

Safety and Quality Investment in Livestock:

Comparative Study on the Present Georgian Dairy Sector Safety and Quality Standards and Regulations

October 2019



GEORGIA SAFETY AND
QUALITY INVESTMENT
IN LIVESTOCK (SQIL)

ინვესტირება
უვნებელ და ხარისხიან
მესაქონლეობაში - საქართველო



**Comparative Study on the Present Georgian Beef Sector Safety and Quality Standards
and Regulations**

SQIL-2019-PROC-0009

Georgian Safety and Quality Investment in Livestock (SQIL) Project

USDA Food for Progress 2018

www.landolakes.org

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“This material is based upon work supported by the U.S. Department of Agriculture, Foreign Agricultural Service under federal award number FCC-114-2018/004-00. Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the view of the U.S. Department of Agriculture and the US Government.”

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ABBREVIATIONS AND ACRONYMS

CDC	Centers for Disease Control and Prevention
CIB	Comprehensive Institutional Building
Danida	Danish International Development Agency
DCFTA	Deep and Comprehensive Free Trade Agreement
EPF	Europe Foundation
EU	European Union
FDA	U.S. Food and Drug Administration
FAO	Food and Agriculture Organization
FAO STAT	Food and Agricultural data
GDP	Gross Domestic Products
Geo STAT	National Statistics Office of Georgia
HACCP	Hazard Analysis and critical Control point
ISSET	International School of Economist at the Tbilisi State University
ISO	The International Organization for Standardization
MP	Member of Parliament
MEPA	Ministry of Environmental Protection and Agriculture
NGO	Non-Governmental Organization
NACE	Nomenclature of Economic Activities
NFA	National Food agency
OECD/DAC	Organization for Economic Cooperation and Development/Development Assistance Committee
PDO	Protected Designation of Origin
TSG	Protected Geographical Indications
SQIL	Safety and Quality investment in Livestock
SIDA	Swedish International Development Agency
USA	United States of America
USDA	United states department of agriculture

Abstract

Georgian and comparative regulations study aims at qualitative juxtaposition of regulations governing Georgian dairy industry to those of European Union and the US for the purpose of identification of potential policy proposals for support to increase volume of dairy production in Georgia, as well as its qualitative parameters. Analysis is undertaken in light of relevant institutional reforms still underway in Georgia, as well as within the context of developmental framework set-up by the Deep and Comprehensive Free Trade Agreement (DCFTA) signed with the EU in 2014.

The study also relies on assessment of perceptions of representatives of key players of Georgian dairy industry as to the adequacy, relevance, and enabling capacity of Georgian dairy industry regulations to the ultimate goal of qualitative improvement of Georgian dairy industry. By blending desk research and key informant interview findings, the study develops practical recommendations as to the improvement of Georgian dairy industry regulatory framework. They are presented in the relevant section on recommendations.

Methodological note

The study contains several parts and uses a blend of methodological tools for development of the desired conclusions and recommendations. The *key recent trends in Georgian dairy industry* are analyzed relying on statistical information obtained from the national statistical service, GEOSTAT, as well as international sources, such as FAOSTAT, international analytical reports and assessments on global production, consumption and trend of trade in milk products. Purpose of this section is to identify/map/present key constraints to development of Georgian dairy industry at each key stage of the dairy value chain starting from production at the farm level and ending at the consumption level. The domestic and international price comparisons are also used in order to judge the extent of the pressure on domestic production and resources utilization.

The *Summary of perceptions of interviewed stakeholders* aggregates opinions of key stakeholders on legal and regulatory environment of Georgian dairy industry and its perspectives. The stakeholders comprise of representatives of the policy setters and implementers, experts, NGO-s working in the field, and private sector representatives.

A brief section on *Procedures for law and legal acts creation* follows the section on perceptions of key players and the section on *Standard recognition and management process in Georgia* precedes the section on *Legal and regulatory reforms in Georgian dairy industry*. The legal and institutional reforms are analyzed since 2005, when the Law of Georgia on Food Safety and Quality was first adopted. Subsequently, accelerated institutional and regulatory reforms since 2012 are examined in detailed as to their relevance and capacity to support development of Georgian dairy industry, as well as increase of availability of safe and quality dairy products to general population. Also, examined in this section are some laws, regulations, and programs both ongoing and planned. Practical goal of this section is to assess relevance and significance of upcoming regulations to development of Georgian dairy industry.

The section on *Comparison of Georgian dairy industry regulations to EU and US regulations* attempts at comparison of dairy industry regulations development over time for the purpose of identification of potential gaps in Georgian regulatory framework, with a particular emphasis on US regulations, that can be introduced or used for betterment of Georgian dairy industry. The above sections will be followed by *conclusions and*

recommendations. The detailed accounts on interviews conducted, lists of sources and analytical materials used are attached in **Annexes**.

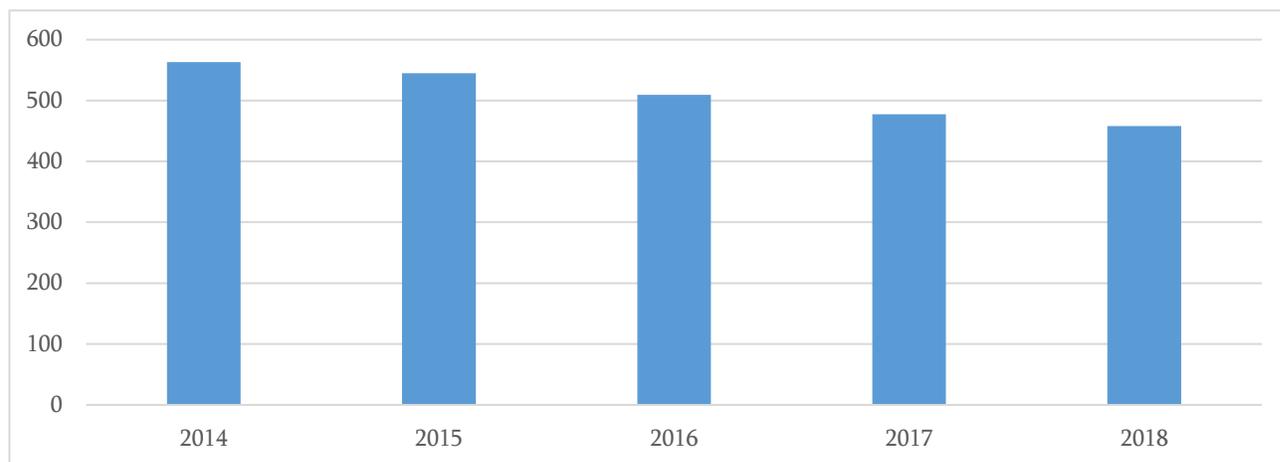
Key recent trends in Georgian dairy industry

The most relevant developments in Georgian dairy industry concern changes in number of cattle and other ruminants giving milk (including exports of cattle to the Middle eastern countries), patterns of ownership, production of milk and milk products by households and processing enterprises, as well as key price indicators (including import prices of substitutes), and changes in consumption patterns.

It should be noted, that according to the methodological change introduced by GEOSTAT during the conduct of 2014 Agricultural Census, annual agricultural survey information for the years preceding 2014 is no longer directly comparable to the information pertaining to the years afterwards. This makes arrangement and rigorous analysis of long time series complicated. Given this, it was decided to confine our analysis within the period of 2014-18. This is methodologically justified also because major institutional, policy and regulatory changes in agriculture, including dairy industry, coincide with this period. Also, some very important changes of external factors, such as sudden jump in export of live cattle, currency fluctuations, deepening of integration of Georgian agriculture with the EU also take place at the same time.

Second important methodological assumption concerns analysis of small ruminant milk production. The number of small ruminants in Georgia for a very long period of past 20 years or so, at least, falls within the range of some 5-7% of the total number of milk producing animals. Of course, from the percentage perspective, small ruminant milk production is even smaller in the total tonnage of milk produced and consumed. Also, the small ruminant milk production is even much more dispersed and localized than cattle milk production. These factors make virtually impossible emergence of serious size marketable goat and sheep milk production in Georgia, bar some specific niche products, which fall beyond the scope of this study. Thus, key milk industry parameters are analyzed based on production of cow and buffalo milk, whereas other sections of this study dealing with legal, regulatory and institutional changes assess their impact on milk production in its entirety, including small ruminant milk.

Figure 1- Number of milk cows and milk buffaloes in thousands



Source: GEOSTAT

The defining trend in basis of supply in Georgian dairy industry is a very pronounced decline in numbers of productive cattle during the period of 2014-18. This is probably due to concurrent increase of export of live cattle to the Near Eastern countries in approximately the same period. It can be argued that the decline in numbers of cattle might be caused by the increase in milk yields during the corresponding period. Such an explanation seems suspicious because if increase in numbers of cattle is driven by increased milk yields, we should have been able to observe some other developments, such as: a) at least steady volume of total milk production; b) increase in feed production/imports and feeding practices; c) improvement of breeds and productivity of animals. None of the above are demonstrated by up to date official statistics except for, perhaps well pronounced increase in imports of cattle from advanced countries during the, although, as it is said above, the link between this fact and milk yield increase is yet to be carefully explored. As an illustration, the data obtained from GEOSTAT indicates considerable increase in numbers of animals exported during last two years. Interestingly, over time the exports shift towards shipment of younger animals, which is probably due to change of consumption preferences of the importers. This sounds plausible given the fact that the unit value of exports experiences slight increase during the period concerned. It might be argued that the importing countries import young cattle from Georgia for fattening purposes but we were not able to bolster this notion by the relevant statistics of the importing countries.

Table 1. Cattle exports from Georgia in 2014-18

	2014	2015	2016	2017	2018
Number of heads	71,586	54,484	97,935	132,769	127,139
Total value of exports in USD (000)	30,067	20,103	36,415	36,009	29,533
Total weight of exported cattle	N/A	N/A	20,307,381	19,696,077	N/A
Average price per head	420	369	372	271	232
Average weight per head	N/A	N/A	207.36	148	N/A
Average price of a kilo	N/A	N/A	1.79	1.83	N/A

Source: GEOSTAT, business.org.ge

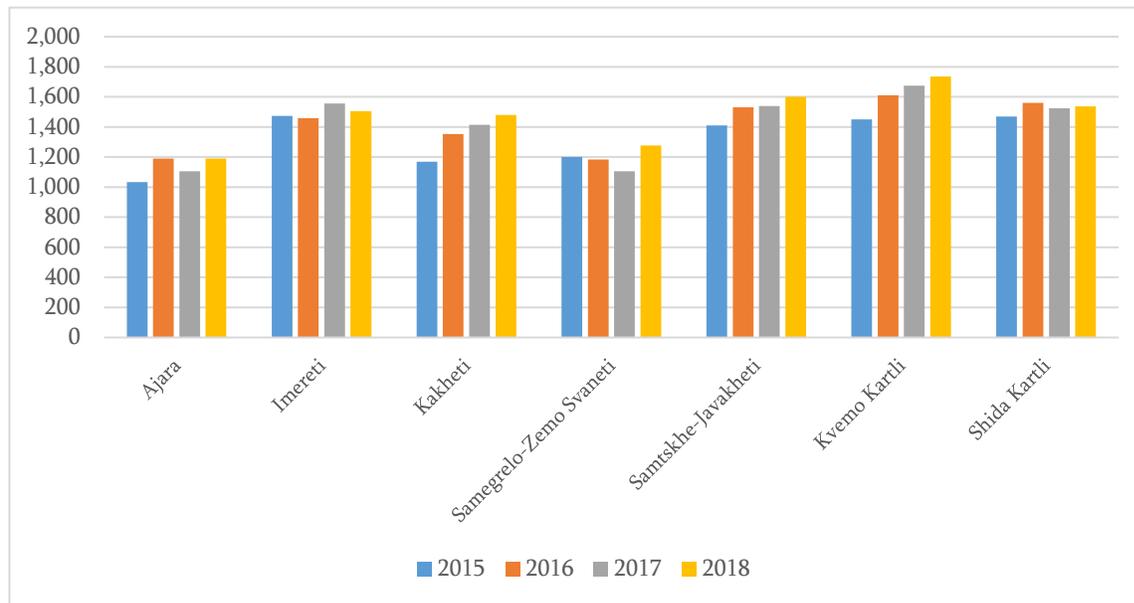
Another interesting development concerns noticeable increase in milk yields during the period under consideration in some of the largest milk producing regions of Georgia. In fact, changes in yields are so visible that they cannot be left without attempting at the explanation of possible reasons.

Table 2. Average annual milk yield (in liters) of cows and buffaloes by selected regions and % change

	2015	2016	2017	2018	% Change from 2018 to 2015
Georgia	1,325	1,421	1,432	1,486	12.15%
Adjara	1,033	1,189	1,105	1,189	15.10%
Imereti	1,473	1,459	1,555	1,505	2.17%
Kakheti	1,168	1,352	1,414	1,479	26.63%
Samegrelo - Zemo Svaneti	1,201	1,183	1,106	1,277	6.33%
Samtskhe-Javakheti	1,410	1,530	1,538	1,600	13.48%
Kvemo Kartli	1,450	1,611	1,674	1,736	19.72%
Shida Kartli	1,470	1,561	1,525	1,537	4.56%

Source: GEOSTAT

Figure 2 - Milk yields in major producing regions

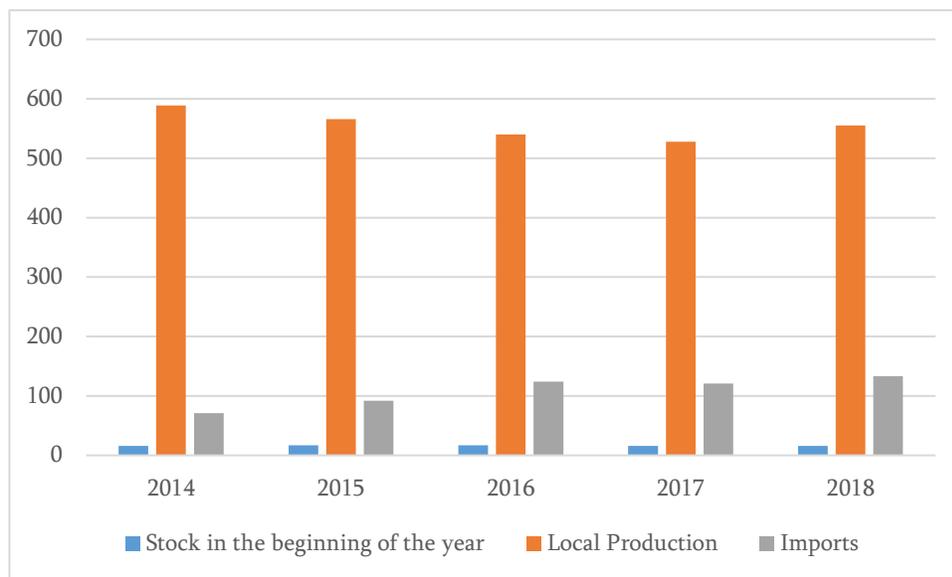


Source: GEOSTAT

If we take a glance at the parameters of the production base for milk, such as production of grass and cereals, we would not see pronounced increase during the period of 2015-18. Interestingly, the increases in milk

yields are mostly recorded for the regions, in which the decline of number of cattle is the most pronounced, bar, perhaps Samtskhe-Javakheti region. Also, during the same period, the total volumes of production experience stagnation or decline (**figure 3 below**), whereas imports of close substitute, such as milk powder demonstrate sharp increase in quantities, notwithstanding the fact that global unit price for the latter commodity did not experience similar steady decline.

Figure 3: milk and milk product stock, production and imports in 2014-2018



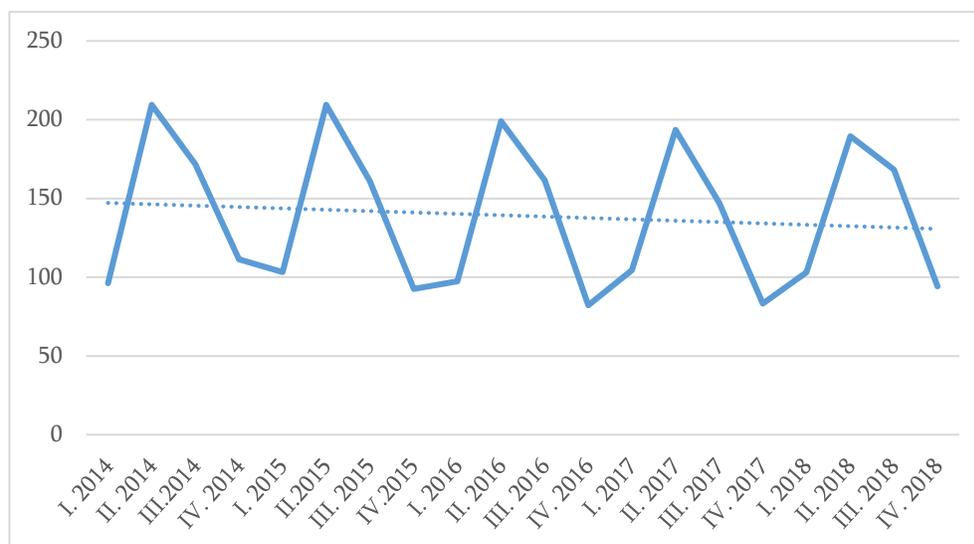
Source: GEOSTAT

It is also important to assess changes in ownership patterns of milk producing cattle throughout the regions of Georgia. Consolidation of numbers of cows per holding would indicate that there is a ground for increase in yields as it naturally follows improved organization of household practices and more efficient utilization of resources necessary for production.

We carefully examine the results of Agricultural Census of 2014 and findings of the **Georgian Dairy Market System Analysis and Mapping Study** undertaken by the International School of Economist at the Tbilisi State University (ISET) at the request of the Safety and Quality investment in Livestock (SQIL) Project in May 2019. Based on the above two sources, it is safe to assume that Georgian dairy production is still dominated by extremely small holdings, who perhaps could not change their production practices rapidly in 2014-18 or acquire resources that would lead to such pronounced increase in milk yields. If milk yield increase was due to endogenous factors, we would probably observe commensurate growth of total volumes of production and retention of young cattle, rather their increased exports.

The **figure 4** below indicates that the decline in production of milk and milk products in Georgia is of systemic nature. Over time, consistently declines not only quarterly maximums but also quarterly minimums and averages of total milk production. With such a pattern, it is probably safe to conclude that rather surprising increases in milk yields should at least partially be attributed to some exogenous, temporary factors.

Figure 4: Quarterly production of milk and milk products in thousand tons in 2014-2018



Source: GEOSTAT

Moreover, milk and milk product consumption patterns remain largely unchanged despite the fact that during the period concerned, Georgian GDP per capita, although not very consistently, continued growing. Other factor bolstering increase in milk and milk product consumption would be urbanization, which is also underway in Georgia. Instead of responding to potentially increased demand that would stem from two major factors above, as well as some other developments, Georgian milk and milk product consumption is maintained by increased imports quickly fill in the gap created by steady decline in domestic production.

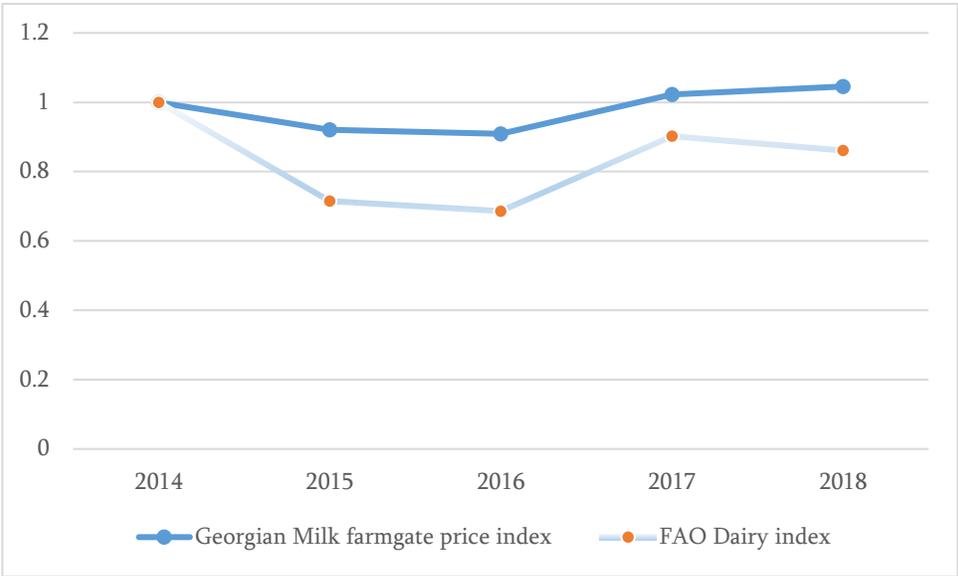
Table 3. Milk and milk product consumption patterns in 2014-18

	2014	2015	2016	2017	2018
Grams per day	465	466	473	461	488
Kilocalories per day	281	282	286	279	295
Protein, grams per day	15.4	15.4	15.6	15.2	16.1
Fats, grams per day	15.4	15.4	15.6	15.2	16.1
Self-sufficiency coefficient, %	90	87	82	82	81

Source: GEOSTAT

Another important factor related to the developments in Georgian dairy industry is behavior of milk substitutes and milk products in the international market. We obtained the information on FAO Dairy Index that comprises price indices for butter, skim milk powder, whole milk powder, cheese, and casein price quotations. This index as average for the years of 2014-18 is compared to the behavior of Georgian milk farm gate price index in the **figure 5** below. The year of 2014 is taken as 1.

Figure 5: Behavior of Georgian milk farmgate price index and FAO dairy price index

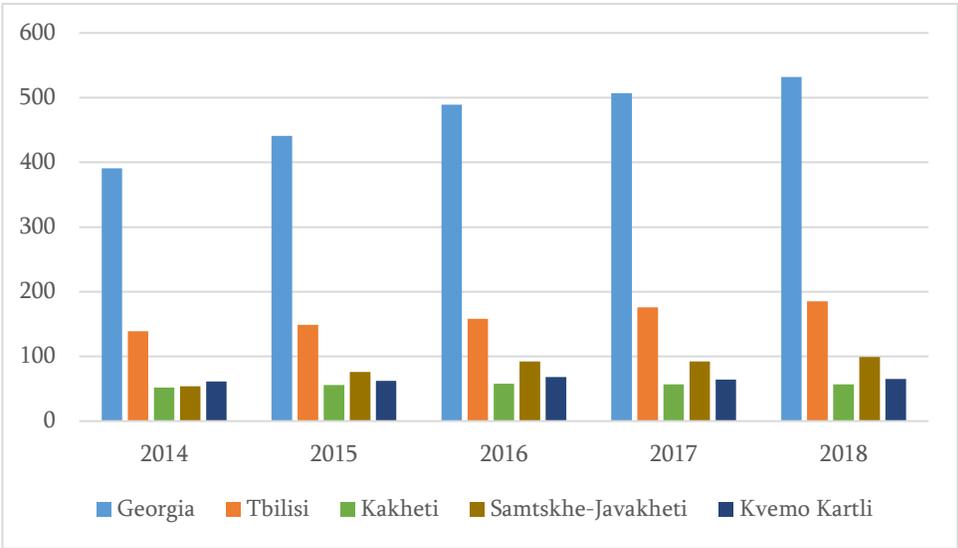


Source: GEOSTAT, FAO

The pattern above is interesting in a sense, that Georgian milk farm gate price demonstrates much less volatility than FAO dairy prices index. Even though the latter is a global indicator and comprises several components, which are smoothing each other out, the difference in behaviors of the two above indices is very telling. It can probably be inferred, that Georgian milk production and consumption still is and will remain localized in a sense that the largest chunk of consumption takes place at the site of production. The production itself is determined perhaps by excessive competition at the stage of raw milk production, which results in the fact that production will not be very responsive to favorable price changes in short to medium term future. The urbanization factor is still weak in a sense that even in large cities there remain strong ties with village producers and people living in the cities still prefer cheese and milk products bought in local bazaars.

Lastly, to conclude this brief review of key recent trends in Georgian dairy industry, we obtained the information on major parameters of manufacturing of milk and milk products in the country. GEOSTAT provided information as to the producers of milk products as defined by the Nomenclature of Economic Activities (NACE, category 10.5) As the **Figure 6** below indicates, number of dairy enterprises expand rather fast in Georgia. Unsurprisingly, Tbilisi is a leader both in terms of absolute number of enterprises, as well as the increase of their number. Samtskhe-Javakheti region is a clear champion when compared to other regions and it will probably solidify its advantage over others along with sharpening of specialization on dairy production.

Figure 6: Number of registered dairy enterprises in selected regions of Georgia and Georgia as whole 2014-18

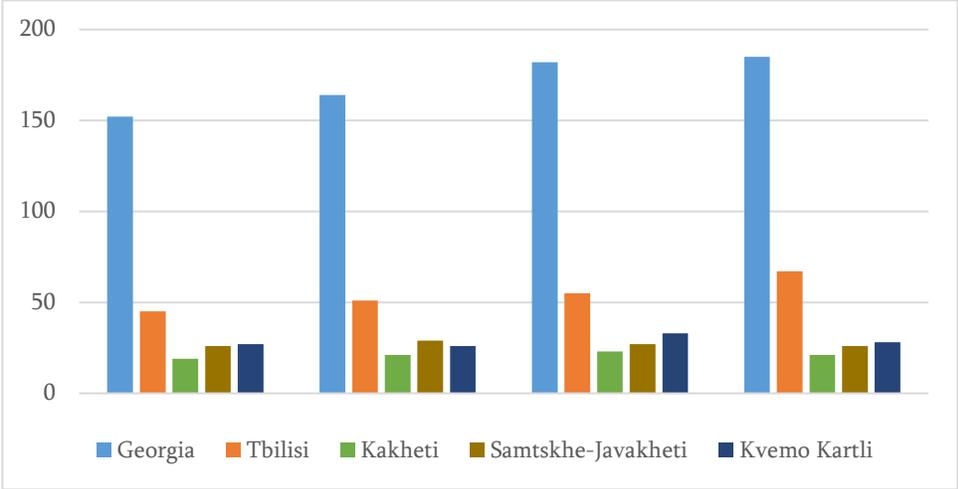


Source: GEOSTAT

Much less impressive is the situation with active dairy enterprises. Inactive enterprises are defined by GEOSTAT in accordance to the Business Registers Recommendation Manual issued by Eurostat (<https://www.geostat.ge/media/13387/business-Registers-Recommendations-manual---2010.pdf>). The inactivity of an enterprise might be related to many issues such as being at the commencement stage, dormancy, and etc.

On average, their number amounts to approximately one third of the total number of registered enterprises and pace of growth in their numbers is much more modest.

Figure 7: Number of active Dairy Enterprises in selected regions of Georgia and Georgia as a whole 2014-2018



Source: GEOSTAT

Unfortunately, numbers of active dairy enterprises are stagnant in major milk producing regions, which perhaps indicates lack of capital and mobilization resources at the locale, as well as unrealistic expectations

of the founders, who face tough constraints after initiation of operations. On the other hand, relatively healthy growth of number of active enterprises in Tbilisi indicates that demand on safety and quality of production will be a defining factor driving production and collection of milk at the supply sources in short to medium period. We think that in some 10-15 years, other things equal, and assuming moderate economic growth Georgian consumer should become “urbanized” enough to consume mostly cheese and milk products produced by formally established enterprises with controlled production practices.

Table 4. Economic indicators of milk processing enterprises 2013-2018 (declared information)

Milk products	Unit of measurement	2013	2014	2015	2016	2017
Output	GEL million	171.7	209.1	223.2	259.9	271.5
Value Added	GEL million	50.6	61.9	51.8	61	63.4
Average annual employment	Units	2130	2302	2391	2793	2693
Average monthly salary	GEL million	835.6	922.2	1082.1	988.1	1052.4
Investments in fixed assets	GEL million	50.1	47.6	68.7	69.1	91.4

Source: GEOSTAT

The **table 4 above** indicates some relevant information as to the capacity of Georgia to produce milk and milk products for formal marketing. The average size of an enterprise consists of 15 employees. Unfortunately, we could not obtain detailed information on employment arranged by size of enterprises (small, medium, and large) but it is reasonable to assume that after subtracting a few large dairy processors in Tbilisi, an average sized dairy processing enterprise in the regions would look slightly smaller than 15 or so employees, although this would perhaps include milk collectors, which naturally tend to be smaller than processors.

Average monthly wages in the industry are in line with average monthly salaries in other manufacturing activities. The processors are experiencing pressure on their value added, as it shrinks over time as a percentage of output. This factor can place the apex of dairy industry in unfavorable situation come unexpected exogenous shock such as energy prices spike, currency fluctuation, competition from imports, etc. This factor notwithstanding, the enterprises are trying to expand their capital base. This is probably an indicator, at least partially, of them responding to new requirements regarding safety, quality, and marketability of their produce. Given the pressure on value added and investment in fixed assets, it should be anticipated that dairy enterprises will more strongly attempt at increase of sophistication of their final product and expansion of its assortment. This will probably take the shape of sharper concentration on more expensive produce, facing less intense competition from imports and on products, in which the role of milk powder is limited. Clearly, the trends in dairy enterprises behavior have important policy implications concerning regulatory and institutional reforms. It might seem that the marketplace **rewards, at least as perceived, investments in traceability, safety and quality**, which is a good sign.

All in all, while developing new regulations, laws and institutional reforms, the policy makers should take into consideration the fact that the potential to provide impetus to **quick increase of volumes** of production is rather limited due to localized, dispersed and fragmented nature of production and consumption. The

farmers are perhaps employing a conservative strategy of cost minimization in milk production, which indicates that sharp increases in volumes of production should not be anticipated. If this happens, the key to it will be introduction of relatively non-risky instruments leading to increase of availability of feed for animals, as well as gradual improvement of their care at the farm side, rather than attempts at improvement of breeds in the short to medium term. The regulations and measures leading to improvement of health and production capacity of animals would also be the key. This might include public policy measures on maintenance of pastures, animal movement, control of diseases, ensuring fair competition, and etc., which will stabilize and gradually increase volumes and quality of supply.

We tried to establish correlation between the increase in milk yields and results of state programs on vaccination, monitoring etc. For this purpose, from the NFA web-page we obtained information on relevant features of the most dangerous and widespread diseases (**table 5** below), which are being dealt with by the state. Subsequently, we tried to link vaccination figures for diseases that can be treated in animals and coverage by vaccination in the regions to milk yields, as reported by GEOSTAT.

Table 5. Basic information on state programs

Name of Disease	State program exists	Whether treatment can be applied to animals
Tuberculosis	Yes	No treatment applied to animals. They're liquidated
Crimean Congo Hemorrhagic Fever	Yes	No treatment applied to animals.
Lumpy Skin Disease	Yes	Treatment can be applied
Foot and Mouth Disease	Yes	Treatment can be applied
Anthrax	Yes	Treatment can be applied
Brucellosis	Yes	No treatment applied to animals. They're liquidated

Unfortunately, the information collected by both sources in its detail does not allow for assessment of such correlation, although this is much needed. Thus, we were not able to judge that the government programs have measurable positive impact on milk yields. Also, we could not satisfactorily establish the trends of animal loss and their link with state vaccination programs. We recommend that such analysis is very necessary and can be conducted by means of several tweaks in data collection process.

Also, we tried to illustrate the potentially the biggest incidence of “problems” in dairy production, processing, distribution, and consumption chain. The **table 6** below shows the results of some monitoring and control activities conducted by the National Food Agency in 2017.

Table 6. Results of selective state monitoring and control activities in 2017

Name of laboratory research	Number of samples	Revealed violations	Violations (%)
Raw milk brucellosis	68	7	10.29%
Plant fats in milk and milk products	105	0	0.00%
Residues of veterinary preparations and contaminants in animal origin food	1033	401	38.82%
Milk powder in cheese	21	10	47.62%

Source: National Food Agency

The table above is interesting in a sense that, in our opinion, it is a clear demonstration of institutional and lack of awareness problems in the marketplace. Also, such problems might be further exacerbated by weakness in ability of the state to rigorously pursue the declared policy. Note that incidence of brucellosis in raw milk is alarmingly high even though the number of samples is not statistically significant. Although, this is a result of bulk milk sampling, which has a tendency of overestimating incidence of brucellosis, the need to apply more rigorous sampling methodology is obvious. Incidence of milk powder in cheese is of such magnitude that falsification can be regarded as a cardinal problem. Due to economic conditions of consumers, probably, there is more perspective in obligating the sellers to follow the labelling requirements rather than sanction them directly. High incidence of veterinary preparations and contaminants in food of animal origin is somewhat strange since it is the state, who vaccinates animals in villages, maintains very close contacts with households and has to have potent interaction mechanism at the slaughterhouses level, as well as at the levels of municipal representatives of the central apparatus of the Ministry and representatives of the National Food Agency. This problem is probably due to the practice widespread in the rural areas, which comprises of purchases of veterinary medicines by farmers in pharmacies and their application without consultation with the veterinary. Assessment of severity of the problem is beyond the scope of this paper but requires serious attention both from the perspectives of state policy implementation, research, and increase in farmer awareness.

To conclude on main trends in Georgian dairy sector, it should be ascertained that despite sporadic cases of exports of Georgia dairy products, namely cheese to USA (which are mostly one-time events or re-exports) abroad, significant exports are not to be anticipated. We examined the information provided by GEOSTAT on exports and imports on all dairy products for Georgia for the period of 2009-2018. The information comprised data on raw milk, cheese, milk powder, butter, and other milk products. Total imports of dairy products increased from 22.7 million USD in 2009 to 65.4 million USD in 2018. The increase in imports of dairy products grows uniformly for all subcategories and during the period considered only in 2015 and 2016 some drop of import values was recorded, which is largely due to general economic problems. Concurrently, the exports of dairy products grew from approximately 0.3 million USD in 2009 to 1.9 million USD in 2018. Though, major part in exports falls on re-exported milk powder and butter, as part of transboundary trade with immediate neighbors, the swings in volumes are still very steep and abrupt. This probably demonstrates weak connection of exports of milk products from Georgia to domestic production base. Some attention should be given to the exports of cheese to US, which comprises absolute majority of exports of cheese beyond immediate neighborhood. On average, approximately 0.2 million USD worth of cheese was exported to US

in 2017. This figure grew by some 70 000 USD in 2018. Clearly, these figures are low and cannot be attributed to performance of the entire industry, especially when the country becomes more import-dependent, these trends should be studied specifically for its causes and prospects.

The EU itself is one of the largest milk exporting trade blocks in the globe and this situation will not change. This means that a serious outlet that could provide strong stimulus to production increase and concentration will not be available. The impulse for growth should come from domestic demand, which depends on GDP growth rates, evolution of consumer preferences as to the safety and quality, traceability, etc. It should also be noted that other things equal, domestic consumers would probably prefer Georgian produce to the foreign analogues. This fact has clear implications for measures of consumer awareness, ensuring fair competition at the marketplace, labelling, transparent control over safety and quality. Given the ongoing food safety system reforms and approximation process should be used in a creative way and mechanisms should be found for helping reduce costs at the raw material level and improvement of safety and quality with relatively inexpensive means. Once again, we must bear in mind that Georgian dairy industry, especially at the processing level, is very vulnerable to negative shocks from abroad such as milk powder price changes, sudden spikes in demand for live cattle and currency fluctuations. In this light, specific attention should be placed to new measures and timing of their introduction so that they do not amplify negative prospects of the changes on the market.

Summary of perceptions of interviewed stakeholders

For the purposes of this study, interviews have been conducted with the representatives of privately-owned dairy companies, representatives of the government agencies, experts, and NGO-s working in the field and other entities with direct or indirect stake in development of dairy industry in Georgia. Purpose of these interviews was to supplement the information on relevant similarities/differences between Georgian and European and US dairy regulations and standards by **perceived differences**, which would ultimately help development of conclusions and recommendations. In order to maximize the utility of interviews, the representatives of the Government of Georgia were divided into groups directly engaged in dairy industry regulation setting and implementation and representatives of the state institutions providing general support services to the dairy industry development. With this group of interviewees, we were interested to get the qualitative information as to the strong elements and shortcomings of dairy legal and regulatory framework and pace and quality of their development. Questions to the representatives of private sector aimed at understanding as to how the rules, regulations, and standards supported development of enterprises, helped marketability of their products and improved linkages with farmers, who provide necessary raw material. Another important task was to obtain information on perceived costs of compliance to regulations and standards and also, formulate an opinion on what role regulations and standards play in everyday activities of the businesses. In order to get a “realistic perception” of representatives of the business sector, interviews were conducted with relatively modest size enterprises, who amount to the largest number of enterprises. As part of the process, brief questions as to the usage of food safety standards and systems were asked to 20 or so representatives of dairy enterprises from the regions.

Two representatives of the Ministry of Environmental Protection and Agriculture (MEPA) were interviewed. Both interviewees, as expected, indicated that new laws can be initiated by the Parliament of Georgia. In case of interest from a line ministry, it can apply to the Government Meeting with the request to introduce a draft law to the Parliament. After that the relevant process of drafting starts. According to Law of Georgia

on Normative Acts and the Constitution, any citizen or citizen's organization can initiate a draft law. In such a case, 30,000 signatures of support should be generated. Subsequently, as the procedure requires, the draft law can be submitted to the parliament.

Perspectives of the representatives of the MEPA are not always convergent. A representative of the MEPA directly engaged in the process of approximation scheduling within the framework of DCFTA, indicated that Georgian legislation and standards for dairy industry are almost identical to EU legal and regulatory framework. The difference might account to 5—10%. Also, and it is natural, the discrepancies between Georgian and EU legal and regulatory frameworks are related to timing differences. MEPA representative gave key importance to regulations on identification and registration of small ruminants, as well as regulations on maintenance of proper conditions for animal care. Other interviewee from MEPA, who represented the Scientific Research Center, placed special importance on the need to improve the animal welfare situation from 2020 onwards. According to him, this would require considerable investments at the farming level related to hygiene, provision of proper space for animals, maintenance of their health, and etc. In addition to the financial outlays from farmers, this would require serious upgrade of state control system. According to him, there is little practical effort in this direction and the government is “factually trying to start controlling what it has not implemented yet.” The interviewee indicated that the animal care conditions in villages are woeful and the diseases are rampant. As a solution, introduction of high-quality animal stock was suggested alongside with investments in farm infrastructure, which should follow cleansing the environment and removal of diseased animal stock. As to the processing of milk, according to the interviewee it is governed by the relevant technical regulation that obligates the operators to adhere with the rules on allowable content of biological, physical, and chemical agents in food. There is a normative basis for requirements on sanitary and hygienic standards at the individual enterprise level. Food/animal feed safety, animal and plant protection code sets overall framework for introduction of HACCP system at the slaughterhouses and dairy farms. In addition, from 2019 onwards, the Scientific Research Centre of the MEPA undertakes assessments of risks in the areas and sanitary and phytosanitary control. According to the interviewee, large dairy processing enterprises employ food safety and quality systems.

The interviewee from the Parliament of Georgia, indicated that there is an active technical regulation dealing with safety and quality in dairy industry. At the same time, according to him, it is rather difficult to assume that dairy industry is currently progressing in Georgia. To improve the situation, it is necessary to increase milk yields and production, which is possible by improving the breed stock, as well as improvement of the feed base. Attention should be placed on breeds, which are naturally adaptable to mountainous grazing. According to the interviewee, the conditions of animal care at the individual smallholder level, and partially due to the fact that they own 2-4 animals on average, are woeful. In addition, among the handful large farms maybe a dozen is producing safely. To improve the situation from the standpoint of production, it is necessary to strengthen milk collection, in which direction there is some progress. It is also important to improve the situation in animal welfare. Georgia is in a difficult region and prone to spread of diseases such as tuberculosis, brucellosis, anthrax, foot and mouth disease and mastitis. Thus, it is important even at the small farmer level to have some elements of HACCP. Even though the laws describe in detail the necessary regulations, their introduction timelines are not fixed, which makes things complicated. The interviewee emphasizes the need to test so called “grandma milk,” - milk produced by the physical persons or individual households. According to the interviewee, such milk occupies 80-85% of the market and might pose a serious public health problem by spreading brucellosis. This is probably an overestimation, since much less “grandma milk” ends up in formal markets and exposure of population to milk contamination is, of course, much less than this

interviewee thinks. Probably, such a milk is more of a problem in rural areas, where informal trade takes place. As the interviewed milk producers indicate, they have means and stimuli to prevent contaminated milk from entering the market. This stratum of the industry faces quite significant sanctions in case of violations and given the fact that a number of milk producing entities is not very big in the country, the notion that 80-85% of milk getting to the market is contaminated, is not, in our opinion, plausible. However, for identification of real extent of milk contamination regional surveys are to be conducted. From the important standards existing in the country, the interviewee emphasizes one, which was adopted three years ago and determines milk quality. He also underlines labelling standard. While talking about usage of food safety, hygiene, and animal health systems and practices at the enterprise level, he still places Technical Regulation on Milk and Dairy Products adopted by the government of Georgia in the center.

Three representatives of the National Food Agency (NFA) agree that the regulations and standards pertaining dairy industry are analogues of those active in European Union. They also underline the fact that although much remains to be done in the process of regulatory reform, progress is visible. All interviewees emphasize that specific impetus to the process of modernization of food safety and quality system was given by the DCFTA agreement. Still, as for now, the Georgian legislation cannot be regarded as fully harmonized with European, since there are important missing pieces to be filled, such as categorization of milk and milk products, compliance to rules on somatic content in cells, and etc. On the other hand, much is to be done in the area of actual implementation of laws and regulations on milk and its content. Big problem is a prevalence of diseases in milk giving animals, such as mastitis, which directly influences quality of milk. Problem is prevalence of very small producers who disregard hygiene and quality. Such producers are exempt from the regulations till January 2020 and practically, the marketplace remains effectively unregulated before then. The respondents from NFA could not realistically assess what percentage of milk processors applied safety and quality systems. Emphasis was given to the ongoing program on animal registration NAITS/FAO, as well as animal welfare program to be enforced from 2020 onwards. Respondents underlined importance of continuation of animal vaccination and disease prevention programs and indicated that process of approximation should continue. Perception of representatives of the NFA is that the animal vaccination programs really generate the results, which are manifested in decrease in incidence of diseases.

A representative of the Georgian Accreditation Center positively assessed the pace and quality of approximation with the EU standards. Interestingly, during the interview serious problems related to transfer of cattle to pastures and back from pastures, as well as basic problems related to animal care and infrastructure, were mentioned. The respondent referred to lack of technical innovation at the primary production level. According to the interviewee, the farmers should realize that their innovations will lead to higher productivity and profits. She indicated that the problem of access of unchecked milk to the market is an acute problem, which will hopefully be addressed by 2020. The need for further investment in the development of veterinary sphere was also identified.

One of the three field experts interviewed indicated that Georgian regulatory environment for dairy is laxer compared to US and especially to EU, on the other hand there is noticeable progress in relation to the approximation process. Three key problems mentioned were lack of control on milk production and distribution for physical persons, lack of control over legal persons at the distribution level, and low awareness of consumers regarding safety and quality. Ambiguities on labels also create confusions for consumers. In addition, large chunk of the market which remains uncontrolled produced substances, which are being sold as cheese but, are do not comply with the requirements that define them as cheese. Coverage of processing firms with safety systems is difficult to assess and at the same time their incidence at the farm

level is very rare. Another respondent from the cohort of experts working in the field perceives the European and US regulations and standards as more rigorous in their applications, but more fundamentally, the problem in Georgia's case is uneven application of regulations and standards. Namely, the registered operators and farms are obligated to formally follow the rules, whereas most producers and farmers who are not yet registered, can get by safely without complying with them. Existing legislation stipulates for full coverage of all players from 2020, but given the practice so far, it is rather hard to predict when this happens. It is important to regulate the use of antibiotics and hormones, which get directly to milk. Also, all the players should be covered with rules and regulations equally and equitably. The government should effectively tackle the problem spread of mass diseases. Partly, this problem can be mitigated by raising missing cadre of young veterinarians. The respondent deemed it necessary to encourage private sector representatives initiate new norms and regulations. The third respondent from the cohort of experts operating in the field refers to traceability, animal identification, disease control, continuous temperature control system in the process of milk supply/processing/realization, obligatory labelling of the produce and its description that should be unambiguous. Importance of HACCP principles and good animal husbandry were mentioned as very important ingredients of successful dairy industry. According to one of the respondents, the standards stipulated for by the approximation process are being implemented and met moderately successfully and timely. From the perspectives of food safety, the situation can be deemed as successful, whereas there is a lot of questions concerning advancement in the area of quality. According to the interviewee, the problem relates to the fact that in this area, the degree of approximation is determined by the governmental decrees and not decisions by the parliament. Even if the approximation process is driven by the governmental degrees, it is essential to properly monitor and check the process, which will result in higher degree of responsibility on the producer's side and higher awareness on the consumer's side. The respondent deems necessary to fully meet the commitments accepted by the country in order to be able to protect its interest when needed. Importance of controlling additives, chemical substances, and hormones was also underlined. It was also mentioned that the apex of the dairy industry applies pretty strict standards anyways, which are much more rigorous than for the country, on average. On the other hand, there is serious milk supply problems, which are related to noncompliance with standards and regulations. The processors have to necessarily comply with HACCP, and they should know whether milk supplied to them comes from healthy animals, but this is not implemented as of yet. When it concerns production of milk products other than cheese, the HACCP principles and standards are formally complied with, although it should be checked whether they are rigorously applied or not. On the other hand, companies of any size have capacity to produce cheese and compliance to regulations and standards is in such companies is very difficult. Cheese and other milk products produced by peasants are sold in bazaars and small shops and do not undergo veterinary control, whereas in 21st century it is a must to have a strong traceability system. The respondent implied that traceability is required by general food safety regulations, such as Food/feed safety, veterinary, and plant protection code; Technical Regulations on Milk and Dairy Products; as well as approximation process requirements and the relevant Decrees of the GoG #577 of 2015 and 548 of 2018, for example. The respondents consider assessment of introduced regulations as absolutely necessary for successful advancement of new regulations and dairy system, as a whole. Also, the full implementation of animal registration system was mentioned. According to the interviewee, the clear distinction should be made between the HACCP and ISO 22 000. According to the interviewee, the former can be understood more as an approach, while the latter is a standard. In nowadays Georgia, it is almost impossible to introduce any product to a big supermarket without ISO, since big supermarkets themselves are trying to maintain quality standards, which are higher than obligatory. The interviewee emphasized the need for consolidation of

associations operating in dairy industry as means to serve as more effective tools for introduction of regulatory initiatives and steering development.

The largest group of interviewees, **five representatives of NGO-s working in the field** indicated that it is important to fully ascertain the essence of European regulations and context within which they operate before their adoption and implementation. Shortage of raw milk was extensively mentioned during the interviews. The respondents mentioned the problem of milk powder entering from neighboring countries. The pace of actual implementation of regulation and monitoring over implementation were mentioned as problematic. Also, all the interviewees uniformly agreed that the laws and standards are applied selectively and the largest chunk of producers, small farmers, remains uncovered by them at least till January 2020. One of the respondents stressed the need for improvement of animal feed production, cooperation, and strengthening of milk collection process. Ignorance of small producers leading to penetration of "milk dangerous to human consumption" to the marketplace was mentioned. One of the respondents from this group mentioned the progress in introduction of HACCP at enterprise level, although referred to the need to accelerate the process. While comparing EU and US dairy legislation and regulatory frameworks, one respondent underlined much looser nature of the US framework and underlined the need to fully follow the European model that Georgia has chosen within the framework of DCFTA agreement. According to this respondent, falsification of produce in the marketplace is a huge problem leading to distortion of price and production stimuli. Also, the fact that administration of laws and regulations lags far behind their adoption creates a massive problem that might exacerbate if derogations for small farmers active till 2020 will still be delayed. The interviewee mentioned that it is extremely difficult to monitor the proper keeping of animals, their proper feeding and usage of hormones and antibiotics at the farm level, although the relevant legislation might be in place. The low awareness of farmers in this issue was mentioned as a huge problem. The respondent stressed the need from continues awareness raising and training. The issue of introduction of advanced breeds was given a secondary importance compared to the ability to "manage the system". The fifth interviewee in the cohort NGO-s working in the field indicated lack of application of laws and regulations and the fact that there is a "big gap" between the lawmakers and peasants and farmers. According to this interviewee, the regulations tend to be too general and unconnected to reality on ground and farmers either have little motivation or insufficient means for adoption of new practices.

A representative of food safety and quality assurance service providers indicated that the basic problem of the system is low awareness of a farmer in proper feeding of an animal and its proper care. For example, small-scale farmers do not understand that milk generated from an animal treated with antibiotics is dangerous for humans and should not be sold. The pace and quality of legal and regulatory reform is adequate, although some "windows" are left for the enterprises and farmers so that they have more room to be able to adapt to more stringent control environment. The respondent indicated that the legal regulatory environment change outpaces changes in the industry itself. According to him, the representatives of state are afraid to implement the laws and regulations in the field as needed. In such a case demonstration of proper practices to farmers, including through extension, is necessary. Also, the respondent thinks that consumer awareness is higher than capacities of producers and often the producers hesitate to upgrade their systems due to perceived high costs of doing so. As to the state, according to the interviewee, it needs to strengthen monitoring of the laws and regulations already introduced. It is understandable that the government does not want to introduce harsh sanctions to violators in rural areas due to political consequences but, on the other hand, without ensuring proper application of laws and regulations, it is impossible to achieve results.

According to the **representative of Food and Agriculture Organization (FAO)**, Georgia generally follows its obligations within the framework of DCFTA, but full implementation of its provisions is complicated by lack of specialists and low awareness of farmers. The interviewee says that it might be that the farmers are so unaware of damage related to diseases, they can give “contaminated milk” even to their kid. The problem in the villages is due to abrupt demographic change, namely remains in rural areas only the older part of population, which is less receptive to new realities. Social problems in rural areas adds to the problem. Namely, farmers receiving social assistance are motivated to hide animals owned in order not to lose social assistance. The interviewee thinks that the state should implement not popular but results-oriented measures. The measures should be linked to clear indicators and investments made only in cases, where payback is reasonably anticipated. State resources should not be diluted to owners of one or two cows who neglect all the possible standards. The issue of compensation for disease was stressed. According to the respondent, if the compensation system is established all the farmers will be motivated to report timely and improve animal care as opposed to now when there is a stimulus to hide animals away from the state. The major difference among US and EU systems, according to the interviewee is more relaxed nature of the former and heavy engagement of private insurance in its activities. In EU, as opposed to US much more aspects of dairy industry are regulated heavier. The respondent mentioned the need of control of pastures, as well as control of movement of cattle from one municipality to another for grazing. It was mentioned that despite US system being looser than that of EU, animal identification is still must and cattle cannot move without it. Also, the interviewee indicated that EU system is and will in foreseeable future be much stricter than Georgian in a sense of thresholds that it requires to be met with by all the players. Thus, it is necessary not to blindly copy EU laws and regulation but adapt their best principles to the Georgian realities.

Interviewing **five enterprises from** various regions of Georgia generated very interesting results. The smallest enterprise had 7 permanent staff, whereas the largest employed 35 persons. Only one enterprise concentrated exclusively on cheese production, whereas remaining four have some assortment of Matsoni, sour cream and butter. Four enterprises indicate that shortages in supply are mostly of seasonal nature. These enterprises relied on outside supply sources from small farmers. Only one enterprise relied solely on own milk and did not have supply problems but complained on unfair competition from those, who use milk powder in cheese production. All the interviewed enterprises implement HACCP principles. All of them have own laboratory, which checks milk safety. If safety requirements are not satisfied, the milk is brought back to the farmer. The owners of the enterprises said that they immediately cut business relations with farmers who just once supply unsafe milk.

According to all respondents from the private sector, introduction of food safety and quality systems in all cases related to considerable but manageable financial outlays. The one-time expenses for introduction of the system can be arranged as follows from biggest to smallest:

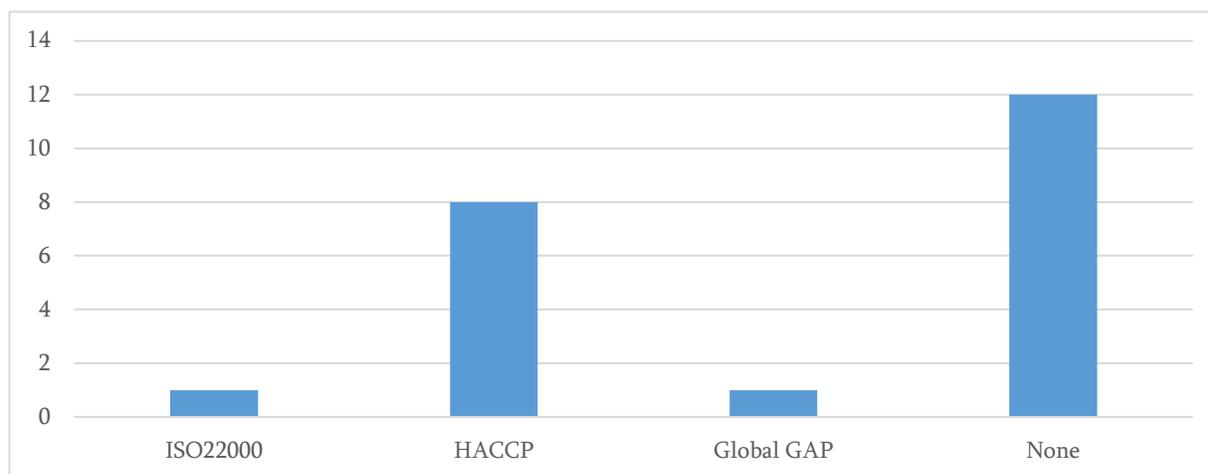
1. New infrastructure
2. New equipment
3. One-time expenses to consultants, while setting up the system
4. New personnel
5. Training of personnel

The interviewees indicated that running/implementation of the food safety and quality system does not require more than 1% of total revenue. Encouragingly, all the respondents firmly perceive that existence of food safety and quality system is related to higher marketability of their produce and increased profits. It can

be safely concluded that the milk processing enterprises using food safety and quality systems think that market rewards safe, responsible, and transparent production practices.

In addition to five extended interviews with the representatives of private sector, simple interviews were conducted with 22 milk processors. During the telephone interview, these respondents should have referred to the food safety principles and standards they would use in their everyday activity. 12 respondents refer to **none**. **8** referred to **HACCP**, **one** to **Global GAP** and **one** to **ISO 22000** (Figure 8 below). Of course, extrapolation of these figures to the whole industry is problematic but it is safe to assume that ensuring fair competition, especially in remote areas, in which both producer and consumer awareness and material well-being tends to be lower, is indeed a problem.

Figure 8: Coverage of the telephoned dairy enterprises with food safety system, as per their response



Source: Phone interviews by the authors

The fact that, as the only half of the producers, relies on any approach or standard in food safety practices at the enterprise level, is worrisome. We selected 22 enterprises from the list of enterprises given to us by the client of this study. Half of the interviewed enterprises are in the major dairy areas (Samtskhe-Javakheti and Kvemo Kartli) and if they don't rely on any identifiable system, situation in the remaining regions of the country, bar Tbilisi, might be even worse. Moreover, it can be that those, who indicated themselves as using HACCP might use it only partially, at the best-case scenario. Such a situation puts the state control system of food safety, traceability, and ensuring fair competition. This requires urgent attention from the authorities.

The summary of perceptions of various stakeholders generates interesting results. All the stakeholders are aware of the process of initiation of legal and regulatory changes. In almost all the cases the pace of approximation and its quality were referred as normal. In general, the interviewees think that consumer awareness in the urban area is higher than the capacity of the dairy industry to meet increased demands of consumers. Representatives of the state refer to very low awareness of small farmers and indicated that probably they are the source of most persistent problems related to safety and quality of milk. Many refer to work of the state in the field for disease control and refer to the results as satisfactory although could not refer to the means of verification of successful intervention. Clear perception is that government is afraid of rigorous application of laws and regulations due to political motives. On the other hand, without uniform application of laws and regulations, there will be no results. In several cases, the need to improve public

policies related to pasture management and animal movement regulation were mentioned. In several cases, radical measures for rapid improvement of the situation in the field were mentioned. It was quite strange to hear that the farmers are unaware that placement of milk in the marketplace immediately after vaccination is dangerous, given that the interviewees referred to state as a driver for vaccination programs. Specific stimuli for the farmers to improve safety and quality of there were not mentioned. Although, it was not explaining why awareness of small farmers remains that low. There were some controversial remarks too. In one case, low awareness of farmers was explained by demographic characteristics. Namely, old farmers who remain in the villages, in which youth is entirely missing, are close to change. On the other hand, the same interviewee indicated that farmers are so irresponsible that can give contaminated milk to their kids.

In general, interviewees had difficulties hinting at solutions to problems they mentioned. Moreover, they had problems in judging upon severity, pervasiveness and implications of problems they've mentioned, in well-defined professional terms. Animal care practices were uniformly characterized as woeful, although some radical solutions to this, such as elimination of old, contaminated animal stock and introduction of new, high-productivity breeds seem, in our opinion, neither realistic nor desirable. In all the occasions, interviewees referred to US dairy laws and regulations as laxer than European, although they could not suggest any legal norm or practice that could successfully be introduced on Georgian ground. Uneven application of laws and regulations was referred uniformly as a problem. So was the problem of falsification at the level of processing, although, again the respondents could not say definitely whether milk powder usage is mostly a problem of a small farmer or a processor. Occasionally, the question of compensation for elimination of diseased animal was mentioned. Monitoring of activities undertaken by the state was uniformly mentioned as a weak point of policies.

The tone of representatives of dairy processors was moderate and measured. They did not express dissatisfaction either with burden of new regulations or pace of their introduction. They refer to the initial costs of installing the safety and quality systems as manageable. The running costs for the system do not seem problematic at all. Moreover, despite the fact that interviewed processors fall within the range of small and medium enterprises by Georgian standards, they are sure that marketplace rewards production of safe and quality produce and this is the way to earn higher profits. Telephone interviews of other **22 of dairy processors**, who were investigated as to the use of any food safety and quality systems, showed that the coverage with safety and quality systems, if extrapolated to the entire country, is way less than desired. It seems, that only a portion of enterprises follows the rules voluntarily, which is also manifested in the fact that **only a third** of registered dairy processors is active throughout the country.

Procedures for law and legal acts creation

Creation and application of dairy legislation, including Laws, Codes, Regulations, Ordinances, Orders, and Edicts, etc. are fully governed by the Organic Law of Georgia on Normative Acts. This Law determines the hierarchy of normative acts. It clarifies the competencies of the Parliament of Georgia, the Government of Georgia, President of Georgia, Ministries, Legal Entities of Public Law, and self-governance with regard the issuance and application of relevant normative acts. The Government, Ministries, and LEPL-s can issue Ordinances, Orders, Regulations, and etc. on the condition that they are compliant with the relevant laws and if necessary, with other normative acts. Briefly, the executive entities (such as, for example the MEPA, Georgian Accreditation Center, Georgian National Agency for Standards and Metrology, National Food Agency, and etc.) are entitled to issue the relevant normative acts, which are legally binding on the whole territory of Georgia, provided that they are in compliance with the governing laws and other normative acts. This provides considerable flexibility to the process, since it is not required to create additional laws for any new occasion.

As to the creation of new laws, Georgian legislation is very precise in this regard and states that the following entities/individuals are entitled to submit a draft law by means of a legislative initiative: Government of Georgia, Member of Parliament (MP), Parliamentary Faction, supreme representative body of Abkhazia and Adjara, and an initiative group (after collecting no less than 30,000 voter signatures).

In case if some individual or an entity not entitled to submit a legal initiative (draft law), decides to enact/help enactment of a new law, there is another way through submission of a legislative proposal can be submitted by an individual. A legislative proposal is submitted to the Parliament and contains a proposal on adoption, amendment or invalidation of a law. An individual is also entitled to directly address an MP and introduce his or her idea of the draft law. In case of approval of the idea, the MP is entitled to use their right of a legislative initiative and submit the draft law to the Parliament.

There is another possibility of submitting a legislative initiative by means of 30,000 voters. In this case, an initiative group of no less than 5 members is formed. Then, this group addresses the Bureau of Parliament with the request to register the draft law. The draft law and personal data of the members of the group accompany the request. The Bureau of Parliament forwards the request to the Committee of Procedural Issues and Rules. In case of a positive decision on registration, the Committee of Procedural Issues and Rules gives a registration certificate to the initiative group. Upon receipt of the registration certificate, the initiative group begins collecting signatures of supporters of the draft law. The initiative group submits the signed paper to the Bureau of Parliament. The Bureau forwards the paper to the Committee of Procedural Issues and Rules. The Committee of Procedural Issues and Rules examines the authenticity and the number of signatures (that must not be less than 30,000). In case of confirmation of authenticity and required number of signatures, the conclusion of the Committee of Procedural Issues and Rules and the draft law are submitted to the Bureau, and the list of signatures is submitted to the Organizational Department. The draft law submitted by means of initiative of 30,000 voters is introduced to the Parliament by the member of the initiative group and by the representative of the Leading Committee

Submission of a Legislative Proposal can be made by a citizen of Georgia, state bodies, local government bodies, political and public unions. The legislative proposal shall include its reasoning, signature and address of the author. The Parliament Bureau or the Speaker defines the leading committee (the committee that shall be responsible for drafting the draft in case the legislative proposal is accepted) and submits the legislative proposal to it. The leading committee submits to the Bureau the draft law drafted on the basis of the legislative

proposal. The Bureau, for its part, includes the submitted draft law in the agenda of the nearest parliamentary session.

In case if above two mechanisms are not available for an interested party, there is another mechanism, submitting a petition. Petition is a written request of a group of individuals that concerns issues related to national or general problems. A petition is addressed to the Speaker of Parliament and is registered in a special registration book. It is submitted to the respective committee or the interim commission for examination and review. Committee or interim commission makes one of the following decisions regarding the petition: 1. Reviews the petition at the plenary session of Parliament; 2. Forwards the petition to the respective ministry, agency; 3. Considers it inappropriate to review the petition. If the petition is sent to a ministry or agency, the latter is obliged to respond to the author of the petition and to the respective committee or the interim commission within a month from the date of receipt. After reviewing the petition, Parliament adopts a resolution, decree or makes other decision.

To summarize, in case if creation of a new law becomes a necessity, the LEPL-s, Ministries and other governmental entities can use the mechanism of the Government Session, after which the legislative process moves forwards to the Parliament. The same option is open for other interested parties such as branch associations or others, who might lobby their interests with the relevant ministries. Whether this sequence of using of initiative group should be used, is an option dependent on availability of resources, urgency of the matter, and other practical considerations.

First, the initiators of new legislation should have the means of assessing the appropriateness of available options. It looks that given considerable flexibility that Georgian legislation provides, and in this regard it is much more flexible than EU and US analogues due to variety of objective reasons, branch associations, Ministry of Environment Protection and Agriculture and its LEPL-s, Georgian Accreditation Center, Georgian National Agency for Standards and Metrology, and other relevant entities have both time-efficient (directly through the executive branch by means of introducing regulations other than laws) and lengthy (creation of new laws) options at their disposal. Thus, as the brief analysis above indicates, virtually all the interested parties, including Dairy Products Producer Association of Georgia (Sakrdze) and Georgian Dairy Association can actively work on perfection of existing legislation, in case of desire from their part. Both of these associations have quite significant history and institutional memory, as well as backing of some large representatives of dairy industry. If hindrances to material resources, time, availability of legal expertise or other hindrances persist, donor community support can be actively used. In fact, Georgian legislation empowers the institutions entitled to initiate the law-making process to second the drafting either of legal initiative or a legislative proposal to any specialized entity, including private sector or a donor.

Standard recognition and management process in Georgia

The Legal Entity of Public Law, Georgian National Agency for Standards and Metrology is in charge of introducing, registering, and managing the standards application in Georgia. This entity operates under the Ministry of Economy and Sustainable Development.

First of all, it should be said that this entity directly allows for application the standards and technical regulations used in the EU and OECD countries. Also, the compliance certificates issued by the entities operating in EU and OECD countries, are directly recognized in Georgia.

In case if an interested party wants to introduce a Georgian standard, the application is submitted to the relevant Technical Committee and the recognized standard is entered into the National Register of Standards. The Committee does not elaborate standards for the sphere, in which there already exist the relevant international. Regional standards or there is no significant demand on them.

In order to register an international standard (other than referred to above) by the method of translating the cover, the following steps are to be taken:

1. A written application by the interested party;
2. Identification and registration of the standard by the Agency;
3. Service payment of 100 Lari.

In order to register a Georgian standard, the following steps are to be taken

1. A written application by the interested party;
2. Checking the information, whether such international/regional standard already; exists. If such exists, the applicant is informed, and the process stopped;
3. Agreement with the Ministry of Economy and Sustainable Development on forwarding the draft standard to the Standards Committee;
4. Forwarding the Draft Standard to the Committee and starting the development procedure;
5. Acceptance of the standard by the Committee;
6. Decision of the Government of Georgia on adoption of the Standard on the territory of Georgia;
7. Registration, entry into the National Standards Register and application of a number to the standard.

The fee for creation of a Georgian standard is 4000 Lari. Preparation of amendment to a Georgian standard cost 1500 Lari, whereas registration of Georgian standard or its amendment costs 500 Lari.

The standards are defined by origin as follows:

1. Georgian standard – a standard registered by the Georgian National Agency for Standards and Metrology, which might be adopted either based on international and regional standard, as well by the relevant Technical Committee;
2. Standard of International/Regional Organization – a standard adopted by an international or regional standardization organization (ISO, IEC/CEN, CENELEC), which might be adopted as a Georgian standard;
3. Interstate standard (GOST) – a standard, which is used in Georgia based on the Agreement of the Heads of States of the Commonwealth of Independent States on Undertaking of Coordinated Policy in the Sphere of Standardization, Certification, and Metrology reached in 1995;
4. An internal standard of an enterprise, based on Code of Product Safety and Free Circulation, is approved and registered by the enterprise itself. Registration of such a standard is not obligatory. An

enterprise is responsible for ensuring compliance of an internal standard with the Georgian legislation.

As in case of initiation of laws of regulations, standard creation and adoption rules and procedures are very clearly set and governed in Georgia. In case, if someone wants to introduce a new standard and make it available on the entire territory of Georgia, the costs of doing so are very manageable. The verification and development costs of 4000 Lari are rather modest and should not serve as a major barrier. The Georgian National Agency for Standards and Metrology is a quite flexible agency with a proven record of being collaborative to the representatives of business and civil society.

Ongoing and planned legal and regulatory reforms in Georgian dairy industry

Development of the Georgian dairy industry food safety, animal health and welfare system framework started by adoption of the *Law on Food Safety and Quality of 2005*. Unfortunately, from the time of adoption of the aforementioned law, the reforms in the food safety sphere advanced very slowly and it was only in 2012 when the reforms got big impetus, when the old law was transformed into the *Food/Feed Safety, Veterinary, and Plant Protection Code*.

The Code integrates and regularizes all the key aspects of food/feed production, processing, distribution, and consumption. In addition, it effectively deals with activities such as veterinary drugs, pesticides, agrochemicals, environmental protection, and international trade. Creation of the Code was a big step in right direction as it allowed to eliminate all possible ambiguities in legal and regulatory basis of system, as well as competencies of key players implementing its provisions, rights of obligations of customers and food business operations. Adoption of the Code made it possible to build upon new specific laws and regulations, enhance collaboration with European Union, and gradually advance food safety reform in the country. The Code has a set of comprehensive penalties for those who fail to comply with its provisions. The obligations of parties as well as the circumstances, in which sanctions apply, are defined quite clearly. Importantly, Code acknowledges some specificities of Georgian agriculture, namely the fact that, possibly the major part of production of animal production is still in hands of households, which complicates application of all provisions of the Code to them. The Code specifically defines household producers and household production and exempts them from the state control. Namely, article 1 of the paragraph 6 of the Code reads as such: "State control of food/feed as provided for by this Code shall not apply to the production of food/feed and to primary production by natural persons." Also, simplified procedures apply to small businesses, as well "use traditional methods for the production, processing and/or distribution of food/feed, and for primary production," and in high mountain regions are engaged, on a non-factory basis, in the production, processing and/or distribution of food/feed, and in primary production." The exemptions do not apply to animal welfare issues and collaboration with state control bodies when the need arises.

As a conclusion, it can be said that the Food/Feed Safety, Veterinary, and Plant Protection Code provides an adequate, high level regulatory framework for development of dairy industry in Georgia. Even if it is maintained that the Code does not apply uniformly to all the players in the marketplace, it does not contain hindrances to emergence of strong industry, since the placement of the produce in the marketplace, as well as control over the sanitary and hygienic situation when it concerns the placement of the final product,

control over the spread of dangerous diseases is quite well defined. The problem may lie in overall ability of the state to administer the Code and monitor the results properly. Also, the problems in the dairy industry referred to by the interviewees and experts, might be related to circumstances well beyond the sphere of the regulation of the Food/Feed Safety, Veterinary, and Plant Protection Code.

The National Animal Health Program 2016-2020 and the related Action Plan acknowledge that considerable time is required for radical improvement of animal health conditions in Georgia. The document states that to this end, strengthening of a veterinary service is necessary. Six broad goals established comprise of strong private veterinary service; emergence of qualified workforce effectively providing veterinary services; existence of adequate infrastructure at the level of NFA, laboratories, slaughterhouses, and NFA field offices; identification, traceability, and control over the movement of animals; effective reporting and improvement of public awareness; and elaboration of long term plans for eradication of animal diseases. This document is integrated with the Agricultural Development Strategy of 2015-2020 and directly refers to its relevant clauses, which serve as Action Plan for Animal Health Program. The document identifies and prioritizes the key diseases and means for tackling with them. The competency to supervise the implementation of the program and major directions of the reform adequately defined. The weaknesses of the program might be lack of clarity with regard to long and short term budget, continuity and dependence on important conditions, fulfillment of which is not wholly within the control of NFA. For example, this pertains to emergence of strong veterinary services. Although, the monitoring mechanism for implementation is well-defined, it should be more explicitly targeted what would be regarded as favorable dynamics in tackling animal diseases in the country and in specific regions and in what specific timeframes.

The Government Resolution # 152 dated April 3, 2015 on Approval of Technical Regulations on Milk and Dairy Products defines in detail a list of milk products, as well as the processes of their production. This technical regulation establishes the rules for placement of milk, milk products, and milk substitutes in the marketplace, specific requirements for raw milk, specific hygienic and food safety requirements to business operators, and mechanisms for control of compliance with the Regulations. The key points of this regulation enable the consumer to request and have full information on the product placed in the market. The Regulation is also very effective in distinguishing the milk and milk products from milk substitutes and products made of milk substitutes. It can be reasonably concluded that this Regulation provides adequate framework for ensuring competitive environment for business operators with the intention to serve the market with milk products produced in full compliance with Georgian laws and regulations and in a transparent manner. The problems might relate to difficulties in applying the regulation, very large number of informal channels of selling the product and low awareness of the consumer, but all these problems relate to administration of the Regulation and not its deficiencies per se.

The document ***Food Safety Regulation in Georgia: Assessment of the Government's Reform Efforts in 2017*** was commissioned by Europe Foundation (EPF) and supported by Swedish International Development Agency (Sida) and Danish International Development Agency (Danida). This document is an effort to assess Georgia's efforts towards modernization of its food safety system and approximation to EU. As the authors of the document indicate, food safety for the purposes of this document is understood as not only food safety but also the system of animal and phytosanitary health and disease control systems. In overall, the report positively assesses actions and plans of Georgian authorities, but a number of issues are also highlighted. The issues comprise of traceability problem resulting in very serious vulnerability of the system as a whole. The report states that in many cases, due to nature of production and consumption of milk and milk products in many areas of Georgia, ensuring traceability is impossible now and perhaps in the short-term future. It was

also noted that many food business operators, who had the relevant resources, invested heavily in food safety systems. This fact enables them to complain that many other operators, registered, recognized, or informal, who have not, enjoy unfair competition due to the fact that their product sells cheaper. In general, private sector representatives are positively disposed to NFA as an arbiter for ensuring fair competition in the marketplace. Established entrepreneurs tend to positively assess the scope and pace of food safety reforms in general. The report recommends the Ministry of Environment Protection and Agriculture and NFA to engage more with civil society organizations in the processes of legal approximation, promotion of reforms, and improvement of public awareness. Interestingly, although the approximation process is assessed as effective and timely, it is noted that transition period from adoption of approximated regulation to its enactment tends to increase. This might relate to lack of necessary resources of the authorities who might be struggling administering already existing regulations. The report confirms the notion expressed by us in the section on Key recent trends in Georgian dairy industry that the costs of compliance to laws and regulations both for the state and private sector are not properly assessed. Without this it is virtually impossible to assess the prospects of the reforms from the sustainability standpoint. The massive intervention by the state in vaccination, disease control at the local level, and etc. cannot continue forever, especially, when the declared goal of the state is to help develop sound private sector, which is to be supported by private service providers. Interestingly, the document refers to lack of properly accredited laboratories that are able to serve tasks of veterinary control. Contrary to the popular opinion, we think that it is appropriate for the country to have small number of qualified laboratories rather than a large number of unqualified laboratories. We think, the government should consider tightening of accreditation procedures for laboratories, which will result in improvement of transparency and fairness of competition.

The annual and final reports of the *Comprehensive Institutional Building (CIB)* program of NFA suggest that legal approximation and regulatory reform process undergoes transparently and with appropriate pace, although it is still necessary to provide donor support to it as it is clear that NFA still lacks the needed capacities to direct the process on its own. In these reports, the problems in long term planning and budgeting were also highlighted. All of this suggests that successful implementation and administration of regulatory reform is very hard without optimization of efforts and thinking more deeply on improvement of efficiency.

The Report on legal approximation shows that during the period since 2015 impressive work has been conducted in this direction. So far, it is not reported that Georgia lags in approximation of any pre-agreed regulations. The number of regulations to be approximated in the sphere of veterinary amounts to 84, and in sphere of food safety -102 regulations. If all the agreed regulations are approximated in 2019, 42 more regulations are to be approximated for veterinary sphere and 51 for food safety. In majority of cases, the regulations in veterinary sector predominantly concern dairy animals (big and small ruminants), disease prevention and control, product labelling and placement in the market, animal health and welfare, veterinary preparations, animal feed, and food additives. The spectrum of regulations being approximated in the area of food safety is also impressive and covers labelling and market placement, hygiene, content of certain substances in food, food for specific groups of population.

The list of regulations to be approximated indicates, in our opinion, that the process of their submission was not based on consideration of magnitude of impact of each regulation on the relevant sub sectors of Georgian agriculture (or dairy industry in particular), prioritization of regulations in terms of order, necessity, costs and benefits, administrative burden, and etc. This could have been undertaken before agreeing on approximation schedule and list of regulations for approximation, although in the future it is still possible to conduct an “inventory” of the remaining regulations in order to be better prepared for consequences of their

adoption, as well as better prepare the industry players, who are to be affected by them. In addition, it is difficult to assess the degree of complexity associated with administration of each of the adopted regulations in the conditions that the administrative staff, as well as the budget MEPA, and hence of NFA, will almost certainly remain to be fixed soon. It can also be that cost of compliance to new regulations to business operators depends on how cooperative they with the state in the process are. If the operators make good progress in adopting regulations, which were introduced earlier, implementation of new ones will become substantially easier.

The government of Georgia tries to support development of dairy industry production by means of introduction of specific supportive schemes. One of such schemes is the *Government Resolution #150 on Approval of Dairy Production Agricultural Cooperative Support Program, dated March 29, 2016*. Subsequently, the Resolution has been amended 7 times within the period of February 2017 – August 2019 to incorporate changes of various kind. As to the results of the program to date, scant information elicited from Annual reports of MEPA for 2017 and 2018 indicates that in total 9 new dairy cooperatives have been created. They unite 200 or so members who have approximately 2000 dairy cows. The state, as a co-financing has invested 650 816 Lari in them to improve their production capacity, supply equipment and means for artificial insemination, and create field laboratory. The MEPA report for 2018 states that the government will continue the support program in 2019. Unfortunately, we were unable to establish precise budgetary and time boundaries of the program either from the MEPA annual reports of the original version of the Resolution itself.

In the original version of the Resolution, it is stated that goals of the program is to increase production of milk and milk products in Georgia, supply of raw milk to the milk processing industry, stimulation of creation of enterprises equipped with modern technologies within the boundaries of agricultural cooperatives, improvement of quality and competitiveness of local production, improvement of breed characteristics of animals at the disposal of cooperatives, improvement of social and economic conditions of rural population. To achieve the goals, the following specific tools are introduced:

- ✓ Capital investments and technical support to agricultural cooperatives for the purpose of providing them with infrastructure relevant to modern standards;
- ✓ For the purpose of control of raw milk, support to equipment of field laboratory;
- ✓ Support to production of safe and quality milk and milk products in accordance with internationally recognized standards and Georgia legislation;
- ✓ For the purpose of breed and productivity improvement of low productivity cattle, transfer of artificial insemination equipment to the cooperatives and technical assistance

The Resolution defines the terms of assistance to cooperatives by specifying the minimum requirements as to the location, number of members, assets at disposal, number of cattle and conditions for assistance. The annex to the resolution describes in detail the set of capital equipment for transfer to a qualified cooperative. This includes the set for milk processing and artificial insemination, which are arranged by size. The Resolution obligates the qualified cooperatives to adhere to defined rules, maintain records. The monitoring of assets continues for five years after their transfer. The goal of this paper is not to analyze in detail appropriateness of this mechanism but several important problems with it should still be highlighted.

The Resolution is not based on a sound justification as to why this instrument was selected. The time and budgetary limits are not defined, and the document only refers to the relevant clause of the budget as a source

of financing. Another problem with the Resolution is its relatively low status, which means that the program can be abolished abruptly come the relevant circumstances. The document does not properly define the goals hierarchy, part of which should be sub goals or instruments of others. Also, the goals are so broadly defined that they cannot be pursued by only one ministry or a state body. The instruments by which goals are to be achieved do not seem adequate for their purpose. In addition, the number of instruments is not simply enough to pursue objectives defined by the document.

All in all, it should not be anticipated that the program created by the Resolution #150 achieves substantial results, especially given the fact that even all types of cooperatives are at the germination stage still and their share in agricultural development is minimal. It would also be desirable that the Resolution is well linked to key sectoral documents such as the Strategy of Agricultural Development and Institutional reform Plan of NFA.

Analysis of some key facets of Georgian dairy legislation that the legal and regulatory framework for support of dairy industry development is adequate. Moreover, it can be argued that the framework quite sophisticated for the current level of development of the industry. In addition, the regulatory framework evolves much faster than the industry itself, largely due to the EU approximation process.

Problems related mostly to the capacity to implement laws and regulations as well as readiness of certain segments of dairy industry to meet them. The degree of readiness is particularly low at the level of household farms, which are exempt from certain important provisions till 2020.

Comparison of Georgian dairy industry regulations to EU and US regulations

As to the organization of the dairy industry regulatory framework, nowadays, the EU system is centered around *EU regulation 1308/2013* on the common organization of the agricultural markets and by the following regulations: EU implementing *regulation 511/2012* – on the milk and milk products sector; and *EU regulation 880/2012* – on transitional cooperation and contractual negotiations of producer organizations in the milk and milk products sector.

Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of *food law*, establishing the European *Food Safety Authority* and laying down procedures in matters of *food safety* creates the system of food safety control across the continent, upon which subsequent regulations depend to create the entire system of legal acts covering dairy industry. Other relevant regulations pertaining animal registration and movement, maintenance of stands, animal disease prevention, control and welfare, food contamination, food and feed safety, hygiene, market placement, hormones, and etc., form the “subordinate” set of regulations obligatory for implementation in the member countries. These regulations, after Georgia’s becoming the member of the member of the Free and Comprehensive Trade Area, became obligatory for Georgia too. These obligations are enlisted in the relevant annexes on Veterinary and food Safety. The compliance over regulations introduced at the EU level rests on the national governments.

In the USA, at the federal level the ***U.S. Food and Drug Administration (FDA)*** is charged with protecting the public health by assuring that foods (except for meat from livestock, poultry and some egg products which

are regulated by FSIS) are safe, wholesome, sanitary and properly labeled; that cosmetics and dietary supplements are safe and properly labeled; that human and veterinary drugs, and vaccines and other biological products and medical devices intended for human use are safe and effective; regulating tobacco products; and protecting the public from electronic radiation. In addition, the *Centers for Disease Control and Prevention (CDC-s)* lead federal efforts to gather data on foodborne illnesses, investigate foodborne illnesses and outbreaks, and monitor the effectiveness of prevention and control efforts in reducing foodborne illnesses. CDC-s also plays a key role in building state and local health department epidemiology, laboratory, and environmental health capacity to support foodborne disease surveillance and outbreak response. Specific institutional arrangement of US as a country allows for existence of second level of control over food and drug industry (including dairy regulation), through the **agencies at individual state level**. These agencies interact in special situations like during investigations of foodborne diseases or recalls of the products concerned. At this stage, the federal government agencies may work with state agencies such as the **state department of public health or state department of agriculture**. So, just in case of EU, the control over the implementation of the relevant legislation is in principle “double-checked” in USA, unlike in Georgia. This fact notwithstanding, in specific literature it is maintained that the US system is fragmented and complicated with additional institutions having roles in the specific situations, which makes the oversight riskier from the perspective of maintenance of public health. Problems related to food processing, drug residues in animals, and etc. (<https://www.gao.gov/new.items/d07449t.pdf>).

The following pieces of federal legislation formed the cornerstone of US Dairy regulations:

- ✓ *Public Health Security and Bioterrorism Preparedness and Response Act of 2002;*
- ✓ *Farm Security and Rural Investment Act of 2002;*
- ✓ *Animal Drug User Fee Act of 2003;*
- ✓ *Passage of the Food Allergy Labeling and Consumer Protection Act of 2004;*
- ✓ *Sanitary Food Transportation Act of 2005;*
- ✓ *Food Safety Modernization Act of 2011;*
- ✓ *Agriculture Marketing Act of 2016*

The above and their subsequent amendments cover all areas of dairy industry including feed safety and quality, food durability, labeling and date marking, liability, hygiene requirements, constraints that limit the use of hormones, animal identification and registration requirements, animal diseases, quality, and etc.

As to the Georgian legislation, the framework is formed by the *Food/feed, Safety, Veterinary, and Plant Protection Code, Law of Georgia on Product Safety and Free Circulation, Resolution of GoG #22 on Approval of Technical Regulation on Rules for Monitoring of Certain Substances and Their Residues in Live Animals and Food of Animal Origin, Government Resolution #150 on Approval of Dairy Production Agricultural Cooperative Support Program; Resolution of GoG #581 on the Approval of Technical Regulations for the Food Microbiological Criteria; Resolution of GoG #764 on the Approval of Regulation Relating to the Identification and Registration of Bovine Animals and Registration of their Stands/Temporary Stands; Resolution of GoG #152 on Approval of Technical Regulations on Milk and Dairy Products; Resolution of GoG #348 on the Approval of Rule Regarding Preventive-Quarantine Measures Against the Dangerous Contagious Diseases; Resolution of GoG # 577 on General Principles and Requirements to Traceability in the Sphere of Food / Animal Food Safety, Veterinary and Plants Protection; Resolution of GoG # 55 on Special State Control Rules of Animal Origin Food; Resolution of GoG # 90 on Special Hygienic Rules for Animal Origin Food.*

In addition to the above, a large body of new regulations in line with the approximation process is being added to the existing regulations from 2015 onwards. These are covered in the relevant annexes to this document.

From the perspectives of functionality, we have compared Georgia legislation with EU and US legislations in the areas of control over animal disease, control over traceability, farm inspection, consumer protection, content of medicines in food, feed quality, and hygiene.

Analysis of the functional areas considering EU and US legislation reveals, that there is little economically significant divergence in regulations. It is not appropriate to declare that there are large identifiable gaps in nowadays Georgia legislation. The problems related to rigor of implementation and available means of implementation of laws and regulations and control over their implementations. This largely pertains to smallholder farms, which are exempt from several important regulations till 2020. Although, these are formally and explicitly written derogations, effectively even these smallholder farms are bind by laws because they are obligated to cooperate with authorities in case of disease outbreak and face quite significant penalties in case of breaking the regulations on contamination of milk and placing it on the market, for example. The problem, once again, is the limitation in resources, which would allow for uniform and strong control over application and implementation of regulations on traceability, animal health, and product safety.

The biggest gaps, are probably in the following areas:

1. The milk quality and dairy product grading standards are missing entirely from the approximation plan; This does not create favorable conditions for those enterprises and farmers, who can/want/do produce high quality product. In the condition of absence of such standards, high quality and safer product is hard if not impossible to differentiate from the inferior one;
2. Working on dairy product quality schemes is very essential if the intention is to gradually improve quality and create foundations for exports. The MEPA initiated the process by creating an Order on procedures for granting quality mark. Further work can be deployed in the area of quality schemes could apply to specific cheeses and butters from some regions of Georgia. These schemes are Protected Designation of Origin (PDO); Protected Geographical Indications (PGI); Traditional Specialty Guaranteed (TSG); Mountain Products and additional schemes.
3. The existing marketing support mechanisms are inadequate to needs of the industry; Discontinuous, poorly conceived programs do not send proper signal to the market and producers. In US and EU marketing support programs form very essential part of the dairy sector regulation. Such perception and practice are missing in Georgia;

In addition to the above means, while talking about the gaps, we tried to rely on information elicited through the interviews and take into consider the economic, social, and political context of Georgia while deriving conclusions as for the gaps in legal framework.

While talking about differences in institutional frameworks governing Georgian and EU and US dairy industries respectively, several key facts should be ascertained. First, both for the EU and US the process of creation and application of regulations is much more stretched in time and evolutionary in nature. For example, the process started in EU more than 100 years ago and naturally followed the key development trends in the industry. The situation in US is different but again, the regulatory framework based on institutional, economic, historic, and cultural foundation, which is completely different from Georgian context. The key driver for Georgian legal and institutional reforms is the prospect of EU membership,

whereas in comparative cases the purposes were almost purposely internal, such as consumer protection, strengthening of competition, support to farm consolidation, and etc. It is very important that throughout the entire lifespan of the EU and US systems, the safety and quality rules and regulations were applied and implemented in combination with long-term, well defined support measures both at the federal and local levels.

The US and EU systems differ in terms of rigor of application of rules and regulations by the relevant authorities. The framework is considerably laxer in US, especially when it concerns the state level authorities in charge of controlling safety and hygienic requirements at the individual farm level. Requirements in EU, for example as to the content of residues in animal products, are stricter but in both EU and US cases the entities that are to be inspected are much more well-developed and collaborative. The collaboration between the inspectors and the entities are strengthened by the fact that fulfillment of the needed requirement from the operator's side is tied with benefits of various forms available to farmers.

Specific aspects of Georgian laws and regulations pertaining to formal operators at the processing, distribution, and retail levels closely resemble the laws and regulations of the EU. This is unsurprising due to the approximation process. As the interviews of the processors indicate, the rules are set clear and compliance to them is not problematic. It seems that entities, who are active as per the definition of GEOSTAT, are committed to comply with regulations transparently. Also, the number of dairy processing enterprises is not very big and they can be adequately controlled and inspected with means currently at the disposal of the NFA.

Big problematic area in which Georgian legal and regulatory framework drags behind US and EU is the ability to inspect milk safety and quality at the primary production level. This is largely due to the fact that vast majority of production at this level takes place in very small holdings, who own 1-3 cows. In addition to that, lack of control is obvious even at the level of more organized farms, who might not be officially registered as operators but still own some 10-15 dairy cows. Such a practice is widespread in Western Georgia, where farms are located far away from dwellings. The loopholes at this level are also due to the exemptions, which are granted to households, "traditional operations," and operations in the mountainous regions. Other facets of laws and regulations obligate exempted operators to collaborate with state authorities in case of risk of outbreak of contagious disease and the inspectors are entitled to access all the places, which the animals are kept or maintained. This creates confusion and should be clarified. Clarification is possible by elimination of all exemptions for food safety consideration as planned by 2020. Nowadays, when animal registration programs are being implemented at full speed, public vaccination campaigns are underway, population is using communal pastures, it is perfectly legitimate and desirable that the state authorities have access to all the premises, where animals are kept.

Thus, it takes serious effort and imagination to derive to measures/actions or even regulations, which might contain significant development potential and are indeed needed if they do not create additional strain on state as an implementer.

Conclusions and recommendations

The results of the study derived from numerical, legislative and institutional and legal framework analysis of the Georgian dairy industry, as well as comparative legislation of EU and US convincingly suggests that the key problems with regard to safety and quality of milk produce in Georgia lie at the primary production level. The processing enterprises (if active) have means and stimuli to control safety of raw milk they intend to process. Although, consumer awareness has not yet reached the desirable level, it is growing and alongside general improvement of well-being it should be anticipated transparent, responsible enterprises adherent to safety and quality standards will acquire stronger positions over time.

From the perspective of state regulatory authorities, in the nearest future to have a practice and methodology of using the impact analysis of adopted regulations for selection and assessment of potential costs and benefits of EU regulations to be adopted for the purpose of assessing the compliance costs both for the state authorities, as well as the concerned enterprises. This is very essential for prioritizing the efforts in terms of urgency, as well as ensuring the necessary funds and manpower for their effective and efficient implementation.

It is often maintained that Georgia is adequately covered by private laboratory capacities. The global tendency suggests that key for success in this area is economies of scale, which is achieved, inter alia, by encouraging consolidation, and hence economies of scale. This would enable several laboratories amass the capital equipment necessary for conduct of sophisticated tests. This is coming naturally as long as the awareness of Georgian consumer rises. In addition, if Georgia wants to have reasonable chances in exporting products of animal origin, it is very desirable to have stronger laboratory capacities than what is available today. Improvement of laboratory capacities is essential for the purposes of spotting potential risks more efficiently. For example, nowadays, the bulk analysis of milk for contamination with brucellosis is undertaken. With larger scale laboratory it is possible to conduct many samples relatively cheaply. For this purpose, certain actions are to be taken to develop the system of delivery of samples to the laboratory premises.

It is worthwhile to consider introduction of a specific program for support of implementation of new EU regulations and directives during continuation of the approximation process. The private operators indicate that they have enough resources to cope with additional costs associated with new rules and regulations, although it is very desirable that state, possibly through the dairy associations, facilitates the technical assistance programs, which will cover the needs of enterprises in transition. Such a program might have positive spillovers for primary producers too.

Maintenance of tight relationships with GEOSTAT is very important when it comes to monitoring of performance of dairy enterprises and tracking major trends in the marketplace. The results of our telephone interviews indicate that majority of small enterprises interviewed do not apply any food safety standards or approaches at all. This might be because their majority is inactive, as defined by GEOSTAT. It is very desirable that NFA and GEOSTAT cross-check their information as to the status and updated activities of the enterprises concerned. This will support better planning of inspection, monitoring, awareness, and other programs necessary for maintaining acceptable food safety conditions throughout the country.

Collaboration with GEOSTAT is essential for capturing major development trends at the primary production level. This can be accomplished by design and conduct of gross margin surveys. For the beginning, sampling of several hundred households in several regions of Georgia would be enough. Such surveys are not very costly to conduct and allow for capturing major trends in yields, cost breakdown and profitability. The milk

yield recording methodology should be scrutinized in order to eliminate any doubts on reliability of current data on improved milk yields. This is a decisive trend in Georgian dairy industry. It should be verified and if proven true, the causes of its development and its sustainability should be rigorously ascertained.

At the individual farm level, the detailed rules and procedures for maintaining safe and hygienic conditions should be applied. Individual farmers, who are getting public services such as access to communal grazing land, vaccination, tagging should be obligated to conduct simple documentation as to the details and dates of application of veterinary medicines, key safety procedures. The specific manual for inspection of the small household level should be developed. Initially, farmers with visible commercial potential should be covered. Normally, these are farmers who maintain more than 5 dairy cows and produce mostly for selling purposes. Such farms have advanced facilities located separately from their dwellings.

Government is gradually increasing coverage of animals with registration, as well as other essential services. Massive vaccination programs have probably resulted in qualitative reduction of systematic risks in the regions, such as spread of dangerous contagious diseases. On the other hand, such programs cannot continue forever, and the state should withdraw from them over time and let private veterinarians provide the necessary services and market for these services to emerge. Although, derogations at the stallholder level might not actually create many and big problems for the industry, they create confusion and divert attention of the state authorities from other issues and create mistrust among the industry players, notably from producers to smallholders. The practice of delaying removal of derogations should be removed. Although it is not politically popular, further delays might become politically infeasible and create bigger tensions with additional future delays. Georgian legislation is flexible and clear enough, but its problem is discontinuous and non-uniform application. Such a practice should be abolished.

It is possible to elaborate some schemes for optimal usage of communal pastures through the existing dairy associations. Such schemes might result in enhanced milk yields, better maintenance of resources, and improved animal health conditions. This includes simple control over transportation by assigning a concrete individual(s) to the task of sending the herd to the pasture and bringing it back timely, especially if (as it is mostly the case), communal pastures are far from the residence of farmers. After that, organized grazing, possibly combined with fertilizing the pastures would result in higher yields. Organized transportation of animals and attention would serve as a tool for improvement of chances for prevention of disease and improve collaboration with the state authorities.

If the government cannot credibly commit to the long-term support schemes with long and specified timelines, clear and simple rules, well-defined budgets and monitoring rules for all kinds of milk producing enterprises, it should not engage itself in schemes, which support specific forms of enterprises in specific areas of the country with unclear timelines and not so well-established budgets. Usefulness, effectiveness, efficiency, and fairness of support schemes is debatable but once Georgia declared EU integration as a policy goal, it is anticipated to the GoG should develop some structured and well-defined support scheme.

As to the milk and dairy grading standards, USDA standards can provide a very useful guidance. These are voluntary but create objective, discernable, and trusted target, which is useful in orientation of production and gaining trust of the consumer. For example, the Butter Grades and Standards have three grades: AA, A, B, and General. These grades allow the consumer to distinguish the product by flavor, color, salt content, body, and other characteristics. The same might apply to cheese or other milk products. This might be interesting to Georgian consumers, as they are significant per capita cheese consumers. Importantly, end product grading system can help “quality tracing,” which is beneficial both to the consumers, as well as the

state. Creation of such standard is easy given flexible Georgian legislation. It can be directly transferred to Georgian soil or some analogue be created with relatively modest financial outlays.

As an example of a quality support scheme, we refer to the Mountain product scheme. This scheme in EU is covered by *EU regulation 665/2014 on the conditions of use of the optional quality term 'mountain product'* and *EU regulation 1151/2012 on quality schemes for agricultural products and foodstuffs. The quality term 'mountain product' highlights the specificities of a product, made in mountain areas, with difficult natural conditions.* This scheme is an important marketing mechanism that creates advantages to the farmers, who want to have better links with specific customers. In addition, this mechanism makes sure that the product consumers are buying has the desired specific characteristics. Importantly, this scheme obligates the farmer to use the raw materials and animal feed to be obtained from the local sources. This is a very specific mechanism, which, if carefully used, might be a potent tool of small-scale enterprise development in mountain areas of Georgia. It should be remembered, that major part of resources necessary for milk production, such as permanent pastures, are located in mountainous regions of Georgia.

Literature and sources

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Annexes 1. List of detailed interviews

Surname	Name	Organization	Category
Mikadze	Giorgi	NFA	NFA
Khelaia	Demna	NFA	NFA
Akhalbedashvili	Iveri	Parliamentary Agrarian Committee	Parliament
Mgeladze	Nestan	Accreditation Center	Supportive Public Service Organizations
Menteshashvili	Ioseb	NFA	NFA
Kobakhidze	Levan	N/A	Experts in the Field
Kvirikashvili	Dimitri	Caucasus genetics	NGO-s working in the field
Tskitishvili	Zurab	Scientific Research Centre of the MEPA	MEPA
Gelashvili	Salome	ISET	Experts in the Field
Sokhadze	Misha	FAO	FAO
Laperashvili	Ketevan	MEPA	MEPA
Poberezhna	Katerina	Joint FAO and EBRD Project	NGO-s working in the field
Koniashvili	Kakha	Association Dairy Georgia	NGO-s working in the field
Kasrashvili	Irakli	Mercy Corps	Experts in the Field
Glonti	Giorgi	Care Georgia	NGO-s working in the field
Bakashvili	Salome	People in Need	NGO-s working in the field
Bedoshvili	David	Caucascert	Food safety and quality assurance companies
Kantelidze	Darejan	Santa Ltd	Producer
Gvinepadze	Andria	Atinati Ltd	Producer
Kochalidze	Amiran	Tanadgoma Cooperative	Producer
Botkoveli	Izolda	Individual entrepreneur	Producer
Ghaghashvili	Gocha	Cold Cheese Ltd	Producer

Annexes 2. List of telephone interviews

Individual/Organization Name	Standard/Systems applied as indicated
Vanik Ghazarian I/E	None
Spasovka Ltd	None
Airapetyan Srab	None
Tsarukyan Arushan I/E	None
Orlovka 2011 Ltd	None
Alpuri Ltd	ISO22000
Meskheta Ltd	None
Vaios Veli Ltd	None
Mokhe Cooperative	HACCP
Alpuri Javakheti Ltd	HACCP
Dertselis Nobati Cooperative	HACCP
Endet Ertobis Nobats Ltd	HACCP
Maria from Heshtia Ltd	HACCP
Khozrevanidze Tamaz I/E	None
Shiraki Ltd	HACCP
Natural Milk Ltd	None
Zestafonuri Cooperative	Global GAP
BGT Group Ltd	HACCP
Temur Kakhadze I/E	None
Giukhar Abdulaeva I/E	None
Kobulehuri Trading Ltd	None
Tserovani Agroconsortium	HACCP

Annexes 3. Legal approximation process in veterinary (only the legal acts relevant to the study are listed, approximated are indicated in bold)

EU Legal Act	Georgian Equivalent	Date of Approval
Council Regulation (EC) No 21/2004 of 17 December 2003 s and amending Regulation (EC) No 1782/2003 and Directives 92/102/EEC and 64/432/EEC	GoG Decree #228 of May 27, 2015 On Approval of Rules for identification and registration of ovine and caprine animal and their temporary/permanent stand	2015
Commission Regulation (EC) No 1505/2006 of 11 October 2006 implementing Council Regulation (EC) No 21/2004 as regards the minimum level of checks to be carried out in relation to the identification and registration of ovine and caprine animals	GoG Decree #228 of May 27, 2015 On Approval of Rules for identification and registration of ovine and caprine animal and their temporary/permanent stand	2015
Council Directive 2003/85/EC of 29 September 2003 on Community measures for the control of foot-and-mouth disease repealing Directive 85/511/EEC and Decisions 89/531/EEC and 91/665/EEC and amending Directive 92/46/EEC	GoG Decree # 348 of July, 14 2015 On Approval of the Rules for Implementation of Preventive-Quarantine Measures against Animal Transmissible Diseases	2015
Regulation (EC) No 1760/2000 of the European Parliament and of the Council of 17 July 2000 establishing a system for the identification and registration of bovine animals and regarding the labelling of beef and beef products and repealing Council Regulation (EC) No 820/97.	GoG Decree # 764 of December 31, 2014 on Identification and Registration of Bovine Animals and Registration of Their Holdings / Temporary Holdings	2015
Commission Regulation (EC) No 1082/2003 of 23 June 2003 laying down detailed rules for the implementation of Regulation (EC) No 1760/2000 of the European Parliament and of the Council as regards the minimum level of controls to be carried out in the framework of the system for the identification and registration of bovine animals	GoG Decree # 764 of December 31, 2014 on Identification and Registration of Bovine Animals and Registration of Their Holdings/ Temporary Holdings	2015
Commission Regulation (EC) No 911/2004 of 29 April 2004 implementing Regulation (EC) No 1760/2000 of the European Parliament and of the Council as regards eartags, passports and holding registers	GoG Decree # 764 of December 31, 2014 on Identification and Registration of Bovine Animals and Registration of Their Holdings / Temporary Holdings	2015

<p>Commission Regulation (EC) No 494/98 of 27 February 1998 laying down detailed rules for the implementation of Council Regulation (EC) No 820/97 as regards the application of minimum administrative sanctions in the framework of the system for the identification and registration of bovine animals</p>	<p>GoG Decree # 764 of December 31, 2014 on Identification and Registration of Bovine Animals and Registration of Their Holdings / Temporary Holdings</p>	<p>2015</p>
<p>Regulation (EC) No 999/2001 of the European Parliament and of the Council of 22 May 2001 laying down rules for the prevention, control and eradication of certain transmissible spongiform encephalopathies</p>	<p>GoG Decree # 600 of December 28, 2016 on Technical Regulation - Prevention of Certain Transmissible Spongiform Encephalopathies, Approval and Elimination Rules</p>	<p>2016</p>
<p>Regulation (EC) No 1069/2009 of the European Parliament and of the Council of 21 October 2009 laying down health rules as regards animal by-products and derived products not intended for human consumption and repealing Regulation (EC) No 1774/2002</p>	<p>GoG Decree # 605 of December 29, 2017 on Technical Regulations - On Approval of Rules for the Recognition of a Business Operator Related to Non-Food Animal Origin Products (including Animal Waste) and Derived Products Not Intended for Human Consumption</p>	<p>2017</p>
<p>Commission Regulation (EU) No 142/2011 of 25 February 2011 implementing Regulation (EC) No 1069/2009 of the European Parliament and of the Council laying down health rules as regards animal by-products and derived products not intended for human consumption and implementing Council Directive 97/78/EC as regards certain samples and items exempt from veterinary checks at the border under that Directive</p>	<p>GoG Decree # 605 of December 29, 2017 on Technical Regulations - On Approval of Rules for the Recognition of a Business Operator Related to Non-Food Products (including Animal Waste) and Secondary Products Not Designed for Human Use</p>	<p>2017</p>
<p>Council Directive 92/118/EEC of 17 December 1992 laying down animal health and public health requirements governing trade in and imports into the Community of products not subject to the said requirements laid down in specific Community rules referred to in Annex A (I) to Directive 89/662/EEC and, as regards pathogens, to Directive 90/425/EEC</p>	<p>GoG Decree #595 of December 28, 2017 on Approval of Public and Animal Health Rule on Trade and Importation of Subjects to Special Requirements”</p>	<p>2017</p>
<p>Directive 2003/99/EC of the European Parliament and of the Council of 17 November 2003 on the monitoring of zoonoses and zoonotic agents, amending Council Decision 90/424/EEC and repealing Council Directive 92/117/EEC</p>	<p>GoG Decree # 323 of July 5, 2017 on Approval of the Monitoring Procedure for Zoonosis and Zoonotic Agents</p>	<p>2017</p>

Council Directive 64/432/EEC of 26 June 1964 on animal health problems affecting intra-Community trade in bovine animals and swine	GoG Decree # 584 of December 28, 2017 Technical Regulation on Animal Health Problems Affecting Trade in Cattle and Swine	2017
Regulation (EC) No 998/2003 of the European Parliament and of the Council of 26 May 2003 on the animal health requirements applicable to the non-commercial movement of pet animals and amending Council Directive 92/65/EEC	GoG Decree # 551 of November 16, 2018 on Non-commercial Movement of Pet Animals	2018
Commission Regulation (EC) No 1266/2007 of 26 October 2007 on implementing rules for Council Directive 2000/75/EC as regards the control, monitoring, surveillance and restrictions on movements of certain animals of susceptible species in relation to bluetongue.	Decree of Government of Georgia of August 3 2018 N 398 – On approval of the special rule for elimination and control of bluetongue	2018
Council Directive 2000/75/EC of 20 November 2000 laying down specific provisions for the control and eradication of bluetongue	GoG Decree # 398 of August 3, 2018 on Approval of the Special rule for Elimination and Control of Bluetongue.	2018
Council Directive 2002/99/EC of 16 December 2002 laying down the animal health rules governing the production, processing, distribution and introduction of products of animal origin for human consumption	GoG Decree # 587 of December 13, 2018 on Approval of the Rules of Animal Health governing the Production, Processing, Distribution, Distribution and Import of Animal Origin Products for Human Consumption	2018
DIRECTIVE 2001/82/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 6 November 2001 on the Community code relating to veterinary medicinal products	GoG Decree # 112 of February 19, 2019 on the Procedure for Registration, Production Authorization and Control of Veterinary Drugs	2018
DIRECTIVE 2004/28/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 March 2004 amending Directive 2001/82/EC on the Community code relating to veterinary medicinal products	GoG Decree # 112 of February 19, 2019 on the Procedure for Registration, Production Authorization and Control of Veterinary Drugs	2018
Regulation (EC) No 470/2009 of the European Parliament and of the Council of 6 May 2009 laying down Community procedures for the establishment of residue limits of pharmacologically active substances in foodstuffs of animal origin, repealing Council Regulation (EEC) No 2377/90 and amending Directive 2001/82/EC of the European Parliament and of	GoG Decree # 112 of February 19, 2019 on the Procedure for Registration, Production Authorization and Control of Veterinary Drugs	2018

the Council and Regulation (EC) No 726/2004 of the European Parliament and of the Council		
COMMISSION DIRECTIVE 2006/130/EC of 11 December 2006 implementing Directive 2001/82/EC of the European Parliament and of the Council as regards the establishment of criteria for exempting certain veterinary medicinal products for food-producing animals from the requirement of a veterinary prescription		2019
Regulation (EC) No 183/2005 of the European Parliament and of the Council of 12 January 2005 laying down requirements for feed hygiene		2019
Commission Regulation (EC) No 141/2007 of 14 February 2007 concerning a requirement for approval in accordance with Regulation (EC) No 183/2005 of the European Parliament and of the Council for feed business establishments manufacturing or placing on the market feed additives of the category coccidiostats and histomonostats		2019
Council Directive 92/119/EEC of 17 December 1992 introducing general Community measures for the control of certain animal diseases and specific measures relating to swine vesicular disease		2020
Commission Directive 2008/38/EC of 5 March 2008 establishing a list of intended uses of animal feeding stuffs for particular nutritional purposes (Codified version)		2020
Commission Directive 82/475/EEC of 23 June 1982 laying down the categories of ingredients which may be used for the purposes of labelling compound feeding stuffs for pet animals		2020
Regulation (EC) No 767/2009 of the European Parliament and of the Council of 13 July 2009 on the placing on the market and use of feed, amending European Parliament and Council Regulation (EC) No 1831/2003 and repealing Council Directive 79/373/EEC, Commission Directive 80/511/EEC, Council Directives 82/471/EEC, 83/228/EEC, 93/74/EEC, 93/113/EC		2020

and 96/25/EC and Commission Decision 2004/217/EC		
Commission Recommendation 2011/25/EU of 14 January 2011 establishing guidelines for the distinction between feed materials, feed additives, biocidal products and veterinary medicinal products		2020
Commission Regulation (EU) No 68/2013 of 16 January 2013 on the Catalogue of feed materials		2020
Commission Regulation (EC) No 152/2009 of 27 January 2009 laying down the methods of sampling and analysis for the official control of feed		2021
Regulation (EC) No 1831/2003 of the European Parliament and of the Council of 22 September 2003 on additives for use in animal nutrition		2021
Commission Regulation (EC) No 378/2005 of 4 March 2005 on detailed rules for the implementation of Regulation (EC) No 1831/2003 of the European Parliament and of the Council as regards the duties and tasks of the Community Reference Laboratory concerning applications for authorizations of feed additives		2021
Commission Regulation (EC) No 429/2008 of 25 April 2008 on detailed rules for the implementation of Regulation (EC) No 1831/2003 of the European Parliament and of the Council as regards the preparation and the presentation of applications and the assessment and the authorization of feed additives		2021
Commission Regulation (EC) No 2075/2005 of 5 December 2005 laying down specific rules on official controls for Trichinella in meat		2021
Council Directive 98/58/EC concerning the protection of animals kept for farming purposes		2022
Commission Decision 2006/778/EC of 14 November 2006 concerning minimum requirements for the collection of information during the inspections of production sites on		2022

which certain animals are kept for farming purposes		
Council Directive 2008/119/EC of 18 December 2008 laying down minimum standards for the protection of calves		2022
Council Regulation (EC) No 1099/2009 of 24 September 2009 on the protection of animals at the time of killing		2022
Council Regulation (EC) No 1255/97 of 25 June 1997 concerning Community criteria for staging points and amending the route plan referred to in the Annex to Directive 91/628/EEC		2022
Council Regulation (EC) No 1/2005 of 22 December 2004 on the protection of animals during transport and related operations and amending Directives 64/432/EEC and 93/119/EC and Regulation (EC) No 1255/97		2022
Commission Regulation (EU) No 101/2013 of 4 February 2013 concerning the use of lactic acid to reduce microbiological surface contamination on bovine carcasses		2023
Council Directive 90/167/EEC of 26 March 1990 laying down the conditions governing the preparation, placing on the market and use of medicated feeding stuffs in the Community		2024
Directive 2002/32/EC of the European Parliament and the Council of 7 May 2002 on undesirable substances in animal feed		2024
Commission Recommendation 2004/704/EC of 11 October 2004 on the monitoring of background levels of dioxins and dioxin-like PCBs in feeding stuffs		2024
Commission Regulation (EU) No 605/2010 of 2 July 2010 laying down animal and public health and veterinary certification conditions for the introduction into the European Union of raw milk and dairy products intended for human consumption		2025

<p>Council Directive 2009/157/EC of 30 November 2009 on pure-bred breeding animals of the bovine species</p>		<p>2026</p>
<p>Commission Decision 84/247/EEC of 27 April 1984 laying down the criteria for the recognition of breeders organizations and associations which maintain or establish herd-books for pure-bred breeding animals of the bovine species</p>		<p>2026</p>
<p>Council Directive 87/328/EEC of 18 June 1987 on the acceptance for breeding purposes of pure-bred breeding animals of the bovine species</p>		<p>2026</p>
<p>Council Directive 94/28/EC of 23 June 1994 laying down the principles relating to the zootechnical and genealogical conditions applicable to imports from third countries of animals, their semen, ova and embryos, and amending Directive 77/504/EEC on pure-bred breeding animals of the bovine species</p>		<p>2026</p>

Annexes 4. Legal approximation process in food safety (only the legal acts relevant to the study are listed, approximated are indicated in bold)

European regulation	Georgian equivalent	Date of approval
Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety	Resolution of the Government of Georgia #578 of November 10, 2015 on Approval of Rule of Measures for Ensuring Integration into the Rapid Alert System for Food and Feed (RASFF)	2015
Commission Regulation (EU) No 16/2011 of 10 January 2011 laying down implementing measures for the Rapid alert system for food and feed	GoG Decree # N578 of November 10, 2015 on Measures to Ensure Integration into the EU Food and Animal Rapid Alert System (RASFF)	2015
Commission Decision 2004/478/EC of 29 April 2004 concerning the adoption of a general plan for food/feed crisis management	GoG Decree # 547 of October 23, 2015 on Approval of the General Plan of the Crisis Management in the Food Safety and Animal Feed , and amending GoG Decree #419 of December 29, 2010	2015
Regulation (EC) No 852/2004 of the European Parliament and of the Council of 29 April 2004 on the hygiene of foodstuffs	GoG Decree # 534 of October 16, 2015 on the General Rules of Hygiene of Foodstuff and Animal Feed of Producers, Distributors and Supervision in the Fields of Food Safety, Veterinary and Plant Protection, and Concerning the Amendment to the GoG Decree # 173 of June 25, 2010 on Monitoring and State Control	2015
Regulation (EC) No 853/2004 of the European Parliament and of the Council of 29 April 2004 laying down specific hygiene rules for food of animal origin	GoG Decree # 90 March 7, 2012 on the Special Rules of Hygiene for Food of Animal Origin	2015
Commission Regulation (EC) No 2073/2005 of 15 November 2005 on microbiological criteria for foodstuffs	Resolution of the Government of Georgia #581 of November 10, 2015 on Approval of Technical Regulation on Microbiological Content	2015
Regulation (EC) No 882/2004 of the European Parliament and of the Council of 29 April 2004 on official controls performed to ensure the	"Code of Food / Animal Feed Safety, Veterinary and Plant Protection", and GoG Decree # 533 of October 16, 2015 on Approving the Procedure for	2015

verification of compliance with feed and food law, animal health and animal welfare rules	Implementation of State Food Safety Control of Foodstuffs and Feed	
Regulation (EC) No 854/2004 of the European Parliament and of the Council of 29 April 2004 laying down specific rules for the organisation of official controls on products of animal origin intended for human consumption	GoG Decree # 55 of February 12, 2015 on the Approval of the Special Procedure for the State Control of Foodstuffs of Animal Origin	2015
Commission Implementing Regulation (EU) No 931/2011 of 19 September 2011 on the traceability requirements set by Regulation (EC) No 178/2002 of the European Parliament and of the Council	GoG Decree # 577 of November 10, 2015 on Approval of the General Principles and Requirements of Traceability	2015
Council Directive 96/23/EC of 29 April 1996 on measures to monitor certain substances and residues thereof in live animals and animal products and repealing Directives 85/358/EEC and 86/469/EEC and Decisions 89/187/EEC and 91/664/EEC	GoG Decree # 22 of January 18, 2016 on the Approval of the Rules of Procedure for Monitoring of Certain Substances and their Residue in Live Animals and Foods of Animal Origin	2015
Commission Decision 97/747/EC of 27 October 1997 fixing the levels and frequencies of sampling provided for Council Directive 96/23/EC for the monitoring of certain substances and residues thereof in certain animal products	GoG Decree # 22 of January 18, 2016 on the Approval of the Rules of Procedure for Monitoring of Certain Substances and their Residue in Live Animals and Foods of Animal Origin	2015
Council Directive 96/22/EC of 29 April 1996 concerning the prohibition on the use in stock farming of certain substances having a hormonal or thyrostatic action and of β -agonists, and repealing Directives 81/602/EEC, 88/146/EEC and 88/299/EEC	GoG Decree #10 of January 11, 2016 on Approval of the Procedure for Prohibition of the Use of Certain Hormones and Thyrostatic Substances and Beta-Agonists in Livestock	2015
Council Regulation (EEC) No 315/93 of 8 February 1993 laying down Community procedures for contaminants in food	GoG Decree # 567 of November 9, 2015 on Approval of the Technical Regulations on the Maximum Permissible Threshold of Certain Contaminants in Food	2015
Regulation (EC) No 1760/2000 of the European Parliament and of the council of 17 July 2000 establishing a system for the identification and registration of bovine animals and regarding the labelling of beef and beef products and repealing Council Regulation (EC) No 820/97	GoG Decree # 118 of March 9, 2016 on Approval of the Technical Regulation - Rules on the Labeling of Beef and Beef Products	2015

Commission Regulation (EC) No 1881/2006 of 19 December 2006 setting maximum levels for certain contaminants in foodstuffs	GoG Decree # 567 of November 9, 2015 on Approval of the Technical Regulations on the Maximum Permissible Threshold of Certain Contaminants in Food	2015
Commission Decision 2002/657/EC of 12 August 2002 implementing Council Directive 96/23/EC concerning the performance of analytical methods and the interpretation of results	GoG Decree # 499 of November 8, 2016 on the Approval of the Procedure for the performance of analytical methods and the interpretation of results	2016
Commission Decision 2006/677/EC of 29 September 2006 setting out the guidelines laying down criteria for the conduct of audits under Regulation (EC) No 882/2004 of the European Parliament and of the Council on official controls to verify compliance with feed and food law, animal health and animal welfare rules	Approximated under the Georgian legislation on auditing.	2016
Regulation (EC) No 396/2005 of the European Parliament and of the Council of 23 February 2005 on maximum residue levels of pesticides in or on food and feed of plant and animal origin and amending Council Directive 91/414/EEC	GoG Decree # 623 of December 23, 2016 on the Approval of the Technical Regulation on the Maximum Level of Pesticide Residues in Foodstuffs and Feed of Plant and Animal Origin	2016
Regulation (EU) No 1169/2011 of the European Parliament and of the Council of 25 October 2011 on the provision of food information to consumers, amending Regulations (EC) No 1924/2006 and (EC) No 1925/2006 of the European Parliament and of the Council, and repealing Commission Directive 87/250/EEC, Council Directive 90/496/EEC, Commission Directive 1999/10/EC, Directive 2000/13/EC of the European Parliament and of the Council, Commission Directives 2002/67/EC and 2008/5/EC and Commission Regulation (EC) No 608/2004 Text with EEA relevance	GoG Decree # 301 of July 1, 2016 on Approving the Technical Regulation - Providing Food Information to Consumers	2016
Regulation (EC) No 1924/2006 of the European Parliament and of the Council of 20 December 2006 on nutrition and health claims made on foods	Resolution No. 510 of the Government of Georgia of November 17, 2016, on approval of nutrition and health claims made on foods.	2016
COMMISSION REGULATION (EU) No 1047/2012 of 8 November 2012 amending	Resolution No. 510 of the Government of Georgia of November 17, 2016, on	2016

Regulation (EC) No 1924/2006 with regard to the list of nutrition claims	approval of nutrition and health claims made on foods.	
COMMISSION IMPLEMENTING DECISION 2013/63 of 24 January 2013 adopting guidelines for the implementation of specific conditions for health claims laid down in Article 10 of Regulation (EC) No 1924/2006 of the European Parliament and of the Council	Resolution No. 510 of the Government of Georgia of November 17, 2016, Tbilisi on approval of nutrition and health claims made on foods.	2016
Regulation (EC) No 1333/2008 of the European Parliament and of the Council of 16 December 2008 on food additives	Resolution No. 585 of the Government of Georgia of December 23, 2016, technical regulation- on approval of food additives.	2016
Regulation (EC) No 1925/2006 of the European Parliament and of the Council of 20 December 2006 on the addition of vitamins and minerals and of certain other substances to foods	Resolution No. 508 of the Government of Georgia of November 17, 2016, Tbilisi-technical regulation-on the addition of vitamins and minerals and of certain other substances to foods.	2016
Commission Regulation (EC) No 1170/2009 of 30 November 2009 amending Directive 2002/46/EC of the European Parliament and of Council and Regulation (EC) No 1925/2006 of the European Parliament and of the Council as regards the lists of vitamin and minerals and their forms that can be added to foods, including food supplements	Resolution No. 508 of the Government of Georgia of November 17, 2016, Tbilisi-technical regulation-on the addition of vitamins and minerals and of certain other substances to foods.	2016
Commission Regulation (EU) No 37/2010 of 22 December 2009 on pharmacologically active substances and their classification regarding maximum residue limits in foodstuffs of animal origin	Resolution No. 639 of the Government of Georgia of December 18, 2015, Tbilisi-technical regulation on pharmacologically active substances, their classification and maximum residue limits in foodstuffs of animal origin.	2016
Commission Regulation (EC) No 401/2006 of 23 February 2006 laying down the methods of sampling and analysis for the official control of the levels of mycotoxins in foodstuffs	Resolution No. 497 of the Government of Georgia of November 17, 2016, Tbilisi on approval of the methods of sampling and analysis for the determination of mycotoxins in foodstuffs.	2016
Commission Regulation (EC) No 333/2007 of 28 March 2007 laying down the methods of sampling and analysis for the official control of the levels of lead, cadmium, mercury, inorganic tin, 3-MCPD and benzo(a)pyrene in foodstuffs	Resolution No. 547 of the Government of Georgia of December 13, 2016, Tbilisi on the methods of sampling and analysis for the control of levels of microelements and contaminants in foodstuffs.	2016

Council Decision 92/608/EEC of 14 November 1992 laying down methods for the analysis and testing of heat-treated milk for direct human consumption		2017
Regulation 1935/2004/EC of the European Parliament and of the Council of 27 October 2004 on materials and articles intended to come into contact with food	GoG Decree of June 5 2018 on the Requirements for materials and articles intended to come into contact with food	2018
Regulation (EC) No 1830/2003 of the European Parliament and of the Council of 22 September 2003 concerning the traceability and labelling of genetically modified organisms and the traceability of food and feed products produced from genetically modified organisms and amending Directive 2001/18/EC	GoG Decree # 548 of November 16, 2018 on Traceability and Labeling of Genetically Modified Organisms, Approval of Food / Animal Feed Traceability from Genetically Modified Organisms	2018
Regulation (EC) N° 1829/2003 of the European Parliament and of the Council of 22 September 2003 on genetically modified food and feed.	GoG Decree # 549 of November 16, 2018 on the Requirements for Genetically Modified Food and Animal Feed	2018
Commission Decision 2007/363/EC of 21 May 2007 on guidelines to assist Member States in preparing the single integrated multi-annual national control plan provided for in Regulation (EC) No 882/2004 of the European Parliament and of the Council		2019
Commission Regulation (EU) No 231/2012 of 9 March 2012 laying down specifications for food additives listed in Annexes II and III to Regulation (EC) No 1333/2008 of the European Parliament and of the Council Text with EEA relevance		2019
Regulation (EC) No 258/97 of the European Parliament and of the Council of 27 January 1997 concerning novel foods and novel food ingredients		2019
Commission Regulation (EC) No 641/2004 of 6 April 2004 on detailed rules for the implementation of Regulation (EC) No 1829/2003 as regards the application for the authorization of new genetically modified food and feed, the notification of existing products and adventitious or technically unavoidable presence of genetically modified material		2019

which has benefited from a favorable risk evaluation		
Commission Decision 86/474/EEC of 11 September 1986 on the implementation of the on-the-spot inspections to be carried out in respect of the importation of bovine animals and swine and fresh meat from non-member countries		2022
Directive 2002/46/EC of the European Parliament and of the Council of 10 June 2002 on the approximation of the laws of the Member States relating to food supplements		2022
Commission Regulation (EU) No 10/2011 of 14 January 2011 on plastic materials and articles intended to come into contact with food		2022
Commission Regulation (EU) No 432/2012 of 16 May 2012 establishing a list of permitted health claims made on foods, other than those referring to the reduction of disease risk and to children's development and health		2024
Commission Regulation (EC) No 124/2009 of 10 February 2009 setting maximum levels for the presence of coccidiostats or histomonostats in food resulting from the unavoidable carry-over of these substances in non-target feed		2024
Commission Directive 2007/42/EC of 29 June 2007 relating to materials and articles made of regenerated cellulose film intended to come into contact with foodstuffs		2024
Commission Recommendation 2011/516/EU of 23 August 2011 on the reduction of the presence of dioxins, furans and PCBs in feed and food		2025
Commission Recommendation 2006/794/EC of 16 November 2006 on the monitoring of background levels of dioxins, dioxin-like PCBs and non-dioxin-like PCBs in foodstuffs		2025

<p>Commission Regulation (EU) No 589/2014 of 2 June 2014 laying down methods of sampling and analysis for the control of levels of dioxins, dioxin-like PCBs and non-dioxin-like PCBs in certain foodstuffs and repealing Regulation (EU) No 252/2012</p>		<p>2025</p>
<p>Commission Regulation (EC) No 450/2009 of 29 May 2009 on active and intelligent materials and articles intended to come into contact with food</p>		<p>2026</p>
<p>COMMISSION REGULATION (EC) No 282/2008 of 27 March 2008 on recycled plastic materials and articles intended to come into contact with foods and amending Regulation (EC) No 2023/2006</p>		<p>2026</p>