

# CONFERENCE ABSTRACT

Session: ENVIRONMENTAL TOPICS IN AGRIFOOD PRODUCTION

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## **Climate neutrality as a challenge for the agri-food chain and agricultural law in Poland - selected legal issues**

Climate neutrality is one of the current challenges for agri-food chain and agricultural law. It is a concept that describes the balance (zero balance) between greenhouse gases emitted and their storage or absorption by, for example, agricultural land or forests. The EU target is to reduce net greenhouse gas emissions by a minimum of 55% by 2030 compared to the 1990 levels. Among the measures contributing to reducing CO<sub>2</sub> is the development of renewable energy. The proposal is to raise the current EU target for the share of renewables in the overall energy mix from 32% to at least 40% by 2030. Other measures contributing to a CO<sub>2</sub> reduction include energy efficiency, carbon farming (currently one of the Ecoschemes in Poland financed under the Common Agricultural Policy), afforestation of wasteland or poor grade land. The paper will assess, firstly, the legal conditions for undertaking on-farm activities in the field of Climate Neutrality and CO<sub>2</sub> reductions on-farm in Poland in the contexts of agri-food chain. Secondly, the author seeks to determine whether changes in agricultural law follow the need for changes related to climate neutrality, and whether agricultural producers are prepared to implement them. In the first place, the paper focuses on a discussion of on-farm renewable energy. In this regard, agricultural producers can take advantage of EU funds or agricultural tax relief. Next, the paper focuses on carbon farming and EU measures in its Ecoscheme on carbon farming, and subsequently on programs related to afforestation of land. For example Law of 8 February 2023 on the Strategic Plan for the Common Agricultural Policy 2023-2027 Payments for carbon farming and nutrient management shall be granted if the farmer: implements practices to increase soil carbon sequestration and improve nutrient management . The essence is also the development of afforestation of agricultural land with EU funds. The amount of such land is increasing every year. The latest Order of the Polish Minister of Agriculture and Rural Development of 17 April 2023 on the detailed conditions and procedure for granting and paying financial support for investments in forestry or afforestation and in the form of a premium for afforestation, reforestation or agroforestry systems under the Strategic Plan for the Common Agricultural Policy 2023-2027 expands the possibilities for financial intervention It includes not only the afforestation of agricultural land, but also the creation of mid-field afforestation, the establishment of agroforestry systems and the enhancement of biodiversity in private forests. Additionally also processing of agriculture products, the closed-loop economy and short supply chains will also be discussed in the paper in the context of climate neutrality. The author stated, inter alia, that the process of forming associations of agricultural producers, especially in the form of cooperatives, will contribute to

implementation of the objectives of the European Green Deal, including the fight against climate change and reaching Climate neutrality. Joint actions taken by farmers facilitate investments in renewable energies, soil conservation measures, sustainable agriculture, rural areas' digitisation, renovation of buildings, reduction of food transportation, losses and wastage. The European Union attaches increasing importance to organisations of agricultural producers. As far as the Polish lawmakers are concerned, a relatively high interest can be observed in recent years in the subject of cooperatives, groups and organisations. Further changes of legal regulations are needed. EU and national legislators are adapting regulations to take account of climate neutrality and environmental challenges. However, some obligations on farmers require a longer implementation period and the securing of additional financial resources.

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### **A law research agenda on the mitigation of livestock's greenhouse gas emissions - Bridging the divide between hard sciences and legal scholarship.**

Despite being a major contributor to greenhouse gas (GHG) emissions, intensive livestock farming is still described as the elephant in the room of climate change negotiations, and it does not figure prominently either in climate policy agendas or in legal scholarly debates. This is the case although 'hard scientists' have long advocated for a global reduction in livestock related GHG emissions, to be mainly undertaken in so-called 'developed' countries, in the name of the associated environmental and health co-benefits. Against this background, the aim of this paper is to bridge the gap between overwhelming scientific evidence on the need to reduce livestock's GHG emissions and the scarcity of legal works conducted on the issue at hand. Indeed, the author of this work is conscious that the emergence of a research agenda of the mitigation of emissions from livestock could contribute to the establishment of an effective regulatory framework thereof. Therefore, the present work will try to understand to what extent this issue has been addressed in legal research, and what preliminary observations could be derived from it and constitute the basis of a law research agenda on the mitigation of livestock's GHG emissions. Therefore, having revised the scientific literature addressing the environmental, healthcare, and climate change impact of (both intensive and extensive) livestock farming at the global level, this paper will provide a comprehensive review of the legal literature focusing on the necessity to reduce livestock's emissions to mitigate climate change. Afterwards, it will identify and develop three preliminary observations which both justify and provide grounding for a legal research agenda on this issue. These preliminary observations underline the existence of law research and regulatory gaps related to livestock's impact on climate change, they underscore the central role that mitigation in livestock's emissions will play in achieving climate

change mitigation objectives, and finally clarify that, in order for many international actors (such as the EU) to achieve these targets, it will be essential to reduce animal food production and consumption levels. The paper finally calls for greater involvement of environmental law scholars in the mitigation of climate change through regulation of livestock activities and lays the foundation for a law research agenda on the mitigation of livestock's GHG emissions.

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### **European pesticide legislation and the balancing of opposing interests**

The regulations on plant protection products have to reckon with the protection of different and, in some aspects, opposing requirements: the balance of interests drawn up in Regulation (EC) No 1107/2009, which aims to ensure that the authorization of active substances is compatible with the protection of human and animal health and the environment, without jeopardizing crop profitability, is counterbalanced by the application of the principles of integrated pest management laid down in Directive 2009/128/EC. This balance has been reconsidered in recent years, not only in the light of events concerning the dangerousness of certain products - as, for example, in the case of glyphosate - but also in the light of renewed attention to the environmental sustainability objectives that characterize the latest 2023-2027 CAP and the so-called European *Green Deal*.

At the end of 2022, the European legislator adopted a package of four regulations (Regulations (EU) Nos. 2022/1438, 2022/1439, 2022/1440, 2022/1441) with the aim of facilitating the placing on the market of plant protection products based on non-chemical active substances (so-called 'biopesticides'). Also in 2022, the Commission presented a proposal for a regulation - later rejected by the European Parliament at the end of 2023 - on the sustainable use of plant protection products with the aim of tightening the rules and objectives for their sustainable use.

The rules for authorizing the placing of plant protection products on the market and their sustainable use are therefore both called upon to come to terms with a harmonization process that is still under construction, in which the need to pursue the objectives of reducing the use of plant protection products as required by the new CAP also hinges.

Moreover, the objectives of reduction and protection of human, animal and environmental health, which the legislator considers to be a priority, have not yet taken on binding form: this stems both from the natural state of impartiality of the scientific data relating to the development and impact of alternatives to chemical active substances-based plant protection products and, ultimately, from the wide discretion of national legislators in setting reduction targets under the 2009 directive.

These elements lay the foundations for a broader reflection on the balancing of interests at stake in the regulation and the role played, in this context, by the European and national legislators.

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**One health in the climate change era. Time has come to transform an holistic approach into (supranational) law?**

Climate change is a growing threat to human civilization as we know it today. Among its causes, according to FAO data, is the food industry and particularly livestock farming. In this direction, a balancing of interdependent but also, apparently, conflicting interests is needed. On the one hand, that to feeding people protected at every regulatory level and recalled, most recently, by the United Nations' Agenda 2030; on the other hand, the sentient nature of animals, recognized by the 2008 Lisbon Treaty, which requires an implementation of the rules placed to protect them. In the background, environmental issues related to excessive use of antibiotics, land, water resources as well as the pollution that this complex industry produces. On this basis, therefore, we will look at possible legal solutions applicable to the issue starting from the *One health* approach.

*One health* is a method of unquestionable value, but it seems to us that more is needed. In this sense, the rise of case law on the strict application of animal welfare rules along with that referring to the rise of new "animal rights" constitute a possible beginning of a new regulatory phase. EU efforts in the field of animal welfare regulation and international efforts in the field of environmental protection and combating climate change seemingly lack coordination. The focus of this study will therefore be on the possible adoption of an international treaty on farm animal welfare as an evolution of Council of Europe and EU regulation to consider the environmental scope of the issue as well. The one health approach is based on the health of the environment, people and animals while neglecting the human right to food that more and more is intended as a right to combine with animal's interests taking also into account ecosystem needs.

Many elements for one scope: evolution of food industry at global level to peruse international objectives of sustainability. Agenda 2030 has clarified all this in 2015 now it's time to implement, from the legal perspective, these efforts. Soft Law in this field is already developed, but something more is needed to protect environment, mankind, and animal life on the planet. International law offers many instruments, time has come to coordinate, unify and apply them.

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## **Sustainable agriculture and circular economy between constitutional dimension and One Health approach**

The paper focuses on the constitutional framework of sustainable agriculture and circular economy as the primary starting point for a reflection that translates into innovative approaches and, consequently, into effective public policies. In particular, the recent constitutional revision of artt. 9 and 41 of the Italian Constitution introduced a new vision of the relationship between man and nature, not only suitable for driving public and private economic initiative, but to rebound its effects on the agricultural sector, too. Within this new perspective, the "rational exploitation of the soil" and the "fair social relations" (*ex art. 44 Cost.it.*) become the object of an evolutionary reading prompted by the unavoidable needs of the ecological transition. The former, while maintaining an essential rooting in agriculture, is related with other constitutionally relevant areas: soil protection, territorial government, water heritage management, food needs and energy security; the latter allows, instead, to place agriculture in a solidarity structure that values the immaterial elements that have characterized it in its evolutionary path as, for example, the spread of networks of reciprocity and mutual support. Moreover, the new constitutional paradigm cannot disregard the principle of sustainability (environmental, social and economic), which implies both an agriculture that respects natural resources, and a development system aimed at greater social equity in the access to resources. It also means a new model of production and consumption, the c.d. circular economy, with a view to ecological regeneration (an example is the olive-oil production). The constitutional revision is therefore part of the new dimension of constitutionalism that renews the social contract through the affirmation of the principles of interdependence and responsibility between the individual, society and nature. The bond between health and environment significantly changes, due to a new holistic perspective, in the best interest of all living beings (men, animals, plants, ecosystems): this is the *One Earth, One Health* (*OH Joint Plan of Action-2022-2026*) perspective, in which the integrated and unifying approach to health protection goes along with the importance of an adequate safeguard of air, water, climate, food and clean energy. Furthermore, some serious criticisms of this irenic framework are not to be underestimated: greenwashing; the absence of cross-sector coordination mechanisms; at last, the juridical conversion of the *One Health* approach, because the latter does not correspond to a *One Law*. This is currently the toughest challenge for the jurist.

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### **The undigested restoration of agri-food ecosystems under the EU Nature Restoration law**

Every year Europe experiences a loss of soil amounting to 970 million tons with 11% of the European Union's land being affected by high soil erosion. The use of pesticides and fertilizers containing nitrogen has led to unreversible consequences, for plant and insect life. To deal with the current scenario, the goal of preserving and restoring ecosystems became one of the EU's top priorities and an essential objective of the Green Deal and its sectoral policy strategies, which are aimed at climate neutrality by 2050. Indeed, as a key output of the Biodiversity Strategy for 2030, in line with the Farm to Fork Strategy, in June 2022, the European Commission published a long-awaited proposal for an EU Nature Restoration Law. This is planned to be the first EU-wide law to set legally binding targets to restore our degraded terrestrial, coastal, and marine ecosystems and bring nature back to Europe. The ongoing process of approval has been extremely bumpy and controversial, and the bone of contention appears to be mainly the restoration of agri-food ecosystems. The law faced a lack of approval among members of the Parliament's Committees, conservative parties, farmers and farmers organizations and several stakeholders of the private sector. For the sake of the compromise and to let the proposal see the light, the Parliament sacrificed many critical obligations, watering down several targets, especially concerning agriculture and fisheries. The objective of this work will be to address three major claims for which the restoration of agri-food ecosystems in the regulation finds resistance: the concern about the reduction the agri-food yields and the potential food security threat; the concerns that restoration actions could compromise agricultural labor and the position of farmers on the value chain; and finally the uncertainties regarding the economic viability of these interventions between skepticism regarding the return on investment and the apprehension of having a burden on agri-food business development. To answer these questions, it is necessary to first clarify the notion and characteristics of restoration action. The newfound attention and the political implications around the theme often led to misleading usage of the concept that risks distorting its true nature and obscuring its purpose. Therefore, this work tries to firstly cast the light on the legal meaning and definitions of restoration trying to frame the features and legal connotations reflected in the proposal and unknot some of the misconceptions. Once clarified and addressed the claims against this regulation, a separate goal of this work is to identify which kind of step forward the regulation would take from the failure of the conservation approach of the so-called "nature directives". Eventually, it will be important to assess the consistency of this regulation with the long-cherished transition to a sustainable food system and its coherence with the Farm to fork strategy vision.

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## **Evaluating the Potential Impact of the Definitions in the EU Regulation on Deforestation-Free Products in the Latin American Coffee Sector: Are Coffee Agroforestry Systems at Risk?**

The European Union's Deforestation Regulation (EUDR) was developed by the European Union to address deforestation linked to agricultural commodities. However, it could exert significant pressure on third countries that export commodities targeted for protection against deforestation, particularly as it aims to enforce consistent due diligence guidelines across all seven covered commodities. In the case of coffee, listed among these commodities, this poses challenges, especially when applying the regulation's definitions within intricate value chains like coffee production.

In Latin America, a crucial region for coffee production, the detrimental impacts of climate change are already observable in coffee-growing areas, resulting in reduced yields, soil degradation, and increased drought risks. Notably, the regulation, scheduled to be enforced by December 2024, will categorize all coffee production predating this deadline as 'deforestation-free', irrespective of the cultivation method employed. This introduces uncertainty for both recent and future coffee production.

Producers now face a crucial dilemma: either adapt to these changing conditions or contemplate relocation. However, the latter often involves encroaching upon 'primary forests' at higher altitudes to uphold the quality of coffee, thereby rendering it unsuitable for export to the EU. Transitioning to agroforestry systems within coffee production —integrating woody perennials alongside coffee plants and other crops— emerges as a promising solution for both adjusting to and mitigating these challenges.

Nevertheless, the current EU regulation may overlook the ecological, social, and economic benefits of sustainable coffee cultivation in agroforestry systems. This oversight could result in coffee produced using such methods being erroneously labeled as contributing to 'deforestation', thereby risking its exclusion from export to the EU. Such an outcome contradicts the regulation's intent to support initiatives like agroecology and agroforestry and can potentially lead to a burden for smallholder coffee farmers in poorer countries. Hence, the EUDR poses a dilemma with its conflicting definitions, potentially impacting not only Latin American coffee-producing nations but especially their smallholder farmers.

This research undertakes an exploratory investigation into the implications and uncertainties surrounding the EUDR's definitions, particularly focusing on the overlapping definitions between 'deforestation' and 'agroforestry,' and their ramifications within the coffee-producing nations of Latin America. Additionally, it briefly examines the potential impact of the regulation on agroforestry practices in the coffee sectors of Brazil and Honduras, the region's largest and third-largest coffee producers, and its implications for exports to the EU.



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### **Carbon farming: problems and potential solutions**

The present work aims to analyze the role of carbon farming, fundamental to reduce the carbon dioxide present in the Earth's atmosphere and, therefore, to achieve a climate-neutral economy, taking as a reference the objective that the European Union has set itself to achieve climate neutrality by 2050.

The main methodological approach used for the realization of this contribution is based on a systematic review of literature, meaning both the papers written by the scientific community and the c.d. "grey literature" and, therefore, the reference legislation - national and supranational - and the reports and data sets made available annually by national and supranational authorities.

From the literature review, it has been ascertained that over the years there has been a change in the "governance of the soil" in Europe, mainly due to the problem of land exploitation for agricultural purposes. The latter was caused by a fragmented policy framework, which has not guaranteed adequate soil protection standards.

The EU considers carbon sequestration in agricultural soils as an important part of its strategy to tackle climate change and promote a more sustainable agriculture. EU policies and initiatives, in fact, aim at providing incentives and support for farmers to adopt practices which promote carbon sequestration and reduce the environmental impact of agriculture.

One of the strategies adopted by the European Commission is included in the *Communication on sustainable carbon cycles* which specifies short- and medium-term actions useful to addressing the current challenges for carbon sequestration in farmland. The intention is to strengthen the green business models and to reward land managers who implement practices for carbon sequestration. To this end, the European Commission proposed a European certification framework based on a process of tracking and tracing the amount of carbon absorbed and stored by certain activities or practices, such as sustainable agriculture, reforestation or forest management. This certification can be used to demonstrate the positive impact of these activities on climate change and to provide added value to products and services which incorporate carbon removal.

However, it is clear that the current national, European and international regulatory framework is not adequate to address the growing issues related to the value and reliability of the certifications themselves.

In this context, therefore, potential regulatory strategies should be investigated and proposed to the European legislator, aimed at ensuring standardization of the guidelines, binding compliance with certain standards and quality criteria. This could be achieved through the involvement of the local community, the transparency of decision-making and the accurate monitoring of carbon emission reductions.



Finally, an attempt will also be made to investigate the potential roles of Member States will be also investigated to test if, through the promoted coordination of EU, they can play a major role in contributing to the global effort of tackling climate change and meeting greenhouse gas emission reduction targets.

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### **Bursting maze of definition Bubbles : What Defines Plants with Beneficial Properties in EU Food Law?"**

Following the meandering pathways that pass through the EU food law system reveals a constant search for a clear definition of plants with ‘beneficial properties’, as the term appears in numerous ways to market food such as functional food, nutraceutical. This legal morass is the mirror for the various questions that have remained unanswered until now relative to the habitual use of certain plants with demonstrable beneficial properties (nutritional, health-promoting, physiological etc). Botanicals in fact represent one of the main critical issues for a virtuous sustainable agri-food chain. Yet, like extant defined food provisions on vitamins and minerals (Regulation (EC) No. 1925/2006), there is no well recognized legal definition for food products that are sourced from botanicals. Moreover, existing definitions given by the EU Commission, EFSA and national acts referring to their use in the internal market are seriously inadequate, as they obviously leave enormous room for interpretation and are quite reverse discriminatory for business operators in EU member states. In response to evolving consumer preferences favoring natural, organic, and herbal products, it becomes imperative to include certain plants with scientifically proven beneficial effects in food and beverages.

The PRIN PNR 2022 “BEETROOT” project, which aims to build a comprehensive regulative framework for plants with healing properties and botanicals used as food to boost public health, addresses at the European level. The first purpose of this project to explore various terms—scientific (such as bioactive components and phytochemicals), legal (such as food supplements and botanicals), and marketing (such as “superfood” and “nutraceutical”)—to comprehend relevant terminology related to plants with beneficial properties to establish a definition in EU food law. Despite evidence from science, establishing what plants having beneficial characteristics are in legal terms remains difficult. However, a specific definition is critical for assuring consumer safety and regulatory compliance excluding misleading concepts around the Europe. Rather than proposing new regulation, this study offers some variations of existing definitions to address these issues within the EU’s framework for the sustainable agri-food chain.

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### **The impact of CAP on sustainable farming: The case of botanicals**

Sustaining and improving environmental protection and climate action is a top priority for the future agri-food production of the European Union.

The Common Agricultural Policy (CAP) 2023-2027, in synergy with the Green Deal, the Farm to Fork strategy and the Biodiversity strategy, reflects an increased ambition to promote a transition to a sustainable food system where farmers can continue to meet society's demand for food while protecting the climate.

The CAP provides the instruments, such as direct payments, especially in the form of Basic Support for Sustainability and the Eco-schemes, to support viable farm income and the resilience of the agricultural sector across the EU, in order to enhance long-term food security and agricultural diversity, as well as to ensure the economic sustainability of agricultural production.

Nonetheless, the farmers need to respect some requirements to be eligible for direct payments among which qualify as active farmers, have agricultural land at their disposal and use it for an agricultural activity which includes the production of agricultural products according to Article par. 4 TFEU (listed in Annex I).

The PRIN PNRR 2022 "BEETROOT" project, which aims to build a comprehensive regulative framework for plants with healing properties and botanicals used as food to boost public health, addresses at the European level the question of the legal qualification of botanicals as «agricultural products» within the meaning of Article 38 TFEU.

In this first step of the "BEETROOT" project, the following paper sets out to explore how this qualification may impact on the status of the operator involved in both the cultivation and processing phases: in fact, if these goods can be considered «agricultural products», the operator could be a «farmer» subject to the commitments and benefits of the CAP.

By adopting the perspective of a particular agricultural production operators, such as the botanicals ones, the aim is to observe how they can take advantage of the provisions of the CAP in terms of improving the competitiveness of their activity on the market and encouraging them to work in a sustainable and environmentally friendly way protecting soils and biodiversity.

The purpose is to investigate the practical implications of the policies implemented by the European Union highlighting how sustainability is assumed not only as a principle, but as a model to be implemented in order to change the structure and objectives of each actor in the entire production chain.