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VALUE CHAIN GAP ANALYSIS REPORT ON AZERBAIJAN

Value Chain Gap Analysis Report on Azerbaijan

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Abstract

The Value Chain Gap Analysis Report on Azerbaijan is meant to fill the gap in professional literature by providing a snapshot on how the government, the private sector and donor organizations work on creating an enabling environment supporting value chain (VC) development. The report won't answer any particular questions regarding a specific VC, but it assesses the regulatory framework, support measures offered by the state and donors, and the level of development of services available to farmers. The report briefly reviews main agricultural commodities produced in the country and identifies major issues that affect multiple VCs. In the following sections it analyses topics like access to finance, rules and regulations, and different stages of the value chain in terms of available infrastructure and resources. The report also presents a "mini" VC study on apiculture, in order to demonstrate, how general issues can be captured in a particular VC. Finally, the report contains a detailed review of different programmes operated by donor organizations, like the USAID, GIZ and the European Union (EU). Based on the findings, the report identifies gaps in government and donor-led development activities, and gives concrete recommendations to formulate better-targeted future VC development projects.

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Foreword

The development of Sustainable Food Value Chains (SFVC) can offer important pathways to relieve millions of poor households in developing countries from poverty. This approach is used by the Food and Agriculture Organization of the United Nations (FAO) in a wide-range of projects around the globe, but has only been scarcely applied in Europe and Central Asia. The Value Chain (VC) Gap Analysis initiated by FAO's Regional Office for Europe and Central Asia has aimed to capture how governments and donors support VC development in semi-periphery or industrialised countries in the region.

Findings confirm that during the 20th century the Soviet-era marked previous VC coordination mechanisms with a negative connotation. The analysis finds that the centralised mechanisms of a "command economy" implemented a forced VC integration in the region, creating many tensions between farmers and the state. After the collapse of the Soviet Union, these networks and commercial ties were dissolved and later the privatization of sovkhoz and kolkhoz (community- and state-owned) farm structures and assets lead to extreme fragmentation of land structures and market channels, giving rise to limited possibilities to foster VC organization in a way that is endorsed by the rural population. The absence of such organizational structures was identified to endanger the long-term economic viability of the agricultural sector in the region.

The VC Gap Analysis report on Azerbaijan is part of a series of publications that were published with a desire to assess how countries with common roots, but with different capacities started to rebuild their fragmented VCs. The publications analyse the legal framework, government support measures, the focus of donor-funded projects, as well as major actors of the private sector and NGO's, especially to bring new perspective and to facilitate the formulation of better-targeted future VC projects in the region. Findings of the series are integrated in a single document that presents comparative findings of both shared features and important differences between the countries analysed, namely Azerbaijan, Kyrgyzstan, Moldova and Ukraine, and demonstrates good practices that can benefit the agricultural sector the most either in the form of investments by the private sector, tailor-made government policies, support measures or long-term donor-funded projects.

This series won't describe any particular VC in detail, but will allow to narrow down the scope of VC development activities, saving scarce resources. Findings are presented to stakeholders, and based on the emerging needs of the different countries, FAO may conduct further analysis either in a form of a VC Selection or VC Analysis that can answer particular questions related to specific VCs in the region.

Acronyms

AI	artificial insemination
AZAFF	Azerbaijan Agricultural Finance Facility
AZN	Azerbaijani manat (local currency)
BDS	business development service
CIS	Commonwealth of Independent States
EBRD	European Bank for Reconstruction and Development
ECA	Europe and Central Asia
ESA	Agricultural and Economics Development Division
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FDI	foreign direct investment
GDP	gross domestic product
GIZ	German Company for International Cooperation Ltd. (Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH)
GMO	genetically modified organism
GoA	Government of Azerbaijan
ICT	information and communication technology
IFAD	International Fund for Agricultural Development
IFOAM	International Federation of Organic Agricultural Movements
MDF	multi-donor fund
MoA	Ministry of Agriculture
MoE	Ministry of Economics
NGO	non-governmental organization
OJSC	Open Joint Stock Company
PPP	purchasing power parity
RI	Regional Initiative
RO	Reporting Officer
REU	Regional Office for Europe and Central Asia
SME	small- and medium-sized enterprise
SO	Strategic Objective
SOE	state-owned enterprise

SFVC	sustainable food value chain
TCP	Technical Cooperation Programme
TCPF	Technical Cooperation Programme Facility
US	United States of America
USAID	United States Agency for International Development
VC	value chain
WB	World Bank
WTO	World Trade Organization

1 Introduction

1.1 Background and Purpose of the Study

The value chain concept is a widely used tool in the development sphere that has shaped development projects all around the world in past decades. The aim of the concept is to apply a holistic approach, developing strategies for industries not focusing on just one particular activity but on the overall effect of the planned interventions on other interlinked activities and actors directly or indirectly involved in the life-cycle of crating, consuming and disposing of products.

Whether an agricultural value chain is complex or includes just a few actors, agriculture around the globe is responsible for a quarter of greenhouse gas emissions (including from crops, livestock cultivation, and deforestation) and employs about 30 percent of the global workforce (as of 2014). Therefore, it is crucial to promote agricultural value chains to be environmentally sustainable and socially inclusive. FAO in this arena primarily works on the development of food value chains, which are involved in creating food products for human consumption.

According to FAO's terminology, adopted from Kaplinsky and Morris (2000), a sustainable food value chain (SFVC) is defined as "the full range of farms and firms and their successive coordinated value-adding activities that produce particular raw agricultural materials and transform them into particular food products that are sold to final consumers and disposed of after use, in a manner that is profitable throughout, has broad-based benefits for society and does not permanently deplete natural resources."

This piece is a part a series of studies developed by FAO's Regional Office for Europe and Central Asia in order to provide a snapshot of the post-soviet region's value chain development supported by national governments and donor-funded activities. This study is a unique concept developed by FAO REU, and while it does not follow the SFVC framework, its aim is to feed into SFVC development conducted in Europe and Central Asia and to identify gaps, which have been out of the scope of

others, while their improvement could be crucial to enhance the overall value chain-supporting environment.

The sample selection is based on geographical coverage and includes countries with differences in population size, ability to access markets, and availability of natural resources. The sample includes two countries each from Eastern Europe, the Caucasus and Central Asia, namely Azerbaijan, Georgia, Kyrgyzstan, Moldova, Tajikistan and Ukraine.

The first part of the study is based on literature review and data analysis assessing the countries' economic context and their business and legal environments. The second part of the study is a contextualised summary of the findings of a value chain gap analysis mission conducted in each country; in this section, one can obtain a general understanding of major topics organized by thematic areas such as processing, storage, transportation, marketing, wholesale and retail. In this second section one can also find the role of VC-enabling actors in shaping domestic value chain development.

The third part is a brief analysis of a specific value chain, which in the case of Azerbaijan focuses on apiculture and honey. This short analysis shows how the general findings of the study can be captured when paying close attention to a specific value chain. It also reveals issues mentioned by producers and processors from the field, demonstrating a different perspective. The fourth and fifth parts of the study summarise what donor organizations have achieved and addressed in terms of value chain development. These parts also contain recommendations to serve as a basis for future FAO activities.



Figure 1: Map of Azerbaijan, 2014. Source: United Nations Cartography

1.2 Overview of the Agricultural Sector

Azerbaijan has a rich agro-climatic diversification, encompassing nine of the 11 world climatic zones, from semi-deserts to alpine belt (Table 1). This environment allows Azerbaijani farmers to grow basically all kind of crops, from wheat to Mediterranean fruits. However, the annual rainfall is relatively low in most of its territory, and farmers heavily rely on irrigation. The agricultural sector is the largest employer in the country,

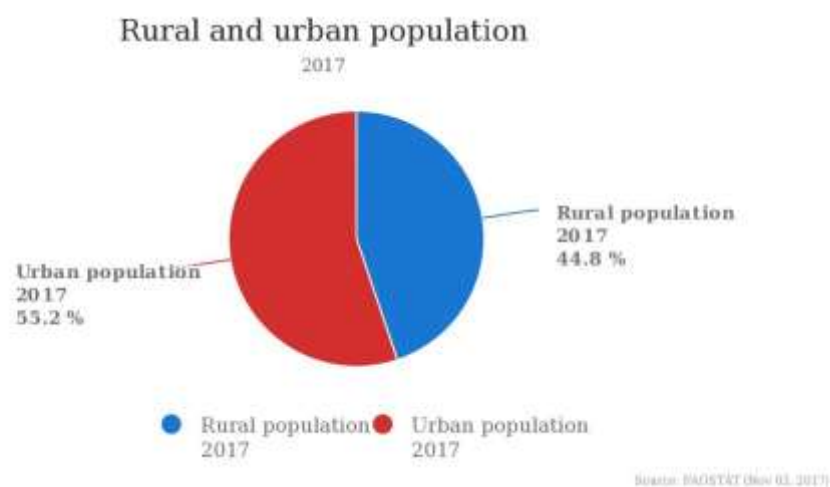


Figure 2: Percent of rural/urban population. Source: FAOSTAT.

including about 40 percent of the active population, and 55 percent of the country's territory is used for agricultural purposes, including pastures and cultivated land.

During the 80 years of the socialist regime, the agricultural sector was marked by command economy as well, massing farmers into 983 collectives (*kolkhoz*) and nationalizing 820 farms (*sovkhoz*).

Figure 3: Percent of rural/urban population. Source: FAOSTAT.

Region	Agro-climatic Condition	Agricultural Products	Arable Land Irrigated (percentage)	Precipitation
Ganca-Qazakh	diverse	potatoes, cereals, vegetables, meat, milk	n/a	n/a
Shirvan	mountain-plain	wheat, barley, melons, cotton, forage crops, fruit, vegetables, grapes	20.9	220–240 mm
Mugan-Salyan	strongly salinated soils	cereals, cotton, forage crops	39.4	18–220 mm
Shaki-Zagatala	subtropical	cereals, tobacco, nut crops, forage crops	22.3	600–700 (900) mm
Guba-Khachmaz-Lenkaran-Astara	forest, chestnut, salinated soils, wet subtropical, yellow soils, boggy and loamy meadows	vegetables, maize, fruit, barley, potatoes, cereals, vegetables, grapes, citrus	13.7 4.8	250–500 mm 1300 mm
Mil-Garabakh	dry-subtropical, chestnut, grey soil	cotton, forage crops, wheat, grapes	36	200–400 mm
Nakchivan	chestnut, grey, grey-brown soil	sugar, grain legumes, grapes, fruit	10.3	300–600 mm
Absheron	Dry climate	fruit, forage crops, grapes, vegetables	10.5	150–200 mm

Table 1: The agro-climatic landscape of Azerbaijan indicating dependence on irrigation by regions. Source: USAID and World Bank.

Five years after the transition in 1996, 1.46 million out of 1.7 million hectares of land have been privatized by the adoption of the Land Reform Act, creating approximately 800 000 small farms, leading to extreme land fragmentation and an

average farm size of 2.6 hectares. On the other hand, most of the families own land of 0.1 to 2 hectares, which is not sufficient to provide decent livelihood. (The World Bank, 2016)

As Azerbaijan is a net oil exporter, price volatility on the oil market is a major risk to the daily livelihood of many in the country. According to the World Bank, the gross domestic product of the country was half in 2016 what it was in 2014 (on current purchasing power parity), which shows how vulnerable the country is to global oil prices. Figure 3 below shows that while Azerbaijan has the highest GDP among Caucasus countries, its economy has been the most volatile in the past decade. The government has recognized that agriculture is a key economic segment for increasing the resilience to economic shocks, but despite numerous efforts, oil exports still account for 93 percent of the total export balance. In a detailed breakdown of agricultural commodities in 2015, agricultural exports constituted 5.3 percent, while agricultural imports were 15.7 percent (WTO).

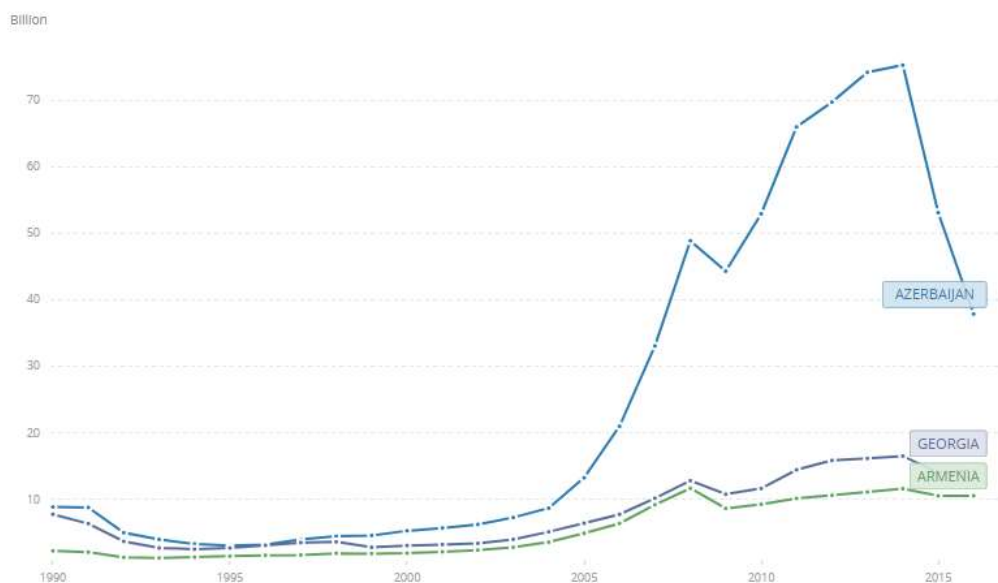


Figure 4: GDP of Caucasus countries between 1990 and 2015. Source: World Bank national accounts data and OECD National Accounts data files.

According to the World Trade Organization, Azerbaijan is a net exporter of refined sugar, but on the other hand, it is the third largest import market of Ukrainian raw sugar. Azerbaijan also is a net exporter of fresh fruits, nuts, animal and vegetable

fats and oils, and margarine (Table 2). The figures show that in some sectors there is an unmet demand for raw materials for processing, such as in the sugar value chain (H. Khalilov et al, 2015, p. 17.), while in other sectors, the processing capacities are underdeveloped or insufficient, such as in dairy. According to the U.S. Commercial Service, most of the equipment was installed in the Soviet era and is now obsolete, requiring replacement. (U.S. Commercial Service, 2016)

Top exported products (in millions USD)		Top imported products (in millions USD)	
Refined sugar	221	Cigars, cheroots, cigarillos	390
Fresh fruits	72	Wheat and meslin	294
Nuts (fresh and dried)	69	Raw sugar	205
Animal and vegetable fats and oils	60	Chocolate and other cocoa food	43
Margarine; edible mixtures oil	52	Live bovine animals	37

Table 2: Top 5 exported/imported agricultural product groups. Source: WTO (2015).

The degradation and salinization of large areas of land, mainly due to the collapse of Soviet-era irrigation systems, is another significant issue in Azerbaijan. Major investments are required to develop and improve irrigation infrastructure and water management systems, but the abovementioned issue of extreme land fragmentation coupled with underdeveloped cooperatives undermines the economic feasibility of such investments.

Fruits and vegetables are mainly marketed as fresh products that require well-established commercial channels and the availability and accessibility of cold storages. On the other hand, Azerbaijani dried fruits and canned, flavoured hazelnuts also have a recognized brand in post-Soviet countries, therefore, further improvements are envisaged in the processing industry to improve production volume for export. (U.S. Commercial Service, 2016)

1.3 Overview of the Main Crops and Livestock Sub-Sectors

This section provides a brief overview of different agricultural subsectors with the aim of describing the essence of overall agricultural value chain development in the post-socialist era. The value chain gap analysis revisits these areas and assesses their current

stage of development. The overview of these subsectors is based on studies and project reports developed by USAID (Stryker, 2009) and the World Bank (The World Bank, 2006).

1.3.1 Grains

Wheat production is efficient and profitable, if it is produced on large lands, but due to the abovementioned issue of land fragmentation, these conditions are barely met in Azerbaijan. Irrigation also is a crucial element for efficient production in drier regions – the majority of the country – however, inadequate irrigation infrastructure is cumbersome for even those who could invest in irrigation equipment for themselves. On the other hand, cleaning and sorting equipment also are outdated or not available at all, which usually results in the depreciation to animal feed of even good-quality bread wheat. Therefore, the milling industry is mainly supplied by imported wheat. The government subsidizes wheat production to assure a minimum supply of wheat by the producers, but that barely meets local demand.

Rice production provides less than 20 percent of local demand, but it is a highly profitable business in Azerbaijan. The main constraint of the sector is that rice production requires a robust amount of water, and the necessary amount is available only in a few regions. Rice cultivation is subsidized by the government, including the distribution of crop seeds to farmers and improved State Seed Inspectorates and agro-chemical laboratories. Government interventions are focused in the rayons of Goranboy, Sheki and Ghoychay.

Barley, Corn and Feed Mills – In terms of feed production, the conditions are better for corn production than for barley. According to USAID, corn is widely preferred by animal producers for feed, usually complemented with second-quality wheat, protein, vitamins, and minerals, mainly in the poultry sector. The feed mills are

Annual Agricultural Production and Trade (2013)						
Product	Production/Trade Value (1 000 USD)			Production/Trade Volume (metric tonnes)		
	Production	Export	Import	Production	Export	Import
Milk, skimmed dried	1 115 060	828	2 432	1 756 654	740	2 609
Wheat	678 270	0	395 282	1 841 307	0	1 451 257
Meat, beef	462 690	0	6 564	120 799	0	1 913
Meat, chicken	305 050	0	1 882	94 411	0	2 511
Meat, sheep	276 370	0	124	70 929	0	64
Barley	262 760	0	3 461	799 043	0	17 913
Apples	213 000	18 930	0	246 685	41 666	0
Grapes	149 560	864	454	148 535	1 180	1 409
Hazelnuts, shelled	81 530	45 151	273	31 202	10 415	83
Maize	72 440	0	27 664	208 178	0	138 770
Cotton lint	37 890	5 742	0	14 900	3 973	0
Cherries	8 702	7 247	8	7 586	4 205	26
Rice	1 680	11	6 626	4 833	12	17 241
Persimmons	n/a	77 123	0	143 106	95 118	0

Table 3: The annual value of agricultural production and trade. Source: FAOSTAT (2017).

usually operated by larger farmers, and they distribute their surplus among small- and medium-scale farmers.

1.3.2 Horticulture

Fresh fruits and vegetables – In 2009, USAID analysed several fresh fruit and vegetable value chains – namely apples, cherries, persimmons, pomegranates, greenhouse vegetables, kiwi, and feijoa – and concluded that they are economically and financially viable. According to FAO statistics, production in these value chains can perfectly satisfy domestic demand, and these products are exported in a high volume (in 2013, the net value of the export of fruits and vegetables was USD 273 852 million). However, there is plenty of room for improvement. The quality and quantity of production varies among orchards, and several issues could be tackled through improved production methods and value chain-development activities. This can be achieved by updating the capital stock of orchards, planting high-yield varieties, making improvements to post-harvest handling, packaging and labelling, and installing modern sorting and cleaning machinery. The availability and accessibility of inputs such as quality seeds, fertilizers and pesticides also is a cumbersome issue in some regions, and there is a measurable knowledge gap among some farmers on how to apply them.

Hazelnut production is well-established in Azerbaijan, although the industry has faced some marketing constraints in the past. The processing industry was owned by Turkish companies, which mixed Azerbaijani hazelnuts with Turkish ones on European Union markets. Albeit, after the industry was taken over by Azerbaijani investors, these channels were cut off. In 2009, there was a notable decline in the revenues of the sector, and the gross value of production dropped from USD 70 770 million to 54 140 million in one year, as Azerbaijani hazelnuts were sold to Russian markets for a lower price than before. From 2011, gross production value started to increase, making Azerbaijan the fourth-largest producer of hazelnuts in the world by 2014, with an annual production value of USD 80 million (USD 45 million from export).

Grape exports stagnated during the 2000s as producers were unable to find their markets outside the country. On the other hand, domestic demand steadily increased during that time to support the emerging wine sector. Between 2002 and 2014, the gross annual production value increased by 14 times, resulting in an industry with a yearly revenue of USD 140 million. 2004 was the worst year for export, as only 9

tonnes were exported in a value of USD 5 000, however, export demand gradually increased to 300 tonnes by 2013, while in 2014, this amount was quadrupled up to 1 180 tonnes with a value of USD 864 000.

1.3.3 Livestock and Livestock Products

The **poultry** sector is mainly concentrated in large-scale industrial production, but there also are a number of middle-sized producers, who sell their products on local markets. According to USAID, Azerbaijani poultry has a greater value on local markets than in the capital city due to the higher degree of competition in the latter. This is mainly due to the underdeveloped packaging and marketing practices of Azerbaijani poultry farmers. One of the major bottlenecks of the sector is the lack of financial management skills and bookkeeping; this restricts farmers from benefiting from grant and loan opportunities that could help improve their productivity. The other relevant issue is that several feed components need to be imported that impose more production costs on farmers. A well-established network of feed mills could provide lower-cost inputs to farmers in the long run.

The **dairy** sector is underdeveloped on most stages of the value chain, from production to aggregation and post-harvest handling. On the production side, there is lack of forage supply and availability of pastures. Low-yielding dairy cow breeds also present a major obstacle to the growth of the industry. The quality of raw milk is barely controlled due the lack of food safety inspection and low hygiene standards; this also increases the vulnerability of livestock to transboundary animal diseases, such as lumpy skin disease. However, improved productivity rates and quality per se is not a remedy for the sector. There is a huge demand for a well-established milk collection scheme and for a network of milk collection centres to supply struggling dairy processors.

Processed meat (beef and sheep) – According to FAO data, cattle and sheep value chains mainly supply domestic markets, and meat products or live animals are not exported to foreign markets at all. Domestic cattle and sheep production can satisfy 90 percent of the local demand, and approximately 10 percent is imported from neighbouring markets either as processed meat or as live animals. This is mainly due to the low quality of meat produced in the country and the lack of food safety standards, coupled with weak law enforcement and inspectorate capacities. Despite the limitations of the production stage of these value chains, production quantity has

increased from 55 000 tonnes in 2000 to 120 000 tonnes in 2014, in the case of beef meat, and from 34 000 tonnes to 70 000 tonnes, in the case of sheep meat. This is not a result of improved productivity rates and yields per livestock, but simply because of intensified livestock breeding in the country. In terms of processing, the vast majority of the facilities are outdated, and there is also a high demand for the modernization of slaughterhouses and packaging equipment.

1.3.4 Industrial and Cash Crops

Cotton was produced during the Soviet era to support the domestic textile industry, but after the collapse of the Soviet Union, most of the cotton fields were repurposed or slowly eroded. Currently, cotton is mainly produced in three rayons – Shirvan, Mugan-Salyan and Mil-Garabakh – but due to the dry climate and poor irrigation infrastructure, the sector is barely profitable. The knowledge gap in production also presents an obstacle and leads to varying quality.

Silk – There is a high demand for silk to support the carpet industry, but the current production volume can barely provide sufficient supply. On the other hand, major investments have not been allocated by the private sector; the carpet and textile industry has declined in past decades due to relatively high labour costs compared to Southeast Asian countries. (USAID, 2009)

1.4 The Legal Realm of Agricultural Value Chain Development

Azerbaijan has adopted relevant laws and regulations for the purposes of improving food safety standards and their implementation, establishing veterinary services, facilitating the formation of cooperatives, and providing state support to agricultural research and extension. The law regarding business activities provides a legal background for the establishment of new businesses and for operation without disturbance by discriminatory laws and regulations. In order to ease business administration, Presidential Decree No. 685, from 2002, established the ASAN 'single-window' service centre, which was supported by an e-governance platform launched in 2015.

The ASAN system's (ASAN, 2017) main role is to encompass state services managed by different state bodies, to allow citizens and businesses to reduce time

spent with official administration and in application for official documents. This new framework also allowed the government to effectively carry out institutional reforms and to enhance public trust in state bodies via improved transparency, sharing of information and the introduction of ICT solutions.

Institutional reforms were essential, as several stakeholders articulated the need for aligning coordination arrangements among different state authorities. According to a study conducted by the International Fund for Agricultural Development, the activities of different institutions in the field of agriculture often overlapped, and policies were often duplicated or contradictory. In 2010, four different institutions had a mandate to work on policy fields related to agriculture (one has since been merged into other state bodies):

- (1) Ministry of Agriculture: agricultural policy development;
- (2) Ministry of Ecology and Natural Resources: implementation of environmental laws, including on-farm handling of pesticides, fertilizers and manure;
- (3) State Committee for Land and Cartography (abolished in 2015): land reform, especially administration of land titles, cadastres and mapping, as well as implementing soil erosion and salinity control measures and pastureland management; and
- (4) Amelioration and Water Management Joint Stock Company: improvement of irrigated land and operation and maintenance of irrigation infrastructure.

Cooperation among these institutions was usually poor, and they didn't have well-established working groups to align their activities in a complementary and synergistic way. The introduction of ASAN and the new government priorities to improve the non-oil sector has delivered significant changes, though it is too early to evaluate their actual impact on the value chain environment.

As laws and regulations were aligned with international standards to enhance agricultural exports, some argue that their implementation was often constrained by path dependency and lack of law enforcement capacities. Even where adequate capacities were available, authorities usually didn't have sufficient resources to conduct field inspections. This can lead to food safety issues at the wholesale and retail levels and can have a direct impact on farmers as well.

The International Fund for Agricultural Development (IFAD) study argues that some farmers complained about the varying quality of fertilizers affecting their production quality and compliance with food safety standards. In some cases, lab tests revealed chemicals present in the fertilizers that were potentially harmful to the physical health of consumers. Combined, these factors lead to a low level trust in society and derivatively have an impact on business activities and interactions. (IFAD, 2016, p.6-13.) Building trust among private sector actors and between the private and the public sectors is crucial to facilitate an enabling business environment, which goal has been resolutely pursued by the government to revive the rich and viable agricultural sector of the past.

1.5 The Business Environment in Azerbaijan

The present sub-chapter provides a brief overview of the business environment, with a focus on business-enabling actors facilitating trade and investment in Azerbaijan. In this regard, banks, trade associations and international organizations might play a crucial role, as they can enhance business activities and thus allow the agricultural sector to generate higher revenues and to increase the income of rural households. This requires a viable financial sector, a supporting policy environment, and the ability to access new markets. The limitations of these factors often are derived from gaps in the legal system, but they also can be a result of an underdeveloped banking system or such exogenous factors as financial crises or shocks on foreign markets.

1.5.1 Access to Finance

In 2016, the European Bank for Reconstruction and Development (EBRD) launched an initiative under the umbrella of the Azerbaijan Agricultural Finance Facility (AZAFF) and commissioned the Frankfurt School of Finance and Management to assess the banking sector and the constraints of agricultural finance in Azerbaijan. As Figure 4 shows below, only 35.8 percent of agri-food producers have used banking products at least once in their lives to finance either production inputs or investment in equipment or machinery, and the remaining producers rely on their own savings (40.4 percent) or borrow money from their family (19.3 percent) or friends (4.3 percent).

This shows that despite that agricultural financial instruments have been developed by the government (adopted by Resolution of the Cabinet of Ministers No. 75 of 2007) in order to back private agricultural loan programs, the majority of farmers wouldn't benefit from these opportunities. Therefore, the EBRD assessed the limitations of the financial markets and the ability of farmers to apply for loans. The key findings of the study highlighted that farmers can barely apply successfully due to a number of factors, including the following, sorted by relevance: (1) production cycles and repayment schedules are not aligned, (2) farmers have insufficient collateral, (3) low return on investment, (4) slow evaluation of credit applications, and (5) inadequate bookkeeping and documentation practices of farmers. (Azerbaijan Agriculture Finance Facility, 2015)

In light of the above findings, one can identify several issues derived both from the level of the banking sector and the level of farmers. One is that banking products often are not tailored to the needs of the agricultural sector and are not distributed in a timely manner. This requires further development of agricultural financial banking products and the alignment of calls for applications, evaluation periods, and repayment cycles with the cultivation and harvesting periods of agricultural production, tailor-made to each type of crop and livestock product.

When assessing the farming level, the EBRD found that while agricultural financial instruments are available, indirect government support measures also are required to enhance access to finance on the farming level. This could be achieved

Financing Source of Agri-food Production and Investment

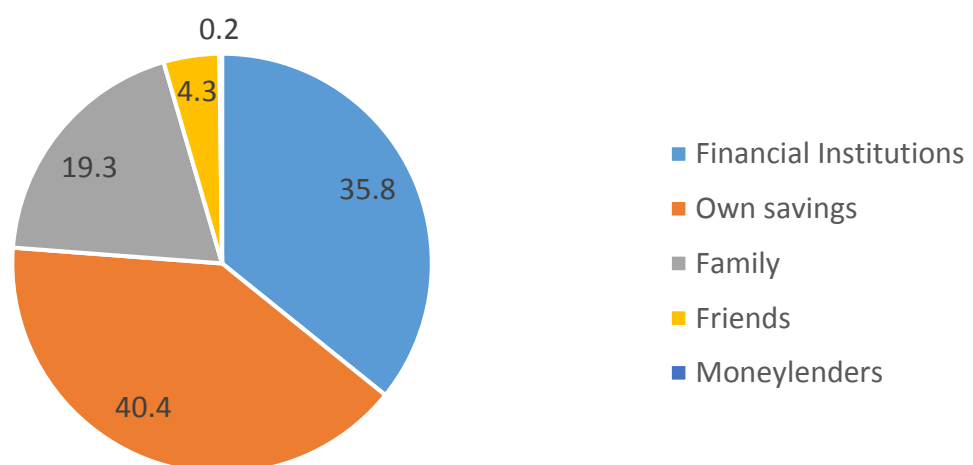


Figure 5: Financing sources, by percentage, of agri-food production and investment. Source: AZAFF.

by introducing matching grants to complement farmers' savings for down payments and guarantees to satisfy the need for collateral. The other problem on the farming level is the low return on investment, which basically derives from low productivity rates in some sectors that could be addressed via improved extension services or by repurposing farmland to higher-yielding crops or animal species, if applicable. In terms of the farming level, there is also a significant need for establishing business development and advisory services that could enhance farmers' abilities to better manage their businesses in terms of finance, bookkeeping and tracking their expenses and revenues.

Considering the abovementioned factors, some of these adjustments might be time-consuming and might require structural changes in the agricultural sector. Therefore, the government has adopted an agricultural sector strategy as a part of Azerbaijan's Economic Development Roadmap to address some of these issues.

1.5.2 Trade Associations

In 2000, the Azerbaijani Parliament passed a law "about non-governmental organizations (public associations and funds)" that allowed the formation of associations. However, associations have barely developed in the past seventeen years, as policies haven't aimed to particularly support them. According to the Venice Commission's report, the above legislation and its 2014 amendments set several obstacles to the establishment of associations, including the introduction of long-lasting registration processes, requests for numerous legal documents and certificates, strict monitoring and reporting requirements, and limitations on the room to conduct actual advocacy activities. (Venice Commission, 2014, p.10.)

Some trade associations do operate in the country, mostly supported by donor-led value chain development programs. One of the largest ones is the Ganja Agribusiness Association, established with the assistance of USAID, which partners with other international organizations – such as FAO, the German Company for International Cooperation Ltd. (GIZ) and the EU – in the field of agricultural development and organic production. Other smaller trade associations also are present in the country (USAID, 2007), but their operations are mainly restricted to the geographical areas where donor organizations are active.

In respect to the above factors, agricultural stakeholders struggle to unite without assistance from the outside, which reflects on the need for further revision of

the current legislation. One also may conclude that trade associations, advocacy groups and non-governmental organizations might differ in terms of their focus and activities, which might raise the need for the adoption of a separate legislation that has better targeted support measures to encourage producer groups and value chain actors to formulate trade associations.

1.5.3 Trade Regime

Azerbaijan launched WTO accession negotiations in 1997 and is currently in the phase of bilateral and multilateral discussions. This is basically due to the fact that Azerbaijan's trade policy mostly focused on oil exports in the past two decades, and easing the trade regime was not a government priority. After the oil crisis hit the economy, non-oil trade, along with the development of the agricultural sector, became a focus of government policies in order to substitute the missing revenues from the state budget. The WTO welcomed Azerbaijan's endeavours of adopting 12 sector strategies and roadmaps to improve non-oil sectors of the country, including the reduction of trade bans and tariff rates. Trade restrictions and bans of commodities and products are not in force, although an amendment of the food safety regulation in 2015 banned the import of GMO products and plants.

One reason for adopting the above measure is that Azerbaijan has active trade relations with the EU, which means that between 2011 and 2014 approximately 48–52 percent of Azerbaijani exports went to the EU, while 26–32 percent of total imports came from there. Azerbaijan's other important trade partner is Russia, as a result of Azerbaijan's CIS membership since 1993. At the moment, further integration in trade agreements is not foreseen, but the adoption of supporting rules and regulations is anticipated to facilitate deeper trade relations with the EU. Value Chain Gap Analysis Findings

The following chapter aims to demonstrate the first-hand experience obtained by FAO reporting officers during interviews with various agricultural stakeholders. The reporting officers interviewed key government officials, extension agents, academics, donors (from USAID, GIZ, the World Bank and the EU), associations, producers and post-farm value chain actors to get the complete picture about overall value chain development in Azerbaijan. This chapter also contains information about the comparative advantages and main constraints of the agricultural sector, derived from observations and a from detailed assessment conducted by FAO officials.

1.6 Government Priorities, Policies, Grants and Subsidies

After a drop in global oil prices after 2014, improving the resilience of the economy ranked among the highest priorities of the government of Azerbaijan. The government mapped the non-oil sector to identify key areas with the potential to substitute the country's shrinking oil revenues. The analysis found 12 areas where intensified investment might increase the possibility to stimulate growth. As a part of this exercise, the government commissioned McKinsey & Company to develop a strategic roadmap for each of these areas; one of them focuses exclusively on the manufacturing and processing of agri-food products. During meetings with government officials, multiple interviewees confirmed that the government's current highest priority is to improve the post-farm stages of the selected key value chains.

Among the selected value chains, the pomegranate VC is the most developed; therefore, it became a flagship for agricultural development and one of the focus areas of related policies. Other sectors with varying levels of development also have come into the spotlight with hopes of developing a processed food industry. These are the following:

- 1) Livestock: cattle (beef and dairy), sheep, poultry and beekeeping.
- 2) Crops: cotton, hazelnuts and apples.

As the first step of implementation, the government introduced a statistical monitoring system in 2015, with the assistance of FAO, to assess the production levels of the agricultural sector and the impact of government policies. The collected statistical data is available to the public, in order to enhance research activities and to provide sufficient information for investors. The head of the statistical department claimed that the government also started to develop agro-parks, processing firms and market infrastructure with special loan schemes, grants and state programmes. However, direct payments and the availability of financial instruments to farmers still account for the most significant item on the Azerbaijani government's balance sheet.

1.6.1 Livestock

In the livestock sector, the abovementioned value chains are supported, covering all activities from input supplies to marketing, including improved forage, better nutrition

of livestock, artificial insemination, and the development of irrigation infrastructure for pastures and grassland. These priorities were set to address the low productivity rates of the livestock sector and to improve the quality and quantity of livestock products. Currently, there are 2.7 million head of cattle and 8.6 million head of sheep and goats in the country, but producers struggle because of low productivity.

The most significant part of the cattle stock is the Caucasian breed, which is resilient to extreme environments and lack of nutritious feed supply. On the other hand, it produces significantly less milk compared to pedigree Holstein breeds, and its meat yield is also lower. This is why the Ministry of Agriculture started a lease programme, in which it finances the procurement of livestock from abroad in exchange for a 50-percent share of the profit from the final product. In parallel, an artificial insemination programme was launched to slowly replace the current livestock with pedigree breeds, with the aim of increasing the long-term sustainability of this sub-sector. With current government support, 300 artificial insemination specialists work in different animal production areas. In the case of the sheep meat value chain, a major future development project is foreseen under the FAO-Azerbaijan Partnership Programme.

Feed production was one of the other most cumbersome issues mentioned by the head of the livestock department, and despite that one-third of the arable land is grassland and pastures in Azerbaijan, sufficient forage is barely available for producers. The amendment of the Land Reform Act aims to overcome this issue by penalizing landowners who do not utilize their land for more than five consecutive years. The repeatedly mentioned poor irrigation is also problematic, which is now targeted by government policies via improved and modernized irrigation infrastructure. The other bottleneck is poor production methods applied by producers and the derivative improper nutrition of cattle – e.g. water is often not part of their nutrition. The head of the plant production department mentioned that cotton cake oil is widely available as feed, but it is mostly exported to Central Asia because Azerbaijani producers prefer not to use it.

The poultry sector is more developed compared to other livestock value chains in the country, but egg producers usually need to import animal feed that significantly increases production costs. Therefore, the government subsidises soybean production to slowly replace feed imports.

The fourth government priority area in the livestock sector is apiculture, where significant progress has been made in terms of artificial insemination and improved productivity rates. In 2015, FAO started a project to improve bee breeding in cooperation with the State Agrarian Science Centre. In the honey sector, the metrology and standardization are adopted from Turkey, which is one of the target export markets of Azerbaijani honey producers, but the government intends to develop organic honey production for EU markets.

1.6.2 Crops and Plant Production

Hazelnut crops are a top priority of government policies. Currently, 53 000 hectares are dedicated to hazelnut production, and the target is to increase this number up to 80 000 hectares in forthcoming years, supported by subsidies. The value of annual hazelnut production is USD 100 million, and hazelnuts are mainly exported in a cleaned form, without shells. The goal of the government is to develop the processing industry and, preferably, to export the crop in the form of nut paste or other processed, packed and branded products.

The second most important sub-sector in plant production is the pomegranate sector, due to the crop's high quality and recognition on world markets. Currently, 22 000 hectares of land are used for pomegranate production, with a production volume of 150 000 tonnes a year. The government wants to expand production capacities, and therefore the Ministry of Agriculture has developed a microloan programme in cooperation with the Ministry of Economics to establish more pomegranate orchards. Under this scheme, the MoA provides the budget, and the MoE distributes the loans to support farmers in the purchase of new seedlings. The pomegranate value chain is well-developed, as pomegranates are usually sold as concentrate and their shells utilized as paint, but the government supports further VC development in the field of packaging, marketing and branding.

The promotion of the export of fresh apples is the third priority area of the government, which has allocated a budget for export subsidy. Currently, apples are produced on 30 000 hectares of orchards, with a production volume of 260 000 tonnes per year. The export subsidy is fixed to production volume in the form of direct payments; in particular, 3 percent of the net export value is transferred to farmers (this grant is only available for export).

Cotton production also became a priority area of the government in recent years due to the crop's high prices on global markets. Cotton production was started in the Soviet era, as it was a favoured tool to create mass employment, from farmlands to the textile industry. In the 1990s, the production volume started to decline, but in 2016, the government increased subsidies by four times. Until 2015, it was AZN 50 per hectare (or 29.41 USD as of 18th November, 2017), and currently it is AZN 0.10 per km (which is approximately AZN 200 per hectare, which is approx. 116.65 USD as of 28th November, 2017). Since then, the production volume slowly started to grow, but according to the inspection of the reporting officers and to multiple other sources, production quality varies among farms.

1.7 Post-Farm Value Chain Actors

1.7.1 Aggregation

In 2016, a Presidential Decree proclaimed the establishment of the "Food Products Procurement and Supply" Open Joint Stock Company (OJSC) with the intention of integrate value chain activities covering most of the agricultural sector. The Ministry of Agriculture considered vertical integration of the selected VCs as a necessary step to support the processing and export of higher-value-added agri-food products. This approach was favoured by the MoA, because extreme land fragmentation coupled with underdeveloped cooperatives undermines the large-scale marketing of agri-food products. The MoA argues that the integrator approach can overcome this problem by aggregating products from smallholders and processing and exporting them in large stocks. This also ensures that smallholders can sell their products on a predictable and stable basis and have regular income.

The other important function of the OJSC is a micro-finance scheme, whereby it pays 25 percent in advance of the estimated value of the harvested products to farmers on a contract farming basis. This is essential to smallholders due to the constraints of the financial markets, as noted in section 1.6.1, as many of them cannot afford to buy adequate inputs. This creates a vicious cycle, as without quality inputs, the yields of the farm are also lower, undermining the investment in the next production cycle. In addition to financial assistance, the integrator offers a wide-scale advisory service, assisting farmers in the evaluation of soil, suggesting suitable crops,

and facilitating the acquisition of adequate inputs (quality seeds, seedlings, fertilizers and pesticides).

1.7.2 Processing

With regard to processing, the main areas briefly assessed by the reporting officers were cotton, dairy, pomegranates and wineries. In terms of cotton, currently four to five cotton processors operate in Azerbaijan, collecting raw cotton from 100 000 farmers and selling it in large bales on foreign markets. The plan of the government is to attract more foreign direct investment in the textile industry to keep higher value-added production in Azerbaijan. In terms of dairy, multiple milk collection centres have been established, as well as several dairy processing plants. However, during the past decade, major investment has flown into dairy processing plants that has significantly increased the capacities to a level at which the domestic raw milk supply cannot satisfy the demand of processors.

The pomegranate value chain is the most promising one, but the outlook of the sector shows that processing will be restricted to the production of concentrates in the near future. Foreign direct investment or domestic investment is needed to improve packaging and marketing capacities in order to be able to sell pomegranate juice for a higher value. The wine sector is also growing, but the bottleneck is not in the processing stage, but rather in marketing and branding and the absence of signature wines in the country. The Azerbaijani landscape allows for the production of 300 types of grapes, and GIZ is conducting a grape value chain analysis to identify the types with the highest marketing potential.

1.7.3 Storage

In terms of storage, the OJSC is the major actor on the market, as it collects and exports around 46 million tonnes of potatoes, tomatoes, onions and fruits. The OJSC has access to cold storages, but some interviewees mentioned that farmers cannot access them directly. One reason is that cold storages don't accept small amounts, and another is that there is a low awareness among farmers on the locations of cold storage facilities. Farmers do benefit from the OJSC's operation, however, as they get an annual average price for their products that includes the increased profit on off-season sales. To reduce the risks imposed by monopolistic structures, the law determines that the OJSC cannot have more than a 10-percent profit margin.

1.7.4 Marketing

In terms of marketing assistance, the government adopted an export promotion strategy to make it easier to export Azerbaijani agri-food products. This involved the establishment of a single-window export administration office – ASAN Export – where agricultural exporters can obtain all necessary certificates to sell their products on foreign markets. ASAN Export also monitors these markets' trade accounts, trade restrictions, laws and regulations, and main macroeconomic indicators and publishes regular reports and specific sector analyses to support small- and medium-sized enterprises in Azerbaijan. The president of the agency mentioned that the main challenge of their work is the fragmentation of the agricultural sector in Azerbaijan, as each product group requires different certificates, audits and experts.

The other element of the export promotion strategy was the establishment of the AZPROMO Agency, which helps Azerbaijani companies sell their products on foreign markets. The agency subsidises producers to attend trade shows, fairs and exhibitions. They have trade promotion offices in three countries – Russia, the United Arab Emirates and China – where their agents work to attract foreign direct investment and enhance tourism to Azerbaijan.

1.7.5 Wholesale and Retail

In terms of access to domestic markets, the government allocated significant investment in the development of road infrastructure, and physical markets also are widely available and accessible in the country. One of the major wholesale markets, located near Baku, is a major crossroads for agricultural producers, wholesalers and retailers from all around Azerbaijan and from other countries. Most of the high-quality agri-food products are marketed here, as the population of Baku has the highest purchasing power parity in the country.

At the wholesale market, both smallholders and large producers are present, mostly moving their products with estate cars, vans or smaller trucks. It also functions as a terminal market, where Turkish and Georgian wholesalers sell their products and transport Azerbaijani products back to their countries. At the time of the value chain gap mission, there was a high season of watermelons, which was marketed in both small and large stocks at the stands of larger wholesalers and from the backs of estate cars and trucks. At the wholesale market, it is possible to rent spaces of all sizes, with

or without roofs, or parking spaces, where it is also allowed to sell. The structures of the stands and the storages are mostly left from the Soviet times and have not been renovated or painted for some time.

In terms of distribution, consumer preferences favour small retail shops, confectionaries and grocery stores, while large supermarket chains are barely present in the country.

1.8 Value Chain Enabling Actors

Access to finance was mentioned by multiple stakeholders as a constraint to farmers. Some finance schemes other than banking products are available as a remedy to this problem, but they primarily support only the purchasing of production inputs. The government has loan and grant programmes to finance input supplies, distributed via the Ministry of Economics – such as in the case of cattle, mentioned in section 2.1 – and the integrator mentioned in the previous section also assists farmers in the form of advance payments on a contract farming basis. Most of the farmers cannot afford the purchasing of equipment and machinery, mainly because they do not have adequate knowledge on bookkeeping and business administration and cannot demonstrate the necessary legal documents when applying for a loan. Also, they usually lack a well-developed business plan that could demonstrate their capability to assure the feasibility of the investment.

Associations – Because they lack the financial capacities to invest in their own equipment, the majority of small farmers rely on other value chain actors. In order to be able to represent their interests, they need well-established association mechanisms. As mentioned in section 1.5, despite that it is legally possible to establish a cooperative, farmers are still reluctant to formulate them. This is mainly due to the heritage of the previous system of state-controlled collectives and the lack of trust among farmers. Associations are minimally formulated, and according to multiple interviewees, only a few of them operate in Azerbaijan. The terms “cooperative” and “association” also are usually misused, and farmers don't have a clear concept about their benefits. In the case of the Beekeepers' Association, the findings of the value chain gap mission show that while the association conducted advocacy activity in the government (it achieved the termination of the restriction on agricultural activities

near the border line, which greatly benefitted many beekeepers), it plans to invest in processing equipment, which is classically a function of cooperatives.

The association now also attends a working group with the government to formulate a new subsidy for the apiculture sector. Some farmers are sceptical about this initiative, believing that government subsidies usually involve more state control and are in favour of interest groups, despite that the proposed subsidy would universally benefit all honey producers. Another issue is that associations need full-time management and staff, which the Beekeepers' Association doesn't currently have – despite its sizable membership of 2 000 producers. The association's headquarters is located on a farm operated by its president. That farm has more than 1 300 hives and produces queen bees and assembles hives. Membership benefits are not developed, however, and both queen bees and hives are sold via regular commercial channels.

1.9 Production Support Actors

The extension service of the government of Azerbaijan is operated by the State Agrarian Research and Information Centre, under the supervision of the Ministry of Agriculture. The World Bank and FAO provided support to develop the organizational structure and the monitoring and evaluation system, which was approved by the government. Currently, there are eight regional offices with a staff of 22 people each. The head of the World Bank project informed the reporting officers that the recruitment of new professionals is very cumbersome. There is only one agricultural university in Azerbaijan, and most its graduates would rather work in the private sector or seek other opportunities offering higher salaries.

In the area near Ganja, the extension service operates a farm house with the intention of demonstrating good agricultural practices to farmers. At this establishment, 1 000 bee hives were also set as a part of an FAO beekeeping project, aiming to breed Caucasian queen bees. In the past two years, within the new organizational framework, more than 1 000 farmers received trainings either at their own farms, in the training centre, or at one of the workshops held eight times per year. Due to capacity issues, extension workers conduct just one or two farm visits per month, which is barely sufficient to reach out to farmers. The centre has four

agronomists, two livestock experts, two agricultural engineers and two economists (although according to the leader of the centre, there once were 42 employees).

When they organize trainings or workshops, they usually announce them via social media platforms and newsletters and welcome anyone who wants to participate. According to the head of the World Bank project, the interest in these events is often low, and it is hard to convince farmers to attend at the workshops. Multiple sources reported that these events tend to be academic and there is less focus on pragmatic issues. The World Bank and GIZ held a training of trainers to educate extension workers, but further improvements might be necessary.

2 Analysis of the Honey Value Chain

The present section aims to deliver a short analysis on the apiculture and honey value chains in Azerbaijan, based on field observations. The analysis was requested by the government of Azerbaijan and the FAO Azerbaijan Partnership and Liaison Office in order to assess the potential of organic honey production in the country.

2.1 Visiting the Beekeeping Centre in Ganja

The farm house is operated by the Apiculture Centre of Animal Husbandry Research Institute under the State Agrarian Research and Information Centre in Ganja, with the goal of improving the quality and quantity of honey production in Azerbaijan. Currently, there are 240 000 beehives registered in Azerbaijan, and the government's intention is to increase this number to 600 000 hives with an annual production volume of 900 tonnes. With improved genetic materials and adequate production methods, one hive can produce 15 kg of honey per year. The long-term goal of the centre is to focus on the production of monoflora honey. In order to support this endeavour, the government allocated 200 hectares of land in Gadabay and 80 hectares in Goranboy.

When investigating the potential of organic honey production in these areas, an inspection found 13 types of chemicals in the honey, which is not acceptable by the required standards. Currently, the production quality of honey that is eligible to be exported to EU markets – Azerbaijani honey certification, including testing and inspections – is aligned with Turkish and EU standards. According to the new regulation, any chemicals applied within a 7-km radius of the farm should be reported to the Centre to prevent the contamination of honey. The Centre also has an electronic management system, which it can use to send contamination alerts to all beekeepers registered in the system. The quality of honey is also often inspected, and diseases and infections are monitored by the State Veterinary Control Service.

With the support of an FAO bee breeding project, the Beekeeping Centre started to breed Caucasian queen bees in 2015 to improve productivity rates and to preserve genetic materials. In this project, researchers went on an expedition to the Caucasus Mountains to collect Caucasian queen bees. Then FAO purchased queen breeding boxes and artificial insemination lab equipment. In the last phase, Turkish

experts trained the staff of the Beekeeping Centre to manage the artificial insemination equipment. There is huge demand for Caucasian queen bees, and the majority of the farmers plan to breed them on their own. This means an increased stock of Caucasian queen bees – up to 300 000 in the forthcoming years – that will be demanded by the industry.

The production cycle of honey is from April until the end of September or beginning of October. After the end of each cycle, the Beekeeping Centre holds workshops for beekeepers to educate them on production methods, the application of chemicals and post-harvest handling of honey.

2.2 Visiting a Honey Producer in Sheki

The reporting officers visited one of the major honey producers near Sheki, located at the foot of the Caucasus Mountains, close to the Russian border. The area has a rich agricultural diversification, allowing the producer to grow wheat, tobacco, hazelnuts and silk cocoons within a 50-km radius of his bee hives. His main focus is honey production, with more than 1 000 hives and an annual yield of 15 kg of honey per hive, adding up to 20 to 25 tonnes of processed honey and royal jelly each year. He started his operation in 1997 and now produces at two locations. The one visited by the reporting officers is not far from a main road, and the other one is in Zakathala, near the Georgian border. He doesn't plan to expand, as there are main agricultural areas nearby where a lot of pesticides and chemicals are applied.

The producer makes four types of honey, marketed with seven different labels to meet consumer preferences in Baku. The annual demand for honey in Azerbaijan is more than 2 000 tonnes a year, which will be barely met even with the abovementioned capacity of 900 tonnes a year. The producer has blackberries and imports special trees from Canada to diversify his production with different flora. His main brand is spring and mountain flora honey, but he also makes linden and multiflora honey. A German bee expert taught him how to breed Caucasian bees and to preserve their genetic material. Caucasian bees fly up to 1.5 to 2 km a day, but in some cases they can fly 3 km or more to collect pollen.

The producer has 19 full-time employees and additional seasonal workers when needed. According to his calculations, five honey producers could provide livelihood

to all of the families in the nearby village. The producer's competitive advantage is that he has his own bee hives, harvests the honey himself, and has his own processing facility in which he packages and labels his retail jars of honey. The jars used for packaging are made in Iran, and the interviewee acquired them via his own network. He applies the highest hygiene standards in his facilities, and it is mandatory to wear shoe caps in its whole territory. Most of the equipment is also in a clean condition and regularly maintained. He bought the equipment from the United States of America with the assistance of USAID.

In 2011, a law on apiculture was adopted that required a certification procedure of honey to comply with food safety standards. The law also had a hidden passage about additional taxes for apiculture. However, the taxes don't have an impact on the profitability and feasibility of his operations.

The producer has heard about the government's artificial insemination programme of breeding Caucasian queen bees in Ganja, but he hasn't met producers who have benefitted from the programme. He claims that in 2001 an NGO conducted a similar project, which helped producers – including the interviewee – to breed Caucasian bees, and after the project ended, there was no demand for further assistance. However, it is a very cumbersome issue that the nearest beekeeping educational programme is in Turkey and that there is no related academic programme in Azerbaijan at all.

2.3 Visiting a honey producer in Gakh

FAO officers visited another producer in Gakh; this producer is the president of the Beekeepers' Association of Azerbaijan and a beneficiary of a major FAO project to breed Caucasian queen bees. FAO supported the procurement of artificial insemination lab equipment, trained the laboratory assistants and also procured special queen bee boxes, similar to the case of the beekeeping centre in Ganja.

Demonstrations are not held at the farm, and the queen bees are bred only for the association and for retail purposes. The farmer has 1 300 hives, disseminated in seven locations, operated by 20 employees and five trainees. The trainees participate in a three-year programme and, if they succeed in the final exam, can join as full-time employees.



Figure 6: Traditional honeycombs set in a farm near Gakh, photo credit: Zoltan Hradzsky © FAO, 2017

Beside the sale of queen bees, the other competitive advantage of the farm is that it makes beehive boxes in a workshop located on site. This reduces the production costs and also generates extra income from the sale of beehive boxes to other farmers. In the workshop, they also craft traditional honeycombs, which are made exclusively from natural materials and are appropriate for organic honey production (Figure 5). They buy the raw materials from handicraft shops and assemble the hives themselves. The costs are less than for hive boxes, and the assembling time is the same. The farmer doesn't have equipment for the processing, packaging or labelling of honey. The beekeeper complains that access to finance is limited for agricultural producers, and there is no state-supported loan scheme developed for apiculture, and therefore he struggles to invest in his own processing facility.

The marketing of the honey is also a bottleneck; currently, he sells raw honey in barrels to processors and wholesalers in Baku. In terms of marketing, the other problem is that the producer makes only multiflora honey, which has a lesser value on the market. In order to increase his revenues, the producer plans to improve his operation in the following ways:

- (1) develop harvesting, processing and packaging (for this, he needs finance);

- (2) focus on rural tourism and recreation (he built a guesthouse three years ago); and
- (3) switch to organic honey production.

In terms of the latter, the producer invited IFOAM - Organics International to assist him in coping with the certification procedure for organic honey. He also attended the Green Week Exhibitions in Germany, where he met other stakeholders and learned that there is an unmet demand in the EU for organic honey. The price of organic honey on the EU market is three times more than the price of non-organic honey. However, it seems that there is a general confusion among beekeepers on terminology, and they cannot make a distinction among "organic," "natural" and "quality" honey.

The last time the producer received support was in 2006 from USAID, when he had just seven hives, and from FAO, as mentioned in the introduction. According to his knowledge, the operation of the extension service is limited to Ganja, and they don't reach out in the Gakh or Sheki regions at all.

2.4 The Beekeepers' Association of Azerbaijan

The Beekeepers' Association of Azerbaijan was founded on 31 October 2016 after a nine-month registration process. The initiative went through the MoE and the MoA, both of which welcomed the idea of the association, as did the majority of beekeepers. Now the association is present in 42 rayons, with a membership of 2 000 beekeepers, input suppliers, machinery manufacturers and wholesalers, and honey processors, in addition to the Union of Young Beekeepers and the Union of Women Beekeepers. The association is a member of the World Beekeepers' Association and regularly attends its events.

The membership fee is AZN 0.20 (0.12 USD as of 28th November, 2017) per hive per year for producers, but the membership structure for large companies is underdeveloped, so companies usually contribute only to events and trainings on a voluntary basis. The interviewee argued that there is no established scheme for membership benefits developed, but the association organizes trainings and workshops for members on new production methods, good agricultural practices and disease control. The association wanted to create a network of veterinarians and

apiculture experts, but in the absence of apiculture training in Azerbaijan, there are very few experts available in the country (the interviewee's son studies apiculture in Turkey, which contains the closest university that has a programme in the discipline).

The interviewee claims that the extension service's main function would be to fill the gap in apicultural research in the country, but despite that the association has a wide network of beekeepers, the extension service never has approached them to reach out to a larger number of farmers. The association takes up this role via organizing trainings and even visiting areas where there is a potential for beekeeping and honey production in mountainous areas. The association conducts advocacy work and reviewed the draft programme on the development of the beekeeping sector in Azerbaijan for the period of 2017–2021. This programme aims to strengthen research and introduce a new subsidy on organic honey production.

2.5 Conclusions

The honey value chain is one of the most promising VCs in Azerbaijan, but some general issues identified by the value chain gap analysis in the previous chapter can be captured in this short analysis as well. Individual producers have their comparative advantages and weaknesses, but most importantly, adjustment made in the VC-supporting environment could greatly benefit the honey value chain, along with the whole agricultural sector in Azerbaijan.

The greatest strength of the honey value chain is that the mountainous regions allow the production of high-quality, natural, mountain flora honey that has a high value on the market. By utilizing Caucasian bees, which are more resilient to the environment and to mites, it is possible to gain high productivity rates, allowing farmers to have increased income. Beekeeping is also beneficial for rural employment, as one farm can employ up to 20 full-time people. The mountainous environment is also suitable for rural tourism, which has a great potential to supplement the income of farmers and to stimulate economic growth in local markets.

However, despite that the government has invested a lot of efforts to support beekeeping in Azerbaijan, there is still a lot to be done to achieve further growth in the sector. Some of the greatest constraints of the sector are the lack of cooperation among farmers and the low capacities of the Beekeepers' Association. This is

cumbersome for several reasons, but most importantly because the association would have the capacity through its network to effectively distribute Caucasian queen bees and beehives without intermediaries that may increase the prices and impose higher costs on farmers.

The other important function of the association would be to share information on input and service providers, this allowing its members to buy their inputs at the best possible price. Better access to information also intensifies competition among suppliers. Last but not least, introducing grades and standards and a common brand also could enhance the marketing potential of honey and increase the revenues of honey producers.

The planned investment in organic honey might also have its benefits, but acquiring organic certification for honey requires significant financial resources and effort. However, focusing on natural honey (instead of organic) might have a higher added value without allocating major investments, allowing the sector to grow in the short run. Focusing on the production of monoflora honey could also greatly benefit the sector, though Azerbaijan's crop diversity might set an obstacle to this endeavour.

The other limitation of the sector is caused by the low outreach of the Beekeeping Centre; while it has access to valuable information and resources, according to several respondents farmers outside the area of Ganja can barely benefit from its services. In terms of access to finance, honey producers also mentioned that there are no state programmes to support the apiculture sector – albeit, a targeted subsidy is currently being developed by the Ministry of Agriculture.

3 Value Chain Development Programs

3.1 Major Donor-Lead Value Chain Development Programs

The value chain gap mission's other important goal was to map value chain activities conducted by other donor agencies, hence to identify potential areas where FAO support can complement, supplement or reinforce other projects. This should help avoid the duplication of activities and to focus assistance in the areas where it's needed the most.

3.1.1 Projects funded by the World Bank

The World Bank's project office in the Government House in Baku manages and supervises a large agricultural finance project to overcome the aforementioned issue of limited access to finance. The World Bank conducts a joint project with the Ministry of Agriculture whereby the World Bank provides 72 percent of the budget and 28 percent comes from the government of Azerbaijan. There are two components of this project: One is to improve access to finance by introducing a USD 11-million credit line that may involve VC-support activities, and the other component is technical support and grants.

The first component of the project was undermined by the internal economic crisis, as the falling oil prices also devaluated the national currency. However, the development of agricultural banking products is on track with the five selected commercial banks. The second component of the project, which is to develop agricultural small- and medium-sized enterprises, was started in 2016 with the involvement of an NGO and supported by international consultants. The scope of the component is to finance agricultural VC-development projects that are commercially viable and feasible in the long run.

The focus areas of the grants are the improvement of irrigation systems (with a 50-percent co-financing rate) and the creation of higher value-added products (e.g. developing grape processing capacities to reduce import demand on raisins). In the case of the latter, the project received 100 proposals, from which up to 25 projects

will be selected to be supported by grants (with a 95-percent co-financing rate). The project proposals are approved by the Ministry of Justice, and the grants are distributed via the World Bank from a separated grant account.

A new project is also foreseen to improve dairy value chains in Azerbaijan, but at the time of the visit of the reporting officers, the call for proposals was just about to be opened.

3.1.2 Projects funded by the German Development Agency (GIZ)

GIZ has a budget of EUR 2.2 million until 2020 in Azerbaijan from an overall budget of EUR 8.6 million (2.7 and 10.6 million USD as of 28th November 2017) allocated for the development of the Caucasus region. From this budget, GIZ currently works in four areas:

- (1) The assessment of small- and medium-scale wineries and the effects of monopolistic structures in the sector: GIZ conducts a mapping mission in Azerbaijan to assess which are the most suitable wine grape types to be grown in different regions. For this exercise, GIZ hired a tropical wine expert who also evaluates wine quality and the potential of producing sparkling grape soda, which might have a better marketing potential considering the region's characteristics.
- (2) Private sector development: (a) vocational trainings supporting the handicraft sector to make souvenirs for Azerbaijani and neighbouring markets, and (b) promoting rural tourism (to visit wineries and villages, where local customs and architecture attract visitors).
- (3) Mapping mission to locate cold storages and identify their constraints and bottlenecks.
- (4) Non-alcoholic fruit beverages and compotes export.

GIZ partnered with another agency to develop the beef meat and dairy value chains, and together they launched a biodiversity programme to improve pasture management for cattle breeding and beekeeping. This project aims to enhance the production of forage and to stop land erosion. They also seek partnerships to further develop the manufacturing of jars and bottles, which are currently imported from

Italy, and to improve hygiene and Hazard Analysis and Critical Control Points standards.

3.1.3 Projects funded by the European Union

The EU manages two major regional development projects, focusing on eight rayons in Azerbaijan and five value chains, including tomato, honey, grapes, pomegranates and onions. The EU aims to improve e-agriculture and food safety (via developing sanitary and phytosanitary measures to allow Azerbaijani hazelnuts to enter EU markets). The EU also plans a comprehensive and integrated rural development programme with a focus on cooperative development and business information systems. The EU also cooperates with the extension service of the Ministry of Agriculture to enhance the competitiveness and quality of fruits and vegetables produced in Azerbaijan.

The value chain development project of the EU was started in June 2017 with a budget of EUR 3 million (3.7 million USD as of 28th November, 2017), and it finishes in October 2019. The assessment of each focus value chain will be finished by June 2018 on honey and tomatoes in Guba and Khachmaz, grapes and wine in Sheki, and pomegranate and onions in Goychay. The EU will produce SWOT and Porter VC analyses on each of the selected value chains, calculate the regional competitiveness indexes of the selected rayons, and conduct vertical and horizontal VC-development activities as a follow-up. The government of Azerbaijan's priority is to improve the quality of crops and sheep wool production to support the domestic carpet industry. By the end of the project, the EU aims to improve access to finance and will hand over the project to the Baku Business Centre to keep working on value chain development.

The Rural Development Programme in Azerbaijan aims to build institutional capacities to encompass future development projects conducted by the EU. According to the interviewee, Azerbaijan is tremendously centralized, and regional authorities don't have the mandate nor sufficient capacity to start and implement their own initiatives. The pilot region for the project is Aran, including 18 districts with the combined population of a small country. This project applies a participatory approach and involves most of the stakeholders to create individual district strategies

instead of generalizing and creating a single strategy for the whole region. As a product of the project, a regional development department was established within the MoE to integrate these activities.

The second component of the project is cooperative development, piloted in Aran using the French model. Cooperative development is a priority for the government of Azerbaijan. Estimates show that in 15 years, 35 to 40 percent of the rural population could lose their livelihoods, as large farms – with more resources and better-established commercial channels – tend to squeeze out smallholders. Currently, 95 percent of the farmers in Azerbaijan are smallholders, and they need assistance in aggregating, storing, processing, packaging and marketing to secure their livelihoods. The third component is the development of a Chamber of Agriculture, hence to integrate the advocacy activities of the agricultural sector and business development services for farmers and small- and medium-sized enterprises to ensure the long-term feasibility of agricultural enterprises.

The project was started in April 2016 with a budget of EUR 1.4 million (approx. 1.72 million USD as of 28th November, 2017). It finishes in March 2018.

3.1.4 Projects funded by the U.S. Agency for International Development

USAID currently works on two major projects related to agricultural development:

- (1) Regional Economic Growth (REG) project: organizing study tours and subsidizing participation at international fairs and trade shows
- (2) Smart Azerbaijani Farm (SAF) project: aims to introduce information and communication technology tools and the development of knowledge-sharing platforms to assist farmers
- (3) Follow-up of Agricultural Support to Azerbaijan Project (ASAP):
 - a. Target value chains are hazelnuts, grapes and pomegranates.
 - b. Beneficiaries are strictly small- and medium-sized enterprises.
 - c. The goal is to involve associations where applicable.
 - d. The aim is to increase production quantity and assist farmers in coping with hygiene and food safety standards.

The reporting officers met with Cultivating New Frontiers in Agriculture (CNFA), the contractor working to implement the ASAP program of USAID. CNFA is working in

five value chains, including orchard crops and vineyards; pomegranates; hazelnuts; vegetables (greenhouses); and berries. All of the crops have export potential. Recently, CNFA has been requested to advise on cotton production and is supplying some experts to conduct a study on constraints in the cotton-production sector. The project followed the Azerbaijan Competitiveness and Trade (ACT) programme, which ended in 2013, and had difficulty starting up due to governmental restrictions on NGOs. One notable restriction is to limit farmer training sessions to fewer than 10 farmers, while the previous ACT program regularly ran training for 20 to 25 farmers. In general, the project is continuing to meet its goals and is strongly supporting its selected value chains throughout the country.

3.2 Projects conducted by FAO

3.2.1 Projects under FAO's Technical Cooperation Programme

- (1) **Development of cattle breeding and artificial insemination services in Azerbaijan:** The goal of this project is to assist the government in the creation of enabling policy and institutional environment for the livestock sector to increase livestock productivity, identification, registration and traceability of animals, and intensive development of the sector. (September 2014 – August 2016)
- (2) **Support for seed sector development in Azerbaijan:** Strengthening the seed sector by upgrading selected exemplary laboratory and providing experience-based, task-oriented, and highly interactive trainings will enhance the overall capabilities of translating the integrated seed sector development concept. (January 2015 – December 2016)
- (3) **Support for the preparation of a National Land Consolidation Strategy and a Land Consolidation Pilot Project:** The goal of this project is to provide technical support for preparation of a national strategy for land consolidation and to increase capacity to design and implement modern land consolidation projects. (September 2016 – August 2018)
- (4) **TCPF: Capacity development on preparation monitoring and evaluation of agricultural policies and programs:** The goal of this project is to analyse and assess the needs of the Ministry of Agriculture for effective participation in

the preparation, implementation, monitoring and evaluation of state agriculture policies. (October 2016 – April 2017)

- (5) **TCPF: Project formulation on improvement of the diagnostic capacities of the laboratory technicians** (November 2016 – December 2017)
- (6) **Capacity development in biosafety:** The goal of this project is to develop capacities and raise awareness on agricultural biotechnology and biosafety as well as to improve the biosafety system of the sub-region countries. (October 2015 – September 2017)
- (7) **Strengthening the capacity of agricultural extension services in Central Asia:** The objective of this project is to improve the technical capacity of extension specialists in sustainable intensification of crop production. (November 2017 – October 2019)

3.2.2 Donor-funded FAO projects

- (1) **Improving livelihood of rural population in Azerbaijan through increased apiculture productivity** (February 2015 – January 2017)
- (2) **Strengthening phytosanitary inspection and diagnostic services in Azerbaijan:** The project will enhance the practical capacity for phytosanitary inspection and diagnostic services in Azerbaijan in accordance with the international standards for phytosanitary measures of the International Plant Protection Convention. The project will contribute to the development of agriculture in order to improve the welfare, food security and environmental protection of the Republic of Azerbaijan.
- (3) **Development of organic agriculture and institutional capacity building in Azerbaijan:** The expected long-term impact of the project is improved rural livelihoods and food security through increased productivity of cropping systems and added-value products by improving legislation, strengthening institutional capacity, training national experts and using the principles and practices of organic agriculture. At the end of the project it is expected that the legal basis for the promotion of organic agriculture will be improved, organic farming techniques and measures will be sufficiently validated by a core group of farmers, and an expanded program will be prepared for farmers of other districts. (April 2014 – March 2016)

- (4) **Forest resources assessment and monitoring to strengthen forestry policy and knowledge framework (MSP):** The goal of this project is to introduce sustainable forest management into Azerbaijan in order to increase social and economic benefits from forests, to improve the quality of existing forests, and to increase carbon sequestration. (February 2017 – January 2019)
- (5) **Lifecycle management of pesticides and disposal of POPs pesticides in Central Asian countries and Turkey (PPG):** The goal of this project is to safeguard against persistent organic pollutants, dispose of obsolete pesticides that pose high risk to public health and the environment, and implement sound pest and pesticide management programmes in Central Asian countries and Turkey. (January 2014 – July 2014)
- (6) **Towards better national and regional locust management in the Caucasus and Central Asia:** The goals of this project are improved national and regional locust management in the Caucasus and Central Asia through national capacity development on locust monitoring and control in the recipient countries and coordination and implementation of the overall five-year programme in the recipient countries. (March 2014 – December 2018)

4 Conclusions and Recommendations

Environment - As Azerbaijan has a rich agro-climatic diversification, the environment enables producers to grow numerous crop varieties, as well as to have a heterogeneous livestock sector. This opens windows to a wide range of potential agricultural VC-development activities. However, some of the value chains struggle at the farming level, requiring assistance in production methods. Therefore, identifying key agricultural sub-sectors is crucial, hence to have the highest possible impact on economic growth, job creation and increases in the income of households.

Government policies and subsidies target a number of crops (such as hazelnuts, pomegranates, apples and cotton) as well as livestock value chains (such as sheep, poultry, cattle and bees) but the level of development and the quantity and quality of production on the farming level varies. Pomegranate and hazelnut production are the most promising ones; they are exported to foreign markets, although these segments still suffer from marketing constraints that is to be addressed in the future. Apples are usually exported as fresh products, and government policies envisage increasing the production volume in the forthcoming period.

The **cotton value chain** has become the focus of government policies recently. It has a history in most post-Soviet countries, as socialist regimes promoted it due to its high labour intensity. The government increased the subsidy in 2015, and since then the production volume has increased, albeit lacking a coherent quality. There are now larger processors present in the country, and they sell raw cotton in bales. Further value chain improvements are foreseen, although the internal policies of many donor agencies discourage the support of this sector.

Most of the **livestock sector** is severely underdeveloped, mostly because of insufficient forage supply. One reason is the limited availability of pastures and grassland, and another is that farmers often lack knowledge on livestock production. This affects the further stages of the value chain, and despite the development of dairy processing, the production volume of quality raw milk hasn't increased. The poultry sector performs better with a well-established network of slaughterhouses; however, feed is usually imported, and hygiene standards are often neglected by producers.

The most promising livestock sector is beekeeping, where artificial insemination and production practices are also in place; however, the sector struggles from marketing constraints, and grant and loan opportunities are needed to support investment in machinery for cleaning, processing and packaging. In terms of marketing, farmers have a low awareness of grades and standards, which could be improved by policy adjustments and trainings to farmers.

Considering the **general VC environment and VC-support activities** conducted by the government and the private sector, several fields can be identified to be targeted by future development projects. In terms of the policy environment, the legal context is in line with international standards and supports the development of the agricultural sector, but law enforcement capacities and rare inspections undermine the implementation. This is also valid in the case of the extension service, which is mainly restricted to workshops and lectures at local education centres. These centres usually lack sufficient capacity and financial resources to conduct trainings and demonstrations at the farms.

As the **agricultural extension** of the government is often limited to lecture rooms, donors and other private actors may complement these activities with mobile extensions. One could learn from the example of the Beekeepers' Association in Azerbaijan, which organizes workshops and trainings on a regular basis and also does farm visits and limited mobile extensions. However, benefit schemes are not developed, and there are no concrete services provided for the members.

In terms of **post-farm VC development**, improving access to cold storages would be essential to support the fresh fruits and vegetables sectors. A specific state-owned enterprise established in 2016 aggregates all kind of fruits and vegetables and also manages storage and marketing, but the sector could still benefit from an enhanced degree of competition in this segment. The wholesale and retail segment of the value chain has a well-developed infrastructure, but the enforcement of HACCP standards remains a bottleneck due to insufficient food safety inspections.

Based on the value chain gap findings, one may envisage the following activities to be investigated in detail, hence to design an efficient and sustainable VC-development project. These points do not serve as a basis for any concrete project formulation exercise, but rather they summarize the most relevant findings of the value chain gap mission that can be turned into concrete actions. The aim of the proposed activities is to complement and reinforce projects conducted by FAO and

other donor agencies while avoiding duplication of activities and double-funding of specific projects.

I. Legal environment

- i. Conducting ex ante and ex post evaluation of agricultural grants and subsidies via surveying rural households, small- and medium-scale farmers, agricultural small- and medium-sized enterprises, input providers, and agro-holdings to assess the current stage of development of agricultural support policies
- ii. Developing capacities to monitor the implementation and inspection of food safety standards by setting up private laboratories and audit firms

II. Business environment

- i. Conducting multiple business-development workshops to map the constraint of agricultural business and to develop a vision for the sector to grow
- ii. Developing public-private partnerships in the field of advisory services to support the growth of agricultural businesses

III. Access to finance

- i. Assessing the state of agricultural finance in Azerbaijan and mapping the bottlenecks of supporting policies to tailor better-targeted agricultural banking products to the needs of the sector

IV. Production support

- i. Enhancing vertical integrations of value chains via improved capacities of associations in building more powerful networks of agricultural stakeholders and adopting an information provider approach
- ii. Assisting associations in the development of grades and standards to overcome the marketing constraints of selected value chains

V. Post farm

- i. Horizontal integration of food processors in selected value chains to better articulate the needs of the industries at the policy level

References

Agence France Presse in Baku. The Guardian. "Azerbaijan and Armenian separatists agree ceasefire over disputed territory." Armenia. Last modified 5 April, 2017. <https://www.theguardian.com/world/2016/apr/05/death-toll-armenian-azerbajani-talks-nagorno-karabakh-russia-us>.

ASAN State Service System, Azerbaijan. 2017, accessed via <http://www.asan.gov.az/en/about> on 17th November, 2017.

Avdeev, Alexandre. *Population Situation Analysis: Beyond the Demographic Transition in Azerbaijan*. Baku: United Nations Development Programme, 2015.

Azerbaijan Agricultural Finance Facility, "Overview of Azerbaijan Economy and Banking Sector". Background. Accessed via <http://www.azaff.org/EN/Default.aspx> on 17 September 2017.

BBC. "Azerbaijan Profile – Timeline." Europe. Last modified 9 May, 2017. <http://www.bbc.com/news/world-europe-17047328>.

Bílková, Veronika; Clayton, Richard, Thorgeirsdottir, Herdis and Dijk, Peter. *Opinion on the Law on Non-Governmental Organizations (Public Associations and Funds) as Amended of the Republic of Azerbaijan*. Venice: European Commission for Democracy through Law (Venice Commission). 2014.

FAPDA - Food and Agriculture Policy Decision Analysis Tool. "Azerbaijan". FAPDA Tool. Accessed via <http://www.fao.org/in-action/fapda/tool/index.html#main.html> on 30 August 2017.

Ganja Agribusiness Association, accessed via <http://eng.gaba.az/> on 28th November, 2017

International Fund for Agricultural Development. *Republic of Azerbaijan. Integrated Rural Development Project (IRDP). Project Design Report*. Near East and North Africa Division. Programme Management Department. 2010.

Khalilov, Hamza; Shalbusov, Namig and Huseyn, Ramil. *Agricis Trade. Country Report: Azerbaijan*. Azerbaijan: Research Institute of Agricultural Economics. 2015.

National Assemble of the Republic of Azerbaijan. "Legislations". Legal Database. Accessed via <http://www.meclis.gov.az/?/az/legislation/> on 23 August 2017.

Stryker, Dirck, J. et al. *Domestic Resource Cost Analysis of Azerbaijan. Final Report Presented*. Washington, D.C.: The United States Development Programme. 2009.

United States Commercial Service. "Agricultural Sector". Azerbaijan. Last modified 23 September 2016. <https://www.export.gov/article?id=Azerbaijan-Agriculture>.

Valiyev, Anar, European Council of Foreign Relations, Perspectives of Eurasian Economic Integration, 8 June 2016, accessed via http://www.ecfr.eu/article/essay_eurasian_integration_azerbaijan on 28 November 2017

World Bank. *In Support of the Second Phase Agricultural Development and Credit Program*. Baku: The World Bank. 2006.

World Trade Organization. "Azerbaijan Trade Profile". Trade Profiles. Last modified in 2015.

<http://stat.wto.org/CountryProfile/WSDBCountryPFView.aspx?Language=E&Country=AZ>.

World Trade Organization. "Azerbaijan urged to step up bilateral talks with WTO members on membership terms". Accession. Last modified 28 July 2017. https://www.wto.org/english/news_e/news17_e/acc_aze_28jul17_e.htm.

ANNEX – Summary of Laws and Regulations

Legislation title/no.	Year	Description
Law No. 270-VQ “About Agricultural Cooperation”	2016	The Law defines agricultural cooperatives as a voluntary association of actors engaged in agriculture that is formed for the satisfaction of the material and social needs of its members. A cooperative is a fully acknowledged legal entity that can carry out joint economic activities, including production, supply, processing and distribution of agricultural products. The Law distinguishes producer, consumer and producer-consumer cooperatives. The membership is open to anyone who accepts the Charta adopted by its members. Each member has 1-1 voting right and is eligible to receive equities proportionally to their ownership/share. The Law assures state support for cooperatives, including trainings, land lease programmes, introduction of new insurance mechanisms, the extension of credit and loans products backed by a credit guarantee fund and the alignment of laws and regulations.
Law No. 405. “About Business Activity”	1992 (amended in 2017)	The business act of Azerbaijan is a framework law that defines the principles of entrepreneurship, establishes the rights and obligations of businesses and the relation between the state and the private sector, including forms and methods of state protection and encouragement. The Law forbids leading employees and specialists of the state to be engaged in business activities related to their area of work. Capable Azerbaijani and foreign citizens are both eligible to start a business. The Law declares that no discriminatory rules and regulations can be adopted that might restrict any business activity in favour of others.
Resolution No. 154. “About Approval of Rules of Implementation of the State Control of Observance of Standards and Requirements in the Field of Quality Assurance and safety of Foodstuff”	2005 (amended in 2014)	The regulation is to ensure the execution of the Presidential Decree of the Republic of Azerbaijan of October 23, 2003 No. 969 about additional measures in connection with application of the Law of the Azerbaijan Republic "About foodstuff." The Law declares that inspection and enforcement capacities of the state are made available for the prevention of production, import and sale of foodstuff which may threaten life, health and property of people and the environment. All stages of the value chain can be subject to food safety inspections. There are several state bodies involved in the control of this regulation, including the Ministry of Economy and Industry, the Ministry of Health, the Ministry of Agriculture, the Ministry of Ecology and Natural Resources, the State

		<p>Customs and the State Committee on Standardization and Metrology. They can exercise control over the observance of the enforcement conducted by the legal entities and personnel operating in the field of HACCP, sanitary and phytosanitary, and veterinary control. The inspectors are entitled to gather samples and send them to state-accredited laboratories for testing. The Regulation declares that labels should indicate the name, amount, type and ingredients of the foodstuff, as well as the sphere and rules of use, date of production and expiration date, storage conditions, name and the address of the producer, and trademark. Auxiliary ingredients need separate certification of compliance with hygiene standards.</p>
<p>Law No. 922-IIG "About veterinary science"</p>	<p>2005 (amended in 2009)</p>	<p>This Law establishes legal and organizational bases of veterinary activities in Azerbaijan, assuring the veterinary and sanitary well-being of the country and the protection of the population from diseases that may affect the health or well-being of consumers of animal and livestock products. The Law determines practical and organizational measures to prevent transboundary animal diseases (including cattle, birds, fishes, bees, wild animals and others), and to ensure the production of livestock products suitable and safe for human consumption. The Law also creates a framework for veterinary inspection, the accreditation and application of medicines, veterinary certification, identification of animals, and the means of processing, packaging, transporting and storing animal and livestock products. Quarantine measures are also declared by this Law in the case of transboundary animal disease outbreaks. The Law also assures the quality and safety of animal feed and their inspection and laboratory testing.</p>
<p>Resolution No. 228 About approval of the List of infectious diseases of animals to which quarantine and rationing arrangements are applied</p>	<p>2006</p>	<p>The Resolution lists the observed diseases and the applicable quarantine measures in case of an outbreak to assure the implementation of the Law No. 922-IIG of 2005.</p>
<p>Order of the President of the Republic of Azerbaijan No. 1177 About strengthening of material and technical resources of the research establishments operating in system of</p>	<p>2015</p>	<p>In accordance with the newly adopted Agricultural Sector Strategy, the Ministry of Agriculture envisaged further improvement of the State Agrarian Scientific Centre of Azerbaijan and the development of its regional departments. The present Order aims to enhance the research capacities of these institutions in order to increase the productivity and resilience of the agricultural sector. One of the primary objectives of the new</p>

the Ministry of Agriculture of the Azerbaijan Republic		strategy is to introduce new means of cultivation methods and distribution of new plant varieties and seeds. The Order assures the material and technical needs of the Agrarian Research Centre and its regional department and the procurement of modern laboratory equipment supported by a budget of AZN 10 million. ¹
Law of the Republic of Azerbaijan No. 155-IQ, "About land reform"	1996 (amended in 2015)	The land reform Act establishes land ownership on the principles of economic independence and social equality, the development of market economy and entrepreneurial initiative, and the achievement of the economic independence of the country, including providing the population with food and increasing, as a result of this, the material wealth of the Azerbaijani people. The land reform consists of the determination of state lands, ensuring the transfer of lands to municipal and private property, and the creation of ownership rights declaring the form of use and purpose of lands. Only capable Azerbaijani citizens can own land, but they might lease their land to foreign citizens.
Law of the Republic of Azerbaijan No. 894-IQ, "About non-governmental organizations (public associations and funds)"	2000 (amended in 2014)	This Law governs the relations, creation and functioning of public associations and funds, in addition to the branches and representative offices of non-governmental organizations of foreign states. This Law regulates the registration process, activities and rules of reorganization and liquidation of non-governmental organizations as legal entities; activities of non-governmental organizations; and their management and relations with public authorities.
Resolution of the Cabinet of Ministers of the Republic of Azerbaijan No. 75	2007 (amended in 2014)	The MoA allocates its funds in the form of financial instruments to develop the agrarian sector by improving rural infrastructure and supporting investment in machinery and equipment to empower sectors targeted by the strategic programmes of the GoA. The MoA provides financial guarantees to back credits distributed via a number of selected banks and non-bank credit institutions. The selected institutions are obliged to distribute the allocated credit line in support of agricultural development projects, in line with national and regional legislations, considering the local needs of the agricultural sector. The credit applications are evaluated by representatives of agricultural NGOs and private actors to assure the unbiased implementation of the credit facility.

¹ Approximately USD 5.88 million.

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