



# DAIRY FARMING IN LATVIA AN EXTENDED SUMMARY

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## 1. Introduction

This report is a part of the European research project SUFISA – “Sustainable Finance for Sustainable Agriculture and Fisheries” (2015-2019), which aims to identify practices and policies that support the sustainability of primary producers in a context of complex policy requirements, market imperfections and globalisation. More information can be found on the [SUFISA website](#).

The research in Latvia is carried out by the Baltic Studies Centre.

### 1.1. Context

Agriculture has been a traditional occupation in Latvia for centuries. There are appropriate agro-environmental conditions (climate, agricultural land, water) and there is a well-developed socio-cultural capital (traditions, knowledge, skills) for farming and food production in Latvia. However, some experts estimate that these local conditions are much less advantageous when compared at European and also global scale, due to less favourable agro-climate, less developed technologies (Hansen and Vanags 2009) as well as discriminating EU agricultural support policies in new member states.

With population of 1,986 million (32 % of whom are rural residents), concentration of population in greater Riga area, sparsely populated rural regions with small towns and the surrounding countryside Latvia is characterised by extensive rural and coastal areas where agriculture, forestry and fisheries are important economic activities. Primary agricultural production contributes 1.6 % to GDP, forestry 1.6 % and fisheries 0.3 % (Ministry of Agriculture 2015). After decreasing tendencies during 1990s and 2000s, the share of agriculture in the national economy has stabilised in terms of employment (8 %, including forestry and fishery), contribution to GDP (~5 %) and share in gross added value (2.1 %). Agricultural output has been ever increasing with some minor decreases in less productive years (Ministry of Agriculture 2014). The major products are milk and cereals, which compose respectively 17.8 % and 34.4 % of the total agricultural output (CSB 2016b). These are two sectors that are selected as cases for in-depth study in Latvia.

The dynamics in agri-food sector in 2013–2014 have been characterised by increased crop and animal production, record grain harvest in 2014, falling crop and animal product prices, and increased producer subsidies (Ministry of Agriculture 2015). However, Russian trade sanctions on food products with EU countries have had negative effects on the food sector, in particular the dairy industry. Albeit agricultural productivity is increasing, it remains comparatively low. The existing production volumes meet local consumption, and food self-sufficiency can be reached in major product groups, except for pork and poultry (no data on vegetables and fruit, except for potatoes and legumes) (CSB 2014).

Still, in the global market and trade conditions, a considerable part of primary food stuff is imported, and the general dependence of local consumption on imported food has been even increasing, reaching 34 % in 2007 (Populga and Melece 2009). Šulca and Sproģe (2009) estimate that the share of imported foodstuff in

consumption has increased even from 30 to 68 % in the time period between 2000 and 2007. In the meantime agricultural export is increasing as well, in recent years in a faster pace than import. But export does not exceed import and the foreign trade balance is negative. Milk, cereals and rape seed are major export products.

The low agricultural productivity is mostly associated to the fragmented small-scale farming structure. The average utilised agricultural area per holding was 20.7 ha in 2013 (CSB 2016b). Despite of on-going concentration trends in agriculture, there is a considerable prevalence of small farms in agricultural production – up to 90 % farms are considered as small. These farms maintain biological and agricultural diversity, therefore contributing also to food and nutritional diversity (Šūmane et al. 2014). Small farms apply fewer pesticides (CSB 2014a), which means also less polluted food delivered from these farms. It is also noteworthy that in the situation of scarce employment possibilities in rural regions, small farms perform the crucial role providing numerous farming families with income and food.

The agricultural development in Latvia has been considerably influenced by the country's joining the EU in 2004 and the subsequent enforcement of the EU Common Agricultural Policy. The decade following EU accession was marked by massive modernisation processes in agriculture and food sectors with lots of investment in farms and food businesses, introduction of new technologies and raising the competitiveness profile of farms and food companies and improvements in organisation of food chains. The main beneficiaries of these EU agricultural funds for modernisation have been predominantly the medium and large scale farms. These investments in modernisation also had an effect on farm concentration and spread of agri-industrial strategies. The rural development component although present in Latvia's Rural Development Plans and manifested through designated support to LEADER groups, agri-environmental action, farm diversification and more recently to small farms and young farmers have never been the political cornerstone of agricultural and rural development policies. Vice-versa – small scale farming, multifunctional agriculture, niche and alternative productions, short chains and other non-mainstream forms of agriculture have been largely left on the margins of mainstream development or even looked upon as backward residuals from the past with low contribution and growth potential (Mincyte 2011).

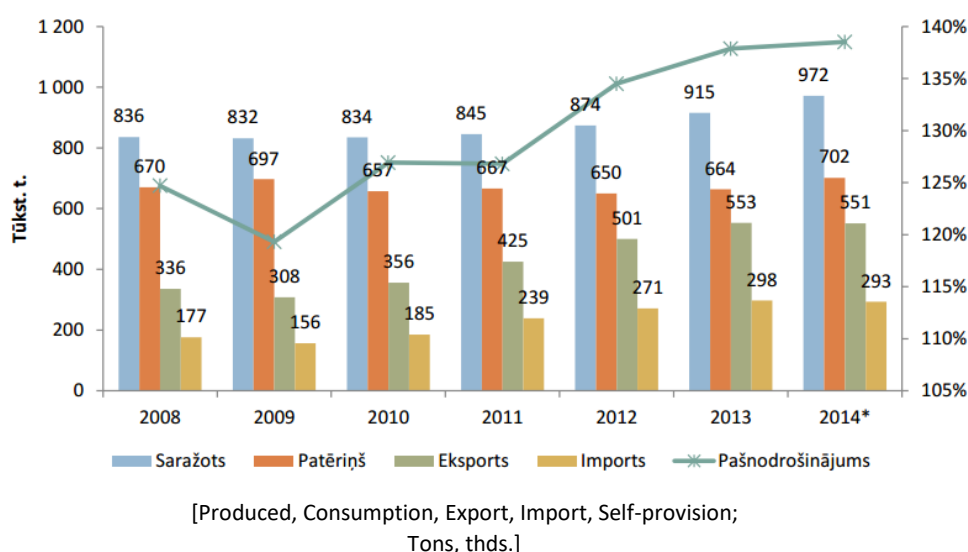
Some of the long term development trends exacerbated after joining the EU that epitomise agricultural and rural development in 2004-2016 have been: technological modernisation and growth of large farms; integration of mainstream agricultural production in global trade systems; concentration and foreign takeover of food companies; changes in land use and ownership structures with salient foreign land acquisition and rapid shrinking and in the meantime resilience of the segment of small farms (Tisenkopfs et al. 2015). On the other hand, agricultural policy discourse gradually started to acknowledge another, more balanced vision of agricultural and rural development revaluing the significance of diverse farming systems, the importance of small farms for local social life and food security, social, environmental and food security potential of alternative food initiatives powered by short chains, urban-rural linkages and activism of urban consumers. Diversified, multifunctional, sustainable and resilient agriculture was attracting the interest of agricultural community, policy makers and civil society groups as an opposition to ever dominant

and powerful competitiveness and growth discourse (Grivins and Tisenkopfs 2015). Currently the future of agriculture in Latvia is seen as a two tier process of continuation of modernistic, industrial growth and competitiveness pathway and continuation of a traditional occupation in rural areas which has to fulfil new roles with regard to food security, climate change mitigation and adaptation, ensuring smart growth, managing ecological sustainability and achieving quality of life in rural areas (Straujuma 2015).

## 1.2. The dairy sector

Dairy production in Latvia has deep historical traditions, given the suitability of the geographical and climate conditions of the country for cattle breeding (Lauku tīkls 2011). Presently dairy farming represents the major livestock farming sector in Latvia and the second largest agricultural sector. Its production value has been growing steadily. In 2014, the value of production for the dairy sector made up 24.1 % of the total Latvian agricultural output (Ministry of Agriculture 2015). According to expert estimations, the dairy business sector – milk production and processing together – in Latvia accounts for around 1 % of GDP (Miglavš 2015). Yet, in 2015 the share of milk in the final agricultural output dropped to 17.8 % (CSB 2016b).

**Figure 1. Balance of production and consumption of dairy products in Latvia (2008-2014).**



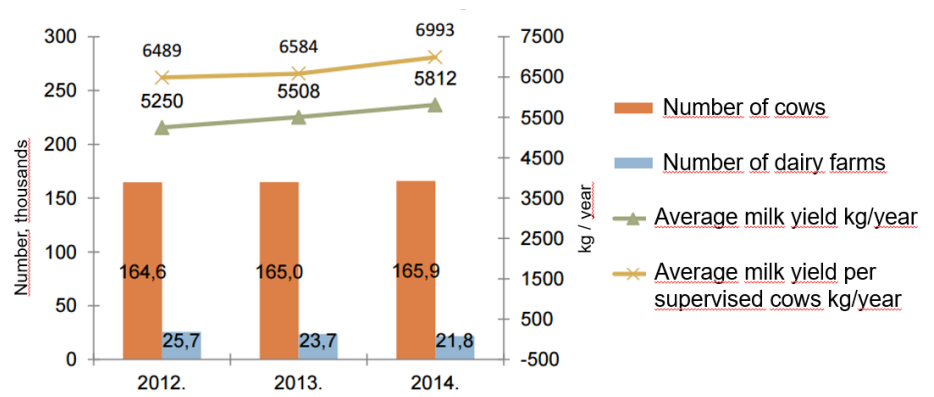
Source: Ministry of Agriculture 2015

The productivity is increasing (5.9 kg per cow in 2015, which is still less than EU average, though), and so does the total output (978,1 thousand tons in 2015) (CSB 2016b). Latvian self-provision with milk exceeds 135 %, and dairy products are a crucial export product: 60 % of the produced milk is exported and milk forms 13 % from the total food export making the dairy sector the second largest in terms of export value (Miglavš 2015) (see Figure 1). Latvia is among the top three EU countries

that export the highest share of domestically produced milk. But this makes it also more sensitive to dynamics in external markets.

Latvia features rich land resources for growing herbivorous animals with 60 % of total agricultural land used for herbivore fodder crops. This could be sufficient for 550,000 cattle units, while in 2014 the actual number of cattle in Latvia made up 422,000 units, incl. 166,000 dairy cows (Miglavš 2015) (see Figure 2). In 2015, there were 162,000 dairy cows registered in Latvia, demonstrating a slight decrease in comparison to the previous years (CSB 2016a), which can be indicative of the difficulties the sector is undergoing. It should be noted that presently the number of dairy cows is four times smaller than it used to be back in 1938 (during the first independence period before the soviet occupation) and three times smaller than in 1990 (before separation from the soviet subsidised agricultural production system) (Miglavš 2015).

**Figure 2. Characterisation of dairy sector in Latvia (2012-2014).**



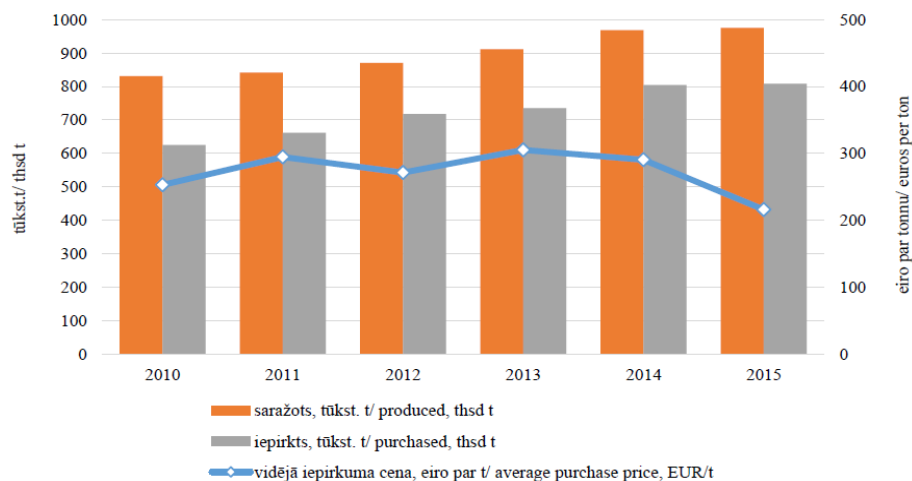
Source: Ministry of Agriculture 2015

The structure of dairy farms has been fragmented – dominated by small farms, thereby potentially contributing the comparatively low efficiency of the dairy sector in Latvia (Miglavš 2015). In 2014 there were 21,800 dairy farms with the average herd size of 7.6 cows and there were 40 competing milk processors (Ministry of Agriculture 2015). This fragmentation is considered by some to be responsible also for the producers' weak position in the milk food chain (dominated by big processors and retail chains), and overly high competition in the processing sector. The weakness of the dairy sector is attributed also to the high dependence on the Lithuanian milk processing industry (Miglavš 2015). However, it is also worth noting, that already in 2010 five biggest processors were processing almost 75% of milk volumes processed in Latvia (Latvijas Piensaimnieku Centrālā Savienība 2011). Three of these factories processing 47% of the overall processed milk were owned by one owner.

It is assumed the volume of produced milk per farm and the corresponding market force of each individual producer has had an impact on the fact that Latvia is among the EU countries with the lowest milk purchase price in the common EU market (Miglavš 2015). The average purchase price for milk in Latvia decreased from €291 per ton in 2014 to €216 per ton in 2015 (drop of 25.7 %) (CSB 2016b) (see Figure 5).

For some producers the present crisis is the most severe one ever (Krauze and Unāma 2015).

**Figure 3. Milk production, purchase and average purchase price in Latvia (2010-2015).**



Source: CSB 2016b

At the same time over the recent years there has been an ongoing consolidation and concentration in the sector, mostly at the expense of smaller farms – while in 2010 the number of dairy cows was more or less evenly distributed among large, medium-sized and small farms (33 %, 32 % and 35 %, respectively), in 2015 the share of dairy cows in small holdings had fallen to mere 17 % (49 % now owned by large ones) (CSB 2016b). There has also been a reduction in the total number of dairy farms (from 25,740 in 2012 to 19,048 in 2015) with a simultaneous increase in the average herd size (from 6.4 in 2012 to 8.6 in 2015) (Ministry of Agriculture 2015; CSB 2016b). In order to coordinate and consolidate their market force, farmers have joined cooperatives (20 in total). Some of those cooperatives operate as milk collectors; others have developed their own processing and retailing network.

On the whole, the dairy sector in Latvia has lately been characterised by the following factors (Miglavs 2015):

- Large potential of physical production with comparatively well accessible (presently unused) resources of grass fodder;
- Low labour productivity in dairy farms;
- Highly fragmented structure of dairy farms;
- Fragmented structure of small dairy processing companies;
- Predominance of few huge processors with comparatively low value added in the structure of dairy export (limited competitiveness in the EU);
- Totally unsuitable market strategy of the milk processing industry (in both Latvia and the Baltic countries) given the predominant orientation towards the Russian market;
- Elevated sensitivity towards inevitable crises in the world market of dairy products due to low competitiveness and limited market force.

It has also been noted that important issues for the future development of the dairy sector in Latvia have to do with rising efficiency (and competitiveness) of dairy farms (incl. increasing the size of herds and reducing the number of employees per cow), increasing cow productivity in terms of average milk yield, and improving milk quality, as well as promoting production and consumption of biological milk and dairy products (Ministry of Agriculture 2012). Equally important are measures to be taken in advancing the knowledge of farmers through specialist training, efficient information flow and popularisation of good practices, as well as promoting processing efficiency, value added of the produce, and export of milk and dairy products (Ministry of Agriculture 2012).

The region of this case study is the whole country of Latvia, which corresponds to a NUTS 2 level. It is predominantly rural, but with some internal regional disparities when zoomed in at NUTS 3 level: there is also an urban area around the capital city of Riga, and an intermediate region in the western part (EC 2013a). This internal regional structure is well reflected in various socio-economic characteristics. The GDP per capita in the country is €12,100, which makes up 64 % of the EU average (Eurostat 2015); it is higher in more urban areas, in particularly in Riga, whereas it is the lowest in the predominantly rural areas (CSB 2015a). The share of employment in the primary sector (agriculture, hunting, and forestry) has stabilised around 8 %, after a sharp decline during the 1990s. Again, this share is much higher in rural areas, where it is reaching 15 % (3 % in urban ones) (EC 2013b). The country as a whole, and in particular rural areas, faces depopulation (-1 % in 2014 in rural areas) (Ministry of Agriculture 2015), which negatively affects agricultural activities and the overall rural development.

Agricultural conditions vary across the country: they are comparatively more favourable in the Southern part (Zemgale) where farms tend to be larger (28 ha on average), and less advantageous in the Eastern part (Latgale) where are the smallest farms (14 ha on average) (CSB 2010; see also Figure 1). One fifth of Latvian farms are specialised in milk production. Dairy farming and also processing industry is evenly dispersed all over the country. Still most of cows are concentrated in the poorest region of Latgale, as the comparatively poorer agricultural land is less advantageous for other specialisation, but the productivity there is the lowest (Zvirgzdiņa and Tilta 2013). The sector has higher importance in Pierīga and Vidzeme regions where is the highest concentration of cows per UAA ha (10.5 and 9.2 cows/ha correspondingly) (Migļavs 2015).

### 1.3. Data

The report summarises findings from research conducted on the conditions that shape primary producers' actions, strategies, vulnerabilities and performances as well as the dominant frames that shape farmers' discourses and actions. The analysis has been conducted in several waves and is based on the following sets of data:

- 1) On extensive review of scientific, policy, general and specialised agricultural media texts published over the past seven years and in particular during the



last three years. In total, more than 140 texts from various sources were analysed.

- 2) This has been further complemented by more in-depth research on the nature of market imperfections, policy requirements and their implications for specific commodity group. For the exploration of primary producers' conditions and strategies our analysis applies to the whole country. The methods of data collection and analysis to study the dairy sector included:
  - a. integrated and consolidating analysis of insights from the media analysis; review of policy and regulative documents; desk study of scientific publications, overviews and political documents (due to rather small academic community in Latvia there were quite a limited number of relevant scientific studies available); scanning of websites and public documentation of agricultural organisations;
  - b. interviews with a range of stakeholders who represent dairy farmers, agricultural cooperatives, agricultural associations and farmer organisations, policy makers, financial institutions, agricultural advisory services, state controlling and regulative institutions;
  - c. two focus group discussions with dairy farmers and one workshop with the stakeholders representing the dairy sector were conducted.
  - d. a quantitative survey of dairy farmers was conducted. In overall, 134 interviews with dairy farmers were conducted.

## **2. The case study**

The following chapter illustrates conditions shaping the dairy sector and the strategies farmers use to respond to the conditions. The first sub-chapter will present the results of in-depth interviews. The second sub-chapter will discuss the results of focus-group discussions and workshops. The third sub-chapter will present the results of quantitative survey.

### **2.1. Results of in-depth interviews**

#### **2.1.1. Policy and regulatory conditions**

In the current period the dairy sector is adapting to the abolishment of the EU system of milk production quotas (introduced in the EU back in 1984). Latvian farmers had complied duly with quotas (Ministry of Agriculture 2015). Farmers were looking forward towards the abolishment of milk quotas with divided feelings. For bigger producers it meant expanding production, opening up of the world market but also increased competition; small farmers were worried how the abolishment of quotas, which they felt as a means of certain security, will influence them. Now the abolishment is considered as another major factor contributing to lowering milk prices and overall Latvian milk crisis. Encouraged by initial positive signs of agricultural policy makers, many milk producers had prepared in advance to the abolishment of quotas by investing in production means. However, the actual market

conditions of overproduction and low prices have slowed down the development and forced farmers to reconsider their development plans and reduce production.

The situation in the milk sector has been even further aggravated by the sanctions and trade bans between the EU and Russia. The Russian embargo has already had severe negative consequences on producers' performances. The embargo, together with other unfavourable conditions in the market, has hit particularly hard the milk sector, which has been left without a notable share of their former export market. The EU funding allocated as a compensation for farmers has not covered for their actual total financial losses caused by the trade ban. Dairy producers have been largely dependent on the capacity of dairy processing companies to find new markets, with many of those who used to have Russia as the main export market facing problems in this respect. This, in turn, has caused residue of finished products at processing companies forcing them to reduce the milk purchase price even below the prime cost.

Presently there are several public (both EU and national) support measures that have been made available to dairy farmers either on a regular basis or as ad hoc solutions to help them adapt to the new system and tackle the crises. This support has helped to raise competitiveness of agricultural holdings which in times of crisis is particularly important. In general, farmers have adopted receiving-using public funding, or subsidy seeking strategy, as a part of their farm development or maintenance/survival strategy. However, there are also several critical points expressed about the public support, sometimes even contradicting ones, revealing the conflicting interests in the farming community.

There is a unanimity that the different amounts of direct payments that EU average and Latvian farmers are receiving are unjust and reducing the competitiveness of Latvian farmers. It is common belief that for dairy sector subsidies is the only reliable funding source that allows milk farmers to stay afloat. Thus lobbying for higher direct payments and other means of financial assistance is seen as a central task for NGOs representing farmers and for national governance representatives in EU level discussions. Sums farmers receive in direct payments have been rising. However single area payments are still significantly lower than in most other EU member states.

The organic sector in Latvia has developed rapidly over the last ten years. Latvia is among top five EU countries with the biggest share of agricultural land devoted to organic production (Tambovceva 2016). The rapid growth of organic farming has been made possible due to farmers interest and learning but also thanks to continuous public support policies. Dairy sector is benefiting from political support to organic agriculture. However 80% of organic milk is being processed and sold in conventional system and only 20% is processed and marketed as certified organic milk. Meanwhile, according to some estimations around 10 % of dairy farms (mostly small ones) in Latvia in face problems with ensuring adequate quality milk. Experts have noted that improved milk quality can be achieved by means of increasing the number of cattle in the herds; modernisation of farms by improving space for cows and equipment for milk storage; improving knowledge on milk quality and preparing

specimens for laboratory; improving credibility of the milk laboratories' data; promoting the use of the single data base of milk quality (Ugare 2012).

### 2.1.2. Market conditions

Price volatility in milk sector is more expressed than in other sectors (Strautiņš 2014). This poses considerable financial and operational difficulties to farmers: just recently they had difficulties to reimburse credits, pay taxes and do other payments; as well as farmers reduce feed amount to cows, fire employees and look for other ways to reduce costs. Now the prices are back on a rise. During the interviews we discovered that (before prices started to rise) there were no substantiated estimations when prices could get higher. In popular media this question was dramatized and frequently presented as the end of both Latvia's dairy industry and as the end of the nation. Some farmers were looking for a way to leave the sector however, they were trapped in the sector by the conditions set by previous public financial support they have received. Meanwhile, some farmers continued working claiming that despite the low prices they manage to be profitable.

Cooperation has been identified as one of the solutions to crisis (in fact, cooperation is seen as a solution to almost all problems dairy farmers might have in Latvia). There are 21 milk cooperatives operating in Latvia in 2015. However, most of these cooperatives are small and weak. Furthermore, the few loud cases when cooperatives have gone bankrupt have reduced farmers trust in cooperation. Experts suggest that existing cooperatives are just too small to introduce a significant change in the sector. These cooperatives are expected to grow and possibly – create common response to market problems. However, so far each of the small cooperatives has been operating on its own and has not been able to find a common ground for discussions. Knowledge and advice is another of the key discerning factors which make a difference in farmers' market performance. There is a still great deficiency of agricultural knowledge among the farming community, particularly on the issues of strategic decision-making, financial literacy and financial management.

Experts claim that many of the problems sector is facing are related to the fact that the sector is fragmented. Fragmentation is one of the key factors of the low efficacy of the Latvian dairy sector (Miglavs 2015). The low market power of dairy farms is also responsible for the low milk prices (lowest in the EU). Furthermore the processing industry is characterized as uncompetitive in the EU single market as mass products with low added value dominate in the milk export structure. This limits also the income and development possibilities for primary producers (Miglavs 2015). Meanwhile the few note-worthy farmers' cooperatives that dairy sector has are small and are mainly occupying niches and thus has limits in the markets they have access to. Despite the weakness of farmers niche markets widely remain in the hands of local farmers. Policy sources see niche product development as a way to boost competitiveness of small farmers, closely linked to innovation. Some farmers see niches as a way out of prior. However, all of these markets remain marginal.

Finally, there is a list of other issues that the dairy sector faces. Firstly, various land issues are being widely discussed not only in the dairy sector but in agriculture more generally. The share of foreign land ownership is already considerable. Thus, the present land market regulation, particularly liberalisation or opening the land market

to foreigners demanded by the EU, is not well supported by Latvian people. For local farmers this means more difficulties to get additional land and an increase in land prices. Secondly, human resources can be a problem. With ageing of farming population and gradual but consistent exit of small-holders from productive agriculture the issues of new entrants of various categories (young farmers, start-up farmers, farm managers, and specialists) become increasingly acute. However, there are also problems related to farms workers. The workers well-being, improvement of employment conditions so far have often been subjugated to other more important perceived priorities of farm development, like improving the quality of fodder, introducing new breeds for higher yields, making investments in productive capacities. Thirdly, farmers' access to finance in dairy sector is more difficult than in the wheat sector because of structural differences in industry and food chain organisation and also due to the current crisis which makes financial institutions extremely reluctant to credit dairy farms. In the last decade after joining EU the Rural Support Service has cofounded many farm development projects in dairy sector following technological modernisation and intensification paradigm. However, generous EU modernisation money coupled with bank credits were predominantly used by bigger dairies; some of them currently are technically insolvent (debts surpass the farm value).

### 2.1.3. Key issues identified in the literature, media and interviews

The analysis of the regulatory and market conditions through literature review, media analysis and stakeholders interviews for the case study on dairy in Latvia provided a list of key issues that are discussed in this section. The key issues are summarized through a SWOT analysis (see Table 1), which permits to identify positive or negative effects that the different issues can have on the dairy sector.

The dairy sector in Latvia is a historically significant one with strong cultural roots. Even now it is one of the main agricultural sectors in the country. Its development route and faced difficulties during last two decades have posed a lot of questions and have initiated long discussions on possible ways to improve sector's competitiveness. It has also attracted significant interest from researchers. However, so far none of this has helped to overcome the problems the sector is facing.

Despite the problems the dairy sector is facing, it also has several noteworthy **strengths**. The sector is historically deeply rooted in rural economy and is seen as a major farming system. Due to this historical significance farmers are willing to operate in the sector even under high stress conditions and thus we could say that cultural significance has raised sector's resilience. Even despite multiple shocks during the last decade sector has managed to survive and even modernise. After joining the EU many dairy farms underwent technological modernisation, improved quality and volume of production. The changes happened also in processing sector with improvement of quality standards and recently concentration of dairy companies. There is a big segment of relatively small dairy farms and some 500 medium to big size dairies in the country and about 30 processing companies. It would not be precise to claim that the dairy sector has been left alone in its struggles. On the contrary – several actors can be identified that have provided support to the

sector: national level governance is looking for ways to support dairy processors for entering new markets; sector is represented by lobby groups that have been successful in negotiating support for milk farmers; finally, general public is keen to reflect about the processes in the dairy sector. Clearly, sectors' importance is recognised on many levels by many stakeholders – after all, it is among the biggest and most important agricultural sectors in Latvia. Currently there is a wide diversity within the sector and good examples can be found almost for every type of business model farmers take up – there are small and diversified farms selling their products locally and developing new artisan products. Meanwhile, there are also efficient, highly modernised farms with market strategies allowing penetrating global markets. From this diversity many locally known brands of dairy products recognised by customers in domestic markets have emerged.

**Table 1. SWOT analysis of the dairy sector in Latvia.**

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>- Historically significant sector</li> <li>- One of the main agricultural sectors</li> <li>- Development of many locally known brands of dairy products recognised by customers in domestic markets</li> <li>- State support for entering new markets (financing explorative studies, marketing activities, fairs, collaboration agreements)</li> <li>- Presence of good examples of efficient, highly modernised dairy farms with promising specialisation and market strategies</li> <li>- Presence of good examples of small and diversified farms with high capacity to develop new artisan products</li> <li>- Relatively high systemic resilience despite economic shocks (such as trade embargo with Russia, etc.)</li> <li>- Strong lobby, explicit protest and demand discourse often resulting in additional support measures</li> </ul>	<ul style="list-style-type: none"> <li>- Poor farmers' cooperation</li> <li>- Foreign takeover of dairies</li> <li>- Abolition of production quotas</li> <li>- Falling prices</li> <li>- Recent investments in dairy farms and difficulties to repay credits</li> <li>- Low labour productivity</li> <li>- Domination of few processing companies which orient themselves towards export of raw milk or industrial produce</li> <li>- Unequal productivity of dairy farms</li> <li>- Strong reliance on state subsidies</li> <li>- Overproduction of milk</li> <li>- High share of small farms</li> <li>- Russian trade embargo</li> <li>- Structural disparities between farmers, their productive capacities, leading to fragmentation and concentration</li> <li>- Lack of transparency</li> </ul>
Opportunities	Threats
<ul style="list-style-type: none"> <li>- High share of small farms</li> <li>- Development of short supply chains (direct sales, widely applied school milk programme)</li> <li>- Possibilities to develop strong farmers' cooperative with professional management</li> <li>- Cooperation with grain sector to strengthen cooperative capacity and financing of cooperative processing enterprise</li> </ul>	<ul style="list-style-type: none"> <li>- More efficient and competitive dairy sector in neighbouring countries (LT, PL)</li> <li>- One-dimensional interpretation of the dairy sector presupposing only one development model</li> <li>- Structural boundaries limiting access to advice, finances, input markets and sales channels resulting in farmers' lock-ins</li> </ul>

<ul style="list-style-type: none"> <li>- Maintenance of small and medium size dairy farms as a part of multifunctional agricultural systems</li> <li>- Development of strategy of growth for small farms</li> <li>- The need to recognise and to appreciate specific strategies for the development of bigger and smaller dairy farms</li> <li>- Crisis serving as a stimulus for farmers learning, innovation, cost reduction activities, mutual knowledge exchange and other dynamic processes</li> <li>- Intensive discussions how to improve sector's competitiveness</li> <li>- High public interest</li> <li>- Search for new markets</li> <li>- Growth of organic dairy production and market</li> </ul>	<ul style="list-style-type: none"> <li>- Strength of some lobbying actors representing biggest processors</li> </ul>
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Meanwhile, as it has been indicated by the SWOT, there is also a range of **weaknesses** sector is suffering from. What has often been raised as a key weakness of the dairy sector is a high share of small farms. It is claimed that these small farms have low labour productivity and low production efficiency and few channels for accessing the market. For many analysts cooperation is the key to success in the sector (that could also help to overcome sector's fragmentation). However, there is certain distrust in this solution among the farmers. Partly this is due to historical experience with cooperation. Yet there are also more recent cases when cooperatives have been caught in participating in unfair practices. This has reduced farmers' trust in cooperation even further. The fragmentation of the sector has allowed few big processors to emerge. These big processors hold unequal market power and can impose disadvantageous conditions on farmers. Yet even among these big processors only few have shown that they are globally competitive.

The problems the dairy sector is facing have been known for a long time. However, all of those have become more apparent during the last years mainly due to multiple shocks the sector has faced. First, the sector was hit by the Russian trade embargo. This was followed by the abolition of production quotas and a continuous fall in prices, which has led to situation where for many farmers their survival depends solely on public subsidies. However, subsidies are not a solution to those who have tried to modernise their farms and now have difficulties to repay credits. These farms become an easy target for wealthier local or foreign investors who can use the situation to push out local farmers.

High public interest in the dairy sector ensures that there is constant debate on how to improve it. The debate and the interest are the resources sector's actors can tap into. However, these are not the only **opportunities** sector has. To start with, what is considered as a central problem of the sector – high share of small farms, could also be seen as an opportunity. Recognition and appreciation that both big and small farms can strengthen the sector could be a fruitful soil to create a mix of strategies farms could pursue. These farms could look for greater diversity of artisan products

and re-orient their activities towards local customers. This would require strengthening short supply chains. Clearly this is not an option for all small and medium farms. For the remaining farmers development of strong farmers' cooperative with professional management could be an option. Also – new cooperation models and partners could be a possible opportunity. Recently created partnership between grain sector's biggest cooperative and milk sector's cooperative is one of the examples how this could work. Small and medium size dairy farms could also benefit from being a part of multifunctional agricultural systems. There are also unused opportunities related to upscaling. First of all, it could be helpful if there were clear strategies offering pathways that small farms could use to grow and to improve their competitiveness. Apart from the mentioned, there are overarching opportunities that could be an opportunity to all dairy farmers. For example, all farmers could benefit from discovery of new markets (one example might include being more active in organic market). Also recent shocks have shown the importance of learning, innovation, cost reduction activities, mutual knowledge exchange, and other dynamic processes. These could be facilitated more actively in the future.

Finally, some words should be said about the **threats** or risks sector faces. First of all, these are more efficient farmers and processors located in neighbour markets (such as Lithuania or Poland). These actors are looking for a way to expand their activities and Latvia is among their natural expansion areas. Although this is a threat, this is not the only one. However, governing actors and strongest representatives of the sector have been so overwhelmed by this that they risk losing all the other possible opportunities the sector could use. So we can suggest that such a one-dimensional interpretation of the dairy sector is one of the key threats. This one-dimensionality party emerges from the strength of the few big actors who can allocate significant share of their resources for lobbying. This rise of influence of few actors could be interpreted as a threat as well. Finally, what we call "farmers' lock-ins" should be considered as a possible threat. This means that certain market structures and farmer's historical decisions can impose significant limitations on their future decisions. In some cases this means that farmers do not have any workable options to change the situation – they are locked-in hostages who can only carry on with what they have been doing.

If we move to more general conclusions the research suggests that in terms of the dairy sector's general **performance**, it currently it experiences a minimal growth, even stagnation, and many farmers are worried and uncertain about their future. The coinciding abolishment of EU milk quotas and introduction of the Russian trade embargo on food products have caused huge financial stress for dairy farmers (falling milk prices, difficulties to pay back credits, difficulties to obtain new loans, problems with attainment of project indicators necessary to receive full EU investment funding and avoid penalties). Many dairy farms suffer losses or are insolvent.

At farm level, the adaptation **strategies** and related actions and attitudes in face of the crisis and farming decline in the dairy sector has involved, for instance, shifting branches, reviewing and optimising existing practices, diversification, adopting a wait-and-see policy, future-oriented planning in case of positive developments, abandonment or farm business, as well as political protesting. One can observe also

continuous search for new export markets of dairy products – an activity mainly undertaken by food companies and assisted by the government. There is also a quiet shift from milk production to beef production increasingly taking place in Latvia. Contradicting to pessimistic forecasts some dairy farmers continue investing in new dairy premises, milking robots and productive breeds looking for quality production and niche markets worldwide. More recently (autumn 2016) many dairy farmers have applied for the EU funded government compensation programme to reduce milk production. However, the effects of this programme still have to be seen. Media texts and interviews signal that professionally managed and market oriented dairy farms rather look forward to preserve their production capacity during the crisis and look forward to further modernisation and growth.

The revised documents report various regulations and formal requirements that farmers have to respect in order to qualify for public support, to develop new on-farm activities (like, on-farm selling) or just to operate a farm. For example, organic certificate, certificates of the State Plant Protection Service, requirements of the Food and Veterinary service, hygiene rules, standards of animal welfare, environmental requirements in milk cattle breeding. In general, farmers obey and follow these requirements. This obeying-the-law approach, related to subsidy seeking strategy, happens through such actions as informing oneself on policy updates, understanding and fulfilling requirements through respective adjustments on farms. Regulations clearly make farmers choose certain farm development strategies over other, sometimes even despite their limiting effects on farms' strategies and performances. However, there are also failures and disobediences. Sometimes these result from a mixture of unfavourable conditions that limit farmer's action.

## **2.2. Results of focus groups**

This part of the report is structured in five sub-sections discussing institutional arrangements related to: what does it mean to be a dairy farmer in Latvia; policies and the role of subsidies and sectoral liberalisation the sector has faced; characteristics of the dairy supply chain; outlet markets and market development directions; and a sub-section discussing resilience of the sector.

### **2.2.1. Dairy farming**

The opportunities available to various groups of farmers differ. There is what could be described as two tracks of opportunities. Bigger farmers seem to be much better off than smaller farmers. These farmers have closer relations to processors and they have more resources to allocate to facilitate development. These farmers also frequently operate in other agricultural sectors as well thus diversifying their income. Meanwhile, most of the farms remain small and have only limited opportunities in Latvia. Being less structured than for example grain sector, dairy sector on its own poses more challenges to farmers.



### 2.2.2. Policy and management

Last few years have been particularly harsh on Latvia's dairy farmers. Similarly, as elsewhere in Europe milk prices were low and farmers were forced to sell their product for a price that was well below costs of production. As one of the farmers stressed during the focus group – this milk price crisis was not the first one farmers operating in the sector have witnessed. However, it most definitely has been the longest and possibly – the deepest. In many cases - development plans farmers had for their farm had to be halted. Furthermore, farmers were forced to make painful decisions regarding the future of their farm which resulted in that many of them slowly retired from the sector and from farming in general. Farmers stressed that actors overseeing the supply chain (such as farmers' and governing organisations) have to take their share of responsibility for the recent crisis – they had been watching the desolation this crisis were causing without actually stepping in to regulate the relations between actors buying and actors producing milk. Subsidies and various financial injections was the more persistent rescue rick farmers had. However, there were also those with a more sceptical interpretation of the role direct payments had. Some farmers argued that subsidies only create an illusion, distort market, and restrict implementation of proactive strategies. Bigger farmers and experts from workshop claimed that subsidies only encourage small farmers who would otherwise leave the market.

As many other sectors in Latvia, the dairy sector as well have witnessed a push towards ever more liberal trade relations during the last few decades. Many stakeholders were supportive of this change. For them - open, non-regulated competition is the quickest route towards a more efficient agriculture. Efficiency has often been named as central aspect farmers should try improve in order to ensure better income from farming. The group supporting deregulation has been successful with lobbying their interests and thus so far the sectoral development has been going into direction this group has been pulling it. However, in some cases the hard stance these stakeholders took to support trade liberalisation were somewhat hypocritical – many of these actors seemed to be more lenient to bend their views on trade support when it came to the biggest enterprises in the sector. Meanwhile, on the other hand there are both farmers and number of other stakeholders demanding from government much more regulated market that would acknowledge that the scale and efficiency is not the only relevant criteria to assess the success of an enterprise. One of the most provocative ideas this group of stakeholders were pitching during the focus group discussions was to tie the price paid to the farmers to the milk prices consumers pay in shops.

Meanwhile, there were also other means proposed for national government to be used to help farmers to ensure higher income from farming. First, participants suggested that there is a need for some sort of agricultural land protectionism. Second, farmers were suggesting that there are problems in how contracts are regulated in Latvia. The current legislative framework for contracts does not have a demand to ensure that the relations between processors and farmers are of a decent length.

### 2.2.3. Dairy supply chain

Fragmented structure of the sector once more was the central theme farmers were discussing. The distrust farmers have in group activities were clearly reflected during the focus group discussions. On numerous occasions during the focus-groups farmers claimed that cooperatives are not working to protect farmers' interests. Instead cooperatives are fighting to raise income for small group of managers who are exploiting farmers work to boost their own profits. Cooperation is mainly about trust and shared responsibility. Yet from the discussions held it seemed that farmers had neither of the feelings. The pressure farmers felt during the period of low prices was pushing some farmers to leave the sector, some others were diversifying their activities in order to make both ends meet, while even others were internalising the costs. Few choose to invest during the crisis.

The fragmentation has led to the concentration of power in the hands of biggest processors and retailers. Farmers are speculating that processors are using their dominance to ensure that certain rules prevail in the sector (for example, to ensure that sector remains fragmented). Processors' dominance is also the reason why processors can impose contracts on farmers that are clearly contradicting farmers' interests. This line of logic also suggests that it was foreign processors who managed to keep the local processors in check – their willingness to purchase the milk from Latvia forced local processors to raise the prices.

During the focus groups it was discussed that on individual level farmers could enable themselves by becoming more efficient, modernising, and expanding their farms. Meanwhile, on group level farmers' cooperatives were urged to look for horizontal and vertical integration: cooperatives should be merged and should look for possibilities to establish their own processing factories and maybe even their own shops. Development of strategic partnerships was contrasted with the lone fighters, questioning the latter's capacity to individually cope with the given pressure exerted by the present market conditions.

#### **2.2.4. Markets and development**

Overall, it was suggested by the participants of the discussions that the problems and solutions faced by dairy farmers should be dealt with at the sectoral level, thus giving preference to collective strategies (this claim was contrasting the somewhat limited scope of political interventions farmers were willing to discuss) rather than individual activities. Many of the adaptation strategies to policy and regulatory conditions were associated with product and organisational innovations. For example, participants were discussing in detail the possibilities and limitations dairy products would have in foreign markets (with particular interest in demand of dairy products created by China). Participants were discussing possibilities to create new partnerships (merging farmers' cooperatives, creating second level cooperatives), to reinterpret markets (it was argued that some of the problems are caused by the obsolete belief that cooperation should remain within the borders of one country; mentioned examples illustrate that farmers can successfully operate in cooperatives of neighbouring countries), and to diversify (to introduce supplementary activities ensuring regular income). However, there were also suggestions that farmers on their own could look for new opportunities. Some of these suggestions initiated extensive debates on the nature of the dairy market.

### 2.2.5. Resilience

Three strategies farmers use to solve challenges posed by low milk prices have been identified during the focus groups: ‘enhanced cooperation’, ‘lone ranger’, and ‘contractualisation / price setting’. These strategies are oriented towards improving the strength of farmers and were mainly looking at the possible relations between farmers and processors. The most preferred strategy for the future was enhanced cooperation. The strategy suggests that in a near future neither farmers nor processors will be able to survive on their own. As long as the actors representing the local dairy sector do not mobilise to oppose these pressures, the major events defining the characteristics of the sector will be set by someone else. Thus, farmers should come and act together.

Another strategy identified is Price setting / contractualisation. This strategy is suggesting that there should be long-term contracts between farmers and milk processors that should incorporate fixed prices. Finally, Lone ranger was a strategy which was admitted to be predominant in the actual behaviour of farmers. It suggests that for farmers having experienced shocks and crisis it is justified to look for their own short-term benefits when selling milk. The core idea of the strategy is based on the current situation observed in Latvia – farmers are breaching their contracts with cooperatives or processors and are selling their milk to buyers ready to pay more.

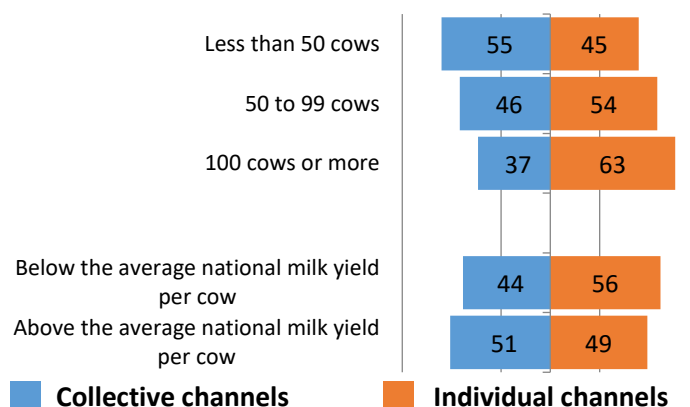
### 2.3. Quantitative survey

During the SUFISA project, a quantitative survey of dairy farmers in Latvia was conducted. Due to the farm structure in the dairy sector, it was decided that for this survey quota sample should be used. Quotas were seen as a way to ensure that there is an analysable share of farms of various sizes in the final data set. Also, based on the research experience, BSC researchers early on realised that low response rate could be the main problem that could hamper successful data collection. To solve this challenge BSC hired local advisory service to collect the data for the survey.

#### 2.3.1. Sales channels

Despite the fact, that it is commonly stressed that dairy cooperatives are weak in Latvia, the share of dairy farmers claiming that they sell their products through

**Figure 4. The share of milk sold through collective and individual channels**



collective channels and those claiming that they use individual channels were practically similar. The collective channels were used more commonly among the smallest farms - 55% of farms with less than 50 cows

where using collective mechanisms to sell their milk. However, the use of collective distribution channels is decreasing with the increase of farms size, and from the farms, with more than 100 cows just 37% sells their milk collectively.

### **2.3.2. Characteristics of sales agreements**

In the dairy sector, the two contract lengths that dominate are seven months to 12 month long contracts and contracts longer than five years. It is also in the dairy sector that the smaller and less productive farms tend to have shorter contracts. However, in the dairy sector, there is much more pronounced linkages between productivity and length of the contract - the more productive farmers are choosing to have longer contracts. This is most likely connected to the need to repay loans most productive farmers most likely have. It should also be attributed to the willingness to maintain the stability. The need for stability is most likely motivating productive farmers to search for longer contractual relations. However, to fully understand the differences between contracts a deeper look at the aspects that are negotiated in the contracts needs to be taken.

For dairy farmers the typical contracts, if compared to the grain sector, is much simpler - it negotiates just the price and the delivery of the product. However, it leaves everything else outside of these relations. Three main principles are set in the contracts of dairy farmers. First, 91% of respondents suggest that they 'receive services like a collection, storage, transport, handling, etc.' In reality, this most likely means that milk is collected by the buyer. Second, 66% of farmers suggest that 'there is an automatic extension mechanism in the agreement (e.g. evergreen contracts)'. However, since there is no clear set agreement on the amount sold or bought and since there is lack of any other serious involvement between the two actors, it is safe to suggest that the extension mechanism does not represent any serious benefits for the farmer. It means that the truck collecting milk will continue to stop to collect farmers milk. Finally, the third aspect common in the contracts (noted by 65% of farmers) suggests that farmers will receive 'price premiums for delivering higher quality products'. In overall, these contracts are simple and are rather should be perceived as an agreement that the two sides will continue business relations. However, if compared to the grain sector, it can be observed that there are little opportunities and benefits farmers can receive from their relations with buyers.

This is even more true for farmers who are selling through collective channels. For this group of dairy farmers contracts and sales channel is mainly about setting the price, and thus the contracts do not negotiate even the before mentioned aspects. Still, there can be some other benefits from collective sales channels. Although these practices are still really marginal, some dairy farmers selling in the collective channels do manage to get contracts promising farmer more support than any it is provided to other dairy farmers. Interestingly enough, this group of farmers, whose contracts presuppose 'penalties if you fail to deliver the agreed quantity', have 'safeguards if the buyer fails to fulfil the agreement'.

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