



Rialtas na hÉireann
Government of Ireland

Ireland's Needs Assessment

Preparations for Ireland's CAP Strategic Plan 2023-2027

Prepared by Department of Agriculture, Food and the Marine.

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Introduction

This Needs Assessment, undertaken as part of the development of Ireland's CAP Strategic Plan 2023-2027 (CSP), aims to identify and prioritise the high-level needs of the Irish agri-food sector. The assessment is based on the evidence provided in Ireland's SWOT Analysis, feedback provided by stakeholders, and the recommendations provided by the European Commission with regards Ireland's CSP. A total of thirty-seven needs have been identified across the nine specific objectives and one cross-cutting objective of the Common Agricultural Policy (CAP) 2023-2027. In addition, four general needs have been identified, which are considered relevant to all objectives. The needs identified are prioritised in order of importance under each objective. It is intended that the needs identified in this assessment will form the basis of the intervention design process, and each intervention implemented during the 2023-2027 programming period will focus on addressing at least one of the needs identified. Where a need will not be addressed by the CAP, this has been identified and alternative means of addressing the need (outside of the CAP budget) are included.

Objective 1: support viable farm income and resilience across the Union to enhance food security

Obj1.N1: Support family farm income and address income disparities between agriculture and other sectors of the economy; and between agri-food systems

According to the SWOT analysis, the Irish agricultural sector directly employed 97,900 people in 2019 and total labour productivity in this sector was high. However, despite high levels of productivity, employees in this sector have low-income levels in compared to other sectors of the economy. As a result of low-income levels, farm households rely heavily on Direct Payments and off-farm income sources to remain viable. The SWOT further noted that average income levels differ significantly across agricultural systems. Dairy farms receive the highest average income; and livestock farmers (beef and sheep) earn the lowest. The gap in income between farming and other sectors of the economy; as well as the difference in income levels across farming systems present challenges in relation to ensuring the resilience of the agri-food sector. low-income levels limit the viability of many farms. In addition, low-income levels act as a deterrent to new entrants and young farmers considering a career in agriculture, which impacts the overall sustainability of the agri-food sector.

Obj1.N2: Support farmers facing natural and other constraints to maintain a viable farm income, maintain the landscape and protect against the abandonment of agricultural land

The SWOT analysis found that Direct Payments are a valuable source of income support for all farmers across the agri-food sector; but noted that these payments are of particular importance to farms situated in areas of natural and other specific constraints. In Ireland, 75% of Utilised Agricultural Area were situated in areas of natural constraint in 2019, the 7th highest of all EU-27 countries. Without direct support, farming in these areas may not be viable and this could lead to the abandonment of agricultural land which would damage the rural economy and the future viability of the agri-food sector. The SWOT further noted that High Nature Value farming occurs most frequently in areas that are mountainous, or in areas where natural constraints prevent intensification; and that grazing on these agricultural areas can be an important component of maintaining certain habitats. Rewarding farmers for wider environmental services, such as carbon sequestration and biodiversity on their farms is necessary to ensure the continued viability of these farms.

Obj1.N3: Support coupled income support for protein crops to encourage an increase in the domestic production of protein crops

The SWOT Analysis found that Ireland has a reliance on imported feedstuffs, particularly high protein feed materials of which there is a significant national deficit. Therefore, it is important that Ireland reduces this reliance by increasing the domestic production of protein crops. The SWOT analysis also highlighted the need to support family farm income and address income disparities between agri-food systems, with dairy farms recording the highest average income levels at €66,828 in 2019, compared to €32,700 for tillage farms. Coupled income support to encourage the production of such protein crops by the tillage sector, is justified due to high variable costs and low gross margins for such protein crops. The SWOT analysis also points to the environmental credentials of the tillage sector and identifies the climate action commitment to increase the area under tillage production above the current area of 300,000 hectares by 2030, producing more native grown grains and legumes for the livestock industry. Increasing the domestic production of protein crops which make up a proportion of animal feed rations will ultimately reduce Ireland's reliance on these imported feed materials, increasing Ireland's self-sufficiency and improving the competitiveness and sustainability of the agri-food sector in Ireland.

Obj1.N4: Encourage farm diversification to improve the resilience of the agri-food sector

Farms in Ireland have become increasingly specialised towards livestock production (particularly beef and dairy), as a result of increases in demand for these food products. Ireland's temperate climate is particularly conducive for grass-based livestock production systems. The impact of market volatility, disease outbreak, climate change and long-term changes in consumer behaviour carry a higher risk for these specialised farmers. Diversification could mitigate against certain sector specific risks. Diversification is also seen as a climate change adaptation tool to reduce the expected impacts of severe weather events. Furthermore, diversification from specialised livestock production could also result in lower carbon intensity farming, which would be beneficial to the climate and the natural environment. Many opportunities exist to diversify farm enterprises and ensure the overall sustainability of the agri-food sector. These opportunities include diversification towards organic production, plant-based food production, protein crop production, production of bio-based products/ small scale biorefining, agro-forestry and agri-tourism. However, the SWOT analysis identified a low level of interest amongst farmers to diversify their farm enterprise. As a result, farmers may need further education and encouragement to diversify their farm enterprise.

Ag Climatise

Action 13: Explore all options in relation to land use diversification

Obj1.N5: Increase awareness of risk management tools and encourage financial planning to improve resilience

The SWOT analysis highlighted that there is insufficient adoption of risk management tools in Ireland, despite high uncertainty in the agri-food sector, with agricultural income susceptible to considerable fluctuations arising from the impact of national and international economic developments and climate change. The SWOT analysis noted that Ad-hoc schemes have been frequently used to respond to weather related crises and other crises in the sector including, for example, fodder shortages. However, the SWOT analysis also highlighted that there is low demand for risk management tools in Ireland. The current risk management framework in Ireland includes nationally funded measures, such as loan schemes and Income Averaging under the taxation system; and CAP supports, such as income supports, financial management training through the Knowledge Transfer Programme and empowerment through participation in Producer Organisations. The SWOT analysis highlighted that there is an opportunity to increase the knowledge base of farmers on risk management tools and financial planning to improve on farm resilience.

Objective 2: enhance market orientation and increase competitiveness, including greater focus on research, technology and digitalisation;

Obj2.N1: Increase efficiency and competitiveness through on farm investment and the adoption of new technologies

The SWOT analysis highlighted an overall positive investment dynamic in the agricultural sector with many investments in buildings, machinery and land improvements. Additionally, Gross Fixed Capital Formation in agriculture has been increasing since 2012. The SWOT analysis also highlighted that there are low levels of indebtedness on Irish farms. However, an overall decrease in lending to the agricultural sector, particularly in relation to long and medium-term loans, has limited the ability of some farmers to invest further. National initiatives, such as the Future Growth Loan Scheme, supports strategic long-term capital investment by providing competitively priced loan instruments under favourable terms. The SWOT analysis further found that Irish farmers have been slow in adopting digital technologies and that there is a need to encourage the greater use of digital technologies, such as precision farming, in order to reduce input costs and increase efficiency; as well as to support the efficient and sustainable use of natural resources and protection of the environment (biodiversity, carbon and water). It is important to build on the gains already achieved and encourage the further uptake of new technologies on Irish farms.

Obj2.N2: Expand and diversify into new markets

In the SWOT analysis, Ireland's reliance on the UK market, in particular for horticulture, prepared consumer foods and beef produce, was noted as a weakness, particularly in light of Brexit. It was also highlighted that the changing nature of the trading environment and any changes made to the cost or price structure will impact the competitiveness of those sectors exporting to the UK. As a result, it is important that the Irish agri-food sector expand and diversify into new and existing markets. Already there has been a significant increase in the value of exports to Africa, the EU-27 and to Asia; and this trend must continue. In addition, the Irish agri-food sector must aim to meet changing consumer demands, particularly the increase in demand for sustainably produced food and organic produce. Ireland's grass-based livestock production system is considered highly sustainable and should be promoted as such while the market for sustainably produced food grows.

Objective 3: improve the farmers' position in the value chain;

Obj3.N1: Increase primary producers' share in the value chain

Overall, the SWOT analysis found that despite the Irish agri-food sector having a strong reputation for producing high quality products sustainably, the Irish farmers' share in the value chain is low and is below the EU average. This is partly due to the fact that much of Ireland's agricultural output undergoes substantial transformation and value-added activity post farm gate. It is also partly due to the high level of consolidation in the retail and processing sectors resulting in primary producers having little bargaining power compared to large retailers in the value chain. As primary producers are directly affected by rises in input costs and the costs associated with meeting EU standards, stakeholders felt that prices should better reflect the costs of production so that farmers are sufficiently rewarded for their work and can maintain a fair standard of living. The SWOT analysis noted that there is both a low level of Producer Organisations (POs) in Ireland and a general underutilisation of EU quality labelling, particularly Protected Geographical Indications. Therefore, there is scope to improve the farmers' position in the value chain.

Obj3.N2: Develop and promote local markets supporting locally produced food, including organic produce

The SWOT analysis demonstrated a high level of demand for locally sourced produce by Irish consumers and a resultant growth in Food and Farmers' Markets in the last 15 years. Farmers markets allow for a shortening of the supply chain and allow for farmers to increase their return, thus improving their position in the value chain. The continued promotion of short supply chains and local markets is therefore important. The SWOT analysis further noted growth in the demand for organic food production and therefore the opportunity for Irish producers to increase production of organic produce and expand into this market. The SWOT analysis also noted that organic production tends to be more costly for the producer, but if the extra costs associated with organic production are accurately captured in sales prices and the farmers' position in the value chain is at least maintained, then Irish producers could greatly benefit from entering into this fast-growing market.

Objective 4: contribute to climate change mitigation and adaptation, as well as sustainable energy;

Obj4.N1: Reduce Green House Gases (GHG) emissions from agriculture

As is noted in the SWOT analysis, agriculture contributes the highest share of GHG emissions in Ireland; and GHG emissions from agriculture are increasing, mainly as a result of increasing livestock numbers and fertiliser use. Ireland's Climate Action Amendment Bill 2020 sets out the objective to achieve a 'climate neutral economy' by the end of 2050. This bill requires the government to set a decarbonisation target for each sector, including the agricultural sector. The Ag Climatise roadmap aims to stabilise methane emissions and significantly reduce fertiliser related nitrous oxide emissions, leading to an absolute reduction in the agricultural greenhouse gas inventory by 2030. In order to achieve a reduction in emissions in the agri-food sector, all actors must work towards meeting the ambitious targets outlined in the Climate Action Plan; and achieving the tasks and action points outlined in Ag Climatise.

Ag Climatise

Action 1: Reduce chemical nitrogen use to an absolute maximum of 325,000 tonnes (annually) by 2030, with an interim target of 350,000 tonnes by 2025 including through nutrient management planning, national liming programme for mineral soils, support the use of non-chemical nutrients, low emissions slurry spreading, applying organic manures in the spring, slurry stores covers, incorporation and maintenance of clover (and mixed species) in all grass reseeds and use of leguminous crops.

Action 2: Where chemical fertiliser is applied, promote the use of protected nitrogen products; prohibit the use of unprotected urea by end of 2023; and aim to have 65% of straight Calcium Ammonium Nitrate (CAN) sales as protected urea/protected nitrogen** by 2030.

Action 3: Genotype the entire national herd by 2030 to underpin the development of enhanced dairy and beef breeding programs that help achieve a reduction in our overall GHG output at a national level

Action 4: Maximising production of grazed grass

Action 5: Further enhance animal health strategies to support climate ambitions and environmental sustainability through promotion of sustainable animal health and welfare practices and enhancing food safety and authenticity

Action 10: Increase the area under tillage production above the current area of 300,000 hectares by 2030, producing more native grown grains and legumes for the livestock industry, while further enhancing the environmental credentials of the sector

Action 11: Further enhance carbon credentials of the horticulture sector

Obj4.N2: Improve the protection and management of existing carbon stores, including grasslands and peatlands

As identified in the SWOT analysis, soils can be a carbon sink or emission source depending on changes in land use and soil management. Between 1990 and 2017, the land use, land-use change and forestry sector was identified as being a net source of emissions, due predominantly to the impact of drainage of organic soils. Ireland has the highest percentage of permanent grassland in the EU and peatlands cover a substantial proportion of the national land area. However, the ongoing drainage of organic soils and the high proportion of peatlands in Ireland considered degraded were highlighted as a weakness. Ag Climatise identifies water table manipulation and reduced management intensity as priorities to reduce emissions from these carbon rich soils.

Ag Climatise

Action 15: Reduce the management intensity of at least 40,000ha of peat based agricultural soils to reduce CO₂ loss

Action 16: Protect, enhance, and increase the number of hedgerows on farms

Action 17: Develop a pilot scheme in relation to on-farm carbon trading to reward farmers for the public goods they are providing

Obj4.N3: Increase the carbon sequestration potential of Ireland's forests and woodlands

As noted in the SWOT analysis, one of the key tasks outlined in Ag Climatise is to increase the carbon sequestration and storage potential of the land-use sector. Carbon sequestration contributes to the lowering of CO₂ emissions in the atmosphere and is therefore important in the fight against climate change. Ireland's low level of forest cover is reducing our carbon sequestration potential. Therefore, there is scope to

increase agro-forestry and afforestation rates in order to increase the carbon sequestration of our forests.

Ag Climatise

Action 14: Increase afforestation levels and maximise the contribution of existing forests to climate change mitigation and adaptation

Obj4.N4: Encourage climate adaptation

As noted in the SWOT analysis, climate change will result in changes in soil/air temperatures, changes in rainfall patterns, and increases in extreme weather events in Ireland. These changes could result in water stress for crops and heat stress for animals; ultimately impacting yields and productivity. The occurrence of storms, snow, heatwaves, and drought over the previous few years have highlighted the vulnerability of agriculture to climate change and have demonstrated the need for adaptation. The 2018 fodder crisis, which occurred because of persistent cold and wet weather conditions which limited grass growth, is one example of how changing weather patterns can impact yields and productivity. The overall goal of Ireland's Agriculture, Forest and Seafood Climate Change Sectoral Adaptation Plan is to build resilience to the effects of climate change and weather related events in the agriculture, forest and seafood sector, reduce any negative impacts where possible and take advantage of any opportunities. The SWOT analysis noted the opportunity to enhance adaptation through nature-based solutions which seek to prepare ecosystems for climate change, such as the use of drought-resistant varieties in agriculture, and the rewetting of peatlands; and through the better management of the national forest estate, e.g. choosing tree species and forestry practices less vulnerable to storms. It should also be noted that improved management of biodiversity and water would also support climate change adaptation.

Agriculture, Forest and Seafood Climate Change Sectoral Adaptation Plan

Action 6: Greater integration of adaptation issues into agricultural syllabuses at colleges, third level institutes and CPD courses

Action 7: Up skill farmers, foresters and fishermen to ensure they have the knowledge and tools required to implement climate adaptation practices

Action 8 Continue support for focused climate related research in the agriculture, forest and seafood sector

Obj4.N5: Increase energy efficiencies on farm through the uptake of new technologies and facilitate the production and use of renewable energy sources

As noted in the SWOT analysis, one of the action points under Ag Climatise is to reduce agricultural energy use across all farm systems and deploy renewable energy technologies on farm, particularly on farms which are energy intensive. In order to achieve energy efficiencies on farm, farmers must be encouraged to uptake new energy efficient technologies, such as plate coolers, variable speed drives, solar photovoltaic and heat recovery systems. In relation to the production and use of renewable energy sources, the SWOT analysis highlighted that bio-refineries and anaerobic digestion (AD) plants can utilise a wide variety of feed stocks ranging from food wastes, to animal slurries to specifically grown energy crops such as grass silage. Ireland has a large availability of feedstock and agricultural residues for bio-based products and bio-energy production. However, it was also noted that anaerobic digester development is capital intensive and requires a range of supply and demand supports.

Ag Climatise

Action 18: Generate at least a 20% reduction in agricultural energy use by 2030 across all farms. In addition, generate at least 20% deployment of renewable energy technologies focusing primarily on energy intensive farming systems

Action 19: Double the sustainable production of biomass from forests by 2030 and ensure biomass mobilisation for heat production

Action 20: Engage with stakeholders to maximise the potential opportunities from Anaerobic Digestion for the agriculture sector

Objective 5: foster sustainable development and efficient management of natural resources such as water, soil and air;

Obj5.N1: Improve air quality through the reduction of air pollutants arising from agriculture, particularly ammonia

The SWOT analysis identified agriculture as the primary source of ammonia emissions in Ireland, due primarily to the spreading of animal manures and nitrogen fertilisers on grasslands. Under the National Emissions Ceiling Directive, Ireland has an ammonia target of 107,500 tonnes in 2030. Ireland is currently in breach of its ammonia emissions reduction targets under the NEC Directive and this trend is projected to continue. One of the tasks outlined in Ag Climatise is to reduce ammonia emissions in line with the NEC Directive as the persistent breach of this Directive carries the prospect of enforcement proceedings from the European Commission. Other air pollutants arising from animal manure include methane and nitrous oxide. Ensuring the efficient management of animal manures is essential in order to improve air quality.

Ag Climatise

Action 1: Reduce chemical nitrogen use to an absolute maximum of 325,000 tonnes (annually) by 2030, with an interim target of 350,000 tonnes by 2025

Action 2: Where chemical fertiliser is applied, promote the use of protected nitrogen products

Action 6: Reduce the crude protein content of livestock feeding stuffs to minimise ammonia loss

Obj5.N2: Protect and improve water quality

The SWOT analysis found an overall decrease in water quality across Ireland, resulting in a large number of individual water bodies being at risk of not achieving their water quality objectives under the Water Framework Directive (WFD). The River Basin Management Plan 2022-2027 (RBMP) identifies water bodies at risk of not achieving their water quality objectives under the WFD. Agricultural activity was found to have a negative impact on water quality by being a major source of excess nutrients and sediments in water, allowing for eutrophication. These excess nutrients and sediments originate from either point sources, such as farmyards; or from diffuse sources, such as the spreading of fertilisers and manures. Poor land management was also identified as placing pressure on certain water bodies. One of the key targets outlined in Ag

Climatise is to reduce nutrient losses and improve water quality; and therefore it is important that Ireland addresses pressures from rural diffuse and point sources and improves land management, in order to ensure the efficient management of our waters.

Obj5.N3: Improve soil health

As noted in the SWOT analysis, sub-optimal soil fertility is an issue for the majority of Irish farmers and as a result, Irish farmers tend to use higher levels of fertilizer in order to compensate for sub-optimal soil nutrient levels. This reduces the sustainable development of the agri-food sector because excessive fertiliser use can have negative effects on soil, air and water quality. The SWOT analysis further found that despite soil fertility management techniques being well established in Ireland, the adoption of these techniques by farmers is low. This results in inappropriate management practices being used, ultimately leading to reductions in the functionality, fertility and carbon content of Irish soil. Improving land management and increasing farmers' awareness of soil management techniques is therefore necessary to improve soil health.

Obj5.N4: Increase the number of sustainable farming systems that better utilise and protect natural resources.

The SWOT analysis demonstrated the huge pressure that agriculture is placing on Irelands natural resources and noted that the increase in intensive farming systems in Ireland is placing increasing pressure on these resources. Sustainable farming practices, such as High Nature Value farming, organic farming and biological farming should therefore be encouraged to reduce the pressure placed on these resources and to maintain the production of agricultural products using less inputs.

Objective 6: Contribute to the protection of biodiversity, enhance ecosystem services and preserve habitats and landscapes;

Obj6.N1: Restore, maintain and improve Ireland's habitats and landscapes in order to halt biodiversity decline, including farmland birds and pollinators

The SWOT analysis found that the majority of Ireland's designated habitats and landscapes under the Habitats Directive have unfavourable or declining status. These include Ireland's native woodlands, most Annex 1 grasslands habitats and most peatland and fen habitats. The SWOT analysis further found that 30% of species reported on under the Habitats Directive in Ireland are in bad status, with an ongoing declining trend reported for at least 15% of species. A large proportion of farmland birds are in significant decline and there has been a significant decline in pollinator species also. The greatest pressures impacting habitats relate to agricultural practices, such as over-/under-grazing, land abandonment and agricultural intensification. Ecologically sustainable grazing of upland habitats, including blanket bog, heaths and associated peatland habitats and sustainable land-use management is crucial for the protection of Ireland's designated habitats and protected species. Sectoral approaches to land management are inadequate and improved protection of habitats and species is required. It is essential that Ireland restore and maintain its already deteriorated habitats and landscapes in order to ensure the preservation of species and halt the further decline of biodiversity. The Prioritised Action Framework for Natura 2000 2021-2027 (PAF) identifies a series of actions for NATURA 2000 area in Ireland pursuant to Article 8 of Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (the Habitats Directive). Lastly the SWOT analysis highlighted that only 3.6% of agriculture area (including semi-natural grassland) and 18.1% of forest area (including transitional woodland-shrub) is under the Natura 2000 network. However, it is essential to note that Ireland's obligations under the Habitats and Birds Directives extend beyond the Natura 2000 network and the conservation status of Ireland's habitats and species is also reliant on non-designated land.

Obj6.N2: Maximise the contribution of forestry including the planting of native trees in appropriate locations, safeguarding existing biodiverse habitats.

The SWOT analysis identified Ireland as having the lowest share of forest under protection to preserve biodiversity and safeguard landscapes and specific natural elements in the EU. It further found that no Irish forest is considered free from human interference and that Ireland's native woodlands are considered to be in bad status overall due to small-scale habitat loss and fragmentation, invasive non-native species

and overgrazing by deer. It is therefore necessary to ensure that afforestation – in relation to land use change, species composition and future management – is compatible with the protection and enhancement of local, regional and national biodiversity values, reversing habitat fragmentation (including woodland fragmentation) and avoiding damage to biodiversity-rich habitats and wildlife corridors in the wider landscape. An ecological assessment should be carried out as part of the application process to ensure that protected habitats and species known to be present onsite are not negatively impacted by the process.

Objective 7: attract and sustain young farmers and facilitate business development in rural areas;

Obj7.N1: Effective mechanism to increase the numbers of young farmers, including through income support, encouraging land mobility and succession planning

In the SWOT analysis, acknowledgement was given to the challenge faced by Ireland and the rest of the European Union in managing an overall decline in young farmer numbers and an ageing farming population. Young farm managers and young farmers in general account for an extremely low proportion of total farmers. The SWOT analysis found that young farmers face difficulties accessing land and finance and are deterred from starting a career in agriculture due to these issues and due to lower incomes in agricultural than in other sectors of the economy. As a result, the future viability and sustainability of the agri-food sector is at risk and therefore, it is necessary to create an attractive and sustainable work environment for young farmers where they are provided with the necessary supports to begin a career in farming.

Obj7.N2: Support young farmers in accessing finance so they are in a better position to invest in and develop their farm enterprise

One of the main barriers identified in the SWOT analysis as preventing young farmers from starting a career in agriculture, or developing a farm enterprise, was the difficulty associated with accessing finance. Young farmers in particular face difficulties when trying to access finance due to their inability to provide appropriate collateral to banks and due to their lack of credit history, making them high risk. In addition, many farmers' (particularly non-dairy farmers) repayment capacity is limited due to their low-income expectations. Without access to credit from banks, young farmers are unable to invest in the necessary factors of production to either develop their own farm enterprise or increase the productivity and profitability of their existing farm enterprise; and this hinders their overall growth potential. Although this need cannot be addressed fully under the CAP Strategic Plan, national funding mechanisms, such as the Future Growth Loan Scheme, will also contribute to addressing this important need.

Obj7.N3: Provide opportunities and support to businesses and individuals looking to develop rural enterprises

As noted in the SWOT analysis, rural towns and villages have deteriorated in recent years as more and more people have migrated to urban areas for work and other reasons. As a result, business development in these areas has declined. However, the COVID-19 pandemic has demonstrated the potential for people to work from home

and for individuals to set up new enterprises while remote working in rural areas, provided there is adequate broadband. In addition, new opportunities exist for enterprise development in the forestry sector, the bio-economy and the rural tourism sector. It is important that Ireland continues to support entrepreneurship and business development in these sectors, while also supporting the rollout of the National Broadband Plan.

Objective 8: promote employment, growth, gender equality, social inclusion and local development in rural areas, including bio-economy and sustainable forestry;

Obj8.N1: Maximise the opportunities presented by the circular and bio-economy in rural areas

The SWOT analysis found that rural economies are particularly vulnerable to economic downturns, mainly due to their less diversified economic base. However, opportunities exist to develop and expand the bio-economy and circular economy in rural areas, ultimately boosting employment in these regions and halting rural decline. The SWOT analysis further noted that Ireland is in a particularly favourable position to develop its bio-economy and circular economy because of its abundance of natural advantages, including a temperate climate that is good for growing grass, a growing forestry sector and an extensive coastline. Ag Climatise includes a specific action relating to promoting the development of a sustainable circular bio-economy within the agri-food sector.

Ag Climatise

Action 12: Promote the development of a sustainable circular bioeconomy within the agri-food sector

Obj8.N2: Improve infrastructure and access to services in rural areas including broadband

In the SWOT analysis, it was noted that rural regions in Ireland are sparsely populated and as a result, these regions often lack basic services. The lack of adequate broadband infrastructure in rural Ireland was noted as significantly hindering the development of rural areas. The SWOT analysis found that the availability of ultrafast broadband in rural areas is well below the EU average and that Ireland's fixed broadband is one of the most expensive across the EU. This reduces rural citizens' employment opportunities and hinders business development in rural areas. In addition to an inadequate broadband infrastructure, the SWOT analysis further found that access to basic services, such as supermarkets, pharmacies and General Practice (GP) services is also limited in rural areas as these services tend to be located far away and generally require a car to access. The lack of adequate transport options is therefore also an issue hindering the further development of rural areas.

Obj8.N3: Support sustainable community development in rural areas, in particular to address environmental and climate challenges

The SWOT analysis found that Ireland's approach to community development is bottom-up and is delivered through a wide network of community-based organisations. It also noted that rural Ireland is becoming increasingly diverse and that it is important to embrace this diversity to ensure that future community development recognises the needs of all members of society. Providing opportunities to partake in community development through key national development programmes such as the Social Inclusion and Community Activation programme (SICAP) and the LEADER programme will ensure that all members of society are involved in community development. Building the capacity of communities to address issues such as climate change and the achievement of the Sustainable Development Goals will ensure greater engagement with these challenges, ultimately leading to more sustainable community development. Locally-led agri-environmental schemes, such as the Burren Programme under the current RDP, demonstrate the successful role that such locally-led initiatives can play in encouraging community development and a collective response to environmental, climate and economic challenges.

Obj8.N4: Support the further development of the tourism industry in rural Ireland

As noted in the SWOT analysis, Ireland has a strong tourism industry that contributes significantly to the rural economy by bringing much needed economic and employment opportunities to rural communities. It is therefore essential that Ireland continues to develop its tourism sector in a sustainable way. There are significant opportunities in rural areas to capitalise on Ireland's natural scenery and environment and its built heritage; and to support tourism development. Potential exists to grow the outdoor recreation sector and to promote outdoor activity tourism; as well as to develop Irish food-related experiences. In addition, opportunities exist to develop agri-tourism by providing on-farm accommodation and allowing for educational on-farm visits to see and experience working farms. As a result of the emergence of COVID-19 in Ireland, restrictions were imposed on many businesses in the tourism sector and as a result, both the tourism sector and rural economies in general were adversely impacted. Therefore, there is a strong need to support the tourism industry and assist in its recovery.

Obj8.N5: Improve on farm safety and increase awareness of the importance of farmer well-being

The SWOT analysis found that overall, farmers are less likely to have intimate social relationships compared to others in similar rural settings; and that social isolation is associated with older age and rurality, which is concerning given Ireland's ageing farming population. In relation to physical health, farmers are at high-risk of heart disease and other ailments, indicating the importance of bringing awareness to farmer wellbeing. The SWOT analysis also identified farm safety as an issue on Irish farms and noted that fatalities on farm were higher than in any other occupation and that young and older age categories were most vulnerable, indicating the importance of bringing awareness to farm safety also. There is a strong need to improve farm safety and increase awareness around farmer well-being.

Obj8.N6: Increase opportunities for women in agriculture and business development

The SWOT analysis found that the share of female workers working in the agriculture, forestry and fishing sectors in Ireland is extremely low; and that females in this sector are faced with significant challenges in relation to gender equality. In the Irish agricultural sector, females are significantly underrepresented in management roles and this has a marked effect on female participation in agriculture at all levels. It also creates a perception that farming is a male occupation, and this reduces the likelihood of young females starting a career in agriculture, ultimately limiting the sustainable growth of the agri-food sector. The SWOT analysis also highlighted the opportunities arising from providing supports to rural female entrepreneurs at start up and at an early stage of their business development through the ACORNS Programme and encouraging peer to peer learning for example through Knowledge Transfer groups.

Objective 9: improve the response of EU agriculture to societal demands on food and health, including safe and, nutritious and sustainable food produced in a sustainable way, food waste, as well as animal welfare.

Obj9.N1: Increase the share of Utilisable Agricultural Area (UAA) under Organics

The SWOT analysis identified low levels of organic farming in Ireland, despite the area of land under organic production having expanded significantly in recent years. Currently, Ireland has the third lowest level of agricultural land allocated to organic farming across the EU-27. Although the market for organic produce in Ireland is small, it is expanding; and therefore, opportunities exist for the organic farming sector to expand too. The Review of the Organic Food Sector and Strategy for its Development 2019 – 2025 recognises the opportunities that exist for the Irish Organic Food Sector and provides clear direction for its further development up to 2025. Globally, demand for high quality, safe and sustainable food, including organic produce is increasing. During stakeholder consultations, it was highlighted that any future organic farming scheme would need to be cognisant of latest market demands and environmental benefits of organic production systems.

Ag Climatise

Action 9: Increase the current area under organic production to 350,000 hectares by 2030

Obj9.N2: Continue improving animal health and welfare standards and increasing awareness of antimicrobial (AMR) and anthelmintic resistance

As noted in the SWOT analysis, a number of animal welfare issues prevail in Ireland, such as the tail docking of pigs, the welfare of male dairy calves and lameness in sheep. It is therefore important to improve animal welfare standards in order to ensure that farmed animals are treated appropriately throughout the course of their life. Ensuring high animal health and welfare standards increases overall farm efficiency, contributes to farm sustainability and lowers the environmental impact of agriculture. In relation to AMR, the SWOT analysis identified low levels of understanding of AMR in Ireland and a lack of appropriate on-farm data relating to antibiotic usage. In relation to anthelmintic resistance, the SWOT analysis noted that this type of resistance was widespread on sampled dairy and beef farms. AMR is a very significant risk to human

health, and it is essential that this issue is prioritized. Anthelmintic resistance is a very challenging animal health issue, particularly for Ireland's pasture-based livestock production system.

Ag Climatise

Action 5: Further enhance animal health strategies to support climate ambitions and environmental sustainability through promotion of sustainable animal health and welfare practices and enhancing food safety and authenticity

Obj9.N3: Support the efficient and environmentally responsible use of pesticides and encourage alternative practises

The SWOT analysis noted that sales of Plant Protection Products in Ireland have declined overall since 2011, and that Ireland has been successful in decreasing the risks associated with the use of pesticides. It is therefore essential that Ireland's progress continues; and that Ireland continues to provide support for the efficient and environmentally responsible use of pesticides. The 2nd National Action Plan 2019-2024 for the Sustainable use of Pesticides (2019) has five main areas in which it aims to make improvements:

- Training, Education, Information Exchange and Data Gathering;
- Controls on Application Equipment;
- Controls on Storage, Supply and Disposal of Plant Protection Products;
- Controls on use of Plant Protection Products in Specified Areas;
- Integrated Pest Management (IPM).

Obj9.N4: Promote the consumption of safe, nutritious, sustainable food, (including organics); and increase consumer awareness in relation to the high animal health and welfare standards

In the SWOT analysis it was noted that consumer preferences are changing in relation to how their food is produced, with consumers now taking into account factors relating to the environment and their health, as well as animal welfare. It is also noted that, in Ireland, no system exists to measure farmers' efforts to meet consumer demands in relation to food safety and animal health and welfare, and there is no labelling system in place to inform consumers of these higher standards. Therefore, there is scope to more effectively promote the consumption of these products and to increase consumer awareness of the efforts made by producers to meet consumer demands.

Obj9.N5: Support the assessment of food loss along the food chain

As noted in the SWOT analysis, producing food that goes uneaten is wasteful and leads to the generation of GHG emissions at every stage of the production process. Therefore, reducing food loss and food waste is important in the fight against climate change. However, the SWOT analysis found that in Ireland, data relating to food waste/loss at all levels of the food chain is limited or not available. This is an issue because under the new Waste Framework Directive, Member States are obliged to meet waste reduction targets and to report on food waste at all levels of the food chain. Currently, Ireland is gathering the data required for the first reporting year (2020), to be reported to the Commission in mid-2021, but it is important that a data capturing system is put in place in order to continue monitoring the situation. This need will not be directly addressed through the CAP Strategic Plan. DAFM will continue to collaborate with the Environmental Protection Agency (EPA) and the Central Statistics Office to support the assessment of food loss along the food chain.

Cross-cutting objective: Modernising the sector by fostering and sharing of knowledge, innovation and digitalisation in agriculture and rural areas, and encouraging their uptake;

ObjAKIS.N1: Increase farmers' and advisors' understanding of climate change, air quality, water quality, soil health, animal health and welfare and biodiversity related challenges and opportunities at farm level

The SWOT analysis identified a number of challenges and opportunities facing the Irish agri-food sector and noted the need to increase the knowledge base of primary producers in order to assist them in managing these challenges and opportunities. As the future sustainability of the agri-food sector is dependent on the capacity of farmers to adapt to climate change, it is therefore necessary to increase farmers' understanding of climate change, natural resource depletion and biodiversity loss at farm level so that they can begin implementing sustainable farming practices that will reduce the negative effects associated with these issues. The SWOT analysis noted that there has been very positive feedback in relation to this bottom up approach to addressing environmental issues locally and in collaboration with farmers, advisors, scientists, communities. The SWOT analysis also highlighted the important role that advisors have to play in assisting farmers to address environmental and climatic challenges. Although Ireland has an overall strong AKIS, there is scope to improve the relationship between public and private advisors. During stakeholder consultation, the role of the advisory services and the introduction of a system of Continuous Professional Development for all advisors on issues relating to climate change and the environment (biodiversity, air, soil and water quality) was highlighted.

Ag Climatise

Action 21: Undertake AKIS strategic development

Action 22: Develop a continued professional development strategy for all advisors

ObjAKIS.N2: Review education and training courses and advisory services to reflect new challenges and ambition

As noted in the SWOT analysis, an extensive range of further education, adult and continuing education and higher-level education courses are available for farmers. It is important that these education and training programmes are continuously reviewed in order to ensure the provision of the most up-to-date information; and to ensure that they adequately reflect the needs of farmers. The SWOT analysis noted a need to improve training supports to farmers in relation to digital technologies. In addition, all

farm advisory services should be regularly reviewed to ensure that advisors are providing farmers with the most up to date technological and scientific information developed by research and innovation projects.

ObjAKIS.N3 Ensure consistency of advice across the advisory services by providing for CPD for advisors and for primary producers

The SWOT analysis acknowledged the importance of enabling equal access to training for both public & private advisors. All advisors must undergo training on an ongoing basis to ensure they provide consistent advice to farmers on economic, environmental and social issues. In addition, ensuring all advisors are continuously and appropriately trained will ensure that farmers are better equipped to deal with the changes associated with climate change and digitalisation. Encouraging continuous professional development amongst advisors will ensure consistency of high-quality advice.

ObjAKIS.N4: Continue to provide support for research and innovation in the agri-food sector; and encourage the application of findings at farm level

The SWOT analysis acknowledged that in Ireland, national investment in agricultural research is significant, with a wide range of national supports available for research and innovation in the agri-food sector. As a result, Ireland plays a leading role in innovation and research on climate related support tools. However, potential exists to increase the level of research and innovation across the agri-food sector in order to ease the transition towards a circular, low carbon and resource-efficient bio-economy. The SWOT analysis further noted that, despite high levels of investment in agricultural research and innovation, there is, overall, an insufficient application of agricultural research at farm level. The transfer of agricultural knowledge into practice is difficult to assess due to the limited availability of metrics and this discourages researchers in supporting impact creation beyond dissemination activities. Therefore, it is necessary to encourage greater knowledge transfer of research findings, establish innovation support services, support peer-to-peer learning and dissemination to all Irish advisors.

General Needs: Relevant to All Objectives

Gen.N1: Improve the collection of data at farm level in order to improve the monitoring of indicators, demonstrate impact and inform policy

The SWOT analysis identified that there is a lack of appropriate mechanisms and indicators in place to allow for the accurate monitoring of the impacts associated with implementation of agri-environment schemes at farm level. In addition, an overall lack of data was cited as a weakness multiple times in the SWOT analysis, in particular in relation to habitats outside of Natura 2000 areas, hedgerows and non-forest woodland and scrub, food waste at primary production level, herd fertility and antibiotic usage on farm. Therefore, it is essential that Ireland improves the collection of data at farm level and develops a data system that will ensure accurate monitoring, in order to more effectively inform policy development. This need can be addressed through the development of a comprehensive monitoring and reporting programme. It should also be noted that Ireland has good knowledge and experience of delivery of results-based agri-environmental schemes, which collect comprehensive baseline and monitoring data. The management and use of this baseline and monitoring data has a key role to play in improving policy implementation and demonstrating the impact of these schemes.

Gen.N2: Improve cross Government Department policy coherence and implementation

The SWOT analysis acknowledged that numerous policies and strategies exist across multiple different Government Departments and Agencies in relation to climate change, natural resources, biodiversity, the bio-economy and rural development. However, it also noted a lack of coherence in the implementation of these policies across the agri-food sector. In addition, the SWOT analysis found that numerous stakeholders believe there to be an inconsistent enforcement of policies and governance in the agri-food and forestry sectors, as well as inconsistencies in land eligibility, which they believe have allowed for the ongoing rise in GHG emissions, overall reduction in water quality and the continuing loss of biodiversity. It is therefore necessary to improve cross-governmental policy coherence and enforcement of regulation. This need can be addressed through improved inter Departmental and inter Agency cooperation, including through data sharing, especially in the areas of biodiversity, climate change, air, water and soil quality. Furthermore, the governance and control regime set out for the CAP Strategic Plan will also address this need.

Gen.N3: Develop a national land use plan

The SWOT analysis identified the land use, land-use change and forestry sector (LULUCF) in Ireland as being a net source of emissions, primarily due to the ongoing drainage of organic soils for different uses, including peat extraction, grazing and to a lesser extent forestry. Many of the issues identified in the SWOT analysis relating to the deterioration of air, water and soil quality in Ireland arise from agricultural activity and inappropriate land use practices and therefore there is a need to develop a national land use plan. It is worth noting that a national land-cover map is currently in production and should be available in 2021, which will assist in the development of a national land use plan. Once the national land-cover map is available, it could potentially be used to assist in the targeting of agri-environment-climate actions.

Gen.N4: Encourage all actors in the agri-food sector to engage with issues relating to sustainable production, the decline in natural resources and biodiversity, and climate change

In the SWOT analysis, it was suggested that the private sector and public sector should work together in order to determine the nature of collaboration necessary to address environmental and climatic challenges. The future of food and agriculture depends on the capacity of agri-food actors to address an increasingly diverse and complex range of needs, including the need to improve farm incomes while maintaining the protection of natural resources and biodiversity, all in the face of climate change. Increased engagement by all stakeholders in the agri-food sector will be necessary if we are to ensure that these complex needs are met and that the agri-food sector grows sustainably.