Implications of EU environmental policies on agriculture in Europe and beyond
Implicaciones de las políticas ambientales de la Unión Europea sobre la agricultura en Europa y más allá

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Abstract
The European Union is taking several policy initiatives to combat climate change and the loss of biodiversity with direct impact on agriculture. For farmers the European Commission is promoting an instrument called OECM, Other effective area-based conservation measures. Other effective area-based conservation measures (OECMs) are a new conservation approach, separate from protected areas, where conservation is achieved mainly as a by-product of other management. OECMs can be counted towards the EU target if: i) Conservation objectives and measures are in place; ii) the area is covered by a national or international legal or administrative act or a contractual arrangement achieving long-term conservation outcomes and iii) effective management and monitoring of the biodiversity in the area is in place. A new growth strategy that aims to transform the EU into a fair and prosperous society with a modern, resource-efficient and competitive economy where there are no net emissions of greenhouse gases in 2050 and where economic growth is decoupled from resource use. While those initiatives mainly impact the life and work of European farmers, there is as well an indirect impact to farmers elsewhere in the world.

Resumen
La Unión Europea está tomando varias iniciativas políticas para combatir el cambio climático y la pérdida de biodiversidad con impacto directo en la agricultura. Para los agricultores, la Comisión Europea está impulsando un instrumento llamado OECM, otra de las medidas efectivas de conservación basadas en la conservación de áreas (OECM, por sus siglas en inglés) son un nuevo enfoque de conservación, separado de las áreas protegidas, donde la conservación se logra principalmente como un subproducto de otra gestión. Los OECM pueden contarse para el objetivo de la UE si: i) se implementan objetivos y medidas de conservación; ii) el área está cubierta por un acto legal o administrativo nacional o internacional o un arreglo contractual que logra resultados de conservación a largo plazo y iii) se cuenta con un manejo y monitoreo efectivo de la biodiversidad en el área. Una nueva estrategia de crecimiento que pretende transformar la UE en una sociedad justa y próspera con una economía moderna, eficiente en el uso de los recursos y competitiva en la que no haya emisiones netas de gases de efecto invernadero en 2050 y en la que el crecimiento económico esté desvinculado del uso de los recursos. Si bien esas iniciativas afectan principalmente la vida y el trabajo de los agricultores europeos, también tienen un impacto indirecto en los agricultores de otras partes del mundo.
Introduction

In the last 2 to 3 years the European Commission, the EU's politically independent executive governmental body, has taken several initiatives to combat climate change and the loss of biodiversity including several initiatives with a direct impact on agriculture. The most important ones are: The European Green Deal [1], the Farm to Fork strategy [2], Fit for 55 [3], the introduction of carbon farming [4] and the EU Biodiversity Strategy 2030 [5]. This reflection gives an overview of each of those 5 strategies.

The European Green Deal

The European Green Deal [1] was published in December 2019 with the overall goal to become the first ever climate neutral continent in the world by 2050. It is a new growth strategy that aims to transform the EU into a fair and prosperous society with a modern, resource-efficient, and competitive economy where there are no net emissions of greenhouse gasses in 2050 and where economic growth is decoupled from resource use (see figure 1).

![Figure 1 The European Green Deal, launched by the European Commission in December 2019 [1]](image)

To achieve its decarbonization objectives, emissions must be reduced in all sectors, from industry and energy, to transport and farming as follows:

- By increasing the EU’s climate ambition for 2030 and 2050
- By supplying clean, affordable, and secure energy
- By mobilizing industry for a clean and circular economy
- By building and renovating in an energy and resource-efficient way
- By putting forward a zero-pollution ambition
- By preserving and restoring ecosystems and biodiversity
- By accelerating the shift to sustainable and smart mobility

Farm to Fork strategy

As agriculture, especially cattle breeding, is seen as an important source of carbon emissions the European Commission developed a specific strategy, called the ‘Farm to Fork’.

The Farm to Fork Strategy [2] is at the heart of the European Green Deal [1] aiming to make food systems fair, healthy, and environmentally friendly. It aims to redesign our food systems which today account for nearly one-third of global GHG emissions, consume large amounts of natural resources, result in biodiversity loss and negative health impacts (due to both under- and over-nutrition) and do not allow fair economic returns and livelihoods for all actors, for primary producers. Putting our food systems on a sustainable path also brings new opportunities for operators in the food value chain. New technologies and scientific discoveries, combined with increasing public awareness and demand for sustainable food, will benefit all stakeholders. The Farm to Fork Strategy [2] aims to accelerate our transition to a sustainable food system that should:

- Have a neutral or positive environmental impact
- Help to mitigate climate change and adapt to its impacts
- Reverse the loss of biodiversity
- Ensure food security, nutrition, and public health, making sure that everyone has access to sufficient, safe, nutritious, sustainable food
- Preserve affordability of food while generating fairer economic returns, fostering competitiveness of the EU supply sector, and promoting fair trade

Fit for 55

On 14 July 2021, the Commission presented the Fit for 55 package [3], containing a set of legislative proposals to make the EU’s climate, energy, land use, transport and taxation policies fit for reaching the European Green
Deal’s objective of reducing net greenhouse gas emissions by at least 55% by 2030 [1]. In total a set of 13 interconnected legislative proposals must deliver on the ambitious target set. The package aims to make the EU “fit for 55” in a fair, cost-efficient, and competitive manner. It is a policy mix that respects a balance between pricing, targets, taxes, standards, and support measures. Besides proposing legislation to reach the EU’s climate goals the European Commission also introduced a new methodology to reach carbon reduction goals within agriculture: carbon farming (see figure 2).

![Figure 2 the Fit for 55 package. Adapted from [3]](image)

Carbon Farming [4] is a green business model that rewards land managers/farmers for adopting improved land management practices that result in increased carbon sequestration or emission reductions. It should make it financially possible for farmers to sequester carbon in the soil and reduce emissions through practices such as peatland restoration, agroforestry, no/less tillage, use of cover crops, etc. The European Commission wants to realize this with a combination of public and private funding. Public funding could include e.g., CAP Eco-schemes, a form of agricultural subsidies and other EU funds additional to national/regional government support. Private finance should come from farmers generating "carbon credits" when they store CO₂ in the soil or reduce their emissions and sell them to companies that want to offset emissions. Many governments and organizations, including the European Landowners’ Organization, are working on certification mechanisms and markets to sell or buy those certificates.

**EU Biodiversity Strategy 2030**

The European Union not only wants to act on climate change, also halting the loss of biodiversity is high on the political agenda. To realize this, the European Commission introduced the EU Biodiversity Strategy 2030[5]. It is a long-term plan to protect nature and reverse the degradation of ecosystems. The strategy aims to put Europe's biodiversity on a path to recovery by 2030. Among the objectives is to have 30% of the total land and sea area of the European Union under protection and 10% under strict protection.

Europe has set up in the past decades the world’s largest network of protected areas called the Natura 2000 Network [6]. 60% of the Natura 2000 network is in private hands (individual landowners, companies, NGOs). Overall, one third of (individual) landowners use their land (partly) for nature conservation. On average 5% of private land is only used for conservation. This shows the importance of private landowners in reaching the goals set by the EU Biodiversity Strategy 2030. Knowing that 80% of private landowners own agricultural land it immediately becomes clear they will have to play an important role.

For farmers, the European Commission is promoting an instrument called ÖECM, Other effective area-based conservation measures. Other effective area-based conservation measures (OCM) are a new conservation approach, separate from protected areas, where conservation is achieved mainly as a by-product of other management. It is often focusing on areas with some form of legal protection that is not related to the protection of habitats and species: e.g., areas designated for water protection or flood prevention, military areas, fisheries restriction measures, offshore wind farms, underwater cables sites, among others.

However, ÖECMs can also be developed within farmland areas and many European Member States have created financial instruments to reward farmers for biodiversity actions taken in their fields and meadows. Changing legislation in Europe is having direct impacts on farmers all over the world. With Colombia being an important trade partner, especially in the field of agricultural products, the European Green Deal will have an important impact also on Colombian farmers exporting to Europe.
The European Green Deal will result in higher standards for social and environmental sustainability in production and processing of goods and services. The laws and measures being proposed under the European Green Deal will result in an increased demand for sustainably produced goods and services. This results in enormous opportunities for companies exporting to Europe complying with those laws and measures. There will be an increased demand for information on production and processing practices. SMEs exporting to the European Union will need to provide more and more information about how goods are produced, including information from suppliers about production and labor practices and justifying where your goods are coming from (traceability). In the short term, increased costs of transitioning to new models of sustainable production must be considered. But as Europe is not the only important market considering legal measures to increase sustainability of traded products those who implement new models of sustainable production on the short term will get a market advantage not only towards Europe but towards global markets).

Conclusion

The European Union takes a strong engagement to halt the loss of biodiversity and to tries to stop climate change by developing several new policies including the European Green Deal, the Farm to Fork strategy, Fit for 55, the introduction of carbon farming, and the EU Biodiversity Strategy 2030. All those strategies have a direct or indirect impact on agricultural practices in Europe and beyond.

Consent for publication

The author read and approved the final manuscript.

Competing interest

The author declares no conflict of interest. This document only reflects his point of view and not that of the institution to which he belongs.

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Jurgen Tack studied biology (marine ecology) at Brussels Free University where he also obtained his PhD in Sciences. Within the Framework of the Kenya Belgium Project in Marine Sciences (Coastal Farms Kenya) he developed several oyster farms along the Kenyan coast. In 2000 he joined the team of the Belgian Biodiversity Platform (Belgian Science Policy Office) where he was responsible for European and international science policy in the field of biodiversity and biodiversity related research. In 2007 he became the CEO of the Research Institute for Nature and Forest (a research organization under the umbrella of the Flemish Authority). In 2016 he took the position of Scientific Director at the European Landowners’ Organization (ELO), CEO at Landelijk Vlaanderen (Flemish Landowners’ Organization) and CEO of the Aanspreekpunt Privaat Beheer Natuur en Bos (an advisory organ for private landowners on the management of nature and forest). He coordinates several EU projects on private land conservation by individual private landowners. On behalf of ELO he chairs the European Commission’s Large Carnivore Platform and acts as expert for the EU Biodiversity Platform and the EU Expert Group on Cultural Heritage.

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