



COUNTRY REPORT: GEORGIA

March 2015

Aleksandre Bluashvili and Nina Sukhanskaya

The Fund Georgian Center for Agribusiness Development



This project has received funding from the European Union's Seventh Framework Programme for Research, Technological Development and Demonstration under grant agreement no 612755

Contents

1. MACROECONOMIC ENVIRONMENT AND POLICIES	3
1.1 Background data.....	3
1.2 Macroeconomic developments.....	4
1.3 Macro-economic and other general policies	5
1.4 Institutional environment of the agro-food sector	8
2. SITUATION AND DEVELOPMENT OF THE AGRICULTURAL SECTOR	12
2.1 Role of agricultural sector in the economy	12
2.2 Land use.....	12
2.3 Farm structures (including land properties).....	14
2.4 Production and output (including major sectors and yields)	16
2.4.1 Crop production and yields	17
2.4.2 Animal production	22
2.4.3 Organic production.....	25
2.5 Prices, costs and income	26
2.5.1 Prices	26
2.5.2 Costs	28
2.5.3 Farm income.....	30
3. SITUATION AND DEVELOPMENT OF UPSTREAM AND DOWNSTREAM SECTORS	31
3.1 Input production and use	31
3.1.1 Input production	31
3.1.2 Input use	31
3.2 Food industry.....	32
3.2.1 Structure of the food sector.....	34
3.2.2 Food law	35
3.3 Bioenergy production.....	35
3.4 Food retail	37
4. AGRI-FOOD TRADE AND TRADE RELATIONS	38
4.1 Agri-food trade	38
4.1.1 Overall agri-food trade	38
4.1.2 Agri-food trade by trading partner.....	40

4.1.3 <i>Agri-food trade by products</i>	42
4.2 Trade policy and infrastructures	44
4.2.1 <i>Measures directly affecting trade imports and exports</i>	44
4.2.2 <i>Logistics and infrastructure</i>	45
4.2.3 <i>Main trade agreements</i>	47
5. AGRICULTURAL POLICY AND INSTITUTIONAL ENVIRONMENT.....	49
5.1 Agricultural policy framework.....	49
5.1.1 <i>Agricultural policy objectives and mechanisms</i>	49
5.1.2 <i>Institutional arrangements</i>	50
5.2 Main agricultural policy instruments and measures.....	52
5.2.1 <i>Market price support measures</i>	52
5.2.1 <i>Budgetary and other transfers to agriculture</i>	52
6 FUTURE PERSPECTIVES FOR THE AGRICULTURAL AND FOOD SECTOR.....	54
6.1. Strengths and weaknesses of the agricultural and food sector	54
6.2. Potential of production and yields by sectors.....	54
6.3. Bottlenecks for the future development of agri-food sector.....	56
6.4. Growth attractiveness for specific commodities	58
7. RECOMMENDATIONS	59
References.....	60

1. MACROECONOMIC ENVIRONMENT AND POLICIES

1.1 Background data



Located on the crossroads of Europe and Asia, Georgia shares border with 4 countries: Azerbaijan from the east, Armenia and Turkey from the south and south-west and Russia from the north. The total length of the border is 2,148 km out of which 1,839 km represents land border. Georgia is divided into 9 administrative regions and 2 autonomous republics: Adjara and Abkhazia, the latter representing the

breakaway region occupied by separatist forces. Capital of Georgia is Tbilisi. Regions located in the east part of Georgia are: Kakheti, Mtsketa-Mtianeti, Shida Kartli, Kvemo-Kartli and Samtskhe-Javakheti. Imereti, Samegrelo-Zemo-Svaneti, Racha-Lechkhumi and Guria along with autonomous republic of Adjara constitute western Georgia.

Black sea and the Caucasus mountains help to shape a broad diversity of climate zones in Georgia, varying from the subtropical climate along the Black sea border to more temperate and arid climate zones in the east part of Georgia. Diverse nature of Georgia creates abundance of rear micro climate zones and variety of soils suitable for growing different kinds of high value added agricultural products. Georgia stands out in the region in terms of precipitation levels, the average National Rainfall Index (NRI) of 1998-2002 for Georgia is 1,140, which is around three times higher than in neighbouring Armenia and Azerbaijan, although precipitation levels are uneven between western and eastern part of Georgia, with western part having significantly higher average precipitation levels. Due to the comparably normal cloudiness, the average number of sunnyhours per year is around 1350-2520.

Table I-1.Main country view 2013 (Source: Geostat)

Georgia – Year 2013	
Population (1st January) (000 inhabitants)	4,483.8
Area (sq. km)	69,700
Real GDP growth rate (% change on previous year)	3.2
Unemployment rate (%)	15.0 (2012 figure)
Agricultural Utilized Area (ha)	886,766 ¹
Agriculture, hunting and fishing (% of total GVA)	9.3

Georgia is endorsed with rich fresh water resources, out of total 25,075 rivers more than 17,000 are flowing in western Georgia and around 8,000 are in eastern part of Georgia. About 99% of rivers are less than 25 km in length, 121 rivers are within the range of 25-100 km and 16 rivers are in between 100-500 km.

¹Total land area operated by holdings (Geostat Land Census, 2004)

1.2 Macroeconomic developments

Over 2003-2013, Georgian GDP grew by 6.3% in real terms on average. Despite the war with Russia and global financial crisis in 2008-2009, the last ten years have been the period of rapid growth. High growth was chiefly driven by private investment and domestic consumption, which from the supply side was supported by capital accumulation and increase in total factor productivity. Almost every sector positively contributed to the overall GDP growth, however the share of manufacturing, construction, transport and financial services was highest in the total GDP growth. Agricultural production has been most sluggish to grow, due to the lack of investment and non-favourable external conditions (Russian export ban in 2006) agricultural production growth has been broadly flat.

Table I-2. Main macroeconomic indicators in Georgia, 2004–2013

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Population (1000 persons)	4,315	4,322	4,401	4,350	4,382	4,385	4,436	4,469	4,498	4,484
Real GDP growth rate (% change on previous year)	5.9	9.6	9.4	12.3	2.3	-3.8	6.3	7.2	6.2	3.2
GDP at current prices (mill. NC)	9,824	11,621	13,790	16,994	19,075	17,986	20,743	24,344	26,167	26,825
GDP per capita at current prices (NC)	2,277	2,689	3,133	3,867	4,353	4,101	4,676	5,447	5,818	5,983
GDP per capita at purchasing power (PPP; USD*)	3,762	4,214	4,711	5,445	5,686	5,480	5,837	6,322	6,819	7,165
GVA at current prices (mill. NC)	8,990	10,284	12,047	14,611	16,522	15,546	18,014	20,975	22,505	23,313
GDP deflator (%)	8.4	7.9	8.5	9.7	9.7	-2	8.5	9.5	1.2	-0.7
Inflation (annual average, % change on previous year)	5.7	8.2	9.2	9.2	10	1.7	7.1	8.5	-0.9	-0.5
Total employment (1000 persons)	1783	1745	1747	1704	1602	1656	1628	1664	1724	-
Unemployment rate (%)	12.6	13.8	13.6	13.3	16.5	16.9	16.3	15.1	15	-
Current account balance (% of GDP)	-6.9	-11.1	-15.1	-19.8	-22	-10.5	-10.2	-12.7	-11.7	-5.9
General government balance (% of GDP)	4.4	3.5	4.4	3.5	4.4	-0.7	4.4	4.5	4.4	2.7
General government gross debt (% of GDP)	43.6	34.1	27.1	21.6	27.6	37.3	39.2	33.8	32.3	31.8
Exchange rate, annual average (NC/EUR)	2.38	2.26	2.23	2.29	2.19	2.33	2.36	2.35	2.12	2.21
Exchange rate, annual average (NC/USD)	1.92	1.81	1.78	1.67	1.49	1.67	1.78	1.69	1.65	1.66
Total government budget (mill. NC)	1742.3	2607.9	3068.6	5324.9	7175.1	6351.3	7098.6	7462.3	8004.0	7660.8

Source: Geostat, National Bank of Georgia, Worldbank

* Current International Dollars, World Bank

The first democratic change of the government in the history of Georgia in 2012, was followed by difficult cohabitation period between the Prime Minister and the President representing opposing political parties. Political hardships influenced economic growth and as a result Georgia faced low growth in 2013 - GDP grew by 3.2% in real terms against the forecasted 6%. Low growth in 2013 was mainly the result of the uncertainties among investors and fiscal underspending.

Despite the high growth rates in the last ten years, unemployment figures have not declined and remained at around 15%, which suggests non-inclusive nature of economic growth. Benefits of growth has been unequally distributed - Georgia has one of the highest GINI coefficient in the region

and inequality continues to broaden over time, which happens mainly due to the flat growth in the agricultural sector employing around 53% of the active workforce.

The key challenge for the economy remains high current account deficit, mainly driven by trade in goods. Over the last ten years, current account deficit to GDP ratio stood at 12% on average. High current account deficit mainly reflects high dependence of domestic consumption on imports as well as high FDI inflows, which in its turn feeds into the growth of imports. On the other hand, also the export of goods and services is on a steady growth path, however the level of exports remains low and concentrated on several commodities, making it vulnerable to external shocks. In recent years, the role of the export of services became more significant in the formation of the current account balance, namely, growing tourism inflows sizeably contributed to the improvement of the current account deficit. In 2013, current account deficit to GDP ratio sharply declined to 5.9% mainly reflecting the adverse developments in domestic consumption and investment activities, although, as the economic growth recovers current account deficit is forecasted to widen again. Current account deficit to GDP ratio is projected to remain in the range of 8%.

1.3 Macro-economic and other general policies

Since 2003, after the peaceful “Rose Revolution”, the new wave of reforms started in Georgia with the aim to replace the Soviet style obsolete regulations with more liberal and business friendly legislation. Notable progress has been achieved in reforming police, education and tax collection systems. Petty corruption, previously deeply rooted in the public sector, was almost fully eradicated, crime levels were brought down and unnecessary bureaucratic obstacles were removed, which helped Georgia to score particularly well in World Bank’s “Doing Business” rankings.

Since 2005, Georgia progressed in each of the area assessed by “Doing Business” reports, in 2014 Georgia ranked 8th out of 189 countries in terms of ease of doing business, one position up compared with 2013 year ranking.

As of 2014, Georgia leads “Doing Business” ranking in terms of registering property (1st place), dealing with construction permits (2nd place) and getting credit (3rd). Access to public services was made particularly easy by creating the National Agency of Public Registry that represents a unified body responsible for streamlined provision of public services. Public Service Halls operate in each region of Georgia and they represent one-stop shop for public services such as registering business or property, getting licences etc.

Tax collection systems were liberalized as well, number of taxes was reduced from 21 in 2004 to only 6 in 2013 - Income tax, Corporate Profit Tax, VAT, Excise, Import Tax and Property Tax. Total tax rate calculated as a percentage of profits was brought down to 16.4%². In terms of ease of paying taxes Georgia ranks 29th in the world according to the WB’s 2014 “Doing Business” ranking. Despite liberalization of tax systems, significant issues remain regarding the clarity of the tax code, businesses often complain about possibility of inconsistent interpretation of certain paragraphs of the code, which leaves room for discrimination and unfair tax collection practices.

Despite the overall progress achieved with regard to creating favourable business environment, significant issues remain to be addressed by the policymakers of the country. As outlined by the

²<http://www.doingbusiness.org/data/exploreeconomies/georgia#paying-taxes>

“Global Competitiveness Report”³ by the World Economic Forum (WEF) access to financing, qualified workforce and ability to innovate represent the largest challenges for the competitiveness of Georgian economy. Findings of WB’s “Doing Business Report” and WEF’s “Global Competitiveness Report” are somewhat contradictory in terms of getting credit and access to finance, differences between these two assessments must be stemming from different approaches to evaluating problem. “Doing Business Report” mainly looks at the procedural burden, which is quite low in Georgia, while the second report is looking at the general requirements for getting credit (collateral, income etc.). Commercial banks have quite tight requirements for collateral, credit history as well as income of the client, which makes getting credit troublesome for most small and medium businesses in Georgia.

Financial sector in Georgia is dominated by commercial banks. As of December 2013, 92% of financial sector assets belonged to commercial banks; microfinance organizations represent the second largest players in the financial market accounting for 4% of the total financial sector assets. Insurance companies and other credit institutions hold only minor share in the total assets. Overall size of the financial sector is increasing with a fast pace - total assets to GDP ratio, which represents the key indicator for the financial sector depth, stood at 64% in 2013, 10 percentage points up compared with the same indicator for 2012. However, the size of the financial sector in relation to GDP still remains below most of the central and eastern European countries. Availability of long-term funding remains the key challenge for the development of small and medium enterprises, non-existent equity markets makes access to local financing more troublesome for domestic enterprises.

Since 2003, labour market regulations were brought down to minimum; companies do not face any particular restrictions regarding the dismissal of employees, which makes life of enterprises a lot easier. However, the key challenge lies in inadequate professional skills of domestic labour force and mismatches between demand and supply of the skills. After the collapse of the Soviet Union, Georgia failed to design attractive environment for highly skilled professionals, consequently Georgia faced large scale “Brain Drain” in the 90s. Currently job market faces shortage of professionals for engineering positions, on the other hand, supply of lawyers, economists, sociologists etc. outstrips the demand for these skills in the labour market. The mismatches in the labour market are mainly result of an ill-designed education system that does not properly respond to the demand of employers.

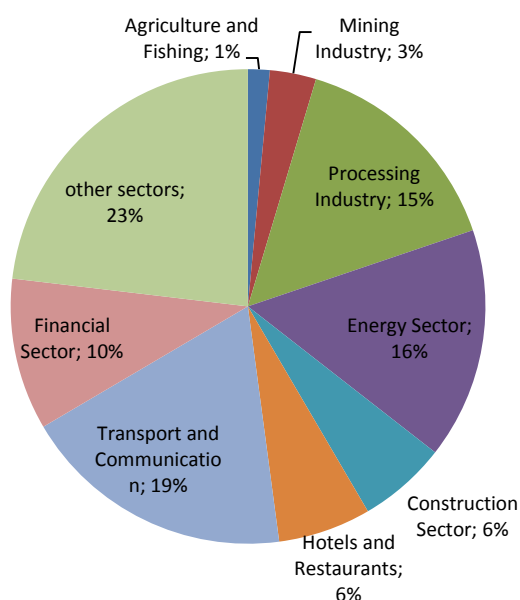
Access to the education is less of a problem as government provides free primary education as well as grants for the higher education, although the quality of the educational programs and institution remains an acute challenge for the long term development of the country. For the country like Georgia, which is not endorsed with rich mineral resources, high quality of human resources must be the leading force for the long-term economic growth, however due to the underinvestment in the educational sector and shortage in the supply of highly skilled professionals, Georgia lags behind most of the post-Soviet countries in terms of the quality of mathematics and science education.

Since 2007, the stock of FDI attracted to Georgia amounted to USD 8 billion with the transport and communication sector being the primary destination of the foreign investment. This sector accounts for 19% of the total FDI stock. Rich water resources and huge potential for generating hydropower make Georgian energy sector particularly attractive for foreign investors; since 2007, energy sector received 16% of the total FDI. Figure I-1 shows decomposition of the FDI received since 2008 across the different sectors of the economy.

³<http://www.weforum.org/reports/global-competitiveness-report-2013-2014>

Highest inflow of foreign direct investment was registered in 2007, reaching USD 2.0 billion. Geopolitical tensions and global financial crisis in 2008-2009 negatively influenced FDI inflows in Georgia, FDI was down by 22.4% year-on-year in 2008, followed by even bigger contraction of 58% in 2009. Starting from 2010, influx of FDI was recovered, however it never reached the levels observed in 2007. In 2011-2013, FDI inflows were in the range of USD 1 billion with no particular growth trend, reflecting the decline of the risk appetite of foreign investors after the global financial crisis.

Figure I-1. Sectoral decomposition of FDI inflow, 2007-2013



Source: Geostat

Handful of investment projects has been implemented in agricultural sector - since 2007, this sector accounted only for 1% of total FDI stock. Land ownership issues, infrastructural and social capital problems make agricultural sector less attractive for foreign investors, although there have been several successful projects in agriculture. The names of international investors in Georgian agriculture and food processing sector include: Perdue, USA (poultry); Hipp, Germany (fruit and juices); Wimm Bill Dann, Russia (dairy); Ferrero, Italy (nuts)⁴.

As a response to the lack of investment in Georgian economy, a sovereign fund⁵ with USD 6 billion of private capital has been recently set up. The fund is meant to promote private investments in the economy and address the acute shortage of the long-term funding available in the economy. Priority sectors of the fund include energy, hospitality, construction, manufacturing and agricultural sector, the fund intends to invest from 25% to 75% out of the total equity investment of the project, although the funding is available only for the large scale projects with the minimum investment of USD 5 million. Portfolio of the fund includes several projects in hospitality, agricultural and energy sectors. Priority sectors of the sovereign fund were selected based on the potential for future growth. Based on this criterion agriculture appeared in the area of the fund's interest. The fund is focusing to invest in the projects with the potential for the import substitution, these categories of projects include: dairy production, beef and pork production, wine production, fruits and vegetables. The fund's priorities in the agricultural sector also include investment in storage and other infrastructural facilities in agriculture, greenhouses, and animal feed production. In 2013, the co-investment fund announced about the launch of the investment project in dairy production. The fund in cooperation with Dutch company "The Riesian" intends to build a dairy in Samtredia, western Georgia. Project envisages production and processing of 100 tonnes of milk daily which will be enough to substitute 25% of the dairy production imports. Project is on the initial stage and more details are not disclosed yet.

Overall, in 2013 agriculture received USD 32million investment, 100% increase on annual basis.

⁴<http://www.investingeorgia.org/upload/file/Georgia%20brochure%2020-01-12%20Agriculture.pdf>

⁵<http://www.gcfund.ge/en/>

Table I-3. FDI flows in Georgia in 2004–2013

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
FDI (mill. GEL)	na	na	na	3,364.8	2,330.3	1,099.5	1,449.8	1,888.1	1,504.1	1,517.9
FDI in agricultural sector (mill. GEL)	na	na	na	25.9	11.7	37.3	15.4	25.2	26.6	52.9
FDI in food-processing sector (mill. GEL)	na	na	na	na	na	na	na	na	na	na

Sources: Geostat

1.4 Institutional environment of the agro-food sector

New government, which came into office in 2012, explicitly declared agricultural development as their top priority. Employing more than 50% of the active workforce, agricultural sector development represents the key to resolving social problems for the most vulnerable part of the population. Having this in mind, the new government activated several instruments to promote development of the agricultural production, the array of the newly proposed measures includes: free provision of land cultivation and amelioration services, access to concessional loans, subsidies to producers of certain agricultural products, and enabling better access to markets for farmers.

Over the last ten years, the total public spending on agriculture averaged 1.7% of the total public expenditures. In 2004-2007, agricultural spending was in the range of 2% of the total spending, however the budget of the Ministry of Agriculture was reduced starting from 2008 reflecting the adverse developments in Georgian economy. In 2008-2011, the budget of the Ministry of Agriculture was down to 1% of the total public expenses, but starting from 2012, the government made significant shifts in its priorities and as a result funding to the agricultural activities was increased to 2.9% of the total budgetary spending. In absolute terms the government spent on average GEL 228 million annually in 2012-2013, agricultural spending is set to further increase - GEL 400 million for 2014.

The Ministry of Agriculture (MoA) in cooperation with the international donors is currently working on a new strategy of development for agriculture. According to the head of the FAO team, Lasha Dolidze⁶, who works closely with the ministry on the design of the new strategy, it will concentrate on 7 key issues:

- Increasing competitiveness of farmers and other workers employed in agricultural sector
- Enhancing the development of different segments of agricultural value chain
- Institutional development and trainings for employees of the Ministry of Agriculture
- Development of regional and agricultural infrastructure
- Food security
- Food safety
- Environment and bio-diversity

In addition to the ministry, several international donors are actively involved in the agricultural development of Georgia. European Neighbourhood Programme for Agriculture and Rural Development (ENPARD) project is currently actively involved in financing development programs as well as MoA budget support programs. One of the key priorities of ENPARD project represents fostering cooperation process in Georgian agriculture.

⁶ Interview with Lasha Dolidze, FAO expert. 28.07.2014

Access to credits:

Access to credits remains one of the commonly cited problems by Georgian farmers. Availability of the finances is less of a problem, most banks as well as microfinance organization have enough liquidity to offer lending for agricultural projects, although the cost of finances and availability of collateral required by the banks impede the lending to agriculture the most. Agricultural lending represents only small portion of the total business lending, although in 2013, as a result of interest subsidy program run by the government, lending to agriculture increased compared with the preceding years. Table I-4 shows the value of the total agricultural lending, the share of the agricultural loans in the total business lending as well as average interest rates.

Table I-4. Lending to agriculture by commercial banks in Georgia, 2010-2013

	Total agri-lending (both in national and foreign currency, thsd GEL)	Share of agricultural loans in total business lending (%)	Interest rate on national currency agricultural loans (%)	Interest rate on foreign currency agricultural loans (%)
2010	57.0	1.1	16.3	15.5
2011	81.0	1.3	15.1	14.3
2012	59.9	1.0	15.5	14.2
2013	153.9	2.1	13.3	11.4

Source: National Bank of Georgia

Over the period of 2010-2013, about 68% of the total agricultural lending was denominated in USD. Interest rates indicated in the table above do not take into account additional cost of borrowing for farmers. Banks and microfinance organizations charge various commission fees and in most cases effective interest rates on agricultural loans (adjusted for the various lending-related costs) are usually in the range of 20%.

Microfinance organizations and other informal lending institutes represent another source of finance for agricultural entities. Despite higher interest rates charged by microfinance organizations or other informal lending institutions, many farmers still use their services. Difference between the rates of banks and microfinance organizations charged for agri-lending varies in the range of 2-5%⁷, however lendings of microfinance organizations are more accessible to farmers, firstly due to less collateral and income requirements and secondly microfinance organizations have branches in most regional centres and it makes more convenient for farmers to access their financial services. As microfinance organizations are not obliged to report data to the National Bank of Georgia, there exists no reliable data regarding the size and cost of their agricultural lending, however different surveys and estimates suggest that these institutions play sizeable role in agricultural funding in Georgia.

To address the high borrowing costs for farmers in 2013, the government launched the interest rate subsidy program. Program was targeted to all kinds of borrowers, starting from small scale farmers to larger agricultural enterprises; consequently terms of the lending were different for each target group. Nominal interest rates on the loans issued under the projects were subsidized and varied from 0% to 8% depending on the particular target group. For small scale loans up to GEL 5,000 primarily used for the purchases of small agricultural tools, pesticides and fertilizers, interest rates were 0% and maturity of the loan was up to 6 months. For the second group of beneficiaries, mainly small to medium-size farms, the size of loans varied in the range of GEL 5,000-100,000, with nominal interest rate up to 8% and maturity up to 5 years. Third component of the project aimed at financing

⁷ "Comparative Analysis of Agriculture in the South Caucasus Region", UNDP, 2012

agricultural start-ups or already existing enterprises wishing to broaden their business. In this component of the project amount of loans were up to GEL 1 million and maturity up to 7 years, with the nominal interest rate not exceeding 3%. In total, 2,686 farmers took loans under the first component of the project with the total amount of GEL 1.1 million in 2013; GEL 111.9 million was allotted for 5,685 beneficiaries of the second component of the project; 366 farmers received loans under the third component of the project with the total amount of GEL 75 million. This project is set to continue in 2014, with the total budget around GEL 63.8 million.

Provision and access to other public goods such as infrastructure, education, research:

In 2011, Geostat in cooperation with Millennium Challenge Georgia (MCG) fund conducted a comprehensive survey of agricultural infrastructure in the regions of Georgia. The survey described in details availability of education, health, trade, energy, transport and other types of infrastructure in rural areas of Georgia, the survey covered all Georgian villages excluding villages on occupied territories. According to the report, 85.7% of surveyed villages have access to secondary schools, those who cannot access the secondary education institutions mainly cite distance and poor quality of roads as a main impediment to using educational services. Access to vocational education is more problematic in Georgian villages, only 51.7% of villages have access to vocational education, while the rest name the costs and the distance to the educational centres as the main obstacles to obtaining vocational education. Overall, the survey reveals that educational institutions are mainly located in the regional centres and in comparatively larger villages, which make the access to education harder for those who live in remote villages, especially in mountainous regions of Georgia. Importance of vocational education cannot be overestimated for the future development of agriculture, although there is not enough public investment to develop modern vocational education centres so that this type of education becomes more accessible for wider rural community. Quality of education is another big issue in the regions of Georgia, despite the broad availability of schools and kindergartens, the quality of teachers and educational programs as well as school infrastructure remains poor, which makes the problem of the access to modern education in Georgian villages even harsher.

Access to modern services like Internet is also constrained in the regions of Georgia. According to the survey, 38.4% of the rural population use Internet, 33.1% cannot use the services due to different problems and 28.5% do not need or have never heard about the Internet. Main impediments to access the Internet remain high costs of the services as well as distance and quality of roads to the centres where Internet cafes are operating.

Survey suggests low availability of supplementary agricultural infrastructure, for example only 3% of rural population uses services of soil quality testing, while the rest cannot access it or have never heard about the existence of such laboratories. Access to the fertilizer quality testing laboratories is even lower, only 1% of village population can use these facilities, while the rest are discouraged due to the long distance to such labs from the village or by the cost of the services.

Land irrigation systems are mostly outdated and have not undergone any significant rehabilitation works since the collapse of the Soviet Union. According to the Ministry of Agriculture, 1,077.5 km of irrigation channels were cleaned in 2013, overall in 2013 the area of irrigated land tripled as reported by the MoA. According to the survey of Geostat and MCG fund in 2011, 81.6% of Georgian villages could not properly use irrigation systems, the recent efforts of the MoA must have alleviated the irrigation issue, however there are no recent surveys to assess the effectiveness of the attempts of MoA to improve the access to irrigation systems.

Over the last ten years, many villages were connected to the central gas pipelines, although as of 2010, gas was supplied to only 14% of Georgian villages, most villages use woods for household purposes or liquifiedgas, which is more expensive than natural gas. Low availability of gas in the rural areas of Georgia results in the inefficient use of workforce (instead of cutting trees farmers could use the time alternatively), low living standards and limited resources for development (without gas no possibility to build greenhouses or other storage facilities).

Number one problem for the rural households remains the availability and quality of road connections to the regional centres. Majority of rural population from almost all regions of Georgia name poor transport infrastructure as the most problematic issue for villages, damaged or non-existent roads to the regional centres and neighbouring villages impede the access to education, health services, markets and makes communication on regional level more costly and time consuming. Ministry of Regional Development and Infrastructure of Georgia in cooperation with international donors is working to alleviate the issue of road connections as well as irrigation systems, although the scales of road reconstruction works is not enough to break through the problem in a timely manner.

Agricultural land ownership issues:

Collapse of the Soviet Union put an end to the collective ownership of agricultural land in Georgia. In the 90s, most of the agricultural land was given free of charge to farmers in private ownership, the average size of the land plots transferred to the private ownership was 1.25 ha. The essence of the privatization in the early 90s was to provide farmers with enough land for subsistence farming, although no thought was given to the effects of the consequent land fragmentation over the long-term development of agricultural production. Fragmented land is often cited as one of the major problems for the development of Georgian agriculture. Second wave of land privatization started after 2005, following the liberalization of the land regulations, although significant problems remained related to the land registration. In some cases exact borders of the land plots were not defined which created ambiguities and conflicts over the ownership of land.

Land ownership and registration was and remains one of the most problematic constraints for the future development of agriculture⁸. Despite the recent efforts of the National Agency of Public Registry (NAPR) to streamline the land registration procedures, the share of officially registered land in the total agricultural land remains very low. Small scale farmers, which make up major share of the total agricultural land, have several disincentives to register land they hold informally: first, it is the cost of registration that discourages them to formalize their land ownership and second, informal holding of the land allows them to avoid taxes and stay in the shadow economy. Incomplete registry of the land is a source of many land disputes, in addition to that, informal land owners cannot access the land transfer market that hampers land consolidation and investment in agriculture. Resolution of the land ownership issues and lifting the constraints that stem from the incomplete land registry require strong commitment and specially designed programs from the state.

In 2013, the law regulating the land ownership issues in Georgia was updated and the amendment prohibited foreign citizens to own land in Georgia, the moratorium on foreign land ownership will last until December 31, 2014. The government plans regarding the future regulations on land ownership is not clear yet, although many experts agree that ban on foreign ownership of land will hinder the investment in agri-sector.

⁸ « EconomicProsperity Initiative : Agriculture Sector Policy EnvironmentAssesment », USAID

2. SITUATION AND DEVELOPMENT OF THE AGRICULTURAL SECTOR

2.1 Role of agricultural sector in the economy

Agriculture has strategic importance for Georgian economy, 46% of the total population live in rural areas, however they produce disproportionally low share of the GDP. In 2013, the share of agricultural production in the total GDP was 9.3%, 0.7 percentage points up compared with the same indicator of 2012. As of 2013, about 54% of the active workforce was employed in agriculture in Georgia, 80% of which are self-employed, meaning that most of Georgian farmers are engaged in subsistence farming, producing products mainly for own consumption and using outdated tools and methods. Georgian agricultural sector is characterized by very low productivity levels that lag behind most of the post-Soviet countries, not even considering more developed Central and Eastern European countries.

Despite its low productivity levels, agricultural sector provides safety net for economically most vulnerable part of Georgian population. Poverty is more widespread in rural areas compared with urban areas and large portion of rural household's demand is satisfied with their own production of food products. Gap between rural-urban incomes has widened over the last ten years due to flat growth in agricultural production. While in 2004 the share of rural population consuming below 60% of median consumption was 26.2% as opposed to 23% of the same indicator for urban areas, the same figures stood at 27% for villages and 17.5% for cities and in 2013. As these numbers suggest, poverty became more widespread in rural areas of Georgia since 2004⁹.

Georgian agricultural production was sharply reduced after the collapse of the Soviet Union as it was the case in all post-Soviet countries, however Georgian agriculture was most hardly hit during the turbulent 90s due to the several armed conflicts. The share of agriculture and forestry in the total GDP was 30%¹⁰ in 1990, nowadays the same indicator is about one third of that level. Agricultural output sharply decreased in absolute terms as well. Drastic decline in output and productivity in agriculture, on the one hand, shows the hardships that agricultural production went through the last 20 years, on the other hand, high levels of production in the past indicates the huge potential for the future growth. Despite the demolition of most of the agricultural infrastructure, natural conditions and agricultural traditions are still present, which creates fertile soil for investment and for future growth.

2.2 Land use

According to the land census conducted by Geostat in cooperation with FAO in 2004, the total agricultural land area operated by holdings of all types comprised 886,766 hectares. The study left out several regions of Georgia and thus underestimates the total agricultural land area in Georgia. According to some estimates, the study underestimated agricultural land area by some 40-50%. However, the survey represents the most complete survey available and most of the previous studies refer to it. This study will also use the information given in the survey as it is the only source

⁹Geostat, Standards of Living statistics

¹⁰Studies of Economies in Transformation, Statistical Handbook, IMF

that presents information on the distribution of land by different size classes as well as on the ownership of land plots. Despite the fact that the survey of 2004 underestimates the total agricultural land size, it must be describing structure of the land ownership more accurately than any other estimates available. The Ministry of Economy and Sustainable development of Georgia reports figures on the total area of different categories of agricultural land. When talking about the total area of agricultural land this study will refer to the figures reported by the Ministry of Economy and Sustainable Development of Georgia.

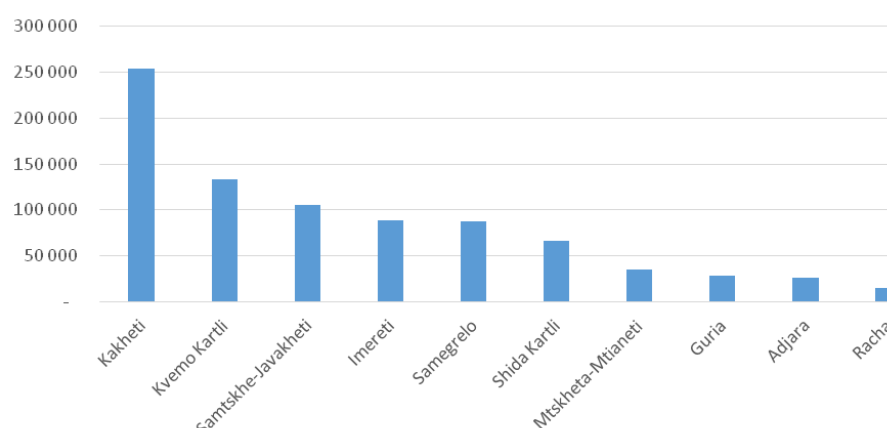
Table II-1. Agricultural land use in Georgia, 2011,ha

	2004	2007	2011	2013
Land area, total	na	na	6,970,000	na
Agricultural land, total	na	na	3,025,800	na
Arable land	na	na	801,800	na
Kitchen gardens	na	na	na	na
Land under permanent crops	na	na	263,800	na
Orchards	na	na	na	na
Vineyards	na	na	na	na
Other permanent crops	na	na	na	na
Permanent grassland	na	na	1,940,400	na
Meadows	na	na	143,800	na
Pastures	na	na	1,796,600	na
Other permanent grassland	na	na	18,867	na
Other agricultural land (land under protective cover)	na	na	933	na

Sources: Ministry of Economy and Sustainable development, 2011

As Table II-1 suggests, around 43% of the total area of Georgia is agricultural land. Out of the total agricultural land of Georgia around 27% is occupied by arable lands. Pastures, representing the largest category of the agricultural land, make up around 59% of total agricultural land. Permanent crops are grown on 9% of agricultural land, while meadows occupy around 5% of the total agricultural land. Analysis of the agricultural land structure in regional perspective shows that Kakheti, eastern region of Georgia, has the most agricultural land followed by KvemoKartli, Samtskhe-Javakheti, Imereti and Samegrelo. Guria, Racha and Adjara regions are very poor in terms of agricultural land due to their mountainous landscape.

Figure II-2. Distribution of agricultural land across regions in Georgia, 2004, ha



Source: Geostat, Land Census, 2004

Unfortunately, as already mentioned, no comprehensive land Survey has been conducted in Georgia since 2004, although looking at the trends in the production of various agricultural crops no significant changes in the land structure should be expected since 2004. Despite the fact that

numbers given in the Figure II-2 must be underestimating the total are of agricultural land in different regions of Georgia, in relative terms these numbers must be close to the real picture of the agricultural land distribution across regions of Georgia.

2.3 Farm structures (including land properties)

The 2004-census of agricultural land structure reveals high degree of fragmentation of agricultural land, which is common to most of the post-Soviet countries. As a result of the privatization process in 1992, large portion of agricultural land was given for free to rural households. The size of agricultural land plots was on average 1.25 ha. Distribution of previously “Kolkhoz” owned lands resulted in a fragmented agricultural land and as land census in 2004 revealed about 72% of the total agricultural land (including arable land as well as pastures and meadows) was operated by small plots with the land size less than 10 ha.

Table II-2. Agricultural holdings by size classes by UAA in Georgia

	2004		2013	
	Area (thsd ha) ¹¹	No of agricultural holdings	Area (thsd ha)	No of agricultural holdings
TOTAL	884.12	763,533	na	na
0 ha	0	37,767	na	na
> 0-< 2 ha	473.09	676,325	na	na
2-<5 ha	113.64	37,872	na	na
5-<10 ha	45.79	6,541	na	na
10-<20 ha	32.22	2,685	na	na
20-<50 ha	36.51	1,217	na	na
50-<100 ha	29.82	497	na	na
100-<200 ha	47.25	315	na	na
200-<500 ha	59.00	236	na	na
≥500 ha	46.80	78	na	na

Sources: GEOSTAT, land census

According to the census, out of the total 763.5 thousand agricultural holdings, only 5% of holdings were without any agricultural land. Large majority of holdings, having a land-plot in ownership, represents small scale farmers with 2 ha of maximum size of land. These small scale farms are involved in subsistence and semi-commercial farming, their land resources are mostly enough for production of goods for own consumption, and income derived from selling agri-production make up small share of their incomes.

Agricultural enterprises account only for minor share of the total number of agricultural holdings. In 2004, there were registered 820 agricultural enterprises, which represents 0.1% of the total number of agricultural holdings.

Another wave of land privatization took place in 2005-2006 when part of the land remaining in state ownership was sold to private investors, however, as the recent production patterns suggest, this process has not resulted in any significant land consolidation.

¹¹ Authors calculations based on the available data

Table II-3. Shares of family holdings in sown areas of various crop groups in Georgia, 2009-2013 (%)

	2009	2010	2011	2012	2013
In total sown area	97.2	95.9	97.3	96.9	96.3
of which:					
in sown area of grain and leguminous crops	96.7	95.0	96.2	96.6	95.6
in sown area of potato and vegetables	99.8	100	99.1	99.2	99.0
in sown area of other crops	96.8	92.9	99.0	94.0	97.5

Source: Geostat, Annual Report on Agriculture, 2013

As evidenced by Table II-3, 96.3% of the total sown area of various crop groups was operated by family holdings in 2013, and no significant change in the shares of the sown area can be observed over 2009-2013. Vegetables production is dominated by family holdings - close to 100% of the total sown area belongs to rural family holdings.

Picture is slightly different when looking at the production pattern of animal products. In this case, agricultural enterprises have higher share in the production of poultry and eggs.

Table II-4. Shares of family holdings in total value of animal production in Georgia, 2009-2013 (%)

	2009	2010	2011	2012	2013
Meat	90.9	95.4	88.4	85.1	86.4
of which:					
beef	99.5	100	99.9	99.2	98.4
pork	99.8	100	99.5	99.4	93.8
sheep and goat meat	98.6	99.5	99.5	99.6	99.8
poultry meat	83.6	88.5	75.7	72.1	75.3
Milk	98.9	99.7	99.7	99.5	99.7
Eggs	43.6	43.7	37.5	39.0	36.8
Wool	96.3	94.4	98.5	96.4	97.8
Honey	99.5	99.9	99.9	100	100

Source: Geostat, Annual Report on Agriculture, 2013

The share of family holdings in animal production is declining, which is solely driven by active poultry industry. The share of households in poultry production fell from 83.6% in 2009 to 75.3% in 2013. In addition, households accounted only for 36.8% of the total egg production, which is the lowest indicator in all categories of animal production. As can be seen from Table II-4, all other sub-sectors of are vastly dominated by agricultural households.

Overall, the heritage of the first privatization wave held in the early 90s has remained broadly unchanged, production of crops as well as animal products is largely dominated by agricultural households, while the share of agricultural enterprises remains miniscule. Many problems of Georgian agri-production stems right from the fragmented land and animal ownership, recent efforts of the government of Georgia along with number of international donor organizations are aimed at promoting agricultural cooperatives. Formation of cooperatives is seen as the most viable solution to consolidate agricultural production process, especially under the conditions of quite conservative stand that government takes in relation to land privatization to foreign investors.

2.4 Production and output (including major sectors and yields)

Total output of agricultural goods amounted to GEL 3,044.8 million in 2013 accounting for 7.8% of the output of the total economy. Despite the fact that over the period from 2006 to 2013 growth rate of agricultural output was with positive tendency, its role in the total output of the economy is diminishing. Nominal value of gross agricultural output increased by 47% in 2013 compared with its value in 2006, while its share in the total economy dropped by 2.6 percentage points, from 10.4% in 2006 down to 7.8% in 2013. These developments point at the fact that growth of the primary agricultural sector was lagging against the growth in other sectors of the economy.

Table II-5. Agricultural output in Georgia, 2006-2013 (mill. GEL, at current prices)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
CROP OUTPUT	na	na	911.3	1,051.7	918.1	868.3	932.1	1,237.9	1,087.0	1,280.9
Cereals and other crops	na	na	278.3	386.1	402.6	374.2	287.2	471.3	415.1	469.3
Fruit, nuts and other crops	na	na	361.2	420.2	296.7	286.2	329.1	476.5	396.0	505.0
Vegetables, horticultural specialties and nursery	na	na	271.9	245.4	218.7	207.9	315.7	290.1	275.8	306.6
ANIMAL OUTPUT ¹²	na	na	1,165.3	1,138.8	1,227.6	1,140.5	1,240.3	1,336.8	1,610.3	1,763.91
AGRICULTURAL GOODS OUTPUT (total)	na	na	2,076.6	2,190.5	2,145.7	2,008.8	2,172.4	2,574.7	2,697.3	3,044.8

Sources: Geostat, Output of Agricultural Products

Recent developments in agriculture have not resulted in major shift of production patterns and the structure of the agricultural output remained roughly unchanged. Crop output accounted for 42.1% of the total agricultural output in 2013, slightly lower than the average of 2006-2012. As can be observed in Table II-6, composition of the crop output also remained stable, it was equally dominated by production of cereals and fruits, nuts and other crops, both of these groups accounting for on average 37% of total agricultural output in 2006-2013. Vegetables and horticultural products accounted for around fourth of the crop output over the period.

Table II-6. Share of individual products in agricultural output in Georgia, 2004-2013 (%)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
CROP OUTPUT	na	na	43.9	48.0	42.8	43.2	42.9	48.1	40.3	42.1
Cereals and other crops	na	na	13.4	17.6	18.8	18.6	13.2	18.3	15.4	15.4
Fruit, nuts and other crops	na	na	17.4	19.2	13.8	14.2	15.1	18.5	14.7	16.6
Vegetables, horticultural specialties and nursery	na	na	13.1	11.2	10.2	10.4	14.5	11.3	10.2	10.1
ANIMAL OUTPUT	na	na	56.1	52.0	57.2	56.8	57.1	51.9	59.7	57.9
AGRICULTURAL GOODS OUTPUT	na	na	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Sources: Geostat, Output of Agricultural Products

Year 2013 was quite favourable for agricultural production, good natural conditions along with the strengthened support from the state made agricultural output grow by 12.9% year on year. Over the period 2007-2013, the average annual growth rate of agricultural output was 5.9%. Like most other sectors of the economy, agriculture experienced contraction in 2008-2009. These years were particularly problematic for fruit production, as military actions during the war with Russia in August 2008 took place in Shida Kartli region, which is a leading region of fruits production (apples, peaches, cherries etc.). Production of vegetables and other horticultural products contributed least to the

¹²This category includes output of live animals and animal products

overall growth of agricultural production, while cereals and animal output were the most significant contributors to the total agricultural growth.

Table II-7. Gross agricultural output volume changes in Georgia, 2004-2013 (% change from previous year)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
CROP OUTPUT	na	na	na	15.4	-12.7	-5.4	7.3	32.8	-12.2	17.8
Cereals and other crops	na	na	na	38.8	4.3	-7.1	-23.2	64.1	-11.9	13.0
Fruit, nuts and other crops	na	na	na	16.3	-29.4	-3.6	15.0	44.8	-16.9	27.5
Vegetables, horticultural specialties and nursery	na	na	na	-9.7	-10.9	-4.9	51.8	-8.1	-4.9	11.2
ANIMAL OUTPUT	na	na	na	-2.3	7.8	-7.1	8.8	7.8	20.5	9.5
AGRICULTURAL GOODS OUTPUT	na	na	na	5.5	-2.0	-6.4	8.1	18.5	4.8	12.9

Sources: Geostat, Output of Agricultural Products

As can be seen from Table II-7, volatility of the growth rate of crop output is higher than the growth rate of animal production, mainly due to the fact that crop output relies more on natural conditions. Standard deviation of crops production growth rates was about two times that of the animal output over the last 7 years.

2.4.1 Crop production and yields

Annual crops

In 2013, about 293.7 thousand hectares of land were used for annual crops, 18.6% increase compared to the same figure in 2012. Expansion of annual crop sown area mainly resulted from the governmental support to individual farmers - in 2013, farmers received agricultural vouchers for free cultivation of land. Land cultivation program was continued also in 2014, consequently further expansion of annual crop sown area is expected. Overall, over the last 8 years, area of sown and harvested land has not changed much fluctuating around 272.6 thousand ha for sown and 259.7 thousand ha for harvested area of annual crops.

Table II-8. Sown areas of annual crops in Georgia, 2006-2013 (thsd ha)

	2006	2007	2008	2009	2010	2011	2012	2013
Wheat	58.7	45.4	48.6	57.5	50.0	47.0	50.0	45.0
Barley	30.2	27.1	30.4	20.6	23.7	16.1	14.2	29.9
Maize	129.1	125.5	146.2	130.1	108.6	121.2	114.8	150.4
Haricot Beans	7.2	6.7	7.3	5.5	7.2	6.0	6.4	8.4
Potatoes	23.5	21.5	24	18	21.2	20.3	25.8	26.2
Vegetables	29.7	32	27.3	23.7	24.4	21.7	23.8	20.9
Melons	3.2	5.3	3.5	2.6	2.7	3.5	3.3	2.7
Annual Grasses	7.4	5.4	1.3	5.9	2.5	3.9	0.8	0.9
Perennial Grasses	10.1	3.6	7.9	10.7	6.0	10.9	8.6	9.3
Total	299.1	272.5	296.5	274.6	246.3	250.6	247.7	293.7

Source: Geostat

Maize fields occupy the largest part among the sown areas of different annual crops in Georgia. Over the last 8 years, maize accounted for 47% of sown and harvested areas of annual crops on average with no significant increasing/decreasing trend. However, in 2013, the sown as well as harvested areas of maize increased by 51%, mainly due to the active support of government to individual

farmers that enabled them to cultivate more land than the previous years. Among all annual crops agricultural support program had the most impact on maize production, as 100% of maize is produced by individual farmers and government subsidies was primarily targeted for small scale farmers.

Wheat comes second after maize in terms of the share in the total sown and harvested area. In 2013, wheat accounted for 15% of the total annual crops sown area, 3 percentage points below the average share over the last 8 years. However, lower sown area was not automatically translated into low production of wheat, wheat harvest in 2013 was one of the highest in the last 8 years.

The structure of sown area of annual crops has not significantly changed since 2006. One notable exception is that the share of sown area of maize was expanded by 8 percentage points compared with 2006, this expansion happened mainly at the expense of declining shares of wheat and vegetables over the period.

Table II-9. Average yields of annual crops in Georgia, 2006-2013 (tonnes/ha)

	2006	2007	2008	2009	2010	2011	2012	2013
Wheat	1.2	1.7	1.7	1.1	1	2.1	1.7	1.8
Barley	1.2	1.5	1.6	1.1	1.1	1.9	1.6	1.3
Maize	1.8	2.4	2.3	2.4	1.4	2.3	2.4	2.4
Haricot Beans	0.5	0.7	0.6	1.0	0.6	0.7	0.8	0.5
Potatoes	7.4	10.8	8	11.5	11.1	13.6	9.9	11.3
Vegetables	6.6	6.1	5.9	6.8	7.1	7.6	7.1	8.3
Melons	11.1	13.2	13.6	14.8	15.2	11.9	13.5	24.1
Annual Grasses	3.7	3.8	3.8	2.6	4.5	4.6	6.2	3.9
Perennial Grasses	2.8	2.7	3.9	2.3	4.6	4.5	4.1	4.5

Source: Geostat

In terms of yield levels of the main annual crops, Georgia is one of the least productive among all post-Soviet countries. Georgian farmers were able to harvest 1.8 tonnes of wheat per hectare on average in 2013, a slight improvement compared with 2012. Over the last 8 years, wheat yield level has increasing by 13.4% on average. Despite the growth, its level is still extremely low and compares to yields in some of the least developed countries¹³.

Maize yields also remained quite stable with no sizeable improvement over the analyzed period, most of the time the average farmer harvested 2.3-2.4 tonnes of maize per hectare. However, natural conditions can heavily influence production as has been the case in 2010, when draught negatively influenced the yields of cereals.

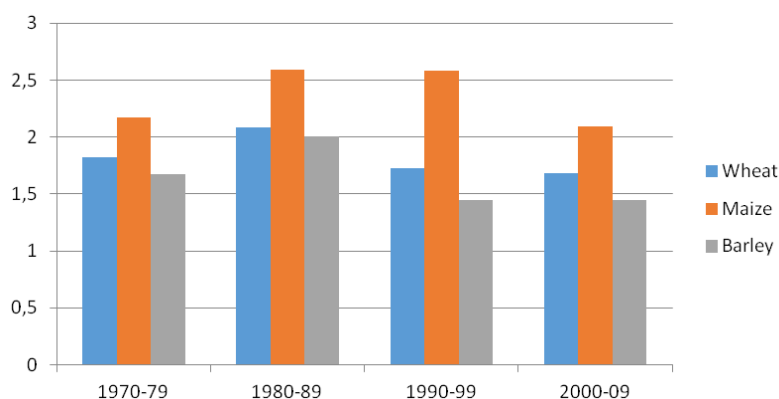
In comparison with other main annual crops, potatoes and other vegetables along with melons exhibit steady incremental growth in yield levels. In case of vegetables, increasing yield levels might be the reflection of more greenhouses that are being built around the country, especially in the regions where tomatoes and cucumbers are grown.

Cereals production has been on a decline since the collapse of the Soviet Union. Along with the demolition of basic infrastructure and machinery, harvested areas of maize, wheat and barley declined year by year and stayed mostly flat over the last several years. Over 1992-2012, the total

¹³ Rwanda, Nicaragua, Afghanistan, Dominica had similar wheat yield levels in 2013 (World Bank, Agriculture & Rural Development Indicators)

harvested area for maize, wheat and barley, which are key annual crops, declined by about 30% from 240 thousand ha in 1992 to 168 thousand ha in 2012. However, the total harvested area of above mentioned cereals increased again to 218 thousand ha in 2013, mainly reflecting generous cultivation subsidies from the government. Compared with the 80s, when Georgian agricultural productivity reached its maximum, average yield levels of the main cereals declined in the 90s and still remain below their average level of the 70s.

Figure II-2. Yield of main cereal crops in Georgia (tonnes/ha)



Source: Faostat

The main reason behind the declining yield rates of cereals must be the outdated irrigation systems and fragmented land. As already mentioned, in the early 90s land was given to individual farmers and nowadays 100% of maize production and 95% of wheat production is in the hands of family holdings, which cannot utilize economies of scale and underinvest in the production of cereals that results into low yields.

In line with the decreasing sown area and reduced yields, cereals production levels also declined over the last 20 years. The decline is especially evident in the case of wheat, its production almost halved compared with the early 90s, and Georgia became even more dependent on imported wheat. Over the period from 2006 to 2013, the average self-sufficiency rate for wheat was 9.6%, indicating the heavy dependence of local consumption on imported wheat. In case of maize, Georgia is mostly self-sufficient, over the same period maize self-sufficiency rate was on average 96%. Production of wheat is mainly concentrated in Kakheti Region (East Georgia), while maize is mostly produced in Imereti, Samegrelo and Guria Regions, Table II-10 shows the breakdown of wheat production by the regions of Georgia.

Table II-10: Regional breakdown of total wheat production in Georgia, 2006-2013 (thsd tonnes)

	2006	2007	2008	2009	2010	2011	2012	2013
Kakheti	42.7	62	52.7	22.2	23.6	47.1	53	60.1
Kvemo Kartli	14.1	5.5	12.4	8.7	9.8	17.3	14.9	10.7
Shida Kartli	8.5	4.7	11.3	19	11.1	23.8	8.5	5.1
Other Regions	4.4	2.7	3.9	4	3.9	8.6	4.3	5.2
Total	69.7	74.9	80.3	53.9	48.4	96.8	80.7	81

Source: Geostat

As can be seen from Table II-10, Kakheti accounts for the largest share of the total wheat production, Dedoplistskaro within Kakheti region is particularly well suited for growing wheat. Due to the fragmented land there is not a large potential for growth in wheat production, not even considering full import substitution, even if wheat production catches up its Soviet time levels, it will not be enough for domestic consumption. However improvement in irrigation systems and the use of more

productive breeds of wheat will help to increase the production levels and make the production less prone to draughts and insects, which often cause significant damage to the volume of wheat production.

Permanent Crops

Production of permanent crops in Georgia is dominated by grapes. Production of grapes occupy special place in Georgian agriculture due to the favourable natural conditions and deeply rooted tradition of winemaking. Kakheti region represents the main region for grapes production. Tangerines and apples are also among the top three permanent crops in terms of the volume of production. These are traditional varieties for Georgian agriculture - during the Soviet times Georgia used to be one of the largest producers of wines, apples, pears and citruses as well as tea leaves. Production of hazelnuts emerged after the Soviet times and nowadays this crop represents one of the most important export goods for Georgia. Table II-11 depicts production volumes of different permanent crop varieties over 2006-2013.

Table II-11. Production volumes of permanent crops in Georgia, 2006-2013 (thsd tonnes)

	2006	2007	2008	2009	2010	2011	2012	2013
Pome Fruit	56.4	122.4	59.1	94.1	35.3	82.9	62.2	87.9
Stone Fruit	47.7	48.9	49	35.3	30.1	40.2	38.2	49.5
Nuts	27.3	33	24.9	30	35.1	37.1	30.1	51
Subtropical Fruit ¹⁴	21.2	22.1	23.7	21.4	22.4	25.3	26.2	27.8
Fruit Total	153.3	227.5	157.6	181.2	124.1	187.3	157.9	217.6
Citruses	52.2	98.9	55.2	93.6	52.1	54.9	77	110.4
Grapes	162.5	227.3	175.8	150.1	120.7	159.6	144	222.8
Tea Leaves	6.6	7.5	5.4	5.8	3.5	2.9	2.6	3.3

Source: Geostat

Production of pome fruits, large portion of which is the production of apples, exhibits a pronounced alternate bearing - good harvests are followed by poor harvests next year that creates significant market distortions. Prices of apples and other pome fruits also vary significantly due to the annual bearing patten of these permanent crops. Annual Bearing Index¹⁵ in case of pome fruits in Georgia over the period from 2006 to 2013 was 0.3, meaning that every second year production rises or falls by 30% due to the natural characteristics of pome fruits, especially apples.

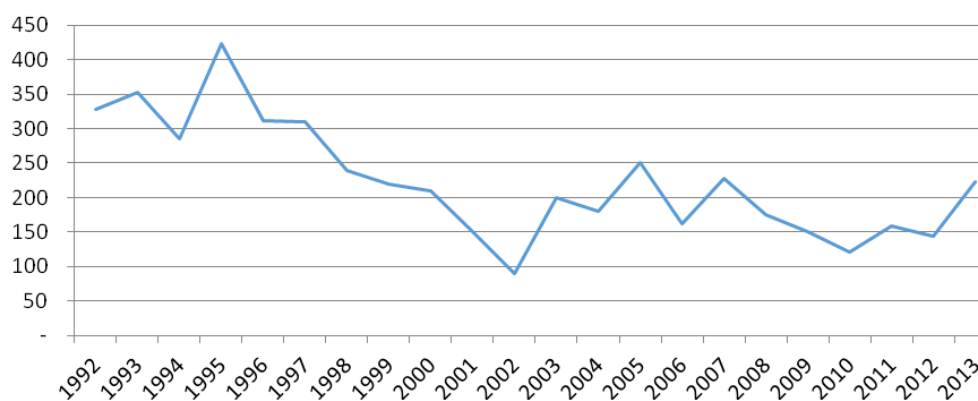
Production of nuts, which is comparatively new discovery for Georgian farmers, is on a steady growth, with only several years of decline in the production levels. Nut production volumes grew by 12.9% on average over the analyzed period. Due to the favourable natural conditions in the west part of Georgia, country is the fifth largest producers of hazelnuts in the world after Turkey, Italy, USA and Azerbaijan. Most of the hazelnut production is exported to the European Union. Due to the steady demand and relatively good access to international markets, more farmers are starting hazelnut production and volumes are expected to rise in the future as full productive capacity is not exploited yet.

¹⁴Fig, Pomegranate, Persimmon, Mulberry, Mushmala, Feijoa, Kiwi.

¹⁵Calculated as : $ABI = (year1\ yield - year2\ yield) / (year1\ yield + year2\ yield)$, ABI=0 meaning no annual bearing, while ABI=1 meaning complete annual bearing

Grape production was up by 54.7% in 2013 year on year basis and reached 222.8 thousand tonnes, which is one of the highest levels over the last several years, however it remains well below the production levels in the early 90s.

Figure II-3. Production volume of grapes in Georgia, 1992-2013 (thousand tons)



Source: Faostat

Grape production hit its lowest point in 2002, which was followed by several years of consecutive growth, but Russian trade embargo in 2005 was another major shock for producers of grapes. Since 2007, the production levels were mostly declining. In 2013, Russian market was reopened for wine producers and it was positively reflected on the production levels as well.

Grapes are mainly grown in Kakheti region, which represent the heart of the winemaking in Georgia. Regional distribution of grape production is shown in Table II-12.

Table II-12. Regional breakdown of grapes production in Georgia, 2006-2013 (thsd tonnes)

	2006	2007	2008	2009	2010	2011	2012	2013
Imereti	36.3	54.5	43.7	30.3	25	26.3	36.2	36.6
Shida Kartli	10.9	16	8.1	16.4	8.6	10.2	13.6	18.7
Kakheti	80.2	118.6	100	82.7	64.7	98.1	70.8	129.5
Other regions	35.1	38.2	24	20.7	22.4	25	23.3	38.1
Total	162.5	227.3	175.8	150.1	120.7	159.6	144	222.8

Source: Geostat

Besides Kakheti, which accounts for more than half of the total grape production, Imereti and ShidaKartli also produce significant amounts of wine. From other regions, it is worth to mention grape production in Racha-Lechkumi. This region offers unique climate zones for growing different types of grapes with higher value added. Khvanchkara, Aleksandrouli and several other varieties of grapes that are grown only in certain villages of Racha-Lechkumi usually are paid 3-4 times higher price than average grapes.

With more than 500 varieties of grapes grown in Georgia and one of the oldest wine making traditions, grape production is believed to have a potential to lead the growth in agricultural sector. Georgian wine was very popular on the Soviet market, however its recognition is still quite low on international markets that hampers the diversification of wine exports, which is the leading agricultural export product along with nuts. National Wine Agency¹⁶ along with wine producer

¹⁶ <http://www.nwa.ge/page/178/eng/The-National-Wine-Agency.htm>

companies is actively promoting Georgian wines on various fairs and conferences to gain wider recognition and open new markets for Georgian wine.

Tea production, which previously was a niche crop of Georgian agriculture, is now almost non-existent in Georgia. In 1992, Georgia produced 50 tonnes of tea leaves, nowadays the production has drastically decreased - the production stood at 3.3 tonnes in 2013. Tea production represents a good example of how productive capacities of Georgian agriculture were misallocated under the planned economy of the Soviet Union. Within the closed borders of the Soviet Union Georgia had almost no competitors in tea production and despite the low quality of this product, demand was stable. However, after the collapse of the Soviet Union, Georgian tea could not stand international competition and consequently production levels were down to almost zero.

Along with declining production levels of some of the traditional agricultural products (tea being the best example), new varieties are emerging in Georgia. About 5 years ago blueberry saplings were brought to Georgia with the support of the USAID's "Economic Prosperity Initiative" program. Production of blueberries appeared to be highly successful and the first harvests are already being shipped to European markets. Currently blueberry plantations occupy around 100 ha in the western regions of Georgia (Guria, Adjara and Samegrelo are especially suitable for growing blueberries), however farmers in other regions also acknowledge the advantages of growing blueberries as demand for this product is high and stable on domestic as well as on international markets.

"Vanrik Agro Group"¹⁷ represents pioneer in production of blueberries on Georgian land. "Vanrik" operates 60 ha of blueberry plantations and plans to expand its plantations further by 300 ha in Guria region. In addition to plantations, "Vanrik" operates also modern laboratory for breeding different varieties of blueberries, blackberries and raspberries.

2.4.2 Animal production

Animal production accounts for more than half of the total agricultural output; in 2013, its share in the total agri-production stood at 55%. Animal production of almost all types sharply declined after the collapse of the Soviet Union. Almost all of the livestock is owned by agricultural households and share of enterprises is miniscule (poultry being an exception).

Table II-13. Number of live animals in Georgia, 2004-2013 (thsd heads)

	2006	2007	2008	2009	2010	2011	2012	2013
Number of animals (thsd heads)								
Cattle (total)	1,080.3	1,048.5	1,045.5	1,014.7	1,049.4	1,087.6	1,128.8	1,229.7
of which dairy cows	591.2	541.0	560.6	537.6	561.7	587.7	602.4	641.1
Pigs (total)	343.5	109.9	86.4	135.2	110.1	105.1	204.3	191.2
of which sows	108.4	29.0	22.1	35.9	28.5	26.9	58.7	43.6
Sheep	696.8	711.0	690.0	602.3	596.8	576.8	688.2	796.0
of which ewes	453.8	455.2	454.1	412.8	421.8	407.7	490.9	574.3
Goats	92.4	86.1	79.4	71.5	57.1	53.6	54.4	60.8
of which she-goats	58.4	60.9	49.6	45.2	37.9	36.2	36.1	40.5
Poultry	5,400.7	6,149.7	6,682.2	6,674.8	6,521.5	6,360.2	6,159.1	6,760.7
Other animals								
Beehives	146.3	183.8	206.7	256.5	311.5	328.0	347.5	398.6

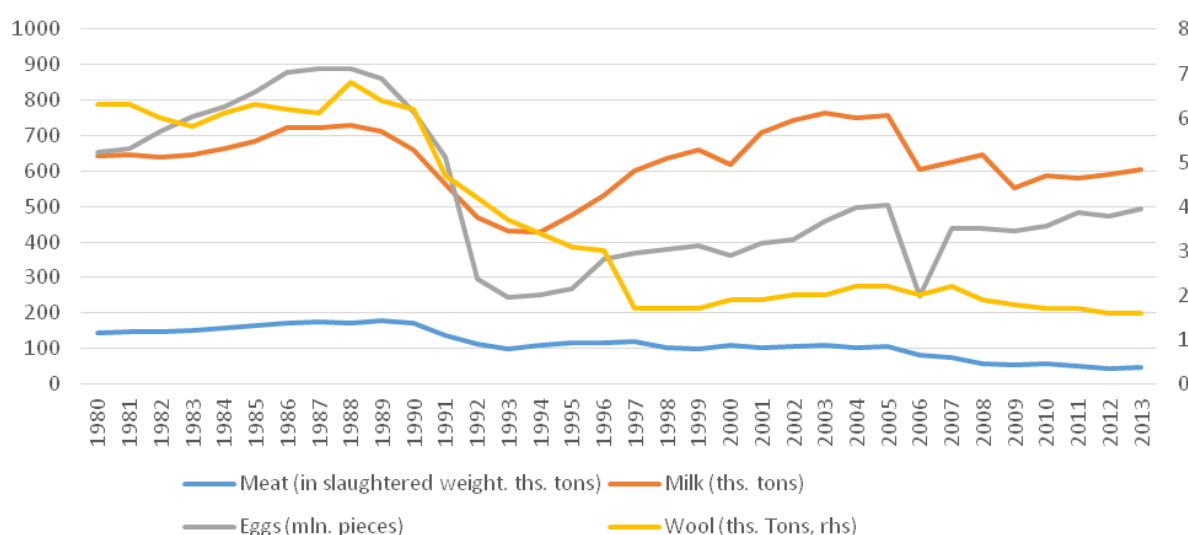
Source: Geostat

¹⁷ <http://vanrik.com/index.php/en>

As can be seen from Table II-13, number of cattle has stayed mostly flat over the last 8 years. In 2013, the number of cattle increased by 8.9% and the headcount reached 1,229.7, maximum amount over the given period. Number of pigs experienced the most dramatic decline since the Soviet times, compared with the historic maximum of pig production in the 80s, the number of pigs has decreased almost 7 times. Major reasons behind the sharp decline of pig production are destroyed farm infrastructure as well as harsh competition from international producer - Indian and Brazilian frozen meat shipped to Georgia is comparatively cheaper and it is more affordable for local consumers with low purchasing power.

Georgian poultry production did not experience any significant upward or downward trend as well, rather it stayed stable at around 6.5 million heads of poultry after the recovery from spread of H5N1 virus in 2005. Unlike other livestock groups, the share of agricultural enterprises is quite high in poultry production.

Figure II-4. Volumes of livestock production in Georgia, 1980-2013



Source: FAOSTAT

As evident from Figure II-4, animal production of almost all types experienced significant fall in the early 90s as a result of the collapse of the Soviet Union and later difficulties in Georgian economy. Poultry production decreased 4 times compared with its maximum at the end of the 80s. Starting from the late 90s, several egg factories started operating in Georgia and the declining trend was reversed. After the heavy hit from the global spread of H5N1 virus in 2005, the production managed to recover and continued to grow at a slow but rather stable pace, however it has never reached the levels of the production of the 80s.

Meat production is on the decline path since the end of the 80s. After the first hit in the early 90s, meat production more or less stabilized, however another shock to the production happened in 2005, when new phytosanitary regulations were enforced. Newly introduced regulations obliged farmers to slaughter animals in specially designated slaughterhouses, it increased costs of the production and that negatively influenced the production levels. Expensive local meat products were substituted by cheap and low quality alternatives from abroad.

Milk production resisted the turbulent 90s better than other types of animal products. In 2002-2004, the volume of milk produced even exceeded its Soviet time levels thanks to the active local dairy industry. Over the last 4 years, dairy production remains quite stable with slightly increasing trend.

Pork

Pork production volume halved from 31.1 thousand tonnes in 2006 to 14.9 thousand tonnes in 2013. The declined production of pork was largely substituted by imports of frozen pork from Brazil, which is cheaper and more affordable for local consumers. Consequently self-sufficiency rate for pork consumption dropped from 79% in 2006 to 41% in 2013. Decline in domestic production can also be partly explained by the outbreak of African swine flu in Georgia in 2007, the disease significantly reduced pork production volumes, and they did not show any recovery signs since then.

Pigs' production is concentrated in the western regions of Georgia with Samegrelo region being traditionally centre for pork production.

Table II-14. Regional breakdown of pig production in Georgia, 2006-2013 (thsnd heads)

	2006	2007	2008	2009	2010	2011	2012	2013
Imereti	58.1	34.6	27.4	35.7	26.3	20	38.8	31.4
Samegrelo	122.9	37.2	23.2	33	29.4	30.4	73.5	54.1
Kakheti	46.8	7.4	10.4	22.8	14.6	15.3	25.5	35.3
KvemoKartli	20	8.5	4.8	13.3	15.4	10.1	16.3	11.6
Other regions	95.7	22.2	20.6	30.4	24.4	29.3	50.2	58.8
Total	343.5	109.9	86.4	135.2	110.1	105.1	204.3	191.2

Source: Geostat

African Swine flu hit pig production mostly in Samegrelo and Kakheti regions, where production levels were drastically reduced in 2007 and the production has not recovered to the levels before the swine flu crisis yet.

Milk production

Most milk produced in Georgia is transformed and consumed later as cheese, which accounts for the largest share in the Georgian CPI basket (second after white bread). The total number of dairy cows somewhat increased over the last 8 years, however the yield levels remain very low, which is the largest challenge for the milk production sector in Georgia. Absence of farm infrastructure and good quality feed for cattle negatively influences productivity in milk production sector.

Table II-15. Milk yield levels in Georgia (kg per cow per year)

	1989	2001	2005	2013
Milk per animal (kg, year)	1,148.3	1,068.2	1,078.5	1,011.7

Source: Faostat

As can be seen from Table II-15, the productivity of dairy cows in 2013 was by about 11% lower than the Soviet time maximum. Over the period, Georgian farmers did not make any significant investment in milk production to boost the productivity. Major part of the total milk production is produced by agricultural households, which own 2-3 dairy cows on average. Their productivity levels are very low, it is roughly the half of the Eastern Europe average, not considering even more developed countries from the Western and Central Europe. Recently, several small farms have invested in raising more productive breeds of cows, however their effect on the overall productivity of the milk production sector is not visible yet.

2.4.3 Organic production

Organic production is often described by experts as the future of the Georgian agricultural production. Main argument backing the statement is the following: due to its small amount of agricultural land, Georgia cannot compete on the international market by utilizing economies of scale, rather it has to find its niche as a producer of high quality production. In this context the development of organic production methods must lie in the heart of the agricultural development strategy, however, little attention is paid to the promotion of organic production by the state. Despite the generally low awareness about the organic farming among the rural areas of Georgia, there are quite few farmers that are following organic farming practices.

“Caucascert”¹⁸ represents the only certifying body for the organic production in Georgia, it was founded in cooperation with the Swiss Agency for Development and Cooperation¹⁹ (SDC) in 2005 and its holds accreditation of the German Accreditation System, organic certificate of which is valid in the whole EU. Up to now, 29 agricultural entities hold the organic production certificate. Certified agricultural producers operate in various sectors of agriculture, including wine production, production of vegetables, olives, nuts, honey etc. Overall, 0.06% of the total agricultural land (1,042 ha) was certified as “organic” in Georgia by 2011.

“Caucascert” has clearly defined rules and procedures for certification process, which is in-line with the best international experience, guaranteeing that the organic production label approved by this certifying organization is a sign of quality on the whole European market.

In the development of organic farming the contribution of Elkana²⁰, which is a non-government organization supported by international donors, has played a very important role. Elkana was founded in 1994 and currently it unites around 900 farmers from all over Georgia covering almost every sector of the agricultural production. The main goal of the donor-funded organization is the promotion of organic methods in farming and spreading knowledge about the advantages of organic production. Since its foundation, Elkana has been an active advocate of the organic farming and has supported creation of a legislative and institutional environment necessary for the development of organic production in Georgia. In 2008, in compliance with the EU norms, Elkana registered its standard for Bio production, the standard serves as a guideline for member entities on their organic production activities. Main directions of Elkana activities include:

- Consultations on organic farming issues;
- take care for creating an organic market in Georgia;
- promotion of processing and marketing of organic products and making it a profitable business;
- promotion of increasing competitiveness of organic products;
- Testing, popularization and introduction of new organic measures and technologies in organic farms etc.

¹⁸ <http://www.caucascert.ge/index.php?lang=en>

¹⁹ <http://www.sdc.admin.ch/>

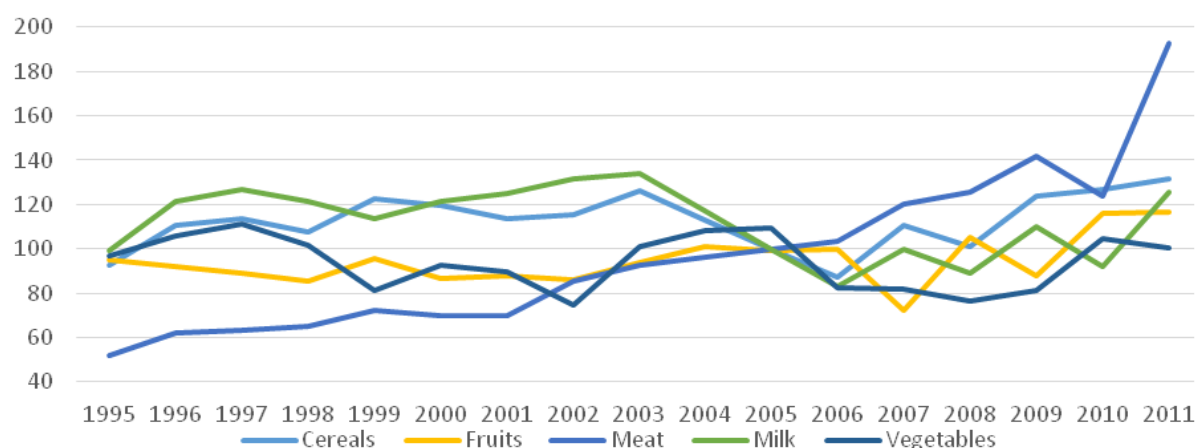
²⁰ <http://www.new.ruraltourism.ge/index.php?action=0&lang=eng>

2.5 Prices, costs and income

2.5.1 Prices

Geostat does not report detailed agricultural output prices regularly, lack of data on primary agricultural production prices hampers thorough analysis of price trends in agriculture, for this reason analysis has to resort to the agricultural output price indices reported by the FAO and consumer prices by GEOSTAT. Unfortunately, the series reported by the FAO are only up to 2011, however it helps to form the general idea about the agricultural output price developments in Georgia.

Figure II-5. Agri-production price indices in Georgia (2004-2006=100)



Source: FAO

As can be seen from Figure II-5, the price of cereals has been comparatively stable over the period. It increased until 2003 and then dropped down to the levels of 1995, however, due to the global food crisis in 2007-08, cereal prices hiked in 2007, with another jump followed in 2009. Since 2009, cereal prices were stable and slightly increasing. Analysis of the recent consumer price developments of cereal products suggests that cereal prices slightly declined in 2012 and 2013, with no significant upward or downward trend.

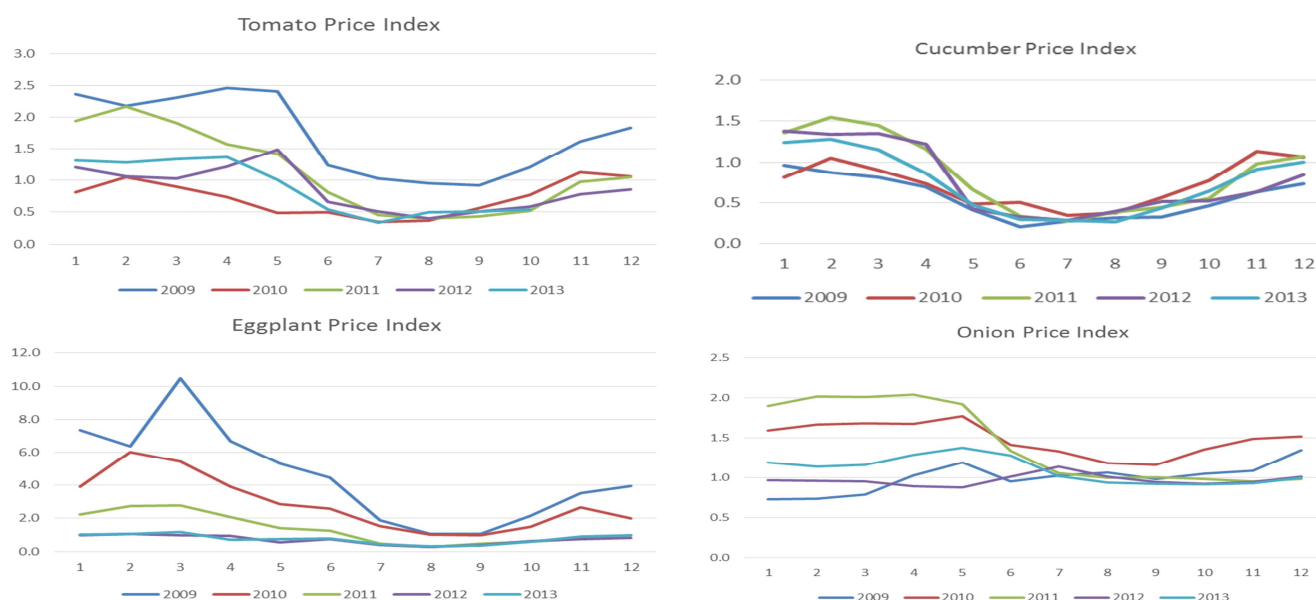
Fruits prices were quite stable till 2005, however, starting from 2006, the volatility has sharply increased. The first drop in the prices in 2006 might be related to the Russian embargo, which put downward pressure on prices of most fruits, however the following volatility is hard to explain. This may be partly explained by pronounced biennial bearing of the major fruit varieties (apples, peaches, pears etc.).

Increasing meat prices are the most puzzling. Over the same period when prices were soaring, meat production was declining and livestock producers switched to exporting live animals instead of providing local market with meat, which seem contradictory. One explanation might be the increasing costs of meat production, which played its role in both direction, on the one hand, it fueled the increase in prices and, at the same time, forced many farmers to stop production due to the high production costs. Rise in meat prices was especially notable in 2011. The huge increase is associated with the new phytosanitary regulations of the government. According to new regulations, farmers had to slaughter animals in specially designated slaughterhouses, which increases costs of final meat production. Costs of slaughtering animals in these slaughterhouses is GEL 1 per kg of

meat, however transportation to and from these place drives up costs and consequently prices significantly.

Vegetables prices were comparatively more stable and did not exhibit any pronounced upward or downward trend. It is more insightful to analyze price pattern of vegetables within a year, which shows clear seasonal trend for main vegetable products.

Figure II-6. Monthly price indices of different vegetables in Georgia, 2009-2013



Source: Geostat

As Figure II-6 shows, prices for the some of the main vegetable products have a very clear seasonal pattern. Tomatoes and cucumbers can cost in winter as much as five-six times their price during the high production period in summer. Seasonality is diminished over time in case of eggplants, which had a clearly seasonal pattern in 2009-2010 but it was less pronounced in the following years. Major reason behind the very high seasonal fluctuation of the prices of vegetables lies in very small production during winter time - greenhouses are underdeveloped and they can produce only minor part of the total vegetables consumption, which drives prices up during the low production seasons. In additional to that, shortage of proper storage facilities are creating high seasonal volatility of prices.

Tables II-16 reports prices for some of the agricultural products. As already mentioned, Geostat does not report regularly agricultural output producer prices, for this reason only consumer prices of some of the major agricultural goods can be reported.

Table II-16. Average consumer (selling) prices for certain agricultural products in Georgia in 2004-2013 (GEL/kg)

	2006	2007	2008	2009	2010	2011	2012
Rice	1.4	1.48	2.01	1.67	1.81	1.87	2.12
Sugar beet	1.38	1.24	1.18	1.48	1.97	2.26	1.8
Potatoes	0.76	0.89	0.86	0.79	0.89	1.22	0.87
Onions	0.87	0.94	0.8	0.94	1.45	1.34	0.96
Cabbage	0.64	0.61	0.68	0.54	0.73	0.89	0.67
Dessert apples	1.05	1.82	1.16	1.71	1.6	2.68	1.56
Poultry	6.59	6.59	7.07	6.45	6.71	7.16	6.92
Cows milk	1.14	1.4	1.77	1.82	1.4	2.04	1.78
Eggs (in a shell)	2.85	2.49	2.8	2.73	2.88	3.1	3.04
Beef	6.92	6.82	7.48	7.43	7.94	10.97	12.1
Pork	7.24	6.6	9.82	11.05	9.07	11.15	12.24
Frozen Fish	4.22	4.59	4.56	4.79	5.19	5.73	5.67
Tinned Fish	0.85	0.83	0.95	1.1	1.22	1.25	1.82
Sunflower Oil, 1 litter	2.46	2.9	4.2	2.89	3.35	4.19	3.78
Imeretian Cheese	4.85	5.25	6.27	5.5	6.16	7.01	7.49
Wheat Flour	0.98	1.17	1.52	1.34	1.4	1.73	1.55
Bread (of high quality)	0.96	1.09	1.33	1.25	1.32	1.56	1.49
Haricot Beans	2.78	3.15	3.11	2.71	3.38	3.78	3.72
Frozen Fish	4.22	4.59	4.56	4.79	5.19	5.73	5.67

2.5.2 Costs

Availability of quality inputs at affordable prices is of crucial importance for the competitiveness of agricultural production. As there is no systematic and reliable data regarding the farming costs, research has to rely on the survey²¹ of farmers and other specialists in the field to approximately assess the agricultural production costs. The main inputs for the annual crop production are agricultural machinery, pesticides, fertilizers and seeds. Cost assessment does not take into account alternative costs of farmers.

Table II-17. Cost of inputs of annual crops production (GEL per ha, 2014)

	Wheat		Tomato	
	Min	Max	Min	Max
Inputs				
Agricultural machinery	350	550	150	240
Seed (300 kg)	280	300	650	800
Fertilizers	520	600	650	750
Pesticides	150	200	750	850
Hired workers	-	-	550	700
Total	1,300	1,650	2,750	3,340

Source: Author's calculations

Rough assessment of costs of wheat production suggests that fertilizers represent the most costly input to production, accounting for about 36-40% of the total production costs. Differences of the costs of machinery services are quite high among different regions and villages across Georgia. The cost of hiring machinery mainly depends on the availability of "Mechanizatori" service centres. Cost

²¹ Survey was conducted by the author among several agricultural households in Shida Kartli region, as well as «Bank of Georgia» and micro-finance organization «Constanta» agri-credit experts

of ploughing 1 ha of land might be as low as GEL 50 for the villages with enough supply of machinery, and it goes up to GEL 100-120 in the villages with constrained supply of tractors.

Agricultural sector assessment, conducted by the USAID in 2011, compares costs of the main chemical inputs to agri-production in Georgia and Armenia. Comparison suggests that costs for the main inputs in Georgia are quite low compared with its neighbour and the whole region as well.

Table II-18. Costs of various chemical inputs in agri-production, 2011 (USD)

Items	Georgia	Armenia
Ammonium Nitrate	500/tonne	600/tonne
NPK		
Pesticides (Karate)	28-31/litre	30-100/litre
Herbicides	6-49/litre	50-250/litre
Fungicides	7-92/litre	20-400/litre
Diesel	1.13/litre	0.99/litre

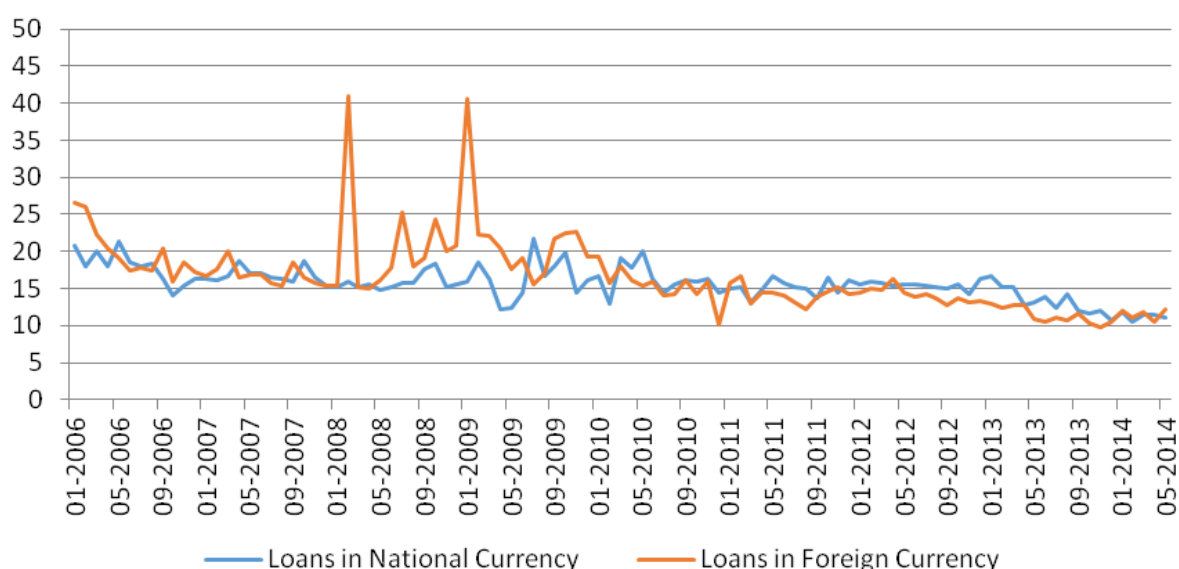
Source: Armenia biological farming association and Georgia FSC

Georgia was comparatively low-cost in terms of the main chemicals in 2012, however diesel price was 12% higher than in Armenia in 2012. Currently diesel price varies from USD 1.19 to USD 1.27 across different providers of oil products in Georgia.

It is worth mentioning that small scale farmers, who own land up to 5 ha are exempted from taxes, land tax for larger land-plots depends on its fertility and other characteristics.

Another important cost position for farmers is the interest they pay for the agricultural loans. Agricultural is treated as a high risk sector by commercial banks in Georgia and consequently higher interest rate is charged for agri-loans compared with loans granted to other sectors of the economy. Recently, as a result of slowed economic growth and declined credit activity, the cost of financing was substantially reduced.

Figure II-7. Interest rate on agricultural loans in national and foreign currencies in Georgia, 2006-2014, %



Source: National Bank of Georgia

2.5.3 Farm income

Major components of the incomes of rural households are income from employment, income generated from selling agricultural products and social assistance from the state in the form of retirement pensions, benefits and grants. Non-monetary income also plays a very important role in monthly income of average rural household. Non-monetary income usually refers to the production of agricultural products for own consumption. Over the period from 2006 to 2013, the total nominal income of rural households more than doubled from GEL 384.2 to GEL 794.7. Income increase was mainly determined by the increased income from employment and other monetary income, mainly at the expense of the increased pensions and social benefits. Members of rural households seem to find part-time formal job in the nearby cities, may this be construction or trade related jobs, and income generated from this type of employment drove up the overall rural household income significantly.

Table II-19. Average monthly income of agricultural households in Georgia, 2004-2013 (GEL per household)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Total income of rural household	na	na	384.2	388.2	477.0	486.9	568.1	649.5	723.2	794.7
income from employment	na	na	49.9	57.6	69.1	82.9	98.0	104.9	129.4	152.7
income from selling agricultural goods	na	na	62.5	53.8	56.5	54.3	71.1	88.2	90.8	92.5
other monetary income	na	na	131.0	147.4	201.8	211.7	259.8	297.5	349.3	408.1
non-monetary income	na	na	140.8	129.3	149.6	138.0	139.2	158.9	153.7	141.3

Source: Geostat

The most interesting thing that can be observed from Table II-19 is the fact that income from agricultural production related activities is stalled and does not show increase proportional to the growth in other components of total income. Monthly nominal income from selling agricultural goods increased by 50% and reached GEL 92.5 in 2013, however its share in the total income fell from 16.3% to 11.6%.

Non-monetary income, which mostly relates to the agricultural production for own consumption also remained broadly unchanged at GEL 140 per month.

Over the same period, urban-rural gap in income increased. From 2006 to 2013, the average monthly household income in urban areas increased by 153% as opposed to the 107% in case of rural areas. Diverging income levels were mainly a result of unfavorable developments in agricultural sector, while other sectors of the economy managed to grow significantly over the period.

3. SITUATION AND DEVELOPMENT OF UPSTREAM AND DOWNSTREAM SECTORS

3.1 Input production and use

3.1.1 Input production

Georgia depends mainly on imports of the main inputs to agricultural production, and the insufficient supply of inputs is a challenge for the development of primary agricultural production. Only several local companies are active in the upstream sector of the agriculture. “Azot²²” plant, which is the most significant representative in agricultural input industry, is specialized in chemicals production and has a strong presence on the domestic as well as on international markets.

List of products manufactured by “Azot” plant includes mineral fertilizers, ammonia, ammonia water and other chemical products. Mineral fertilizers produced by “Azot” makes up the major share in the fertilizers market in Georgia, its price is relatively affordable for local farmers compared with more expensive alternatives imported mainly from Italy, Germany and other EU countries. However, there are cheaper alternatives as well on the market, mainly imported from China.

“Lomtagora²³” is another domestic representative of agricultural input producers specializing in the production of wheat and maize seeds. In addition to seeds, “Lomtagora” also operates storage facilities for cereals. Its recently set-up storage can accommodate 2,000 tonnes of cereals. Storage is equipped with modern technologies that allow to dry, sort and store wheat and maize harvests.

3.1.2 Input use

During the previous four years, the total use of fertilizers was the highest in 2013. Increase in the fertilization in 2013 was mainly due to the subsidies provided by the government that enabled farmers to intensify fertilization of annual as well as permanent crops.

Table III-1. Fertilization in thsnd tonnes, 2010-2013

	2010	2011	2012	2013
Fertiliser use, total	51.7	45.1	56.4	71
nitrogenous fertilizers	50.2	43.3	49.5	64.6
other fertilizers ²⁴	1.5	1.7	6.9	6.4
Fertilized area, thsd ha total	137.4	127.6	145.9	231.6

Source: Geostat

As evident from Table III-1, nitrogenous fertilizers account for the most part of the total fertilizers used, other types of fertilizers represent only minor share of the fertilizer input in agricultural production.

²² www.azot.ge

²³ <http://www.lomtagora.com/>

²⁴ Phosphorous, potassic and composite fertilizers, meliorants and agrominerals, peat and derived fertilizers

As a result of subsidies, the total area of fertilized land increased from 145.9 thousand ha in 2012 to 231.6 thousand ha in 2013, which is about half of the total arable land. The share of fertilized area under annual crops in the total fertilized area remained quite stable over the recent years at around 85%. However, year 2013 has been an exception in the sense that the share of fertilized area under annual crops declined to 75%, mainly due to the increased permanent crop fertilization in Samegrelo Region.

In 2013, about 300 kg of all types of fertilizers were used per hectare of both annual and permanent crops on average, which is 80 kg down compared with the previous year. The use of all types of fertilizers per ha of arable land stood at 150 kg in 2013 - 30 kg more than in 2012.

Another important input in agricultural production is pesticides. Overall, 360 ha of permanent and annual crops combined were treated by pesticides in 2013. Annual crops accounted for 24.9% of the total fertilized area, and the share of annual crops remained roughly constant over the past four years. The two main types of pesticides used in Georgia are fungicides and insecticides; the first is mainly used for treating grapes and the second - for treating various types of other fruits and vegetables like apples, peaches etc.

Table III-2. Total area under annual and permanent crops treated by fertilizers (thsdn ha)

	2010	2011	2012	2013
Area treated by pesticides, total	231.7	218.1	213.2	360.2
Area under permanent crops	174.6	171.3	161.6	270.5
Area under annual crops	57.1	46.8	51.6	89.7

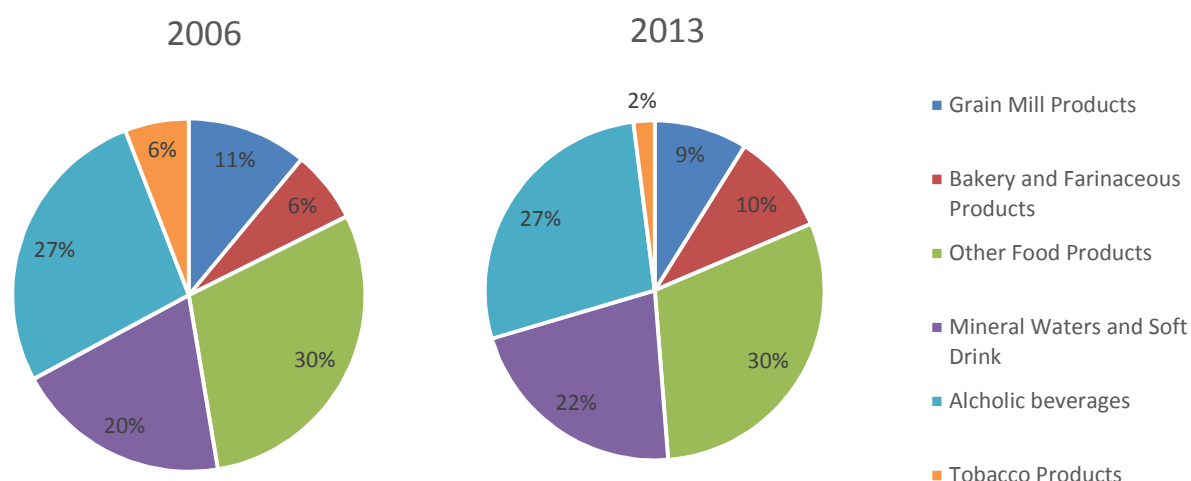
Source: Geostat

The single largest provider of agricultural machinery in Georgia is LTD “Mechanizatori” created by the Ministry of Economic Development in 2009. The aim of the creation of the state owned company was to fill the gap between the demand and supply of agricultural machinery. With the assistance of international donors and the state funds, “Mechanizatori” is equipped with modern tractors, combines and different types of implements. Overall, as of 2012, “Mechanizatori” owned 147 tractors made in the EU, 41 combines and 450 units of different kind of agricultural machinery. Given this amount of machinery, “Mechanizatori” was capable to implement agro-technical operations on 15,000 ha and harvest 17,500 ha at a time using combines and tractors at its disposal. Machinery is equipped with GPS devices, which enables “Mechanizatori” to track down every tractor, easily calculate area of cultivated land and place orders of farmers in a well-organized manner. In 2012, “Mechanizatori” signed contract with Belorussian party to import additional 300 tractors and 250 units of other implements.

3.2 Food industry

Food industry in Georgia accounted for 3.8% of the total GDP in 2013, with the nominal value of GEL 894.4 million. This number includes the production of grinding industry, production of animal food, bread and pastry production, mineral waters, non-alcoholic drinks, wines, alcoholic drinks and other food products. The average nominal growth rate of food industry over the past seven years, from 2007 to 2013, was at around 9.7%, which is slightly lower than the average nominal growth rate of the total GDP, which means that food industry was lagging behind the overall economic development in the country.

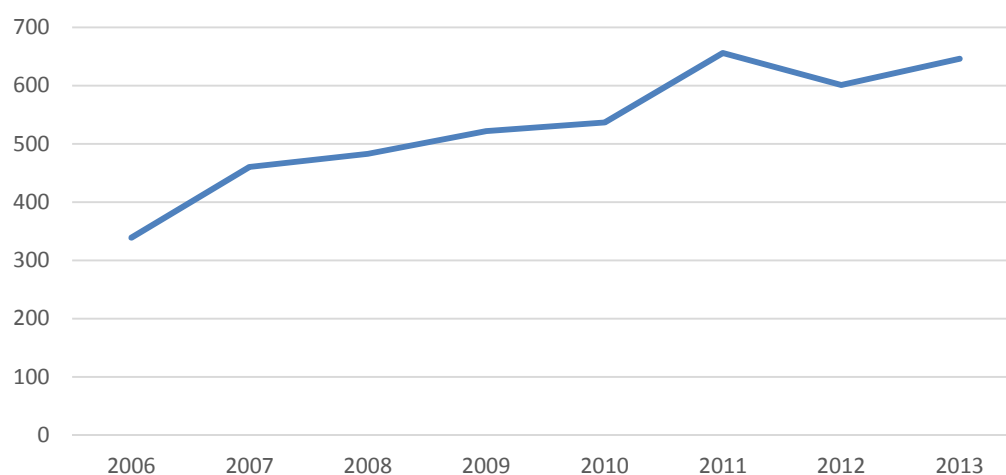
Figure III-1. Structure of the food production in Georgia in 2006 and 2013 (*Source: Geostat*)



Production structure of the food industry has not changed much over the last 8 years. Production of alcoholic beverages, mineral waters and soft drinks dominated the total food production. The share of bakery production has increased by 4 percentage points in 2013 compared with 2006, and it is worth mentioning that manufacturing of bakery and farinaceous products was the only sector of food production which continued growth during the economic crises of 2008-2009. However, during the last two years, in 2012 and 2013, the growth rate of this sector was negative. Other food products category include production of meat and dairy products, however, Geostat does not provide detailed data regarding production volumes of these sectors, which are key consumption products in Georgia.

It has to be mentioned that the data presented in Figure III-1 do not provide a complete picture of the food production sector in Georgia, it includes only goods that are sold on the markets. On top of what gets sold on the market, rural household produce significant amount of goods and services for their own consumption or for sale on unregulated markets, this type of production is classified as production of undifferentiated goods by households and it is shown on Figure III-2.

Figure III-2. Production of undifferentiated goods and services by households in Georgia, 2006-2013 (mln GEL, current prices) - *Source: Geostat*



Production of goods and services by households doubled in 2013 in comparison with its level in 2006 and reached 646 mln Gel.

3.2.1 Structure of the food sector

Leading producer in dairy sector in Georgia is “Sante GMT Products”²⁵, which was founded in 1997 on the basis of Tbilisi dairy company. “Sante” offers wide array of dairy products for different segments of customers. “Sante” uses locally produced milk and it is one of the largest buyers of raw milk from farmers, only for the production of “Santino” premium brand of “Sante’s” dairy products, company collects 8 million liters of milk annually from the mountainous regions, where quality of the milk is better. Milk Collection Centers represent bridge between the producers of milk and the processing industry. Milk Collection Centers are located throughout the country and serve as a main selling point of milk for rural households. Milk Collection Centers are equipped with appropriate laboratories for quality control and tanks to preserve milk till it is transported to dairy factories.

“Eco-food”²⁶ is another leading company in the Georgian dairy sector, which operates 28 Milk Collection Centers in Kakheti and Kvemo Kartli regions, and via these centers “Eco-food” collects 30-50 tonnes of milk daily. “Eco-food” is a market leader in terms of its share in the sour milk market; it satisfies about 70% of the whole demand of this dairy product (not considering sour milk produced by households which is traded in informal markets). Other players of the market are “Soplis Nobati”, “Kobulehuri” and “Wimm Bill Dann”, the latter is largest producer of dairy products in Russia and has a factory in Georgia as well.

Meat product market is dominated by two large producers of meat products - “Nikora”²⁷ and “Vake”²⁸ companies. “Nikora”, a Georgian company, has a diversified production portfolio, which includes production of meat, fish, dairy and other miscellaneous food products. Overall, “Nikora’s” production comprises of around 500 varieties of food products. In addition to the production, “Nikora” operates retail markets as well - it owns 93 retail markets throughout Georgia. “Nikora” combines imported and locally produced goods to maintain its leading position in the food production and retail sector. Overall, “Nikora” employs about 2300 people, being one of the largest employers in Georgia.

“Vake”, founded in 1961, is one of the most popular meat product factories in Georgia. It offers 29 varieties of sausages and up to 90 varieties of salami, and its production is fully based on locally produced meat. The company employs about 140 specialists.

Domestic demand for eggs is almost fully satisfied by local companies, in 2013, the self-sufficiency rate of eggs was 95%. Several companies dominate eggs production in Georgia.

“Koda” and “Dila” are two dominant companies in poultry production.

Founded in 2007 on the basis of the Soviet time poultry factory, “Dila” is located 30 km away from Tbilisi, “Rakeen Development” representing its main shareholder. Monthly production of “Dila” farm reaches 150 tonnes of poultry meat and 10 million eggs, which is enough to satisfy 40% of the total eggs demand in Georgia. Currently company employs about 300 people.

²⁵ www.sante.ge

²⁶ www.eco-food.ge

²⁷ www.nikora.ge

²⁸ www.vake.ge

3.2.2 Food law

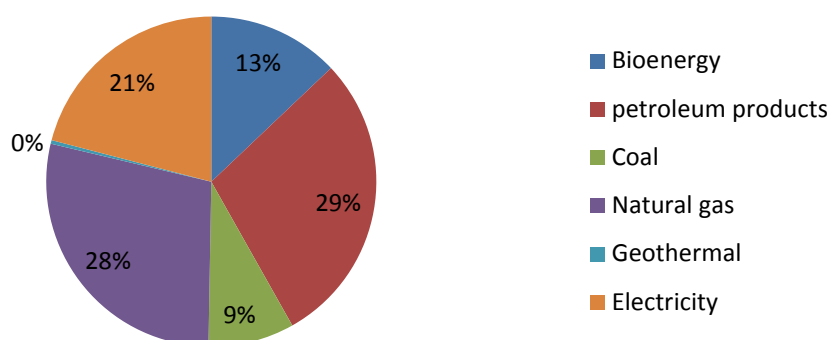
One of the key responsibility of Georgia under the framework of the “Association Agreement” signed with the European Union is to align sanitary and phytosanitary norms and to implement them according to the EU standards. The government of Georgia has adopted strategy of harmonization sanitary and phytosanitary norms with the EU, which aims at the gradual approximation of the legislature to the EU acquis, taking into account peculiarities of local industries and socially most vulnerable part of the population. Finding the optimal balance between the adequate food safety norms and the resulting costs for socially vulnerable population is a main challenge for the government, while working on the food safety reforms.

The key principle of the strategy was to adopt the integrated approach to food safety, which means that the legislature covers every step of the food production chain - “From Farm to Fork”. According to the strategy, the approximation of food safety regulations had to be finalized by 2014.

3.3 Bioenergy production

Firewood makes up almost 100% of bioenergy production in Georgia. Share of bioenergy consumption in total energy consumption of Georgia was 13% as of 2013. Most part of bioenergy is consumed by households for heating purposes in winter while share of bioenergy consumed by enterprises is miniscule (less than 1%). Breakdown of total energy consumption across various types of energy sources is given in figure – below

Figure III-3. Breakdown of energy consumption across various types of energy sources, 2013



Source: Geostat

Despite the low share of bioenergy in total energy consumption, it represents second biggest indigenous source of energy in Georgia after hydropower. In 2013 68.3% of total energy consumption was imported, hydropower accounted for the remaining 50%, while bioenergy (firewood) made up approximately 34% of domestically produced energy consumption, coal accounts for the rest of domestically produced energy consumption.

There are several assessments regarding the potential of bioenergy production in Georgia mainly done by international donors such as USAID, KfW, UNDP etc. Assessment of bioenergy potential done by USAID in cooperation with Winrock International²⁹ indicates significant untapped potential in bioenergy sector in Georgia. Table – summarizes findings of the above mentioned study regarding the potential of bioenergy production in Georgia.

Table III-3. Bioenergy production potential in Georgia (USAID, 2008)

Type of Biomass	Quantity (10 ³ tonnes)	Energy (TWh/year)	Energy Equivalent
Residues from corn and legume cultures	870	1.3	112 thousand TOE
Residues from Cattle farming and poultry	1670	6.9	760*10 ³ m ³ natural gas
Domestic residues	900	0.6	60*10 ⁶ m ³ natural gas
Residues from sewerage water cleaning station	250	1	92*10 ⁶ m ³ natural gas
Forest and its residues ³⁰	700	2.7	200 thousand TOE
Total		12.5	

Source: USAID, Winrock International

In 2013 Georgia produced bioenergy equivalent to 481.1 thousand tonnes of oil (TOE), which is 2.4 times above the sustainable level of bioenergy that can be generated from the given resources of the forest and its residues, which implies over exploitation of forest resources. According to some estimates 2/3 of overall timber production is not licensed in Georgia. On the other hand, Georgia underutilizes other sources of bioenergy such as domestic and cattle farming residues, residues from corn and legume cultures.

Currently Government of Georgia does not have clear strategy with regard to the promotion of bioenergy production. Some aspects of supporting renewable energy sources is a part of the broader Regional Development Strategy of Georgia 2010-17. Strategy defines development of renewable energy sources as one of the priorities of regional development, however in the annual action plan which gets updated every year there are no particular steps defined to be taken towards promotion of bioenergy production.

Studies identified some of the problems that are primarily hampering the development of bioenergy production in Georgia, most of these problems are related to the insufficient organizational capacity of the state to promote development of bioenergy production. In addition to that, low awareness of public regarding the benefits of bioenergy remains significant obstacle for the development of this sector.

²⁹

<http://www.greengeorgia.ge/sites/default/files/RENEWABLE%20ENERGY%20POTENTIAL%20IN%20GEORGIA.pdf>

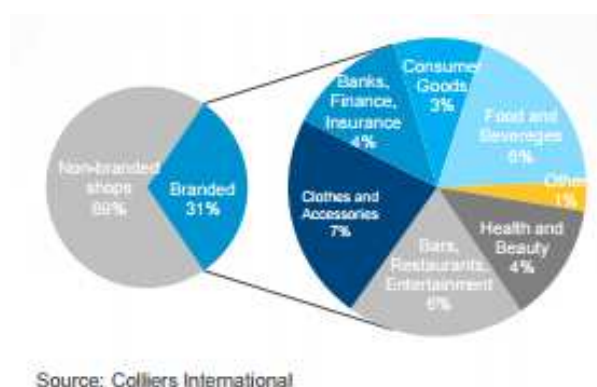
³⁰ Forest and its residues included in the table correspond to the environmentally allowable limit; in reality forest reserves are overexploited.

3.4 Food retail

Food retail sector is rapidly transforming in Georgia, along with the entry of big supermarket chains, share of open markets in total retails is diminishing. Carrefour³¹ currently represents biggest food retailer in Georgia with its three retail stores in Tbilisi. In terms of size Carrefour is followed by several other retail stores such as Goodwill³², Smart³³ and Fresco³⁴-domestic food retail brands, Ukrainian Furshet³⁵ and Spar³⁶. These retail spaces are mainly concentrated in Tbilisi with several branches in other two biggest cities of Georgia - Kutaisi and Batumi, in the regions of Georgia food retail mainly takes place in open markets and small non-branded retail shops.

Colliers International conducted study of retail spaces in Georgia according to which most of the retail space (69%) are occupied by non-branded shops and open markets, branded food and beverage retailers account for the 6% of the total retail space and rest is divided among banks, restaurants, clothing stores etc.

Figure III-4. Distribution of retail spaces in Georgia



Along with the higher demand for shopping in modern supermarket chains, several retailers have plans to enlarge their chains. Carrefour, which entered Georgia in 2012, plans to add five branches to already existing 3 branches within 2 years of time. New branches will be opened in Tbilisi, Carrefour also considers opening branches outside the capital. Construction of the new shopping mall “East Point”, which is expected to finalize in 2015, will also add significant food retail space in Tbilisi.

Share of branded food retailers is even smaller in regions, in total retail space share of branded food and beverage retailers is around 1% in Kutaisi and Batumi, biggest cities after the capital.

After signing Association Agreement with EU, Georgia took responsibility to align its food safety standards to EU aquis. Food Safety Agency started undertaking more vigorous inspections of food retailers and as a result several violations of food safety norms were revealed, mainly on open markets and small unbranded retailers, which mostly do not satisfy sanitary requirements. Increasing hygienic requirements on the other hand and expansionary plans of branded retailers on the other hand as well as transformation of the shopping culture of the population will undoubtedly squeeze the share of traditional bazaars in total food retail, while branded retailers will become dominants in nearest future.

³¹ <http://carrefour.com.ge/>

³² <http://www.goodwill.ge/?lng=eng>

³³ <http://www.smart.ge/>

³⁴ http://fresco.ge/?lang=_eng

³⁵ <http://www.furshet.com.ge/about.html>

³⁶ http://spar-georgia.com/?page_id=2

4. AGRI-FOOD TRADE AND TRADE RELATIONS

4.1 Agri-food trade

4.1.1 Overall agri-food trade

Georgian exports of agri-food products have been on a steady growth path. Over 2005-2013, exports of agri-food products grew on average by 15% year on year, reaching USD 1.3 billion in 2013. However, due to the high concentration of Georgian exports on several commodities and markets, the export growth rate is highly volatile, crucially depending on the external conditions. Ban of the exports to Russian market in 2006 clearly demonstrated vulnerability of Georgian agri-food exports. Due to the inability of Georgian agri-food producers to quickly switch to alternative markets, agri-food exports contracted by 26% in 2006, mainly driven by the contraction of wine and mineral water exports. Since 2010, Georgian agri-food exports have started to recover, the growth has been particularly high (52% year on year) in 2013, mainly due to the reopening of the Russian market and a good harvest.

As can be seen from Figure IV-1, despite the growth of exports over the last few years, Georgia remains net importer of agri-food products. Trade deficit in agri-food products accounts for 14% of the total trade deficit on average.

Figure IV-1. Total trade in agri-food products in Georgia, 2004-2013, mln USD

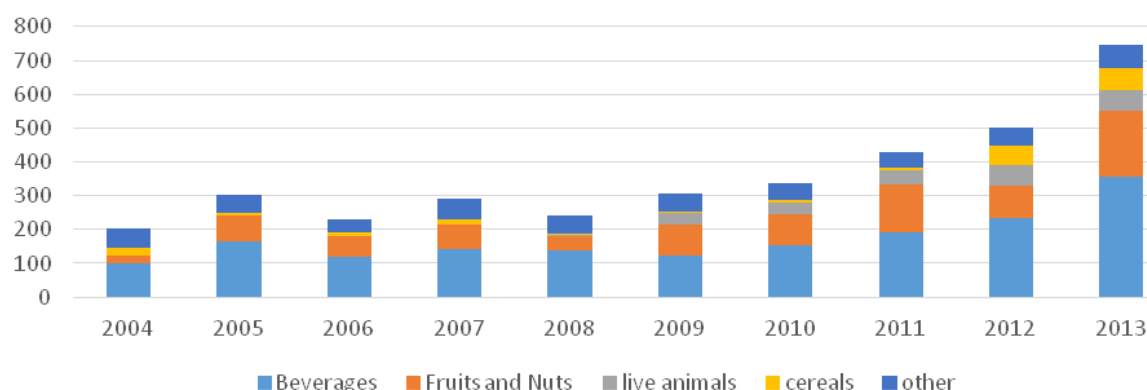


Source: Geostat

Exports are mainly dominated by wines, other spirits and mineral waters. In 2013, beverages made up 46% of total agri-food exports. Russian export ban in 2006 forced wine producers to invest more in technologies and advance the quality of product. As a result, starting from 2010, they gradually managed to find new markets that helped to recover wine exports. The growth of wine exports was mainly determined by the increased price (previously, the price of one litre of wine on Russian market was about USD 1.95, while after 2006, the average price increased to USD 3.6). In 2013, reopening of Russian market provided new opportunities for wine and mineral water producers,

shortly after the removal of export ban, Georgian production managed to find its niche on Russian market. Georgian wine producers seem to have learned lessons from the past, so most large players in the wine market stress the importance of diversification of their exports, and with the assistance of National Wine Agency wine companies regularly participate in international trade fairs and exhibitions to increase the awareness about Georgian wines and help to diversify exports.

Figure VI-2. Export of most important agri-food product in Georgia in 2004-2013, mln USD



Source: Geostat

Hazelnuts represent another key agri-food export product for Georgia. Microclimate zones in some regions of westerns Georgia are particularly suitable for growing high quality hazelnuts, and thanks to the favourable natural conditions Georgia is the fifth largest producer of hazelnuts in the world following Turkey, Italy, US and Azerbaijan, with Turkey being the absolute leader on the international market in terms of the volume of the hazelnut production. Compared with 2005, exports of fruits and nuts increased 2.5 times, reaching USD 194 million in 2013.

Exports of live animals were evenly redistributed between bovine and sheep. Georgia started exporting live animals in 2009 and since then these products account for around 10% of the total exports. The main destination for sheep and bovine exports is Azerbaijan and several Western Asian countries, namely Kuwait, Jordan, Qatar etc. Demand for sheep exports from the Western Asian countries is quite high during Muslim religious holy days (Ramadan), however, due to the domestic production constraints Georgia does not have capacity to supply more sheep. The lack of pastures, breed selection, proper infrastructure and other institutional constraints have been identified as key problems for sheep production and exports in Georgia by the “Shepherds Association of Georgia”³⁷. Exports of poultry products lag behind the exports of bovines and sheep, with Armenia being the main destination for poultry exports.

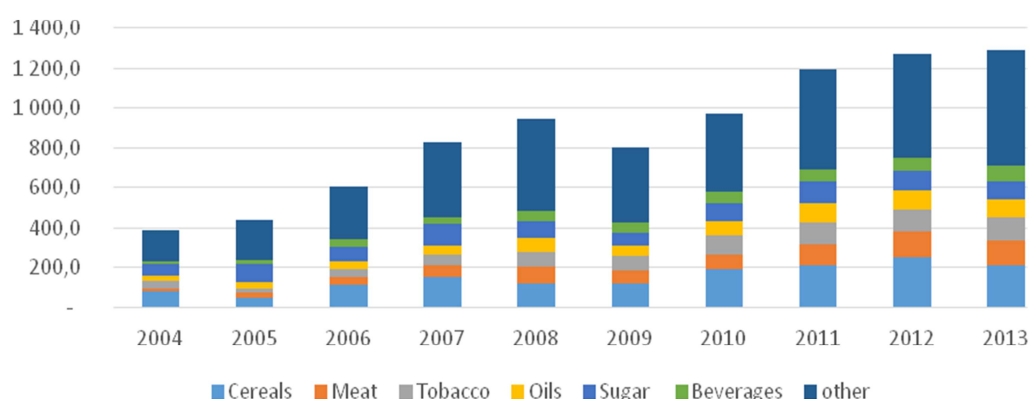
As regards agri-food imports, domestic consumption mainly relies on the imports of wheat, meat, tobacco, sugar and other miscellaneous final food products. Georgia is not growing significant amounts of wheat, consequently, large part of wheat demand depends on imports. To satisfy the growing domestic demand cereal import was growing steadily since 2004; over the last ten years, the annual growth rate of cereal imports averaged 20%.

Meat is another dominant import product; large portion of the imported meat comes from India (buffalo). Imported buffalo is much cheaper and better suits the demand of low-end consumers. Although the quality and taste of the domestic products is better, still, local producers cannot compete with the cheap imported production. Price differences between imported and domestic

³⁷ <http://sheep.ge/>

meat products is one of the reasons why Georgian farmers started exporting live animals instead of producing meat domestically, this way they can get higher value added on their production.

Figure IV-3. Imports of most important agri-food products in Georgia in 2004-2013, mln USD

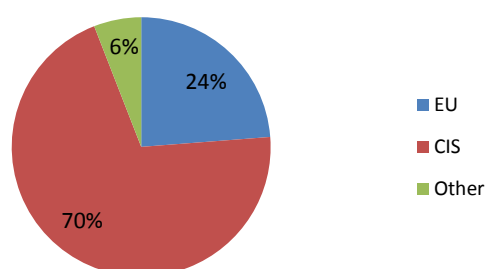


Source: Geostat

4.1.2 Agri-food trade by trading partner

Breakdown of Georgian agri-food export across different destinations shows that the CIS countries remain the main markets for Georgian agricultural goods. The share of agri-food export to the European Union over the last 7 years varied in the range of 25% of the total agri-food exports and did not exhibit any clear upward/downward trend. In 2013, the EU accounted for 24% of the total agri-food exports, USD 182.6 million in absolute terms.

Figure IV-1. Share of different regions in total agri-food exports in Georgia in 2013



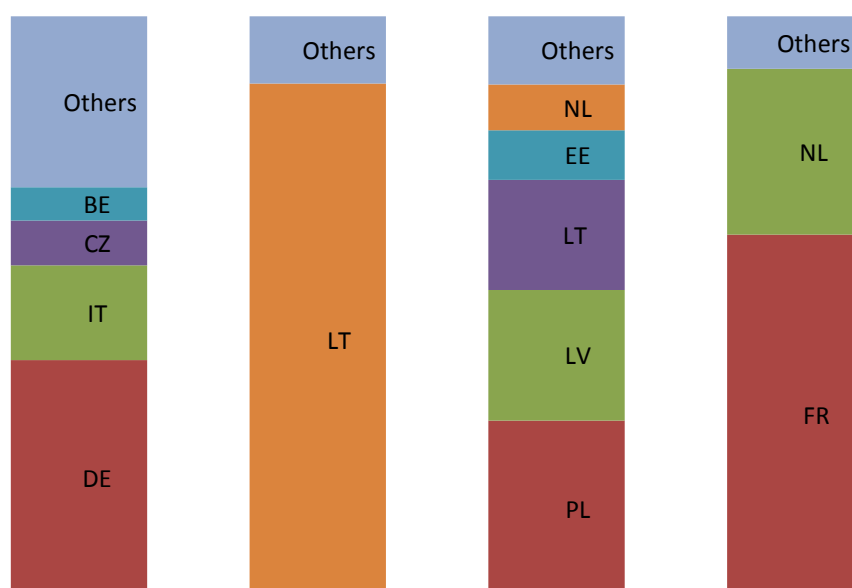
Source: Geostat

CIS countries represent the main market for Georgian agri-food exports; 70% of all agri-food exports went to these countries in 2013. Armenia, Azerbaijan, Russia and Ukraine are the major export destinations for Georgian agri-food products. Reopening of Russian market in 2013 significantly contributed to the increase of the share of CIS countries in the Georgian exports of agri-food products. Mineral waters, wine and other alcoholic drinks are the key export products to these markets.

Export to the EU is concentrated mainly on two products - beverages and nuts. From the total agricultural exports to the EU, hazelnuts accounted for 64% of the total agri-food exports to the EU

in 2013; the second largest export commodity was beverages with 28% of the total exports, remaining 8% was distributed among miscellaneous minor export products.

Figure IV-4. Structure of Georgian agri-food exports to EU by products and trading partner in 2013



Sources: Geostat

As can be seen from Figure IV-4, nuts were primarily exported to four EU countries, Germany being the major importer, accounting for 40% of all nuts exported to the EU. Germany is followed by Italy, which accounts for about 10% of the total exports of nuts to the EU in 2013.

Exports of Georgian mineral waters to European market went predominantly to Lithuania. This is a traditional market for Georgian mineral waters. Popularity of Georgian mineral waters is quite high in the Baltic countries, as can be seen from Figure IV-4, Lithuania imported about 90% of mineral waters exported from Georgia to EU. Imports of mineral water to Lithuania than gets distributed to other two Baltic countries through the Lithuanian retail chain, which has strong presence in other two countries (especially in Latvia).

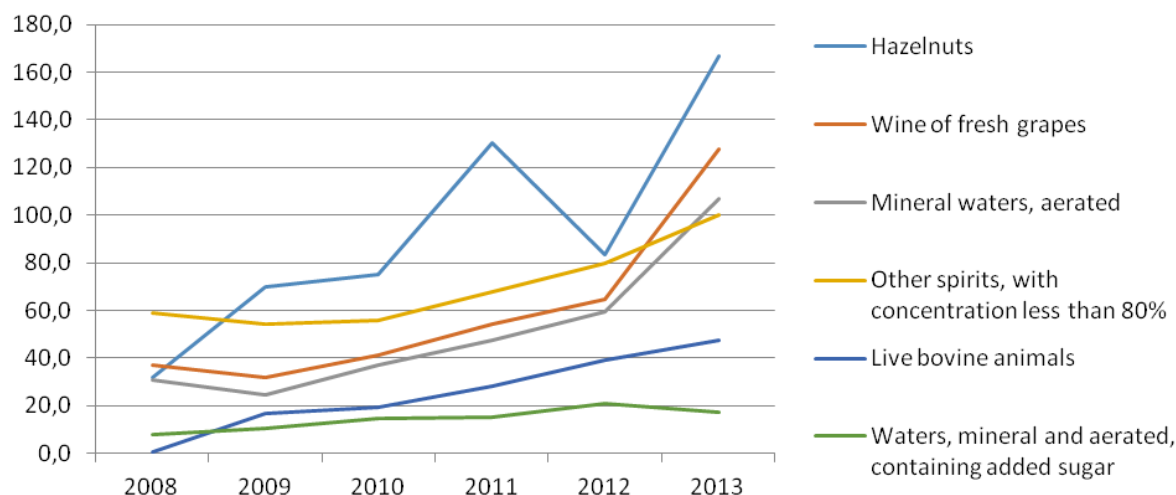
Export of wines to the EU market is the most diversified. Poland accounted for the largest share among other EU countries (30.3%), and Lithuania and Latvia imported almost the same amounts of wine from Georgia in 2013. Other importers of Georgian wine include Estonia, the Netherlands, Germany, and the Czech Republic etc.

Other spirits also play a significant role in the Georgian-EU trade, export of other alcoholic drinks amounted to USD 29.8 million in 2013. France imported most part of spirits accounting for 62.3% of the total export of this commodity to the EU market, and the Netherlands came next with 28.6%. Other countries accounted for only miniscule share of the total Georgian exports of spirits (with less than 80% of alcohol).

4.1.3 Agri-food trade by products

Since 2008, the structure of agri-food exports has not changed much, however the volumes of the main export goods have significantly increased over the last 6 years. Hazelnuts, natural wines, mineral waters and other spirits with concentration less than 80% remain the core export products.

Figure IV-5. Major exported agri-food products of Georgia in 2008-2013 (mln usd)



Source: Geostat

Exports of hazelnuts maintain the leading position among agri-food products since 2009. The entrance of Ferrero on Georgian market (brand name operated by LLC AgriGeorgia³⁸) significantly contributed to the expansion of hazelnut exports. Mineral waters as well as wine of fresh grapes has always been visit card for Georgian agri-food exports in the CIS countries, although after the ban of exports on Russian market exports of these products suffered. Despite the adverse external conditions, wine as well as mineral water producers (Borjomi³⁹ being the leading mineral waters export company) managed to open up other export destination thanks to the active marketing campaign and improving quality of their products. Sharp increase in exports of wines and mineral waters in 2013 is associated with lifting the ban on the Russian markets. Georgian wine and mineral producers quickly managed to recover their position on Russian market. By the end of 2013, exports of wine and mineral waters reached USD 128 million and USD 107 million respectively.

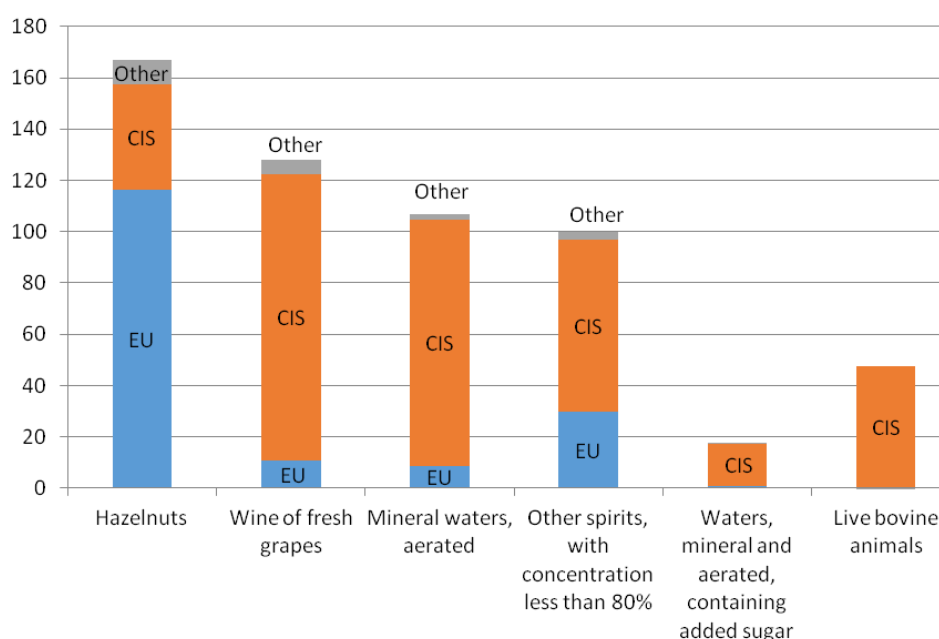
Exports of live bovine animals are comparatively new for Georgia. After the harsh competition from Indian frozen meat importers, domestic meat producers found it hard to maintain their position on the domestic markets and most meat producers switched to exports of live animals mainly to Azerbaijan.

Exports of aerated waters with added sugar is slowly peaking up, although it still remains low compared with exports of other main food product. Several domestic companies are exporting lemonades mainly to Caucasus region countries (Azerbaijan and Armenia) as well as to the countries of Central Asia.

³⁸ www.agrigeorgia.ge

³⁹ http://www.borjomi.com/int_en/

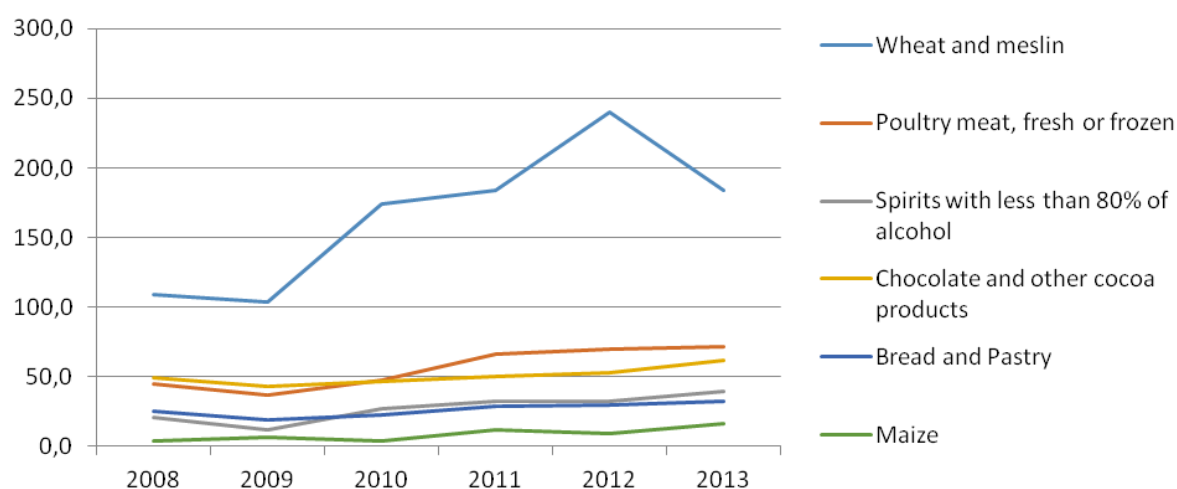
Figure IV-6. Breakdown of main agri-food exports by regions in Georgia, 2013 (mln USD)



Source: Geostat

Overall, over the last 5-6 years, agri-food exports increased mainly at the intensive margin (old products to old markets), new companies face severe obstacles to reach export markets mainly because of the informational barriers. Export survival rates for new products are quite low in Georgia compared with other countries. According to the World Bank's estimates⁴⁰, spell length over which an export flow is active for Georgia is slightly above 2 years on average, while for the countries like Lithuania, Slovakia and Czech Republic the same indicators are 2.84, 3.35 and 3.5 years respectively. These numbers are based on the total exports, not only agri-food exports, although it is likely that new agri-food companies will face similar problems of low survival rates on export markets, which hampers diversification of agri-food exports from Georgia.

Figure IV-5. Major imported agri-food products for Georgia in 2008-2013 (mln USD)

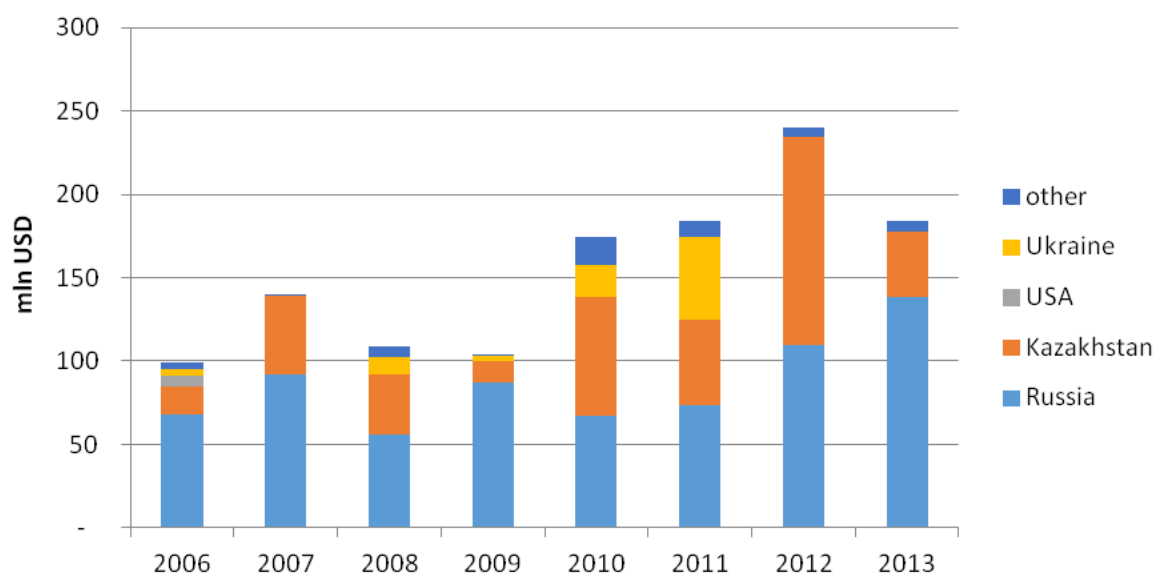


Source: Geostat

⁴⁰ «Georgia: Seizing the Opportunity to Prosper», Country EconomicMemorandum, World Bank, 2014

Georgia heavily relies on imports of wheat (as of 2013, the self-sufficiency rate for wheat was 12%), which is the major imported food commodity and it is mainly imported from Russia and Kazakhstan. Figure IV-6 shows breakdown of wheat imports by major importer countries.

Figure IV-6. Major importers of wheat in Georgia, 2006-2013 (mln USD)



Sources: Geostat

Poultry meat is the second largest imported food product. From 2008 to 2013, poultry meat imports increase by 59.6% and reached USD 71.4 million. Georgia imports poultry meat mainly from the USA, Brasil and Turkey. Over the past three years, imports of poultry meat from Ukraine were increasing at a fast pace, reaching USD 11.7 million in 2013, which is 16.4% of the total imports.

4.2 Trade policy and infrastructures

4.2.1 Measures directly affecting trade imports and exports

Openness of trade as measured by the total trade to the GDP ratio is increasing in Georgia. In 2013, foreign trade in goods to the GDP stood at 67%, up from 49% in 2004. Increasing openness of the economy is a result of liberal trade policy pursued by the government officials since 2013. Import tariffs on most imported goods are zero with the exception of some agricultural products. There are two import tax rates: 5% and 12%. Import tax of 12% applies to most fruits and vegetables as well as animal production, 5% tax applies to beef, cheese and cottage cheese. Imported wines and other alcoholic drinks are charged with fixed value depending on the type of the alcoholic drink. For instance, importer has to pay EUR 0.5 per litre of imported wine, litre of champagne is charged with EUR 1.5, import tax for other alcoholic drinks is tied to the concentration of alcohol in a particular beverage.

Reform of Customs Clearance Zones has been highly successful in Georgia resulting in a streamlined import and export procedures. According to the WB's "Doing Business" rankings, Georgia stands 43th

in terms of easiness of trade across borders in 2014, and this rank is well above the regional average of Europe & Central Asia (107). According to the report, exporting a standard container of goods requires 4 documents, takes 9 days and costs USD 1,355, while the same procedure in the case of imports requires 4 documents, 10 days and costs USD 1,595.

The set of documents required for export/import includes: bill of lading, certificate of origin/commercial invoice, receipt of payments of customs clearance fees and export/import declaration. The number of documents has been reduced to the minimum with the aim to decrease the bureaucratic burden at the clearance zones. Also, the Revenue Service of Georgia offers option for the online declaration of import/export goods, and this opportunity significantly reduces the time cost of trade-related procedures. Thanks to the efficient regulations, bureaucratic hurdles are brought down to the minimum and customs clearance procedures in Georgia are designed according to the leading practices in the world.

Georgia signed the Association Agreement with European Union at the end of June 2014, this a comprehensive agreement that envisages reforms in almost every sphere of the public policy, which among others include sanitary and phytosanitary measures. Food safety legislation and its effective enforcement lie at the core of the EU integration policy agenda. Georgian legislation is almost fully aligned to the the EU standards in this area, although enforcement of the regulations is another issue. By signing the Association Agreement, the Georgian government has taken the responsibility to fully bring in line food safety regulation to the relevant chapters of the EU Acquis as well as effectively enforce the adopted regulations. Up to 2013, some progress was achieved in terms of improving sanitary and phytosanitary standards. With the involvement of foreign donors, Georgia modernized several laboratories and institutional environment for better food safety management. Recently, the EU allotted more funds for the technical assistance to Georgia in food safety area. About EUR 4.5 million was granted to the National Food Agency of Georgia for the adoption of new standards and procedures in food safety area. Grant envisages approximation of legislation as well as improving technical capacities and border control mechanisms. After Sanitary and Phytosanitary norms are fully in line with EU requirements, Georgian producers will have fewer barriers to entry on the EU market.

4.2.2 Logistics and infrastructure

Located at the crossroads of Europe and Asia Georgia has a unique geographic advantage to become a transportation and logistics hub in the region. Soviet occupation and the turbulent 90s prevented Georgia to use its favourable location and develop logistics and transportation infrastructure, although during the last ten years significant progress has been achieved. With the support of international donors and the International Financial institutions, Georgia has managed to modernize its road infrastructure and some large road projects are still underway. Eastern section of the main autobahn in Georgia connecting Tbilisi and eastern regions to the seaports and Turkish borders was reconstructed and its traffic capacity was doubled, however some sections in the western part of the road are still under construction. In 2013, according to the Roads Department of Georgia, construction works were in progress on 111 km of the central highway, including building bridges and city bypasses in Kutaisi and Kobuleti. Bypasses around these two cities in the western part of Georgia will significantly unclog the traffic and decrease the cargo transportation costs from the main seaports of Georgia to the capital and eastern borders.

Several local transportation companies operate in Georgia offering cargo transportation services from the main ports to different cities of Georgia as well as to neighbouring countries. The cost of

carrying a 20 tonne container from Poti Port to Tbilisi (distance 350 km) is around USD 700, and prices vary depending on the weight and number of containers to be carried⁴¹.

Georgia has two sea ports: Batumi and Poti. Poti port is the largest seaport on the territory of Georgia and it is the main gateway for international trade in Georgia. Port infrastructure is capable of handling liquid and dry bulk ferries as well as containers. Overall, Poti Port has 15 berths and around 20 cranes. Poti port is operated by APM Terminals⁴². The operator offers whole range of logistics services including warehouses for different types of cargo.

Poti port serves not only Georgian cargo but is the main gateway also for the South Caucasus and the Central Asia to the Western markets. Potential for the future growth of cargo traffic is huge, however, Poti port has some geographic limitation and it cannot receive ships exceeding a certain size. To address this constraint, the government has started developing plans for a new port which will be located close to Potiport, however its capacity will be more comparable to the already existing ports. Exact details of the project are not disclosed yet, although the government of Georgia along with IFCs is actively working to materialize the new port project.

Another sea port is located in Batumi, close to the border with Turkey. Capacity of the Batumi port is smaller compared with the Poti port, and the terminal section of the port is operated by BITC (Batumi International Container Terminal LLC). Capacity of the Batumi Terminal is 100,000 TEU⁴³ per year⁴⁴.

Georgian Railway is another option for cargo transportation. Georgian Railway is a state owned company and its role is instrumental in making Georgia efficient bridge for transporting goods between the Europe and Asia. Along with the development of regional and international trade, the importance of railway in transporting cargo is expanding, and in response to this Georgian Railway actively invests in modernizing railway infrastructure, as well as building new routes for more efficient transportation. Baku-Tbilisi-Kars railway is the largest railway project that is currently under the construction. The new line is set to become operational in 2015. If successfully completed, Baku-Tbilisi-Kars railway will connect Azerbaijan and Georgia to the European Union Railway systems via Turkey. Officials of all interested countries underline the strategic importance of this project to further develop trade and transportation ties with Europe as well as within the south Caucasus region. Along with the regular cargo services, Georgian Railway offers refrigerated containers and tariffs of transportation are usually cheaper compared with road transportation.

The volume of air transportation of cargo is steadily increasing in Georgia. In 2013, Georgian Airports transported 19.1 tonnes of cargo, and a large share of it was through Tbilisi International Airport, however Kutaisi Airport is gaining more importance mainly because of cheaper connections to Europe.

Table IV-1. Cargo traffic through different airports of Georgia in 2010-2013 (tonnes)

	2010	2011	2012	2013
Tbilisi	15,266	15,491	16,247	16,650
Kutaisi	137	21	217	2,473
Total	15,403	15,512	16,464	19,123

Source: Sakaeronavigation

⁴¹ http://afg-navte.ge/index_en.php association of freight forwarders Georgia

⁴² <http://www.apmterminals.com/africa-mideast/poti/>

⁴³ 20 foot equivalent units

⁴⁴ <http://data.worldbank.org/indicator/IS.SHP.GOOD.TU>

There are several private cargo handling companies operating around the Tbilisi International Airport, these companies conduct customs clearance procedures, cargo handling with aviation facilities and special equipment. These cargo companies operate also warehouse facilities to collect incoming/outgoing cargo.⁴⁵

4.2.3 Main trade agreements

Georgia signed the Deep and Comprehensive Free Trade Agreement with the EU at the end of June, 2004. DCFTA is a part of the broader Association Agreement which envisages perspectives of the EU-Georgia cooperation and further alignment of Georgian regulation to the EU standards in all aspects of public policy. DCFTA removes all types of tariff and non-tariff barriers to trade, the latter having been identified as the largest obstacle for Georgian products to enter the EU market. Georgia currently has GSP+ regime with the EU which means no trade tariffs on almost all types of products (7,200 types of products). DCFTA will further liberalize the trade with the EU, but some quotas and tariffs will still remain on agricultural goods. DCFTA leaves three kinds of restrictions on Georgia exports to the EU:

- import tariffs apply to certain agricultural goods only after export exceeds particular quantitative quotas, above these quotas Most Favoured Nations scheme is applied to exports;
- fixed import fees are retained for some kinds of agricultural goods;
- products which are part of the anti-circumvention mechanism are free from import tariffs under some quantities, which are defined according to the productive capacity of Georgia. If quantity exported to the EU exceeds the certain threshold, export is taxed under the MFN scheme. If production capacity of Georgia increases, the thresholds for particular goods can be renegotiated.

After the DCFTA enters into force, import tariffs and quotas will remain on 250 types of goods, however these import restriction are still more liberal than restriction that have been under the GSP+ scheme.

The main impediment for the Georgian exports to the EU are non-tariff regulations, like sanitary and phytosanitary measures, technical barriers and other standards that Georgian products have to meet until they find the place on the EU markets. DCFTA includes removal of technical barriers to trade and alignment of sanitary and phytosanitary standards, however the process of reforms will take several years until the whole set of constraints are removed. It is expected that within 8-10 years' time all the necessary conditions will be met by Georgian side and the EU market will be fully opened to Georgian production. The list of reforms to be carried out by the Georgian government is quite long and includes almost all trade related aspects varying from sanitary to intellectual and property rights. DCFTA is expected to be costly for Georgia in the short-term until farmers and other producers switch to the new standards, however after 2-3 years of transformation the opened EU market will present new opportunities for Georgian producers as well as create more incentives for foreigners to invest in Georgian economy.

Georgia has liberal trade regimes with a number of other countries. Georgian exports are treated under the GSP regime in countries like the USA, Japan, Canada, Switzerland and Norway. It means that Georgian exports to these countries are charged with preferential import tariffs.

⁴⁵ <http://www.tbilisiairport.com/en-EN/airportguide/Pages/Cargo.aspx> cargo companies

Georgia has a free trade regime with all of the CIS countries and Turkey. Despite having a free trade agreement with Russia, one of the most important markets for Georgian exports, Georgian exporters faced many troubles in Russian market in the past (2006 wine export ban). The new government has managed to reopen Russian market for Georgian wines and mineral waters, and the negotiation regarding the return of Georgian fruits and vegetables on Russian market is also underway.

Overall, after the DCFTA is operational, Georgian producers will have access to the world's largest market - European Union, at the same time, Georgia already enjoys free trade regimes with all CIS countries.

5. AGRICULTURAL POLICY AND INSTITUTIONAL ENVIRONMENT

5.1 Agricultural policy framework

5.1.1 Agricultural policy objectives and mechanisms

Ministry of Agriculture presented the new “Strategy of Agricultural Development 2014-2020” in July, 2014. The strategy has been developed around 7 main objectives to be achieved over the period:

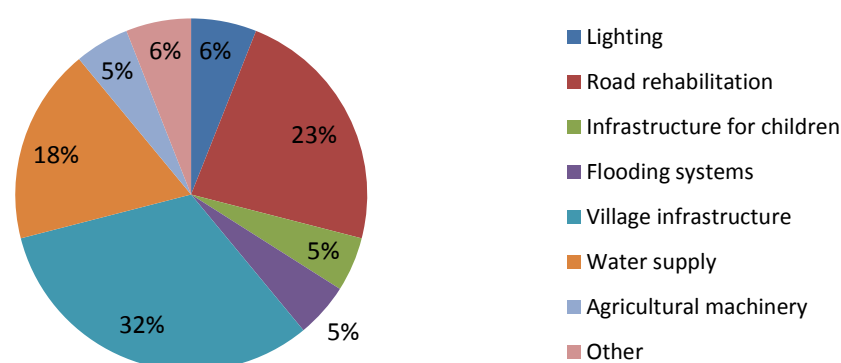
1. ***Raising competitiveness of farmers and agricultural employees***- in this regard, the Ministry of Agriculture plans to develop a secondary market for agricultural land. Namely, streamlining of the procedures of land registration, creation of comprehensive cadastral maps and carrying out inventory of the state-owned agricultural land will be a priority for the state. Along with the creation of a comprehensive land registry, the Ministry of Agriculture has also outlined the creation of good quality farmer registry as one of the priorities of the agricultural policy, which will later enable implementation of particular credit subsidy or leasing programs. Particular attention will be devoted to the creation of farmer cooperatives and developing of agri-insurance markets, which is currently seen as a bottleneck for the development of agriculture. In the context of raising competitiveness, the strategy also envisages privatization of currently state-owned agricultural enterprises.
2. ***Supporting the development of agricultural value chain*** - the Ministry of Agriculture plans to develop investment plans for the priority areas in agricultural production as well as to assist the implementation of these investments. Under the second pillar of agricultural development strategy, the Ministry of Agriculture plans the introduction of geographical indications and supporting of Georgian producers of agri-food products. The state will support post-harvest process management by assisting development of warehouses and other necessary facilities and machinery. The strategy also covers final stages of agricultural value chains, promoting domestic production by active marketing campaigns and developing market information systems.
3. ***Institutional development*** - this part of the strategy covers the improvement of analytical capacities of the Ministry of Agriculture as well as raising competence of employees in agricultural sector.
4. ***Regional and agricultural infrastructure development*** – the state will devote resources for the improvement of drainage and irrigation systems. The creation of regional farmer markets is also envisioned in the strategy.
5. ***Food safety*** – the state plans to fully align food safety and phytosanitary regulations to the EU acquis. In this direction, the state plans to implement capacity building programs for already existing laboratories, as well as creation of some new laboratories.

6. **Biodiversity** – the Ministry of Agriculture will implement programs to revive and maintain some of the endemic species as well as programs to protect the natural environment.

The state support to agriculture is mainly implemented via two main funds: Agriculture Support Fund and Fund for Regional Projects. Agriculture Support Fund was set up in 2009 and every year it receives GEL 50 million (USD 28 million) from the central budget. The main goal of the fund is not only economic development of agricultural sector, the fund also finances some social projects targeted at improving well-being of rural population. In 2014, the amendment was initiated to the legislative framework of the fund, according to which all projects financed by the fund have to be finalized in the same budget year⁴⁶. This amendment was praised by most think tanks and NGOs, as it will make projects more effective and transparent at the same time. In addition to the above mentioned amendment, purposes of the projects implemented via the agriculture support funds became more explicit.

In total, 6,822 projects were financed by the Agriculture Support Fund in 2013, each with the average amount of GEL 7,623. Fund plans to spend GEL 47 million on approximately the same number of projects in 2014. The structure of the expenditures for 2014 are presented in Figure V-1.

Figure V-1. Structure of Agriculture Support Fund Expenditures for 2014



Source: MOA

The planned budget of the Fund for the Regional Projects for 2014 is approximately GEL 140 million (USD 80 million), which will be allotted to 516 projects with the average size of GEL 293,000 each. About 53% of the resources will be spent on road rehabilitation works, next comes projects related to development of drinking water supply systems (21%). House rehabilitation and village infrastructure development projects will receive 9% of the fund's resources each.

5.1.2 Institutional arrangements

The Ministry of Agriculture of Georgia⁴⁷ (MOA) is the main institution responsible for the agricultural policy making in Georgia. It forms the agricultural development policy as well as plans and conducts actions for the effective implementation of these policies. Under the Ministry of Agriculture, there are several agencies: National Food Agency, National Wine Agency, Laboratory of the Ministry of

⁴⁶Decision of Government N183 about the approval of agriculture support program, chapter 5, subchapter 3

⁴⁷<http://moa.gov.ge/index.php?&address=&menuid=1&lang=2>

Agriculture, Agricultural Projects Management Agency, Mechanizatori LLC and Amelioration Systems Company.

National Food Agency⁴⁸ is responsible for the food safety situation in the country. NFA conducts regular inspection in line with the law of Georgia “On Quality and Safety of Food” as well as international regulations signed by Georgia.

Wine, being one of the main agriculture products in Georgia, receives special attention from the state. Wine Agency⁴⁹ is created with the goal to promote Georgian wine and raise awareness on domestic as well as global markets, support export of wines, discover and preserve the traditional Georgian grape varieties etc. Wine Agency also administers subsidy and other state support schemes for Georgian wine producers.

Agricultural Projects’ Management Agency⁵⁰ was created by the Ministry of Agriculture with the aim to administer agricultural support projects more effectively. Currently the project portfolio of APMA includes 5 main projects aimed at developing domestic agricultural production via offering interest subsidies, insurance premium subsidies, the state-owned assets in discounted prices (mainly state-owned abandoned factory buildings and agricultural land) as well as subsidized leasing schemes and support to small scale farmers.

“Laboratory of the Ministry of Agriculture” conducts analysis of veterinary diseases as well as diagnostics of food and water. Currently LMA unites 3 laboratories in Tbilisi, Kutaisi and Akhaltsikhe as well as 8 field stations in Gori, Marneuli, Dusheti, Gurjaani, Ambrolauri, Ozurgeti, Zugdidi and Batumi. LMA operates in line with the ISO 17025 standard.

LLC “Mechanizatori”⁵¹ was founded in 2009 by the Ministry of Economy of Georgia⁵² and is one of the key players in agricultural sector. The main objective for “Mechanizatori” was to provide farmers with agricultural machinery as well as conducting trainings and consultations for farmers. “Mechanizatori” is instrumental in ensuring that farmers in all regions of Georgia have access to needed agricultural machinery.

“Agricultural Cooperation Development Agency”⁵³ represents one of the newest additions to the institutional arrangement of the agricultural sector. Agency is primarily responsible for promoting agricultural cooperation which is seen as one of the most effective ways of increasing productivity in agriculture. The agency develops legislative base for agricultural cooperatives, provides consultations for farmers regarding the legislative details related to the creation of cooperatives. In addition to that, ACDA also collects and systemizes information regarding the production volumes, on-going and planned projects of agricultural cooperatives. It is in the competence of the ACDA to grant or discontinue juridical status of agricultural cooperatives.

⁴⁸ http://nfa.gov.ge/?lang_id=ENG&sec_id=1

⁴⁹ <http://georgianwine.gov.ge/eng>

⁵⁰ <http://apma.ge/apmaeng/index.html>

⁵¹ <http://mechanization.ge/index.php#!/Main>

⁵² N1-1/2929 Order of the Minister of Economy dated December 29, 2009

⁵³ <http://acda.gov.ge/index.php/geo>

5.2 Main agricultural policy instruments and measures

5.2.1 Market price support measures

Since 2003, most of the reforms implemented in Georgia were oriented to create liberal environment in the economy of Georgia. Standpoint of the economic team of the government was to intervene as little as possible and let the free markets work in almost every sector of the economy. Georgia abolished most import tariffs, however, most agricultural imports are subject to 12% and 5% import tariffs. According to the tax code of Georgia, imports of fruits, vegetables as well as most meat products are taxed at 12%. Overall, in terms of border protection and trade related regulations, Georgia still can be characterized as liberal country. Importers face no bureaucratic barriers on the borders and the number of documents required for the imports has also been significantly decreased (see chapter 4.2).

Since 2012, agricultural policies became more protectionist. Despite the fact that the tax code was not changed and import tariffs remained the same, imported agricultural goods became subject to more thorough sanitary and phytosanitary regulations. Under the framework of the Association Agreement with the EU, Georgia assumed responsibility to improve food quality inspection services. Georgian Food Agency step by step implements EU practices of food quality inspection which by itself translates into more restrictive requirements for agri-food importers. Technical barriers to trade are expected to increase as Georgian food safety legislation aligns closely with the EU acquis. Full implementation of food safety requirements are expected to be finalized in 7 years' time as envisaged in the Association Agreement with the EU.

Direct state intervention on the market has been limited to only several products, mainly to grapes. Over the last ten years, the government regularly subsidized price of grapes, however, in 2014, increased demand for grapes allowed the government to withdraw its subsidy program as farmers were able to obtain desired prices directly from wine producers. In 2013, the government switched from subsidizing farmers to producers of wine. Subsidizing wine producers was deemed to be more market friendly approach. National Wine Agency spent overall 32.0 million Gel for subsidizing wine producers. State owned companies were also purchasing grapes, however their share in the total demand for grapes is typically limited, as of 2013 two state owned companies ("Gruzvinprom" and "Akura") accounted for 16% of the total demand for grapes, while the rest was on the account of private wine producers.

5.2.1 Budgetary and other transfers to agriculture

Since 2013, the budgetary support to agriculture was brought up to a higher level. Several farmer support programs were implemented by the Ministry of Agriculture. Under the program for supporting small scale farmers, the Ministry of Agriculture distributed vouchers which entitled farmersto buy goods and small machinery for agricultural production. Program beneficiaries (farmers with land plots smaller than 5 ha) could also use free services of land ploughing. Overall, the budget of the program was GEL 195 million and 710,000 small scale farmers benefitted from the program. Program beneficiaries received fertilizers worth of GEL 53 million, pesticides worth of GEL 24 million and agricultural implements worth of GEL 39 million, the rest of the budget was spent on free land cultivation services (MOA, annual report 2013).

Another large scale program that was initiated by the Ministry of Agriculture in 2013 was interest subsidy program for agricultural enterprises. The program initially consisted of 3 components:

- Interest subsidy for loans up to GEL 5,000, targeted mainly at small scale farmers wishing to purchase small scale agricultural tools and machinery. Interest was fully subsidized.
- Interest subsidy for loans from GEL 5,000 to 100,000 with maturity up to two years. Farmers were to pay maximum of 8% interest, the rest was subsidized by the government.
- Interest subsidies for loans with the maximum amount of GEL 1 million and maturity up to 7 years. Farmers were to pay maximum of 3%, the rest was paid by the government.

At a later stage, two more components were added to the loan subsidy program. Under the fourth component of the loan subsidy program, the state co-financed leasing of capital goods for farmers was provided, and the fifth component of the program was targeted exclusively at wine producers. Overall, farmers borrowed GEL 117.5 million of subsidized loans.

Other budgetary transfers to producers are summarized in Table V-1.

Table V-1. Budgetary transfers to agricultural producers in Georgia, 2008-2013 (USD mln)

	2008	2009	2010	2011	2012	2013
Transfers to producers (BOT to producers)	24.6	14.7	0.5	25.2	112.2	65.8
Payments based on output (A2)	0.0	0.0	0.3	0.0	24.2	19.3
Payments based on area/animal/receipts/income (C)	0.8	0.1	0.1	0.0	0.0	0.0
Subsidies to variable inputs and on-farm services (B1+B3)	22.3	14.6	0.0	0.9	13.9	0.5
Transfers reducing the on-farm investment cost (B2)	1.4	0.1	0.1	24.3	74.0	46.0
Other producer support (D+E+F+G)	0.0	0.0	0.0	0.0	0.0	0.0
Financing of public services, institutions and infrastructure (GSSE)	12.1	18.5	9.3	14.4	30.1	53.2
Agricultural knowledge generation and transfer (H)	0.7	0.0	0.0	1.2	2.2	1.4
Food inspection and control (I)	1.3	2.9	1.7	1.1	5.6	10.4
Development and maintenance of rural infrastructure (J)	4.7	12.0	1.7	6.4	10.5	39.1
Marketing and promotion (K)	0.5	0.5	1.0	0.4	11.8	2.3
Other general support (L+M)	4.9	3.1	4.9	5.3	0.0	0.0
Transfers to consumers (TCT)	4.3	5.2	2.7	5.2	0.0	13.5
						132.
Total budgetary and other transfers to agriculture (BOT)	40.9	38.4	12.4	44.8	142.2	4
BOT as a share of value of production at producer prices (%)	2.8	3.2	1.0	2.9	8.7	7.2

6 FUTURE PERSPECTIVES FOR THE AGRICULTURAL AND FOOD SECTOR

6.1. Strengths and weaknesses of the agricultural and food sector

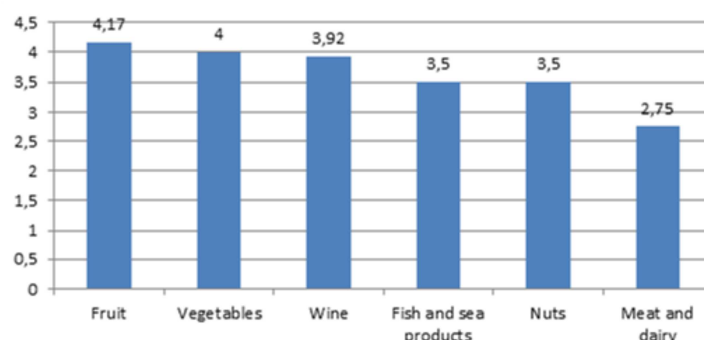
The main strength of the Georgian agriculture and food sector lies in its diversity of climate conditions and fertile soil as well as long-standing tradition of agricultural production. Being a traditional agricultural country, Georgia can offer some unique agricultural products to the rest of the world, which should serve as a visit card of the Georgian agri-food production. Kvevri Wine⁵⁴ is only one of the examples of unique agricultural tradition that Georgia can offer to the rest of the world. Georgia has a natural advantage in the production of hazelnuts which currently is the largest agri-food export product. The production volumes of hazelnuts have not reached their maximum yet and there is a room for improvement through better cooperation among farmers.

On the weak side of agriculture, out-dated skills of farmers and lack of know-how clearly stand out. Fragmented land is another mostly cited weakness of Georgian agricultural production, reaching higher productivity levels in agriculture with the average size of land plots at 1.2 ha seems quite impossible. Another major weakness of primary agriculture is obsolete infrastructure in the villages. After the turbulent 90s, most water and energy supply, storage and farm infrastructure was destroyed. Access to the basic infrastructure in villages remains a serious weakness of the agricultural production. According to the Geostat, as of 2013, only 52.4% of Georgian households had tap water at home, by the regional breakdown this picture becomes more dramatic. Only 20.8% of families in Samegrelo region have tap water in their yards. Despite the recent large scale gasification programs, only 52% of Georgian households have access to natural gas (again, if Tbilisi is excluded, the figure becomes much lower). Quality of roads is another challenge for the development of primary agricultural production.

6.2. Potential of production and yields by sectors

High potential of growth in the agricultural sector is supported by several studies. Figure VI-1 represents the compilation of the World Bank's report on "Sector Competitiveness Overview in Georgia" that indicates competitive advantage of Georgian agri-sector over different sectors of the economy. Competitiveness of various sectors in Georgia was assessed based on the several criteria: availability of the export market, import substitution opportunities, cost factors, natural advantages, skill base etc.

Figure VI-1. Competitiveness ranking for agriculture sub-sectors in Georgia



Source: *Georgia Sector Competitiveness Overview, World Bank, 2009*

⁵⁴<http://en.wikipedia.org/wiki/Kvevri>

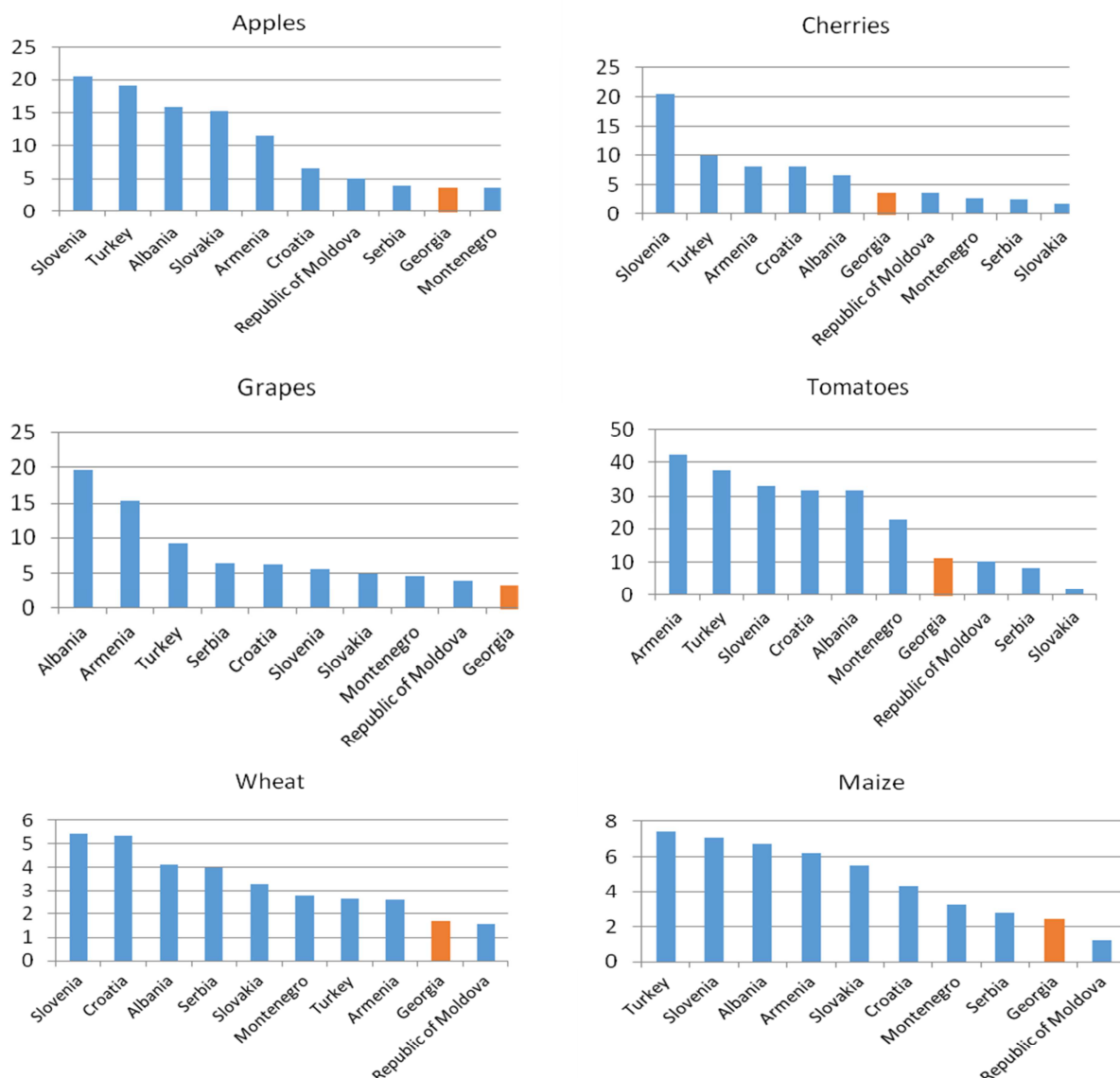
Some of the main factors that can contribute to the growth of the agricultural sector are as follows:

- Abundance of underemployed and cheap agricultural workforce- in 2013, the average monthly salary in agriculture was GEL 424 (USD 242), one of the lowest among different sectors of Georgian economy; at the same time, Georgia has one of the most liberal labour codes in the region that gives more flexibility to the employers to hire/dismiss workers.
- Business friendly environment in the country-Georgia stands among the leaders of the WB's "Doing Business" rankings in terms of registering business, dealing with permits, getting credit and investor protection.
- Favourable natural conditions and abundance of micro-climate zones-Georgia is rich with wide variety of soils, unique micro-climate zones provide opportunities for growing high value-added agricultural goods.
- Import substitution opportunities- Georgia is heavily dependent on import of food products, however most of these products can be substituted by domestic production. Size of the internal market is small, though, small to medium agricultural enterprises still might benefit from import substitution strategies.
- Access to foreign markets-Georgia has FTA with CIS countries and Turkey, DCFTA with EU is underway. In case Georgian agricultural production achieves certain quality standards it can gain access to the market of approximately 800 million people without import tariffs. Even if a little share of these markets is tapped, it will significantly push up the revenues of agricultural producers.
- Past experience as well as traditions in producing niche agricultural products-in the Soviet times Georgia used to be the largest producer of wine, fruits, tea, citrus, greens. Georgia has accumulated knowledge in these areas, if past experience is merged with more up-to-date knowledge, it can be turned into a significant competitive advantage for Georgian agricultural production.
- Government started to pay more attention to the agricultural sector-MoA started to implement several successful agricultural support programs and the new strategy released by the ministry envisages continuous support for the agricultural sector. In 2013, the share of agricultural spending in the total public spending tripled compared with the average of the last 4-5 years and the spending is set to increase further.

Currently the yields are very low in Georgia, one of the lowest in the Central and Eastern European countries for almost all agricultural products. On the one hand, it shows current dire state of agriculture, however, on the other hand, low yield levels promise quick growth of agricultural production if certain constraints of agricultural production are quickly removed. Figure VI-1 compares Georgia to the countries with more or less similar natural conditions to have a better idea where Georgia stands and what can be potentially achieved if the right path of development in agriculture is taken.

As demonstrated by Figure VI-1, Georgia lags behind most of the countries in the CEE region in terms of yields of major agricultural products compared. However, natural conditions for agricultural production are no less favourable in Georgia than for example in Armenia or Serbia which have yields for major crops 2-3 times the levels of Georgia. In case of right management, Georgia has every chance to catch up with the above mentioned countries in terms of agricultural productivity for the analyzed agricultural products.

Figure VI-1. Yield levels in Georgia and peer countries (2012, tonnes/ha)



Source: Faostat

6.3. Bottlenecks for the future development of agri-food sector

Access to finances and infrastructure were identified as the most severe constraints for the agricultural development according to the “Village Infrastructure Census⁵⁵” conducted in 2011 by Geostat in cooperation with the Millennium Foundation. War in the early 90s, followed by a period of weak state control until 2003 totally destroyed regional infrastructure in Georgia. Despite the recent attempts of the government to restore and build new roads, restore irrigation systems, storage facilities and basic farming infrastructure, the situation still remains harsh. Active public investment in village infrastructure is of crucial importance to remove infrastructural constraints for the future development of agriculture.

⁵⁵ http://geostat.ge/cms/site_images/files/mcg/VIC%20Publication.pdf

Outdated skills of farmers represent another major challenge for the development of the economy. Not only they lack knowledge of modern production methods but also entrepreneurial skills necessary to turn the subsistence farms into successful businesses are absent.

High uncertainty and volatility of production makes investing in agriculture particularly risky and only large scale investors or farmers with sufficient collateral can obtain financing from banks and other financial institutions. Agricultural insurance schemes can potentially reduce uncertainty in the sector and decrease the cost of financing, which will allow farmers to undertake investment more actively.

Non-existent comprehensive land registry hampers development of secondary land market, which is of crucial importance for the land consolidation processes to pick up in Georgia. Potential land disputes create significant obstacle for investing in Georgian agriculture.

The hunger for investment in Georgian agriculture is aggravated by the new land ownership regulations in Georgia, which restrict foreign ownership of land. There is a strong evidence that foreign investments in Georgian agriculture create significant spillovers of knowledge and innovation that local farmers can benefit from⁵⁶. By restricting foreign ownership of land, the government creates additional bottlenecks for the development of agricultural production and knowledge transfer, which is of crucial importance for the quick recovery of the productivity levels in Georgian agriculture.

Low export survival rates are another constraint for the development of agricultural productivity. Local farmers lack knowledge and information regarding the potential export markets, growth of agricultural exports has happened almost exclusively at intensive margin, by exporting more of traditional goods on traditional markets. Domestic market is quite limited to absorb higher supply of agricultural production and further development in agriculture can largely be brought about by export oriented firms capable of discovering new sources of demand. Lack of market information systems and export promotion activities create obstacle for sustained development of agricultural production.

Table VI-1. Factors influencing agricultural and trade development (1-low influence, 5-high influence)

	(1-5)
Domestic market	4
CIS market	4
International market (outside CIS area)	3
National grants	3
International grants	2
National agricultural development policy	4
Policies of other countries	2
Competitiveness at national level	5
Competitiveness at international level	5
Bureaucracy in the national institutions	2
Corruption in the national institutions	1
Legal frameworks and regulation	2
Knowledge and information	5
Solidarity in society with agriculture/rural areas	4
Other (please specify)	

Source: Author assessments

⁵⁶ <http://www.iset-pi.ge/files/Agriculture%20Investment%20Case%20Study%20-%20Final%20Study%20Report%20-%20FINAL.pdf>

6.4. Growth attractiveness for specific commodities

Table VI-2 summarizes the growth potential and attractiveness for specific commodities in Georgia.

Table VI-2. Yields and growth attractiveness for specific commodities in Georgia

Commodity	Yield	Producer price	Growth attractiveness	Potential market
Grapes	40% of the average of 9 countries ⁵⁷		Very attractive: Can contribute to high value added wine industry	CIS countries, Poland, Baltic states, domestic market
Apples	30% of the average of 9 countries		Attractive: has growth potential and potential on domestic and export markets	Russia, CIS countries
Hazelnuts	Below average		Attractive: has growth and export potential	EU, Ukraine, CIS countries
Apricots	30% of the average of 9 countries		Has limited growth and export potential	Russia, Ukraine

Source: Author assessments

Due to the wide variety of endemic grapes and long-standing tradition of wine production, the production of grapes can be considered as a future of Georgian agriculture. Wine exports are becoming more diversified and Georgian brands of wine are quickly gaining recognition on international markets. For these reasons the demand for grapes is more stable compared to other agricultural commodities, and considering the currently low yield levels, there is a potential for quick growth.

Suitable natural conditions for apple production, especially in Shida Kartli region, create attractive opportunities for growth. Farmers who managed to upgrade their production techniques and switched to growing more productive breeds of apples easily find market for their products in local retail stores as well as on export destinations. In addition, comparably smaller plots of land can also be profitable if used for the production of apples (up to 5 ha).

Hazelnuts are the largest agricultural export product for Georgia, local farmers are still inefficient and the cost effectiveness of the production can be improved quickly if farmers manage to increase planted areas for hazelnuts and utilize economies of scale. The demand for Georgian hazelnuts is particularly high in the EU countries (Germany, Belgium, and Great Britain), which currently represent major destinations for Georgian hazelnuts.

⁵⁷ Peer countries include Slovenia, Croatia, Albania, Turkey, Azerbaijan, Armenia, Serbia, Montenegro and Moldova

7. RECOMMENDATIONS

As demonstrated by several earlier studies, agricultural sector has the largest opportunity to grow among other sectors of the economy of Georgia. Productivity levels for most agricultural products are well below the Central, Eastern and Southeastern European countries. There are numerous problems that are hampering development of agricultural production and it is hard to pinpoint any particular problem that deserves more attention than other obstacles, however, based on the previous studies and surveys as well as on the analysis of this report, the following problems that require particular attention have been chosen:

PROBLEMS	SOLUTIONS AND RECOMMENDATIONS
<i>Obsolete infrastructure in rural areas, outdated irrigation and drainage systems</i>	1. <i>There is a need for higher public investment in agricultural infrastructure. Quality of roads from villages to regional centres have to be improved to enable farmers easily access domestic markets and other resources in the regional centres.</i> 2. <i>Irrigation systems, which currently cover only about one fifth of arable land, need to be upgraded, especially in dry areas. This will significantly raise the productivity.</i> 3. <i>Basic infrastructure and utility services such as energy supply and Internet have to be financed more actively by the state to improve the quality of life in rural areas. Availability of basic infrastructure will increase the productivity of workers as well as decrease the rates of migration from rural to urban areas, especially from mountainous areas.</i>
<i>Fragmented land</i>	1. <i>Ministry of Agriculture in cooperation with donor institutions have to launch the program of land registration and create complete land cadastre. Currently owners of small land plots have no incentives to register their land. Currently costs of the registration are quite restrictive for individual farmers.</i>
<i>Lack of knowledge and entrepreneurial skills</i>	1. <i>Using already existing extension centres in the regions the Ministry of Agriculture can provide better targeted trainings for farmers.</i> 2. <i>Foreign investors represent important source of knowledge that can be effectively transferred to domestic farmers. Complete ban of foreign ownership of land has to be replaced with more meaningful legislature not to completely close this important channel of knowledge for domestic farmers.</i>
<i>Non-existent market information systems</i>	1. <i>Ministry of Agriculture has to create and constantly update databases on agricultural production, consumption and prices, and develop forecasting capacities. Having information on possible trends of development, farmers can better plan their investment.</i> 2. <i>Signing the DCFTA with the EU opens up new possibilities for domestic producers of agri-food products. Market information systems should provide farmers with knowledge about the demand and supply conditions for various products on potential export destinations.</i>

References

"Doing Business 2014." *World Bank*, October 29, 2013.

Jesee, Ursula. "Economic Prosperity Initiative: Sector Assessment Report." *USAID*, January 26, 2011.

Welton, George. "Comparative Analysis of Agriculture in the South Caucasus." *UNDP*, January 1, 2013.

"Strategy of Agricultural Development: International Development and Georgia." *Economic Policy Research Center*, July 18, 2012.

"Competitiveness of Georgian Agriculture: Investment Case Studies." *Economic Policy Research Center*, July 18, 2014.