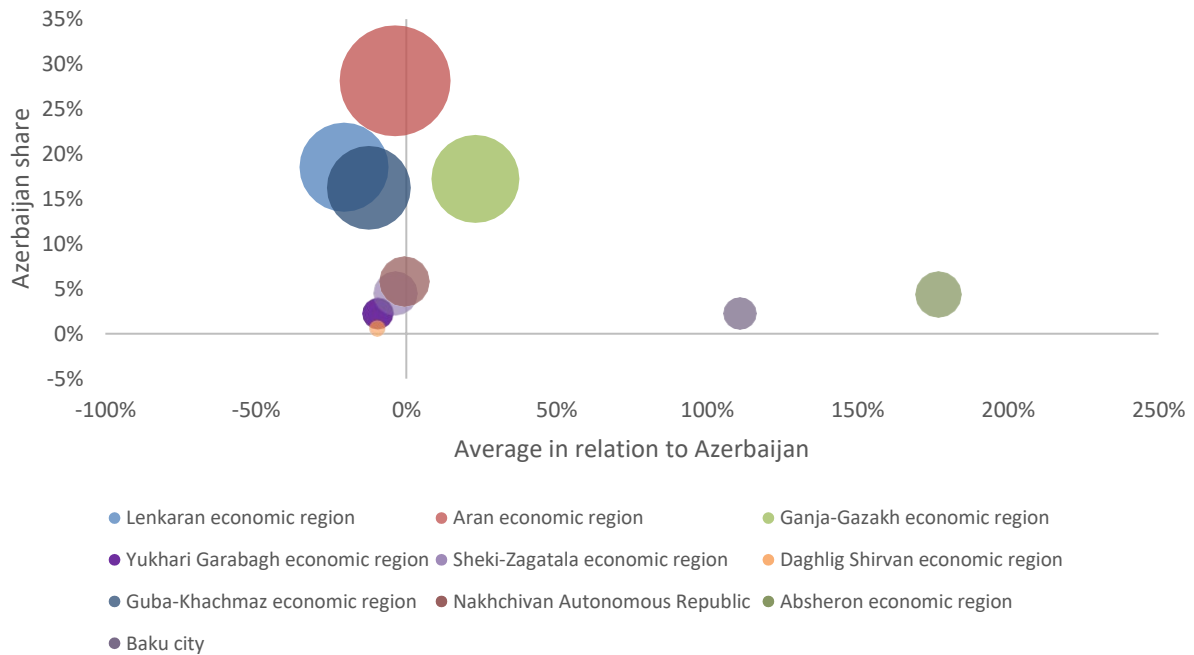
Pepper production in Azerbaijan is small. A similar situation is observed in the whole region. The volume of production is small (Georgia 4,300 MT, Azerbaijan 49,200 MT) but has been increasing over the last three years (Georgia 9%, Azerbaijan 4%), as are exports. The highest export growth was in Georgia, it doubled in quantity and more than quadrupled in value, but average exports in the 2012-2017 period were still a very modest 22,000 USD. Highest export is recorded in Armenia at 173,800 USD.

Market chain of the perishable vegetable is often short. Small farmers supply perishable vegetables at the farm, neighborhood or local green market. However, backyard production is decreasing due to an increase in production by medium and large producers who are export oriented.

Large-scale producers and their investments are the main drivers of growth. The major investors in greenhouse production are businesses outside of the agricultural sector. They are bringing innovations since they are not restricted by traditional knowledge, and they are purchasing high-quality inputs including varieties, fertilizers and foreign expertise. Also, the trend is toward development of branded company products.

Production is organized in all Azerbaijan regions. The biggest production is in Guba, Aran, Lankaran, and Ganja regions, while the biggest growth from 2013-2017 was recorded in Absheron and Baku city.

Graph 33: Tomato Production by Region for 2013-2017 Period Versus Azerbaijan's Average



Azerbaijan Statistical Office

Tomato prices in Azerbaijan are determined by export potential and a 15% custom import duty that restricts competition from Turkey. Consequently, in certain periods of the year, tomato prices in Azerbaijan are high in comparison with open countries.

V.2 KEY CHALLENGES AND SPACE FOR IMPROVEMENT

Increased competition. Regional tomato production is increasing. Iran produced 6 million MT of tomatoes (2013-2017 average), in Armenia the production was about 300,000 and in Georgia 62,000 MT on average per year in the 2000-2014 period. Uzbekistan has had high state, donor, and private investment in the agricultural sector in recent years, which will contribute to its increased competitiveness.

Yield is low. Tomato growers in greenhouses only achieve 25-30 kilograms per square meter, while normal yields are 40-45, and in the Netherlands even reach 60-90 kilogram per square meter. Seasonality constraints include excessively high temperatures in summer and a lack of light in the winter. It would be possible to extend the season in winter by adding lighting, and this seems like a viable option to explore.

Better penetration of new varieties and new technology. In recent years, vegetable producers switched to using new hybrid seeds for cucumber, eggplant, pepper, onion, carrot, and potato. The seeds of new varieties are mainly imported from Turkey, Russia, and the Netherlands. These highly productive varieties are replacing traditional local varieties. However, there is a need for further research and variety improvement since those varieties are not bred for Azerbaijani conditions and very often do not match the level of technology.

Productivity in open field production needs to be improved. The average yield of 17 MT/hectare compares poorly to neighboring leaders Turkey's 35 MT/hectare, Iran's 36 MT/hectare and Armenia's 42 MT/hectare. Some of the main problems are lack of effective irrigation, high costs and low control of quality inputs, and insufficient knowledge of modern technologies.

Inclusion of small-scale perishable vegetable producers into modern value chain. Their inclusion into the modern market chain is important for Azerbaijan and the easiest way to do it is through co-existence and cooperation between small and large producers where large growers introduce new technologies and small ones spread it on a large scale.

Access to competitive labor. Production of perishable vegetables requires high numbers of workers, both full-time and seasonal. This number depends on the level of automation (investment) and yield, with high yields requiring significantly more people.

Rationale for Product Categorization

Tomato is Included in Group II: Market Diversification and Quality

Pepper and Cucumber are Included in Group III: New Technology Dissemination

- Competitiveness analysis showed that tomato is among the most competitive agricultural products in Azerbaijan (6 of the 27 analyzed products) as well as in CIS and European countries analyzed (7th place among 41 countries analyzed).
- Increasing domestic demand for all perishable vegetable products, in particularly pepper, which is already increasing and will further increase from a very low level.
- Possibility for import substitution, in particular with pepper and cucumber.
- Stable Russian market and possibility to export tomato to other more valued markets such as the Middle East and EU.
- Significant potential for production and marketing improvement and diversification, primarily yield and quality increases, post-harvest techniques and market diversification.
- Existing producers are ready, willing and have resources to move ahead.
- It is a market, policy and subsidy-driven value chain.
- Revenue gained from indoor and outdoor perishable vegetable production is higher than in other sectors.
- Pepper and cucumber value chains are dominated by small-scale farmers.
- It is a logical next step that technology transfer will occur from the large tomato growers to medium producers.
- Azerbaijan, through different state investment support programs, is offering many advantages for producers who would like to increase or start production of perishable vegetables.
- Azerbaijan still has cheaper labor than does the majority of its competitors, which matters in perishable vegetable production.

V.3 RECOMMENDATIONS FOR DEVELOPMENT

Tomato production is very important for Azerbaijani producers (small-scale in open field production and large export-oriented indoor producers), the economy (high value of production and export, high share in credit portfolio), supporters to the sector (input suppliers, traders, truck owners, drivers), and buyers, both processors and consumers (available product at good quality and affordable, competitive price). The goal of interventions in this sector should be continuation of production and export increases, adding value by quality improvement and market diversification. To achieve this, the primary focus should be on high-quality production, through improved production practices disseminated at scale to large numbers of growers, and improved access to inputs and equipment. Based on these production improvements, other improvements will then be required along the post-harvest, processing, and marketing chain.

Improved Access to New Varieties and Inputs. PSA should compile a list of the primary input supply companies involved in perishable vegetable input supply, helping producers to better sort hybrid seeds, fertilizers, biostimulators and pesticides and organize an input supply sector meeting which will identify and make plans to address key problems in the sector. PSA will identify and support nurseries interested in the commercial production and marketing of hybrid seedlings of perishable vegetables. To address regulatory issues related to the import and propagation of hybrid varieties, PSA should also facilitate cooperation between input suppliers, nurseries, and the relevant GoAJ agencies.

Improved Production Technologies. PSA will identify innovative producers willing to diversify markets and adopt new technologies and will leverage these producers to disseminate knowledge and practices to wider numbers of growers. Demonstration fields and study tours will play a key role in educating producers on new technologies. PSA will support digital farms, introducing sensors to collect, input, and analyze

production data to improve productivity. As producers seek to access new markets, they will be supported in achieving necessary certifications including, as appropriate, Organic and GlobalG.A.P.

Post-Harvest Handling and Processing. PSA will conduct a detailed analysis of existing processing facilities and look for enterprises willing to invest in upgrading or introducing processing, particularly in areas of high market demand (such as frozen) that also can benefit multiple value chains. Support will focus on identifying needed investments, obtaining the most appropriate equipment, and pursuing certifications such as ISO, IFS, FSSC, BRC, and HACCP, as required.

Market Linkages. The key focus will be given to the market diversification, focusing on the Middle East, EU and other market opportunities. Therefore, market linkages, both domestic and export, will be strengthening and formalizing grower-distributor relationships through organization of meetings, education on benefits of contract farming, and capacity building for large intermediary actors. PSA will also introduce modern packaging and labeling technologies aimed at extending shelf life and meeting high-end buyer requirements.

Table 5: Perishable Vegetable Action Matrix

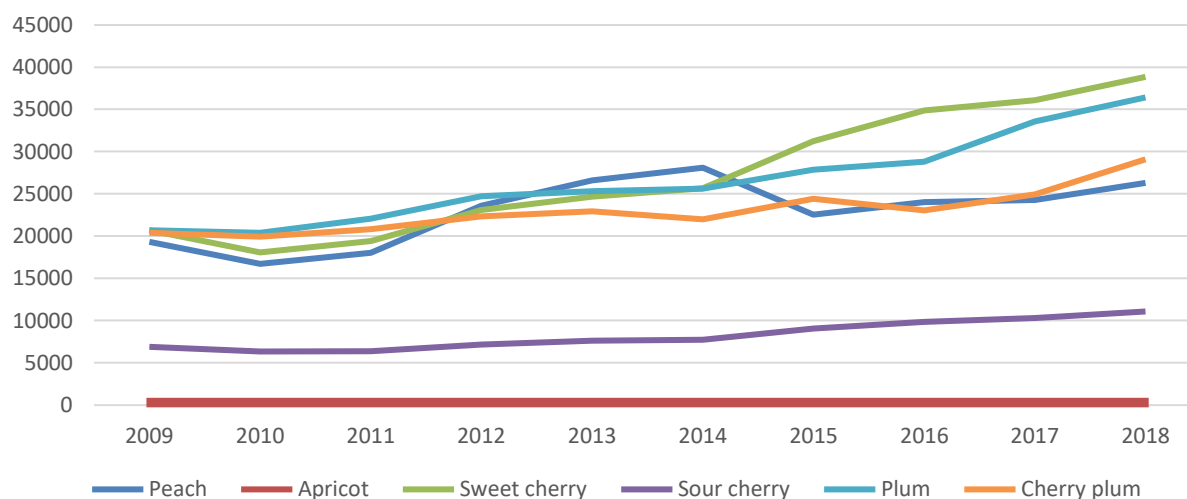
| PERISHABLE VEGETABLE VALUE CHAIN ACTION MATRIX | | |
|---|--|---|
| Group II: Market Diversification and Quality (Rationale) – Tomato | | |
| Group III: New Technology Dissemination (Rationale) – Pepper and Cucumber | | |
| Context & Trends | Gaps & Challenges | PSA Interventions & Investments |
| <p>Azerbaijan:</p> <ul style="list-style-type: none"> • Main open field crops: tomato, cucumber, onion • Nine-month production season • Cultivated area in open field is decreasing, most prominently for tomatoes • High-tech greenhouse area is expanding • There is almost no freezing capacity although market demand for frozen vegetables is increasing • High diversification of offer due to the different local varieties and climatic zones • Investors outside the sector see opportunities and are investing in indoor production • Increasing production and export of tomato • Investment in large high-tech greenhouses in Absheron pushed out producers in Masalli region • Increasing sales in modern outlets which require consolidated offer standards and traceability • Increased demand for new varieties of vegetables <p>World and Regional Trends:</p> <ul style="list-style-type: none"> • Increasing demand for all types of perishable vegetables, both fresh and frozen • Production moving from countries with high labor costs to countries with lower labor cost • Consumers are becoming quality sensitive and ready to pay for quality • Longer shelf-life has increased competitiveness of southern-hemisphere suppliers • Turkey is a regional leader in production but has reduced exports significantly | <p>Increased global competition means that Azerbaijan must address gaps across the entire value chain.</p> <p>Input Supply</p> <ul style="list-style-type: none"> • Need for new varieties researched and tested in Azerbaijani conditions • Lack of certified seeds and specialized professional seedling producers • Restricted number of pesticides and fertilizers available on the market • Lack of knowledge and advice about high-quality input (fertilizer, irrigation, plant protection) use <p>Production</p> <ul style="list-style-type: none"> • Low yields compared to competitors • Seasonality of production • Open field production needs improvement (irrigation, inputs, production technologies) • Include small-scale producers in the modern value chain • Access to competitive labor <p>Post-Harvest</p> <ul style="list-style-type: none"> • Lack of knowledge about post-harvest techniques • Lack of post-harvest equipment: precooling, sorting, packaging, which will increase shelf life and add value to the products <p>Marketing</p> <ul style="list-style-type: none"> • Lack of consolidation at the aggregator level • Missing links with foreign buyers | <p>Need to increase production and increase fresh supply to the domestic market as well as processing.</p> <ul style="list-style-type: none"> • Improve access to new varieties and inputs • Identify and support nurseries interested in commercial, timed production of seedlings • Facilitate coordination among input suppliers, nurseries, and GoA agencies • Identify innovative producers and use them to adopt and disseminate advanced production technologies • Support investments in plastic tunnels for fresh perishable vegetables, fertigation equipment, digital farms • Promote organic and GlobalG.A.P. certification • Develop ICT platforms for sharing knowledge among producers, advisors, buyers • Identify and support post-handling and processing facilities interested in upgrading facilities or introducing new technologies • Invest in: <ul style="list-style-type: none"> ○ Small pre-cooling facilities at/near farm ○ Processing equipment ○ Cold storages for frozen vegetables ○ Freezing tunnels for quick freezing ○ Small-scale sorting and packing equipment • Support quality improvements and certification (ISO, IFS, FSSC, BRC, HACCP) • Market diversification study • Introduce modern packaging and labeling • Improve cooperation along the market chain |

VI STONE FRUITS

Stone fruits are the most diversified fruit subsector, as it is characterized by a wide range of species and varieties. Although diversified, the varieties share common investment needs and value-chain commonalities; in many cases different stone fruits are produced by the same producers, traded by the same traders and sold at the same points of sales. Stone fruit, for example peach, can be easily substituted by other popular stone fruits such as plum, nectarines or various hybrids. Supermarket development influenced stone fruit diversification since they required not only year-round supply but also attractive products. The issue in the sector is that in the last twenty years the cultivars were created in private breeding programs, thus the access to innovation was restricted. Other trends which are also very pronounced are smaller and easily managed trees, reduced pesticide use, the expansion of production zones into the milder winter regions to allow year-round availability of stone fruit, the need for better and more consistent quality, and, given the global marketing of these fruits, an increased need for enhanced post-harvest management. Breeding should also be focused on selection of fruits with natural antioxidants and smaller fruits, which are a good option for snacking.

In Azerbaijan, production of stone fruits increased from 80,000 MT in 2009 to 140,000 MT in 2018. Sweet cherry production has continuously increased since 2014. Plum production has the same trend, while peach and cherry plum production are stagnating.

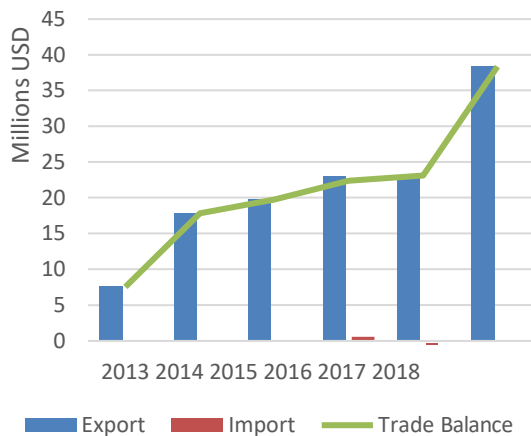
Graph 34: Trend of Stone Fruit Production in Azerbaijan 2009-2018



Source: SSC

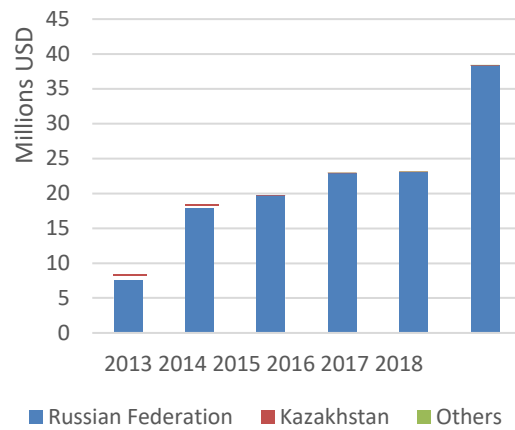
Sweet cherry is a traditional fruit in Azerbaijan, but over the last 6-8 years, new intensive orchards have been established using high productive Lapins, Cordia, Regina and other varieties and planting material imported from Turkey and the EU. The average yield of these new variety sweet cherry orchards at full production (5th year of growth) is 25 MT/hectare. Not only intensified production, but also post-harvest practices such as precooling by hydrocooler, improved the marketability of sweet cherries. Guba-Khachmaz region is the main sweet cherry growing region of Azerbaijan. Out of the total 38,000 MT of sweet cherry production in 2018, 21,000 MT was produced in the Guba-Khachmaz region. The export of sweet cherries reached 38 million USD in 2018. The export is mainly focused on Russia, but there are attempts to market sweet cherry in Kazakhstan, Malaysia, Great Britain, and the UAE.

Graph 35: Sweet Cherry Trade Balance Azerbaijan



Source SSC

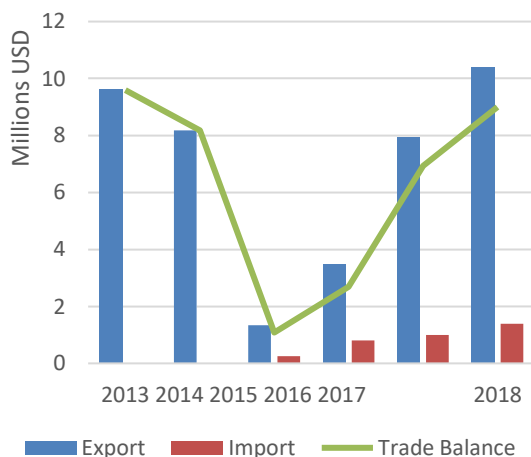
Graph 36: Sweet Cherry Export Destinations



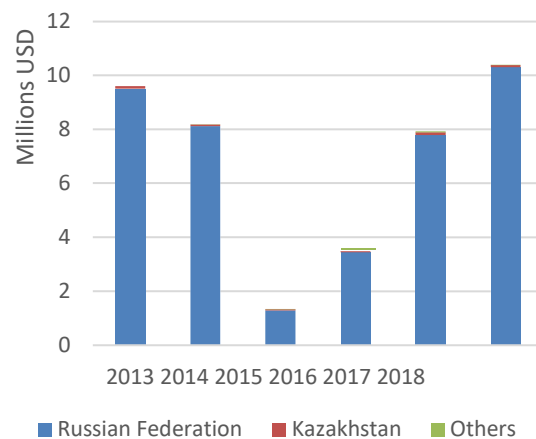
Source SSC

Peach production is about 20,000 MT. There are producers who are diversifying their varieties and they are focused on quality and not only production volume. Peach export recovered from a 2015 drop and gradually increased back to 10 million USD in 2018. The peach depends on the Russian market, which requires high phytosanitary standard compliance and also imposes other non-tariff barriers.

Graph 37: Peach Trade Balance Azerbaijan 2013 - 2018 Graph 38: Peach Export Destinations 2013 2018



Source SSC



Source SSC

Plum species in commercial trade are both the hexaploid European plum (*Prunus domestica*) and the diploid Japanese plum (*Prunus salicina*). In Azerbaijan, the Japanese plum varieties are produced, and they are suitable for fresh consumption. Plum exports in 2017 and 2018 were over 4 million USD and the dominant export market was Russia. Azerbaijan, with its different climatic zones, provides opportunities for off-season production of stone fruits (early plum varieties ripening in July reach a price that is 40% higher than in season in the region, EU and Russia).

VI.1 KEY CHARACTERISTICS OF THE STONE FRUITS VALUE CHAIN

Dual structure of the producers. Intensive stone fruit orchards are being planted by companies or fruit producers engaged in apple production as a business extension and diversification of production. Estimates are that 40% of total orchards are these new orchards and 60% are traditional small-scale orchards. The focus is on sweet cherries but also on nectarine, peach and plum.

Different marketing channels. Small-scale production at family farms is sold at local markets, through street vendors, or to middlemen/collectors who transport and sell at wholesale markets. Trade relations are based on verbal agreements. Companies and large producers supply the retail markets or export via traders

who provide services such as logistics, grading, standardization, packaging and activities related to shipment and cargo handling. Trader/intermediaries are aggregators and key players in the distribution channels.

The processing of stone fruits is performed both on an industrial level by Gilan, Azersun, and small industrial canning plants as Qafqaz Konserv and Saf, as well as at the household level.

VI.2 KEY CHALLENGES AND SPACE FOR IMPROVEMENT

Marketing stone fruits is about innovation, product differentiation, and variety of product offering. There are a range of opportunities for adding value by differentiation of varieties, extension of the fresh marketing season through diversification of varieties, and the potential for stone fruits to be marketed as frozen or dried product.

Stone fruit production is compatible with other fruit production at the same farm. Usually good apple growers are planting stone fruit orchards to extend the production season – the stone fruit season is from May to September continuing into apple season. Also, stone fruits are compatible with berries. The common practice of cold storages with freezing regime or processing plants is to purchase different stone fruits and berries to extend the season and product offering and offset risks.

Intensive stone fruit production requires both seasonal workers as well as highly skilled workers for pruning and harvest operations. The labor engagement per hectare of intensive stone fruit orchard is in the range of 120 to 150 days per year. Highly educated and skilled agronomists are necessary for the development of the sector.

There are a number of processing opportunities which are not used by the stone fruit producers in Azerbaijan. But processing should not be based on second-class product, but on specific varieties and quality fruits. Stone fruit processing includes freezing, drying, processing by heat for the production of concentrates, jams and other products for other food processing activities (dairy products, baked goods). Fruit juice production in Azerbaijan should be further developed towards production of cold pressed juices with innovative fruit and vegetable combinations and opening of new markets.

Market diversification: Although Russia is the major export market, demand for stone fruits exists and must be investigated in other markets.

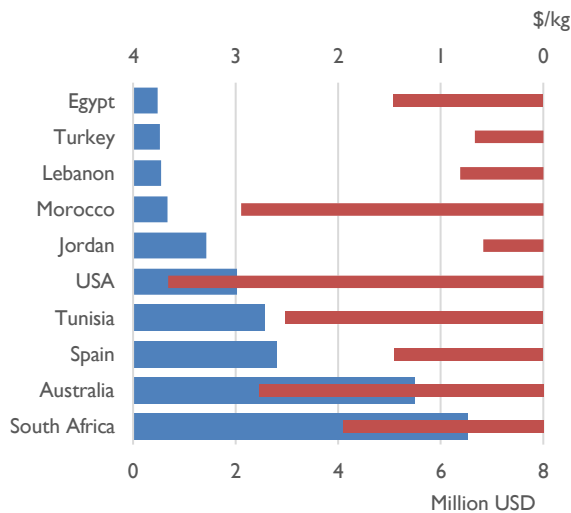
Sweet cherry has market potential as follows:

- EU: the biggest importers are Germany, the Netherlands, Italy and the UK, while Luxembourg offers the highest unit value. The largest importer among the NMS is Bulgaria, while the highest import growth is enjoyed by Latvia and Slovenia.
- CIS: the biggest importer is Russia, while Kazakhstan, Belarus and Georgia have high import growth.
- Middle East: there is an increase in imports in the UAE.

Plum also has significant market potential:

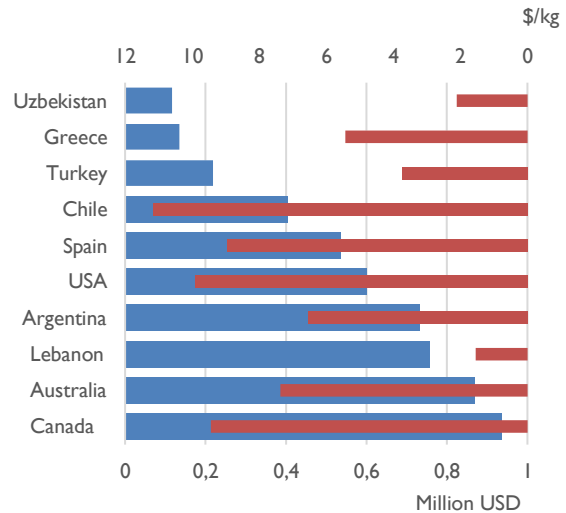
- EU: biggest importers are Germany, Netherlands, UK, Spain and Italy. Luxembourg and Greece offer the highest unit value.
- CIS: the biggest importer is Russia, while Kyrgyzstan, Tajikistan, Belarus and Kazakhstan have significant import growth.

Graph 39: Top 10 UAE Peach Suppliers



Source: COMTRADE

Graph 40: Top 10 UAE Sweet Cherry Suppliers



Source: COMTRADE

There is a lack of extension services and research and development for introduction of new cultivars. New cultivars are protected by the breeders and intellectual property rights have to be respected, which is slowing or restricting the introduction of new varieties.

Rationale for Including Stone Fruits in Group III: New Technology Dissemination

- Competitiveness analysis showed that 3 of the 10 most competitive agricultural products in Azerbaijan are stone fruits. This does not necessarily indicate that the sector is competitive in international market, but it does indicate that other countries are leaving this space because it is less profitable for them than some other agricultural products.
- Diversity of stone fruit species and cultivars offers constant improvement and innovation in the domestic and export markets.
- There is potential to expand the production of off-season cultivars (cherries, peaches and plums (early season marketing), marketing the plum cultivar *President* in the EU market (late maturing).
- Consumption trends for frozen, dried, and ready-to-eat packaged fruits favor stone fruits.
- There are many opportunities for processing stone fruits (freezing, drying, canning, juices).
- Azerbaijan still has less expensive labor than do the majority of its competitors.
- Increased domestic demand for stone fruits especially through supermarket channels.

VI.3 RECOMMENDATIONS FOR DEVELOPMENT

Value-chain upgrading strategies exploit opportunities related to the two dynamic trends identified above, namely 1) working with stone fruit producers to improve quality and introduce the varieties demanded in domestic and export markets, and 2) working with exporters and traders to take advantage of opportunities for supplying high quality, higher priced fruits in the CIS and Middle Eastern markets.

Identify Leaders. PSA should identify leaders in the stone fruit sector who are willing to coordinate and even provide investment support for portions of an integrated production and post-harvest handling support package. Potential lead partners might include advanced fruit producers willing to diversify production, large fruit producers and traders who are willing to support and invest in production and cooperate with smaller fruit producers organizing the input supply, production support, post-harvest storage, packing and marketing and developing long relationships. PSA activities should support the introduction of innovative cultivars and intensive production technologies and improve marketing through improved post-harvest treatments and introduction of quality standards to increase and homogenize quality. Key aspects of production training can include the development of online Production Guides for each stone fruit, and study tours for innovative producers to introduce new technologies.

Work with retailers. Some of the retailers may be interested in securing a consistent supply line providing traceability guarantees that they are unable to obtain in wholesale markets. While these players are unlikely to be major investors in production, they may be promising partners in alliances with producers who need sales outlets.

Invest in additional cold storage. Improved pre-cooling and cold storage management has to maximize the utilization and efficacy of existing cold storage as well as new facilities. PSA can assist cold storage operators to base their business plans on diversification, maximizing utilization rates taking into consideration the different timeframes and storage needs of different products (stone fruits, berries, and perishable vegetables).

Processing Initiatives. Special attention has to be provided to stone fruit processors' initiatives in drying, freezing, cold-press juices and other innovative technologies. As appropriate, support should be given for quality certifications such as ISO, IFS, BRC, and HACCP.

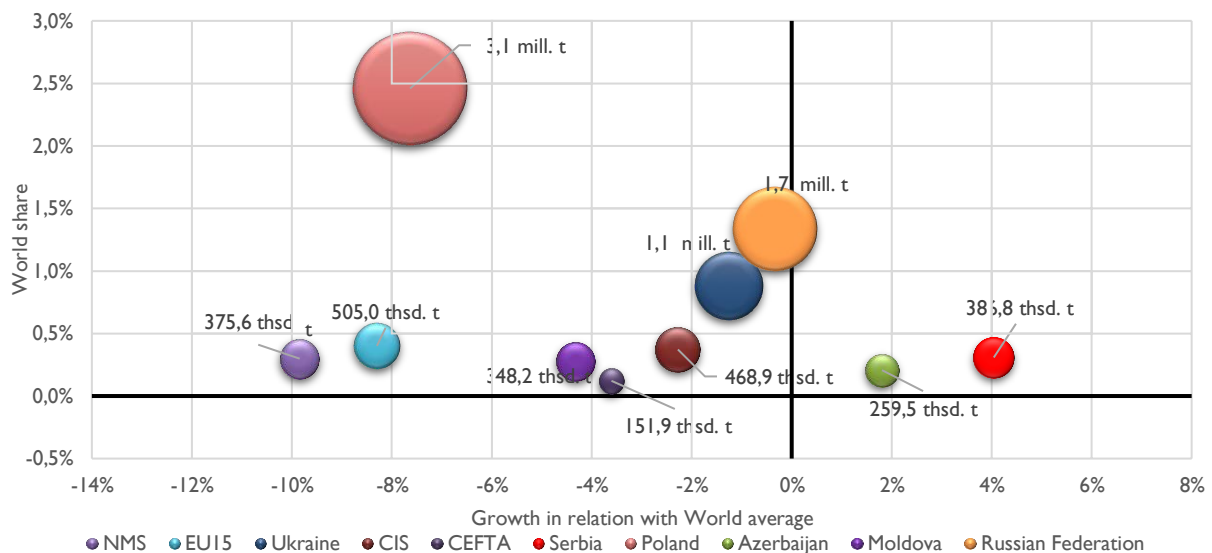
Table 6: Stone Fruit Action Matrix

| STONE FRUIT VALUE CHAIN ACTION MATRIX | | |
|--|---|--|
| Group III: New Technology Dissemination (Rationale) | | |
| Context & Trends | Gaps & Challenges | PSA Interventions & Investments |
| <p>Azerbaijan:</p> <ul style="list-style-type: none"> • Production of stone fruits is increasing • Sweet cherry, the primary stone fruit, is concentrated in Guba-Khachmaz, production and exports are increasing, with a focus on the Russian market but there is some market diversification • Plum production and exports are increasing, primarily to Russia • Peach production is stagnating and dependent on the Russian market • 3 of the 10 most competitive agricultural products are stone fruits • New intensive orchards are being established using new varieties • Investments in post-harvest practices improve the marketability of stone fruits • Different climatic zones provide opportunities for out-of-season production of stone fruits <p>World:</p> <ul style="list-style-type: none"> • Stone fruits are one of the more diversified fruits with many cultivars within the species • Expansion of production zones to satisfy continuous global supply • Peach trade is decreasing, cherry is increasing, and plum is stable • The price of stone fruits varies depending on type, fruit marketing and packaging • Supermarket development influenced stone fruit diversification since the offer must not only be continuous but also attractive | <p>Need for innovation and differentiation:</p> <ul style="list-style-type: none"> • Introduction of new varieties: new cultivars are protected by the breeders and intellectual property rights have to be respected, which is slowing or restricting the introduction of new varieties • Diversification of production (combine with berries) • Need for laborers and extension advisors • Fruit producers and support services (extension) are lacking knowledge of modern training systems and production models and experience with high quality input application (fertigation, plant protection) • Lack of knowledge of post-harvest techniques • Processing – should be based on high-quality production, not as a secondary market for fresh “seconds” • Market diversification required to reduce dependence on Russia | <ul style="list-style-type: none"> • Support introduction of new cultivars • Introduce intensive production technologies (i.e., plastic tunnels for cherry production, sensors and fertigation equipment) • ICT platforms for sharing knowledge among producers, advisors, buyers • Introduction of quality standards and certification for production, post-harvest, and processing • Study tours to introduce new technologies • Invest in pre-cooling and cold storage to improve cold chain management; assist cold store operators to diversify product and increase utilization rates • Invest in processing initiatives in drying, freezing, and cold-press juices • Work with retailers to improve supply chain management |

VII APPLES

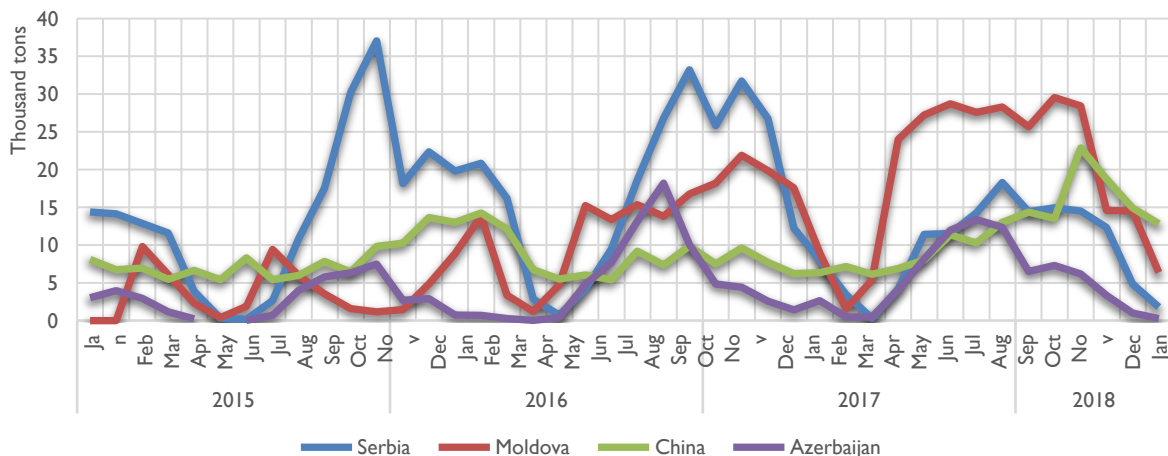
Azerbaijan has a favorable climate for apple production, is proximate to a large market, and enjoys good trade links with most of the neighboring countries. Azerbaijan apple production was 259,500 MT per year over the 2014 -2017 period. Over the same period, the growth in production was faster than average world apple production growth. The major trigger for this growth was privileged access to the Russian market and investors from other sectors who recognized the opportunity.

Graph 41: Production Growth of Selected Countries and Average Production of Country Groups in Relation to World Growth and Their World Share for the 2014-2017 Period

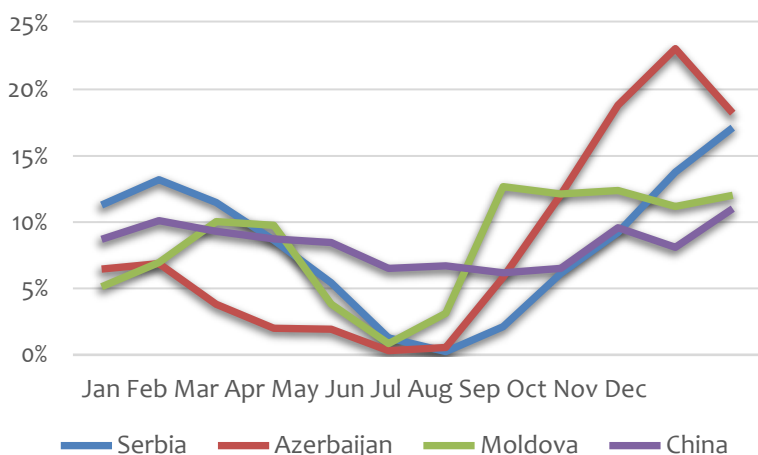


The value of apple exports increased from 15 million USD in 2015 to 36.4 million in 2018. The export increase was achieved by taking advantage of the absence of EU producers in the Russian market and investments in apple production. Azerbaijan became the fourth supplier on the Russian market.

Graph 42: Monthly Import of Russia from Top Four Suppliers



Graph 43: Monthly Distribution of Apple Import to Russia (average 2015 – 2018)

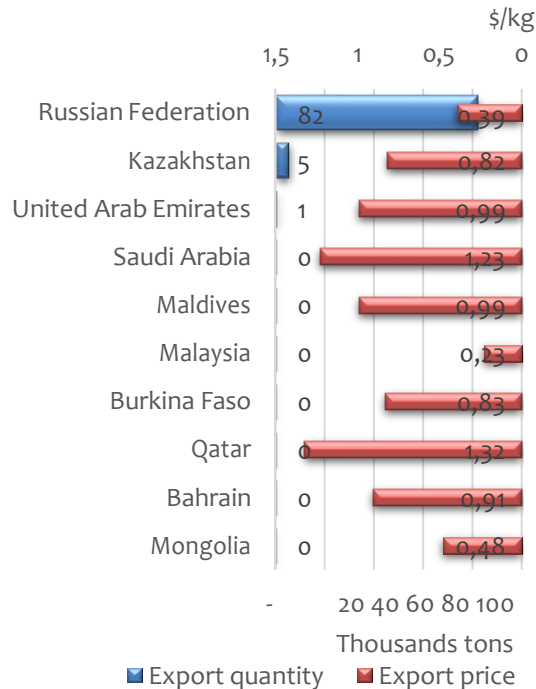
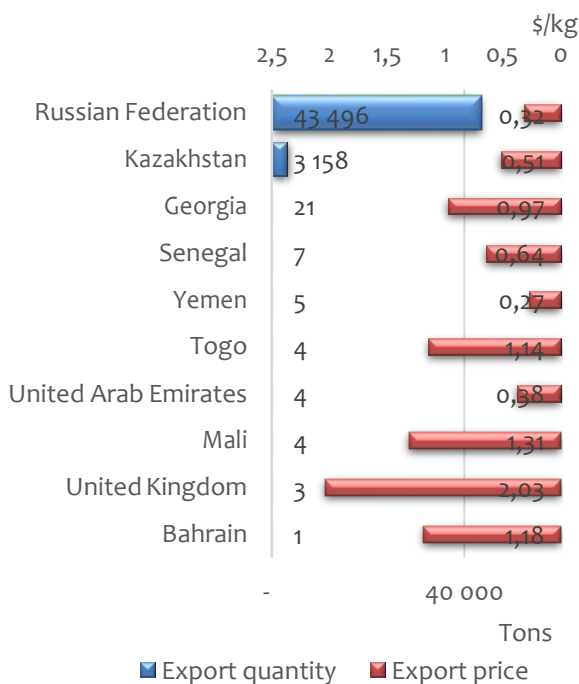


The Azerbaijan monthly export pattern to Russia indicates that the majority of exports occur after harvest when the supply of apple is highest and prices lowest. The exports from Serbia and Moldova are extended into April and May due to over 100,000 MT of ULO cold storage capacities.

Source: SSC

In 2018, attempts to diversify export of apple from Azerbaijan to markets other than Russia are visible. There is obvious export to Middle Eastern countries (UAE, Saudi Arabia, Qatar) and the prices obtained in these markets are significantly higher than the average price in Russia.

Graph 44: Export of Apples from Azerbaijan 2010-2014 Graph 45: Export of Apples from Azerbaijan 2018

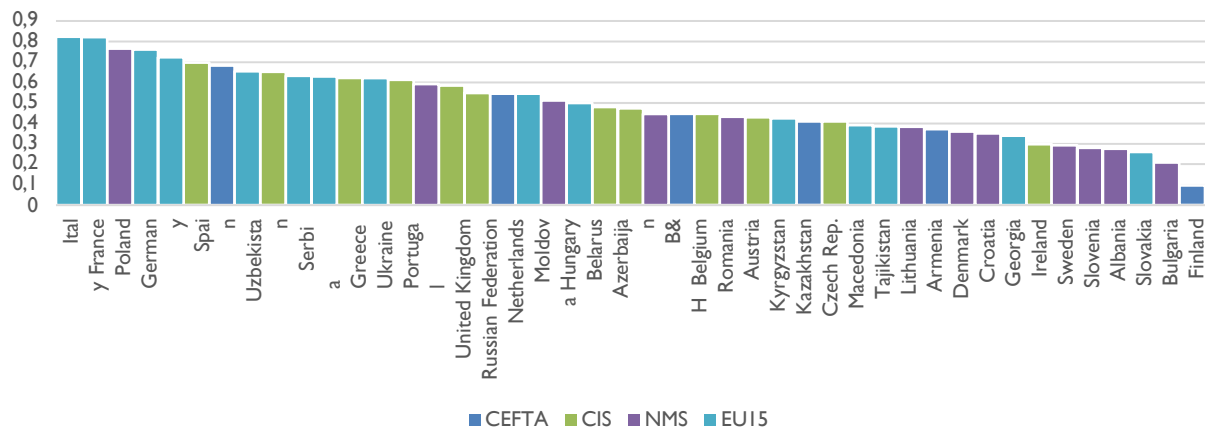


Source: COMTRADE

Source: COMTRADE

The competitiveness analysis based on trend and shares of production and trade indicates that Azerbaijan is a competitive producer of apple compared to selected countries.

Graph 46: Apple Competitiveness Index – Country Comparison



Source: COMTRADE, FAO, ITC, calculation SEEDEV

VII.1 KEY CHARACTERISTICS OF THE APPLE VALUE CHAIN

Dualism at the producer level. On the one hand, there are companies investing in fruit growing and applying modern technologies, and on other hand, there are traditional small growers. Their performance, productivity and marketing differ. Large producers and their investments are the main drivers for growth. They implement innovations such as new varieties, new intensive high-density orchards, irrigation, and fertigation.

Small producers have low productivity, since they are producing in small orchards. The income from these small orchards barely covers the financial need of a family, so the orchard becomes of secondary interest to the owners, who in turn become reluctant to make additional investments to upgrade production, resulting in low productivity. The efficient model would be gathering farmers around a service center. Apple producers need different kinds of services at all value-chain levels; from good quality planting material, to pesticides and fertilizers, to machinery and equipment, to technical advice, to reliable traders and quality cold storage. These types of services seem to be common between all farmers; this could be a way to unify small farmers and make them work together.

Market channels. 1) Direct farmer-to-retailer sales. This channel comprises direct sales of farmers to retail stores and even on occasion to consumers themselves. Farmers selling into this channel usually are smaller farmers who have good quality product with volumes that can be absorbed by one or two retail stores with which they maintain relations. 2) Wholesale market sales. Apples in this channel flow through the main wholesale market in Baku. Most apples arrive in wholesale markets through middlemen, traders and collectors. 3) Direct packer/exporter sales. This channel is directed to export and the exporters are either companies, producers or traders.

Concentrated production. The main areas of apple production in Azerbaijan include Guba, Khachmaz, Balakan, Ismaili, Shamkir, Gabala, and Tovuz regions, with intensive technology orchards. 73% of the total apple production is from Guba-Khachmaz region and more than 10% from the Sheki-Zagatala region, but production in Guba region is also growing faster than overall Azerbaijan production. The growth area with new orchards is in Dagligh-Shirvan region.

VII.2 KEY CHALLENGES AND SPACE FOR IMPROVEMENT

Export diversification. Although Russia is one of the largest apple importers and apples from Azerbaijan are currently competitive there, diversification into other markets is necessary for the stability of expanding and modernizing production. There are exporters who have already reached Saudi Arabia, the UAE and Qatar. These markets strictly prefer high quality, high value apples. Competition in the Middle Eastern markets is very high. The import of apples to Saudi Arabia is still growing and over the 2014-2018 period the growth of imports was about 3% per year, while UAE imports decreased over the same period by 8% yearly.

Indonesia is a very large apple importer and Indonesian imports over 2014-2018 increased by 27% per year. The country imports from the U.S., New Zealand, South Africa and China. Other large importers are Vietnam, India and Bangladesh, and in these countries, imports are increasing every year.

Iraq and Algeria prefer smaller, lower quality apples at some of the lowest prices globally. Egypt seems to be the only country that takes in high volumes of both high- and low-quality apples.

Table 7: Selected Apple Importers from all Origins (080810)⁴

| | Value imported in 2018 (USD) | Quantity imported in 2018 (MT) | Unit value (USD/kilogram) | Average distance from supplying countries (kilometer) | Concentration of the supplying countries | Average tariff applied by the country, % |
|--------------|------------------------------|--------------------------------|---------------------------|---|--|--|
| Indonesia | 355,718 | 163,385 | 2.177 | 6,079 | 0.7 | 4.7 |
| India | 304,008 | 280,094 | 1.085 | 12,420 | 0.35 | 48.5 |
| Vietnam | 254,708 | 158,480 | 1.606 | 6,134 | 0.4 | 10.6 |
| Bangladesh | 157,262 | 201,518 | 0.780 | 4,843 | 0.6 | 25 |
| Egypt | 227,649 | 180,396 | 1.262 | 1,745 | 0.2 | 30.2 |
| Iraq | 115,315 | 273,734 | 0.421 | 762 | 0.67 | |
| Saudi Arabia | 193,525 | 187,414 | 1.033 | 7,898 | 0.18 | 0 |
| UAE | 162,636 | 169,855 | 0.957 | 8,156 | 0.11 | 0 |
| Russia | 517,411 | 843,463 | 0.613 | 4,126 | 0.13 | 4.4 |

Focus on quality and standards. In recent years, apple producers have been using modern rootstocks (M9) and modern varieties in intensive planting systems (2,500 to 3,000 trees per hectare). Investments in cooling/storing capacity and quality improvements (including complying with GlobalG.A.P. and HACCP) will further enhance the sector’s competitive position.

Inclusion of small-scale producers into the modern value chain. Their entry into the modern market chain is important for Azerbaijan and the easiest way to do it is through co-existence and cooperation between small and large producers, where large ones are introducing new technologies while small are then spreading it farther.

Rationale for Including Apples in Group II: Market Diversification and Quality

- Competitiveness analysis showed that Azerbaijan has become a competitive apple producer.
- Stable Russian market and opportunity to export apple to other higher value markets such as Middle Eastern and Asian markets.
- Significant potential for quality increases, post-harvest techniques, and market diversification.
- Existing producers are ready and willing, and have resources to move ahead and invest in access to other markets.

VII.3 RECOMMENDATIONS FOR DEVELOPMENT

The apple value chain is a high-potential value chain in Azerbaijan. Production is intensified by the group of producers applying modern technologies. Countries with intensive production such as France, Austria or Italy have average yields of 40-60 MT/hectare. Good producers in Azerbaijan can achieve the same yields. This competitive production enables opportunities for exporters to reach markets other than Russia. The sector should develop, expand, and promote Azerbaijani apple products in compliance with international regulations, social responsibility, and ethical trade.

Supply Chain strengthening. PSA should develop the capacity of producers and exporters to identify new market opportunities; understanding and conveying market requirements to producers; and reaching mutually beneficial business arrangements with new buyers. It is important to provide technical support for packaging, branding, and consumer awareness.

⁴ DG Agri Dashboard: Apples last update 25 November 2019

Market Diversification. PSA should assist apple producers, traders, and exporters to identify new market opportunities and establish relationships with new buyers in the UAE and Saudi Arabia. This will include participation in relevant trade shows, study tours to the Middle East to meet with prospective buyers to identify the quality requirements demanded, and assistance in supplying trial shipments to target buyers. It is important that production and post-harvest handling improvements are responsive to actual market demands. In addition to the Middle East, PSA should analyze the Asian apple market and investigate trade opportunities there.

Table 8: Apple Action Matrix

| APPLE VALUE CHAIN ACTION MATRIX | | |
|--|---|--|
| Group II: Market Diversification & Quality (Rationale) | | |
| Context & Trends | Gaps & Challenges | PSA Interventions & Investments |
| <p>Azerbaijan:</p> <ul style="list-style-type: none"> • Dual structure of producers: company production on hundreds of hectares of modern high-density plantings on one hand and traditional production at small-scale on the other • Concentrated: 73% of total apple production is from Guba-Khachmaz and more than 10% from Sheki-Zagatala • Exports concentrated on the Russian market • Growing production trends, faster than the world average • Apple producers are using modern rootstocks (M9) and modern varieties in intensive planting systems (2,500 to 3,000 trees per hectare) • A competitive apple producer in the international market • Apple export values are increasing • While Russia is the dominant market, there have been efforts to diversify, especially to more lucrative Middle Eastern markets | <ul style="list-style-type: none"> • Need to diversify markets and reduce dependency on Russia • Investments in cooling and storage capacity (especially ULO cold storage) could improve competitiveness • Need for quality standards and certification (GlobalG.A.P., HACCP) • Need to include small-scale producers in the modern value chain | <ul style="list-style-type: none"> • Identification of new market opportunities • Supply chain strengthening • Technical support for packaging, branding, and consumer awareness • Market information on export opportunities • Information on requirements for access to different markets • Research on trade channels in different markets • Participation in trade shows and study tours in different markets |

VIII TABLE GRAPES/KIWI/FEIJOA

Table grapes, kiwi and feijoa are selected for inclusion in Group III; they have potential due to some competitive advantages, but are small in size. The focus of activities is to introduce new technology and promote the value chain by working with leading farmers on the introduction of new varieties and other inputs, and organizing demonstration plots to introduce new marketing technologies.

For the purposes of this report, these crops are considered one product group, since they share many commonalities:

- Small production value;
- No reliable data – no specific data for table and wine grapes,⁵ no international tariff code for feijoa and table grapes;⁶
- High concentration of production in Lankaran region. Kiwi and feijoa are almost exclusively in Lankaran region, where table grapes have a growing trend and very good climatic conditions;
- Have potential, but require a lot of time and investment to be recognized as an Azerbaijani strength (kiwi, table grapes) or as a product in general (feijoa);
- Marketing is the same, a focus on the local market, perishable products with similar need for precooling, high potential to expand shelf life with proper storage;
- Local demand for all three products, but in very specific time periods;
- Production needs significant improvement and investment in equipment and knowledge;
- High potential for processing for all products; and
- Have started sector product associations, but in rudimentary stage.

There are unique characteristics for each product, as summarized in the following table and described in more detail in the sections below.

Table 9: Characteristics of each product

| | Feijoa | Kiwi | Table grapes |
|---|--|---|---|
| Export demand and market size | Extremely low, limited to Caucasus region, some small trade in feijoa from New Zealand | High market demand reaching 1.5 million MT world trade in 2018, while 126 countries regularly import kiwi | Significantly high (around 2.7 million MT annual trade), growing demand, especially in Asia, Middle East and Russia |
| Domestic market demand and size | Almost all locally produced feijoa is consumed in Azerbaijan, with very limited export to Russia | Import of 3,170 MT and domestic production of around 200 MT. Stable local price | No data about import and export for table grapes per se |
| Production technology | Extensive, much heritage from Soviet time | Varies from modern to extensive | No modern table grape orchards |
| Number and type of farmers involved in production | Many small backyard production operations as part time income and few | Small and medium innovative farmers, large companies | All variety of producers |

⁵ There is confusion on production data for table and wine grapes: According to the SSC, 59% of the grapes by volume are consumed as table grapes and only 41% as wine (most likely champagne and cognac are included). In contradiction to the data provided by the SSC, other sources convey that table grape production is only 30,000-40,000 MT. In that case, the ratio between table grapes and wine grapes would be 23% to 76% by weight. MoA: approximately 4,500 hectares of grapes are for fresh consumption and the rest of 11,900 hectares are for wine production. The Institute of Viticulture and Winemaking: around 30% of the grapes are being sold as table grapes, whereas 70% as technical (wine) grapes. Although there are different opinions regarding the ratio between table and technical grapes, all experts agreed that 80% of technical grapes are for red wine and 20% for white wine.

⁶ In international statistics, the production of table and wine grapes are counted as one and it is impossible to compare countries by table grape production because some national statistics have data and others do not.

| | | | |
|-------------|---|--|--|
| | medium-sized producers, almost no companies | that see opportunity for diversification of production | |
| Competitors | No competition | 26 countries record export of over 1 million USD while 50 over 0.1 million USD in 2018 | There is limited possibility for successful production of modern table grapes. They can be produced only in the south. |

VIII. I KEY CHARACTERISTICS OF THE TABLE GRAPE/KIWI/FEIJOA VALUE CHAIN

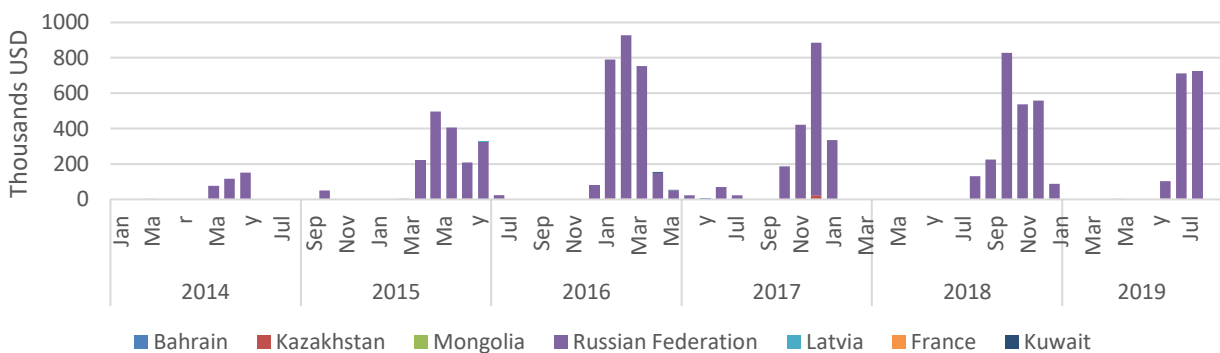
VIII. I. I TABLE GRAPES

Table and wine grapes are two very distinct value chains with different production demands and marketing channels. The world production of table grapes is around 22.2 million MT.⁷ South Africa and Australia are the major producers and exporters of table grapes, while regionally Turkey's production is significant at around 1.9 million MT.

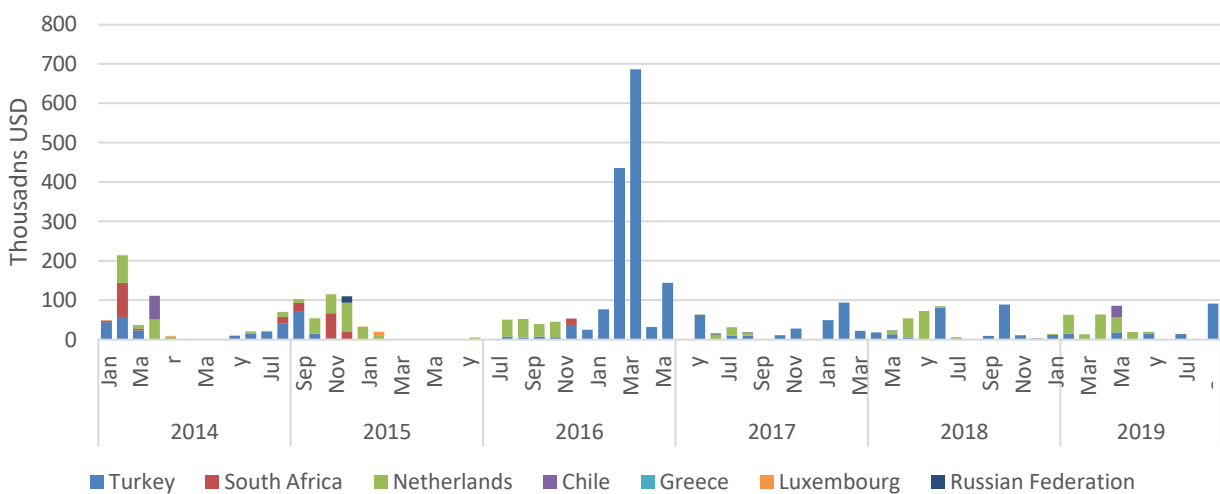
Azerbaijan was one of the most significant grape producers in the Soviet Union, with over 2 million MT in annual production. In May 1985, anti-alcohol campaigns started and since then grape production has been steadily decreasing. Since 2005, there has been a slow recovery and the harvested area has nearly doubled.

Although grape production in Azerbaijan is increasing, competition in the region has higher production or faster production growth. Regional leaders Turkey and Iran have around 10% of global grape production, while in comparison with them Azerbaijan is a negligible producer.

Graph 47: Export of Grapes from Azerbaijan by Month



Graph 48: Import of Grapes to Azerbaijan by Month



⁷ December 2018, USDA FAS Report.

Source: ITC

Azerbaijan is a net exporter of grapes. From January 2014 to October 2019, exports were around three times more than imports (10,713 MT of export and 3,719 MT of import). One of the main characteristics of this trade in both directions is its variability. Exports varied from 351 MT in 2014 to 2,785 in 2016, while imports varied from 334 MT in 2017 to 1,639 in 2016.

Today, good quality, well-prepared for market table grape production in Azerbaijan is modest, with a small number of commercial, export-oriented table grape producers. Production is mainly a backyard endeavor, the supply chain is short, and the end market is at the local green market or in small local grocery stores.

As a result, almost all export (99%) is aimed at the Russian market. It is encouraging that recently exports were recorded to Kuwait, France, and Latvia. The main import source is Turkey (66%), followed by the Netherlands (25%), South Africa, and Chile.

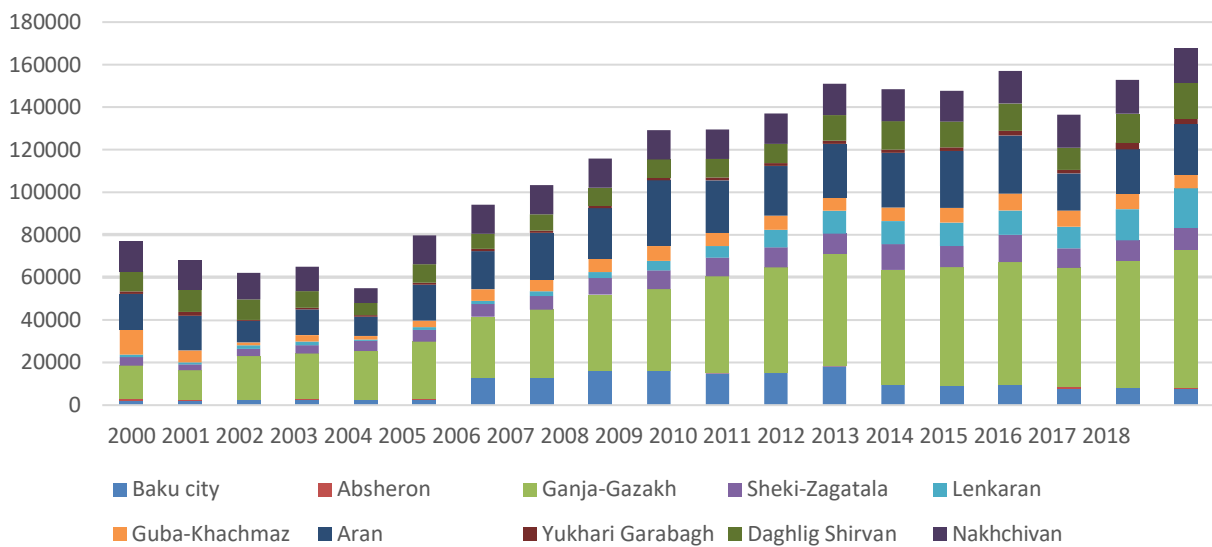
On the other hand, Azerbaijan has great potential for successful production of modern table grapes. Only a few countries in the world have the conditions to produce table grapes. The table grape producing area is a sub-set of the wine grape-producing belt. The limiting production factor is susceptibility to the fungus *Botrytis cinerea*; an insufficient number of sunny days causes high humidity and the ideal conditions for fungus growth. In Europe, a few countries have good climatic conditions for successful commercial production: Spain, Portugal, Italy, Montenegro, Macedonia, Croatia, Greece, Georgia, Turkey, France, Armenia, Uzbekistan and Tajikistan. However, the majority of EU countries are able to make high profits with wine grapes and therefore do not focus on table grape production.

Grapes are probably the most labor-intensive fruit, as they are all hand-picked, hand sorted and hand-packed; there is no machine that does much of the operations, offering great opportunities for job creation.

Grapes are produced in the majority of the regions. The Ganja region dominates with a strong growth trend in production, primarily due to yield increases in the last three years of the period analyzed. Aran and Nakhchivan have had significant production growth while Dagligh-Shirvan has the highest growth in area harvested.

There are about 12,000 small producers who produce mainly for their own needs, green market and wineries and about 40 companies, which have large areas of vineyards and wineries. Wineries are organizing both the downstream and upstream value chain. In most cases, they are producing the grape to control the process and the quality. Traders dealing with wine grapes buy from smallholders and sell them to wineries; most likely they act as agents, arranging the flow of goods and money.

Graph 49: Production of Grapes by Region

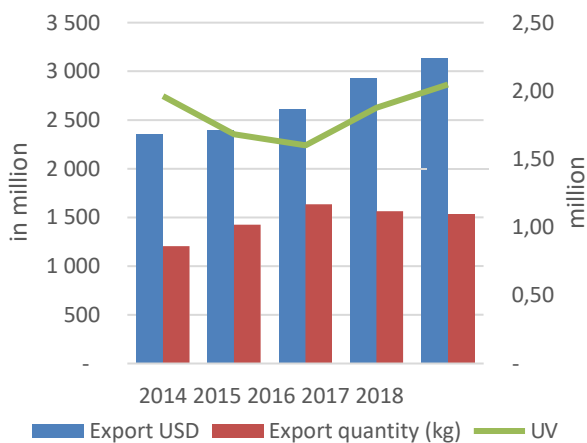


Source: SSC

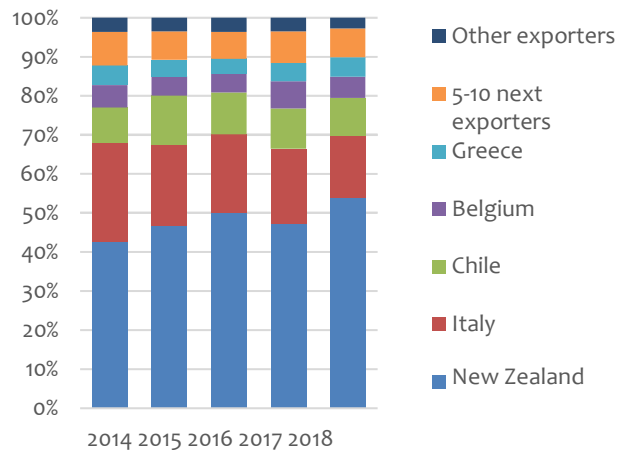
VIII.1.2 KIWI

Kiwi is consumed by many consumers, but in small quantities in select time periods, when the price is affordable. It is not a premium product that is consumed only by wealthy consumers, but it is considered a niche product. However, consumption is increasing followed by trade increases, especially in values, which is a clear sign that demand is higher than supply. The average world trading unit value has increased, from 1.6 to 2.05 from 2016 to 2018.

Graph 50: World Kiwi Export Quantity, Value and Unit Value



Graph 51: Main Exporter of Kiwi in World



Source: COMTRADE

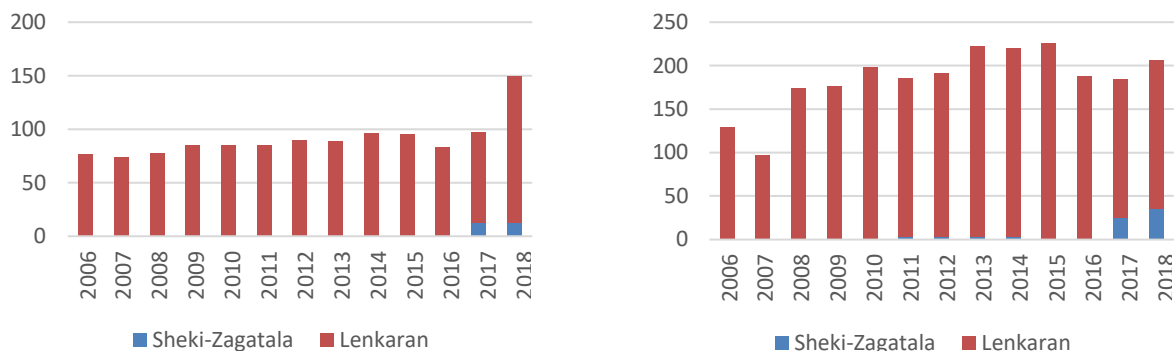
Although the growing area is more prevalent in the southern hemisphere and Mediterranean climatic zone, kiwi is not an exotic crop with a narrow growing zone. Over 50 countries record kiwi exports, although some of them are engaged in re-export. However, though it is produced and traded in many countries, there is a huge concentration of production and trade. The biggest producers are China, Italy, New Zealand, Iran, and Greece, while the main exporters are New Zealand, Italy, Chile, Belgium (which records huge imports as well), and Greece. New Zealand, as the biggest exporter, accounts for more than 50% of overall world trade, while the top five exporters constitute almost 90%, and the top ten exporters above 97%.

Kiwi in Azerbaijan is not a completely new crop; there are orchards that are more than a decade old and producers with good experience and knowledge of the production challenges. However, the area under kiwi

cultivation is not large, around 100 hectares in 2017, when it began to increase as large companies established new modern orchards. Annual production varies, but is around 200 MT, and is expected to increase after the new orchards start yielding fruit. ASAP supported producers and had a positive experience working in the sector.

There is major production concentration in the Lankaran region and recently some production was initiated in the Sheki-Zagatala region as well. Import of kiwi in Azerbaijan doubled from 2015 to 2018, from 1,470 MT to 3,170 MT, which offers good import substitution potential. The neighboring countries import significant quantities: Russia 75,000 MT, Kazakhstan 4,600 MT, and Georgia 1,500 MT in 2018.

Graph 52: Area Harvest of Kiwi in Azerbaijan by Region Graph 53: Production of Kiwi in Azerbaijan by Region

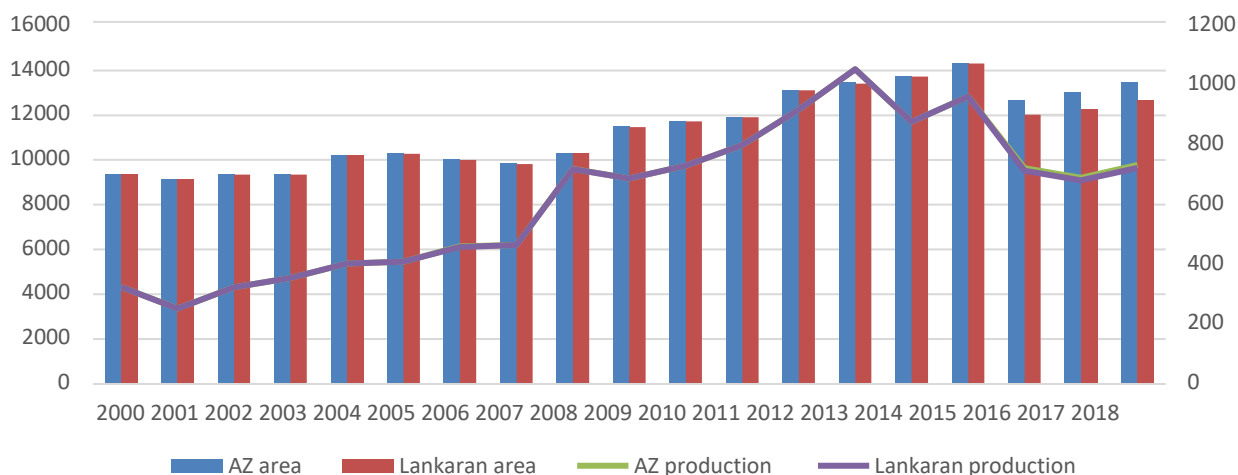


Source: SSC

VIII.1.3 FEIJOA

Feijoa is the fruit of *Acca sellowiana*, originating in the highlands of South America. Feijoa was first brought to Azerbaijan in 1928 and planted in Masalli and Lankaran regions. Today, besides South America and Azerbaijan, feijoa is grown in Iran, Georgia, Russia, New Zealand and Tasmania in Australia.

Graph 54: Production and Area Harvest of Feijoa in Lankaran and Azerbaijan



In 2018, there were 1,008 hectares of feijoa, of which 949 were in Lankaran region. Since the average yield varies from 6-14 MT per hectare, production also varies, but is around 10,000 MT per year. Almost all product is sold in the local market, to be consumed fresh or processed. Some is exported, but there is no official data. Estimates are that around 500-700 MT of fresh product are exported to Russia.

Current production satisfies local demand for feijoa. Production increases will lead to price decreases, and lower interest in growing it. Consequently, it is necessary to increase demand to be able to increase production. Demand increases could come from: local market for fresh and processed products, export to Russia and regions where feijoa is a well-known product, and export to European and Middle East markets, where prices could be higher, but the product is not well-known. Each option would require a specific strategy. Of particular interest is the question of whether it is possible to make feijoa recognized and sought

after by the consumers in European and Middle East countries. It is possible, but it requires branding as a GI (geographical indication) product, a promotional campaign highlighting all the good features of feijoa (maybe even promoting it as a superfood), packaging improvements that meet international standards, and development of transport infrastructure. This would require a specific product strategy managed by the association of the producers and supported by the GoAJ.

VIII.2 KEY CHALLENGES AND SPACE FOR IMPROVEMENT

Establish modern orchards of feijoa, table grapes and kiwi. Production of all three products needs improvement. There is room for development by focusing on production improvement.

Table grapes can be grown with the *tendone* system, which should be applied for premium varieties, including seedless, as this trellising and protection system provides much higher quality that is necessary for selling in high-end markets. However, the system also demands higher initial capital, replacement, and maintenance costs.

Modern kiwi orchards are established following different growing practices from the U.S., Georgia and other countries. ASAP helped in this stage. Now it is necessary to continue to support production improvements by introducing management of modern kiwi orchards, applying lessons learned, and further disseminating information.

Feijoa production is very extensive in Azerbaijan, but there is limited pruning, fertigation, or irrigation. In some cases, the only orchard management is to harvest the fruit when it ripens. Feijoa can provide much better results if it has optimum water, nutrition, macro- and microelements, and space for growing.

Rationale for Including Table Grapes, Kiwi, and Feijoa in Group III: New Technology Dissemination

Table grapes:

- Azerbaijan has investors and a GoAJ support scheme to foster investment in setting up modern high-quality seedless table grape vineyards, which requires significant investment.
- Azerbaijan has a long history of grape production and a base of existing production and grape producers can diversify production to modern table grapes and achieve better profits.
- There is potential for import substitution (and an expectation that local consumption will increase) as well as export potential in Russian and Kazakhstani markets and new entry into more lucrative markets.
- More stable and increasing prices than other fruits due to the fact that there is often a shortage.
- As table grape production is labor intensive, Azerbaijan's comparatively cheap labor is an advantage.
- A limited number of countries have the conditions to produce table grapes and Azerbaijan has a long potential production season, from June to October.
- There is significant potential for production and marketing improvements, yield increases and quality improvements, improved post-harvest techniques and market diversification.

Kiwi:

- Azerbaijan has climatic conditions for growing kiwi, which is not the case for most countries, and it is at the border of the climatic area of production offering comparative proximity to markets to the north.
- Azerbaijan has experience in growing kiwi.
- Large companies have already started production on a large scale (some over 10 hectares).
- There is significant import substitution potential.
- ASAP had good experience working with kiwi producers, which offers a solid foundation.

Feijoa:

- Existing production and overall value of production is substantial.
- Feijoa is perfectly linked with other products, since the late autumn harvest allows potential to utilize cold storage facilities' unused capacity.
- Feijoa is a recognized brand in Azerbaijan and contributes to the country's image and health.
- There are few products that offer such an opportunity for improvements in the existing orchards.
- ASAP experience and work on association development provides a foundation for future work.

Open market for premium table grape. The EU is a major consumer of table grapes, total imports in 2017 were estimated at 2.1 billion MT, of which a quarter came from developing countries. The biggest

European importers are Germany, the UK, and the Netherlands, as a transit market. The modern European consumer has an increasing preference for seedless varieties, with a balanced ratio of fruit acids and sugars instead of high sugar levels, and bigger bunches, without damage from sun and wind, packed in clamshell packages or smaller snack-sized packages. Premium consumers in Russia and Middle East markets have similar preferences. To reach those markets, besides production improvement it will be necessary to solve specific challenges in post-harvest handling of table grapes: proper post-harvest treatments to limit the rate of deterioration, quick transport to a facility where they can be cooled rapidly to reduce field heat, and organized logistics to bring products to supermarket shelves quickly (for local markets: 1-3 days; for export: 7-30 days).

Stabilize production of kiwi with new technology which will substitute imports and establish export channels. Kiwi exports to the EU will require a well-organized supplied chain and controlled production processes while export to the region doesn't have those requirements. Consequently, Azerbaijan should target to establish two supply chains, one high value (controlled, EU export oriented, high quality), and the other low value (driven by local and regional market, diversify quality). However, for both targets Azerbaijan producers must improve production quantity and decrease production costs, regulate quality, introduce certification of production, and improve packing and labeling - communicate with consumers through labels and pack for immediate consumption.

Create brand and promote feijoa. Feijoa has the potential to be a superfood - the new term for products with health benefits resulting from an exceptional nutrient density. Feijoa is good source of vitamin-C antioxidant that works well against viral illness through immune-boosting means, contains folic acid so it is good for pregnant women, and has potassium, magnesium and other vitamins and minerals. Feijoa is also a traditional product in Azerbaijan with specific characteristic in the Lankaran area, which allows it to be registered as a GI (geographical indication) product, a designation which is appreciated, especially among EU consumers.

VIII.3 RECOMMENDATIONS FOR DEVELOPMENT

PSA should work on these three products to lay the foundation for future development, which may yield real results after the life of the project. Activities should be considered as a pilot to demonstrate viability and profitability and stimulate interest and replication from the private sector. Therefore, the focus will be on lead farmers.

Table 10: Main development directions

| | Feijoa | Kiwi | Table grapes |
|----------|---|------|---|
| Common | <ul style="list-style-type: none"> Investigate and improve growing technology Introduce and test new varieties Establish modern table grape, kiwi and feijoa orchards Develop storage and logistics facilities to increase shelf life | | |
| Specific | <ul style="list-style-type: none"> Promote consumption, branding, geographical identification Investigate different processing options Investigate IPM and organic production since there is already low use of synthetic pesticides | | <ul style="list-style-type: none"> Focus on high quality product, packaging and labeling |

Table 11: Table Grapes, Kiwi and Feijoa Action Matrix

| TABLE GRAPE, KIWI, FEIJOA VALUE CHAIN ACTION MATRIX | | |
|--|---|--|
| Group III: New Technology Dissemination (Rationale) | | |
| Context & Trends | Gaps & Challenges | PSA Interventions & Investments |
| <p>Table Grapes:</p> <ul style="list-style-type: none"> • Production is low, no modern orchards • Almost no cold storage capacity for table grape • Market demand is increasing • Profitable export to Russia in certain periods of the year • Export is increasing to Russia and there are signs of an increasing Middle East market • World demand is increasing, especially for high quality seedless table grapes in the off-season <p>Kiwi:</p> <ul style="list-style-type: none"> • Small production with no exports • Mostly old orchards • A few large modern kiwi orchards established recently by companies • Production concentrated in Lankaran but beginning to diversify • Increased production knowledge based on foreign experience • Significant increase in world trade and world demand, followed by price increases • Regional demand is increasing <p>Feijoa:</p> <ul style="list-style-type: none"> • Extensive production in old orchards • Little orchard management and low investment • Concentration of production in Lankaran region • Stagnation in production, export and prices • Quality of post-harvest is increasing as a result of increased cold storage • Stable local demand | <p>Input Supply:</p> <ul style="list-style-type: none"> • Lack of understanding of importance of high-quality seedlings for production • Significant space for introduction of new varieties of all three crops • Lack of appropriate knowledge and advice about new high-quality input (fertiligation, irrigation, plant protection) <p>Production:</p> <ul style="list-style-type: none"> • Lack of knowledge of improved production technologies for all three crops • Lack of knowledge on post-harvest management <p>Marketing:</p> <ul style="list-style-type: none"> • Lack of cold storage facilities in area with concentrated production which would help in preparation of products for market and increase shelf life of the products • Improved post-harvest handling for table grapes – improved supply chain management, efficient transportation, and pre-cooling/cold storage • Regulate and certify quality of kiwi • Establish export channels for Kiwi • Create brand and promote feijoa | <p>PSA interventions will lay the foundation for future development and are a pilot for continued growth beyond the life of the project, with a focus on lead farmers.</p> <p>Across All Three Products:</p> <ul style="list-style-type: none"> • Investigate and improve growing technologies • Introduce and test new varieties • Establish modern orchards • Cold storages to help in preparation of products for market and increase shelf life of the products • Packing equipment • High quality inputs – fertilizers, bio stimulators, pesticides, herbicides • Different sensors and fertigation equipment • ICT platforms for sharing knowledge among producers, advisors, buyers • Formalize supply chain linkages <p>Table Grapes:</p> <ul style="list-style-type: none"> • Introduce equipment for <i>tendone</i> system • Focus on quality improvements in product, packaging, and labeling <p>Feijoa:</p> <ul style="list-style-type: none"> • Create brand and promotional strategy, geographical identification • Stimulate local market demand • Investigate processing options • Consider IPM and organic production <p>Kiwi:</p> <ul style="list-style-type: none"> • Regulate and certify quality • Establish export channels |

IX HAZELNUT

Hazelnut production is well-established in Azerbaijan. It is one of the few countries in the world with appropriate weather conditions for hazelnut cultivation; hazelnuts grown in the northern regions are generally ripe by the end of July and harvested from mid-August to mid-September.

The introduction of new technologies and other reforms have made Azerbaijan one of the top 3-5 hazelnut-producing countries in the world.

Having fully satisfied domestic consumption, the export of hazelnuts accounted for over 45,000 MT in 2018. Not only hazelnuts in their shells, but all types of processed hazelnuts are exported from Azerbaijan to EU and CIS countries, such as Russia, Ukraine, Germany, Spain, and Italy. In addition, Middle Eastern countries have emerged as potential markets.

Over the past 10 years, the area under hazelnut orchards nearly doubled. In 2009 there were around 29,000 hectares of cultivated hazelnuts, while the figure increased to over 53,000 hectares of current (2018) production. The target is to increase this number to 80,000 hectares in coming years, supported by subsidies. However, hazelnut yields are modest compared with neighboring countries Georgia and Turkey, which is a major producer.

Hazelnut production is a top priority of GoAJ policies, and this is one of the most competitive Azerbaijani products. Most of the country's economic zones, 57 regions in all, are involved in some hazelnut production. Several varieties of nuts are grown in the country. In Zagatala, Gabala, and Balakan grow traditional ancestral and oily nuts varieties, distinguished by the quality of the products.

Production is organized mainly in cooperation with the processing facilities. Processors are mainly exporters which offer a wide range of final products. Processing facilities are equipped with modern technology. The European market offers a high unit value and Azerbaijan could improve market share and price competitiveness in the EU market with improvements in supply chain efficiency.

Though global hazelnut prices seem steady in the short run, the market demonstrates a substantial volatility as Turkey, which accounts for about 56.5% of global hazelnut production and 62.2% of global shelled hazelnut export, experiences fluctuation in the wholesale price.

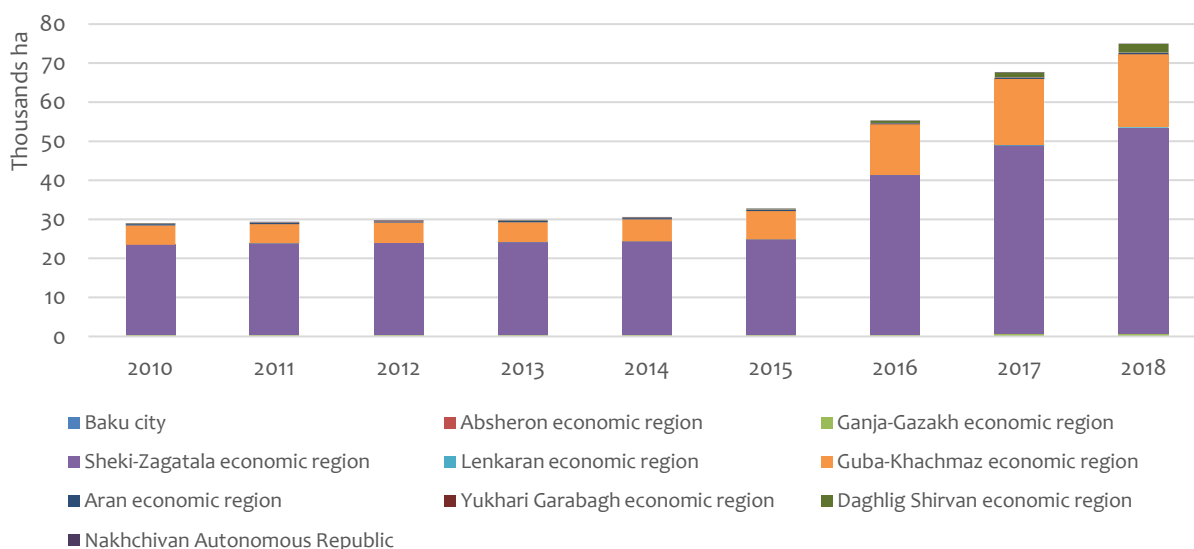
As the leading producer of hazelnuts, Turkey has been the price setter in the hazelnut market. The recent climatic changes and production limits in the Turkish Black Sea area contributed to price fluctuations in the past few years. Regions in Turkey that are climatically favorable to hazelnut production have reached maximum capacity, and frost in the Black Sea region in 2014 and 2016 resulted in huge losses in hazelnut yields.

Global prospects of the hazelnut market. Turkey dominates hazelnut production, with a production share of 71%, and trading share of 59% globally. When it comes to consumption, Europe is expected to register the highest annual growth trend with 7.6% during the forecast period, due to the increasing demand for hazelnuts from the chocolate industries of Europe. Due to the increasing demand from consumers and high health benefits, the market is expected to grow over the forecast period, both in the health segment and in countries and industries where hazelnuts are mostly used in desserts and in chocolates.

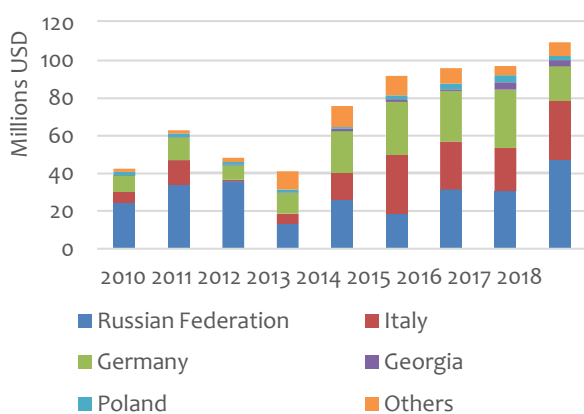
Azerbaijan hazelnuts have strong prospects on the global markets. About 45,000 SME producers are involved in hazelnut production in Azerbaijan. Hazelnut exports from Azerbaijan in 2018 were 115 million USD (105 million USD in 2016) and more than 68% of exports were to Germany, Italy, France, Poland, Spain and other EU countries in 2018.

Currently, Azerbaijan ranks third in hazelnut production and export. Its export and production quantity both increased from the previous year, thanks to favorable weather conditions. As the main goal of the development of the agrarian sector in Azerbaijan is moving from ensuring food security to achieving competitiveness in export-oriented products, Azerbaijan has a significant share in the Russian market (41.1%) where it is in group of imports with a lower unit value. European markets are important for Azerbaijani exporters, but competition is higher mainly from European producers Turkey and Georgia. Shares in this market are modest but growing, with German market share of 5.6%, but Azerbaijani exports have doubled since 2010 and in the Italian market Azerbaijan's share is 2.7% and exports have more than tripled.

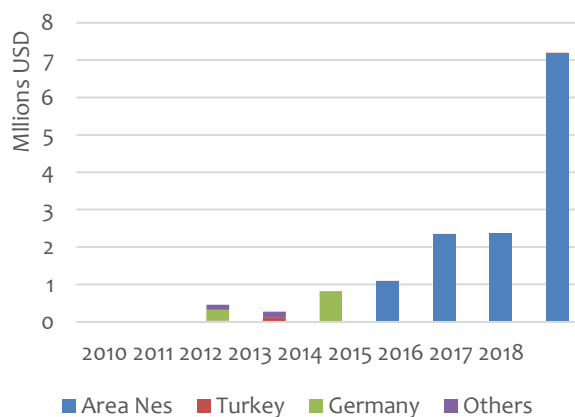
Graph 55: Azerbaijan Production by Region



Graph 56: Azerbaijan Hazelnut Exports



Graph 57: Azerbaijan Hazelnut Imports



Source: COMTRADE

IX.1 KEY CHARACTERISTICS OF THE HAZELNUT VALUE CHAIN

Though hazelnut production fully relies on small-scale family production, value-chain development is driven by the processing industry. The reason is a largely disorganized value chain with significant power imbalances along the value chain.

- More than 90% of hazelnuts are produced by family-run hazelnut producers. The average size of these orchards varies from 1 to 5 hectares, while the majority are under 2 hectares. There is no collective farming and only a few vertically integrated companies combining production and export.
- There are professional traders in Azerbaijan who offer different types of final product (shelled, kernels, blanched kernels) of various caliber, and their markets are in mainly in the region and the EU.
- The main exporters are large processors with their own and contracted production. Processing facilities with modern equipment are situated in the main production region of Zagatala and increasingly in Khachmaz as well. Buyers have a wide range of final products, including shelled nuts, kernels, chopped, and hazelnut flour. Azerbaijani hazelnuts in the biggest EU import markets have a relatively high unit value, and some exporters are opening storage facilities in EU countries to lower transport costs.
- Processors are usually hazelnut exporters and hazelnuts are exported from Azerbaijan in processed form.
- The farm gate price of hazelnuts in Azerbaijan is set by processors. Disorganized small producers cannot influence the price.

- There are organized attempts to join forces at the end of the chain, as the processors join networks and organizations to improve visibility and negotiation position on the export market. The Azerbaijan Hazelnut Exporters Consortium (AHEC) was formed to promote an increase in exports of hazelnuts by Azerbaijani enterprises. It consists of five manufacturing plants which are exporters of hazelnut.
- Currently, NGOs (such as Ganja Agribusiness Association (GABA)) seek to improve the productivity and sustainability of hazelnut production. Their activities with farmers involve human resource development and knowledge, agricultural inputs and grantmaking.

Figure 6: Typical Roles in the Hazelnut Value Chain



Table 12: Key characteristics of the value chain

| | Competitors | Azerbaijan |
|-----------------------|--|--|
| Producer/cooperative | Hazelnuts are usually produced by many small holders in the regions particularly beneficial for production: Black Sea regions in Turkey, Georgia, Piedmont, Avellino in Italy. The level of farmer organizations differs from that of the highly organized groups in Italy and similar stage of organization in Turkey, Georgia. | Hazelnut production relies on both small individual holders that represent the majority of the Azerbaijan agricultural sector, and processing companies organizing their production such as AZERSTAR Manufacturing and Trading, one of the largest national companies with 50 hectares of hazelnut production in Zagatala. |
| Cooperative/middleman | The aggregation of production is done by the middleman in Turkey and Georgia and by producer organizations /cooperatives in Italy and Spain. The second model allows for the producers to keep part of the higher value within their price. | Aggregation is usually done by the processors who are directly purchasing from the producers. |
| Processing/cracking | They are often the drivers of VC development, organizing purchase, quality control and production, acting as aggregators of supply and improving quality of raw material. | There are over 20 medium-sized domestic processors, and all of them are approved to export hazelnuts. Most of the processing operations are located in the Sheki-Zagatala region and only three plants are operating in the Guba-Khachmaz region. |
| Traders/exporters | Today large European enterprises have long-term relationships with suppliers. For example, the Turkish exporters control the market, not the importers, based on the fact that the demand is higher than the supply. The choice here is usually dependent on the size of the exporter. Large-volume importers buy directly from the producer; smaller exporters usually use a traditional wholesaler or importer as middleman. | Azerbaijan Hazelnut Exporters Consortium accounts for over 50% of all hazelnut exported from Azerbaijan. The bulk of revenue comes to a few producer-exporting enterprises or mediators. Hazelnut traders to foreign markets, or the end-user are the ones which benefit from the margin. |

| | | |
|---------|--|---|
| Packers | Packers are the most important channel in terms of quantity of traded edible nuts once imported, as more than 50% of all products are re-packed in Europe into smaller packs for the retail and food service sector. Packers increasingly pack under private-label brands for retailers. Many wholesalers also have packing facilities, but this is more common for suppliers to the food-service segment than for retail suppliers. | There is no retail packing in Azerbaijan, so bulk is sold in wholesale packaging, almost all producers sell in bulk packages of 50 kilograms or larger. |
|---------|--|---|

| | | |
|-----------|---|---|
| Consumers | Confectionery industry, bakeries and the breakfast cereal industry, other food industries and retail and food service. Hazelnuts are consumed raw (mostly roasted but also in their natural dried state) and processed. Italy, Germany and Switzerland are major importers due to a developed processing industry. Processors (Ferrero, Nestle) also work on the establishment of production and improvement of value chain abroad. | Hazelnuts are an important part of the Azerbaijani diet and a widely used ingredient. However, there is not much processing that uses hazelnuts for final products. |
|-----------|---|---|

IX.2 KEY CHALLENGES AND SPACE FOR IMPROVEMENT

Both demand and global nut prices are increasing so there is an opportunity for Azerbaijan to enter new markets with upside potential:

- Though global nut prices are increasing, the costs of transport and logistics are also on the rise. This contributes to a tighter, more competitive market. EU buyers are responding to these pressures by opting for quality over quantity. They are imposing tougher requirements with respect to pricing, food safety, product documentation, innovation and sustainability.
- With organic or fair-trade products, value addition of 30-50% is achievable by producers, despite the additional costs for certification. The best opportunities to add value to the product are in production (Organic, Fair Trade) and export processing.
- In terms of traceability and certification, clear, correct and comprehensive documentation is the basis for value addition at the product stage. A European Commission FVO audit in 2013 outlined a number of recommendations that would improve the ability of the certifying agencies to ensure that hazelnuts exported to the EU do not contain aflatoxins exceeding the maximum levels. These recommendations are related to export procedures, staff knowledge of EU sampling requirements, management of non-compliant lots, and laboratory performance.
- For international exporters, the EU markets are a particularly important information channel when it comes to grades, quality, sanitation, equipment and packaging. Currently, half of the exports are directed towards Russia, which is completely import dependent and due to political issues has unstable relations with Turkish suppliers. On the other hand, many of the processors look to diversify market channels to reduce risk.
- There is still a yield gap between Azerbaijan and Italy and the U.S., which have better organized market chains and more intensive production. Expanded orchard area, improved production techniques and higher export volumes are required to close the gap.

| Most Needed Improvements along Hazelnut Value Chain | Most Profitable Potential Investment along Hazelnut Value Chain |
|--|---|
| <ul style="list-style-type: none"> • Improved technical and advisory support for production practices • Improved quality through farmer training | <ul style="list-style-type: none"> • Expansion of new intensive hazelnut orchards • Higher levels of hazelnut processing, in addition to deshelling |

-
- Lack of long-term and formal relationships along the value chain, in particular regarding purchasing and price setting
 - Need for improved aflatoxin control systems to prevent contamination in hazelnuts intended for export to the EU
 - Need to improve food safety control measures to enhance competitiveness in the export market
 - Develop food safety control and certification programs
 - Enter new markets and promote awareness of quality Azerbaijani hazelnuts
-

IX.3 RECOMMENDATIONS FOR DEVELOPMENT

Quality orientation along the whole value chain is a precondition to compete in demanding markets. Azerbaijani hazelnuts have the following advantages in the world market:

- **Variety:** 90% of all hazelnut orchards in Azerbaijan is considered to have the *Ata-Baba* variety, although recent research has suggested that what is deemed to be *Ata-Baba* may actually represent a number of different varieties). Its round shape and insect resistance allow for standard and high quality in the international market. *Ata-Baba* is very similar to the Giresun Quality Turkish hazelnut that is synonymous with optimum quality in Europe.
- **Size:** The crop produced in Azerbaijan meets the international size requirements of hazelnuts and hazelnut kernels.
- **Proximity to the market:** Proximity to the Russian, Ukrainian and Baltic markets decreases transportation costs and customs duties are also lower vis-à-vis competitors. Good relationships with EU companies and more than 20 years' experience have also earned Azerbaijan a market position as a reliable partner. Azerbaijan also enjoys relative proximity to eastern markets, China and Japan, which rely on U.S. imports.
- **Organic production:** Due to growing without use of chemical fertilizers, Azerbaijan hazelnuts command a premium on the world market.

To leverage these advantages and better position Azerbaijani hazelnuts to compete, the following activities are a priority:

Promote expansion of new intensive hazelnut orchards. It is important to increase areas harvested by paying more attention to the quality of seedlings, technology, efficiency and quality of their products. The primary support for hazelnut farmers is from NGOs and the GoAJ through subsidy schemes for new seedlings, but training on hazelnut production and harvesting technology is also important.

Support processors in identifying and investing in a higher level of hazelnut processing. Adding value is the key to increased unit value and better value addition, regardless of whether it is done through processing or implementation of quality standards. Apart from Organic, where there is a significant niche, the UTZ Code of Conduct is also a very attractive certification option. It contains requirements for management and for implementing good agricultural, social and environmental practices, which contribute to sustainability outcomes. Also, there are locally registered international certification bodies in Azerbaijan, which are specialized in ISO 22000, ISO 9001, ISO 14001 and OHSAS 18001 audits.

Establish linkages and integration along the Value-Chain. Some actors, particularly farmers, still face restrictions relating to information asymmetry, trust issues regarding which organizations are authentic and the subsidy process, and need support to plan their production and set prices as well as to reach the market. It is important to systematically build long-term contractual relations to improve confidence and trust.

Promotion to enter new markets and awareness of the quality of Azerbaijani hazelnut. Hazelnut production will increase (double) in Azerbaijan in a few years (the new orchards will start bearing in the near future). As competition in the export market also increases, it is necessary to expand and diversify the market.

Rationale for Including Hazelnuts in Group I: Priority Group

- Good development, production and export growth need to be multiplied. Azerbaijan has competitive production with good potential for expansion.
- The market is already diversified with significant penetration of the EU market. However, it is possible to open new markets and increase share in high value markets.
- Existing producers are ready, willing and have the resources to move ahead and invest in access to other markets
- Significant potential for production and marketing improvement in particular yields and post-harvest techniques
- It is expected that production consolidation will happen, and PSA can support that process.

Table 13: Hazelnut Action Matrix

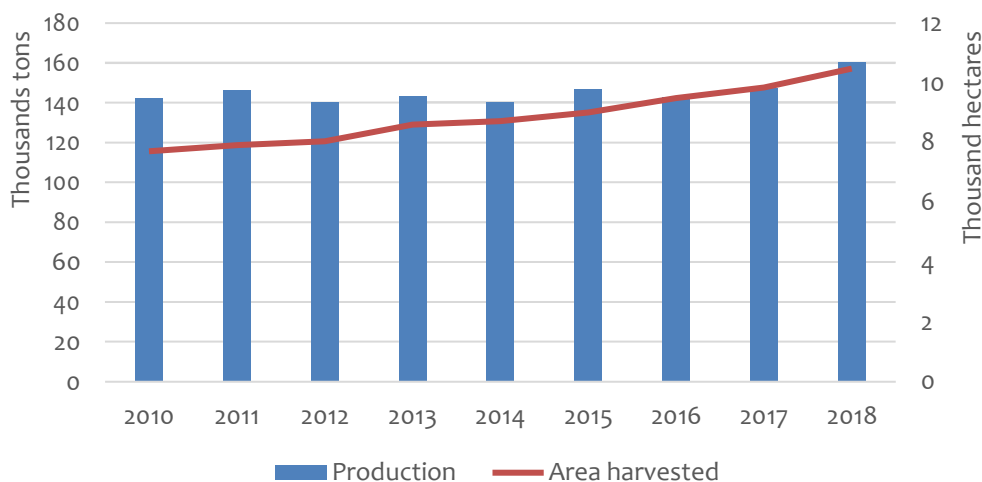
| HAZELNUT VALUE CHAIN ACTION MATRIX | | |
|--|---|--|
| Group I: Priority Group (Rationale) | | |
| Context & Trends | Gaps & Challenges | PSA Interventions & Investments |
| <p>Azerbaijan:</p> <ul style="list-style-type: none"> • Ranks fourth in hazelnut production and export • One of the most competitive products in the country • A top GoAJ priority with significant government support • Relations with importers are still new and evolving due to relatively recent entry on the global market • Entering new markets as there is high demand for this product • Overall a strong strategy for this value chain, but room for improvements at all points <p>World and Regional Trends:</p> <ul style="list-style-type: none"> • Both demand and global nut prices are increasing • Europe growth is highest, due to increasing from the chocolate industry • Improved quality due to increase in high-quality hazelnut production, but also improvement of processing technology • Potential for packaging under proprietary brands or private labels emphasizing quality and origin | <p>The market is tightening even as prices rise, due to increased quality and food safety requirements, and increasing transport and logistics costs. This increases competitive pressure and makes it even more important to address current gaps in the value chain:</p> <ul style="list-style-type: none"> • Insufficient traceability and control of the product, HACCP plans though introduced are not fully implemented • Resorting the product for the markets with higher aflatoxin tolerance • Lack of consistent quality: opportunity to add value through certified production • Small land plots and poor yield and productivity compared to competitors • Fluctuation in volumes of production due to climatic influence • Dependency on Russian market in spite of high potential of other markets • Buyers are the main conduits for technical and market information • Significant opportunities for value-added processing | <ul style="list-style-type: none"> • Support expansion of the new intensive hazelnut orchards by improved access to high quality seedlings, technology, efficiency and quality of their products • Support to technical, advisory support for production practices • Improve quality by exchange of know-how and training for farmers • Support processors in identifying and investing in higher level of hazelnut processing • Support quality improvements and certification (ISO, OHSAS) • Establish supply chain linkages and support value chain integration • Promote entry to new markets and awareness of the quality of hazelnut • Improve control systems to prevent aflatoxin contamination • Gain competitiveness at the export market by improving food safety controls • Explore opportunities, interest, resources for organic hazelnut production |

X PERSIMMON

Azerbaijan is one of the largest persimmon producers globally, with good rankings in production and trade. There are many different species of persimmon, the most popular being the Japanese persimmon or kaki. Only 15 countries in the world produce persimmon, and only ten of them have annual production over 3,000 MT. Azerbaijan has a dominant share in the region, CIS, NMS, and EU15, while other producers include Iran, Uzbekistan, Spain, Italy and Slovenia. Production in Azerbaijan is extensive and based on fruit gathering (rather than intensive cultivation). Nevertheless, Azerbaijan has the highest yield of all selected countries at 18.1 tons/hectare and the most extensive harvested area under persimmon. There are increasing trends in both area harvested and total quantities. Persimmon as a fruit is gaining ground on market shelves, as it is a fresh, sweet, directly edible low-calorie fruit with high fiber content and antioxidants.

Persimmon is a highly marketable product, as over half of Azerbaijan's production is exported. In spite of slight oscillations, exports are high, and mostly dependent on the Russian market, which makes them vulnerable to market fluctuations. Diversification of export markets, particularly to other neighboring countries, will be important in reducing market vulnerabilities.

Graph 58: Azerbaijan Persimmon Production and Area Harvested

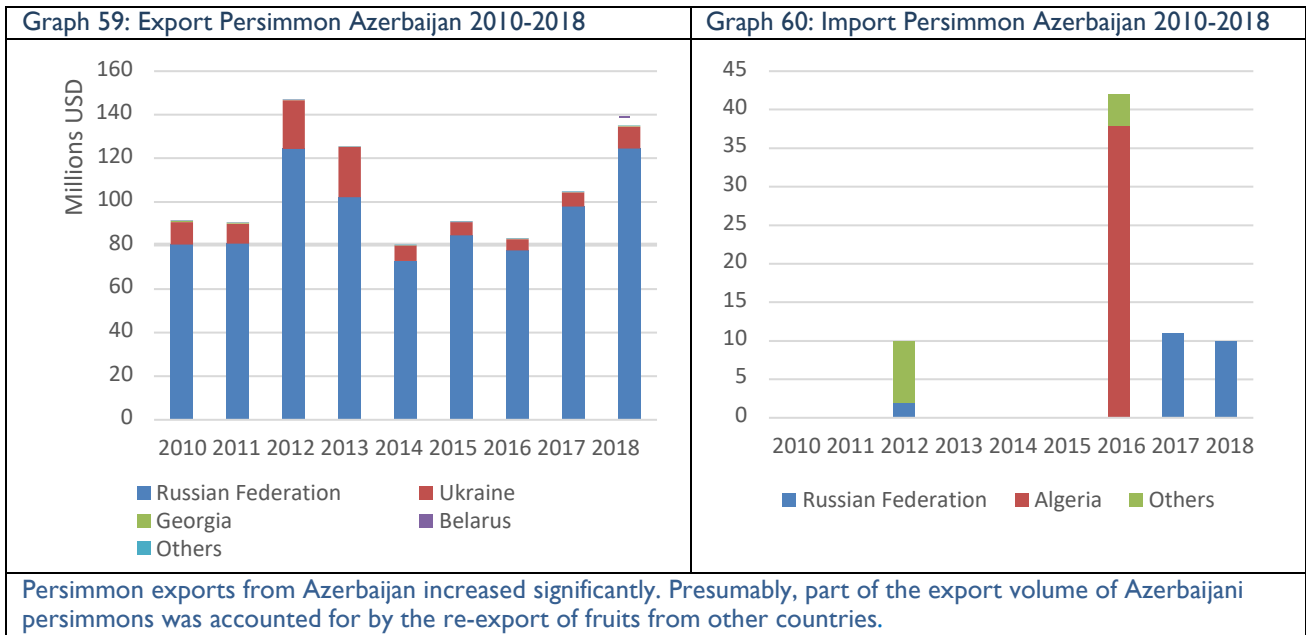


Source: FAO

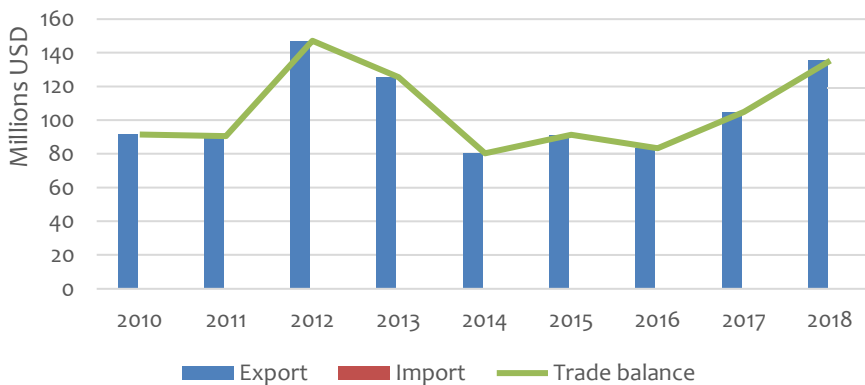
International trade in persimmons amounts to about 600,000-700,000 MT per year, which is worth 500-600 million USD.

Russia is the main importer worldwide by far, importing more than 160,000 MT of persimmons, which is worth 130 million USD annually. Germany takes second place, and Kazakhstan, which mainly re-exports the fruit, stands third. The ranking also includes Ukraine, France, Italy, Belarus, Lithuania, Thailand, and Poland.

The global leaders in persimmon exports are Spain and Azerbaijan, which in 2018 exported 168,300 MT and 135,200 MT of the fruit, respectively. The top twenty largest persimmon exporters also include Georgia, Tajikistan and Armenia, all of which have seen their exports increase.



Graph 61: Azerbaijan Persimmon Trade Balance



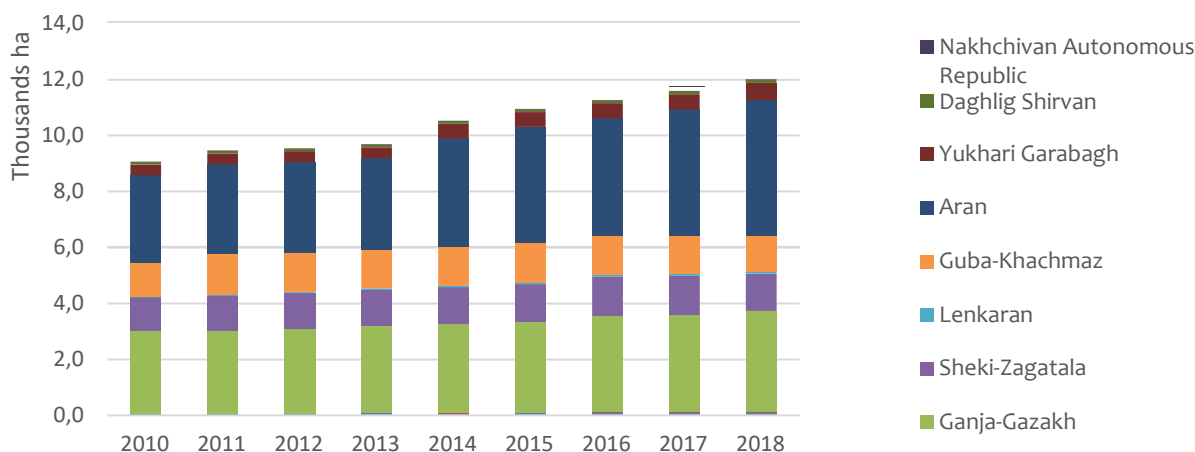
Trade balance for Azerbaijani persimmon is strong and positive.

X.I KEY CHARACTERISTICS OF THE PERSIMMON VALUE CHAIN

Persimmons are a well-known crop in Azerbaijan and can be grown in many regions of the country. Not all production is done professionally; some growers do not have a way to sell the fruits and then these fruits are not picked or sold. A long production tradition has created good know-how and a vast range of producers. Still, persimmon is mostly a secondary crop, used to prolong the production season as its harvest is in late autumn (October-December). Luckily, persimmon is a hardy plant and there is no need for large investments in plant protection, nor extensive crop management during the production season.

While persimmon can be grown nationwide, it is prevalent in the regions of Aran, Ganja, Barda, and Sheki. 10,474 hectares were harvested in 2018, with an upward trend of quadrupled production over the last 20 years. Constant expansion of production is crucial for growth and stability over time, securing the base for the processing industry. This is particularly important since persimmon trees have late maturation and the first few years of fruit bearing are not good harvest years. It takes up to 7 to 10 years for persimmon trees to reach their full production potential.

Graph 62: Persimmon Area Harvested by Region



10,474 hectares were harvested in 2018, with a consistent upward trend; all the areas increased four times in the last 20 years.

At the same time, persimmon trees are prone to bearing biannually or even having a multi-year bearing cycle. This alternate bearing means that you can have a large crop one year but not see anything the following year, waiting until two, or even several, years later, if the tree has fallen into a multi-year bearing cycle. This is common with persimmons. To prevent this, constant irrigation needs to be introduced, as well as growing persimmon in unpolluted areas with few stressors. However, even well-cared-for persimmons may still not produce crops every year due to damage to the reproductive organs or the tree's self-protection measures when it bears an especially heavy crop.

Lately export promotion initiatives have begun to integrate actors along the value chain. The Persimmon Producers and Exporters Association was established in August 2017, on the initiative of entrepreneurs and with the support of the Ministry of Economy of Azerbaijan, to increase the number of persimmon orchards, expand persimmon production, and maximize exports.

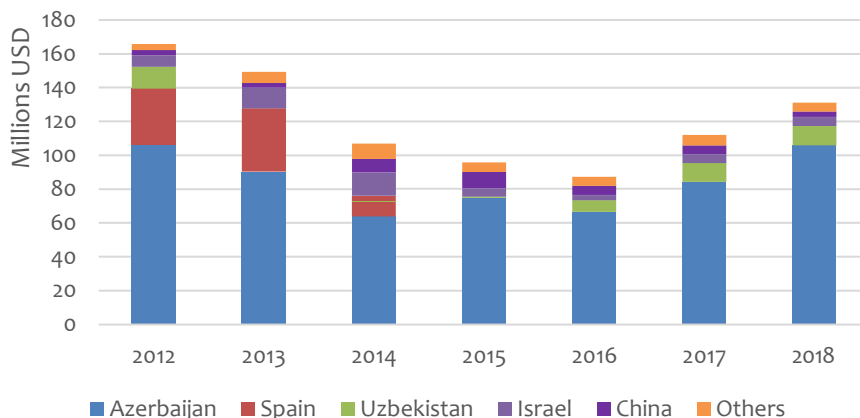
The annual production capacity of the association is more than 6,000 MT and the focus is on improvement of storage and processing facilities, and offering consumers abroad a wide variety of Azerbaijani persimmon products - high quality products in different stages of drying (dried, chips, and frozen semi-dried), in attractive packaging and with prolonged shelf-life.

Rationale for Including Persimmon in Group II: Market Diversification and Quality

- Being the second largest trading nation for this crop puts Azerbaijan in the spotlight when it comes to supply of persimmon.
- Azerbaijani producers are export oriented, as only 10% of the yield is locally consumed. Still, there is very little market diversification and current export is predominantly to Russia. The market should be expanded beyond Russia as very few countries have persimmon production.
- Finding export buyers has been one of the strongest barriers in export.
- Production is extensive and mainly based on fruit gathering. Nevertheless, Azerbaijan has the highest yield of all selected countries at 18.1 MT/hectare and the biggest harvested area under persimmon.
- If processing, packaging and standardization are improved, there is a strong potential for higher prices on the export market based on quality improvements.
- Persimmon is a super fruit with very high health properties: fiber, minerals, carotene, organic acids, and is becoming globally appreciated for its health properties.

Internationally, the production of and demand for persimmon is growing strongly. Azerbaijani persimmon is mainly exported to Russia, Ukraine, Belarus, Kazakhstan and the UAE. In 2017, Azerbaijan sold persimmons for a total amount of 97 million USD. In 2018, cultivation reached 135.2 million USD, which indicates an increase of 17.5% over the previous year.

Graph 63: Top 5 Exporters on Russian Market



Azerbaijani persimmon dominates the Russian market.

X.2 KEY CHALLENGES AND SPACE FOR IMPROVEMENT

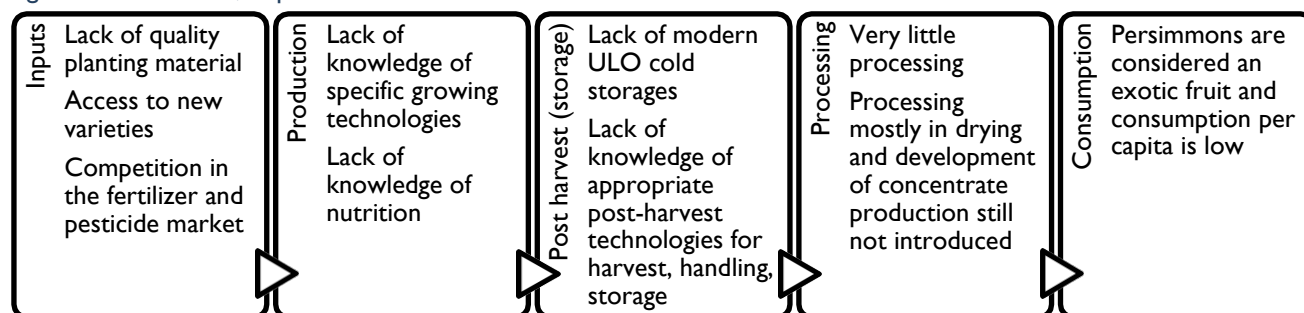
Persimmon is a true niche, specialty product where Azerbaijani agriculture is naturally positioned, and this competitive advantage could be further improved.

Despite relatively low production demands, there is a need for improvements in knowledge of modern growing techniques and introduction of modern varieties and certified planting material.

Also, there are very few processing facilities (drying, storage) as well as other processing techniques, so improvement of these capacities could improve access to different markets.

Dependence on one market, Russia, also makes the whole value chain vulnerable to the shocks and overly dependent on prices and conditions in one country. Considering the lack of competition in the global market, Azerbaijan should make a concerted effort to penetrate other export markets.

Figure 7: Bottlenecks, Improvements and Investments



X.3 RECOMMENDATIONS FOR DEVELOPMENT

Persimmon is highly recognized for its economic value in Azerbaijani agriculture. It is a profitable agricultural product, but the processing of this product still needs coordination and enhancement.

Most Needed Improvements along the Persimmon Value-Chain

- Access to certified planting material
- Development of fertilizer, pesticides and best management practices
- Marketing through multiple channels to reduce reliance on a single market
- Enter into sales or price contracts with buyers
- Improve post-harvest handling and storage
- Conduct market research to connect with potential buyers

Most Profitable Potential Investments along the Persimmon Value-Chain

- Modernization of orchards: new varieties and new growing technologies, intensification of production
- ULO and cold storages
- Sorting and packaging lines
- Strict internal control and third-party certification to meet the requirements of developed markets.

Development of storage and post-harvest infrastructure. There is not much adequate storage and that affects the quality of persimmon, particularly in the later season. The competition (Israel) is developing modified atmosphere packaging, which allows longer storage of persimmons, which can create a year-round market for the fruit and facilitate longer shipping distances. After going through the de-astringency process to make them more pleasant for consumption, the persimmons are treated in a modified atmosphere environment with a low oxygen, high carbon dioxide, concentration for storage of up to 3-4 months. The new packaging and treatment ensure a firmer fruit while staving off Persimmon Black Spot Disease, a fungal disease which affects up to 50% of persimmon yields, and which usually appears during long periods of refrigeration. With the extended storage technologies, the fruit can be stored for up to five months with little wastage.

Find export buyers. There is very little diversification of the market destinations in export. This can be addressed by creating links with new buyers and by looking at what the competition does. The EU fruit market had a strong crisis and was much affected by the Russian market closure. EU persimmon producers (Spain) have focused on the internal EU market as well as on entering other markets with competitive prices and good quality. Spanish Persimmon is on the rise, due to increased demand, little competition, and production set to soar in the coming years.

PDO Spanish persimmon from Ribera del Xúquer

To ensure excellent quality, a Regulatory Council was founded in 1998 to regulate the production, quality, flavor, appearance and packaging of persimmons grown and certified in the Ribera del Xúquer area. The Council administers a strict and efficient control system to ensure the persimmons from this region are grown to the highest possible standards, and that all its grower members comply with international food safety regulations. Since 2001, it is a Protected Denomination of Origin by the European Union.

Continuous efforts to enter new markets and promotion of the quality of Azerbaijani persimmon should be the focus of interventions, together with the strengthening of the value-chain network.

Table 14: Persimmon Action Matrix

| PERSIMMON VALUE CHAIN ACTION MATRIX | | |
|--|--|--|
| Group II: Market Diversification & Quality (Rationale) | | |
| Context & Trends | Gaps & Challenges | PSA Interventions & Investments |
| <p>Azerbaijan:</p> <ul style="list-style-type: none"> • One of the biggest persimmon producers globally, ranking high in production and trade • Long tradition of persimmon production, good quality and yield, good environmental conditions, low pest and climate risk • Production is traditional, with minimum investments in plant protection • Over half of the production is exported • Exports are dependent on the Russian market, which make it vulnerable to fluctuations, but demand is strong, and the market is easily accessible <p>General:</p> <ul style="list-style-type: none"> • Persimmon as a fruit is gaining ground on the shelves • Sweet, low-calorie delicacy with high fiber content and antioxidants • Easily transportable fruit that stores well • The fruit can be consumed when it is green or ripe, and can be ripened to taste at room temperature | <ul style="list-style-type: none"> • Lack of modern varieties and certified planting material • Restricted competition among the fertilizer and pesticide dealers • Lack of intensive production and technical knowledge on modern growing techniques • Very few processing facilities (drying, storage) as well as other processing techniques • Dependence on one (Russian) market leads to increased vulnerability | <ul style="list-style-type: none"> • Access to certified planting materials • Modernization of orchards to intensify and upgrade production (infrastructure, irrigation) • Sorting and packing lines • Strict internal control and third-party certification • Invest in more ULO cold storages to extend marketing season, along with new packaging and post-harvest treatments • Develop export promotion strategy to reach new markets • Promote and position a branded, Azerbaijani persimmon |

XI POMEGRANATE

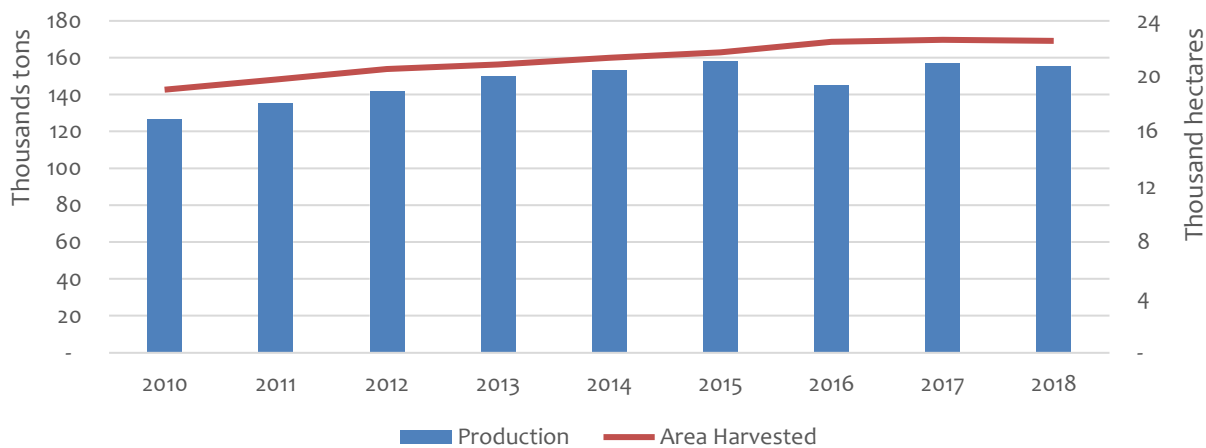
The pomegranate has become an Azerbaijani trademark and made its way into culture and art, becoming part of Azerbaijan’s identity and gastronomic tradition. Although cultivated in Azerbaijan for millennia, only in recent decades has the pomegranate started to be systematically researched and improved, with noticeable market and production expansion.

Globally, pomegranate and its derivatives are gaining in popularity, both for fresh consumption and processed in the food, beverage, pharmaceutical, and cosmetics industries.

The area of pomegranate orchards in Azerbaijan has been growing since 2000, increasing from 9,300 hectares to almost 23,000 hectares in 2018.

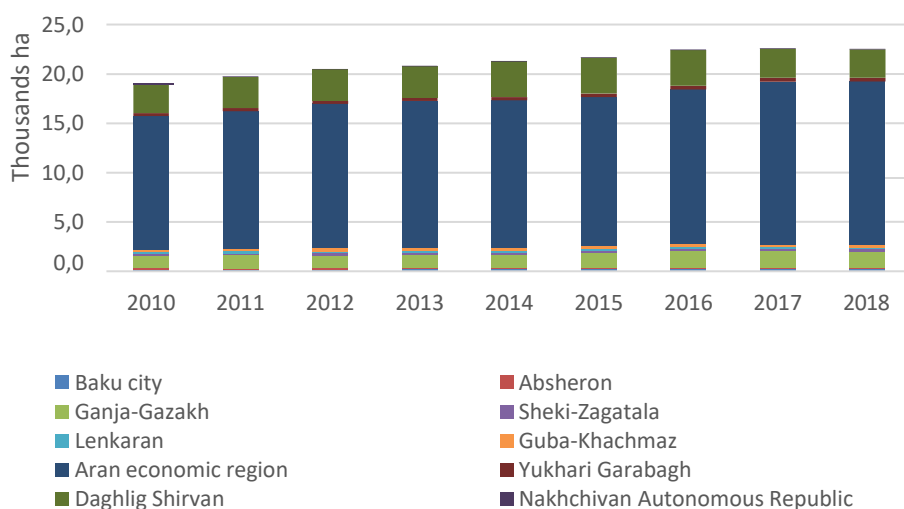
In 2018, about 155,105 MT of pomegranates were harvested in Azerbaijan. However, the information on exports is difficult to verify since pomegranates do not have their own individual Harmonized System code. They are included in the code for “fresh fruit not included elsewhere,” therefore the exact and mirror data on trade are difficult to obtain. Still, there are noticeable positive trends in exports and Azerbaijan is becoming more recognized in the global market. Several strong processors have developed local brands for premium juices, oil and other products that are certified and exported to regional, European and Asian markets.

Graph 64: Azerbaijan Pomegranate Production and Area Harvested



Source: SSC

Graph 65: Regional Production of Pomegranate in Azerbaijan 2010 - 2018



Pomegranates are cultivated in almost all regions of Azerbaijan, but those in Goychay region are considered to be the best. The Azerbaijani pomegranate has become synonymous with the Goychay pomegranate and is appreciated internationally. The secret of the taste and quality is the unique microclimate and productive soil.

Source: SSC

There is growing interest at the international level on the part of the food, pharmaceutical, and cosmetics industries in including pomegranate on their lists of ingredients because of its nutritional value, bright color, sweet and sour flavor, and health properties. Cultivation of pomegranate has expanded to five continents, with India, Iran, China, Turkey, the U.S., Spain, South Africa, Peru, Chile and Argentina being the major players in production, as well as international trade in this fruit. Since 2013, India has been the world's largest pomegranate producer and one of the largest exporters of fresh and processed pomegranates, with a production of 745,000 MT that year. Iran is in second place, followed by China.

Table 15: Trends Favorable For Pomegranate Market Growth and Consumption

| NEW AND EXOTIC IN THE NORTH: Unlike Southern European countries, consumers in northern countries are less familiar with the characteristics and uses of pomegranates. Pomegranates are not considered mainstream in northern countries. Nevertheless, these consumers prefer variety in the supply of products. Promotional materials such as recipes and media attention to new exotic or healthful products have the potential to boost the consumption of a product quickly. | | |
|---|--|---|
| HEALTH PROPERTIES | INCREASING DEMAND | CONVENIENCE |
| <p>In the European media, pomegranates have recently been classified as a 'super fruit' - exotic fruits with higher than average levels of antioxidants, nutritional content and success with modern consumers. Given the tendency of European consumers to embrace fruits that are healthful and tasty, health benefits are one of the main drivers of market success.</p> <p>Pomegranate juice improves appetite and treats anemia and other diseases.</p> | <p>Both for fresh consumption and processed in the food, beverage, pharmaceutical or cosmetic industry, pomegranate and its derivatives are gaining in popularity.</p> | <p>Consumers are increasingly expressing a preference for fruit that is easy to prepare and eat. Pomegranates are sold per piece as whole fruits, but supermarkets are also offering the fruity seeds packaged as a fresh or deep-frozen product.</p> |
| <p>Flavor is becoming increasingly important to European consumers, as is the appearance of the fruit. An attractive pomegranate skin color and skin structure is appealing to retail consumers. Since pomegranates are more exclusive fruits, consumers put more emphasis on specific flavor.</p> | | |

Relative price stability over the past decade (2.5-3 Euros) has been disturbed by the steeply rising supply, which has led to import prices dropping every year, a sign of market maturation. Current production is beginning to saturate existing and consolidated markets such as the EU, U.S., and Middle East.

With strong competitors in the global arena, Azerbaijan has had to carefully define its advantages in the market, which is still primarily Russia and regional markets.

XI.1 KEY CHARACTERISTICS OF THE POMEGRANATE VALUE CHAIN

Pomegranate value-chain development is strongly supported and influenced by public policy interventions. Recognizing its export market potential, and the global focus on healthy and natural superfoods, the GoAJ took a number of steps in recent years, such as subsidies and organization of pomegranate festivals, to promote the pomegranate industry. As a result, the improved value-chain organization is now a showcase and example for the development of other value chains in the agricultural sector.

Initially, based on traditional and small-scale production, the sector benefited from significant intensification in primary production, which provided a supply base for the processing capacities that are worth further expanding. Some of the large processors are:

- Gabala Canning Plant: a member of Gilan Company, known for fruit processing, and with a capacity to process 210,000 MT of fruit juice and nectar;

- Az-Granata: one of the largest beverage producers in the South Caucasus region, is a juice and wine producer founded in 2011. It produces fruit juices, concentrates, compotes, wines and vodka, with a focus on exports of pomegranate juice and concentrate; and
- Aznar: a pomegranate processing factory famous for its GRANTE brand - natural pomegranate juices produced in Goychay district in Azerbaijan with fruit production on around 1,000 hectares.

Juices are widely supplied and sold globally. In addition to the domestic market, they are sold in the U.S., Greece, Germany, Russia, Ukraine, Belarus, Estonia, Latvia, and Georgia.

Rationale for Including Pomegranate in Group I: Priority Group

Pomegranate offers a globally strong niche market opportunity, with value-adding potential in both fresh and processed products, making it a unique feature of the Azerbaijani agricultural sector. There are many reasons for focusing on pomegranate:

- Growing interest at the international level on the part of the food, pharmaceutical and cosmetic industries in pomegranate as an ingredient because of its nutritional value, bright color, sweet and sour flavor, and health properties.
- Not an investment intensive crop; net costs per hectare are relatively modest compared to other high-intensity crops, so there is potential for many small farmers to participate in production.
- Processors have been developing a number of high-quality products – not-from-concentrate (NFC) juices, seed oil, nectar, compotes that have export potential
- Long tradition in production, with a legacy that helps to differentiate the product
- Developed value chain with high potential for coordinated swift introduction of interventions
- Strong and cooperative players have a joint voice advocating for the sector with policymakers and in the marketplace.

The export of pomegranate is promoted under a national **Made In Azerbaijan** campaign and the coordinated efforts of the Pomegranate Producers and Exporters Association of Azerbaijan. This organization started in 2016 to serve as a uniting point for producers and processors and to play a role in providing technical advice and assistance to members. The figures on the overall processed volume for 15 large companies in 2018 range from 60,000 MT to 70,000 MT. The expected delivery to foreign markets was 12,000-15,000 MT in the same year, which is a significant increase over the 10,000 MT of the previous year.

PPEAA serves as an umbrella organization for export partners, promoting the Azerbaijani pomegranate on the global market and serving as a platform for strategic planning and advocacy for the value-chain actors. PPEAA's technical support activities include:

- Advice and training on the use of advanced production technologies in the pomegranate harvest;
- Assistance to pomegranate producers in obtaining necessary documents and certificates (GlobalG.A.P., Organic, Bio) for export;
- Support for the establishment of cooperatives for quality products supplying domestic and foreign markets; and
- Establishing a brand for Azerbaijani pomegranate to sell products under one brand.

XI.2 KEY CHALLENGES AND SPACE FOR IMPROVEMENT

The global demand for pomegranates is increasing constantly; the product group in which pomegranates are included shows a year-on-year import increase. The total import volume increased from 67,000 MT in 2013 to 95,000 MT in 2017. This global growth is driven by suppliers worldwide, with Turkey and Peru as the main drivers, but also Israel and Chile.

Regulations and compliance with buyer requirements pose a major obstacle for producers and exporters seeking to enter the market. To position on the market and face growing competition, the pomegranate sector needs to address a number of challenges:

Variety selection to meet market demand. Selection of pomegranate varieties on a scientific basis has been going on for about 50 years, a short period compared to millennia of local traditional selection.

Azerbaijan is considered the only country where all major varieties of pomegranate grow. *Guloysha*, *Vesel*, *Shandi*, *Shirin* and *Bala Mursal* are the varieties primarily cultivated in local orchards. To further develop pomegranate production, cultivation of new varieties and planting of new orchards needs to be an ongoing process.

Irrigation and production technology to improve the yield and productivity. Intensification of pomegranate production is one of the key needs. Practices must be improved to increase yields to the averages of other pomegranate producing countries. Improvements start from varietal selection and planting to pruning, irrigation fertigation, and harvesting. Each of these steps requires a horizontal upgrade to all actors in the value chain.

Post-Harvest Challenges. The harvest begins in the final weeks of September and continues until mid-November. The rains that are typical in this season, combined with a lack of available labor, cause the loss of 30 to 40 percent of the harvest. The issue of appropriate storage is also critical for many producers, as post-harvest treatment of the harvested fruit indicates a lack of storage facilities for extended fresh sales.

Introduction of standards. GlobalG.A.P. and organic or other voluntary standards opens the doors to new or specialized markets. Tracking and tracing are needed for importers and traders and certification for consumers to address the buyer requirements can be an obstacle to market entry.

Premium Product for Premium Price. A lot has been done to develop the processing sector and produce juices, pomegranate seed oil and pomegranate sauce, as well as tannins from the skin, but the trends and latest industry leads need to be followed to address the consumer's need for convenience, health properties and premium quality. There is growing consumer interest in direct sourcing of products from small brands that build their communication and consumer confidence based on the proximity to the production base rather than the power of the brand.

XI.3 RECOMMENDATIONS FOR DEVELOPMENT

Azerbaijani pomegranate, which is specific in taste and tradition, struggles to find its place in the markets, not only in Russia and the rest of the CIS, which are traditional markets for the Azerbaijani pomegranate, but also in European, Middle Eastern and North American countries. Until now, the barriers have been significant when it comes to strict maximum residue limits, high quality, food safety certifications and additional social compliance.

As a new supplier, Azerbaijani producers need not only to prove their compliance with all regulations, but also to work on infrastructure and governance of the value chain to accommodate market entry. Some of the possible measures include:

Intensification of Production. This will be achieved through promotion and introduction of new production practices from establishing new orchards to irrigation, pruning, and fertigation. This complements the capacity building efforts of PPEAA, which need to be further backed by investment support.

Post-harvest. Post-harvest handling and storage interventions are required to address the critical points along the value chain. PSA should explore different ways of preserving harvest quality for extended sale, but also enable picking the fruits at their peak and with the necessary machinery.

Association development. PPEAA should be supported in its efforts to improve organization of the value-chain to access new markets and be able to respond to needs all along the chain.

Market Positioning. PSA should work with pomegranate producers and enterprises on promotion and positioning to enter new markets and increase awareness of the quality of Azerbaijani pomegranate.

Table 16: Pomegranate Action Matrix

| POMEGRANATE VALUE CHAIN ACTION MATRIX | | |
|---|--|--|
| Group I: Priority Group (Rationale) | | |
| Context & Trends | Gaps & Challenges | PSA Interventions & Investments |
| <p>Azerbaijan:</p> <ul style="list-style-type: none"> • Traditional crop • Quality reputation in CIS market • Development of new varieties by local research institutions • Processing industry is getting a reputation for quality • Farmers interest in production • Good climatic conditions that could favor earlier varieties • Value-chain organization is a flagship for the whole agricultural sector <p>Global:</p> <ul style="list-style-type: none"> • Competitors are also growing, and massive investment projects aimed at the export market are emerging • Market maturation as indicated by steep rises in supply and reductions in import prices • Production beginning to saturate existing and consolidated markets • New production countries (Peru, South Africa, Chile, Australia) entering the market | <ul style="list-style-type: none"> • Need for scientifically based varietal selection, cultivation of new varieties • Practices must be improved to increase yields, which are lower than in other countries (pruning, fertilization, irrigation, harvesting) • Proliferating varieties bring diversity, but also are difficult to manage • Long harvest season combined with lack of labor leads to high (30-40%) losses • Post-harvest treatment and lack of storage facilities limits fresh sales • Need for GlobalG.A.P., organic, or other voluntary standards • Market is demanding more processed products from pomegranate (juice, oil, sauce, tannins) as well as branded products | <ul style="list-style-type: none"> • Promote intensification of production through improved production technologies: implementation of drip irrigation systems, fertigation, pruning • Introduce advanced harvesting technology to reduce losses • Assist in obtaining documents and certificates for export • Support educational activities in logistics • Provide technical support and for quality maintenance of the product in cold storages • Organize courses and work experience exchange to increase the skills and knowledge of professionals in manufacturing and processing areas • Strengthen industry associations • Create a brand for Azerbaijani pomegranate and sell products under one brand – promotion and positioning |