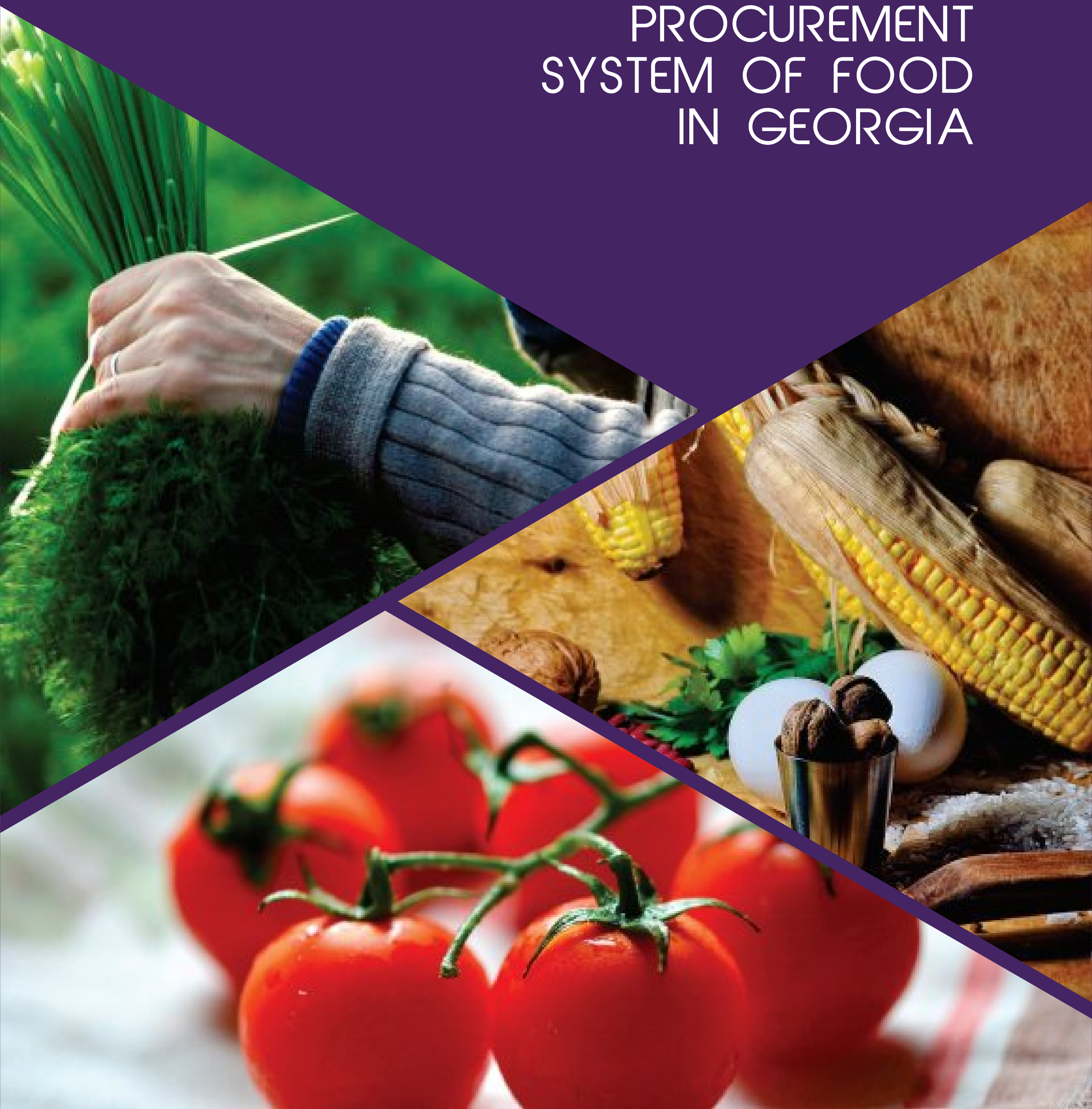
ევროკავშირი
საქართველოსთვის
The European Union for Georgia

PMCG

OXFAM

MAPPING OUT PUBLIC PROCUREMENT SYSTEM OF FOOD IN GEORGIA



The research has been produced with the financial assistance of European Union within the project "Improving regional Food Security in the South Caucasus through National strategies and small holder production". The content of this publication are the sole responsibility of the Policy and Management Consulting Group (PMCG) and can in no way be taken to reflect the views of European Union and Oxfam.

MAPPING OUT PUBLIC PROCUREMENT SYSTEM OF FOOD IN GEORGIA

Table of Content

Product
Vegetables

Annual consumption*
7.63 mln. GEL

Local production
5.27 mln. GEL

Share of local production
69%

Product
Cereals

Annual consumption
0.31 mln. GEL

Local production
0.24 mln. GEL

Share of local production
79%

Product
Cheese products

Annual consumption
2.36 mln. GEL

Local production
2.29 mln. GEL

Share of local production
97%

Product
Poultry

Annual consumption
3.6 mln. GEL

Local production
1.2 mln. GEL

Share of local production
35%

Product:
Tea

Annual consumption
0.07 mln. GEL

Local production
0.06 mln. GEL

Share of local production
76%

Product
Beef

Annual consumption
16.2 mln. GEL

Local production
14.1 mln. GEL

Share of local production
87%

Product
Fruit

Annual consumption
0.8 mln. GEL

Local production
0.7 mln. GEL

Share of local production
90%

Product
Egg

Annual consumption
1.5 mln. GEL

Local production
1.47 mln. GEL

Share of local production
98%

Product
Honey

Annual consumption
0.3 mln. GEL

Local production
0.2 mln. GEL

Share of local production
68%

*Annual consumption is the average consumption during the last three years, 2014-16.

Key findings*:

- Average annual food procurement is approximately 118 mln GEL**;
- Cheese and egg are the products with the highest local food self-sufficiency;
- Poultry is the product with one of the lowest local food self-sufficiency, the share of local production is only 35%.
- Small Holder Farmers' (SHFs) direct participation in tenders is very limited. In the absolute majority of contracts, we observe that product is delivered by intermediates, vendors and the decision about delivered product is made by them.
- Cooperation between SHFs is an optimal but not desirable strategy from the farmers' viewpoint.
- Cooperation between SHFs and logistic companies exists but is mostly informal.
- When the volume of the tender increases, local food supply is less probable.
- Splitting the tenders by region increases competition in the market and creates better conditions for small local farmers to participate. Smaller contracts are less risky and increase the opportunities for small farmers.
- High import share is mostly explained by limited production capacity.
- The ministries are the largest procuring entities for most products, except fruit and eggs.
- The most markets are moderately competitive. However, beef and fruit are competitive.

The recommendations for SHFs to fully integrate into the state procurement system:

- **Splitting tenders by region** reduces the volume of each contract. This increases the chance of local food delivery;
- Small farmers mostly produce one type of product. However, tenders require several type of product at the same time. This automatically excludes SHFs from tenders. **Splitting the contracts by the homogenous food categories** is a possible solution to integrate SHFs in procurement system;
- **Cooperation between SHFs** supports short supply channel and therefore SHFs' participation in procurement system;
- SHFs directly or indirectly participate in tenders. Indirectly they participate through logistic companies. The optimal way for risk averse SHFs is to **cooperate with logistic companies.**
- **SHFs can also provide logistic activities.** They can deliver not only their own product but also the product of other producers to be able to participate in tender with multiple products.
- **Higher requirements** of product specification should be perceived as an opportunity rather than threat by suppliers.

* The data does not give us the opportunity to see the dynamics of public procurement. The reason is that the duration of contracts does not coincide with the calendar year.

** The calculation is based on the data of the last three years. The growing tendency of food procurement is also taken into account.

Introduction

A movement to purchase locally sourced healthy food is alive and well not only in developing countries but in developed countries as well. Such efforts are already helping households in terms of gaining better access to healthy food, creating quality food system-related jobs, and supporting local entrepreneurship. Growing attention is now being paid to public institutions and government agencies in the implementation of this goal. They are the major purchasers of goods and services and are also the main players in procurement policy implementation. Supporting local food procurement complements many popular direct-to-consumer models, such as farm-to-school, farm-to-hospital and farm-to-institution models. These models involve the provision of local, minimally processed food to public institutions such as public schools, universities, hospitals, prisons, and other government-run facilities.

Food procurement offers an opportunity for the public sector to create more equitable food systems by expanding the farm-to-institution model to support small and medium-sized family farmers which have so far been unable to access these large institutional markets. Several procurement policies and programs have been launched over the last years in different countries to provide such opportunities. At the same time, procuring food and catering services can be complex in terms of time constraints and expertise. The public sector uses various approaches in procurement. Therefore, the market fails to see a clear signal from public institutions about their needs. As a result, the public procurement process can be confusing from the supplier's viewpoint. This barrier makes it difficult for Small Holder Farms (SHFs) to plan their capacities and access the market.

This report aims to identify the areas in which improvement will be necessary for public procurement to increase the participation of SHFs in the procurement process in Georgia. We measure the total demand of food by public institutions and identify the share of local food therein. Based on this information, suppliers will easily be able to identify the appropriate area for investment. In addition, we investigate to ascertain the main regulations for food procurement, as well as those which exclude SHFs.

We use data from Public Procurement Agency (SPA) as well as interviews with stakeholders, while 2510 contracts, signed during the period of 2014-2016, are studied. From each contract, we extracted information about the procuring entity, the supplier of the product, the procuring food category, and the origin of the food products. The empirical analysis shows that the following proportion of each food group was locally produced: vegetables70%, Cereal – 79%, Cheese products – 97%, poultry - 35%, beef 87%, fruit – 90%, egg – 98%, honey - 68%, fish – 0%. The examination also revealed that there are no direct restrictions in procurement regulations which hinder SHFs but there are some indirect obstacles which hinder small farmers from participating in large tenders. In large tenders, SHFs are not able to enter due to limited production capacities and a high risk of failure. Besides these risks, large tenders also create opportunities for companies to increase production capacities and quality. Based on the interviews, the problem of cooperation between SHFs has also been raised.

Overview of international experience

Local food procurement policies adopted by public institutions can bring economic, social, and environmental benefits to communities. Locally procured food is fresher, more nutritious and tastier because of the short supply channel and seasonality. In addition, the most important benefit is that local food procurement increases domestic food self-sufficiency. Countries with a high level of food self-sufficiency face a lower risk of external supply shocks. Another indirect benefit of local food procurement is related to strengthening the accountability and transparency of public institutions and local producers.

According to anecdotal evidence, local food procurement supports local producers. As a result, increased income at producer level, higher employment, and poverty reduction are expected. Additionally, local food procurement can support farmers' markets, cooperative formation and enhance cooperation between farmers and vendors.

In terms of the environmental aspect of local food procurement, there are fewer intermediate participants during the delivery process. Thus, fewer transportation resources are needed. As a result, lower emissions are inevitable. Local procurement can also be an effective tool to preserve the ecosystem through supporting traditional food cultures and native species which can be essential for sustainability.

Given the positive aspects of local food procurement, there are various formulas advocating for a local food procurement policy or set of policies. The planning and implementation of such policies is obstructed by the complexity of the country's national food system. Consequently, the heterogeneity of optimal local food procurement policies among countries is obvious. There are several models for procurement policy implementation (Table 1).

Table 1. Models for local food procurement policies

Procurement model	Description
Targeted percentage of local food purchases	A percentage of all food purchases must be from sources within a particular geographic area.
Mandated percent price preference	This model requires agencies to purchase locally-produced food when its price is within a designated percentage of the cost of similar food that is not sourced locally.
Discretionary geographic price preference or general geographic preference	States would allow agency discretion to spend more on local products over foreign products.
Statement of support for local purchasing	This option affirms the local jurisdiction's or state legislature's support of local food but does not mandate local preference.

Subtract points from the bids of suppliers who source locally	Reduction of the price per unit of a certain amount or percentage for suppliers who commit to sourcing locally.
"Tie goes to local" preference	If all other factors, such as quality, cost, and quantity, are equal, the state entity would purchase the local product over foreign products.

Source: Authors' own elaboration, based on Equitable Development Toolkit, Local Food Procurement

In the UK, the public sector spends about £2.4bn per annum procuring food and catering services, which represents approximately 5.5% of UK food service sector sales. Public procurement provides substantial revenue to the UK food and farming sector and makes an important contribution to the financial success and health of the rural economy. The public sector is estimated to spend about £0.6bn on imported product. In order to encourage local production in public procurement a balanced scorecard method for buying catering service has been developed and introduced[1]. This makes procurement service more consistent and rewards innovation. It also helps procurers to buy high quality local food, compliant with EU laws. This method is beneficial not only for procure but for suppliers as well. The suppliers can find out what public sector are looking for and place themselves in the best position to win tenders.[2]

Similar to UK, Italy has a rich experience in sustainable food procurement. In addition, food education plays a significant role in supporting public procurement. In 1999, the Italian government launched the rule which guarantees the promotion of organic agriculture production of quality food products. This law helped to facilitate public procurement of local, organic food in Italy.[3]

In the USA, heterogeneity exists not only at country but at state level as well. For example, in Illinois the Local Food, Farms, and Jobs Act (30 ILCS 595/10) states that in order to create, strengthen, and expand local farm and food economies throughout Illinois, it shall be the goal of this State that 20% of all food and food products purchased by state agencies and state-owned facilities should be local farm or food products by 2020. On the other hand, in Alaska[4], any state entity must purchase its agricultural products from farms within the State as long as the in-state product costs no more than seven percent above similar out-of-state products and the in-state product is of the same quality. Similar to Alaska, in Massachusetts, when given the choice between state and out-of-state produced products, state agencies are required to buy the local products as long as the prices are not more than 10 percent more expensive than the out-of-state option (Mass. Gen. Laws, ch.7, §23B (a and c)).

[1] Balanced scorecard method is based on the methodology from the procurement and engagement activities used by the Olympic Delivery Authority. The plan is perhaps an unexpected Olympic Legacy outcome.
[2] Bonfield (2014). "A Plan for Public Procurement", Enabling a healthy future for our people, farmers and food producers.
[3] MacLeod and Scott (2007). "Local Food Procurement Policies: A Literature Review", *Ecology Action Center for the Nova Scotia Department of Energy*.
[4] Alaska's Local Purchasing Preference Statute, Local Agricultural and Fisheries Products Preference Statute (AS 36.15.050), or the "Seven Percent" statute and the Procurement Preference for State Agricultural and Fisheries Products (Sec. 29.71.040).

The other geographic preference methods are "one-penny=one-point" and "percentage local"[5]. Reduction of the price per unit of a certain amount or percentage for suppliers who commit to sourcing locally is the main principle of the "one-penny=one-point" method. For example, the kindergartens' union decided to announce a tender on apples. According to the tender documentation, the local product is preferred. This means that local apples will be awarded 10 points in the selection process. In this case, ten points are equivalent to a ten-cent reduction in price for the purposes of evaluating the lowest bidder.

Table 2. "One-penny=One-point" method

	Company 1	Company 2	Company 3
Cost per kilo (GEL)	2.85	3.15	3.00
Geographic preference (satisfied or not)	No	Yes	Yes
Preference price adjustment	0.00	0.10	0.10
Adjusted price with preference points	2.85	3.05	2.90
Actual Cost of the product	2.85	3.15	3.00

Source: Authors' own elaboration, based on Procuring Local Foods for Child Nutrition Programs, USDA

Table 2 illustrates how the mechanism "one-penny=one-point" works. The initial price is the lowest in the case of Company 1. But local production is preferable for the procuring entity. This means that Company 2 and Company 3 have the preference price adjustment opportunity. Consequently, the prices for Company 2 and Company 3 are 0.1 GEL lower than the initial prices. As a result, according to the mechanism of such tenders, the winner is the company with the lowest price after price adjustment. Nevertheless, Company 1 does not satisfy geographical preferences and does not have the price adjustment opportunity, but is still the winner of the tender. This means that the "one-penny=one-point" does not automatically mean that locally produced products are selected. So, this mechanism does not wholly prevent competition, it merely makes local products preferable.

This method does not give some room to suppliers to vary their decisions. This means that companies deliver either only local or imported products. So, the combination of in and out of country products is not allowed. On the other hand, the low capacity of domestic producers is a topic of keen discussion in most countries whereby companies are able to deliver only a fraction of local production.

[5] Procuring Local Foods for Child Nutrition Programs, United States Department of Agriculture (USDA).

Table 3. “Percentage local” method

	Company A	Company B	Company C
Bid price (GEL)	30 000	40 000	29 000
Percentage of local Product	10%	70%	50%
Threshold of the share of local product 60%	No	Yes	No
Preference Price Adjustment (-20%)	0.0	8 000	0.0
Adjusted Price with Percentage Preference	30 000	32 000	29 000
Actual Cost of the Product	30 000	40 000	29 000

Source: Authors’ own elaboration, based on *Procuring Local Foods for Child Nutrition Programs, USDA*

The share of local products is allowed in the “percentage local” method. Table 3 shows an example of the “percentage local” method. Assume that a public school issues a request for proposals for fresh fruits and vegetables. For the purposes of evaluating bids, the school awards a ten-percent price preference to any supplier that can provide at least 60% of the requested items produced locally. Company B is the only one that is able to supply more than 60% of the requested items produced locally. Company B receives a twenty-percent reduction in price for evaluating bids. But despite the reduction of the bid price, Company B is not the lowest bidder. If price alone is the determining factor, Company C receives the contract and delivers 50% local production.

Optimal local food procurement policy does not work alone. A sustainable food supply chain is necessary as well. In recent times, short food supply chains (SFSCs) and local markets, where farmers sell their products directly to consumers, are prioritized in all EU member states. There is no common definition of SFSCs, although they are broadly understood to include a minimum number of intermediaries. Based on the definition of Common Agricultural Policy for 2014-2020: “a short supply chain – “a supply chain involving a limited number of economic operators, committed to cooperation, local economic development, and close geographical and social relations between producers, processors and consumers”.

SFSCs give small farmers bargaining power which enables them to retain a greater share of their products' market value, through the elimination of intermediaries. As a result, the income of farmers increases and, moreover, the final consumer can trace the food to a known producer. Moreover, SFSCs also correspond to the idea of sustainability. Their advantages include a fairer price, access to fresh and seasonal products, reduced environmental impact and greater social cohesion at local level. Local economies also benefit from such schemes, which have the potential to create jobs.

As mentioned above there is no clear definition of SFSCs. Thus, the SFSC is a broad concept and can be divided into the following three categories[6]:

- Direct sales;

[6] EU Rural Review, No 12, Summer 2012.

- Collective direct sales;
- Partnerships.

Direct sales are the simplest method of SFSC and involve a direct transaction between farmer and consumer. They can take place in the farm shop or at farmers' markets. On the other hand, electronic tenders in the case of state procurement systems give farmers the opportunity to directly participate in every tender without intermediates and without other vendors.

"Farm-to-school" approach

Schools started using local foods in school meals, and teaching students about where their food comes from in the early 1990s. Nowadays, farm-to-school programs are thriving in every state and Washington, D.C. USDA Farm to School Census, fielded in 2015, shows that 42 percent of school districts participate in farm-to-school activities. This equates to more than 42,000 schools, impacting more than 23.6 million children.

School districts spent almost $790 million on local foods for school meals during the 2013-2014 school year, a 105 percent increase on the $386 million of local food purchased during the 2011-2012 school year. On average, it is about 11 percent of their total food budget. Most districts purchase local fruits and vegetables, followed by local milk, baked goods and other dairy products.

For farmers, selling agricultural products directly or through SFSCs enables them to retain a higher share of the final sale price. It can represent a significant source of revenue, and an opportunity to invest in their farm in order to expand or modernise it. There are also benefits for consumers who get fresh and seasonal products traceable to a known producer. In a more general way, they create better understanding and a relationship of trust between producers and consumers. A strong local food sector can also encourage tourism by strengthening the cultural identity of an area around its food products.

Although the benefits provided by local food procurement, the development of SFSCs and local food systems is hampered by different factors. Selling directly to consumers requires knowledge and skills that farmers do not always have. Moreover, farmers have to find appropriate facilities for production and selling as well. A major difficulty for small farmers is the administrative burden associated with direct sales, in particular the paperwork and costs linked to food hygiene legislation. Another obstacle is the limited range and volume, as well as the seasonal nature, of produce sold in SFSCs and local food systems.

Despite the fact that co-operation models can be most helpful to strengthen the position of farmers on the market, farmers have problems in joining a producer group or a co-operative. In addition, fragmented offers and lack of a collective approach makes small farmers' participation difficult in public food procurement.

The problem of accessing public procurement is of interest to this paper. As mentioned above small farmers still do not have an opportunity to fully integrate into the procurement system, so the government can either use bid price preferences methods or split contracts by region and volume. Small farmers have limited facilities to deliver products to different areas, so splitting the contracts gives the SHFs an opportunity to participate in these tenders. The limited production capacity and seasonality of production are other crucial factors behind why small farmers prefer small contracts. Small tenders are also related to fewer requirements from the procurers' viewpoint and less risk for farmers. In this case, higher competition with lower prices is also guaranteed.

To sum up, there is a growing tendency to procure local food. The government as a major consumer can play a vital role in supporting this process. There are several models as to how the government can support small farmers' integration in the state procurement system. However, the farmers themselves should take the steps toward cooperation and integration.

.

Data and methodology

The primary data used in this paper is mostly from the State Procurement Agency. We observed already completed contracts during the last three years (2014-2016). The selected sample includes vegetables, fruits, cereals, eggs, honey, and meat products (Table 4). Examining each contract individually, we extracted the following information:

- Procuring entity

The paper mostly focuses on public institutions, such as public kindergartens, public schools, hospitals, prisons, military bases, and shelters for the elderly and orphanages. Depending on the availability of data we used a different methodology of sampling in each group. Most of the public institutions participate in the procurement system as an independent procuring entity. The cases of military bases and prisons should be highlighted. In 2015, the Ministry of Defense of Georgia created a state-owned company, "State Catering Service Ltd." which is responsible for catering services for Georgian military bases. This company is involved in the procurement system. Thus, we studied its contracts.

Another special case in terms of procuring method is the Ministry of Corrections. The Ministry of Corrections is responsible for catering services for Georgian prisons. Similar to the Ministry of Defense of Georgia, we observed outsourcing but the system is different. The Ministry of Corrections announces the tender of catering service (CPV code – 55500000) per annum. The contract includes the daily menu of prisoners approved by the Ministry of Correction in cooperation (MoC) with the Ministry of Labor, Health and Social Affair (MoH)[7]. After winning the tender, the private company takes the responsibility to deliver food products to all prisons in Georgia. This company is not obliged to procure products through the state procurement system. Thus, we do not observe these procurements.

- Supplier (Winner of the tender)

The data set provides information about suppliers who have won tenders. In most cases, they are logistics companies, rather than producers. The logistics companies can deliver either local or imported products. The issue of local food procurement is mostly determined by the intermediate company, not the procuring entity.

- Region of delivery

From the contracts we also obtained information about the region of the procuring entity. This information is used to compare the regions in terms of local product consumption. We expect that regions with high capacity for food production might consume more local products.

- Product and its origin

[7] The Act of Nutrition and Sanitary-hygienic norms of the defendants and convicts (Order #87 – 83/N).

The paper mostly focuses on the primary food products without processing. The distribution of the studied contracts shows that the highest shares here were in vegetables (50% of all studied contracts), fruits (16%) and beef (10%) (Table 4.).

Together with the mentioned indicators, the primary interest here is the country of origin of procured food. There is no optimal rule as to how the contracts should be completed in terms of mentioning the country of origin of the product. There are cases when we observe the origin of the product but there are a significant amount of contracts where the origin of the product is not stated or where there are multiple sources. The contracts without country of origin are assumed to be missing values, but in cases of multiple countries we called them multiple. The multiple is a good indicator of low capacity of local production.

Together with quantitative data, we conducted interviews with stakeholders. Our sample includes all members of food supply chains. In the case of the procuring entity, we interviewed two major consumers, such namely “State Catering Service Ltd.” and “Elfi Ltd.”. From the suppliers, we interviewed SHFs as well as logistics companies.

Table 4. The distribution of the sample by product

Products	Number of contracts
Vegetables	1320
Fruits	408
Honey	11
Cereals	103
Eggs	186
Cheese products	190
Poultry	161
Beef	252
Pork	12
Fish	15
Tea	87

Source: Authors’ own elaboration

Empirical results

Vegetables

Annual consumption	7.63 mln. GEL
Local production	5.27 mln. GEL
Share of local production	69%
Competition in the market	Moderate concentrated

We studied 1320 contracts for vegetables which covered the following: potatoes, root and tuber vegetables, fruit vegetables, leaf vegetables and cabbage vegetables. Table 5 shows that, on average, annual consumption of vegetables by public institutions amounts to 7.6 mln. GEL[8]. The share of local vegetable procurement in total procurement is 69% which is about 5.3 mln. GEL.

The most demanded vegetable is the potato (annual consumption – 4.5 mln. GEL). The consumption of potato is about seven times larger than the second largest vegetable category, the carrot. The share of locally produced potato in total potato procurement is 73.2% which amounts to 3.3 mln. GEL. The study shows that the potato is mostly imported from Turkey, Ukraine and Egypt. In some cases we observe that the potato is imported from Russia and Iran as well[9]. It is worth mentioning that imported potato is mostly found in cases of long-term contracts or when the delivery period is winter.

After potato, the procurement of carrot and onion are highest, at 0.65 mln. GEL and 0.6 mln. GEL respectively. In both cases, the share of local production is about 68-69%. When the capacity of local carrot production does not meet the high demand, the carrot is imported from Turkey and Ukraine. Armenian carrot is also delivered in some contracts. A similar import structure is true for onion as well.

It should be noted that in terms of procurement, red bean is among the top five most procured vegetables (0.6 mln. GEL) but the share of local production is only 19.6%. Such a low share of local production is mostly due to the fact that in the case of large tenders the red bean is mostly imported from Central Asian countries, such as Uzbekistan and Kazakhstan. In contrast with red bean, local production is absolutely dominant in cabbage procurement (100%).

Similar to cabbage, only local products are procured in the cases of cucumber, tomato, green bean, zucchini, garden leaf, spinach and mushroom. On the other hand, the lowest share of local product procurement is recorded for dried/garden/Turkish pea (1%; imported from Ukraine).

[8] Annual consumption is calculated as an average consumption of the three consecutive years (2014, 2015, and 2016).

[9] In most cases contracts provide information about the multiple origin of the product but the exact distribution by country is not available.

Table 5. Annual Consumption of the vegetable products and share of local production[10]

	Annual Consumption	Local production	Share of Local production (%)
Potato	4,514,317	3,306,698	73.2%
Carrot	648,663	451,021	69.5%
Onion	607,647	417,121	68.6%
Red Bean	594,781	116,392	19.6%
Cabbage	574,647	574,313	99.9%
Field Bean	150,192	52,223	34.8%
Sugar Beet	143,462	134,172	93.5%
Pepper	80,378	46,766	58.2%
Dried Pea	75,344	777	1.0%
Turnip	53,420	24,027	45.0%
Cucumber	52,369	52,369	100.0%
Tomato	39,055	39,055	100.0%
Cauliflower	25,159	7,496	29.8%
Broccoli	18,808	11,285	60.0%
Green Bean	14,752	14,752	100.0%
Zucchini	12,124	12,124	100.0%
Garden Pea	7,540	-	0.0%
Lettuce Leaf	6,437	6,437	100.0%
Spinach	5,115	5,115	100.0%
Turkish Pea	2,653	-	0.0%
Mushroom	2,477	2,477	100.0%
Vegetables, total	7,629,339	5,274,617	69.1%

[10] It should be noted that we do not observe the procurement of vegetable in the case of The Ministry of Correction. The Act #87-83 issued by The Ministry of Correction together with The Ministry of Health, Labor and Social Affairs of Georgia regulates the menu of prisoners. This act states the weekly norms of potatoes (3500 gram) and other vegetable (2100 gram) per prisoner. On the other hand, the number of prisoners is about 9 800 people, on average (Geostat). To calculate the total annual consumption the following formula is used:

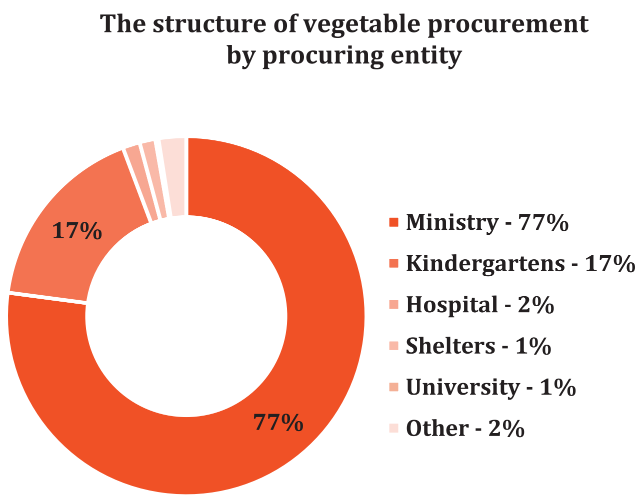
$$Annual\ Consumption = weekly\ norm\ \times 52\ \times 9800\ \times average\ price$$

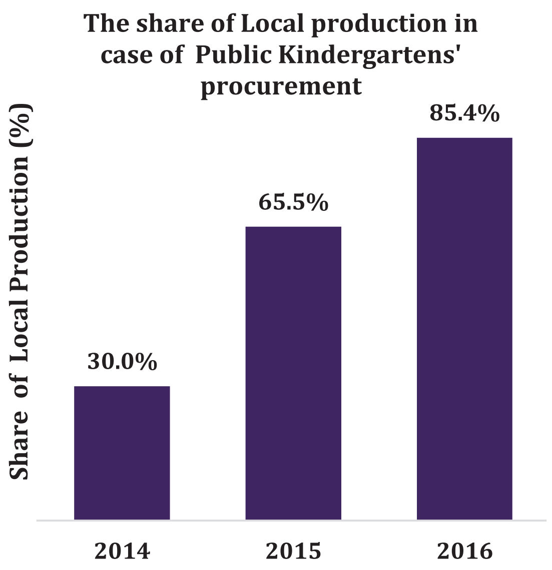
The information about prices is also extracted from the contract. 52 represents the number of weeks during the year.

Chart 1 shows the structure of procured vegetable by procuring entity. Shelters and universities consume only local vegetables while the share of local procurement of hospitals, kindergartens and ministries are 95.5%, 66.8%, and 61.5% respectively.

Chart 2 shows the dynamics of local vegetable procurement of public kindergartens. In the US and the UK the program called “Farms to Schools” is used to support local procurement. In Georgia, the study shows that the tendency towards local vegetable consumption is growing. The share of local vegetable procurement increased from 30% to 85% during the last three years.

Chart 1 and Chart 2. The structure of vegetable procurement by procuring entity and the case of public kindergartens





Source: Authors’ own elaboration

The data allows us to conduct a breakdown analysis by region. There is no clear conclusion as to why some regions consume more local products than others. Such heterogeneity is mostly explained by the volume of procurement and the production capacity of the region. Table 8 shows that Tbilisi is the largest region in terms of vegetable procurement and the share of local vegetable production is 62.3%. After Tbilisi, the second largest region is Batumi which spends about 1 mln. GEL on vegetable procurement. Batumi is one of the regions which is most oriented to procuring local vegetables (98.3%). In contrast to Batumi and Tbilisi, for Kutaisi the share of local procurement is only 57.8%. The study shows that procuring entities in Kobuleti, Akhalkalaki, Gori, Telavi, Kaspi, Surami and Lagodekhi only procure local vegetables while in Sachkhere only 15.8% of procured vegetables are local.

Table 6. Procurement of local vegetables by region

	Annual Consumption (GEL)	Local production (GEL)	Share of Local production (%)
Tbilisi	4,093,580	2,550,306	62.3%
Batumi	1,045,978	1,028,661	98.3%
Kutaisi	908,526	525,264	57.8%
Gardabani	282,823	218,918	77.4%
Lanchkhuti	165,692	157,914	95.3%
Sachkhere	112,366	17,702	15.8%
Terdjola	97,364	28,035	28.8%
Kobuleti	90,128	90,128	100.0%
Dedoflisckaro	86,273	68,307	79.2%
Dusheti	81,036	78,155	96.4%
Akhalkalaki	57,518	57,518	100.0%
Gori	52,124	52,124	100.0%
Telavi	47,765	47,765	100.0%
Kaspi	36,863	36,863	100.0%
Surami	33,330	33,330	100.0%
Khashuri	42,493	41,863	98.5%
Lagodekhi	1,040	1,040	100.0%

Source: Authors' own elaboration

Supply side is another important aspect of procurement. Higher competition is associated with lower prices. Anecdotal evidence supports the idea that imported products are cheaper than the local alternative. In ceteris paribus high competition is mostly preferable for import-oriented companies rather than for the local farmers. The Herfindhal-Hirschman Index (HHI)[11] (Rhoades, 1993) shows

[11] Herfindhal-Hirschman Index (HHI) is calculated with the following formula:

$$HHI = (\beta_1)^2 + (\beta_2)^2 + (\beta_3)^2 + \cdots + (\beta_n)^2 = \sum_{i=1}^{n} (\beta_i)^2$$

Where n is the number of firms in the market; β_i is the share of the firm i in terms of the total sales. If, for example, there was only one firm in an industry, that firm would have 100% market share, and the HHI would equal to 10,000, indicating a highly concentrated market. If there were thousands of firms competing, each would have nearly 0% market share, and the HHI would be close to zero, indicating nearly perfect competition.

that the competition in vegetable market can be assessed as "moderately concentrated"[12]. The top five companies with the highest market share are the following: Euro Farm (28%), Smart Business Solutions (21%), Food Service (16%), Nargul (5.7%) and Geoimpex (5.1%). After excluding the companies (Euro Farm, Smart Business Solutions, and Food Service) delivering the vegetables for the Georgian Army, the market is approaching "competitive".

It should be mentioned as well that the participation of individual merchants in total vegetable procurement is 31%. The heterogeneity of suppliers in terms of country of origin of delivered product is obvious. For female suppliers' only local products are delivered while for male the share of local production is only 68%.

Stories of different suppliers

Cooperation but still low capacity

"Euro Farm Ltd." – market share 28%; working with the Ministry of Defense and the kindergartens' union in Tbilisi.

"Euro Farm" is distinguishable for its attitude towards local farmers and its ways of providing assistance to them. The company cooperates with more than 200 farmers. Despite such deep integration with local farmers, in public tenders the company suffers from limited capacity of local production. This means that the company delivers not only local but also imported products.

Toward local vegetables

"Food Service Ltd." – market share 16%; working with the Ministry of Defense.

Every year, "Food Service" wins the tender announced by "State Catering Service" and delivers about 1 mln. GEL – 1.5 mln. GEL of vegetable and cereal products. The elaboration of these contracts shows that before 2016 "Food Service" did not indicate the country of origin of the product but in 2016 the company indicated that delivered products would be local.

From the farmers' point of view

Individual merchant – Giorgi Elbakidze – market share 0.2%; working with Tbilisi Zoo.

Farmer from Kareli region who delivers about 17 000 GEL of vegetable products mostly to the zoo. His production capacity is double that of each tender he participates in but he is afraid to get involved in larger contracts. The lack of access to finance and limited logistical capacity are the main reasons for this. Problems in cooperation with other farmers are also stated as a risk factor in further development.

[12] The data of 2016 is used to calculate the market concentration. This measure does not include the procurement of the Ministry of Correction. "ELFI Ltd." is already selected private company which is responsible for catering service for Georgian prisons. Thus, it does not use the procurement system for food purchasing.

The study shows that the origin of the delivered product is mostly determined by the supplier company. Farmers' direct participation in tenders is very limited. In the absolute majority of contracts, we observe that product is delivered by intermediates, vendors and the decision about delivered product is made by them.

Cereals

We studied 103 contracts in case of cereals. The cereal contains the following food categories: oats, rolled oats, corn, barley and wheat[13]. Table 7. shows that the annual consumption of cereal is 0.3 mln. GEL and the share of local production is about 79%.

Oats are the most demanded cereal product (0.2 mln. GEL) and the local share is 91.2%. Another product with a high share of local production is corn (100% local), barley (100% local) and wheat (86.3% local). In contrast, the share of local production is significantly low in the case of rolled oats (30.6% local).

Annual consumption

0.31 mln. GEL

Local production

0.24 mln. GEL

Share of local production

79%

Competition in the market

Highly concentrated

Table 7. The procurement of cereal products and the share of local production

	Annual Consumption (GEL)	Local production (GEL)	Share of Local production (%)
Oats	217,224	198,085	91.2%
Rolled oats	65,609	20,089	30.6%
Corn	11,546	11,546	100.0%
Barely	9,974	9,974	100.0%
Wheat	4,778	4,122	86.3%
Cereal, total	309,131	243,817	78.9%

Source: Authors' own elaboration

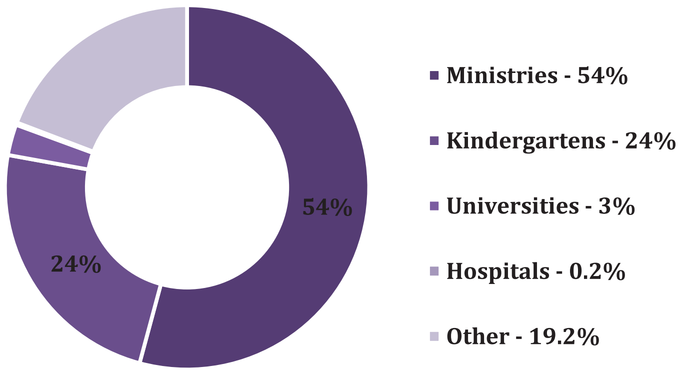
The largest procuring entity of cereals are the ministries. It should be noted that in most cases we observe that border policy department of the Ministry of Internal Affair is the main consumer of oat

[13] Kasha and rice are excluded from the sample because these products are not produced in Georgia and are whole imported from other countries.

product. They procure oats for animals. The other largest procuring entities of oats are universities, horse riding schools and Tbilisi Zoo.

Kindergartens consume around one quarter of the total procured cereal products, but here we observe that they procure due to high demand for rolled oats. Due to the limited capacity of local products, rolled oats are mostly imported from Ukraine and Russia.

The structure of Cereal Procurement



In terms of supplier competition, the market for cereal can be classified as "highly concentrated". "Vazi Ltd." gets more than half of the cereal market (57%). The other largest suppliers "Loma 2000 Ltd.", "Ana Ltd", "Paata Inasaridze" and "Besik Tsutskiridze" capture only 5-7% of the market share. The participation of individual merchants in total cereal procurement is 19%. Male suppliers' deliver cereals in which 85% is locally produced while the share of local production is only 9% in case of female suppliers. This is mostly due to the significant amount of contracts without referring to country of origin of delivered product.

Cheese products

We studied 190 contracts covering cheese products. Cheese products include the following food categories: table cheese, cottage cheese, cheese spreads, soft cheese, blue cheese and feta cheese. The study shows that the annual consumption of cheese products is 2.3 mln. GEL and the share of local production is about 97%.

It should be noted that in the cases of table, cottage and soft cheese, local production is dominant. Public institutions mostly consume local cheese products, except cheese spreads and feta cheese. Here we observe that cheese spreads are imported from Poland while feta cheese is imported from Denmark.

Annual consumption
2.4 mln. GEL

Local production
2.3 mln. GEL

Share of local production
97%

Competition in the market
Moderately concentrated

Cheese products are consumed by a variety of public institutions. The largest consumers are the ministries with a 64% share. The second largest cheese procuring entity is the kindergartens' union (29%).

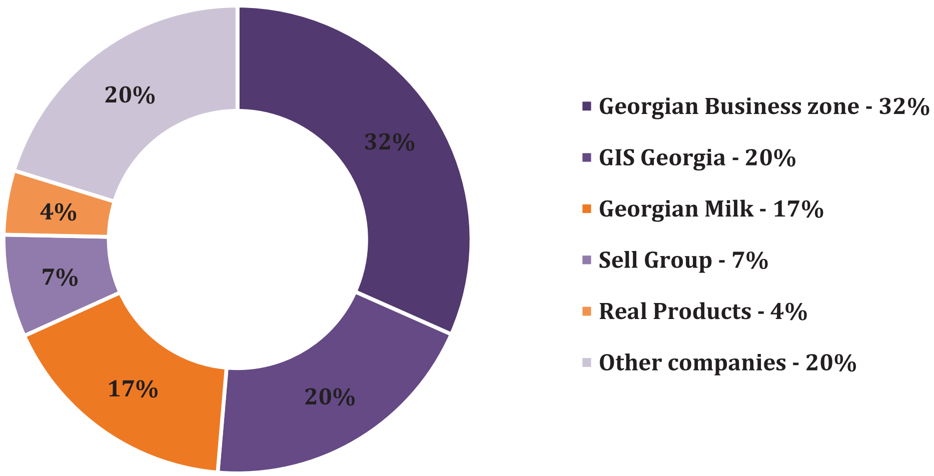
Table 8. The annual cheese product procurement and the share of local production

	Annual Consumption (GEL)	Local production (GEL)	Share of local production (%)
Table cheese	1,272,586	1,272,586	100%
Cottage cheese	1,003,362	1,003,362	100%
Cheese spreads	71,295	-	0%
Soft cheese	16,817	16,817	100%
Blue cheese	467	-	-
Feta cheese	140	-	0%
Cheese product, total	2,364,667	2,292,765	97%

Source: Author's own elaboration

The cheese market is dominated by local production but the competition in the market is still a topic of discussion. Market concentration measured by the HHI shows that in the cheese products market we observe moderate concentration. Chart 4 shows that among the top five suppliers only two of them "Georgian Milk" and "Real Products" are also producers while the others are purely distributing companies. The participation of individual merchants in total cheese procurement is only 8%.

Chart 4. The structure of cheese product suppliers



Source: Authors' own elaboration

Successful story of “Tamro Bebos Fermidan”

Independent milk producers from Dusheti region decided to create a small firm for milk and cheese production. With the support of the “Enterprise Georgia” program they acquired 15000 GEL and started their operations.

Today, the products of “Tamro Bebos Fermidan Ltd.” are sold not only in Dusheti but in Tbilisi as well. Moreover, in December 2015 the company registered in the public procurement system and delivers both local and imported products. In the case of cheese products, the market share of this company is only 0.7% but it is progressing.

Poultry

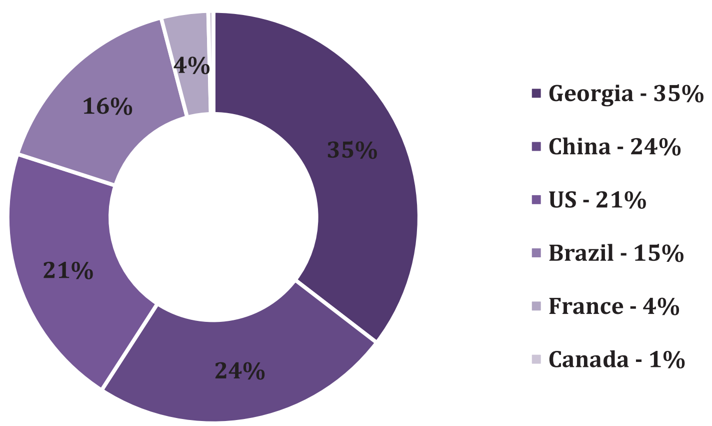
Annual consumption 3.6 mln. GEL
Local production 1.2 mln. GEL
Share of local production 35% Competition in the market Strongly concentrated

We studied 161 contracts concerning poultry. The study shows that the annual consumption of poultry products is 3.6 mln. GEL and more than the half of poultry is imported. Local procurement amounted to around 1.2 mln. GEL.

As chart 5 shows the share of local production to be about 35%. On the other hand, imported poultry is also quite diversified in terms of country of origin. Overall, 24% of the total poultry procured is imported from China. The second largest importer country is the US (21%). Poultry products are also imported from France, Brazil and Canada as well.

The structure of the market shows it is “strongly concentrated” but in the top five suppliers we observe only logistics companies rather than producers. “Kasko 2015 Ltd.” and “Foodline 2015 Ltd.” take around 74% of the market share. These companies are delivering products to the Ministry of Defense. We cannot observe the country of origin of delivered products in most cases but we can ascertain that some poultry products are delivered frozen.

Chart 5. The structure of procured poultry by country of origin



As shown from the distribution, we have observed three contracts where around 100 000 GEL of local poultry products are delivered. But the stories behind these contracts are different. In two cases out of three the logistics company ("Eleniko Ltd.") delivers local products, produced by "Agriculture Ltd." and "Gonio Poultry farm". The third case is different because the SHF (individual merchant "Mamuka Menteshashvili") participates in public procurement and delivers its own products. The participation of individual merchants in total poultry procurement is 21%. The preferences of male and female suppliers in terms of local production is the same. The share of local production in total procurement is 85% in both cases.

Large contracts

Threats or opportunity?

Together with the Ministry of Defense, the Ministry of Corrections is another large procuring entity in terms of poultry. "ELFI Ltd." is responsible for providing catering services for the Ministry of Corrections. Due to the high demand for poultry and the limited production capacity, "Poultry Georgia, Koda Ltd." decided to launch a new production line mostly supplying "ELFI Ltd.". This is an example of how the large tenders can be used as an opportunity to increase production capacity.

Fish

We studied 15 contracts concerning fish. The study shows that the annual consumption of fish is 2.1 mln. GEL and all delivered products are imported (100%). Fish products are mostly imported from Canada, Spain, Pakistan, Mexico, and the US.

The largest procuring entities are the Ministry of Defense (0.8 mln. GEL) and the Ministry of Corrections (1.2 mln. GEL). Based on the interviews with stakeholders, an interesting topic was raised. "State Catering Service Ltd." which is responsible for food procurement for the Ministry of Defense announced a tender for canned fish products with an indication that the producer company should have an ISO certificate. At the same time, "Kula Ltd." started to produce canned fish products but they did not have ISO certificate. After tender requirement was set "Kula Ltd." decided to acquire an ISO and participate in such tenders. This is a good example of how conditions in tenders can be viewed as an opportunity for future development.

Pork

We studied 12 contracts in case of pork. The study shows that the annual consumption of pork is 2.2 mln. GEL and almost all pork is imported. Such high import share is mostly determined by the procurement of "State Catering Service Ltd." It consumes frozen pork which is highly probable to be imported. In case of smaller contracts fresh local pork is delivered. Thus, the limited production capacity is still the case for the pork as well.

Beef

Annual consumption

16.2 mln. GEL

Local production

14.1 mln. GEL

Share of local production

87%

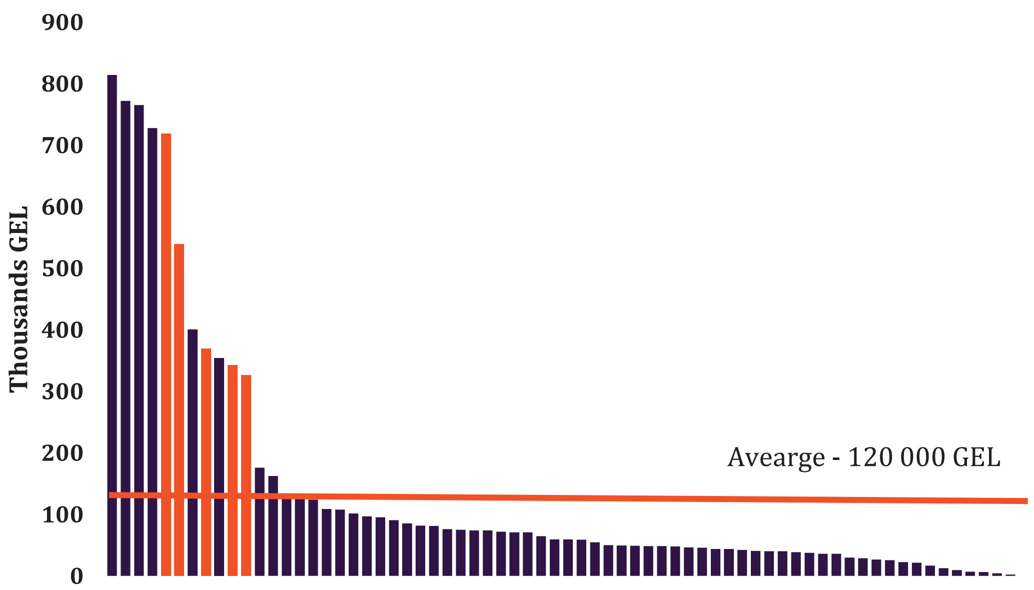
Competition in the market

Competitive

We studied 252 contracts concerning beef. The study shows that the annual consumption of beef is 16.2 mln. GEL and the share of local production is 87%. We observed that around half of beef is procured by the ministries while the procurement of beef by kindergartens amounts to 39%.

The distribution of local procurement shows that the average contract size is about 120 000 GEL. It should be mentioned that in most contracts the suppliers are not producers but logistics companies. However, in some cases, farmers participate in the public procurement system and supply their own products. We observed that the largest contract for the delivery of local beef is about 800 000 GEL. For larger contracts beef is imported from different countries, such as Brazil, Paraguay, Argentina, Germany, Netherlands, Belgium, Poland, Ukraine and Russia. When the contract sizes are large, local producers do not have enough production capacity to fully meet the demand and therefore they do not get involved.

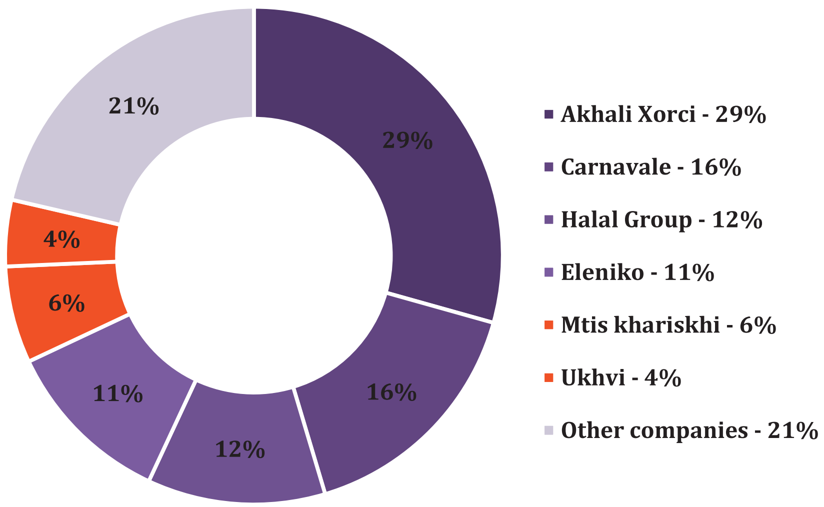
Chart 6. The distribution of local beef procurement



Source: Authors' own elaboration

As we mentioned above, when the contracts are large the SHFs do not take the risk and prefer to collaborate with logistics companies. Therefore, the market share of such logistics companies are relatively high compared to local farmers. Chart 7 gives information about the market share of beef. The HHI shows the market is "competitive" but logistics companies are dominating. The top three companies are mostly working for the Ministry of Defense and it is difficult to identify the origin of the product. While the companies "Mtis Khariskhi Ltd." and "Uxvi" are producer and supplier as well. The participation of individual merchants in total beef procurement is 28%. The preferences of male and female suppliers in terms of local production is the same (local production is 98%).

Chart 7. The distribution of market share in case of beef procurement



Source: Authors' own elaboration

Splitting contracts by region

Panacea or additional administrative burden

Starting from 2015, the "State Catering Service Ltd." started announcing beef tenders for eastern Georgia and western Georgia separately. The idea of splitting the tenders by region is one of the main recommendations suggested by international organizations as well as the State Procurement Agency of Georgia. In the case of beef, we observe that the volume of tenders are smaller but the origin of beef products is still uncertain. The volume of each split tender is still higher than the average size of local procurement contracts.

In 2017, the "State Catering Service Ltd." announced a new rule for procurement in the case of vegetables. Until now, the results are ambiguous. In some cases we observe that splitting the tenders has increased the share of local production. On the other hand, after this rule was enacted, the level of competition has stayed high.

As a result, splitting the tenders by region increases competition in the market and also creates better conditions for small local farmers to participate. Despite these benefits, there is also an additional administrative burden for the procuring entity, in terms of time and costs.

Fruit

Annual consumption

0.8 mln. GEL

Local production

0.72 mln. GEL

Share of local production

90%

Competition in the market

Competitive

We studied 408 contracts concerning fruit. The study shows that the annual consumption of fruit is 0.8 mln. GEL and the share of local fruit procurement is 90%. The procurement of fruit mostly depends on the particular fruit category. The procurement of apple (0.7 mln. GEL) is about 20 times higher than the procurement of the second largest fruit product, raisin (0.03 mln. GEL).

Most procured fruit is local, but in the case of raisin only 3% is produced locally. The raisin is mostly imported from Iran, Turkey, Kazakhstan and Ukraine.

The largest procuring entity of fruit are public kindergartens. The share of kindergartens in total fruit procurement is 69%. The second largest procuring entity is the ministries. The relatively low share of the ministries is mostly explained by the fact that fruit is not an obligatory part of the daily menu for prisoners. On the other hand, we observe that the fruit procurement of the Ministry of Defense is not stable. The volume and type of fruit changes year by year.

Table 8. The annual procurement of fruit and the share of local fruit procurement

	Annual Consumption (GEL)	Local Production (GEL)	Share of Local Production (%)
Apple	744,099	717,403	96.4%
Raisin	29,043	856	2.9%
Quince	28,284	23,979	84.8%
Apricot	23,582	-	-
Pear	13,744	12,226	89.0%
Orange	12,083	12,083	100.0%
Cherry	11,420	11,420	100.0%
Plum	5,983	5,983	100.0%
Kiwi	4,615	4,615	100.0%
Peach	4,491	4,491	100.0%
Tangerine	2,567	2,567	100.0%
Strawberry	2,403	2,403	100.0%
Melon	2,089	2,089	100.0%
Grapes	783	783	100.0%
Grapefruit	240	-	-
Fruit, total	885,427	800,898	90.5%

As mentioned above, “State Catering Service Ltd.” started splitting contracts by region. The results of this are shown in Table 9. In the case of lemon, after splitting the contracts we observe no significant change either in terms of country of origin or supplier. The same result is visible for apple as well. The musk strawberry case is different. Specifically, for western Georgia the country of origin of delivered products is Georgia but in the tenders for the eastern Georgia the country of origin is Turkey. A similar structure is true for peach as well. In both cases, large tenders are associated with Georgian products.

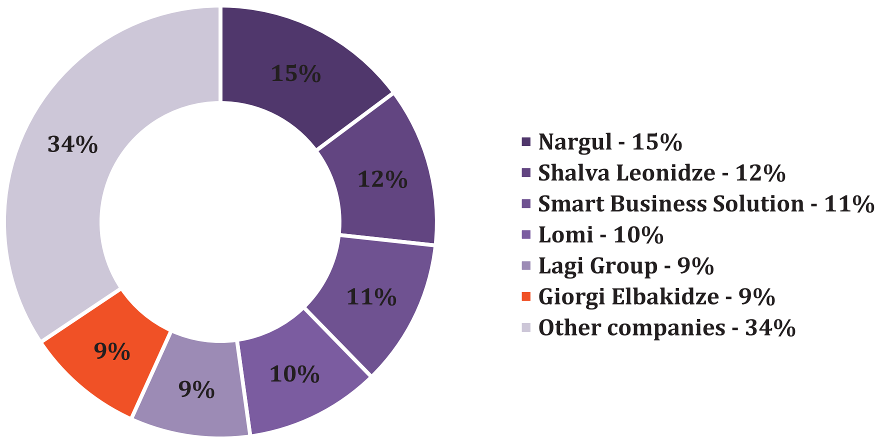
Table 9. The result of splitting contracts by region

Product	Volume	Country of Origin	Supplier
Lemon (West)	600	Georgia	Giorgi Gocholeishvili
Lemon (East)	50,000	Georgia	Giorgi Gocholeishvili
Apple (West)	1,105	Georgia	Ltd. "Gigani"
Apple (East)	426	Georgia	Ltd. "Gigani"
musk strawberry (West)	80,000	Georgia	Ltd. "Futkara"
musk strawberry (East)	180	Turkey	Ltd. "Gigani"
Peach (West)	91	India	Ltd. "Gigani"
Peach (East)	337,500	Georgia	Ltd. „Nektari 2008“

Source: Authors' own elaboration

The fruit market can be assessed as competitive. Most companies are logistics companies. Among the top suppliers, there is only one independent merchant "Giorgi Elbakidze" who produces and delivers fruit. From the interview with him, an interesting issue was highlighted. SHFs face the risk of failure in the case of larger tenders. They prefer to participate in smaller tenders and deliver remaining products to logistics companies. Mr. Elbakidze also prefers to operate independently rather than in cooperation with other SHFs. The participation of individual merchants in total fruit procurement is 21%.

Chart 8. The structure of the fruit market



Source: Authors' own elaboration

Limited production capacity

In most cases, we observe that limited production capacity deters firms from delivering local products. An interesting case is "Iberi Ltd.". Specifically, for most fruit products the company delivers the product with the following proportion: 70% of products are Georgian and the remaining 30% is imported from Turkey. Furthermore, the local products are collected from SHFs. The exact reason behind such practice is unknown but limited production capacity is highly probable.

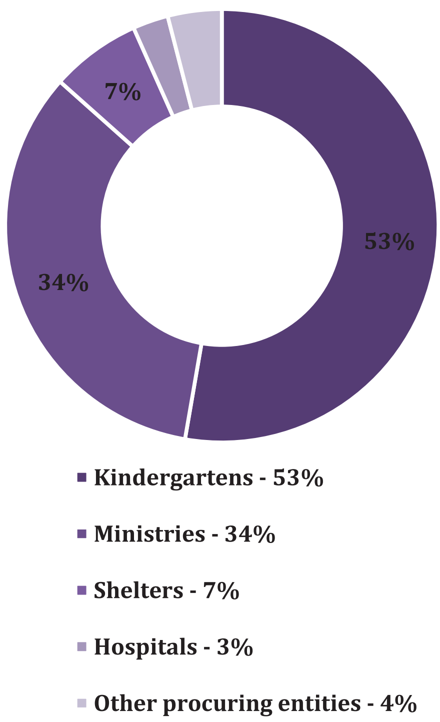
Eggs

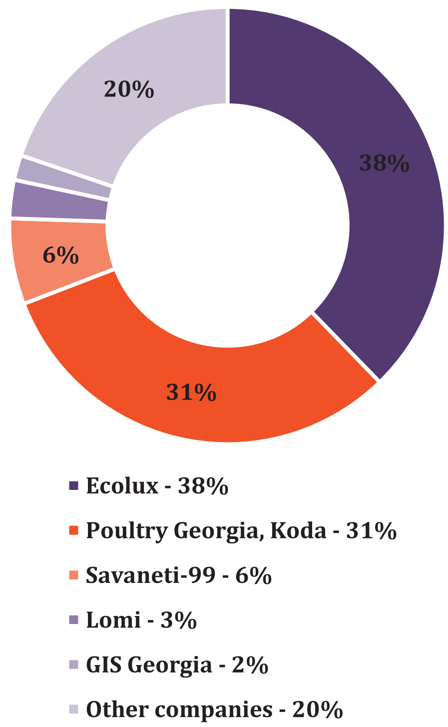
Annual consumption
1.5 mln. GEL
Local production
1.47 mln. GEL
Share of local production
98%
Competition in the market
Highly concentrated

We studied 186 contracts covering egg. The study shows that the annual consumption of egg is 1.5 mln. GEL and the share of local egg production is about 98%. The remaining 2% of egg is mostly imported from Ukraine and Belarus. The largest procuring entities are kindergartens which consume more than half of total egg procurement (56%). The share of ministries in total egg procurement is 34%.

Together with large logistics companies, eggs are delivered by "Poultry Georgia, Koda" and "Savaneti -99" as well. The range of contract sizes, where Georgian products are delivered, is from 315 GEL to 315 000 GEL. This means that there is an opportunity for SHFs to participate in tenders. The participation of individual merchants in total fruit procurement is 12%.

Chart 9 and 10. The structure of egg procurement by procuring entity and by supplier





Honey

We studied 11 contracts concerning honey. The study shows that the annual consumption of honey is 0.3 mln. GEL and the share of local honey production is about 68%. Honey is imported from Ukraine. It is mostly procured by the ministries. Another procuring entity is Tbilisi Zoo.

The competition in the honey market is assumed to be highly concentrated. The largest supplier is "Geonatural" which delivers 41% of total honey procurement. With 29%, Kula is the second largest supplier. Together with large producers, small companies, such as Futkara (16%), GIS Georgia (10%), and Kakheti (3%), are also in the market.

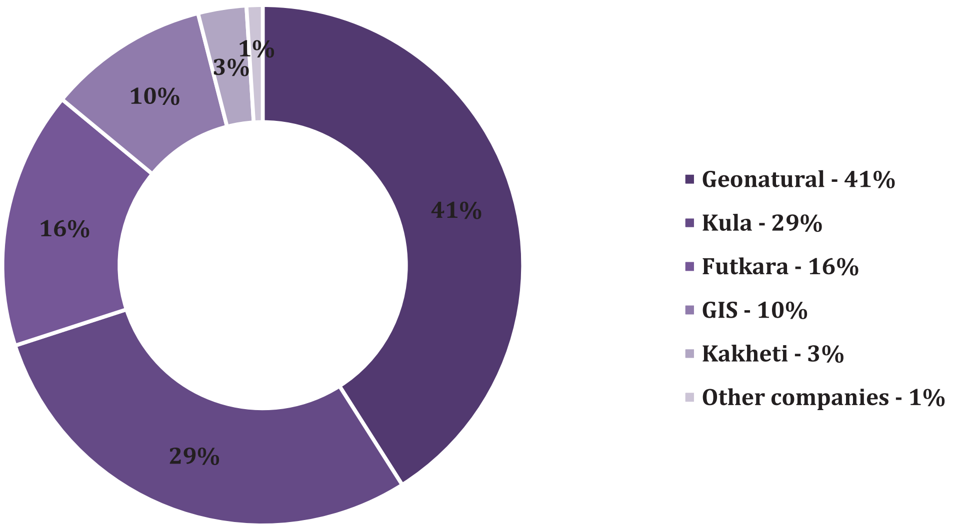
Annual consumption
0.3 mln. GEL

Local production
0.2 mln. GEL

Share of local production
68%

Competition in the market
Highly Concentrated

Chart 11. The structure of honey market



Source: Authors' own elaboration

Opportunities for Small Producers

Farmer Mr. Nikoloz Toklikishvili participates in honey procurement and delivers his own products. On the other hand, logistic company owned by Mr. Robinzon Datukashvili buys honey produced by Mr. Nikoloz Toklikishvili and delivers it. This is an interesting case of cooperation between small producers and small logistics companies.

Tea

Annual consumption
0.07 mln. GEL

Local production
0.06 mln. GEL

Share of local production
76%

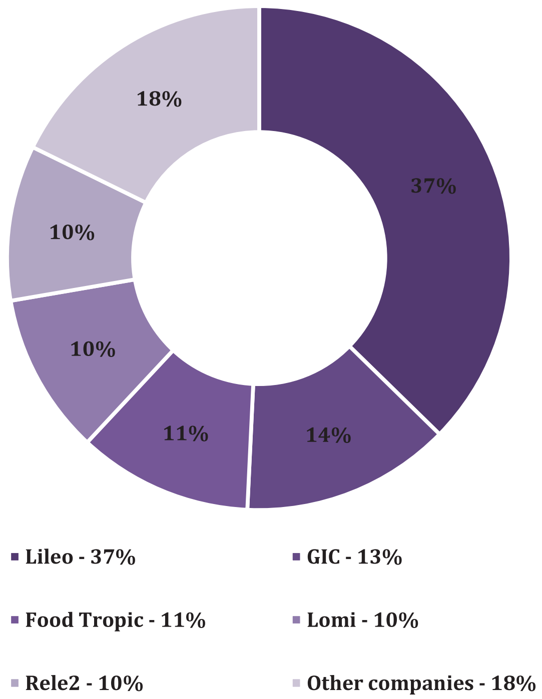
Competition in the market
Moderately Concentrated

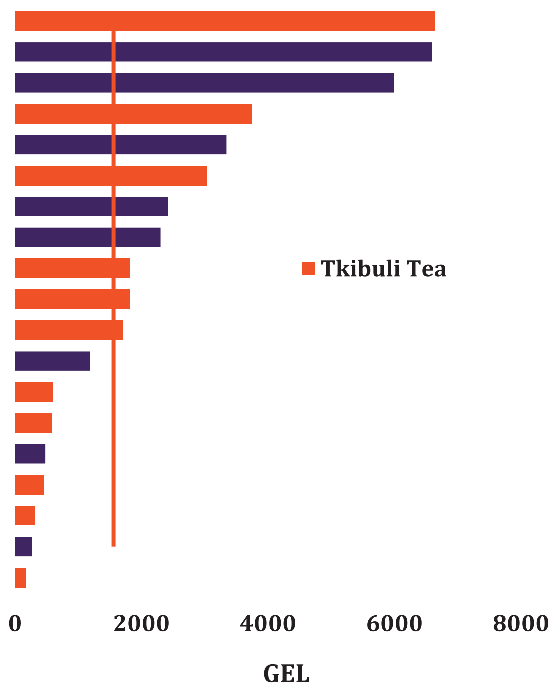
We studied 87 contracts concerning tea. The study shows that the annual consumption of tea is 0.07 mln. GEL and the share of local tea production is about 76%. The remaining 24% of tea consumption is mostly imported from China, Russia, Turkey, Sri Lanka and Azerbaijan. It should be noted that the ministries consume almost the half (48%) of the totally consumed tea by public institutions. The other largest consumers are kindergartens (39%).

The market is assumed to be moderately competitive. Only logistic companies are in the top five largest suppliers. In case of local production "Tkibuli Tea Ltd." is dominating. We observe that "Tkibuli Tea Ltd." does not participate in most of tenders directly but its production is distributed by other logistic companies. The participation of individual merchants in total tea procurement is 11%.

The average contract size is about 1500 GEL, except the Ministry of Corrections and the Ministry of Defense. These procuring entities consume about 12000 GEL tea per annum. The distribution of local procurement shows that the locally produced tea is delivered in various cases starting from 175 GEL to 6644 GEL.

Chart 12 and 13. The structure of tea procurement by supply and the distribution of local tea procurement





Conclusion

The study shows that the largest procuring food is beef (16.2 mln. GEL) followed by vegetables (7.6 mln. GEL). While the public institutions spend only 0.3 mln. GEL in the cases of cereal and honey. The shares of local production in the studied food categories are different. In the case of cheese and egg, local production is dominating. However, fish, pork and poultry are the products with the lowest local food self-sufficiency. The study also shows that the ministries are always the largest procuring entities, except fruit and egg. Public kindergartens are the major player in these markets.

Elaboration of procurement contracts showed that in most cases logistic companies are the main suppliers. Thus, the SHFs participation in tenders is limited. We observe only few farmers who produce and deliver their own product at the same time. In these cases, the volume of tenders is lower than the average contract size on the market. As a result, SHFs integration in procurement system is mostly due to the limited production capacity. The problem of collaboration between SHFs was also raised during the interviews with producers. Risk averse SHFs prefer lower but independent tenders rather than larger tenders with cooperation.

The largest procuring entities, such as the ministry of Defense and the ministry of Corrections stated their solid preferences to Georgian production. However, the problem of the low production capacity is still a problem.