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Commission recommendations for France'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

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1. COMMISSION RECOMMENDATIONS FOR FRANCE'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 France. The recommendations are based on analysis of the state of play, the needs and the priorities for agriculture and rural areas in France. 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 France, in its CAP Strategic Plan, to set explicit national values for the Green Deal targets¹, taking into account its specific situation and these recommendations.

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

The shift to a sustainable food system presents French farmers with both significant economic opportunities and challenges. France is among the Member States with the highest agricultural factor income per work unit. However, while average farm income fluctuated around EUR 30 000 per annual work unit between 2005 and 2019, it has become increasingly volatile since the mid-2000s, owing to market fluctuations (price, input costs) and extreme climate events, which have been increasing in severity and frequency. Moreover, income is unevenly distributed between farms of different physical sizes, as well as among different sectors and territories. In particular, there is very considerable heterogeneity among farms of between 30 and 75 hectares. Besides, in the case of direct support, level of support varies greatly by individual farmer, illustrating still a high link to individual historic references, based on past characteristics of production.

The national plan for risk management has shown some effectiveness in addressing this volatility. Overall, the number of areas benefiting from subsidised multi-risk climatic insurance have increased in recent years. However, price volatility continues to affect income, and the coverage level of risk management instruments remains relatively low and variable among sectors. The agriculture and agri-food sectors also have a substantial financing gap as regards investments. Access to working capital finance is a key issue for the farm sector and small agri-food business. Support for investment to improve quality, increased consumer interest in quality and organic food, differentiation of products, and increased efficiency in supply chain management could help boost added value.

France has the largest number of recognised producer organisations in the EU, and French farmers, processors and traders are organised in inter-branch organisations. However, a rising concentration ratio (e.g. retailers), together with farmers' increasing limited access to essential services and infrastructure (slaughterhouses, dairy processors) in some territories, is curtailing farmers' bargaining power in the value chain. There is also growing competition, on both the domestic market and export markets, in agri-food, a strategic sector that ranks third in terms of surplus in the overall French trade balance. Yet this surplus has been shrinking over time, which indicates that competitiveness is declining in certain sectors, particularly animal products.

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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.

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

The size of the agriculture and agri-food sectors in France, and particularly the high share of livestock in farm production, poses a number of urgent environmental and climate challenges.

Greenhouse gas (GHG) emissions from the agricultural sector account for nearly 20% of total national emissions, which is above the EU average. However, emissions per hectare of agricultural land are close to the EU average, while emissions per unit of production value or per livestock unit are substantially lower than in most other Member States. Though there have been reductions since 1990, they are very small and have remained roughly constant over the last decade.

While agriculture is a source of GHG emissions, the sector also has a role to play in helping to mitigate them by improving energy efficiency and by using and producing energy from renewable sources, including solar and wind energy. Half of France's total renewable energy production comes from agriculture and forestry biomass (2018), a share slightly below the EU average (53.5%). Renewable production from agriculture/forestry is lower per hectare than the EU average, but there is a rising trend.

Livestock rearing is also emitter major source of ammonia emissions, and France is at high risk of failing to meet its emission reduction commitments for both 2020-29 and for 2030 and beyond¹. Ammonia emissions from agriculture have not fallen significantly over time, France therefore needs to introduce a clear and effective strategy for reducing these emissions, as part of mitigating air pollution. Such a strategy should have significant synergies with cutting GHG emissions.

Over the coming decades, expected climatic changes will bring significant changes in the conditions for agriculture and livestock production. Although French agriculture is technologically developed, its capacity to provide food and to contribute to the provision of ecosystem services is directly dependent on climatic conditions. In the absence of adaptation, climatic impacts could eventually reduce the agricultural productivity, which is already showing a pattern of stagnation. French farmers will need to define their strategies for production, farm management and investment in the face of increasing uncertainty, and the CAP strategic plan has a key role for advising and supporting the needed adaptive actions and for boosting the sector's resilience.

The steady trend towards sealing the soil and the shrinkage of permanent grasslands are strongly affecting biodiversity and farmland carbon sinks. A higher uptake of soil management practices and agro-forestry practices (through carbon farming approaches, for instance) could enhance the role of pastures and grasslands as a carbon sink and eventually strengthen the resilience of the farming sector. Moreover, grasslands and meadows are essential for extensive livestock systems, which have a smaller environmental footprint.

Water quality (watercourses and groundwater) has improved in recent years, particularly as a result of the steady downward trend in nitrogen and phosphorus surplus. However, the situation varies widely from one area to another, with poor water quality remaining a key challenge in many areas owing to diffuse pollution from nitrates and pesticides. France is falling short of the Water Framework Directive's objective of achieving good status for all water bodies. The country should therefore envisage further action to promote better uptake of farming practices that significantly reduce nutrient and pesticide pollution, in line with EU Green Deal targets. This should include focused research, innovation and dissemination activities on low impact forms of farming.

Preserving biodiversity remains a challenge in many of France's farming areas. The conservation status of agricultural habitats (grasslands) is largely assessed as unfavourable/inadequate or bad, while only 20% of grasslands show a favourable conservation status. Current trends show only limited improvements. The main challenges are to improve ecological connectivity (hedges and other landscape features), protect plant and animal species characteristic of farmed environments (birds, flora, pollinators), and manage Natura 2000 farmland. Priority measures will need to take account of the needs identified in the new French prioritised action framework for 2021-2027, which is currently at the drafting stage. In line with the Biodiversity Strategy, protecting and restoring ecosystems in France's outermost regions is a high priority, given their exceptionally high biodiversity value.

Farming systems based on agro-ecological methods and lower input use, which help to better reconcile the protection of natural resources with agricultural production, are developing apace. The area given over to organic farming has more than doubled between 2010 and 2018, reaching 2 million hectares and 7% of total agricultural land, which is slightly below the EU average (8%). While this trend is very positive, much remains to be done to attain the ambitions of the Farm to Fork Strategy.

In the Commission's view, French agriculture needs to pursue its ecological and climatic transition in line with the objectives of the Farm to Fork and the Biodiversity Strategies. The future CAP Strategic Plan should play an important role by boosting environmental and climate ambition, thereby raising the level of minimum requirements and creating appropriate incentivising tools, in complementarity with France's recovery plan² and, in particular, with the country's agro-ecological transition measures.

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

GDP per capita in rural areas of France is substantially below the national level and has been declining, although it remains above the EU average. The gap between rural and national values has remained largely the same over the years. New businesses in the agri-food and forestry sectors face financial difficulties and uncertain economic prospects in some rural areas, start-ups and SMEs being the most constrained.

The generation renewal in agriculture is key for the future of the sector as well as for maintaining the socioeconomic fabric of rural areas, where agriculture still represents a significant activity. France has one of the EU's largest shares of young farmers (aged below 35) in the total number of farm managers, but the renewal rate is declining and varies considerably between regions and sectors. Elderly people account for a larger proportion of population (24.3%) in rural areas than in the rest of the country, and a higher proportion than the EU average. The rural employment rate (68%), which surpasses the national average, is very close to the EU average. However, it is lower for women (62%). Women account for only 21% of farm managers (below the EU average) and 27% of France total agricultural labour force.

Sustainable forest management holds great potential for enhancing the contribution forests make to the bioeconomy, the provision of ecosystem services and biodiversity. Despite the significant area covered by forests (31.5% of the total territory), many French forests are not actively managed. This may hamper the role they play as carbon sinks, their resilience to weather extremes, and the provision of other goods and services. Over 2013-2018, only 18% of forest habitats belonging to the Natura 2000 network were in a favourable state of conservation. Although the situation has improved since the previous evaluation period

(2007-2012), French forests still have a worse status than the EU average. This is something France needs to address.

The bioeconomy represents a policy route for the development of rural areas in line with the Green Deal objectives and provides for new economic opportunities for farmers. In France, it directly provides nearly two million jobs, and it has great potential for employment growth by 2030. Access to basic services in rural areas (such as healthcare, childcare, social care (including care for elderly), internet) is essential to attract people to rural areas. CAP tools work in synergy and complementarity with other EU funds to ensure better services in rural areas for the benefit of all rural residents.

LEADER has provided the basis and support for territorial projects that implement actions based on integrated, targeted and bottom-up local strategies, with positive effects on local development, financial engineering and coordination in rural areas. Under the 2014-2020 rural development programmes, France has 340 local action groups throughout its territory, covering 27 000 municipalities and 26 million in habitants (67.5% of the total rural population).

When developing its CAP Strategic Plan, France should consider the diversity and specific situation of different areas across the country. This is particularly true and relevant in the case of areas with specific needs and vulnerabilities, such as the outermost regions referred to in Article 349 of the TFEU, which should be appropriately addressed with relevant CAP instruments.

The impact on human health of inputs into crop and livestock production has become a major social concern. Animal welfare and the way farm animals are raised and transported is increasingly central to social debate about farming, especially as regards the welfare of pigs and laying hens. As regards the use of antimicrobials, the situation in France is more positive than in a number of other Member States. In contrast, overall use of the more hazardous pesticides, and the risk associated with them, need to decrease over the next few years, in line with the ambitions and targets of the Farm to Fork Strategy. France should also strive to move towards healthier, more environmentally sustainable diets, in line with national dietary recommendations.

Finally, ensuring protection for farmworkers, especially precarious, seasonal and undeclared workers, is vital to uphold the rights laid down in legislation that are an essential component of the fair EU food system that the Farm to Fork Strategy is designed to achieve.

1.4 Foster and share knowledge, innovation, digitalisation in agriculture and rural areas

Tackling the economic, environmental and social challenges outlined in the previous paragraphs is an essential step in the transition towards sustainable food production. It will require efforts to bring new technologies and innovation into this field.

The French Agricultural Knowledge and Innovation System (AKIS) is considered to be strong and relatively well integrated. It is not restricted to the agricultural sector, but extends to related activities (e.g. the environment, climate, biodiversity, food and non-food systems, including processing and distribution chains, consumers and citizens). More could be done to promote cooperation among private and public advisors, including with the operational groups (OGs) of the European innovation partnership. France could also promote innovation support services and 'one-stop-shops' to help developing innovative ideas into viable projects for agricultural and rural businesses, as well as innovation networking.

Broadband coverage of rural areas remains a challenge, particularly as regards reaching the objective of 100% coverage by 2025. Currently, more than half of France's rural areas are not covered by any Next Generation Access (NGA) technology. This means that France is lagging behind the EU average.

France is participating in EU projects dealing with the uptake of new technologies to modernise the CAP. A shift towards the use of satellite-based means to monitor CAP implementation could make a significant contribution to the digital transition and to more widespread use of satellite observation, precision farming, geolocation services, autonomous farm machinery, and drones.

1.5 Recommendations

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

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

- Improving the resilience of the agricultural sector against market and climatic events by alleviating income variability through appropriate incentives such as risk management instruments as well as investments focused on adaptation. Previous efforts to improve the distribution of support have brought France to the point of a smooth move away from the link to historical references towards internal convergence and better targeting of direct support. Current efforts observed should be pursued, by continuing the internal convergence process and using, for example, the complementary redistributive income support for sustainability and the reduction of payment.
- **Increasing the competitiveness** of the French agricultural and agri-food sectors by improving **access to finance**, and by providing **investments support**, in particular for sustainable production models offering high quality or organic products that increase farm added value.
- Promoting sectoral initiatives and cooperation, especially in sectors with lower or
 decreasing competitiveness, and cross-sectoral cooperation at territorial level to
 enhance economies of scope, but also to accompany restructuring and economies of
 scale where necessary, to gain efficiencies and to produce at lower costs, including
 cooperation between plant and animal sectors on fertilisers and feeding stuffs.

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

• Strengthening efforts to reduce GHG emissions, to improve energy efficiency, to foster renewable energy production and to reduce ammonia emissions so as to further contribute to the EU goal of reaching climate neutrality, to the Methane Strategy and to the reduction of air pollution. Recommended actions include supporting relevant farm and agri-food investments, strengthening advisory services and promoting on-farm GHG assessment tools to improve energy and climate performance.

- Supporting the adaptation of agriculture to future climatic changes by addressing the risks which jeopardise its capacity to deliver food and its contribution to the provision of ecosystem services which are directly dependent on the climatic conditions via the promotion of adaptive farming practices, landscape-level solutions and investments.
- Halting the decline and degradation of permanent grasslands, and remunerating the protection of these carbon stocks and the enhancement of carbon removals as a key carbon farming action that contributes as well to protecting the biodiversity and the landscapes associated to agricultural areas.
- Fostering uptake of farming practices to reduce nutrient pollution from fertiliser use and nitrogen surplus to contribute to the EU Green Deal targets, particularly in areas with high livestock density and intensive crop cultivation, by promoting transition to high environmental value production systems such as low-input, agro-forestry, agro-ecological and biodiversity-friendly approaches, to better reconcile agricultural production with the protection of natural resources and to respond to the social concerns regarding the conditions under which food is produced. France should also contribute to the EU Green Deal target on organic farming by enhancing the current increasing trend through appropriate incentives for the conversion and maintenance of organic farming.
- Improving the protection of biodiversity by enhancing farmers' uptake of appropriate farm management practices, by increasing habitat protection and restoration, in line with the Prioritised Action Framework, and by maintaining the presence and increasing the density of hedges and trees and other woody landscape elements to contribute to the EU Green Deal target on high diversity landscape features. France should use all the elements of the Green architecture (conditionality, eco-schemes and rural development interventions) for preserving and expanding green infrastructure on farmland, especially in arable land, and to help farmers to evolve towards more biodiversity friendly models.

Strengthen the socio-economic fabric of rural areas and address societal demand

- Contributing to the EU Green Deal and Farm to Fork targets on pesticides by strengthening the efforts to decrease the quantities and risks of used pesticides and promoting the sustainable use of pesticides, in particular by ensuring the uptake of integrated pest management practices.
- Contributing to achieving the EU Green Deal target of reducing the sale of antimicrobials. Whilst sales are below the EU average, France should continue to implement measures to reduce the use of antimicrobials in agriculture, for example by integrating targets into concrete and more ambitious CAP actions.
- Improving animal welfare by putting in place more ambitious measures to promote best livestock management practices, especially for pigs and laying hens, and the transport of animals.
- Fostering the entrepreneurial initiatives in rural areas by taking advantage, among
 others, of the relatively high share of young farmer population and the advisory
 system, as well as promoting diversification into other economic activities and
 employment sources, and supporting the emergence of collective projects through
 local cooperation and LEADER and through the multi-funded territorial instruments

- (CLLD, ITI). France should also continue supporting **investments in rural infrastructures and services** by targeting in particular those rural areas and vulnerable groups most in need with an appropriate mix of interventions whilst ensuring synergies with the other EU funds (ERDF, ESF, ERI).
- Fostering sustainable forest management through a multifunctional approach including: forest protection and restoration of forest ecosystems in order to enhance ecological services and biodiversity, supporting efforts to reach good condition of forest habitats and species, integrating forests into land use planning, preserving stocks and increasing the carbon sinks in forests, their soils and harvested wood products, supporting investments in forests, forestry and the circular bioeconomy to create added value in rural areas and to contribute to a low carbon economy.

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

- Increasing the attractiveness of rural areas and contributing to the EU Green Deal target by completing investments in fast broadband and in connectivity reaching the door of all households in rural areas in particular in sparsely populated areas, in synergy with the other EU funds (ERDF, RRF), whilst accelerating the development of digital and knowledge skills in rural areas. France should also foster the modernisation and digital transition of French farming by further exploiting the EU's technological capacity to tackle the economic, environmental and social challenges.
- Strengthening the AKIS to enhance the sustainability performance and competitiveness of the agricultural sector and related activities, and to support Green Deal priority actions on climate change, circular economy, zero-pollution and biodiversity, to ensure improved interaction among public and private advisors, by developing innovation support services and networking to help emerging interactive innovation projects.

2. ASSESSMENT OF AGRICULTURE AND RURAL DEVELOPMENT IN FRANCE

France has an important agricultural sector in terms of production, with a significant sectoral and territorial diversity. French agriculture has undergone deep structural changes over the recent years, and its number of holdings, agricultural area and livestock have declined since 2005. In 2017, the utilised agricultural area (29 million ha) represents more than half of the territory (52%) but has declined by 3% since 2000, resulting in a decrease in permanent grassland. The main land use are arable land including temporary pastures (63%), permanent grasslands (33%), and permanent crops (4%). France has an important livestock herd of 22 million livestock units, which has however declined by nearly 3% between 2005 and 2016. Over 60% of the agricultural production value comes from vegetal production, particularly arable crops. Compared to other EU countries, cereals (14%), cattle (12%) and wine (14%) have a highest share in the production value.

France has around 456 000 farms with an average area of 64 ha, a size higher than EU27 average but similar to other central Member states. Over the period 2005-2016 the total number of farms in France declined by nearly 20%. This declining trend concerns most of the sectors but at different scale. The number of specialised cereals and oilseeds holdings has gone up while the number of milk farms and permanent crop farms have considerably declined. France has one of the highest share of young farmers (below 35 years old) in the total number of farm managers (8.3% compared to the 5.1% on average in the EU-27 in 2016). However, the renewal rate is generally declining, though it strongly varies between regions and sectors.

France is a major player in agricultural and food markets. The agri-food is a strategic sector that represents the third surplus in the overall trade balance of France (on average EUR 8.4 billion a year). France is a major exporter of wine and spirits, animal, milk and milk products, cereals and seeds.

France has the fourth largest forest in the EU (17.2 million hectares), representing 31.5% of the total French territory and growing continuously.

The GDP per capita is French rural areas (EUR 22 087 PPS) is substantially lower than the national level. New businesses in the agri-food and forestry sectors face difficulties in some rural areas, start-ups and SMEs being the most constrained. The rural employment rate (68%) is above the national level, but lower for women (62%). Adequate services and infrastructures, such as the NGA broadband, healthcare, childcare, social care incl. for elderly are essential for attracting people in rural areas.

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

In France, the agricultural income is on average about 63% of the average wage in the whole economy between 2005 and 2018. This share fluctuates over the period (45% in 2009; 76% in 2018) but is always higher than the EU-average (40%). The gap seems to narrow slightly during the period³.

The average agricultural factor income fluctuates around 29 400 EUR/annual work unit between 2005 and 2019. The income is quite volatile (EUR/AWU 21 588 in 2009 to 36 351 in 2019), but stands well above the EU-average (more than the double), placing France among the 10 Member States with the highest income per work unit⁴. Income volatility has increase since the mid-2000 due to market (price, input costs) as well as production (yield)

fluctuations. The rise of the severity and frequency of extreme climate events and the reduction of crop diversity have contributed to reduced farms resilience.

For the period 2015-2018, direct payments account for 28% of the factor income⁵ while rural development payments represent 7% of the factor income⁶, which is close to the EU average. As regards the Basic Payment Scheme, France does not apply the flat rate model but a partial convergence by 2019 for the region 'hexagon'. The unit amount per hectare varies greatly by individual farmer⁷, illustrating the still high link to old individual historic references, which are increasingly difficult to justify. Agricultural factor income is unevenly distributed between holdings, sectors and territories.

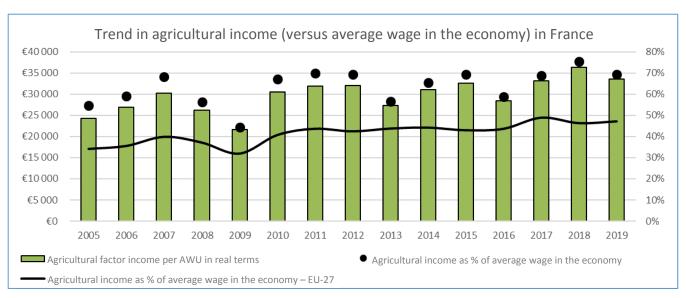
The factor income tends to decrease with physical farm size (up to 75 hectares) and then to increase. This can notably be related to the high share of wine farms (with high income) in classes below 30 hectares, while between 30 and 75 hectares, very different sectors with very different income levels are represented. Conversely, the amount of direct payments per hectare tends to increase up to 75 hectares and decreases regularly above⁸. Income increases whereas direct payments per hectare decrease constantly with economic farm size⁵. The redistributive payment may play a role in these trends, as well as the modulation of voluntary coupled support (decreasing unit amount with increasing physical size) in some sectors.

In terms of sectors, income is highest for some field crops (others than cereals and oilseeds) and wine, lowest for permanent crops and for sheep and goats farms. Direct payments per hectare are the highest for livestock (cattle, milk, sheep and goats or mixed livestock farms) and average for all other sectors (except for wine, which is the lowest). The share of total income support (direct payments and rural development support for the areas facing natural constraints) in agricultural income is the highest for most livestock sectors and the lowest for wine, horticulture and orchards⁵. The low level of direct payments in wine and horticultural farms is explained by the fact that these sectors were historically not much supported by the CAP.

Income levels differs considerably between types of areas. Average farm income (per AWU) is much higher in areas without natural constraints (more than EUR 35 000) than in the areas with natural (and other specific) constraints (ANC), with the mountain ANC areas getting the lowest income (slightly above EUR 25 000). However, total CAP support per hectare is highest in mountain ANC (EUR/ha 475 vs EUR/ha 275), which partially compensates the income differences⁹.

In terms of risk management instruments¹⁰, an increase of areas benefiting from subsidised multi-risk climatic insurance has been observed in recent years to reach 30% of agricultural areas (4.8 million hectares in 2018), with a significant increase in the viticulture sector which is the best-covered production. The additional not-subsidised insurance offers, in particular hail insurance, cover around 5.2 million hectares. However, the level of coverage remains low and is extremely variable depending on the agricultural production. Field crops and industrial vegetables are the best-covered sectors (about 30% and 25% respectively) while arboriculture (2.4%) and pastures (0.9%) are least covered. For permanent crops, the offer of risk management tools is not well adapted while for pastures adapted risk insurances have recently been in place and need higher uptake by farmers.

The recent evaluation of the national plan for risk management (under the rural development policy) shows the positive effect of insurances for mitigating the increasing income volatility due to climatic events, even if the effect of price volatility on income persists.



Source: DG AGRI, based on EUROSTAT [aact_eaa04], [aact_ali01] and [aact_eaa06]¹¹

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

Over the period 2005-2016 the total number of farms in France declined by nearly 20%. Over a longer time period (1998-2016) the number of farms has reduced by half. This declining trend concerns most of the sectors but at different scale. The number of specialised cereals and oilseeds has gone up by nearly 25% between 2000 and 2016 (from 49.5 to 69.5 million farms) while the number of milk farms and permanent crop farms have substantially declined¹².

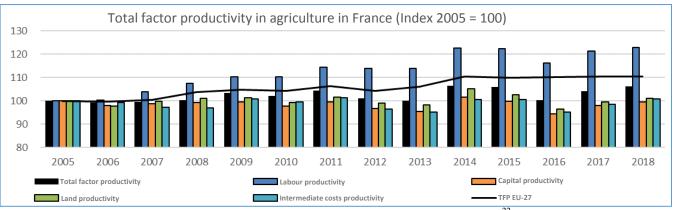
The agricultural area reduced from 29.6 million ha to 29 million ha, mainly due to decrease in permanent grassland¹³. Average farm size increased from 52 ha to 64 ha. The main use of land is as follows: arable land including temporary pastures (63%), permanent grasslands (33%), and permanent crops (4%). However, the share of grassland is much higher is the centre and in western regions. The number of livestock units (LU) has also declined by nearly 3% between 2005 and 2016 (mainly cattle) and is equal to 22 million LU¹⁴. Livestock density has remained stable (around 0.77 LU/ha), which reflects the predominantly extensive character of livestock farms (mainly cattle). Compared to other EU countries, cereals (14%), cattle (12%) and wine (14%) have the highest share in the production value¹⁵.

The total factor productivity (TFP) of the farming sector has been increasing slightly, mainly due to the outflow of labour (-18% between 2005 and 2018). The TFP index is below the EU-average (106 against 110 in 2018 (base year 2005)) and is one of the lowest of all EU MS¹⁶. This relatively low increase should however be put in the context of a high starting position, as France still has the third highest labour productivity in agriculture in the EU¹⁷. Land productivity, which reflects yield increase, is rather stable, while labour productivity is growing. France has the highest agricultural gross fixed capital formation in the farming sector among EU countries. Investments (mainly equipment and, to a lesser extent, buildings), which is one of the main drivers for productivity rise, have increased until 2012 but are decreasing since then. The share of investments in agriculture in the gross value added has gone down from 41% in 2012 to 32% in 2018. The debt rate of holdings is relatively important (42.6% in 2017) although variable according to the sectors¹⁸.

The agri-food industry is a key economic sector in France (15% of the added value and 15% of employment of industrial sector), even though its turnover is decreasing. Small and medium enterprises (SMEs) are predominant (95% of the total) and have strong territorial anchoring. The small size limits innovation and investments capacity as well as competitiveness. The investment rate in agri-food industries has stagnated since the early 2000s while labour cost (among the highest in the EU) have gone up. As a result, the productivity of milk, meat and animal feed industries has declined over the last twenty years. Price and non-price factors (certain products do not find export markets) explain the productivity decline, even though the numerous products with quality indications (such as cheese) allow French enterprises to increase their added value¹⁹.

Agriculture and agri-food sectors have a financing gap for investments, which is estimated between EUR 1.3 billion and EUR 1.7 billion in the agricultural sector, and EUR 2.9 billion in the agri-food sector²⁰. Access to working capital finance is key issue for the farm sector. Small agri-food business are also particularly constrained for having access to finance. Available public support tools do not reach a significant share of small enterprises and this support seem to lack focus on the agri-food sector and investments in non-tangible assets for innovation²¹.

France is a major player in agricultural and food markets, even if the country is facing growing competition on the domestic market as well as on export markets. France has a negative agri-food trade balance with other EU member states since 2013 and a positive balance with countries outside the EU. Agri-food is a strategic sector that represents the third surplus in the overall trade balance (on average EUR 8.4 billion a year). This trade surplus is shrinking over time, which points out to a declining competitiveness in certain sectors (mainly animal products). Imports (mainly fruits) are raising more rapidly than exports. While France is still a major exporter (wine and spirits, animal, milk and milk products, cereals and seeds), the share of animal products has been reduced by half between 2000 and 2016.



Source: EUROSTAT for TFP and DG AGRI for partial productivity²²

2.3 Improve farmers' position in the value chain

The output of the French agricultural sector has been relatively stable around an average of EUR 73.9 billion over the last ten years. The total intermediate consumption has stabilised around EUR 44.7 billion, which leaves above EUR 29.2 billion for the French agriculture gross value added at basic prices. The Gross Value Added is about 41.6% of the output of the French agricultural "industry", slightly below the part of the Gross Value Added of the EU-27 agricultural "industry" (43.1%) in average over the 3 last years²³. The share of the value added for primary producers in the food chain is slightly decreasing in France between 2013 and 2017. It is in the same range than the EU average. In 2017, 23% of the value added in the food chain went to primary producers.

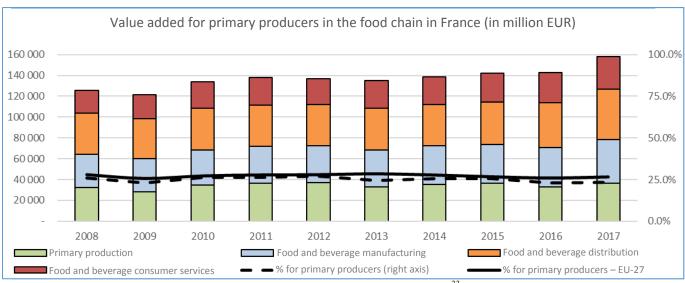
The French agriculture is characterised by a high diversity of agricultural products. In 2017, close to 55% of the agricultural production value is coming from four sectors: wine (14.5%), cereals (14.4%), milk (13.8%) and cattle (11.8%)²⁴; the other sectors representing still a significant part of EU agricultural output. The distribution of added value strongly depends on the structure and characteristics of the specific supply chain. In recent years, several initiatives have targeted the balance of power in the value chains, in particular the law EGalim²⁵ on balancing of trade relations between agriculture and the food sector.

France has the largest number of recognised producer organisations in the EU (724). POs and cooperatives, including those that are not recognised as POs, have an 80% share of dairy production, but only 50% of fruits and vegetables production as well as 50% of beef production²⁶. French farmers and processors or traders are also organised in numerous Interbranch organisations (IBOs). France has close to half of the recognised IBOs in the EU in a wide range of sectors²⁷. Still, the increasing concentration ratio (e.g. of retailers) as well as the limited access to services and infrastructures (slaughterhouses, dairy processors...) in some regions is identified as limiting the bargaining power of farmers in the value chain. The number of slaughterhouses decreased by 20% between 2000 and 2010 and they are increasingly concentrated in several regions dominated by livestock. Veterinarians also become scarce in some rural areas²⁸.

Value chains remain highly dependent on input costs and in particular on very volatile commodities (livestock feed, fertilisers, etc.). In France, cooperatives would account for about 70% of agricultural supplies to farmers. On the other side of the value chain, market differentiation and short supply chains are strategies that are stimulated in France. There are 763 French designations protected as quality labels among which 256 are registered as agricultural products and foodstuff. The sales value of French PDO/PGIs represents close to EUR 27 billion in 2017 (85% related to wines and spirit drinks) with an increase of 30% since 2010^{29} .

The area under organic production has been growing steadily over the last ten years: from about 500,000 ha in 2008 to 2 million ha in 2018³⁰, which is the second largest organic area in the EU. In 2018, the share of total organic area in total utilised agricultural area (UAA) was 7%, slightly below the EU27 average of 8%³¹. The sectors with the highest share of organic area are pulses (40.2%) and fruits (23.3%). The sectors with the lowest share of organic area are vineyards (12%), forage (10%) vegetables (7%) and cereals and oilseeds crops (4%). In the livestock sector, laying hens (13%), dairy ewes (10.8%) and goats (9%) have the highest share of organic production, while sows (1.3%) and broiler chicken (1.6%) have the lowest.

Regarding short supply chains, it concern mainly the vegetable and horticulture sectors for which close to 50% of the farms have above 75% of their turnover based on short supply sales³², and there are many initiatives throughout the broad spectrum of sectors and types of short supply chains.



Source: CAP Result indicator RPI_03³³

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

The GHG emissions from agricultural sector (including CO_2 emissions from cropland and grassland) accounts for nearly 20% of the total national emissions (2018), higher that the EU average. Emissions of methane (CH₄) and nitrous oxide (N₂O) account for 16%. This high share is due to the structure of the French farming sector, particularly the weight of livestock sectors. Nearly 45% of emissions are CH_4 from enteric fermentation of ruminants and manure while 43% are N₂O from agricultural soils with organic and mineral nitrogen fertilisation and manure management³⁴. Agriculture emits also CO_2 from energy consumption but its share on the total CO_2 emissions is very low (less than 3%)³⁵.

The French agricultural sector accounts for 17% of the total EU agricultural emissions and is the first emitter of the EU. However, the (non-CO₂) emissions per hectare of agricultural area (UAA) in France are close to the EU-average. Compared to other Member States, France ranks 12th on emissions per hectare of UAA, 18th on GHG per unit of production value, and 24th per cattle unit³⁶.

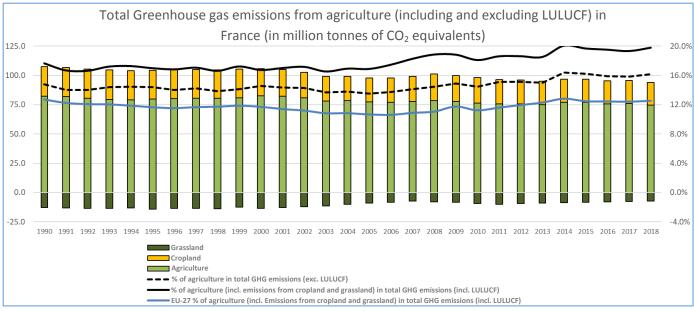
Emissions from agriculture decreased by 4% between 1995 and 2018 (compared to -13% EU-28), particularly due to the decrease in livestock numbers and mineral fertiliser use. Over a longer period (1990-2018) emissions declined by 9.2%. In addition, the agri-food sector is an important GHG emitter, mainly due to the important energy use in their production processes (e.g., sugar, animal products).

Permanent grasslands (32% of total UAA) are a "hot spot" of carbon stocks that have decreased between 2000 and 2014. This trend seems to have stabilised since 2014³⁷. Conversion of permanent grasslands to other land uses, particularly crops and temporary pastures, has also an important impact on the carbon stocks of farmland areas.

Forests account for 38% of total carbon sinks in soils. The forest sinks are increasing since 1990 because of the rise of forest areas, though this increase rate is slowing down. The reasons are not well known but ageing of forests and the rise in the extreme events could be among the factors explaining this trend. Preserve stocks and increase the carbon sinks in forests, their soils and harvested wood products should be a priority. Half of the total renewable energy production comes from agriculture and forestry biomass (2018). This share is slightly below the EU-27 average (53.5%). Around 37% of energy production comes from wood while 13% comes from agricultural biomass, mainly biofuels and biogas. France has a lower production of renewable energy per hectare from agriculture/forestry compared to the EU-average, which shows however an upward trend³⁸. Agriculture and forest sector account for less than 3% of the final energy consumption (2018), mainly oil combustion for machineries and equipment. In addition, food processing accounts for 3.6% of energy use³⁹.

The National Low Carbon Strategy foresees that agricultural and forestry sectors play an essential role in achieving carbon neutrality by 2050 and sets targets for reducing the farming's emissions by 18% in 2030 and by 46% by 2050 (compared to 2015).

Expected climatic changes will have further consequences for the availability of water, pests and diseases leading to significant changes in the conditions for agriculture and livestock production. It will also increase the pressure on natural resources and it risks reducing carbon storage in soils. For the past forty years, water has become scarce in the southern regions, which are regularly confronted with water availability limits in the summer. Over the next 10-30 years, France will be increasingly exposed to a changing rainfall pattern, which will lead to more severe water deficits during the growing season. It will also be highly exposed to more frequent and severe heatwaves and droughts, and outbreaks of pests and diseases. Although climate change is a global process, its local impacts are diverse. Overall net effects on farm activities will vary across the French regions and between farm types within the same region. The Mediterranean basin will become more arid, while the Mediterranean climate could move westwards and northwards. The north of France is expected to be generally less affected than southern and central France. In the absence of adaptation, climatic impacts will eventually reduce the agricultural productivity in a substantial part of France. Possible short to medium term adaptive solutions can include: changing land use and management practices (agroecological practices), improving soil and landscape management (such as agroforestry), improving the effectiveness of pest and disease control through for instance better monitoring, diversified crop rotations, or integrated pest management methods. To make the sector more resilient, the water management can be improved by switching to less water intensive crops, improving the crop varieties (early maturing, heat and drought resistant, etc.) and using water more efficiently by reducing water losses, improving irrigation practices, and storing and recycling water.



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

Although the quality of natural resources in France has improved in recent years, it continues to be under pressure from certain production systems that are particularly intensive.

The French agricultural sector was responsible for 94% of the total ammonia emissions in 2018, mainly from livestock (65%) but also from the spreading of mineral and organic fertilisers⁴⁰. France is at high risk of non-compliance with its commitments to reduce ammonia by 2020-2029 and by 2030 as set by the National Emission Ceilings Directive. After a very slight decreasing trend since 1995, ammonia emissions are not decreasing significantly over time since 2005, while EU-27 emissions have decreased until 2013 (and increased up again until 2016). The renewal of tractors and agricultural equipment has driven a significant reduction (by 49%) of nitrogen oxides (NOx) (1990-2017)⁴¹.

The situation of water quality is not entirely satisfactory and France is not achieving the objective of the Water framework directive of reaching good status of all water bodies. Around 54% of surface water bodies are in less than good ecological status and 16% are failing to achieve a good chemical status. For groundwater around 10% are failing good quantitative status and around 31% are failing good chemical status. Diffuse pollution from agriculture (mainly chemicals and nitrates) is the largest pressure accounting for more than 70% in surface waters and 54% in groundwater. On average 2015-2017, 63% of surface waters and 70% of groundwater were in good chemical condition⁴². The highest concentrations of pesticides are found on banana plantations in Martinique and in the arable, vineyards and orchards areas of the north and southwest regions.

Nearly 27% of the groundwater and 57% of surface water are concerned by diffuse pollution from nitrates⁴³. According to the latest report transmitted by the French authorities in the context of the Nitrates Directive, nitrates water pollution show an increasing trend in the north and the east of the country for the period 2016-2019. Nitrates concentrations are the highest in the western regions (high livestock density) as well in areas with intensive crop

cultivation. In 2015, nitrates vulnerable zones, in which national and regional action programmes, are implemented cover 68% of French UAA.

The quality of watercourses has improved over the last years: reduction of 12% of nitrates concentrations between 1998 and 2017 (especially in western agricultural regions) and of 37% decline of orthophosphates (because of reduced use of phosphate fertilisers and better treatment of wastewater). These developments remain though contrasted at territorial level⁴⁴.

The quality of groundwater has also improved recently. On average 2015-2017, 73% of groundwater stations show high water quality (compared to 66% in 2012) while 4.6% are of poor quality (nitrates concentration over 50 mg/l) (8% in 2012).

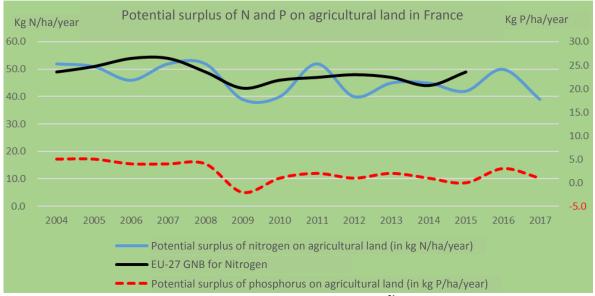
These trends are partly the result of nitrogen and phosphorus surplus that are decreasing over time. The (estimated) nitrogen balance has decreased by 11 kg/ha of agricultural land over the last twenty years (55 kg/ha/y over 1996-2005 and 44 kg N/ha over 2014-2017, which is a 30% decline)⁴⁵. France's gross nitrogen balance is slightly lower than the European average (49 kg/ha). From 2000 to 2017, the phosphorus balance is getting closer to zero as it has declined from 9 to 1 kg P/ha/y. The average 2014-2017 (1.3 kg P/ha/y) is slightly higher than the EU-27 average (0.5 kg P/ha/y). In the regions where cropland is predominant, the phosphorus balance has become negative while is still significant in Britany⁴⁶.

The volumes of water for irrigation represent around 10% of all the freshwater volumes withdrawn in France in 2015 (two-thirds coming from surface water)⁴⁷. The water abstraction shows a decreasing trend between 2000 and 2012 and it is not generally identified as a significant pressure as 90% of groundwater are assessed to be in a good quantitative status⁴⁸. Between 2010 and 2016, irrigated areas decreased by 13.7% in France while they increased by 3.1% in the EU. The share of irrigated land (mainly maize) slightly declined from 5.7% (2010) to 4.9% in 2016. However, south-western regions, where maize production is significant, can face water summer deficits.

Support for farming practices that are more beneficial to water remains relatively weak in France. Under rural development programmes, 5% of the French agricultural land is under agri-environment contracts to improve water management in 2018, compared to 12% in EU-27.

Agricultural soils are severely shrinking in France. The French utilised agricultural area (29 million ha) has decreased by 4% between 2000 and 2015. The current soil loss rate ranges from 50 to 60 000 ha per year, from which 80% is taken out from agricultural area 49. This trend triggers increased pressure for the remaining farmland areas to keep agricultural production. The soil sealing has important impacts on farmland carbon stocks as well as on biodiversity and landscapes.

When it comes to soil quality, the (estimated) share of soil at risk of loss by water erosion is in France (2.8%) below the EU average (6.6%). The soil erosion is estimated (in 2016) at 2.2 t ha⁻¹ yr⁻¹, below the EU average (2.5 t ha⁻¹ yr⁻¹)⁵⁰. The south and southeaster vineyards and parts of the Pyrenean and Alpine territory are among the most fragile areas. In the Northern France, arable land is particular vulnerable to water erosion due to poor soil cover during part of the year. In the future, soil preservation can be addressed in synergy with activities under the Horizon Europe mission on Soil Health.



Source: EUROSTAT [aei pr gnb]⁵¹

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

France hosts a major part of the EU's biodiversity (35% of all EU species and 58% of bird species nesting in Europe). The enhancement of biodiversity protection and preservation of habitats and landscapes in the French context remains a key challenge on farmland. In the long term, the intensification and the specialisation of production as well as the territorial specialisation have driven negative effects on biodiversity of agricultural ecosystems.

The Farmland bird index has strongly decreased from 106.5 in 1995 to 63.8 in 2018⁵². Compared to EU trends, the situation in France is slightly worse.

The protection provided by Natura 2000 covers 7 million hectares of the land territory, making France the second Member State in terms of terrestrial area covered by Natura sites. It corresponds to 12.9% of the French terrestrial territory, while Natura 2000 extends over 19.8%⁵³ of the Union's land territory. 8.4% of agricultural land and 19% of forest areas are included in the French Natura 2000 sites. These shares are much higher in the southern regions.

According to the last reporting of France under the EU Habitats Directive (2013-2018), the conservation status of agricultural habitats (mainly grasslands) is largely assessed as unfavourable-inadequate (20%) or bad (57%), while only 20% of grasslands are in a favourable conservation status (this share was of 18% in the previous assessment period 2007-2012)⁵⁴. This assessment is very similar to the EU average. The trends show stability for more than 25% of species and habitats of "community interest", further degradation for 40% of them and an improving trend for 8% of them. The situation of species is more mixed. Some protected species show an improving conservation trend, notably the wolf, and, to a lesser extent, the lynx, while the mortality of domestic bees has substantially increased over the last 20 years.

Beyond habitats linked directly to agriculture, 60% of habitats assessments and 64% of species assessment are affected by agriculture. Only 22% of habitats of "community interest" are in a favourable conservation status. Wetlands, agro-pastoral and coastal areas are among the least preserved habitats.

As regards forest habitats, 18% are in a favourable state of conservation over the period 2013-2018⁵⁵, whereas, 77% are in unfavourable status. Alpine forests seem to be in a better state of conservation than other forests. Although the situation has improved compared to the previous evaluation period (2007-2012), it remains in a worse status compared to EU average.

At the same time, the "low input intensity" area increased between 2004 and 2016 from 10% to 14%, as did the "high input intensity" area, which increased from 40% to 47%. Permanent pastures have decreased by a third between 1970 and 2017 (from 14.1 million hectares to 9.2 million hectares), the most significant decreases being observed until the early 2000s (-1.2% per year against -0.6% per year between 2000 and 2014), with a tendency to stabilise since 2014 (-0.1% per year). Hedgerows have reduced (-6% between 2006 and 2014) as well as the diversity of crop rotations. The area covered by high-diversity landscape features is estimated to be 2% of total UAA (1.6% with fallow land and 0.3% with landscape elements) with a fairly strong heterogeneity across regions. This coverage is lower than the EU average (4.6%) and among the lowest of the MS.

Against a backdrop of intensification and specialisation of the production, farming systems based on ecosystem functionalities, lower inputs use and that help better reconcile biodiversity with agricultural production have recently begun to develop swiftly. Organic farming area has almost doubled between 2012 and 2018 to reach 2 million hectares. France has the second largest organic area in the EU. This is a share of 7% of total agricultural land, very close to the EU-27 average (8%)⁵⁶. Organic area has grown at a rate of nearly 10% per year, much higher than the annual increase of the overall EU. Nearly 42.000 farms (9.5% of the total) are certified or in conversion. The number of organic producers increased from 24 425 in 2012 to 41 632 in 2018 (+70%). The share of animals held by organic farmers increased from 2013 to 2018 for sheep and goats, and to a lesser extent cattle and pigs⁵⁷. The national programme "Ambition bio 2022" has set an objective to reach a share of 15% of organic production by 2022.

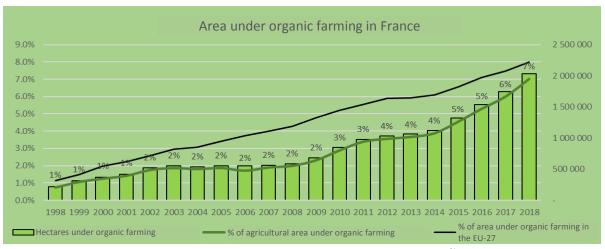
A network of than 3 000 farms (Dephy) has been set up, within the context of the Ecophyto plan, to test the reduction of plant protection products. Results show that a significant reduction (between 15% and 40%) of the frequency treatment index is possible without significant variation of farm yields or economic margins per hectare⁵⁸.

The number of holdings certified as "agriculture with high environmental value" (the highest level of environmental certification in France) is nearly 2 300 and it has multiplied by 5 between 2014 and 2017. Most of the certified farms are from the vineyard sector as they can better portray and give a market value to the efforts done to improve management.

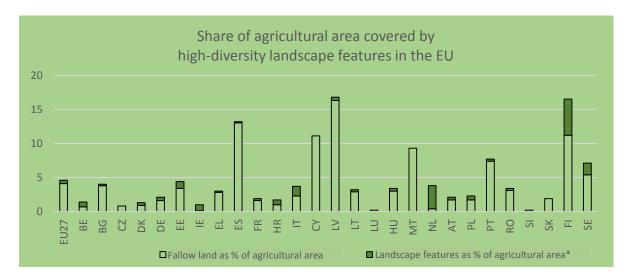
Farming practices with lower impact on biodiversity and ecosystems are also developing, such as areas with winter soil cover, no-tillage labour and extensive livestock. Agricultural area of extensive grazing (grazing livestock production below 1 livestock unit per hectare of forage area) increased between 2005 and 2013 from 16% to 20% of the total agricultural land. This share is lower than EU average (29%).

Over the period 2015-2017, the area engaged in agri-environment-climate measures covers 5.8% of agricultural land (1.7 million hectares)⁵⁹, less than half the EU average (13.4% in 2018). The area engaged in the Natura 2000 sites (nearly 600 000 hectares) accounts for nearly 36% of the total area covered by these measures (8.5% of the total Natura 2000 farmland)⁶⁰.

Soil sealing and particularly the loss of farmland area is a significant pressure on natural habitats. Between 2006 and 2015, the trend rate was -1.4% per year. This declining trend seems to be stabilising since 2014.



Source: EUROSTAT [org cropar h1] and [org cropar]61



Source: DG AGRI based on Eurostat and JRC based on LUCAS survey⁶²

2.7 Attract young farmers and facilitate business development in rural areas

France has one of the highest share of young farmers (below 35 years old) in the total number of farm managers (8.3% compared to the 5.1% on average in the EU-27 in 2016)⁶³. The ratio young / elderly managers (18.8) is also much higher than the EU27 average (5.1) and among the highest of the EU. However, while the average number of young farmers in France had remained stable since 2007, the proportion of elderly managers (55 years old and more) has increased from 37% to 44% in 2016. Women under 35 years account for 15% of total young farm managers. The installation rate for women has been stagnating for the last 10 years (27%). The ageing of farmers (52 years old on average) is a challenge for generational renewal in a sector that remains a family tradition. France has seen the number of its farms cut by half in the last 30 years⁶⁴. The decreasing farming population has led to a steady

^{*} 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.

growing farm size trend that makes access to land difficult for those who want to set or take up a holding.

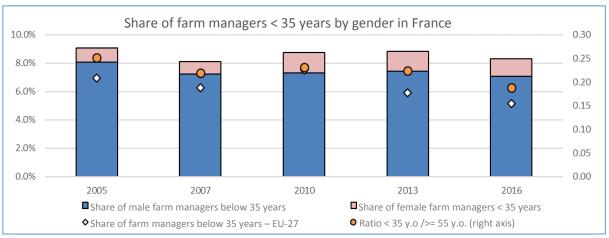
In France, almost one out of two farm managers is not replaced and the renewal rate is declining, though the rate strongly varies between regions and sectors. In general, the Northeast of France and the Mediterranean area appear to be the most attractive areas and they have a high rate of farmer's renewal. As regards sectors, the setting-up is very low in the animal sector, particularly milk production. The setting-up premia under EU rural development policy, supports about a third of total young's installations. The setting-up outside the family context represents 32% of the total in 2017 and has been increasing over years. Moreover, the high share of elderly managers suggests that many farmers continue their activity after the legal retirement age (due to the low level of pension), which does not leave enough room for renewal.

Access to land and capital are important barriers for young farmer's installation, particularly for those outside agricultural families, because of the financial costs and the low profitability. The price of agricultural land had been steadily rising since 1993 (although is relatively lower than in other MS), a trend that is expecting to continue along with the growing size of farms. New entrants have difficulties finding capital investments, particularly in the livestock sector, and financing solutions when acquiring farm assets. However, young farmers and new entrants with innovative ideas are particularly constrained for having access to finance.

French young farmers have a relatively good training level. Access to knowledge has different impact on generational renewal and is more or less developed according to the regions, and, sometimes, inside the same region. The share of young farmers with at least a basic level of agricultural training (85% in 2016) is higher than the share of total farm managers (and is the second highest share in EU). About 72% of young farmers have received full agricultural training 65. Nevertheless, young farmers need an extra support to access lifelong training and advice, especially when it comes to sustainable practices, as an increasing number of entrants are moving towards organic production and other low-input farming.

The agricultural sector lacks of attractiveness in France for young people. Low income, hard working conditions and isolation in certain rural areas, and negative social perceptions as regards the impact of agriculture on the environment, discourage the younger generation. Moreover, rural areas are often unattractive due to their insufficient infrastructure, public services and job opportunities for the manager's partners. At the same time, France is among the member states with the highest CAP budget share for supporting young farmers ⁶⁶. The EU and national support (that takes very different forms) plays a significant role in the decision making of setting up a farm and improves the installation projects and their sustainability.

New businesses in the agri-food sector face financial difficulties and uncertain economic perspectives in some rural areas. Start-ups and SMEs are the most affected. French start-ups are developing towards new technologies and digital tools dedicated to agriculture. The non-agri-food activities are important for keeping farming activity and attracting new farmers as pluriactivity of farm households allows overcoming the low farming income ⁶⁷.



Source: EUROSTAT. [ef_m_farmang]

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

Predominantly rural areas represent 52% of the total French territory, a higher share than the EU average (45%) whereas intermediate regions account for 40% (below the EU level of 46%)⁶⁸. The share of population living in the French rural areas (28%) is much higher than the EU average (18.6%), although it has slightly decreased since 2015 (by 0.2%)⁶⁹. Important disparities exist at regional level with much higher share of rural population in certain regions (above 65% in Bretagne and Corse) or much lower in some other (mainly Ile de France)⁷⁰. French rural regions have a higher percentage of elderly people (24.3%) than intermediate and urban regions, which also exceeds the EU average (21.3%)⁷¹. This share has been steadily increasing during the recent five years.

The employment rate in rural areas (68%) is above the national rate (65.5%) and is very close to the EU average $(68.9\%)^{72}$. It has slightly increased since 2015. However, the rural employment rate of women is lower (62%) and is below the EU level (64.1%), although it has slightly increased during the last five years⁷³.

The unemployment rate in French rural areas (6.5%) has decreased during the recent years and is lower than the national unemployment rate (8.4%) but is higher than the EU average (5.6%). The unemployment rate of youth (15 to 24 years) in rural areas is significantly higher (17.7%) and exceeds the EU average (13.4%), although it is below the national rate $(19.6\%)^{74}$.

The share of agriculture in the French rural employment is relatively low (5.7%) and is decreasing, but is higher than its share in the national employment structure $(2.6\%)^{75}$. By adding the agri-food industry, the share of employment of agri-food sector in rural areas is nearly $9\%^{76}$. However, women represent only 21% of farm managers (below the EU average of 28%) and 27% of the total French agricultural labour force 77 . The contribution of primary sector to the gross value added of rural regions is between 3% and 5% since 2010^{78} , higher than its share in the national GVA $(1.7\%)^{79}$ and lower than the EU average (9.5%).

The GDP per capita in French rural areas (EUR 22 087 PPS) is substantially lower than the national average (EUR 31 461 PPS) and has decreased during the last few years (from EUR 25 106 PPS in 2015). The gap between the rural and national values has been stable over the

years. Despite the negative trend, the French rural GDP per capita remains above the EU average of GDP per capita in rural areas (EUR 20 077 PPS)⁸⁰.

The rural poverty rate in France has declined from 15.9% in 2015 to 13.7% in 2018 and is below the national average (17.4%). It is also substantially lower than the EU average $(23.5\%)^{81}$.

France has the fourth largest forest in the EU (17.2 million hectares) representing 31.5% of the total French territory 82. It has increased by 7 million hectares since 1990 (+ 21% in 30 years), mainly through natural colonisation of unused agricultural land, and continues to grow at a rate of about 0.7% per year, much lower than in recent decades, particularly in the South-West, the East and the mountain areas. France has the third largest total output in forestry and logging (EUR 6.6 million) in the EU (after Sweden and Germany)⁸³. The employment in forestry represents 0.1% of total employment (or 27 600 jobs), below the EU average of 0.2%84. The sector has 60 000 forest enterprises and accounts for 1.1% of the national GDP. Forestry sector mostly consists of microenterprises, which have difficulties for investing taking into account the costs of the equipment. Forestry activities are not evenly distributed across the country, and 4 regions (Occitanie, Nouvelle Aquitaine, Auvergne-Rhône Alpes and Pays de la Loire) account for 80% of wood sawing potential. About three quarters of the forests are private (13% of owners concentrate 80% of the surface) and their ownership is quite fragmented (over 3 million of forest owners, 2.2 million own less 1 hectare). This fragmented structure is an obstacle for wood mobilisation and the production potential is far from being fully exploited, while the sector has a long-lasting trade deficit.

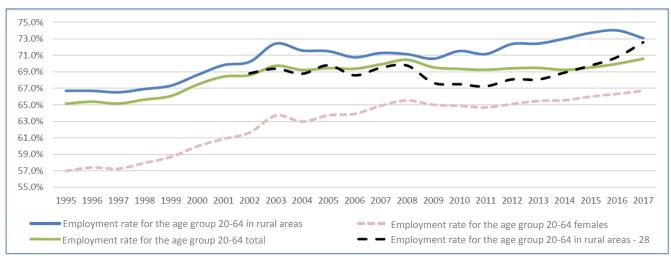
Sustainable management of forests holds a lot of potential: despite the significant forest coverage, a large part of French forests are not actively managed, which may hinder the role of forests as carbon sinks, their resilience to weather extremes, and the provision of other goods and services.

The bioeconomy, which encompasses all activities linked to the production, use and transformation of bio-resources, offers a potential source of activities and jobs for rural areas. The overall bioeconomy industry represents nearly two million direct jobs in France, of which around 100 000 have been created over the past 20 years in different areas (neomaterials, plant chemistry, biofuels)⁸⁵. The turnover accounts for EUR 330 990 million, most of which belong to the bio-based textiles (56%) and agriculture (21%)⁸⁶. France exceeds the EU average in terms of turnover per person employed in the bioeconomy sector (EUR 215 997 vs. EUR 119 000)⁸⁷. Bioeconomy hosts a great potential for employment creation by 2030 (estimated at 90 000 jobs)⁸⁸.

Access to health and social services is generally lower in rural areas, which is an obstacle to keep and set population in these areas. However, some rural areas have potential to host services for elderly population and to attract urban people provided these areas have the basic social services and good connectivity⁸⁹.

The LEADER measure has enabled the emergence and support of territorial projects that implement actions based on integrated, targeted and bottom-up local strategies, with positive effects on local development, financial engineering and coordination of rural areas. Within the 2014-2020 rural development programs, French regions selected 100 additional local action groups (LAGs) compared to the previous programming period to reach 340 LAGs throughout France (covering 27 000 municipalities and 26 million inhabitants or 67.5% of the total rural population ⁹⁰). In addition, the envelope dedicated to Leader, EUR 713 million from EAFRD (equivalent to 6% of the overall budget), represents almost a 2.5-fold increase compared to the previous period ⁹¹.

Evolution of employment rate in rural areas in France



Source: EUROSTAT [lfst r ergau]

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.

Fighting antimicrobial resistance (AMR) is a priority area for the Farm to Fork strategy. In France all veterinary medicinal products (VMPs) are available on prescription only. VMPs are distributed mainly through wholesalers to veterinarians and pharmacists. Wholesalers obtain the VMPs from marketing authorisation holders. A 2014 law makes the provision of data on antimicrobial sales to the competent authority mandatory⁹². The tenth ESVAC Report shows that the sales of veterinary antimicrobial agents in France for 2018 (64.2 mg/PCU) are well below the EU average of 118.3 mg/PCU⁹³. The challenge for France will be to maintain and further improve this positive indicator.

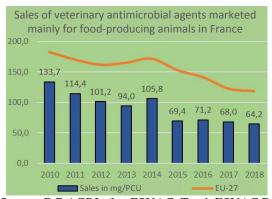
Animal welfare is another priority area for the Farm to Fork strategy, which is absolutely vital for the sustainability of food systems. In relation to animal welfare, there are three main issues in France. The tail docking of pigs is a routine practice, although this practice is prohibited as a routine measure by EU rules. The percentage of pigs reared with intact tails has barely changed since 2016 and conditions on farm must improve if the number of tail-docked pigs is to start to decrease. As pointed out since 2012, cages for laying hens also do not meet all the necessary requirements of Directive 1999/74/EC. This is having an important impact as the country has several millions of laying hens are still kept in cages. Finally, the approval and inspection of livestock vessels does not guarantee the compliance of the ship with the requirements in Regulation 1/2005 and therefore does not adequately minimise the risks for the welfare of the animals. It is critical that France devotes adequate resources to implementing EU rules in the above areas ⁹⁴. France will need to make significant efforts to comply with these rules.

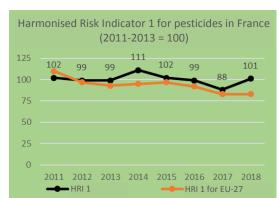
Ensuring the safety of pesticides and controls on their use is integral to sustainable food production. France is currently implementing its second National Action Plan (Ecophyto II), which outlines a very ambitious goal of significantly reducing pesticide use within a relatively short timeframe. The overall objective of Ecophyto is to reduce pesticide use (measured by the number of doses applied) by 25% by 2020 and by 50% by 2025, without negatively affecting farm incomes. However, the quantity of pesticides sold in France has increased 39% from 2011-2018⁹⁵. Against this backdrop, a further update of Ecophyto (Ecophyto II+) was decided⁹⁶. The Harmonised risk indicator 1 for pesticides show a decrease

between 2014 and 2017, followed by an increase in 2018. Category 1 (low-risk substances) shows a big increase while categories 2 and 3 remain stable. HRI2 shows a slight decrease of the use of most risky products by derogation from the standard prohibition⁹⁷. There are currently three main issues in France as regards the implementation of the Directive on the sustainable use of pesticides. All pesticide application equipment in use, including specific items other than sprayers, needs to be inspected without delay. Effective controls on the implementation of the general principles of integrated pest management need also to be in place for all types of professional users of plant protection products. Finally, additional measures to promote low pesticide-input pest management are needed⁹⁸. The challenge for France will be to make significant efforts to comply with the Farm to Fork targets.

Several determinants are relevant and can also interact with each other regarding human health. For example, diet, including alcohol consumption, tobacco, sedentarity, physical inactivity and corpulence can play a key role. While France had one of the lowest obesity rates in Europe around the year 2000, a significant part of the French population is now overweight (half of adults) or obese (one in six adults), which is associated with an increased risk of morbidity and mortality. Fruit and vegetable consumption remain insufficient: only 40% of the population have fruit and vegetable consumption in line with the recommendations⁹⁹. Many of the health determinants such as nutrition, physical activity and tobacco consumption are also staggered according to social gradients. In adulthood, the proportion of people in the least favoured quintile that meets the target of the National Nutrition Health Consumer Health Programme of at least five fruit and vegetables per day is 11% compared to 18% in the most favoured quintile. France has a high estimated consumption of red meat 100. Efforts should focus on shifting towards healthy sustainable diets, in line with national recommendations 101, in order to contribute to reducing rates of overweight, obesity and the incidence of non-communicable diseases while seeking to simultaneously improve the overall environmental impact of the food system. This would include moving to a more plant based diet with less red meat and more fruits and vegetables, whole grains, legumes, nuts and seeds.

French Waste Prevention Programme (2014-2020)¹⁰² could give more attention to food loss and waste occurring at the primary production level and the early stages of the supply chain. It is expected that it will be addressed in the upcoming national food waste prevention programme, as required by Article 29(2a) of the Waste Framework Directive 2008/98/EC.





Source: DG AGRI after ESVAC, Tenth ESVAC Report (2020)¹⁰³

2.10 Cross-cutting objective on knowledge, innovation and digitalisation

The functioning of the Agricultural Knowledge and Innovation Systems (AKIS) ¹⁰⁵ in France in 2014 has been characterised as strong and relatively well integrated. However, under the programming period 2014-2020¹⁰⁷, France currently only programmes 2.5% of its total rural development envelope (EAFRD) under knowledge transfer and information actions, advisory services, farm management and farm relief services and Cooperation. This is under the EU-28 average of 3.3%. The France EAFRD budget allocated to these three measures has decreased since the first adoption of the RDP (3.3%).

Concerning the flows from research to practice and back, according to the European Innovation Scoreboard 2019, France Innovation Performance can characterise as a Strong Innovator. More than 14 200 organisations are involved in H2020 projects in France (11.03% of EU total) and receive almost EUR 6.3 billion in project funding (12.28% of EU total). At the same time the involvement of agricultural businesses remain low.

In 2018, 2 074 farmers participated in training under the Rural Development Programmes ¹⁰⁸. Nevertheless, there is a clear demand for more organised on-farm demonstrations in France, where agriculture is regionally based.

According to the French National Rural Network, on 1 July 2020, 240 Operational Groups under the European Innovation Partnership (EIP-AGRI) were selected out of which 115 OG projects are advanced or finished. These OG involve more than 552 partners, including Research Institutes (112), Advisors (152), SMEs (34), Farm holders (26), NGOs (18), and other partners (210). The themes covered by the OG are essentially farming/forestry competitiveness, supply chain, marketing and consumption, Plant production and horticulture, food quality / processing and nutrition, pest/disease control and animal husbandry and welfare 109. Innovation support services for EIP OGs are generally missing.

The French rural network has the objective of fostering innovation in agriculture, food production, forestry and rural areas¹¹⁰. Its communication tools are numerous including newsletters, publicity kit, audio-visual library, and social networks. However, innovation networking could be further developed to promote more knowledge flows between regions and with other member states as well as the overall dissemination of innovative results to farmers at large.

In 2016, 36.5% of farm managers in France had practical experience only, while 34.9% of farm managers completed full agricultural training¹¹¹. Farm managers with full training in France are well above the EU average of 8.9% of total managers. The highest percentage of fully trained farm managers in France is within young farmers (less than 35 years old) with 71.7% of them being fully trained. The share of managers with basic agricultural training is also higher to the level in the EU.

In addition, although the number of farm managers who attained basic agricultural training is decreasing since 2013, this number is still higher in France than in the EU. Moreover, the percentage of farm managers who attained full agricultural training continue to increase since 2010.

Regarding connectivity as a whole, France is close to the EU average. However, broadband coverage of rural areas remains a challenge as although almost all French rural households are covered by a fixed network, more than half of them are not covered by any NGA technology. The broadband coverage is low compared to other member states and uneven across the territory. In 2019, 62% of households have a fast broadband access compared to

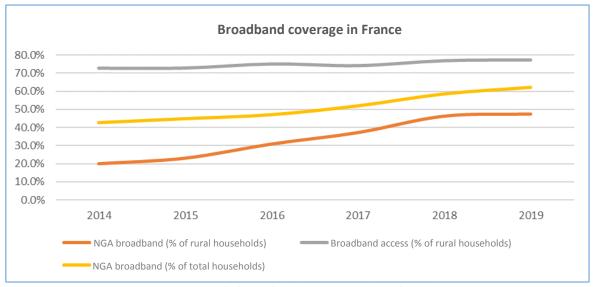
86% for the EU. However, broadband access is improving (+10% more between 2017 and 2019). 112

There are 13 fully operational Digital Innovation Hubs in France related to agriculture, hunting and forestry, in a total of 142 hubs amongst EU members. 113 53.8% of people in rural areas have basic digital skills which is slightly above the EU average (49.3%). These figures remain stable since 2015.

France has not yet opted for the use of satellite-based means to monitor CAP implementation¹¹⁴ but French governmental organisations are currently participating in EU projects dealing with the uptake of new technologies for the modernisation of CAP administrations, CAP controls and interactions with farmers. In this respect, a shift of France towards the use of satellite-based means to monitor CAP implementation could significantly contribute to the digital transition of the French farming sector and to a broader use of satellite observation, precision farming, geolocation services, autonomous farm machinery, drones.



Source: EUROSTAT [aact_eaa04] and [aact_ali01].



Source: European Commission, Digital Economy and Society Index (DESI) 2020.

- ¹ European Commission. Report from the Commission to the European Parliament and the Council on the progress made on the implementation of Directive (EU) 2016/2284 on the reduction of national emissions of certain atmospheric pollutants, COM(2020) 266 final, 2020.
- ² "France relance" https://www.gouvernement.fr/france-relance
- European Commission. *CAP impact indicator I.01 Agricultural entrepreneurial income*. Based on EUROSTAT [aact eaa04], [aact ali01] and [aact eaa06].
- ⁴ European Commission. *CAP context indicator C.24 Agricultural training of farm managers*. Based on EUROSTAT [ef_mp_training] and *CAP context indicator C.26 Agricultural entrepreneurial income*. Based on EUROSTAT [aact_eaa04] and [aact_ali01].
- ⁵ European Commission. <u>CAP indicators Data explorer</u>. CAP Result indicator RPI_01 Share of direct support in agricultural income.
- European Commission. *CAP context indicator C.25 Agricultural factor income*. Based on EUROSTAT [aact_eaa04], [aact_ali01] and [aact_eaa06].
- Clearance of Accounts Trailing System data for claim year 2018
- 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) and 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)
- ⁹ Ministère de l'Agriculture et de l'Alimentation, *Projet de diagnostic en vue du futur Plan Stratégique National de la PAC post 2020*, OS1, May 2020.
- Ministère de l'Agriculture et de l'Alimentation, *Projet de diagnostic en vue du futur Plan Stratégique National de la PAC post 2020*, OS1, May 2020
- Directorate General for Agriculture and Rural Development. *CAP context indicators C.25 Agricultural factor income and CAP 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.
- Ministère de l'Agriculture et de l'Alimentation, *Projet de diagnostic en vue du futur Plan Stratégique National de la PAC post 2020*, May 2020.
- ¹³ European Commission. CAP context indicator C.18 Agricultural area. Based on EUROSTAT [apro_cpsh1].
- European Commission. *CAP context indicator C.21 Livestock units*. Based on EUROSTAT [ef_lsk_main], [ef_lsk_poultry], [ef_lsk_bovine] and [ef_lus_main].
- Ministère de l'Agriculture et de l'Alimentation, *Projet de diagnostic en vue du futur Plan Stratégique National de la PAC post 2020*, May 2020.
- European Commission. *CAP context indicator C.27 Total factor productivity*. Based on EUROSTAT [aact_eaa05], [aact_eaa04], [aact_ali01], [apro_cpsh1] and [ef_mptenure] and FADN.
- European Commission. *CAP context indicator C.14 Labour productivity in agriculture*. Based on EUROSTAT [aact_eaa01] and [aact_ali01]
- Ministère de l'Agriculture et de l'Alimentation, *Projet de diagnostic en vue du futur Plan Stratégique National de la PAC post 2020*, May 2020.
- Ministère de l'Agriculture et de l'Alimentation, *Projet de diagnostic en vue du futur Plan Stratégique National de la PAC post 2020*, May 2020.
- European Commission, *Study on financial needs in the agriculture and agri-food sectors*, June 2020, https://www.fi-compass.eu/publication/publications/financial-needs-agriculture-and-agri-food-sectors-france, June 2020.
- ²¹ fi-compass report FR 2020.
- European Commission. *CAP context indicator C.27 Total factor productivity*. Based on EUROSTAT [aact_eaa05], [aact_eaa04], [aact_ali01], [apro_cpsh1] and [ef_mptenure] and FADN
- ²³ EUROSTAT [<u>aact eaa01</u>] Economic accounts for agriculture
- Ministère de l'Agriculture et de l'Alimentation, *Projet de diagnostic en vue du futur Plan Stratégique National de la PAC post 2020*, May 2020.
- Loi n° 2018-938 du 30 octobre 2018 pour l'équilibre des relations commerciales dans le secteur agricole et alimentaire et une alimentation saine, durable et accessible à tous.
- Ministère de l'Agriculture et de l'Alimentation, *Projet de diagnostic en vue du futur Plan Stratégique National de la PAC post 2020*, OS8 May 2020.
- https://ec.europa.eu/info/sites/info/files/food-farming-fisheries/key_policies/documents/recognisedibos_en.pdf

- Ministère de l'Agriculture et de l'Alimentation, *Projet de diagnostic en vue du futur Plan Stratégique National de la PAC post 2020*, OS8, May 2020.
- European Commission, *Study on economic value of EU quality schemes, geographical indications (GIs) and traditional specialities guaranteed (TSGs)*, Final report, May 2020. https://op.europa.eu/en/publication-detail/-/publication/a7281794-7ebe-11ea-aea8-01aa75ed71a1
- European Commission. *CAP context indicator C.19 Agricultural area under organic farming*. Based on EUROSTAT [org_cropar_h1] and [org_cropar].
- 31 EUROSTAT. [org cropar]
- ³² Agreste. [esea16 4]
- European Commission. <u>CAP indicators Data explorer</u>. CAP Result indicator RPI_03 Value for primary producers in the food chain.
- European Commission. *CAP context indicator C.45 Emissions from agriculture*. Based on EUROSTAT [env_air_emis], original source European Environmental Agency (UNFCC_v22).
- Ministère de l'Agriculture et de l'Alimentation, *Projet de diagnostic en vue du futur Plan Stratégique National de la PAC post 2020*, May 2020.
- European Commission. *CAP context indicator C.18 Agricultural area*. Based on EUROSTAT [apro_cpsh1], *CAP context indicator C.21 Livestock units*. Based on EUROSTAT [ef_lsk_main], [ef_lsk_poultry], [ef_lsk_bovine] and [ef_lus_main] and *CAP context indicator C.45 Emissions from agriculture*. Based on EUROSTAT [env_air_emis], original source European Environmental Agency (UNFCC_v22).
- Ministère de l'Agriculture et de l'Alimentation, *Projet de diagnostic en vue du futur Plan Stratégique National de la PAC post 2020*, May 2020.
- 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.
- European Commission. *CAP context indicator C.44 Energy use in agriculture, forestry and food industry.* Based on EUROSTAT [nrg_bal_s].
- European Commission. *CAP context indicator C.45 Emissions from agriculture*. Based on EUROSTAT [env air emis], original source European Environmental Agency (UNFCC v22).
- Ministère de l'Agriculture et de l'Alimentation, *Projet de diagnostic en vue du futur Plan Stratégique National de la PAC post 2020*, May 2020.
- European Commission. Commission Staff Working Document Second River Basin Management Plans. SWD(2019) 41 final.
- European Commission. *CAP context indicator C.40 Water quality*. Based on EUROSTAT [aei_pr_gnb] and European Environmental Agency as in <u>Waterbase Water Quality</u>, <u>CSI020</u>, based on data reported to EIONET.
- Ministère de l'Agriculture et de l'Alimentation, *Projet de diagnostic en vue du futur Plan Stratégique National de la PAC post 2020*, May 2020.
- European Commission. *CAP context indicator C.40 Water quality*. Based on EUROSTAT [aei pr gnb] and European Environmental Agency as in <u>Waterbase Water Quality</u>, <u>CSI020</u>, based on data reported to EIONET.
- ⁴⁶ Ministère de l'Agriculture et de l'Alimentation, *Projet de diagnostic en vue du futur Plan Stratégique National de la PAC post 2020*, May 2020.
- Ministère de l'Agriculture et de l'Alimentation, Projet de diagnostic en vue du futur Plan Stratégique National de la PAC post 2020, May 2020.
- ⁴⁸ European Commission. Commission Staff Working Document Second River Basin Management Plans. SWD(2019) 41 final.
- ⁴⁹ Ministère de l'Agriculture et de l'Alimentation, *Projet de diagnostic en vue du futur Plan Stratégique National de la PAC post 2020*, May 2020.
- European Commission. *CAP context indicator C.42 Soil erosion by water*. Original source: Joint Research Center.
- European Commission. CAP context indicator C.40 Water quality. Based on EUROSTAT [aei_pr_gnb]
- ⁵² European Commission. *CAP context indicator C.35 Farmland birds index (FBI)*. As in EUROSTAT [env bio2], original source: EBCC, BirdLife, RSPB and CSO.
- European Commission. *CAP context indicator C.34 Natura 2000 areas*. Based on NATURA 2000 Barometer and European Environmental Agency, Corine Land Cover 2018
- European Commission. *CAP context indicator C.36 Conservation status of agricultural habitats*. Original source: European Environmental Agency
- Ministère de l'Agriculture et de l'Alimentation, *Projet de diagnostic en vue du futur Plan Stratégique National de la PAC post 2020*, May 2020.
- ⁵⁶ EUROSTAT [org_cropar]
- European Commission. <u>CAP indicators Data explorer</u>. CAP Result indicator RPI_10 Importance organic farming

- Ministère de l'Agriculture et de l'Alimentation, *Projet de diagnostic en vue du futur Plan Stratégique National de la PAC post 2020*, OS5, May 2020.
- Ministère de l'Agriculture et de l'Alimentation, *Projet de diagnostic en vue du futur Plan Stratégique National de la PAC post 2020*, May 2020.
- Ministère de l'Agriculture et de l'Alimentation, *Projet de diagnostic en vue du futur Plan Stratégique National de la PAC post 2020*, May 2020.
- European Commission. *CAP context indicator C.19 Agricultural area under organic farming*. Based on EUROSTAT [org cropar h1] and [org cropar]
- Directorate General for Agriculture and Rural Development. Based on EUROSTAT for land laying fallow and Joint Research Center based on LUCAS survey for estimation of landscape elements.
- European Commission. *CAP context indicator C.23 Age structure of farm managers*. Based on EUROSTAT [ef_m_farmang].
- Agreste, Recensements agricoles 2000 et 2010, Enquête sur la structure des exploitations agricoles 2016, June 2018.
- European Commission. *CAP context indicator C.24 Agricultural training of farm managers*. Based on EUROSTAT [ef_mp_training].
- ⁶⁶ European Court of Auditors, EU support to young farmers should be better targeted to foster effective generational renewal, Special report n°10, 2017.
- European Commission, Study on financial needs in the agriculture and agri-food sectors, fi-compass, June 2020.
- European Commission. *CAP context indicator C.04 Population density*. Based on EUROSTAT [demo_r_d3dens] and [urt_d3dens].
- ⁶⁹ European Commission. CAP context indicator C.01 Population. Based on EUROSTAT [demo r gind3].
- Ministère de l'Agriculture et de l'Alimentation, *Projet de diagnostic en vue du futur Plan Stratégique National de la PAC post 2020*, May 2020.
- Furopean Commission. *CAP context indicator C.03 Territory*. Based on EUROSTAT [reg_area3] and [urt_d3area].
- European Commission. *CAP context indicator C.05 Employment rate*. Based on EUROSTAT [lfst r ergau].
- European Commission. CAP context indicator C.05 Employment rate. Based on EUROSTAT [lfst r ergau].
- ⁷⁴ European Commission. *CAP context indicator C.07 Unemployment rate*. Based on EUROSTAT [lfst r_lfu3rt].
- European Commission. *CAP context indicator C.11 Structure of the employment*. Based on EUROSTAT [nama 10r 3empers].
- Ministère de l'Agriculture et de l'Alimentation, *Projet de diagnostic en vue du futur Plan Stratégique National de la PAC post 2020*, May 2020.
- ⁷⁷ EUROSTAT. [ef m farmang].
- Ministère de l'Agriculture et de l'Alimentation, *Projet de diagnostic en vue du futur Plan Stratégique National de la PAC post 2020*, May 2020.
- ⁷⁹ European Commission. *CAP context indicator C.10 Structure of the economy*. Based on EUROSTAT [nama_10r_3gva].
- European Commission. *CAP context indicator C.08 GDP per capita*. Based on EUROSTAT [nama 10r 3gdp] and [nama 10r 3popgdp].
- European Commission. CAP context indicator C.09 Poverty rate. Based on EUROSTAT [ilc peps11].
- FAO. Global Forest Resources Assessment. 2020. https://fraplatform.herokuapp.com/AUT/assessment/fra2020/extentOfForest/.
- EUROSTAT. [nama 10 a64], [for eco cp] and [for area].
- European Commission. *CAP context indicator C.13 Employment by economic activity*. Based on EUROSTAT [lfst_r_lfe2en2].
- Ministère de l'Agriculture et de l'Alimentation, *Projet de diagnostic en vue du futur Plan Stratégique National de la PAC post 2020*, May 2020.
- European Commission. *CAP context indicator C.41*, *Soil organic matter in arable land.* Joint Research Center (JRC) based on LUCAS Land Use Survey 2015.
- Ronzon, Tévécia; Piotrowski, Stephan; M'barek, Robert; Carus, Michael; Tamošiūnas, Saulius (2020): *Jobs and wealth in the EU bioeconomy / JRC Bioeconomics*. European Commission, Joint Research Centre (JRC) [Dataset] PID: http://data.europa.eu/89h/7d7d5481-2d02-4b36-8e79-697b04fa4278
- Ministère de l'Agriculture et de l'Alimentation, *Projet de diagnostic en vue du futur Plan Stratégique National de la PAC post 2020*, May 2020.
- Ministère de l'Agriculture et de l'Alimentation, *Projet de diagnostic en vue du futur Plan Stratégique National de la PAC post 2020*, OS8, May 2020.
- ⁹⁰ European Commission, Annual implementation reports, 2017.

- Ministère de l'Agriculture et de l'Alimentation, Projet de diagnostic en vue du futur Plan Stratégique National de la PAC post 2020, May 2020.
- 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.
- 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.
- ⁹⁴ Letter Commissioner Kyriakides to FR (Ares(2020)2643693 20/05/2020)
- ⁹⁵ EUROSTAT. [aei_fm_salpest09].
- European Commission, Directorate-General for Health and Food Safety, Final Report of an Audit carried out in France from 29 May 2018 to 08 June 2018 in order to Evaluate the Implementation of Measures to Achieve the Sustainable Use of Pesticides, 2018. https://ec.europa.eu/food/audits-analysis/audit reports/details.cfm?rep_id=4106
- Ministère de l'Agriculture et de l'Alimentation, Réduction des pesticides : les indicateurs de risque harmonisés établis au niveau européen, September 2020. https://agriculture.gouv.fr/reduction-des-pesticides-les-indicateurs-de-risque-harmonises-etablis-au-niveau-europeen
- ⁹⁸ Letter Commissioner Kyriakides to FR (Ares(2020)2643693 20/05/2020)
- Direction de la recherche, des études, de l'évaluation et des statistiques and Santé publique France, *L'état de santé de la population française* rapport 2017 https://drees.solidarites-sante.gouv.fr/IMG/pdf/synthese-2.pdf
- defined as beef, lamb and pork, 191,20 g/per capita/d, net of waste in the EU 2010, GBD study 2017 and M. Springmann
- Ministère des Solidarités et de la Santé, *Programme National Nutrition et Santé* 2019-2013 https://solidarites-sante.gouv.fr/IMG/pdf/pnns4_2019-2023.pdf
- Agence de la Transition Ecologique (ADEME), *Programme national de prévention des déchets 2014–2020* http://www.developpement-durable.gouv.fr/IMG/pdf/Programme national prevention dechets 2014-2020.pdf
- 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.
- European Commission. Harmonised Risk Indicator for pesticides (HRI 1), by group of active substance. As in EUROSTAT [SDG 02 51]
- Directorate-General for Agriculture and Rural Development. *Preparing for Future AKIS in Europe, 4th Report of the Strategic Working Group on Agricultural Knowledge and Innovation Systems (AKIS)*, 2019.
- Knierim Andrea, Prager Katrin, Agricultural Knowledge and Information Systems in Europe: Weak or strong, fragmented or integrated?, July 2015.
- Member state notifications to the Directorate general for Agriculture and Rural Development based on adopted versions of the Rural Development Programmes up to July 2019.
- European Commission. <u>CAP Indicator Data explorer</u>. CAP Output indicator OIR_12 Number of participants in trainings.
- https://ec.europa.eu/eip/agriculture/en/about/operational-groups
- Réseau Rural Français, Le Partenariat Européen Pour L'innovation Agri https://www.reseaurural.fr/le-partenariat-europeen-pour-linnovation-agri and European Network for Rural Development (ENRD), Y5 RDP Screening on NRN programming and action plans Working Document Final version, January 2020 https://enrd.ec.europa.eu/sites/enrd/files/y5_rdp_screening_nrns_summary_report.pdf
- European Commission. *CAP context indicator C.24 Agricultural training of farm managers*. Based on EUROSTAT [ef mp training].
- European Commission, Digital Economy and Society Index (DESI) 2020.
- European Commission, *Digital Innovation Hubs*. 2020 https://s3platform.jrc.ec.europa.eu/digital-innovation-hubs-tool
- Directorate-General for Agriculture and Rural Development, Internal information resulting of notification from MS and/or informal exchanges with MS.