

Copa and Cogeca position on climate action

#FarmersClimAct

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Environment and Climate

copa***cogeca**
european farmers european agri-cooperatives



ABSTRACT

European farmers, forest owners and their cooperatives are the first to feel the impact of climate change. Therefore there are no climate change deniers in the European farming community. **We are committed to the implementation of the Paris Agreement and support it as an essential part of the European and global political agenda.** To achieve the Paris Agreement's goals, agriculture and forestry sectors are indispensable partners. Farmers' voices need to be heard in public debates in order to put a stop to the distorted picture that is being painted of the sector. **No other sector in Europe will be able to remove emissions from the atmosphere naturally, while at the same time supporting the development of a bio-based economy and guaranteeing food security.**

The EU farming model, based on diversified, local and family farm structures, is among the most efficient farming system in the world. This has allowed EU agriculture to increase its overall productivity by 25% since 1990 while reducing its GHG emissions by 20% over the same time period. **Agriculture has decoupled environmental impact from production growth. Nevertheless, today and in the future more needs to be done to enhance adaption and foster mitigation.**

Solutions exist as well as examples of best practice (see www.farmersclimact.eu). What is needed is stronger political and social support. Under the current policy, it is estimated that further reductions in agricultural emissions will be very limited – reductions of between 0.5% and 3% by 2030. **The only way to achieve further reductions in agricultural emissions without putting downward pressure on production, and thereby causing carbon leakage, is to incentivise the take-up of mitigation practices. Any efforts to reduce EU agricultural emissions other than providing incentives and extension services would result in a contraction of the EU agricultural sector and a loss of its competitive position.**

The special role of agriculture in climate action, as laid out in the Paris Agreement, has to be recognised in carbon crediting schemes. The opportunity to create additional income for farmers through privately funded carbon credits opens up the possibility to sustainably increase farm productivity in line with climate and soil biodiversity goals.

Any weakening of the EU's current border protection for agricultural products could dramatically undermine efforts to reduce emissions, particularly in the livestock sector, and could well prevent a net global reduction in emissions. Due to the urgent nature of climate action, a chapter on the application of climate measures must be included in all free trade agreements. Drawing up a climate framework in trade policy can even create the opportunity for partners to facilitate trade, make use of comparative advantages and increase economic wellbeing.



OUR COMMITMENT

Climate change is affecting every farmer across the globe. It is affecting our lives, communities and countries today, and will do so even more in the future. Weather events are becoming increasingly extreme and frequent, temperatures are on the rise and global greenhouse gas (GHG) emissions are higher than ever. If no action is taken, the rise in the world's average surface temperature is likely to exceed the limit of three degrees during the course of this century. **Food production will be exposed to even more extreme weather conditions and food production efficiency will be difficult to maintain.** Relocation of food production could lead to land abandonment and desertification in some regions of the world and may increase the need for arable land in areas that are now covered by forests.

European farmers, forest owners and their cooperatives are committed to the Paris Agreement¹ and to contributing to the United Nations' Sustainable Development Goals². Together, we are striving to:

- * **Limit the world's temperature increase to 1.5°C above pre-industrial levels while not endangering food security;**
- * **Increase our ability to adapt to climate change through, inter alia, water management, soil protection, plant and animal breeding, management and health,** and to support all three pillars of sustainability (environmental, social and economic);
- * Improve our ability to mitigate the effects of climate change and reduce GHG emissions. We are doing this through good agricultural practices and by increasing the climate efficiency of food production;
- * **Strengthen our resilience and the way in which we adapt to climate-related hazards and natural disasters,** and to improve human capacity on climate change mitigation, adaptation and impact reduction;

* **Support the transition to the bioeconomy** and help other sectors to mitigate climate change through the production of sustainable renewable resources.

The recognition, support and remuneration of positive initiatives is a prerequisite for the sector to be able to help meet the non-market related social expectations.

In October 2014, Heads of State or Government agreed that when addressing the climate challenge, the multiple objectives of the agricultural sector, which represents producers of food, fuel and energy, as well as environmental enhancement, should be taken into account. Coherence between the EU's food security and climate change objectives should be guaranteed. There is also a need to examine the best means of encouraging the sustainable intensification of food production, while optimising the sector's contribution to GHG mitigation and sequestration. The EU strategy for a climate-neutral economy by 2050 outlines '*a vision of the economic and societal transformations required, engaging all sectors of the economy and society, to achieve the transition to net-zero GHG emissions by 2050*'. Farmers, forest owners and their cooperatives are already taking climate action, contributing to overall climate targets and increasing their climate ambition for the future.

¹ https://unfccc.int/sites/default/files/english_paris_agreement.pdf

² <https://www.un.org/sustainabledevelopment/sustainable-development-goals/>

PAST PERFORMANCE AND CURRENT CHALLENGES

The urgent need for climate action can be observed all over the world. At the same time, global demand for food is increasing and, according to UN forecasts, the number of mouths to feed will rise to nearly 10 billion by 2050. Currently, there are 800 million people suffering from hunger. For some, the answer today is to reduce production to mitigate the impact of agriculture on the climate, but that would not solve the global challenge of feeding a growing world population. The sustainability of production has to be guaranteed. It is essential to maintain the levels of production needed for the population and livestock while at the same time keeping natural resources, water, soil, the climate and biodiversity intact with all their ecosystem benefits. A climate-neutral economy has to be achieved in the EU by 2050 to fulfil the Paris Agreement objectives. Reducing EU agricultural production is likely to move production to countries where milk, cereal or meat production has a more negative climate impact, leading to carbon leakage and increased global GHG emissions³.

The two main challenges in agricultural climate action consist of adapting to and mitigating climate impacts. This includes increasing climate efficiency in food production in order to satisfy our daily dietary needs while also taking care of the environment. Farmers and forest owners need to be able to adapt to climate change, to mitigate their impact or capture carbon dioxide. One major opportunity lies in the removal of atmospheric carbon dioxide by increasing soil organic carbon or using other permanent means. Farmers and forest owners are unique in their ability to actively remove carbon dioxide from the atmosphere through biomass and thus to achieve a carbon offsetting target.

Farmers, forest owners and their cooperatives have to adapt to severe weather conditions (e.g. droughts, floods and landslides, damage caused by bad weather and excessive heat), to volatile growth periods and to new diseases or diseases that spread to new regions⁴. Progress in adaptation has already been made in irrigation, water management, plant breeding and land management. There is increasing pressure coming from water-related weather events (droughts, floods, extreme rainfall and forest fires). **It is necessary to develop and financially and technically support irrigation and water management projects while also developing new plant varieties.** Access to sufficient high-quality water is a prerequisite

for the survival of plants, animals and humans. Moreover, water use for agricultural food production has to be prioritised over competing uses such as industry and energy. Major challenges, such as preventing forest fires and further improving water management and reuse, remain. These need to be overcome in order to prevent outcomes such as land abandonment, desertification or unavoidable and less productive changes in crop rotation systems. New plant diseases and current diseases spreading to new areas due to climate change represent a significant challenge for the arable crop, fruit, vegetable, floriculture and livestock sectors as well as forestry where the natural cycle is counted in decades. To guarantee efficient adaptation to and mitigation of climate change, the farmer's toolbox needs to include practical and feasible solutions while also providing the necessary transition period to allow for them to be disseminated and applied by all actors.

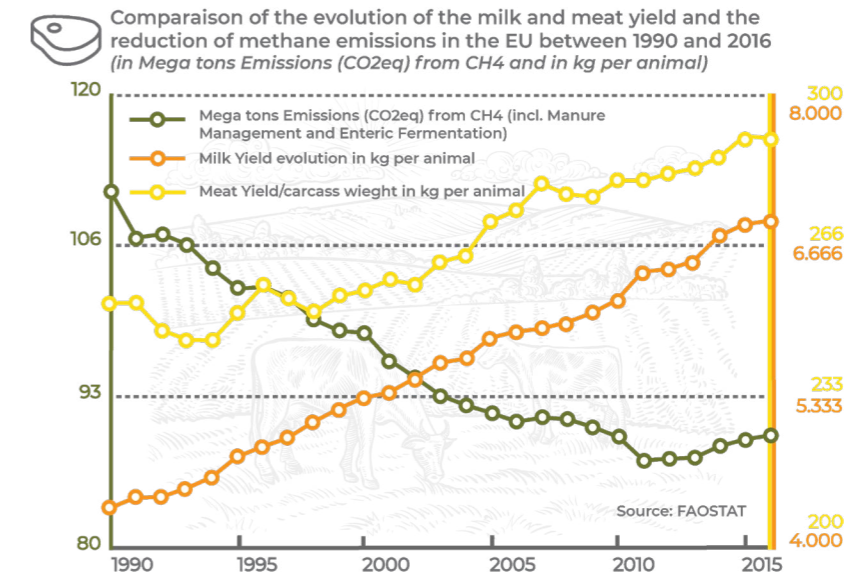
EU agriculture has increased its overall productivity by 25% since 1990 and in this same period GHG emissions have been reduced by 20%⁵. Agriculture has decoupled environmental impact from production growth through gains in efficiency.

Challenges remain in transferring best practices across the sector and in adopting new technologies and innovations to reduce the impact even further. **In livestock farming, some animal emissions cannot be avoided, but can be balanced by soil carbon sequestration in feed production or by substituting fossil fuels through the use of biogas from manure and crop residues. It should be noted that since 1990 methane emissions in EU agriculture have decreased by 20%, while during the same period milk yields increased by 60% and carcass weight by 15% (see figures on p.5).** The decrease in methane emissions has significantly compensated for the effect of global warming caused by other sectors. It takes methane a decade to decompose into carbon dioxide which is then absorbed by plants in the livestock feed cycle. To be carbon neutral in 2050, methane production from ruminants does not have to be halted⁶.

It has to be acknowledged that agriculture is

providing food. A constructive dialogue with all stakeholders involved is crucial for climate action to be sustainable and to respect biodiversity, soil quality, social, food security, water resources and nutritional goals.

Consumers' willingness to pay for even more climate and environmentally friendly food is only developing slowly even though climate awareness is on the rise. Providing sustainable food and ensuring food security also in the future has to be a focus in EU policy.



FUTURE POTENTIAL AND INNOVATION

EU agriculture and forestry have significant potential to increase adaptation and mitigation efforts, to reduce their emissions, to sequester carbon and to boost economies in a sustainable manner. The future does not lie in decreasing productivity and shifting production as well as climate impacts (carbon leakage and water scarcity) to third countries. We have to make sure that the consumption of food and non-food production (bio-based fuels, chemicals and materials) complies with all the sustainable development goals including trade policy.

Soils play a key environmental role. Not only do they provide the ground for biodiversity and filter water, but they also have the ability to store carbon through biomass, most notably through soil microbes and humification. Agriculture has the potential to significantly increase carbon sequestration when, for example, deep and wide-rooted plants are used in production and organic fertilisers such as compost and manure are applied. Sequestering carbon through plant biomass using various practices can store carbon in a short and mid-term cycle depending on the soil type and climatic conditions. Depending on the crop variety, one third of root biomass has the potential to be stored in the permanent soil carbon pool. The specificity of agricultural production in general and livestock production more specifically is that emissions arise from biological processes. The positive aspect is that through grazing and grassland

production, the livestock sector (ruminants) contributes to the maintenance of carbon sinks which compensate for enteric fermentation. This deserves proper recognition and should be accounted for in GHG balances.

Agricultural soils and livestock use biomass (e.g. grass, oilseed cake), which is partly derived from food and non-food by-products. Livestock transform these non-food products into high nutritious food. Livestock plays an important role in tackling malnutrition and achieving the sustainable development goal Zero Hunger and Sustainable Growth. The need for essential amino acids in a balanced human diet can easily be met by including animal products.

The impact of plant production and livestock emissions can be reduced even further by adopting a more in-depth circular economy approach and by using animal and plant side flows in bioenergy, especially biogas from manure, or fibre production. This would also substitute fossil energy and materials (e.g. packaging, construction, insulation, varnish). The implementation of rules for the sustainable trade of feed, crops and animal products with third countries, including climate policy can further enhance the climate efficiency of global agricultural production while also contributing to economic development, the eradication of poverty and global food security.

³ Kiulla, O., Wójtowicz, K., Żylicz, T., & Kasek, L. (2016). Economic and environmental effects of unilateral climate actions. Mitigation and adaptation strategies for global change, 21(2), 263-278.

⁴ <https://www.eea.europa.eu/publications/cc-adaptation-agriculture>

⁵ https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Agri-environmental_indicator_-_greenhouse_gas_emissions
https://ec.europa.eu/agriculture/sites/agriculture/files/markets-and-prices/market-briefs/pdf/10_en.pdf

⁶ Allen, M. R., Shine, K. P., Fuglestad, J. S., Millar, R. J., Cain, M., Frame, D. J., & Macey, A. H. (2018). A solution to the misrepresentations of CO₂-equivalent emissions of short-lived climate pollutants under ambitious mitigation. Npj Climate and Atmospheric Science, 1(1), 16.

TAKING ACTION

European farmers, forest owners and their cooperatives are committed to climate action. We call for cross-sectorial partnerships and co-designed research and policy initiatives to ensure coherent and consistent action at all levels of society. Given that the tools developed and the actions put in place generate additional production costs, farmers and their cooperatives also need financial support.

■ Adaptation

Adaptation to climate change involves measures to reduce the impact of excessive rainfall, extreme heatwaves, spring frost and droughts on plant growth, carbon sequestration, biomass production and livestock rearing. Preventive measures such as irrigation or drainage, frost and hail control infrastructure, water rights, soil fertility (biological, chemical, physical) management and risk management tools have to be deployed to get a vast number of farmers on board. In times of severe drought, the water retention capability of peatland soil has to be acknowledged with regard to adaptation and food security. For some sectors, such as wine and forestry, it must be possible to adjust adaptation measures to the geographical specificities of production.

Plant and livestock breeding ensure that the species and varieties best suited to different conditions are made available. **European farmers and agri-cooperatives need to have access to technological advancements in order to overcome a number of challenges, such as remaining competitive, adapting to and mitigating climate change, and providing an adequate supply of high-quality food.** New plant breeding techniques could improve the tolerance of plant varieties to water stress and pests. Each new breeding technique should be analysed and discussed by experts on a case-by-case basis and according to strict scientific criteria. We cannot afford to lose time by refraining from using cutting-edge technologies. Similarly, in forestry high-quality seedlings and adapted tree varieties improve adaptation to climate change and forest damage.

Integrated pest management (including being able to rely on the use of authorised plant protection products) is a necessary adaptation measure to ensure food security in situations where diseases and pests are spreading, emerging and jeopardising food production. This includes being able to rely on the use

of plant protection products that have been deemed safe by authorities.

Voluntary measures, supported by public authorities or the private sector, that promote climate action and provide economic return for farmers should be encouraged by EU legislation. Every farmer should have the possibility to access the best adaptation measures tailored to their own needs and be able to count on both a set of available options and an adequate advisory system. This is particularly relevant given that each farm has its own features and needs related to climate resilience.

■ Mitigation

Primary food production has a share of unavoidable GHG emissions. However, climate mitigation in agriculture should follow the path of increasing sustainable productivity and GHG-efficiency, reducing the amount of GHG per unit produced. The production of renewable non-food resources can make a significant contribution to reducing GHG emissions from other sectors, for example the use of biomaterials in construction or biofuels in transport.

Food waste must be stopped. One of the targets of the sustainable development goal Sustainable Consumption and Production is to reduce food waste by 50% by 2030. According to estimates, 20% of the food produced in the EU is lost or wasted along the food chain⁷. Preventing food waste is an essential part of climate action and policy-makers must take endeavour to rapidly put a stop to it. Raising awareness among consumers and other actors in the food chain about the value of food will lead to a greater appreciation of food and thus reduce waste.

Research and innovation lie at the core of mitigation efforts. Strong EU agriculture ensures that research incentives remain in all sectors and new innovations can be implemented by farmers. The EU research and innovation framework should strongly engage with the farming and food-producing community and co-design ways in which sustainability challenges can be tackled. Transfer of knowledge and advisory services are the key to putting innovation into practice.

Plant and livestock breeding should focus on improving the climate efficiency of production. New breeding techniques are essential to reach goals in an efficient and timely manner.

Farmers must be encouraged to invest in commercial technologies that reduce GHG emissions and increase carbon capture and recycling. These technologies include precision farming techniques and biogas plants to capture methane from manure storage. The use of external and fossil energy (electricity and fuel) in agricultural production should be reduced by using more efficient equipment, lighting and where possible, by replacing it with biofuels and other forms of renewable energy. **A farm energy plan concept may be useful to increase farm energy efficiency, to reduce energy consumption and to facilitate the substitution of fossil fuels by renewables at farm level.**

Nitrous oxide emissions are one of the main climate impacts of plant production⁸. They can be reduced by keeping soil crop-covered, enhancing overall soil productivity (i.e. crop yields) and increasing nitrogen efficiency (i.e. N-uptake by plants). Nitrogen-fixing crops, such as leguminous plants, in the crop rotation system, compost and processed animal manure can further reduce the need for mineral fertilisers. Further application of precision farming techniques could reduce the overall amount of fertilisers even more. Farmers should be rewarded when they adopt and apply nitrogen-efficient farming practices.

Substituting fossil fuels with renewable energy and increasing energy efficiency are crucial in order to mitigate climate change. **It has to be noted that agriculture and forestry can majorly help to substitute fossil fuels through the use of by-products. The RED II Directive is lacking in ambition in terms of promoting access to the organic carbon market for biomass originating in European agriculture and forestry.** It therefore undermines the achievement of the EU's climate, energy, bioeconomy and circular economy objectives. **RED II needs to be reviewed so as to oblige Member States to provide grid access, planning and price support in order to enable farmers and their cooperatives to be part of the renewable gas and electricity market.** Transport represents almost a quarter of Europe's greenhouse gas emissions and is the main cause of air pollution in cities. The role that European certified crop-based biofuels play in climate action should be strengthened. Virtual incorporation of renewable energy

sources must be avoided. New fuel standards containing higher biofuel blends should be provided in the EU legislation.

■ Actively reducing atmospheric carbon

Agriculture and forestry are the only sectors that have the ability to reduce the carbon dioxide in the atmosphere through photosynthesis. Five different approaches can be identified: 1) carbon sequestration in the form of soil organic carbon through root and above-ground biomass (humification); 2) wood; 3) other biomass products with a long lifespan; 4) pyrogenic carbon capture and storage; and 5) bioenergy with carbon capture and storage. It must be acknowledged, that all avenues pursued to reach the temperature goals of the Paris Agreement require the large-scale removal of CO₂ from the atmosphere. This includes bioenergy avenues.

Research and innovation should focus on the different carbon sequestration techniques as well as on a common methodology as to how to account sequestered or added carbon in soils and biomasses. Farmers' and forest owners' efforts to help other sectors to reduce their emissions must be recognised by policy-makers and society as a whole. This needs to be done in order to maximise the full potential of carbon dioxide reduction from the atmosphere and to mitigate GHG emissions.

Carbon sequestration through root and above-ground biomass farming practices and their accounting have to be consistent regardless of the end-product. When accounting carbon, the sequestration capability of various crops and grasslands has to be calculated in the same manner and based on science. Similarly, the soil organic carbon (SOM) content enhanced by applying manure or biogas digestate has to be taken into consideration when assessing the carbon sequestration potential of soils. The positive effects of grassland cultivation on carbon storage, rural development and biodiversity have to be acknowledged to keep on track with other sustainable development goals.

Sustainable forestry management, which includes regular harvesting, makes use of wood and wood fibre. Policy-makers should encourage carbon substitution through wood products, which can replace energy-intensive, high-carbon industrial materials as well as non-renewable fossil fuels and materials. Wood and

⁷ <http://www.eu-fusions.org/phocadownload/Publications/Estimates%20of%20European%20food%20waste%20levels.pdf>

⁸ https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Agri-environmental_indicator_-_greenhouse_gas_emissions

other biomass, such as insulation materials, can sequester carbon dioxide and keep it out of the atmosphere for decades or even centuries. Wood and other biomass fibre used in textiles for example can be considered to absorb and thus keep carbon dioxide out of the atmosphere for years or centuries.

Just as is the case for GHG emissions caused by land-use sectors, a common methodology on carbon sequestration accounting must rely on scientific research and preferably be adopted by international bodies. Including different carbon sequestration techniques on all relevant agricultural land and forests can achieve sustainable food production and actively remove carbon from the atmosphere. **Farmers and forest owners should be rewarded for carbon sequestration results with market-based credits. For the farming community, it is essential that current practices are not penalised.**

The economic situation of farmers, who are facing a limited CAP budget and increasing ambition, does not provide any room for manoeuvre. The current CAP is already contributing to climate action in the first and second pillar. While the CAP should continue to pay for the measures adopted by farmers, their results (e.g. commodities, public goods, carbon credits) should be remunerated by the market. Penalising emissions in agriculture will have unpredictable social and economic effects in rural communities, cause social unrest, economically disadvantage rural areas and push sustainable agricultural production out of the EU. A fully funded CAP is of utmost importance to increase the potential of higher environmental ambition.

Areas that are less climate-efficient can only be taken out of production and restored if farmers and forest owners are adequately compensated, if land tenure and property rights are respected and if the land-user can still make a living.

■ Policy and trade

The Commission's strategy for a climate-neutral economy engages all sectors. The Commission estimates that policies in place today will lead to a 60% reduction in emissions by 2050 which means that more will have to be done to achieve carbon neutrality by then⁹. It will not be possible to eliminate all emissions by 2050 and the largest share of remaining GHGs will stem inevitably from agricultural activities and their biological emissions. In order to achieve carbon neutrality by 2050, these emissions will have to

be offset by LULUCF and, if possible, by carbon removal technologies that need to be developed and put into practice swiftly. Agriculture can already provide some of these techniques.

The Commission should look into mechanisms that involve the private sector (individuals, foundations, industry) rewarding carbon sequestration efforts. Today, there are already projects underway in which farmers are compensated for climate action by private actors. **The Commission should set up schemes that recognise the carbon dioxide that farmers remove (negative emissions). These schemes must neither contradict the Emission Trading Scheme nor the Effort Sharing Regulation. The special role of agriculture in climate action, as laid out in the Paris Agreement, has to be recognised in carbon crediting schemes.** It is of crucial importance that farmers, forest owners and agri-cooperatives have an economic incentive to contribute to climate action. The opportunity to create additional income for farmers through privately funded carbon credits gives the possibility to sustainably increase farm productivity in line with climate and soil biodiversity goals. **It is crucial that more ambitious climate action in agriculture is not funded by the CAP budget but by other privately or publicly funded mechanisms enabled by an EU framework.**

Under current policy, it is estimated that further reductions in agricultural emissions will be very limited – reductions of between 0.5% and 3% by 2030. We call on Member States to offset agricultural emissions within the LULUCF framework. This would offset some 13% of agricultural emissions EU-wide. The only way to achieve further reductions in agricultural emissions without putting downward pressure on production, and thereby causing carbon leakage, is to incentivise the take-up of mitigation practices.

Any efforts to reduce EU agricultural emissions other than providing incentives and extension services would result in a contraction of the EU agricultural sector and a loss of its competitive position. The EU's loss of exports and increased imports means that globally there would, at best, only be a 0.5% marginal reduction in global emissions, more likely resulting in a global increase of emissions and loss of productive agricultural land¹⁰. The IPCC's special report on climate change and land¹¹ pointed out the importance of globally increased productivity to reduce pressure on pristine ecosystems. EU agricultural and climate

policy must not oppose this recommendation.

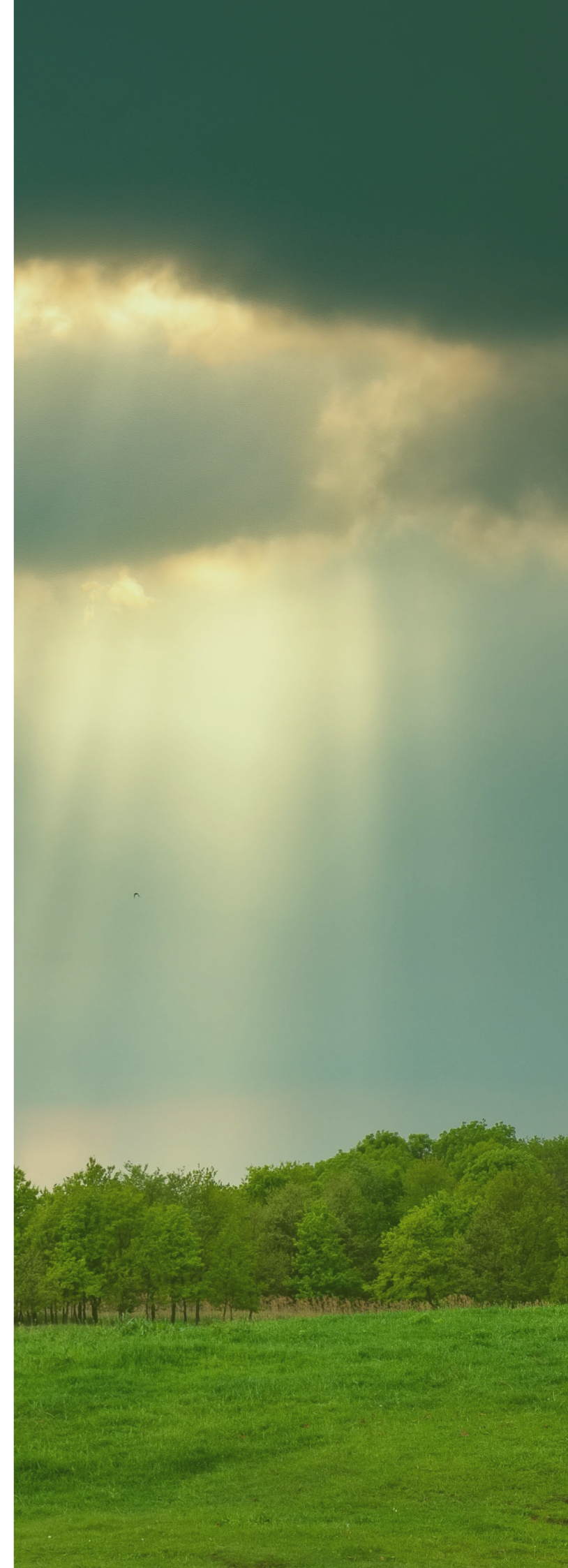
Any weakening of the EU's current border protection for agricultural products could dramatically undermine efforts to reduce emissions, particularly in the livestock sector, and could well prevent a net global reduction in emissions. This should be considered in all trade negotiations. **Due to the urgent nature of climate action, a chapter on the application of climate measures must be included in all free trade agreements. The EU should, if necessary, suspend tariff preferences when non-compliance with the provisions of the agreement on sustainable development calls into question the balance of competitive conditions for European producers. Drawing up a climate framework in trade policy can even open up the opportunity for partners to facilitate trade, make use of comparative advantages and increase economic wellbeing.**

8 ⁹ A Clean Planet for all A European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy

¹⁰ An economic assessment of GHG mitigation policy options for EU agriculture (EcAMPA, 2015)

Economic Assessment of GHG mitigation policy options for EU agriculture (EcAMPA 2, 2016)

¹¹ <https://www.ipcc.ch/report/srcc/>





Copa and Cogeca are the united voice of farmers and agri-cooperatives in the EU. Together, they ensure that EU agriculture is sustainable, innovative and competitive, guaranteeing food security to half a billion people throughout Europe.

Copa represents over 22 million farmers and their families whilst Cogeca represents the interests of 22,000 agricultural cooperatives. They have 66 member organisations from the EU member states.



www.farmersclimact.eu