



Brussels, 18.12.2020  
SWD(2020) 386 final

## **COMMISSION STAFF WORKING DOCUMENT**

### **Commission recommendations for Latvia's CAP strategic plan**

#### *Accompanying the document*

### **COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS**

#### **Recommendations to the Member States as regards their strategic plan for the Common Agricultural Policy**

{COM(2020) 846 final} - {SWD(2020) 367 final} - {SWD(2020) 368 final} -  
{SWD(2020) 369 final} - {SWD(2020) 370 final} - {SWD(2020) 371 final} -  
{SWD(2020) 372 final} - {SWD(2020) 373 final} - {SWD(2020) 374 final} -  
{SWD(2020) 375 final} - {SWD(2020) 376 final} - {SWD(2020) 377 final} -  
{SWD(2020) 379 final} - {SWD(2020) 384 final} - {SWD(2020) 385 final} -  
{SWD(2020) 387 final} - {SWD(2020) 388 final} - {SWD(2020) 389 final} -  
{SWD(2020) 390 final} - {SWD(2020) 391 final} - {SWD(2020) 392 final} -  
{SWD(2020) 393 final} - {SWD(2020) 394 final} - {SWD(2020) 395 final} -  
{SWD(2020) 396 final} - {SWD(2020) 397 final} - {SWD(2020) 398 final}

## Contents

<b>1. COMMISSION RECOMMENDATIONS FOR LATVIA'S CAP STRATEGIC PLAN.....</b>	<b>2</b>
<b>1.1 Foster a smart, resilient and diversified agricultural sector ensuring food security.....</b>	<b>2</b>
<b>1.2 Bolster environmental care and climate action and contribute to the environmental- and climate-related objectives of the Union .....</b>	<b>3</b>
<b>1.3 Strengthen the socio-economic fabric of rural areas and address societal concerns.....</b>	<b>4</b>
<b>1.4 Modernising the sector by fostering and sharing of knowledge, innovation and digitalisation in agriculture and rural areas, and encouraging their uptake .....</b>	<b>4</b>
<b>1.5 Recommendations .....</b>	<b>5</b>
<b>2. ANALYSIS OF AGRICULTURE AND RURAL DEVELOPMENT IN LATVIA .....</b>	<b>8</b>
<b>2.1 Support viable farm income and resilience across the EU territory to enhance food security .....</b>	<b>8</b>
<b>2.2 Enhance market orientation and increase competitiveness including greater focus on research, technology and digitalisation .....</b>	<b>9</b>
<b>2.3 Improve farmers' position in the value chain.....</b>	<b>11</b>
<b>2.4 Contribute to climate change mitigation and adaptation, as well as sustainable energy .....</b>	<b>13</b>
<b>2.5 Foster sustainable development and efficient management of natural resources such as water, soil and air .....</b>	<b>15</b>
<b>2.6 Contribute to the protection of biodiversity, enhance ecosystem services and preserve habitats and landscapes .....</b>	<b>17</b>
<b>2.7 Attract young farmers and facilitate business development in rural areas.....</b>	<b>19</b>
<b>2.8 Promote employment, growth, social inclusion and local development in rural areas, including bio-economy and sustainable forestry .....</b>	<b>21</b>
<b>2.9 Improve the response of EU agriculture to societal demands on food and health, including safe, nutritious and sustainable food, as well as animal welfare.....</b>	<b>22</b>
<b>2.10 Cross-cutting objective on knowledge, innovation and digitalisation .....</b>	<b>24</b>

## **1. COMMISSION RECOMMENDATIONS FOR LATVIA'S CAP STRATEGIC PLAN**

In the framework of the structured dialogue for the preparation of the common agricultural policy (CAP) strategic plan, this document contains the recommendations for the CAP strategic plan of Latvia. The recommendations are based on analysis of the state of play, the needs and the priorities for agriculture and rural areas in Latvia. The recommendations address the specific economic, environmental and social objectives of the future Common Agricultural Policy and in particular the ambition and specific targets of the Farm to Fork Strategy and the Biodiversity Strategy for 2030. As stated in the Farm to Fork Strategy, the Commission invites Latvia, in its CAP Strategic Plan, to set explicit national values for the Green Deal targets<sup>1</sup>, taking into account its specific situation and these recommendations.

### **1.1 Foster a smart, resilient and diversified agricultural sector ensuring food security**

While Latvian agriculture faces specific constraints linked to its climate conditions as well as historical developments, further moves towards more sustainable food systems present both a challenge and an opportunity. In spite of positive improvements in past decades in Latvian agriculture, there are still notable differences in income between farms of different sizes, sectors and territories. Although the land consolidation process has been ongoing, the share of farms with standard output below EUR 4000 dominates the farm structure (64% of the total number of farms). The CAP and national support schemes play a crucial role in Latvia. Even with CAP support, agricultural income per work unit is on average only 50% of the average wages in Latvia. This clearly demonstrates that the agricultural sector needs significant support. While CAP support has a crucial role in the overall income per worker, it seems to be disproportionately allocated to certain categories of farmers. The big farms concentrate land in their hands, which is reflected in the greater increase in direct payment concentration. This clearly demonstrates that the agricultural sector continues to need strong and targeted support, in particular to smaller farms. While concentrations of land and payments are taking place, Latvia perceived the need for increased competitiveness, where investments with a view to adding value to food products are vital. Access to finance and land for farmers, in particular for small farms and young farmers facing difficulties in this regard is an important issue in Latvia, one that needs further consideration.

Climate change is putting an increased pressure on Latvian agriculture. This particularly affects crop yields due to an increase in extreme climatic conditions, such as heavy rainfall or long-lasting heat waves. In view of this, there is a need to continue working on plant, animal health, environmental and climate change related risk prevention issues, including risks of disturbance of agricultural markets. It was observed that the level of participation of farmers in risk management schemes has increased over the recent years indicating existing positive trends and further opportunities.

The food supply chain in Latvia is characterised by advanced cooperation within the primary production sectors, such as cereals and milk. Cooperation among various players in the forestry sector is also well-established. The concentration of supply, however, is low in other primary production sectors (meat, eggs and organic farming). There are five recognised

---

<sup>1</sup> It concerns the targets related to use and risk of pesticides, sale of antimicrobials, nutrient loss, area under organic farming, high diversity landscape features and access to fast broadband internet.

producer organisations in the fruit and vegetable sector. The well-organised milk cooperatives are currently undergoing a further consolidation through mergers or creation of second level structures, therefore strengthening the position of farmers in the food supply chain and, in particular their bargaining power. Overall, fostering producer organisations, in particular for the meat and eggs sectors could be explored as a way to further strengthen the competitive position of farmers. In addition, processing of organic products and use of the EU quality schemes in Latvia needs to be encouraged.

### **1.2 Bolster environmental care and climate action and contribute to the environmental- and climate-related objectives of the Union**

While Latvia overall has achieved a relatively good performance on the environmental objectives, there are still certain elements where it needs to step up its efforts, especially on biodiversity, and soil and air quality. According to the Prioritized Action Framework (PAF), biodiversity loss and relatively poor conditions of natural habitats are seen as issues of concern. Improving the status of habitats and bird species is therefore seen as an important element.

Certain elements of soil management will need careful consideration, given that Latvian soil is highly acidic with a poor phosphorus supply, which creates a dependency on external inputs for plant nutrition. In addition to addressing these concerns through different CAP instruments, Latvia could explore and develop synergies with the Horizon Europe soil health mission. Latvia's agricultural area under organic farming is relatively high (14.5%) and is on an upward trend. This is a strong starting point for Latvia on its path to reaching the EU Green Deal targets. Efforts to support and increase the areas under organic farming and to develop markets for organic products should be encouraged.

As regards air quality, ammonia emissions show an unfavourable trend. Latvia needs to implement additional emission reduction measures on manure management systems. Such improved nutrient management should also support reduced pollution to water and emissions of greenhouse gases (nitrous oxide). In terms of water quality, the status of all groundwater is of high quality, whereas, the status of surface water in some water bodies needs to be improved. Marine and coastal waters in the Gulf of Riga and Baltic Sea suffer from eutrophication and climate change. While water quantity risks are low in Latvia, it could consider , support for nature-based solutions such as crop rotation and support for a regulated drainage system that could store water for dry periods, in order to address climate change adaptation.

Concerning climate change mitigation and adaptation, Latvia reduced greenhouse gas emissions from agriculture between 1990 and 2018, but recent years and projections show an upward trend. Although Latvia's agricultural sector emits less greenhouse gas emissions than the EU average, the share of Latvia's total emissions stemming from agriculture is relatively high, particularly for agricultural soils. At the same time, there has been a significant decrease in total net greenhouse gas emissions removals in LULUCF (land use, land use change and forestry) sectors, mainly due to the increase in logging. Latvia should make more efforts to reverse these trends. Latvia is also one of the main peatland emitters in the EU, and peatland restoration holds potential for climate change mitigation.

There is also potential to increase the use of renewable energy in the agricultural sector. The share of Latvia's agriculture and forestry in the production of total renewable energy is already among the highest in the EU.

### **1.3 Strengthen the socio-economic fabric of rural areas and address societal concerns**

About 40% of the territory of Latvia is considered as rural area. There are significant differences among different regions in terms of economic activity, availability of services and basic infrastructures. This leads to a different living standards and development opportunities in rural areas. With the negative demography changes Latvia faces, the population involved in agriculture is also declining. The share of young farmers in overall farming population is low. Additional support to young farmers and new entrants could be considered as for a means of developing Latvia's agricultural sector in the future. The share of farm managers below 35 years of age with at least a basic level of agricultural training is lower than the share of total farm managers in Latvia. This suggests that further efforts are needed to increase the level of education and knowledge among young farm managers to stimulate innovation and the entry of modern technologies into the sector.

Availability of basic services, infrastructure, and connectivity are the key limiting factors in assuring viability and vibrancy of rural areas. Given this situation, investments in rural infrastructure, basic services and targeted economic development outside farming are likely to be important for the viability of Latvian rural areas. Furthermore, there is a need to continue placing strong emphasis on job creation and the development of SMEs, both in the agricultural sector and outside it. The fight against poverty and social exclusion remains a challenge. Latvia must give careful consideration to closing the gender and pay gap and to protecting agricultural workers.

The Farm to Fork strategy for a fair, healthy and environmentally-friendly food system aims to reduce the environmental and climate footprint of the food system. Regarding the use of antimicrobial agents, there are very low sales of such substances in Latvia, making the situation there much more positive than in other Member States.

On plant protection products, the Latvian authorities should give attention to the need to reverse the persistent upward trend of their use. In addition, further actions have to be taken to control the implementation of integrated pest management.

On animal welfare, the tail-docking of pigs remains an issue of concern.

Latvia should also try to bring about a shift towards healthier sustainable diets as the country has a high prevalence of non-communicable diseases due to dietary risk factors.

### **1.4 Modernising the sector by fostering and sharing of knowledge, innovation and digitalisation in agriculture and rural areas, and encouraging their uptake**

Tackling the economic, environmental and social challenges outlined in the previous paragraphs is an essential step in the transition towards sustainable food production. This requires an effort to collect and bring to the field the latest scientific findings and innovations. Currently, there is untapped potential in the Latvian agricultural knowledge and innovation system (AKIS) for the creation and dissemination of knowledge. The main actors in the agricultural knowledge and innovation system are divided among four groups: the public sector, the private sector, the research and education sector and the non-governmental sector. This demands coordinated intervention by all. Latvia is encouraged to put more emphasis on the development and financing of AKIS, by training advisors, developing innovation support

services and making sure that knowledge flows cover also downstream farming and rural activities.

A stronger agricultural knowledge and innovation system could also support greater digitalisation of farms and rural areas in Latvia. Comprehensive initiatives should be undertaken to better connect science and practice as well as to boost knowledge exchange and innovation. Farmers and cooperatives rely heavily on advice and technology from private advice providers. It is essential to ensure that farms and cooperatives can all benefit from coordinated advice, knowledge exchange and targeted information. This can help in particular in making sure that in addition to pure technical advice, they are also kept updated on solutions for societal challenges.

A viable future for rural areas depends, among other issues, on the availability of adequate coverage of high-speed broadband infrastructure in rural areas. This is not only a prerequisite for developing businesses and activities, but also for implementing future technologies that may support achievements of the Green Deal targets. Although Latvia has rather good overall broadband coverage and performs well in digital public services, additional efforts could be encouraged as private investment in last-mile connections remains a challenge.

## 1.5 Recommendations

To address the above interconnected economic, environmental/climate and social challenges - the Commission considers that the Latvian CAP strategic plan needs to focus its priorities and concentrate its interventions on the following points, while adequately taking into account the high territorial diversity of the Latvian agriculture and rural areas:

*Foster a smart, resilient and diversified agricultural sector ensuring food security by*

- **Improving the viability of farms** with lower incomes, especially smaller farms with higher development potential, through a more targeted and effective distribution of direct payments, by applying, for example, the complementary redistributive income support for sustainability and the reduction of payments. The improved distribution should take into account the contribution of income support to the development of rural areas.
- **Boosting the competitiveness and productivity of the agricultural sector.** Related support should be better targeted at investments, which are most likely to achieve genuine productivity growth. Support for investments focused on new technologies as well as green and digital transition - including through access to financial instruments - are essential.
- **Improving the position of farmers in the food supply chain.** Recommended approaches include: supporting the processing and marketing of agricultural products with high added value (for example under EU and national quality schemes); encouraging existing cooperative structures to seek recognition; facilitating the setting-up of new cooperative structures; and enhancing cooperation between organic farmers.
- **Making farmers more resilient to risks** – especially those related to market disruption, climate change, and plant and animal health – by supporting development and uptake of risk management scheme.

*Bolster environmental care and climate action and contribute to the environmental- and climate-related objectives of the Union by*

- **Reducing greenhouse gas and ammonia emissions** by supporting sustainable agricultural management as well as animal rearing techniques. **To mitigate and adapt to climate change**, Latvia should address primarily nutrient management, sustainable crop rotations, the protection and, if appropriate, restoration of peatlands and wetlands as well as improved drainage systems.
- Ensuring improvement in nutrient management through the application of tailored emission reduction measures such as the manure management systems and precision farming, thereby helping to achieve the **Green Deal target on reducing nutrient losses** and also improving **water quality**.
- Further improving the farm landscape features of benefit to biodiversity – thus helping to achieve the **Green Deal target on high diversity landscape features**. Encourage effective management of biologically valuable grasslands.
- Fostering **sustainable forest management** and promoting the efficient use of biomass, enhancing multi-functionality of forest, promoting forest protection and restoration of forests ecosystems to reach a good condition of forest linked habitats and species in order to enhance biodiversity, and to build resilience to threats such as climate change impacts on forests.
- Contributing to the **Green Deal target on organic farming** by further supporting conversion to and maintenance of organic farming, as well as processing and marketing of organic products. All support should take account of developments in supply and demand.

*Strengthen the socio-economic fabric of rural areas and address societal demands by*

- **Improving the socio-economic development of rural areas, tackle poverty reduction and reversing depopulation and generational renewal** by investing – in synergy with the other EU Funds - in basic infrastructures and services that will boost economic development, including the bio economy and quality job creations in rural areas.
- **Contributing to the EU Green Deal targets on pesticides** by strengthening the efforts to decrease the quantities and risks of most hazardous used pesticides and promoting the sustainable use of pesticides, in particular by ensuring the uptake of integrated pest management practices.
- **Improving animal welfare** by putting in place ambitious measures to promote best practices on the welfare of livestock, especially for pigs, laying hens and male dairy calves as well as by enhancing farm biosecurity.

*Fostering and sharing of knowledge, innovation and digitalisation in agriculture and rural areas, and encouraging their uptake by*

- **Tackling the AKIS fragmentation** – especially by strengthening the link between farmers, public and private advisors and researchers, further promote their involvement in EIP operational groups and the development of innovation support services, training farmers in the use of smart digital technologies and using data to increase productivity.
- **Contributing to the EU Green Deal target on broadband**, by supporting connectivity in rural communities. In doing so it will be important to ensure synergies and complementarities among the EU and national funds.



## 2. ANALYSIS OF AGRICULTURE AND RURAL DEVELOPMENT IN LATVIA

The Latvian agricultural sector represents around 3.9% of the GDP and employs about 162 630 people, corresponding to 6.9% of the total employment in the country (2017). The share of gross value added (GVA) in agriculture, forestry and the fisheries sector in the total GVA of Latvia is significantly above the EU average and stands at 4.3% in 2019. The biggest part of the population lives in rural or intermediate areas (84% of the total area). In 2016, there were around 70 000 farms in Latvia with 1.93 million hectares of utilized agricultural land. The majority are very small or small farms with standard output up to EUR 4000 (64% of the total amount of farms), of which very small farms with Standard Output up to EUR 2 000 constitute 49% of the total number of farms. Furthermore, 92.9 % of the utilised agricultural area are classified as areas facing natural (88.8%) or areas facing specific constraints (4.1%).

Agriculture and forestry sectors hold a significant place in the country's economy and play a vital role in keeping rural areas as a liveable and vibrant environment. However, the sustainability of Latvian agricultural and forestry sectors is threatened by high fragmentation of the farm structure and lower agricultural income compared to other EU Member States. Rural areas suffer from serious problems created by depopulation, the lack of economic activities and delays in the provision of basic services and infrastructure. This has a negative effect on economic and social aspects of these territories, especially concerning generational renewal and business development.

### 2.1 Support viable farm income and resilience across the EU territory to enhance food security

Average farm income amounts to around 50% of the average wage in the whole economy in 2005-2018, which is about the EU average in this period. However, it exhibits a downward trend from 2012 due to the earnings in the whole economy, which outpace the agricultural incomes.<sup>1</sup> In the farm factor income the share of direct payments amounts on average to 35%, while total CAP expenditure – represent on average 64% in 2014-2018 (these figures are above the EU average).<sup>2</sup>

Latvian farmers earn on average relatively low factor income<sup>3,4</sup> which is about a third of the EU average. However, notable differences exist among farms of different sizes, sectors and territories.

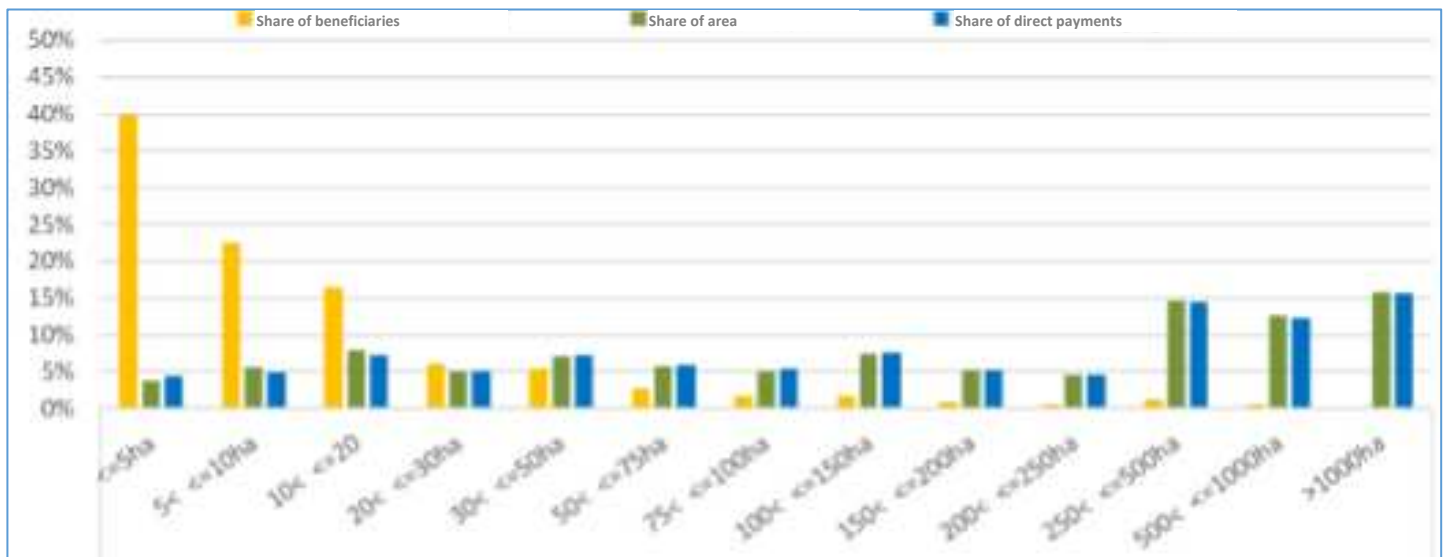
The agricultural factor income increases with farm size: it is very low for smaller, which encompasses small and medium-sized farms (10 to 50 hectares<sup>5</sup>), but it is relatively high (around the EU average) for the bigger farms (above 200 hectares). Income distribution according to the economic farm size follows the same pattern<sup>6</sup>; whereas the direct payment per hectare (together with transitional national aids) remain relatively stable both by physical or economic size. Higher than the national average unit amounts per hectare are paid to livestock farms, such as cattle and dairy farms, which have average or higher than the national average income. Lower unit amounts are paid to cereals, oilseeds and protein crops farms, which have higher than average income and to mixed farms, which have lower than average income.<sup>7</sup> Farm income in areas with natural constraints (ANC) is at a similar level to non-ANC areas<sup>8</sup>, but significant differences are still observed among regions (e.g. it is significantly higher in Zemgale than in Latgale) and are linked to the geographical location, types of farming and access to markets (Latgale).<sup>9</sup> The unit amount per hectare in livestock sectors may increase with farm size due to higher coupled support (presumably due to higher livestock density). This could explain why smaller farms receive less and less support, (farms

below the national average size receive 98% of the national average direct payment per hectare in 2017).<sup>10</sup> At the same time 20% of the biggest farms seem to concentrate more and more land since 2015, reflecting the parallel increase in direct payment concentration (83% of direct payments and 82% of land in 2018).<sup>11</sup>

Also, it should be noted that a significant share of direct payment beneficiaries have a lower economic size than EUR 2000<sup>12</sup> and that a majority of them are semi-subsistence farms.<sup>13</sup>

Among other reasons, due to dependency on export markets, being prone particularly to climatic, plant and animal health related risks, farm incomes strongly fluctuate (this is especially the case for cereal and granivore farms). This leads to the need of risk management, which at the moment is underused. For example, only about 15% of areas under direct payments were insured in 2019.<sup>14</sup> Possible obstacles include lack of insurance culture, product mismatch and low competition among insurance providers.<sup>15</sup> However, measures in the Rural Development programme 2014-2020 could demonstrate positive trends. The farmers' interest to insure against risks increases. Farmers could apply for support under rural development to cover partially insurance premiums. The interest of farmers was also increased by the fact that from 2019 insurers started offering crops insurance against drought. In 2019, the amount of insured areas increased significantly. In 2018, areas with crop insurance amounted to 151 200 hectares, while in 2019 - already 263 100 hectares were covered by crop insurance. Thus, the insured sown and planting areas have increased by about 74% during the last two years. The number of insured livestock is also growing every year - in 2019, the number of insured livestock (expressed in cattle units) was 43 678 higher than in 2018.<sup>16</sup>

### Beneficiaries, area and direct payments by physical farm size



Source: European Commission. *Income support breakdown. Distribution of direct aid to farmers – indicative figures 2018 financial year.*

## 2.2 Enhance market orientation and increase competitiveness including greater focus on research, technology and digitalisation

The Latvian agricultural sector is undergoing structural changes that have an impact on the sector's competitiveness. The utilised agricultural area increased between 2005 and 2016 by 11% from 1.73 million to 1.93 million hectares. The total number of farms decreased

between 2005 and 2016 in Latvia from about 128 700 to 70 000 farms, which represents less than 1% of EU-27 holdings. A vast majority of them (64%) has an economic size below EUR 4000.<sup>17</sup> The ownership of the holdings is rather balanced gender-wise, with 45% of women holders compared to 55% of men holders. Fixed capital consumption keeps increasing year in, year out.

The average farm size doubled between 2005 and 2016 from 13 hectares to 28 hectares. Arable land increased by 18% within this timeframe, whereas the area with permanent crops decreased by 41%.

Agriculture represented 4.3% of the gross value added of Latvia in 2019, whilst its contribution to total employment was 7.3% out of which forestry counts for 2%.<sup>18</sup> The total labour input in agriculture was 70 510 annual work units (AWU) in 2017, out of which nearly 75% was family (non-salaried) labour force.<sup>19</sup> Labour productivity in agriculture in Latvia is the fifth lowest among EU-27 (in 2017 it stood at 46% of the EU average).<sup>20</sup> Increasing productivity is important to boost the competitiveness of the sector. The second highest annual average growth of the total factor productivity (2007-2017) was observed in Latvia (+3.5%). Latvia is also the Member State which has seen the highest increase of the gross fixed capital formation in agriculture in 2018, representing 129% of gross value added in agriculture.

Looking at the revenue structure, revenues from crop outputs have slightly increased from 2017 - 2019 compared to 2005 - 2007, but both animal outputs and secondary activities have shrunk.

Manufacturers of food products experienced a decrease in the producer prices of output until 2016, followed by a notable increase since 2017.

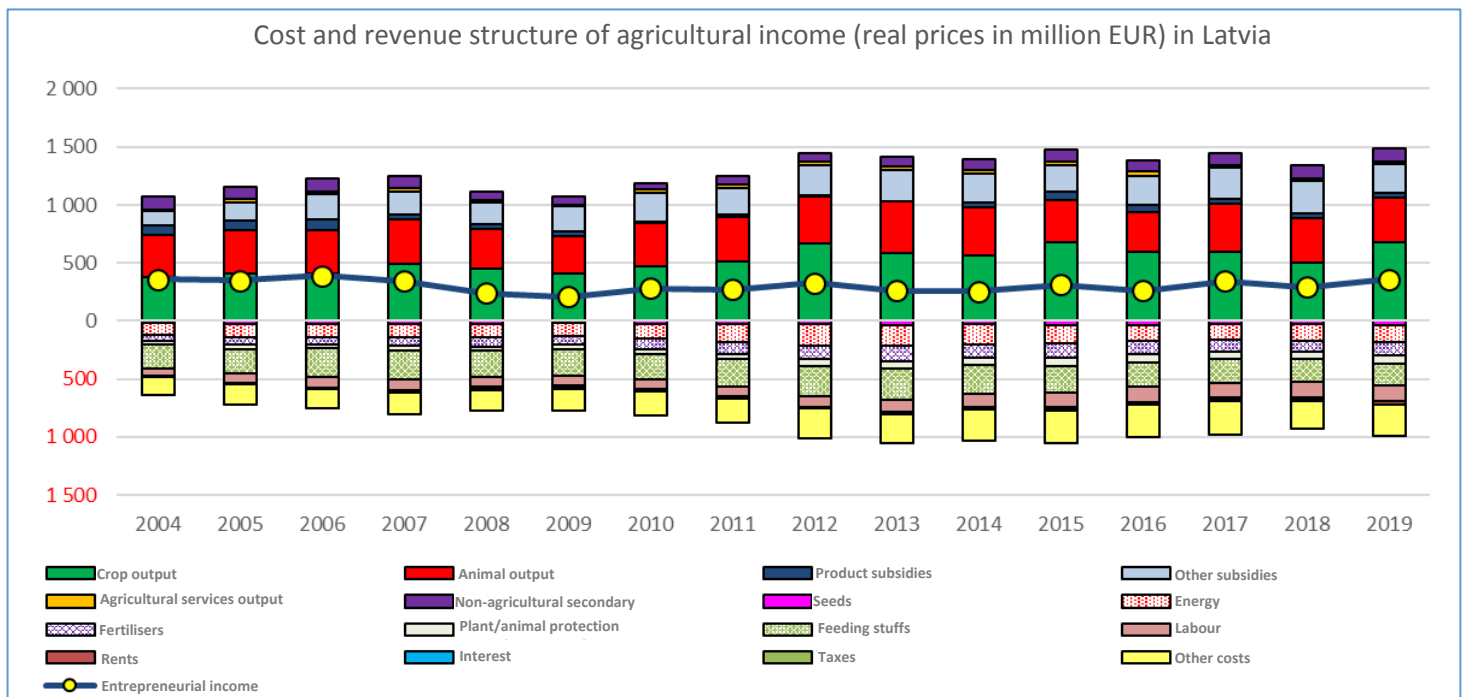
As regards the role of finance in the agricultural sector, Latvian farmers mostly applied for medium and long-term loans in 2018 to finance investments especially in field crops and dairy farming. Under the current rural development programme, investments in sustainability and modernisation of the agricultural sector through grants for investments in physical assets, as well as through grants for investments specifically for young farmers, are specifically supported.

Investments are essential to boost productivity in the sector. In the long run, the priority should not be to increase volumes or renew the technical fleet, but to increase added value per unit of land by creating well-paid jobs.<sup>21</sup> A significant problem, in particular, for the agri-food sector is the very constrained supply of finance to large strategic projects.<sup>22</sup>

The financing gap in the agricultural sector is estimated between EUR 17.4 million and EUR 31.8 million. It mainly concerns long-term financing of small-sized farms.<sup>23</sup>

The agri-food trade balance in Latvia is at an equilibrium. Latvia has a positive trade balance with countries outside the EU and it has increased between 2008 and 2017. However, the intra-EU trade balance is negative. Commodities (28%) and other primary products (27%) are the main categories exported within EU countries whereas the main export product to non-EU countries are spirits and liqueur (41.6% in value in 2018), wine, vermouth, cider and vinegar (18.8%) and wheat (13.6%). In this sense, there is a need for further diversifying the structure of the agri-food trade towards value-added products.

Due to the lack of finance and information, the take-up of digital technologies (e-business, cloud computing services, big data, online sales etc.) by farmers and rural businesses is lagging behind. Digitalisation of the primary sector is mainly focused on precision farming.



Source: EUROSTAT [Economic Accounts for Agriculture]

### 2.3 Improve farmers' position in the value chain

The share of agricultural production in the food supply chain (FSC) going to primary producers has recently stabilised at 37%, which is well above the EU average of 27%.<sup>24</sup> This can be linked partially to the need for improving the functioning of the food supply chain (food processing, distribution channels, vertical integration etc.) in order to make it more efficient, effective and to meet societal demands.

Despite different historical and cultural barriers existing in Latvia in relation to the setting up of cooperative structures, presently there are various types of cooperation. Current structures – cooperatives, producer organisations - are mainly specialised in the production and collection of fresh products/unprocessed products (cereals, milk, fruit, and vegetables). Farmers could be given more encouragement for involvement in downstream activities, i.e. integrate vertically, develop new products with a higher added value, innovate or find markets for new agricultural products.

In 2017, there were five recognised producer organisations<sup>25</sup> in Latvia operating only in the fruit and vegetables sector with a market share of 37% of production marketed through producer organisations. This demonstrates that there are unexplored possibilities for cooperative structures to join forces and pool existing potential (milk and cereals sectors) or to set up new (meat sector, eggs sector) cooperative structures by creating the critical mass of supply, producers and financial capital. In this way, the position of farmers on the market could be strengthened in view of having a stronger bargaining position towards the retail sector. Production planning, innovation, crisis prevention, and management measures would also be beneficial. Farmers and producers may benefit from support of Rural Development

programme 2014-2020 for setting up a producer group. In 2019, 3 producer groups in the forestry sector were supported under rural development. Latvia is currently the only country amongst the three Baltic countries to have national legislation in place with regard to inter-branch organisations. Latvia's current legislative framework in this area provides for the establishment of inter-branch organisations in the milk sector. However, there is no inter-branch organisation recognised so far in Latvia.<sup>26</sup>

There is a low level of knowledge and understanding among farmers of the importance for cooperation and collaboration. This points to the unexploited potential for farmers to engage in these initiatives through knowledge, leadership and mentoring activities.<sup>27</sup>

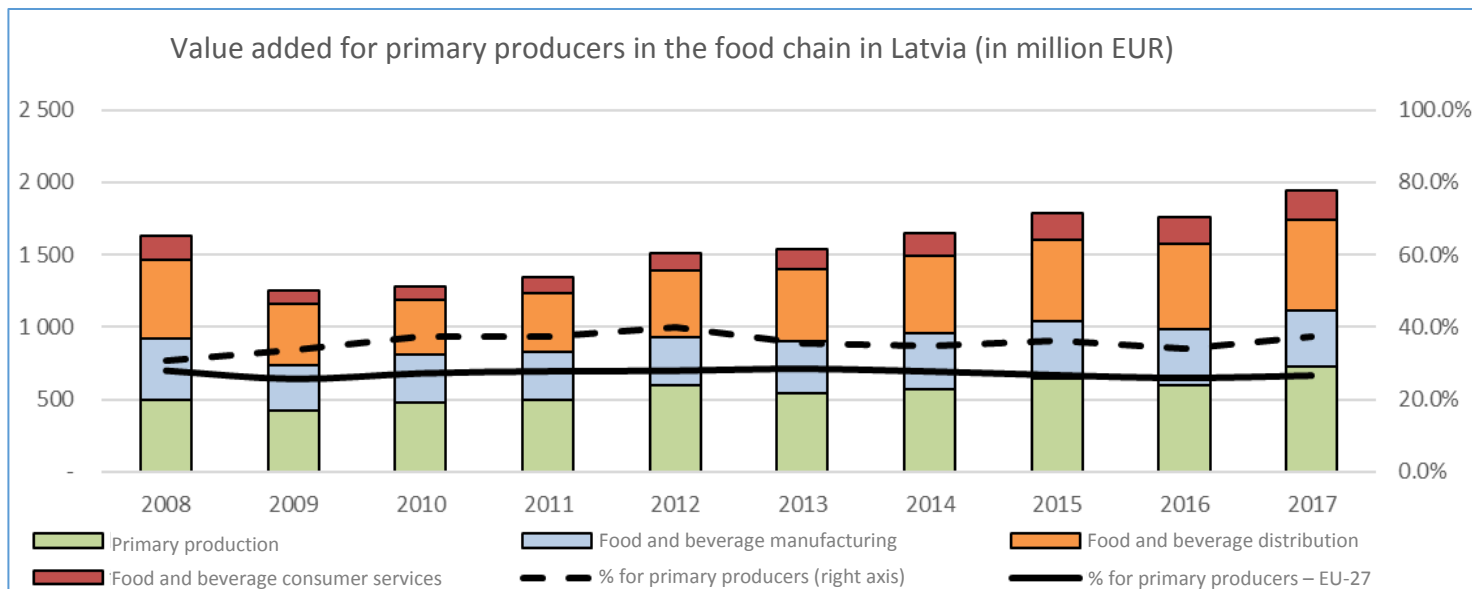
In Latvia, organic farming accounts for 14.5% of agricultural land, which was above the EU average of 8% in 2018<sup>28</sup> with moderate to high share of production for dairy, beef and sheep meat, fruit, potatoes and oats. There are 13 organic farming cooperatives with a focus on primary collection. This shows that there is an obvious possibility and potential for further processing of organic produce as well as for the development and creation of new markets.

Latvia makes little use of quality schemes. In 2020, there were 6 product names that had been granted a geographical indication (GI), of which 3 Traditional Speciality Guaranteed (TSG), 2 Protected Geographical Indication (PGI) and 1 Protected Designation of Origin (PDO).<sup>29</sup> This shows that there is potential to expand on niche markets and products, using more GIs and to develop quality designations in those sectors lagging behind i.e. wheat, barley, oilseed and vegetables.

Contrary to the primary sector characterised by a highly fragmented farm structure and a relatively low level of organisation, the food processing industry and retail sector are characterised by high levels of concentration. In the Latvian food trade sector, the main players are the local representations of multinational companies. In 2018, two retail companies accounted for more than half (62%) of the total food market turnover, SIA Rimi Latvia and SIA Maxima Latvija.<sup>30</sup> In order to maintain their competitiveness, local retailers have merged into commercial cooperatives.<sup>31</sup>

Although the Latvian agri-food market is still dominated by long supply chains, the development of the local food system and short food supply chains through various forms of direct sales has accelerated in 2018.

Latvia already protects the position of farmers in the food supply chain through its unfair trading practices (UTP) legislation<sup>32</sup> and innovative policy-driven initiatives such as green public procurement (GMO free, quality products, organic or integrated farming, eco supply etc.).



Source: Value added for primary producers in the food chain in million EUR<sup>33</sup>

## 2.4 Contribute to climate change mitigation and adaptation, as well as sustainable energy

In 2018, agricultural emissions of Greenhouse gases (GHG) in Latvia amounted to 2.6 million tonnes of CO<sub>2</sub> equivalent, representing 22.3% of total greenhouse gas emissions in Latvia<sup>34</sup>, higher than the EU-27 average (10.48%). However, Latvia has the fifth lowest figure among the Member States of the EU in terms of greenhouse gas emissions from the agricultural sector per utilised agricultural area with 1.3 tons of CO<sub>2</sub> equivalent, which is half of the EU average of 2.6 tons, CO<sub>2</sub> equivalent (2018).<sup>35</sup> In total, agricultural emissions in Latvia are 0.66% of the EU agricultural emissions.<sup>36</sup> Emissions from agricultural soils account with 59.26% for the largest share of emissions, followed by emissions from enteric fermentation (mainly dairy and beef cattle) with 33% and emissions from manure management for 6%, while liming and urea use together account for 1.7% of total agricultural emissions.<sup>37</sup> Total greenhouse gas emissions from agriculture dropped by -53% between 1990 and 2018 due to a decrease in agricultural production.<sup>38</sup> However, the trend of recent years shows a gradual and steady increase in greenhouse gas emissions since the year 2000 (+12.22% between 2005 and 2018 and during the period 2013-2018 emission increased by 2.12%)<sup>39</sup>, following the development of the sector. This can be linked partly to the increase in the use of soil liming materials and nitrogen fertilisers (urea) in the country used to counter the high acidity (pH) of Latvia's soils. Other factors are increased numbers of meat cattle and poultry and increased productivity of dairy cattle.<sup>40</sup> On the other hand, emissions from agriculture decreased slightly in 2018 compared to the previous year (-3%).<sup>41</sup> In light of the Farm to Fork strategy, Latvia could be placed among the EU countries with the least fertilizer-intensive agricultural practices in the EU as only 7% of utilized agriculture area is managed in high-intensity farms.<sup>42</sup>

According to Latvia's National Energy and Climate Plan (NECP)<sup>43</sup>, total greenhouse gas emissions in the agricultural sectors are expected to further increase from 2020 to 2030, especially in the enteric fermentation processes and agricultural soil sectors. To address this problem, the NECP foresees: measures to promote the efficient use of fertilizers - precise use of mineral fertilizers, fertilizer planning, direct injection of slurry in soil; measures to improve soil fertility - maintenance of drainage systems, nitrogen sequestering crops as a part of crop rotation, undersowing grass, green fallow; measures that improve animal nutrition - improvement of feed quality, feed ration planning; measures to improve manure management

systems - promotion of biogas production, organic dairy farming, as well as enhancing CO<sub>2</sub> removals in forests as chief means of reducing the greenhouse gas emissions in the agriculture and forestry sector.

Concerning land use, land change and forestry (LULUCF) sectors, net greenhouse gas emissions in 2018 amounted to 1.4 million tonnes of CO<sub>2</sub> equivalent compared to a sequestration of -10.2 million tonnes of CO<sub>2</sub> equivalent in 1990.<sup>44</sup> This is mainly due to the increase in logging, the ageing of forests, the transformation of forest land into settlements and the transformation of naturally afforested land into arable land.<sup>45</sup> The largest conversion of permanent grassland is observed in small and medium-sized farms, which is explained by the fact that, in particular, farms in the livestock sector cease their activities or are restructured to operate in more profitable agricultural sectors.<sup>46</sup>

Latvia's National Energy and Climate Plan (NECP) foresees investments in improvement of forest ecosystems; afforestation and improvement of forest stand quality in naturally forested areas; restoration of forest stands destroyed by natural disasters and renovation of drainage systems as the main means to improve the forests productivity and therefore increase their emissions absorptive capacity.

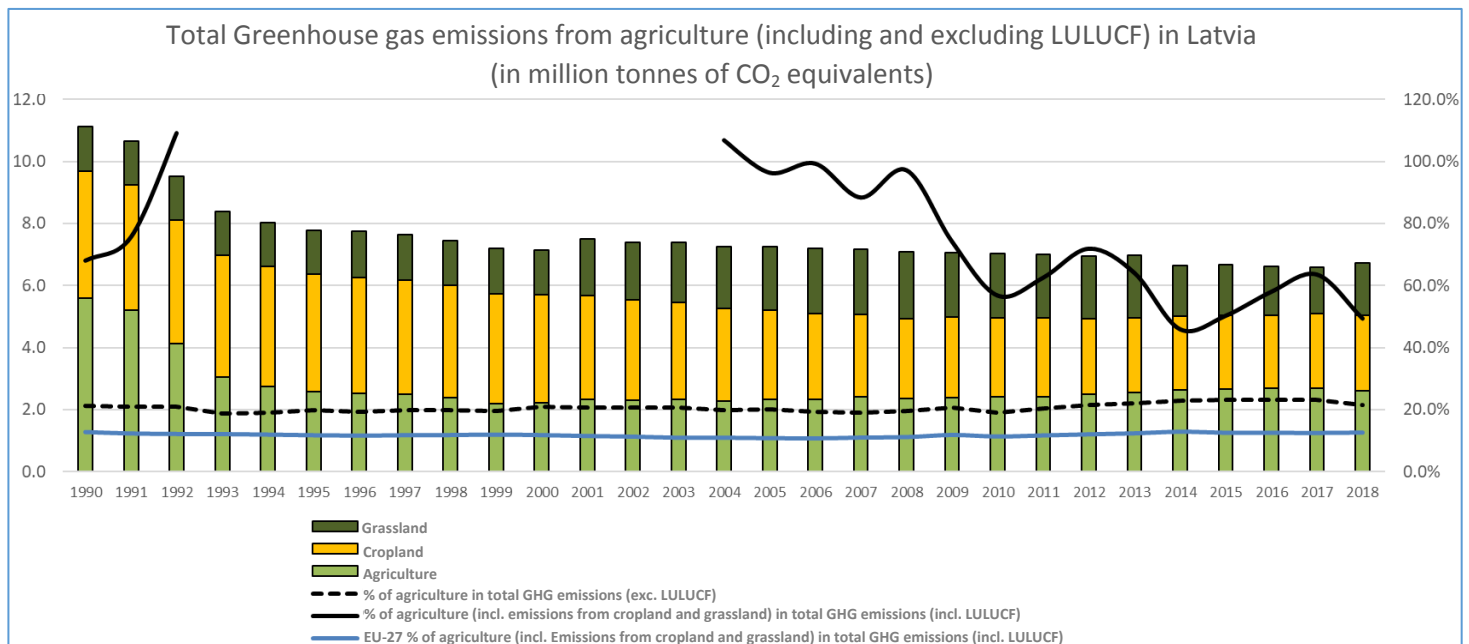
According to the NECP the afforestation is one of the most effective measures to increase CO<sub>2</sub> sequestration. Replacing non-productive, low-carbon stands with high-quality forest planting material and providing appropriate care for young stands makes it possible to increase stand productivity and carbon sequestration by 20%.<sup>47</sup>

In Latvia, greenhouse gas emissions from peat extraction constitute around 14.5% of total greenhouse gas emissions.<sup>48</sup> Bog areas cover 645 100 ha or 10% of Latvia's territory. Peat extraction takes place in 4% of the total bog area. Latvia is the first among Baltic countries where the national greenhouse gas emission factors for managing peatlands are elaborated.<sup>49</sup> Latvia by ensuring sustainable production of peat and restoring peatlands can contribute to the reduction of the greenhouse gas emissions.<sup>50</sup> The LIFE Restore project aims to reduce CO<sub>2</sub> emissions by restoring degraded peatlands and regenerating their function as carbon sinks; as well as to provide best practice guidelines on peatland restoration for decision makers and land users. For example, the LIFE Restore project provides after-use scenarios of degraded peatlands in order get the greatest benefits in reducing GHG emissions.<sup>51</sup>

Under the Rural Development programme 2014-2020 EUR 75.5 million (or 4.75% of expenditure) are programmed to promote resource efficiency and supporting the shift towards a low carbon and resilient economy, slightly below the EU average (6.6%). By 2019 this translated into 1.11% (target value 0.7%) of agricultural and forest land under management contracts contributing to carbon sequestration or conservation and 2.8% or 12 115.7 livestock units (LU) (target value 5.27% or 25 000 LU units) concerned by investments in live-stock management in view of reducing greenhouse gas emissions and ammonia emissions. The relatively low performance of the Rural Development programme 2014-2020 implementation can be explained by the significant decrease in the number of pigs and dairy cattle on farms during the programming period. During this period, many farms were forced to switch to other agricultural production due to both the African swine fever (ASF) outbreak and the Russian Federation Decision No 560 on the prohibition of imports of certain agricultural products from Latvia (as a result of the import embargo). Under such circumstances farmers planned to invest as much as possible in profitable investments to cover the costs incurred, rather than in non-profitable investments, such as the construction of manure storage facilities.<sup>52</sup>

In 2018, Latvia's final energy consumption by agriculture/forestry was 93.24 Kg/OE per hectare of utilised agricultural area, which translates into an increase of 18.54% since 2013, while the EU average increased by 7.99%.<sup>53</sup> The 85.8% share of agriculture and forestry in the production of total renewable energy (RE) in Latvia among the highest in the EU (EU-27 average around 41.4%)<sup>54</sup> and shows a growing trend. On the other hand, the use of RE in agriculture and forestry in Latvia fluctuates around 10% between 1995 and 2016.<sup>55</sup> Fuel wood is the main source for RE, accounting for 80.6% of RE consumption, the largest consumers being households (36% of total fuel wood consumption).<sup>56</sup>

As also described in Chapter 1.1, the main threat of climate change on agriculture lies in increasing extreme climatic conditions, affecting crop yields and increasing non-harvest risks. The main risks come from freezing of crops and plantations in the kill, the risk of spreading of crops and animal diseases and pests, the risk of low yields or loss of yields due to rainfall during harvest, the risk of felling, the risk of faster soil drying and the risk of long-lasting heat waves.<sup>57</sup> Especially long-lasting heat waves are expected to put pressure on Latvian agriculture as no irrigation is used in permanent crops.<sup>58</sup> For forestry, the risk of spreading tree diseases and pests, the risk of storm and the lack of winter frost are most significant.



Source: European Environmental Agency. As in EUROSTAT [[env air gge](#)]

## 2.5 Foster sustainable development and efficient management of natural resources such as water, soil and air

Concerning air quality, Latvia's levels of ammonia (NH<sub>3</sub>) emissions from agriculture amounted to 12.86 Gg (1000 tonnes) in 2018, that is 83.22% of total NH<sub>3</sub> emissions, with 69.94% coming from livestock and 29.83% from crops.<sup>59</sup> It is the first year since 2008 that Latvia shows a decreasing trend in its NH<sub>3</sub> emissions. However, Latvia is behind in achieving the NH<sub>3</sub> emission targets for 2020/2030 as established by the NEC Directive. Hence, Latvia needs to reduce its emissions by 7.2% in order to achieve reduction commitments for 2020/2030.<sup>60</sup> Under its National Air Pollution Control Programme (NAPCP)<sup>61</sup>, Latvia commits reductions to achieve this goal by 2029, however, the Commission's risk assessment places Latvia at a high risk of non-compliance. Additional implementation of ammonia emission reduction measures on manure management systems, mentioned by the NAPCP



such as covering slurry storages with artificial covers with higher ammonia reduction effect , making greater use of manure for biogas production, limited work-in times low emission slurry spreading techniques, as well as organic farming contribute to the improvement of air quality. Latvian soil is acidic, with poor phosphorus supply and a low degree of cultivation, respectively liming is used for 25-42% of agricultural land on average, 35-44% of agricultural land are low and very low on phosphorus supply and 34-43% of land used for agriculture have a low degree of cultivation.<sup>62</sup> There is a tendency towards a deterioration of certain soil quality indicators.<sup>63</sup> For example, 30% of arable land is left bare during winter<sup>64</sup> and the share of conventional tilling is very high (91% of tillable area).<sup>65</sup> Consequently, environmental and climate actions aimed at improving soil quality are very important in Latvia.

In 2015, the level of soil organic carbon stocks in arable lands were 208 mega tonnes and the mean soil organic carbon content was 36g/kg which is below the EU-28 average (502 mega tonnes and 43.1 g/kg respectively).<sup>66</sup>

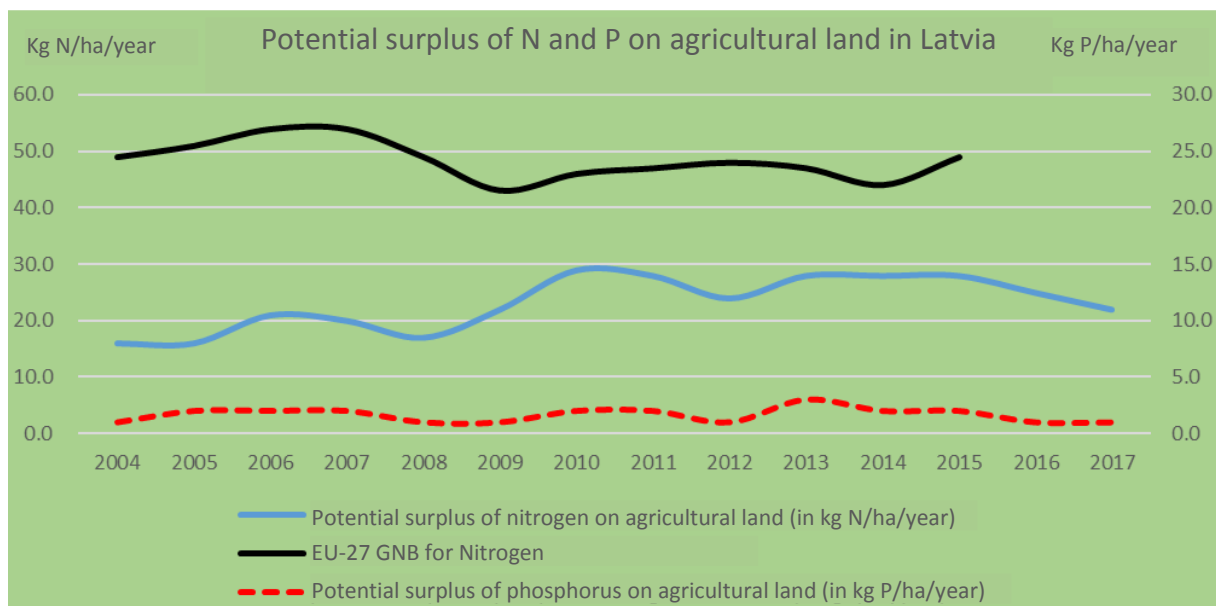
At national level, there is no severe risk of soil erosion by water in Latvia (mean soil erosion rate at 0.3 t ha<sup>-1</sup> yr<sup>-1</sup>) as only less than 2% of arable land is located on steep flat and steep slopes (slope > 6° ), where intensive flat erosion can occur.<sup>67</sup>

Concerning water quality, the nitrogen and phosphorus surplus in Latvia are increasing over time. However, the nitrogen surplus is about half of the EU average and one of the lowest in the EU between 2012 and 2015.<sup>68</sup> In this regard, between 2014 and 2017, the gross nutrient balance on agricultural land in Latvia was 26 kg/ha for nitrogen and 1.5 kg/ha for phosphorus on average, compared to EU values of 46.5 kg/ha and 0.5 kg/ha respectively.

In relation to water status, Latvia is not yet meeting the objectives of good status in all waters and currently 78% of surface waters are in less than good ecological status. For groundwater, the situation is good with 100% of groundwater in good quantitative and good chemical status.<sup>69</sup> A shared problem with other Baltic Sea countries with regard to water quality is the eutrophication of the Baltic Sea. At least 97% of the region is found to be below good eutrophication status, including all of the open sea area and 86% of the coastal waters. For Latvia, 100% of the whole Baltic Sea area is considered below good status in regards to eutrophication.<sup>70</sup>

Water quantity risks are low in Latvia. Latvia's Second River Basin Management Plan reports that water abstraction pressure is not relevant for Latvia.<sup>71</sup> Only 0.03% of the total agricultural area was irrigated in 2016 (data are missing for water use from streams, wells and ponds, which are very common)<sup>72</sup> and the Water Exploitation Index plus (WEI+) for river basin districts in Latvia is with around 0.8 very low (1990-2015 data).

According to 2019 Annual Implementation Report of the Latvian Rural Development Programme 2014-2020, the target values for both targets T10 "Percentage of agricultural land subject to management agreements aimed at improving water management" and T12 "Percentage of agricultural land covered by management agreements aimed at improving soil management and / or preventing soil erosion" were 20.2% (planned value 16.59%). It was achieved with supported 363 410 ha of agricultural land in each of the target directions, exceeding the planned target indicator.<sup>73</sup>



Source: EUROSTAT [aei\_pr\_gnb]

## 2.6 Contribute to the protection of biodiversity, enhance ecosystem services and preserve habitats and landscapes

The overall situation in Latvia demonstrates the risks of biodiversity loss.

The farmland bird population has increased slightly from 123.31 in 2010 to 125.58 in 2015 (which is above the EU average – 84.4 in 2013), although there were some fluctuations over the period.<sup>74</sup> However, the trend in following years (93.15 in 2016 and 90.92 in 2017) is rather negative. Monitoring data shows that there is a long-term population decline.<sup>75</sup>

It also indicates that existing farming practices affect different bird species associated with the open landscape. For instance, over the last thirteen years (2006 -2018) corncrake population has declined moderately, especially over the last six years. The decrease in the number of corncrakes can be partly explained by intensification of agriculture, conversion of permanent grassland into arable land.<sup>76</sup>

General forest bird index in long term is stable, but short-term trend is indistinct. Populations of old forest indicator species (for example, *Ciconia nigra*), and ground nesting birds (*Bonasa bonasia*) shows negative trends. In forests, the priority bird species for which conservation-aimed actions are urgently required are *Clanga pomarina*, *Ciconia nigra*, and *Tetrao urogallus*.<sup>77</sup>

According to the report recently submitted by Latvia on the conservation status of habitats and species covered by the Habitats Directive for the period 2013-2018<sup>78</sup>, the share of habitats in good conservation status in 2018 was only of 10% and it has decreased compared to the previous reporting period (2007-2012). According to this report, 5 out of 12 forest habitats of EU importance have Unfavourable – bad status and the rest Unfavourable - Insufficient conservation status. All 12 grassland habitats are reported as being currently in an unfavourable conservation status: 10 habitat types has been assessed as being Unfavourable – bad, for one – Unfavourable – insufficient, for one – unknown.<sup>79</sup>

According to the prioritised action framework (PAF), all permanent semi-natural grasslands are in an unfavourable conservation status. For croplands, the number of green infrastructure elements is insufficient in the more intense agricultural areas with large arable land coverage.

Heathlands and shrubs have lost 5% of their area over the last years. For all habitat types, except *Juniperus communis* formations on heaths or calcareous grasslands which the conservation status assessed as Unfavorable / Bad, the conservation status is Unfavourable – Inadequate.<sup>80</sup> On the contrary, Latvia has the highest percentage of the fallow land of all agricultural area. However, the share of landscape elements in agriculture land is insufficient which also contributes to the biodiversity decline.

Latvia does not calculate pollinator species index therefore, there is no information about agriculture impact on pollinators.<sup>81</sup> However, a detailed report on support to wild pollinator populations has been completed.<sup>82</sup>

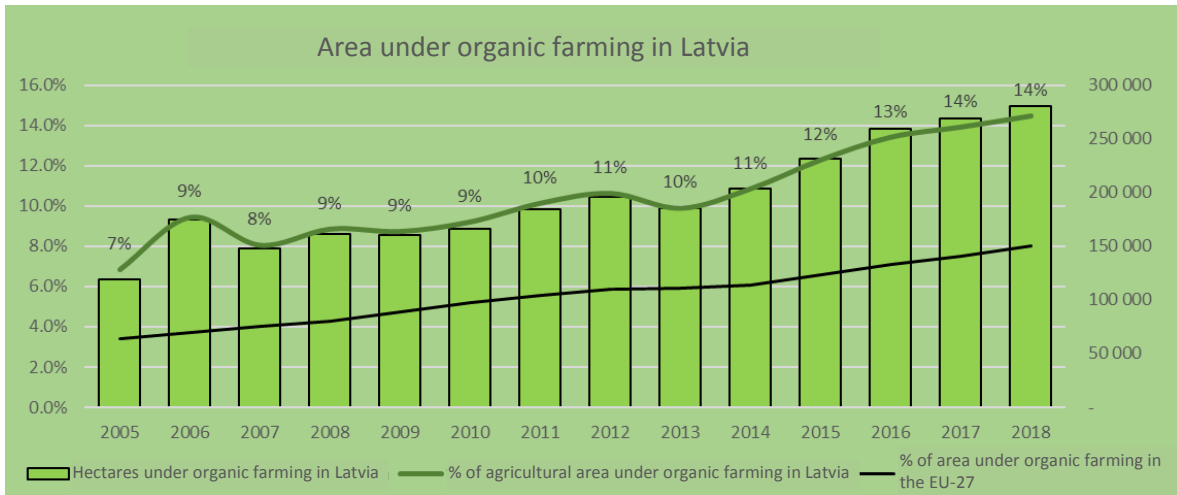
The Natura 2000 cover 12% or 787 729 ha of the total land area of Latvia. 6.7% of agricultural land (compared with 11% in the EU) and 12.7% of forest land is covered by Natura 2000 (30% in the EU).<sup>83</sup>

Rural Development programme 2014-2020 provides compensations to the forest owners in Natura 2000 areas. The target determined by the Rural Development programme 2014-2020 by the end of the period is 46 000 ha. The area applied for support has been gradually increasing every year, and in 2019, 3 017 applicants were supported covering forest area of 45 859 ha, which is 3.3% more than in 2018 (44 402 ha). Therefore, 1.28% (target value 1.33%) of forests/other wooded area are covered by biodiversity-friendly management agreements.<sup>84</sup>

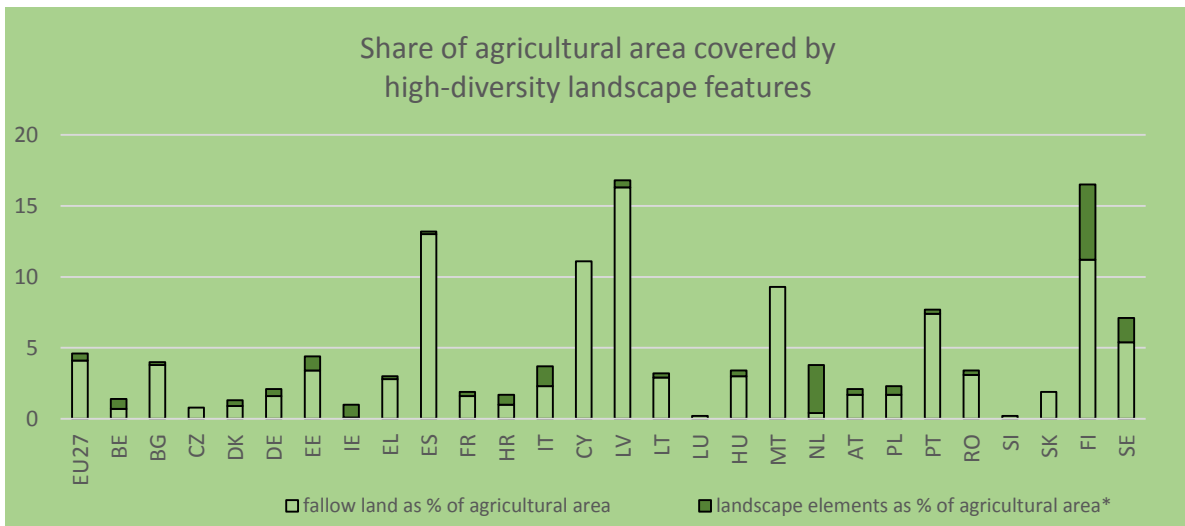
The Rural Development programme 2014-2020 envisages to provide support to the management of 47 000 ha of biologically valuable grasslands or grasslands of EU importance, both inside and outside Natura 2000 sites. In the 2019 season, 5 316 support applications were submitted for 39 624 ha. In 2019, the area declared for support was 8.9% more than the area paid in 2018 (36 391 ha). The implementation of the relevant sub-measure is progressing and the targets defined in Rural Development programme 2014-2020 plan to be achieved.<sup>85</sup>

Forests cover 54.9%<sup>86</sup> of the country's territory and this is the fourth highest indicator in the EU. Almost two thirds of the forest area is coniferous. The most common are pine forests. As a result of economic activity, the structure of tree species in the forest has changed: birch dominates in significant areas, the proportion of white alder and aspen has increased in private forests, old oak and ash stands have remained in a small area. There are very few places where the forest is not affected by human activities. 93% of forest territories or 3.2 million ha of forest are available for timber extraction, including 1.4 million ha of state forest and 1.7 million ha forest of other owners.<sup>87</sup>

Latvia's area under organic farming is relatively high and shows a growing trend. In 2018, the share of organic farming in total utilised agricultural area was 14.5%, while total EU-27 share is 8%.<sup>88</sup> In 2019, Rural Development programme 2014-2020 supported under measure '*Organic farming*' 261 766 ha (target value 205 000 ha) of agricultural land. The trend is positive in 2019 in comparison to 2018 – number of ha certified as organic farming area increased by 2.3%.<sup>89</sup>



Source: EUROSTAT [org\_cropar\_h1 and org\_cropar]



Source: DG AGRI based on Eurostat and JRC based on LUCAS survey

\* Linear elements considered here: Grass margins, shrub margins, single trees bushes, lines of trees, hedges and ditches. This estimation is to be taken with caution because of methodological caveats

## 2.7 Attract young farmers and facilitate business development in rural areas

Latvia has a low share of young farmers below 35 years of age in the total number of farm managers (4.8% in 2016) compared to the EU average (5.1%). Among them, 38.3% of farmers are between 35 and 54 and 56.9% are more than 55 years old.<sup>90</sup> Whereas the number of young farmers decreased by almost 60% between 2007 and 2016, from 7 630 to 3 360 farms, the total number of farms during the same period decreased at a lower rate: from 107 750 to around 70 000 farms (which is about 35%).<sup>91</sup> In spite of this, between 2013 and 2016 the trend stabilised and the share of young farmers in the total farm population remained at around 5%. 33% of these young farm managers is female, which is the second largest share in the EU and far above the EU average of 30.4% of female farm managers.<sup>92</sup>

The share of farm managers below 35 years of age with at least a basic level of agricultural training (38%) is lower than the share of total farm managers in Latvia (46%). It suggests a need for a higher level of education and knowledge among farm managers, in particular for

young farmers as it may hinder innovation and the entry of modern technologies into the sector. The national instruments aimed at improving the education and skills of the farming community are currently underused.<sup>93</sup>

Young farmers manage farms of an average size, but generate higher standard output per farm (which is growing at a higher rate than in other age groups of farmers) and have on average higher factor income.<sup>94</sup> However, their income may be influenced by the increased competition for land and by the increased rental prices for arable land, which between 2011 and 2016 rose two-fold.<sup>95</sup>

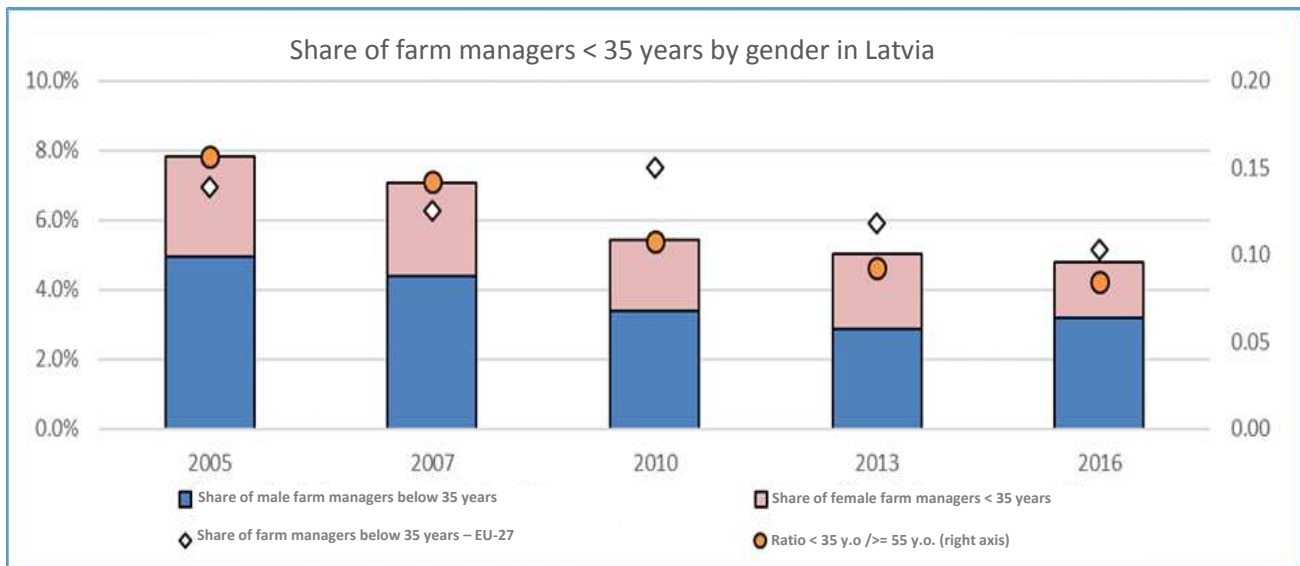
There is a financing gap in the Latvian agricultural sector. This is in particular true for young farmers and new entrants, who face difficulties in obtaining financing due to the lack of a credit history. A financial instrument providing risk coverage in relation to financial institutions, for instance in the form of a guarantee or a loan risk-sharing fund, appears useful to help bridge the financing gap.<sup>96</sup>

Access to land is another important barrier for generational renewal and is one of the main challenges for young farmers and new entrants. Young farmers and new entrants are more likely to opt for diversified activities, including mixed farming and on farm food processing. In order to address this concern, there is a possibility to obtain a loan from ALTUM, the state-owned development finance institution.

The share of farmers benefiting from the Young farmer payment (YFP), which aims to support income of young farmers commencing their agricultural activities, gradually increased in 2015-2018 and is now close to the EU average (7.5%). Latvia spent about 1.8% of the maximum allowed 2% of direct payments envelope on YFP in 2018, which is significantly above the EU average (1.32%).<sup>97</sup> The total Rural Development programme 2014 - 2020 funding for the setting up of young farmers was EUR 15.8 million. By the end of 2019, 363 applications were approved for support (target value 395 young farmers or 0.47%). Support for young farmers is also available under various rural development measures, such as '*Investments in physical assets*' and '*Knowledge transfer*'. The latter is seen as a very important element contributing to an increase in their level of education.

As regards business development in Latvia, the level of economic activity in rural areas is very low: 11 693 PPS/inhabitants (EU average: 27 20 067 PPS/inhabitants).<sup>98</sup>

The concentration of businesses in large cities or county centres is clearly visible. Overall, more than half of the economically active companies in the market sector are located in the regions of Riga and Pieriga.<sup>99</sup> The population involved in agriculture is declining and the development of non-agricultural entrepreneurship in rural areas is crucial to maintaining population and economic activity. This can be overcome by attracting new people and providing appropriate incentives. In this regard, it is essential to develop not only small business, but also medium size enterprises with the potential to grow and provide jobs in addition to those jobseekers who are not willing to develop their own businesses. Business development could also be facilitated by the development of infrastructure, including transport and communication logistics and availability of basic services.



Source: EUROSTAT [[ef m farmang](#)]

## 2.8 Promote employment, growth, social inclusion and local development in rural areas, including bio-economy and sustainable forestry

About 40% of the Latvian territory is classified as rural.<sup>100</sup> This is just below the EU average of 45%. In terms of population, 22% of the inhabitants live in rural areas while 26% are settled in intermediate regions. With 17 inhabitants per km<sup>2</sup> in its rural areas, Latvia has one of the lowest population densities for those areas.

Important economic and social differences persist in the country in terms of GDP per capita, mainly between the capital region and the rest of the country (the highest in the EU). Access to health and social services, which is a prerequisite to keep the population in these areas, is generally lower in rural areas. These issues could be addressed through various EU funds.

While the capital region of Riga has a GDP per capita higher than the EU average, rising from 60% in 2000 to 106% in 2016, the growth in the other regions has been much more modest. The regions have also experienced more rapid depopulation — while the population in Riga and its suburbs has increased, the population in Latgale, one of the poorest regions in Latvia, has declined by 29% since 2001. Overall, the population in rural areas declined by 5.6% from 2015 to 2019.<sup>101</sup> The continuing trend of depopulation has major consequences for the long-term sustainability and quality of public services to the population in rural and sparsely populated areas. This has also resulted in a large pay gap around 1.6 times between the capital region and the rest of country.<sup>102</sup>

Latvian rural areas have an employment rate (66%), which is both lower than in urban areas (72%) and the national average (70%).<sup>103</sup> In contrast, the unemployment rate is higher in Latvian rural areas (10%) than in urban ones (8%) and is above the national average (9%).<sup>104</sup> The employment rate of women is high although there are still persisting labour imbalances. Latvia has one of the lowest genders employment gap of 4.2% compared with an EU average of 11.6% in 2018. The gender pay gap is close to the EU average (15.7% compared to with 16% in the EU in 2017). There must be careful consideration on close the pay gap and the protection of agricultural workers.

In 2017, tourism accounted for 5.1% of the employment (EU average: 4.8%), and the trend has been negative, falling from 6.8% of Latvian employment in 2011.<sup>105</sup> The number of bed places increased from 2012-2014, but with a slightly lower share of bed places in rural areas.<sup>106</sup>

The percentage of people at risk of poverty or social exclusion stood at 27.3% in Latvian rural areas in 2019.<sup>107</sup> The income at the disposal of inhabitants in rural territories per member of the household in 2015 was 22% lower than in cities. The rural poverty rate in Latvia went down between 2005 and 2017, approaching the EU average. With 60.8 out of 100 points, Latvia ranks 17th in the EU on the Gender Equality Index, which is below the EU average.<sup>108</sup>

Local action groups (LAGs) play an important role in local development. The Rural Development Programme 2014-2020 allocated EUR 79 million or 5% of the total budget to the LEADER projects. Currently there are 35 LAGs whose area of operation covers the whole territory and rural population. Their EAFRD co-financed projects mainly aim at improved possibilities for rural tourism, cultural heritage, recreational activities, and developing infrastructure and services for local people.<sup>109</sup> While doing so, they have also created a number of new jobs (109.8 jobs in 2019).<sup>110</sup> In addition, by year 2019, 73 new jobs have been created using the financing of the rural development measure '*Support to non-agricultural activities*'.

The forestry sector is one of the cornerstones of the Latvian economy. 54.9% of Latvia is covered by forest<sup>111</sup>. Forestry, wood processing and furniture manufacturing represented 5.2% of GDP in 2015, while exports amounted to EUR 2 000 million – 20% of all export.<sup>112</sup> However, a slight decline in the number of people employed in the forestry sector was observed between 2005 and 2017.<sup>113</sup> Forestry is also particularly important as the main source of renewable energy for the country (over 80%).

Sectors of bioeconomy constitute approximately 55–60% of the total national export of goods, and the sector is of critical importance in ensuring a balanced development of the country. In absolute figures, export in the bioeconomy sector amounted to EUR 4 260 million in 2016, and the total positive export-import balance of the sector was + EUR 1 280 million.<sup>114</sup> In 2015, the turnover in the bio-economy was EUR 6 470 million, and the most important sectors were wood products (33%), food, beverage and tobacco (26%), agriculture (20%) and forestry (14%)<sup>115</sup>. Around 130 000 persons were employed in the bio-economy sector (2015), with an average turnover per person employed of EUR 49 746 (EU-27: EUR 119 000). This represents an increase in the turnover per person employed of 36% since 2008.<sup>116</sup>

## **2.9 Improve the response of EU agriculture to societal demands on food and health, including safe, nutritious and sustainable food, as well as animal welfare.**

In 2018, the annual sales of antimicrobial agents for food producing animals expressed as mg per population correction unit (PCU) was 36.1 and it has been quite stable at this level since 2011. The sales of antimicrobial agents are relatively low and well below the EU average.<sup>117</sup>

As regards Plant Protection Products (PPPs), in 2018, the sale of PPPs in Latvia totalled 1.587 ton, an increase in relation to 2017.<sup>118</sup> The growing sales trend is associated with the constant increase of agricultural areas in the country, more than 6.7% between 2011 and 2018. In comparison with France, Spain, Italy and Germany, the sales of pesticides in Latvia

remain are at a very low level (0,82 g/ha for the year 2018).<sup>119</sup> According to information collected by the European Food Safety Authority (EFSA), in 2017 155<sup>120</sup> samples of food products originating in Latvia were analysed in laboratories in the EU Member States. The results of the samples showed that one of the lowest PPP residue levels in the Baltic Sea region and also at EU level.<sup>121</sup> Furthermore, more varieties that are more productive are being used which also lead to an increase in the use of PPPs<sup>122</sup>. Herbicides are the most important category of PPPs sales in Latvia (around 60% of total sales). The second main group is plant growth regulators.

Since 2006, integrated pest management (IPM) has been one of the cornerstones in moving towards sustainable plant protection (25 crop-specific IPM guidelines).<sup>123</sup> General principles and requirements of IPM are currently binding for all professional users of PPPs. The knowledge of IPM is disseminated to farmers by several channels<sup>124</sup> – annual workshops (25 in 2019) and demonstration farms (56 in 2019)<sup>125</sup> focusing on issues like crop rotation, monitoring of harmful organisms, field fertilization, usage of basic substances and other alternative plant protection methods in orchards and various methods of soil cultivation. The assessment demonstrates that despite the progress made by Latvia, there are still gaps in many areas of their national action plans, as well as serious weaknesses in the control system to ensure the implementation of Integrated Pest Management (IPM). The issues identified involve the inspection of pesticide application equipment in use and the limited scope of controls for IPM.

Harmonised risk indicator 1 (HRI 1), is calculated using the quantities of pesticide active substances that are placed on the market, with a weighting applied that is based on the classification of the active substance.<sup>126</sup> Results for HRI 1 show an increase of 40% in risks linked to pesticides compared to baseline, whereas at EU level there was a decrease of 17% in the same period.<sup>127</sup>

Biosecurity is equally a challenge in Latvia, considering that Latvia is among the countries affected by African Swine Fever (ASF) where farms with low biosecurity and poor controls pose higher risk for animal disease infections and spread. The number of ASF outbreaks in domestic pigs holdings dropped significantly since 2014 and 97 projects (72 farms) have received support for preventive measures under the Rural Development Programme 2014-2020 for a total amount of EUR 4.6 million.<sup>128</sup>

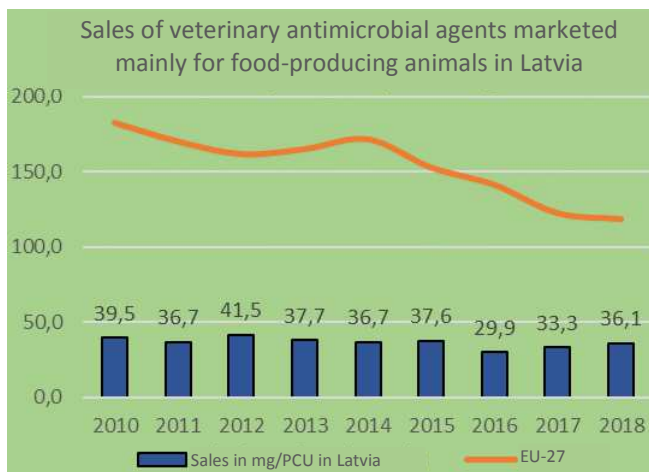
In relation to animal welfare, the main issue in Latvia is tail docking of pigs, which is prohibited by EU rules. In the last years, Member States were asked to develop action plans in order to prevent tail biting, and to avoid routine tail docking of pigs. Latvia sent an action plan to the Commission in January 2018, and updated it in September 2018. Implementation of the proposed best practices and the risk assessment by pig farmers would lead to a lower risk of tail biting, and the possibility to ban routine tail docking on a longer term. The progress in the part of undocked pigs could be monitored.

According to egg market production data in Latvia 82% of the eggs are produced in cages while the EU average is around 50%. Latvia could encourage farmers to move to more friendly systems getting rid of the worst types of cages. Farmers should be incentivised to switch from cage to free range or barn systems, which allows hens a greater possibility to express normal behaviour.

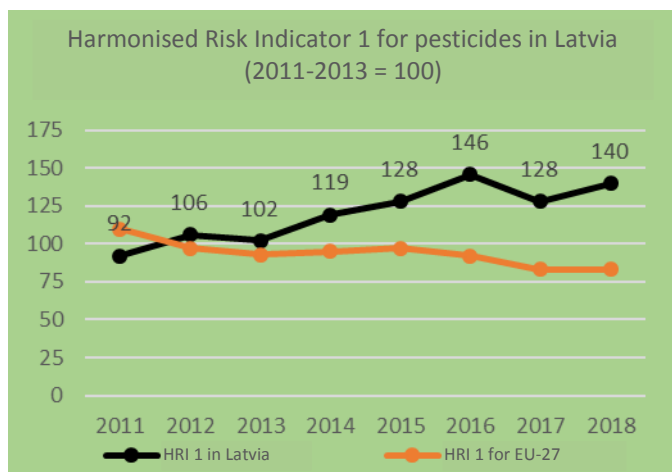


Taking into account that the animals and in particular male dairy cows and unweaned calves are exposed to multiple animal welfare risks during long distance transport Latvia should encourage local fattening and ensure animal welfare standards are respected during transport.

Latvia has implemented the National Food Quality Scheme to promote the production, pre-treatment, treatment and processing of high-quality local food products by ensuring that certified and specifically colour labelled products are placed on the market. Latvian food producers are increasingly taking part in this scheme and in 2018, 155 companies already participating in the scheme, out of which 31 in the primary production.<sup>129</sup> An example of development of such high quality food is the production of local rye varieties, which are the basis for the growing demand for traditional rye bread.<sup>130</sup>



Source: DG AGRI after ESVAC, Tenth ESVAC Report (2020)



Source: EUROSTAT [aei\_hri]

Latvia has a very high burden from non-communicable diseases due to dietary risk factors expressed as Disability-Adjusted Life Years (DALYs) per 100 000 population attributable to diet.<sup>131</sup> which include very high overweight and obesity rates. The estimated consumption of red meat<sup>132</sup> is very high, in contrast to the very low estimated consumption of fruit and vegetables. A move towards healthy sustainable diets, in line with national recommendations, would be beneficial for health while simultaneously improving the overall environmental impact of the food systems.<sup>133</sup> This would include a more plant based diet with less red meat and more fruits and vegetables, whole grains, legumes, nuts and seeds.

Concerning food loss and waste in primary production and processing of food no data is yet available. Moreover, the National Waste Prevention Programme (2013-2020)<sup>134</sup> gives no attention to food loss and waste occurring at the primary production level and the early stages of the supply chain.

## 2.10 Cross-cutting objective on knowledge, innovation and digitalisation

There is untapped potential of the Latvian agricultural knowledge and innovation system structure in Latvia for the creation and dissemination of knowledge.<sup>135</sup> The main actors in the Latvian agricultural knowledge and innovation system are divided into four groups: the public sector, the private sector, the research and education sector and the non-governmental sector. Latvia programmed 2.8% of the rural development funding for knowledge transfer and information actions, advisory services, farm management, farm relief services and cooperation-EIP, which below the EU average of 3.63%.

As regards the agricultural European Innovation Partnership (EIP), currently there are 30 projects worth EUR 12.7 million being implemented under the Rural Development programme 2014-2020.

In Latvia, the organisations providing advisory services are financed from public, private and mixed sources and the number of advisors is stable. Farmers' and entrepreneurs' fees also constitute a considerable part of financing for advisory organisations.<sup>136</sup> In the field of knowledge, the Latvian University of Agriculture (LLU) is the largest player as well as vocational training institution. In the private sector, there are consultancy providers, private consultancy companies, recycling companies. This demands coordinated intervention of all of them, in particular to update them on solutions for societal challenges beyond technical advice. Comprehensive initiatives should be undertaken to better connect science and practice as well as to boost knowledge exchange and innovation.

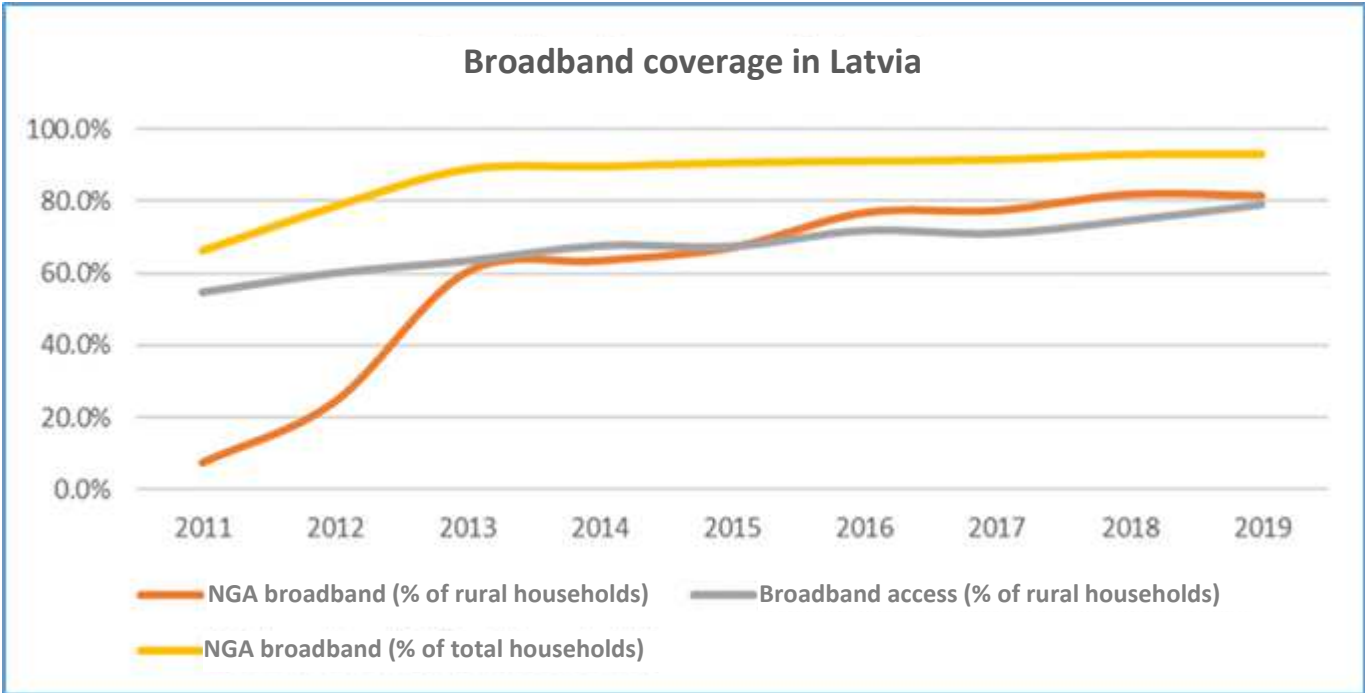
The Latvian National Rural Network has an action plan built around nine strategic objectives<sup>137</sup>, ranging from supporting young rural entrepreneurs, capacity building of rural population, connecting research actors such as universities and partners of Horizon 2020 projects with farmers, advisors and rural businesses. This experience can be the basis for the future national CAP network to intensify such actions and play a key role in improve the quality of the implementation of the CAP Strategic Plan by better involving rural stakeholders and promoting synergies between the CAP and European Research Area (ERA) by collecting information, for instance through knowledge platforms, the CAP network will facilitate the implementation of relevant research and innovation results.

In 2016, the total farm managers that attained at least a basic agricultural training was 43.3% (11.5% is the share for managers under 35), which is below the EU average (66.8%).<sup>138</sup> However, the share of farmers that attained full agricultural training equivalent to two year training is high in Latvia.

Looking at the Digital Economy and Society Index (DESI) 2020 ranking, which considers rural and urban areas, Latvia ranks 18th out of the 28 EU Member States. The country has made a noteworthy progress in the area of digital public services in agriculture, for instance, Electronic Application System (EAS) that eases communication between actors in the agricultural sector. In the regard, Latvia ranks in the 7th place in the EU.

Latvia has a very high capacity network (VHCN) coverage, with 88% coverage of households in 2019, against the EU average of 44%. The availability of VHCNs is combined with an extremely advanced coverage of fast broadband connections (Next Generation access / NGA) (93% in 2019). The fixed broadband coverage in rural areas remains at level of 80% despite extensive EU-funded investments. Private investment in last mile connections is not taking place due to lack of commercial viability and remains a challenge and could benefit from public support. In that regard it is important to ensure consistency, complementarity and synergies with other EU funds to avoid double funding and improve overall efficiency of investments.

Latvian rural business sector has not taken full advantage of the opportunities offered by digital technologies. The level of digital skills in Latvia is below the EU average: 43% of the population has basic or above basic digital skills (the EU average is 56%); in rural area the percentage is lower (35%) and well below the corresponding EU average (48%).



Source: European Commission. DESI report

- 
- <sup>1</sup> Directorate General for Agriculture and Rural Development. *Common Agriculture Policy context indicator C.26 Agricultural entrepreneurial income*. Income based on EUROSTAT [[aact\\_eaa04](#)], [[aact\\_ali01](#)] and [[aact\\_eaa06](#)], adding back the compensation of employees to the entrepreneurial income and divided by the total number of annual working units. Note: 2019 data estimated. The Average wage in the economy based on EUROSTAT [[nama\\_10\\_a10\\_e](#)] thousand hours worked using employees domestic concept and [[nama\\_10\\_a10](#)], item wages and salaries.
- <sup>2</sup> European Commission. Share of direct payments and total subsidies in agricultural factor income (2014-18 average). Retrieved from: [https://ec.europa.eu/info/sites/info/files/food-farming-fisheries/farming/documents/cap-expenditure-graph5\\_en.pdf](https://ec.europa.eu/info/sites/info/files/food-farming-fisheries/farming/documents/cap-expenditure-graph5_en.pdf). In case of LV ESTAT population better represents DP beneficiaries than the FADN. Therefore, when data is available – ESTAT is to be used. However, ESTAT takes into account all CAP expenditure, including investment support and excludes transitional national aids. This makes the data more limited than the one of FADN, which allows to calculate only operating subsidies (including national aids).
- <sup>3</sup> Farm factor income is calculated as a value of agricultural production minus variable input costs (fertilisers, pesticides, feed, etc.) minus depreciation minus total taxes (on products and production) plus total subsidies (on products and production)
- <sup>4</sup> Farm factor income per worker in FADN is Farm Net Value Added per Annual Working Units (FNVA/AWU)
- <sup>5</sup> Directorate General for Agriculture and Rural Development own calculations based on FADN data (up to 2018). Figures may not be fully accurate due FADN encompassing farms above certain econ. size only (in case of Latvia FADN encompasses about 40% of all farms, which have the economic size of EURO 4000 or higher)
- <sup>6</sup> Farm Accountancy Data Network. *FADN Standard reports*. [YEAR.COUNTRY.SIZ6](#) and own calculations (up to 2018)
- <sup>7</sup> Farm Accountancy Data Network. *FADN Standard reports*. [YEAR.COUNTRY.TF14](#) and own calculations (up to 2018)
- <sup>8</sup> Farm Accountancy Data Network. *FADN Standard reports*. [YEAR.COUNTRY.ANC3](#) and own calculations (up to 2018)
- <sup>9</sup> Latvia draft SWOT analysis. Retrieved from <https://www.zm.gov.lv/zemkopibas-ministrija/statiskas-lapas/situacijas-analize-klp-strategiska-plana-sagatavosanai?id=20571#jump>
- <sup>10</sup> Background analysis by MS on income and targeting of DP: Directorate General for Agriculture and Rural Development own calculations based on FADN (Farm Accountancy Data Network) data (2015) and CATS (Clearance of Accounts Trailing System) data (up to 2017)
- <sup>11</sup> Update on 80/20 based on claim year 2018 : note on the distribution of direct payments: Directorate General for Agriculture and Rural Development own calculations based on FADN (Farm Accountancy Data Network) data (up to 2018) and CATS (Clearance of Accounts Trailing System) data (up to 2018)
- <sup>12</sup> Directorate General for Agriculture and Rural Development own calculations based on ESTAT data (2016). Farms below EUR 2000 represent nearly half of all farms in Latvia, but they cover only about 11% of utilized agricultural area.
- <sup>13</sup> Farms whose household consumes more than 50% of the final production.
- <sup>14</sup> Latvian Ministry of Agriculture. *Situācijas analīze KLP Stratēģiskā plāna sagatavošanai 2020*. Retrieved from <https://www.zm.gov.lv/zemkopibas-ministrija/statiskas-lapas/situacijas-analize-klp-strategiska-plana-sagatavosanai?id=20571#jump>
- <sup>15</sup> [Directorate-General for Agriculture and Rural Development \(European Commission\)](#) , [ECORYS](#) , [Wageningen Economic Research](#). *Study on risk management in EU agriculture*. 2017. 302 pages. Retrieved from: <https://op.europa.eu/en/publication-detail/-/publication/5a935010-af78-11e8-99ee-01aa75ed71a1>
- <sup>16</sup> 2019 Annual Implementation Report of the Latvian Rural Development Programme
- <sup>17</sup> Directorate General for Agriculture and Rural Development own calculations based on ESTAT data (2016)
- <sup>18</sup> Statistical factsheet LATVIA. Retrieved from: [https://ec.europa.eu/info/sites/info/files/food-farming-fisheries/farming/documents/agri-statistical-factsheet-lv\\_en.pdf](https://ec.europa.eu/info/sites/info/files/food-farming-fisheries/farming/documents/agri-statistical-factsheet-lv_en.pdf)
- <sup>19</sup> Figures may not be fully accurate due FADN encompassing farms above certain econ. size only (in case of Latvia FADN encompasses about 40% of all farms, which have the economic size of EUR 4000 or higher)
- <sup>20</sup> Directorate General for Agriculture and Rural Development own calculations based on FADN (Farm Accountancy Data Network) data
- <sup>21</sup> Agrosursu un ekonomikas institūts.: *Lielo saimniecību izpēte*. Study 2018. 83 pages. Retrieved from: [https://zemniekusaeima.lv/wp-content/uploads/2018/10/Lielo\\_saimniecibu\\_izpete\\_2018.pdf](https://zemniekusaeima.lv/wp-content/uploads/2018/10/Lielo_saimniecibu_izpete_2018.pdf)

- 22 European Commission. *Financial needs in the agriculture and agri-food sectors in Latvia*. Study 2020. 6 pages. Retrieved from: [https://www.fi-compass.eu/sites/default/files/2020-07/financial\\_needs\\_agriculture\\_agrifood\\_sectors\\_Latvia\\_executive\\_summary.pdf?utm\\_source=sendinblue&utm\\_campaign=Registration\\_open\\_for\\_the\\_fi-compass\\_webinar\\_on\\_Financial\\_needs\\_in\\_the\\_agriculture\\_and\\_agri-food\\_sectors\\_in\\_the\\_Baltic\\_countries\\_16\\_September\\_2020&utm\\_medium=email](https://www.fi-compass.eu/sites/default/files/2020-07/financial_needs_agriculture_agrifood_sectors_Latvia_executive_summary.pdf?utm_source=sendinblue&utm_campaign=Registration_open_for_the_fi-compass_webinar_on_Financial_needs_in_the_agriculture_and_agri-food_sectors_in_the_Baltic_countries_16_September_2020&utm_medium=email)
- 23 European Commission. *Financial needs in the agriculture and agri-food sectors in Latvia*. Study 2020. 6 pages. Retrieved from: [https://www.fi-compass.eu/sites/default/files/2020-07/financial\\_needs\\_agriculture\\_agrifood\\_sectors\\_Latvia\\_executive\\_summary.pdf?utm\\_source=sendinblue&utm\\_campaign=Registration\\_open\\_for\\_the\\_fi-compass\\_webinar\\_on\\_Financial\\_needs\\_in\\_the\\_agriculture\\_and\\_agri-food\\_sectors\\_in\\_the\\_Baltic\\_countries\\_16\\_September\\_2020&utm\\_medium=email](https://www.fi-compass.eu/sites/default/files/2020-07/financial_needs_agriculture_agrifood_sectors_Latvia_executive_summary.pdf?utm_source=sendinblue&utm_campaign=Registration_open_for_the_fi-compass_webinar_on_Financial_needs_in_the_agriculture_and_agri-food_sectors_in_the_Baltic_countries_16_September_2020&utm_medium=email)
- 24 European Commission. CAP indicators – Data explorer. CAP Result indicator RPI\_03 Value for primary producers in the food chain. Retrieved from: [https://agridata.ec.europa.eu/extensions/DashboardIndicators/AddingValue.html?select=EU27\\_FLAG,1](https://agridata.ec.europa.eu/extensions/DashboardIndicators/AddingValue.html?select=EU27_FLAG,1)
- 25 Arcadia International E.E.I.G , Directorate-General for Agriculture and Rural Development (European Commission) , EY. *Study of the best ways for producer organisations to be formed, carry out their activities and be supported*. Study 2019. 171 pages. Retrieved from: <https://op.europa.eu/en/publication-detail/-/publication/2c31a562-eef5-11e9-a32c-01aa75ed71a1>
- 26 Arcadia International, LEI - Wageningen UR, Dr. Luc Bodiguel, and national experts. *Study on interbranch organisation (IBO) in the EU*. Study 2016. 156 pages. Retrieved from: <http://www.rederural.gov.pt/centro-de-recursos/send/14-organizacao-producao/30-study-on-agricultural-interbranch-organisations-in-the-eu>
- 27 Latvian Ministry of Agriculture. *Situācijas analīze KLP Stratēģiskā plāna sagatavošanai 2020*. Retrieved from <https://www.zm.gov.lv/zemkopibas-ministrija/statiskas-lapas/situacijas-analize-klp-strategiska-plana-sagatavosana?id=20571#jump>
- 28 EUROSTAT. *Organic crop area by agricultural production methods and crops* (from 2012 onwards). [ORG\_CROPAR] [https://ec.europa.eu/eurostat/databrowser/view/org\\_cropar/default/table?lang=en](https://ec.europa.eu/eurostat/databrowser/view/org_cropar/default/table?lang=en)
- 29 European Commission. *EU geographical indications register*. Retrieved from: <https://ec.europa.eu/info/food-farming-fisheries/food-safety-and-quality/certification/quality-labels/geographical-indications-register/>
- 30 Latvian Ministry of Agriculture. *Situācijas analīze KLP Stratēģiskā plāna sagatavošanai 2020*. Retrieved from <https://www.zm.gov.lv/zemkopibas-ministrija/statiskas-lapas/situacijas-analize-klp-strategiska-plana-sagatavosana?id=20571#jump>
- 31 Latvian Ministry of Agriculture. *Situācijas analīze KLP Stratēģiskā plāna sagatavošanai 2020*. Retrieved from <https://www.zm.gov.lv/zemkopibas-ministrija/statiskas-lapas/situacijas-analize-klp-strategiska-plana-sagatavosana?id=20571#jump>
- 32 European Commission. Commission Staff Working Document. Impact assessment. *Initiative to improve the food supply chain (unfair trading practices)*, Table No 1. SWD(2018) 92 final. 172 pages. Retrieved from: <https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52018SC0092&from=EN>
- 33 European Commission. CAP indicators – Data explorer. CAP Result indicator RPI\_03 Value for primary producers in the food chain. Retrieved from: [https://agridata.ec.europa.eu/extensions/DashboardIndicators/AddingValue.html?select=EU27\\_FLAG,1](https://agridata.ec.europa.eu/extensions/DashboardIndicators/AddingValue.html?select=EU27_FLAG,1)
- 34 EEA greenhouse gas - data viewer. Retrieved from: <https://www.eea.europa.eu/data-and-maps/data/data-viewers/greenhouse-gases-viewer>
- 35 Latvian Ministry of Agriculture. *Situācijas analīze KLP Stratēģiskā plāna sagatavošanai 2020*. Retrieved from <https://www.zm.gov.lv/zemkopibas-ministrija/statiskas-lapas/situacijas-analize-klp-strategiska-plana-sagatavosana?id=20571#jump> and EEA greenhouse gas - data viewer. Retrieved from: <https://www.eea.europa.eu/data-and-maps/data/data-viewers/greenhouse-gases-viewer>
- 36 EEA greenhouse gas - data viewer. Retrieved from: <https://www.eea.europa.eu/data-and-maps/data/data-viewers/greenhouse-gases-viewer>
- 37 EEA greenhouse gas - data viewer. Retrieved from: <https://www.eea.europa.eu/data-and-maps/data/data-viewers/greenhouse-gases-viewer>
- 38 EEA greenhouse gas - data viewer. Retrieved from: <https://www.eea.europa.eu/data-and-maps/data/data-viewers/greenhouse-gases-viewer>
- 39 EEA greenhouse gas - data viewer. Retrieved from: <https://www.eea.europa.eu/data-and-maps/data/data-viewers/greenhouse-gases-viewer>

- 40 Latvia's National Energy and Climate plan, p. 140/141 Retrieved from: [https://ec.europa.eu/energy/sites/ener/files/documents/lv\\_final\\_necp\\_main\\_en.pdf](https://ec.europa.eu/energy/sites/ener/files/documents/lv_final_necp_main_en.pdf)
- 41 EEA greenhouse gas - data viewer. Retrieved from: <https://www.eea.europa.eu/data-and-maps/data/data-viewers/greenhouse-gases-viewer>
- 42 Country Report Latvia 2020. Retrieved from: [https://ec.europa.eu/info/publications/2020-european-semester-country-reports\\_en](https://ec.europa.eu/info/publications/2020-european-semester-country-reports_en)
- 43 Latvia's National Energy and Climate plan, p. 140/141 Retrieved from: [https://ec.europa.eu/energy/sites/ener/files/documents/lv\\_final\\_necp\\_main\\_en.pdf](https://ec.europa.eu/energy/sites/ener/files/documents/lv_final_necp_main_en.pdf)
- 44 EEA greenhouse gas - data viewer. Retrieved from: <https://www.eea.europa.eu/data-and-maps/data/data-viewers/greenhouse-gases-viewer>
- 45 Country Report Latvia 2020. Retrieved from: [https://ec.europa.eu/info/publications/2020-european-semester-country-reports\\_en](https://ec.europa.eu/info/publications/2020-european-semester-country-reports_en)
- 46 Latvian Ministry of Agriculture. *Situācijas analīze KLP Stratēģiskā plāna sagatavošanai 2020*. Retrieved from <https://www.zm.gov.lv/zemkopibas-ministrija/statiskas-lapas/situacijas-analize-klp-strategiska-plana-sagatavosana?id=20571#jump>
- 47 National Energy and Climate plan 2021-2030. Retrieved from: <https://www.em.gov.lv/lv/nacionalais-energetikas-un-klimata-plans>
- 48 GHG emissions inventory, Latvian Center for Environment, Geology & Meteorology. Retrieved from: [https://www.meteo.lv/fs/CKFinderJava/userfiles/files/Vide/Klimats/Majas\\_lapai\\_LVGMC\\_2019\\_seginvokp\\_savilkums.pdf](https://www.meteo.lv/fs/CKFinderJava/userfiles/files/Vide/Klimats/Majas_lapai_LVGMC_2019_seginvokp_savilkums.pdf)
- 49 LIFE Restore: [Sustainable and responsible management and re-use of degraded peatlands in Latvia](#)
- 50 Country report Latvia 2020 p.68 Retrieved from: [https://ec.europa.eu/info/publications/2020-european-semester-country-reports\\_en](https://ec.europa.eu/info/publications/2020-european-semester-country-reports_en)
- 51 LIFE Restore: Sustainable and responsible management and re-use of degraded peatlands in Latvia. Retrieved from: [https://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n\\_proj\\_id=5686](https://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n_proj_id=5686)
- 52 2019 Annual Implementation Report of the Latvian Rural Development Programme
- 53 Final energy consumption by agriculture. Retrieved from: <https://ec.europa.eu/eurostat/databrowser/view/tai04/default/table?lang=en>
- 54 European Commission. CAP context indicator C.43 Production of renewable energy from agriculture and forestry. Based on EUROSTAT [nrg\_bal\_c] and [nrg\_cb\_rw], and Strategie Grains
- 55 Analytical factsheet for Latvia. Retrieved from: [https://ec.europa.eu/info/sites/info/files/food-farming-fisheries/by\\_country/documents/analytical\\_factsheet\\_lv.pdf](https://ec.europa.eu/info/sites/info/files/food-farming-fisheries/by_country/documents/analytical_factsheet_lv.pdf)
- 56 Latvian Ministry of Agriculture. *Situācijas analīze KLP Stratēģiskā plāna sagatavošanai 2020*. Retrieved from <https://www.zm.gov.lv/zemkopibas-ministrija/statiskas-lapas/situacijas-analize-klp-strategiska-plana-sagatavosana?id=20571#jump>
- 57 Latvian Ministry of Agriculture. *Situācijas analīze KLP Stratēģiskā plāna sagatavošanai 2020*. Retrieved from <https://www.zm.gov.lv/zemkopibas-ministrija/statiskas-lapas/situacijas-analize-klp-strategiska-plana-sagatavosana?id=20571#jump>
- 58 Latvian Ministry of Agriculture. *Situācijas analīze KLP Stratēģiskā plāna sagatavošanai 2020*. Retrieved from <https://www.zm.gov.lv/zemkopibas-ministrija/statiskas-lapas/situacijas-analize-klp-strategiska-plana-sagatavosana?id=20571#jump>
- 59 EEA greenhouse gas - data viewer. Retrieved from: <https://www.eea.europa.eu/data-and-maps/data/data-viewers/greenhouse-gases-viewer>
- 60 EEA National Emission Ceilings Directive emissions data viewer 1990-2018. Retrieved from: <https://www.eea.europa.eu/data-and-maps/dashboards/necd-directive-data-viewer-3>
- 61 NAPCP p.32-33. Retrieved from: [https://cdr.eionet.europa.eu/lv/eu/nec\\_revised/programmes/envxphfaa/Latvijas\\_gaisa\\_plans\\_140420\\_apstipri\\_nats.pdf](https://cdr.eionet.europa.eu/lv/eu/nec_revised/programmes/envxphfaa/Latvijas_gaisa_plans_140420_apstipri_nats.pdf)
- 62 <https://likumi.lv/ta/id/314078-par-gaisa-piesarnojuma-samazinasanas-ricibas-planu-2020-2030-gadam>
- 63 2018 Annual Implementation Report of the Latvian Rural Development Programme
- 64 European Commission. EUROSTAT. Agri-environmental indicator - soil cover. Retrieved from: [https://ec.europa.eu/eurostat/statistics-explained/index.php/Agri-environmental\\_indicator\\_-\\_soil\\_cover](https://ec.europa.eu/eurostat/statistics-explained/index.php/Agri-environmental_indicator_-_soil_cover)
- 65 European Commission. EUROSTAT. Agri-environmental indicator - tillage practices. Retrieved from: [https://ec.europa.eu/eurostat/statistics-explained/index.php/Agri-environmental\\_indicator\\_-\\_tillage\\_practices](https://ec.europa.eu/eurostat/statistics-explained/index.php/Agri-environmental_indicator_-_tillage_practices)

- 66 European Commission. CAP context indicator C.41 Soil organic matter in arable land. Joint Research Center (JRC) based on LUCAS Land Use Survey 2015
- 67 2018 Annual Implementation Report of the Latvian Rural Development Programme, p. 150
- 68 Analytical factsheet for Latvia. Retrieved from: [https://ec.europa.eu/info/sites/info/files/food-farming-fisheries/by\\_country/documents/analytical\\_factsheet\\_lv.pdf](https://ec.europa.eu/info/sites/info/files/food-farming-fisheries/by_country/documents/analytical_factsheet_lv.pdf)
- 69 SWD(2019) 49 final Commission Staff Working Document Second River Basin Management Plans - Member State: Latvia Accompanying the document Report from the Commission to the Parliament and the Council on the implementation of the Water Framework Directive (2000/60/EC) and the Floods Directive (2007/60/EC) Second River Basin Management Plans First Flood Risk Management Plan Retrieved from: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=SWD:2019:49:FIN&qid=1551205988853&from=EN>
- 70 HELCOM: [Thematic assessment of eutrophication](#) 2011–2016
- 71 SWD(2019) 49 final Commission Staff Working Document Second River Basin Management Plans - Member State: Latvia Accompanying the document Report from the Commission to the Parliament and the Council on the implementation of the Water Framework Directive (2000/60/EC) and the Floods Directive (2007/60/EC) Second River Basin Management Plans First Flood Risk Management Plan Retrieved from: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=SWD:2019:49:FIN&qid=1551205988853&from=EN>
- 72 Analytical factsheet for Latvia. Retrieved from: [https://ec.europa.eu/info/sites/info/files/food-farming-fisheries/by\\_country/documents/analytical\\_factsheet\\_lv.pdf](https://ec.europa.eu/info/sites/info/files/food-farming-fisheries/by_country/documents/analytical_factsheet_lv.pdf)
- 73 2019 Annual Implementation Report of the Latvian Rural Development Programme
- 74 European Commission. CAP context indicator C.35 Farmland birds index (FBI). As in EUROSTAT [env\_bio2], original source: EBCC, BirdLife, RSPB and CSO
- 75 <https://agridata.ec.europa.eu/extensions/DashboardIndicators/DataExplorerer.html>, [https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=env\\_bio2&lang=en](https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=env_bio2&lang=en)
- 76 Prioritised Action Framework (PAF) for Natura 2000 in Latvia pursuant to Article 8 of Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (the Habitats Directive) for the Multiannual Financial Framework period 2021 – 2027
- 77 Idem
- 78 EEA, 2020
- 79 Idem
- 80 Prioritised Action Framework (PAF) for Natura 2000 in Latvia pursuant to Article 8 of Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (the Habitats Directive) for the Multiannual Financial Framework period 2021 – 2027
- 81 Prioritised Action Framework (PAF) for Natura 2000 in Latvia pursuant to Article 8 of Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (the Habitats Directive) for the Multiannual Financial Framework period 2021 – 2027, section E.2.5
- 82 IEEP, 2019
- 83 Rural Development Programme for Latvia 2014-2020, version 9.0
- 84 2019 Annual Implementation Report of the Latvian Rural Development Programme
- 85 2019 Annual Implementation Report of the Latvian Rural Development Programme
- 86 FAO. Global Forest Resources Assessment (2020). Retrieved from: <https://fra-platform.herokuapp.com/AUT/assessment/fra2020/extentOfForest/>
- 87 Rural Development Programme for Latvia 2014-2020, version 9.0, p.50
- 88 AGRI Open Data platform: Organic farming Retrieved from: [https://agridata.ec.europa.eu/extensions/DashboardIndicators/OrganicProduction.html?select=EU27\\_FLAG\\_1](https://agridata.ec.europa.eu/extensions/DashboardIndicators/OrganicProduction.html?select=EU27_FLAG_1)
- 89 2019 Annual Implementation Report of the Latvian Rural Development Programme
- 90 European Commission. CAP context indicator C.23 Age structure of farm managers. Based on EUROSTAT [ef\_m\_farmang]
- 91 Directorate General for Agriculture and Rural Development own calculations based on ESTAT data.
- 92 European Commission. CAP context indicator C.23 Age structure of farm managers. Based on EUROSTAT [ef\_m\_farmang]
- 93 Latvian Ministry of Agriculture. *Situācijas analīze KLP Stratēģiskā plāna sagatavošanai 2020*. Retrieved from <https://www.zm.gov.lv/zemkopibas-ministrija/statiskas-lapas/situacijas-analize-klp-strategiska-plana-sagatavosanai?id=20571#jump>
- 94 Directorate General for Agriculture and Rural Development own calculations based on FADN data (up to 2018)

- <sup>95</sup> EUROSTAT. *Agricultural land prices and rents*. 2018. Retrieved from: <https://ec.europa.eu/eurostat/documents/2995521/8756523/5-21032018-AP-EN.pdf/b1d0ffd3-f75b-40cc-b53f-f22f68d541df>
- <sup>96</sup> European Commission. *Financial needs in the agriculture and agri-food sectors in Latvia*. Study 2020. 6 pages. Retrieved from: [https://www.fi-compass.eu/sites/default/files/2020-07/financial\\_needs\\_agriculture\\_agrifood\\_sectors\\_Latvia\\_executive\\_summary.pdf?utm\\_source=sendinblue&utm\\_campaign=Registration\\_open\\_for\\_the\\_fi-compass\\_webinar\\_on\\_Financial\\_needs\\_in\\_the\\_agriculture\\_and\\_agri-food\\_sectors\\_in\\_the\\_Baltic\\_countries\\_16\\_September\\_2020&utm\\_medium=email](https://www.fi-compass.eu/sites/default/files/2020-07/financial_needs_agriculture_agrifood_sectors_Latvia_executive_summary.pdf?utm_source=sendinblue&utm_campaign=Registration_open_for_the_fi-compass_webinar_on_Financial_needs_in_the_agriculture_and_agri-food_sectors_in_the_Baltic_countries_16_September_2020&utm_medium=email)
- <sup>97</sup> European Commission. *Summary report on the implementation of direct payments [except greening]. Claim year 2018*. June 2020. Retrieved from: [https://ec.europa.eu/info/sites/info/files/food-farming-fisheries/key\\_policies/documents/summary-report-implementation-direct-payments-claim-2018.pdf](https://ec.europa.eu/info/sites/info/files/food-farming-fisheries/key_policies/documents/summary-report-implementation-direct-payments-claim-2018.pdf)
- <sup>98</sup> European Commission. *CAP context indicator C.08 GDP per capita*. Based on EUROSTAT [nama\_10r\_3gdp] and [nama\_10r\_3popgdp]
- <sup>99</sup> [Central Statistical Bureau of Latvia](#)
- <sup>100</sup> CAP Context Indicators: [Context Indicator C.03. Please note that there are different ways to define “rural areas”. Context indicator C.03 is based on the so-called “urban-rural typology”.](#)
- <sup>101</sup> Eurostat [urt\_gind3]
- <sup>102</sup> Idem, p.44
- <sup>103</sup> European Commission. *CAP context indicator C.05 Employment rate*. Based on EUROSTAT [lfst\_r\_ergau]
- <sup>104</sup> European Commission. *CAP context indicator C.07 Unemployment rate*. Based on EUROSTAT [lfst\_r\_lfu3rt]
- <sup>105</sup> European Commission. *CAP context indicator C.08 GDP per capita*. Based on EUROSTAT [nama\_10r\_3gdp] and [nama\_10r\_3popgdp]
- <sup>106</sup> European Commission. *CAP context indicator C.31 Land cover*. Based on European Environmental Agency, Corine Land Cover 2018
- <sup>107</sup> EUROSTAT: *People at risk of poverty or social exclusion*. Retrieved from: [https://ec.europa.eu/eurostat/statistics-explained/index.php/People\\_at\\_risk\\_of\\_poverty\\_or\\_social\\_exclusion](https://ec.europa.eu/eurostat/statistics-explained/index.php/People_at_risk_of_poverty_or_social_exclusion)
- <sup>108</sup> Gender Equality Index 2020: Latvia. Retrieved from: Print <https://eige.europa.eu/publications/gender-equality-index-2020-latvia>
- <sup>109</sup> 2019 Annual Implementation Report of the Latvian Rural Development Programme
- <sup>110</sup> 2019 Annual Implementation Report of the Latvian Rural Development Programme
- <sup>111</sup> FAO. *Global Forest Resources Assessment (2020)*. Retrieved from: <https://fra-platform.herokuapp.com/AUT/assessment/fra2020/extentOfForest/>
- <sup>112</sup> Report: *Latvian forest sector 2017*. Retrieved from: [https://www.zm.gov.lv/public/ck/files/skaitli&fakti\\_EN\\_2017.pdf](https://www.zm.gov.lv/public/ck/files/skaitli&fakti_EN_2017.pdf)
- <sup>113</sup> Factsheet *rural area LATVIA*. Retrieved from: <http://agriwiki/Pages/AWFile.aspx?LISTNAME=AgriWikiDocuments&ITEMID=3240>
- <sup>114</sup> Report: *Latvian Bioeconomy Strategy 2030*. Retrieved from: [https://www.zm.gov.lv/public/files/CMS\\_Static\\_Page\\_Doc/00/00/01/46/58/E2758-LatvianBioeconomyStrategy2030.pdf](https://www.zm.gov.lv/public/files/CMS_Static_Page_Doc/00/00/01/46/58/E2758-LatvianBioeconomyStrategy2030.pdf)
- <sup>115</sup> European Commission. *CAP context indicator C.41 Soil organic matter in arable land*. Joint Research Center (JRC) based on LUCAS Land Use Survey 2015
- <sup>116</sup> DATAM bio economy, JRC: <https://datam.jrc.ec.europa.eu/datam/mashup/BIOECONOMICS/index.html>
- <sup>117</sup> *European Medicines Agency, European Surveillance of Veterinary Antimicrobial consumption (ESVAC). Sales of veterinary antimicrobial agents in 31 countries in 2018 – trends from 2010 to 2018 Tenth ESVAC Report*. [EMA/24309/2020](https://www.ema.europa.eu/en/press/news/2020/04/2020-04-20-ema-24309-2020).
- <sup>118</sup> Pesticide sales. Retrieved from: European Commission. As in EUROSTAT [AEI\_FM\_SALPEST09]
- <sup>119</sup> European Commission. *Sales of pesticides in the EU*. Retrieved from: <https://ec.europa.eu/eurostat/web/products-eurostat-news/-/DDN-20200603-1>
- <sup>120</sup> EFSA (European Food Safety Authority), 2019. Report on the 2017 European Union report on pesticide residues in food. EFSA Journal 2019;17(6):5743, 152 pp. Retrieved from: <https://doi.org/10.2903/j.efsa.2019.5743>
- <sup>121</sup> Latvian Ministry of Agriculture. *Situācijas analīze KLP Stratēģiskā plāna sagatavošanai 2020*. Retrieved from <https://www.zm.gov.lv/zemkopibas-ministrija/statiskas-lapas/situacijas-analize-klp-strategiska-plana-sagatavosana?id=20571#jump>



- <sup>122</sup> Latvian Ministry of Agriculture. *Situācijas analīze KLP Stratēģiskā plāna sagatavošanai 2020*. Retrieved from <https://www.zm.gov.lv/zemkopibas-ministrija/statiskas-lapas/situacijas-analize-klp-strategiska-plana-sagatavosanai?id=20571#jump>
- <sup>123</sup> Integrētās augu aizsardzības kultūrspecifiskās vadlīnijas (IPM guidelines) Retrieved from: <http://noverojumi.vaad.gov.lv/integreta-audzesana/integretas-augu-aizsardzibas-kulturspecifiskas-vadlinijas>
- <sup>124</sup> State Plant Protection Service. Kultūraugu novērojumi kaitīgo organismu konstatēšanai (real-time monitoring data). Retrieved from: <http://noverojumi.vaad.gov.lv/>
- <sup>125</sup> State Plant Protection Service (establishment of demonstration farms) [https://urldefense.com/v3/\\_https://likumi.lv/ta/id/312146-par-latvijas-ricibas-planu-augu-aizsardzibas-lidzeklu-ilgtspejigai-izmantosanai\\_!!DOxrgLBm!U\\_c75SGtIq8gDAtoRPUoPK\\_bRqm3zWAWpE8BZGyFZa4Q9\\_JB2Yp982p-do6CYlwhQp994eh0\\$](https://urldefense.com/v3/_https://likumi.lv/ta/id/312146-par-latvijas-ricibas-planu-augu-aizsardzibas-lidzeklu-ilgtspejigai-izmantosanai_!!DOxrgLBm!U_c75SGtIq8gDAtoRPUoPK_bRqm3zWAWpE8BZGyFZa4Q9_JB2Yp982p-do6CYlwhQp994eh0$)
- <sup>126</sup> Regulation (EC) No 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products on the market
- <sup>127</sup> European Commission. *Harmonised Risk Indicator for pesticides (HRI 1), by group of active substance*. As in EUROSTAT [[SDG\\_02\\_51](#)]
- <sup>128</sup> Food and Veterinary Service. ASF eradication plan for Latvia
- <sup>129</sup> Latvian Ministry of Agriculture. *Situācijas analīze KLP Stratēģiskā plāna sagatavošanai 2020*. Retrieved from <https://www.zm.gov.lv/zemkopibas-ministrija/statiskas-lapas/situacijas-analize-klp-strategiska-plana-sagatavosanai?id=20571#jump>
- <sup>130</sup> Latvian Ministry of Agriculture. *Situācijas analīze KLP Stratēģiskā plāna sagatavošanai 2020*. Retrieved from <https://www.zm.gov.lv/zemkopibas-ministrija/statiskas-lapas/situacijas-analize-klp-strategiska-plana-sagatavosanai?id=20571#jump>
- <sup>131</sup> Study: EU burden from non-communicable diseases and key risk factors. Retrieved from: <https://ec.europa.eu/jrc/en/health-knowledge-gateway/societal-impacts/burden>
- <sup>132</sup> Defined as beef, lamb and pork, 235,57 g/per capita/d, net of waste in the EU 2010, GBD study 2017 and M. Springmann, personal communication
- <sup>133</sup> Defined as: consumption of  $\geq 5$  portions is below EU27 average and one of the 2 additional criteria is met: a) 1-4 portions below EU27 average, b) 0 portions above EU27 average, [https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=hlth\\_ehis\\_fv3c&lang=en](https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=hlth_ehis_fv3c&lang=en)
- <sup>134</sup> Atkritumu apsaimniekošanas valsts plāns 2013.-2020.gadam. Retrieved from: <http://polsis.mk.gov.lv/documents/4276>
- <sup>135</sup> Report: *Preparing for future AKIS in Europe*. Retrieved from [https://ec.europa.eu/info/sites/info/files/food-farming-fisheries/key\\_policies/documents/report-preparing-for-future-akis-in-europe\\_en.pdf](https://ec.europa.eu/info/sites/info/files/food-farming-fisheries/key_policies/documents/report-preparing-for-future-akis-in-europe_en.pdf)
- <sup>136</sup> Report: *AKIS in the EU*. Retrieved from [https://www.uni-hohenheim.de/fileadmin/einrichtungen/430a/PRO\\_AKIS/Synthesis\\_Report/SYNTHESIS.REPORT.VOL.2.FINAL\\_REPORT\\_08\\_07\\_2014\\_VOL\\_II.pdf](https://www.uni-hohenheim.de/fileadmin/einrichtungen/430a/PRO_AKIS/Synthesis_Report/SYNTHESIS.REPORT.VOL.2.FINAL_REPORT_08_07_2014_VOL_II.pdf)
- <sup>137</sup> Latvian Rural Advisory and Training Centre. Retrieved from: <http://llkc.lv/lv/latvian-rural-advisory-and-training-centre>
- <sup>138</sup> European Commission. *CAP context indicator C.24 Agricultural training of farm managers*. Based on EUROSTAT [[ef\\_mp\\_training](#)]