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SUSTANAIBILITY FROM CONCEPT TO PARADIGM OF ENVIRONMENTAL POLICIES

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Abstract: *This paper analyzes by transposing the importance of environmental policies, highlighting the most significant regulations directly related to the sustainable agriculture component in relation to the environmental targets proposed by the Municipal Agricultural Policy. The need to rethink agricultural processes led slowly to the anchoring to current trends as a premise in the realization of a real report related to sustainable agricultural systems performing and last but not least aligned to the constraints of eco-conditionality. From this perspective, the methodology in reflecting our analysis was linked to the collection of data reported in international statistical databases such as those available at the National Institute of Statistics Eurostat, as well as OECD reports on the subjects analyzed in the study. In these paradises, the perspective reflected by the New Agricultural Policy is rather aligned towards the achievement of environmental goals in agriculture, which positions the ability of farmers to adapt to these sustainability conditions. Through these completely new concepts for farmers, the studio reflects the sustainability of agriculture through the levers offered by the agricultural policy and research, thus also representing an important resource in complex research aimed at the decarbonization of agriculture as topical issues.*

Keywords: *environmental, sustainability, agricultural, decarbonization, policies.*

UDC: *631.147:504.75*

JEL Code: *Q10,Q01, Q10, Q59, Q18.*

Introduction

A key tool for guaranteeing that agriculture can make a workable transition to a sustainable future—one that includes achieving the objective of lowering carbon emissions has been identified as the Common Agricultural Policy's (CAP) views.

One of the main objectives of the paper is the interconnectivity between how specific agricultural activities can be answers for the protection of biodiversity. From this perspective, the second objective that we aimed to highlight is related to productivity and good practices, how ecosystem services can influence the reduction of greenhouse gas (GHG) emissions. The paradigm of how agriculture contributes directly to the production of greenhouse gas emissions is analyzed in contrast to the role of agricultural processes as a whole, mainly through carbon

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sequestration at soil level. Thus, surprisingly, few studies have investigated the cause-effect relationship as an objective of integrated analysis based on regionally aggregated data, but many studies have demonstrated contrasting patterns in outcomes and environmental outcomes as revealed by Raudsepp- Hearne et al. (2010).

The main purpose of this research is to study the evolution of Romanian agriculture in the context of the new transformation of the common agricultural policy paradigm from the perspective of sectoral structural constraints determined by a new vision of the Common Agricultural Policy, this being generally perceived as a new requirement.

Linking specific agricultural activities to responses in biodiversity, ecosystem services and emissions, including greenhouse gas (GHG) emissions are directly causal, and surprisingly, few studies have investigated such changes in an integrated analysis. based on regionally aggregated data demonstrated contrasting patterns in environmental outcomes and output (e.g. Raudsepp-Hearne et al. (2010)).

As a result, climate targets have been discovered in the CAP. Academic research has raised widespread concerns about achieving the goal of reducing carbon emissions from the perspective of sustainable agriculture, as well as how agricultural economies are evolving from a climate perspective has sparked a number of debates.

In order to create a causal relationship from a climatic perspective, we summarized in our paper the changes in carbon emissions from agricultural sources in Eastern countries as compared to the European Union. We also emphasized certain concerns regarding agricultural fertilizers.

Most recent research on ecosystem service provision at the landscape scale has concentrated on offering packages of services for administrative regions, grouped areas, or special locations (Andersson et al., 2015; Nikodinoska et al., 2018). To our knowledge, there is a lack of studies that explicitly link changes in biodiversity and ecosystem services to the increasing specialization of production, despite the fact that the latter is an important link between agricultural policy and environmental outcomes (Leventon et al. al., 2017). Nikodinoska et al., 2018). To our knowledge, there is a lack of studies that explicitly link changes in biodiversity and ecosystem services to the increasing specialization of production, despite the fact that the latter is an important link between agricultural policy and environmental outcomes (Leventon et al. al., 2017). Nikodinoska et al., 2018). To our knowledge, there is a lack of studies that explicitly link changes in biodiversity and ecosystem services to the increasing specialization of production, despite the fact that the latter is an important link between agricultural policy and environmental outcomes (Leventon et al. al., 2017).

From an environmental perspective, policies are expected to change relative profitability, especially in the organic farming sector (Sanders, 2007) thus benefiting the gross domestic product of agriculture with the ancillary components shown in Table 1.

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Table 1. Total GPA products from agriculture

unit	2015	2016	2017	2018	2019
Total GPA products	2817995372	2997112627	2806353995	2757774900	2635106003
Agricultural products, hunting and related services	57903413	59636519	57700564	57190913	55741202
Forest products, logging and related services	2894263	2313464	2792079	2761014	2629423
Fish and other fishery products, aquaculture production	4648586	5770344	5472822	5331782	5236907
Legal and accounting services	4940446	4648812	5617627	5561279	5362229

Source: own searched data from Eurostat

Another atypical problem is the revenues from the state budget are calculated from royalties from the exploitation of agricultural land, which shows that there is a practice of removing these lands from the agricultural circuit, which leads to the limitation of seizure of C in the soil, and teen conversion opportunities for farming practices.

Climate change can also have a positive impact on agriculture. Warmer temperatures, according to some research, prolong the growing season and increase the carbon dioxide in the air, which leads to increased yields in some crops. A change in production practices patterns, as well as a growing demand for irrigation, may be due to global warming and declining soil moisture.

The ability of agriculture to benefit from climate change will be influenced by adaptation to cross-compliance mechanisms the mechanisms of unconditionality and the transition to organic production.

Data and Methodology

A variety of approaches are used in this strategy, which includes collecting and analyzing administrative data in addition to evaluating the literature. Allocating CAP money, mainly for the substitution of agricultural policy mechanisms for pesticides, required a comprehensive analysis of databases as part of the process. Utilizing a cross-cutting technique, the literature review for finishing the responses to the evaluation questions and conducting the early context analysis. Beginning with the data pertaining to Romanian farms and agricultural goods, a number of specialized analyses including those on fertilizers, climate change, biodiversity, and much more that were found in the literature were taken into consideration first.

A global context analysis and a summary of the most pertinent research relevant to agricultural regions with ecological practices on the one hand and land use that have served as benchmarks for a more thorough examination of the context of greenhouse gas emissions are

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also included in the literature review. We examined an evaluation of the counterfactual influence in the applicable methodological analysis, wherein, if there would be enough causal elements between them, it would be beneficial to access and correlate the particular microdata gathered from the statistical databases.

The data collection tools were based on the usefulness of the data compared to the date of accessing the data sources being collected from specific annual statistical reports as well as from administrative data sources Eurostat, Agridata as well as Organization for Economic Cooperation and Development (OECD).

The results show that sustainable agriculture has become more and more important, being a topic included in the Common Agricultural Policy and more and more common among academic research.

The main element pursued in the data collection of this research is to make a synoptic analysis of the evolution of agriculture in the context of transformations as a result of the application of agricultural policies from the perspective of changes, and in this direction there are many restrictions that lead to results sometimes affected by the inability of rural areas to adapt to environmental policies even because of environmentally affected areas such as excessive deforestation, landslides and soil degradation.

The Common Agricultural Policy thus foresees a transfer of funds from the first pillar (market) to the second development pillar (rural) of the CAP, through modulation, thus providing incentives for the expansion and increased adoption of sustainable and ecological production techniques. The additional funding proposed for rural development plans could benefit from carbon sequestration, if member states invest it in increased soil protection measures our analysis consisting of extracting Eurostat statistical data by estimating the capacity to adapt agricultural practices in general to the norms and policies for the protection of biodiversity and the environment.

Romania is facing a huge problem in balancing economic development with environmental sustainability. Romania has made huge strides in improving the conditions of systemic development since the application of agricultural policies as a result of joining the EU. living conditions since joining the EU.

A faster pace of economic growth, on the other hand, should help close the gap with the EU average. At the same time, Romania, like the rest of the EU, faces effects regarding the application of agricultural policies as a result of climate change and environmental damage. At the same time, Romania, like the rest of the EU, is facing climate change and environmental damage.

The Model and Findings

In the context of the European legislation on combating climate change and the transition to the Green Pact, the aim is to increase the level of the emission reduction target.

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In this context, the CAP has several dimensions: financial support and market-oriented dimension and rural development dimension.

In Romania is one of the countries that practices organic farming. In the period 2012-2019, the area in organic farming decreased by an average of 6,939.7 hectares per year.

Along the food supply chain, farmers and operators will have more alternatives as we move toward sustainable food systems, particularly with organic farms. This will lead to better food and cheaper environmental expenses. Regions of the EU that produce crops often have predetermined amounts of soil phosphorus.

Organic pricing and the influence of the stimulus market are frequently more expensive than aid payments (Offermann and Nieberg, 2009).For example, the CAP strategy has resulted in a notable decrease in traditional ones. Producer pricing have made organic farming more competitive when combined with EC subsidies for organic farming under Regulation 2078/92.

According to Eurostat public information, we estimated by Figure 1 the projection of economic indicators as the target on the Agricola forecast, a progressive increase resulted, starting with 22% in 2023 and reaching 25% in 2025.

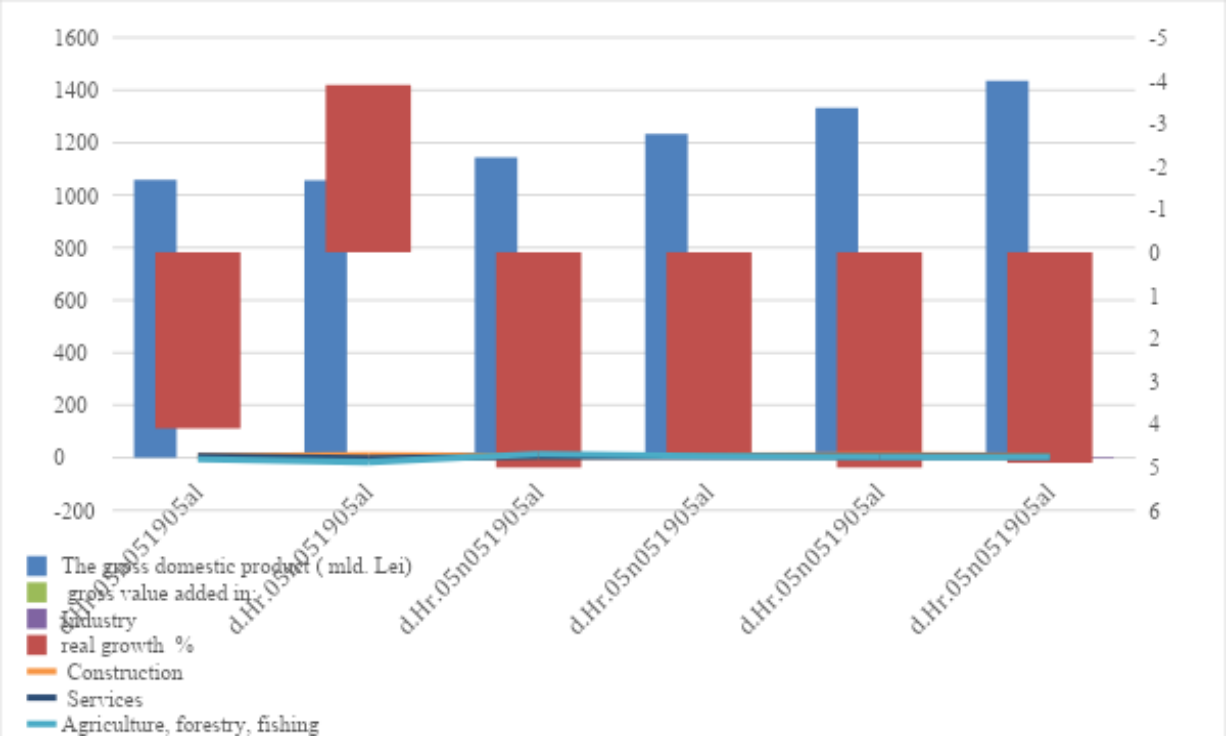

Figure 1. Projection of the main macroeconomic indicators

Source: www.insse.ro (Own research data from National Institute of Forecasting)

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Table 2. Title of the table (Times New Roman, 12 pt., bold, left)

Country/year	2002	2007	2012	2017	Population for 2018, million
Bulgaria	-85500	-83742	-24472	-24001	7024216
Czech Republic	47402	250889	59997	59997	10625695
Estonia	-18406	-15151	-10516	-4999	1320884
Hungary	61589	25150	29999	29999	9768785

Source: World Bank http://www.worldbank.org

Information in the In the context of agriculture, carbon sequestration is the process by which forests and agricultural land absorb carbon dioxide from the atmosphere. Through photosynthesis, carbon dioxide is taken up by plants, trees, and crops. It is then stored as carbon in biomass found in the roots, trunks, branches, leaves, and soil of these organisms (EPA, 2008). Because they can hold significant amounts of carbon in plants and their root systems for extended periods of time, forests and stables are known as carbon reservoirs. The world's soils are the greatest absorbers of terrestrial carbon. The climate, the type of soil, the type of cover and the management of crops or practical vegetation all influence the potential of agricultural land to store or capture carbon.

The addition of carbon from dead plant material and the loss of carbon by respiration, the decomposition of the process and the disturbance of both natural and human soil influence the amount of carbon stored in the organic materials of the soil.

Organically farmed lands and areas undergoing conversion in Romania must fulfill all production requirements specified in Regulation (EC) no. 834/2007. The specific guidelines for implementation are specified in Regulation (EC) no. Commission Regulation (EC) No 889/2008.

Pesticides affect more than only agriculture; for example, they may be spread through the air and leave residues in food. One of the main reasons why poultry numbers have decreased throughout Europe is the indirect impacts of pesticides (Geiger, et al. 2010). Nevertheless, these approximations primarily establish the foundation for the requirement to lower external adaptation costs by highlighting their large amplitude. It should be highlighted that the amount of pesticides sold and used is highly erratic and is influenced by a number of variables, including crop composition, farming methods, crop prices, input costs, and the likelihood of new regulations that might encourage pesticide hoarding.

Furthermore, the degree of danger and effect associated with the use and sale of pesticides is not equivalent to these figures, which do not account for the characteristics of the chemical used.The fact that funds are not being allocated to green initiatives in an effective manner is the most noteworthy feature of the way that climate policy expenditure is currently calculated.

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Lynch et al. (2021) also highlight the critical role that agricul ture plays in mitigating climate change, emphasizing the intimate relationship between mitigation capability and tactics.

Over the past 20 years, the importance of climate objectives in the CAP has steadily increased. This section explains the evolution of the CAP's integration of climate issues. Prior to 2007, the CAP had not declared climate action as a top priority.

Nonetheless, some instruments and policies that have been put in place may have some impact on mitigating the effects of climate change. For instance, intense output was discouraged in 2003 when decoupled direct payments were implemented.

The evaluation of carbon storage and land use strategies in functional and competitive market economies has become increasingly visible in scientific research, paving the way for a new era of less polluting agricultural development, with very ambitious decarbonisation objectives. 40% by 2030, as amended by the agreement on the European Climate Law of April 2021 establishing a framework for climate action to increase societal certainty, the date on which the EU's 2030 ambition is also growing,

In conclusion, the European Commission's priorities in the European Green Pact are to implement the commitment to the United Nations Convention on Climate Change and to implement the Green Climate Change operational.

In recent decades, agricultural intensification methods have contributed to higher yields. In light of the CAP's greening strategy, this has had significant effects on how agricultural producers behave ecologically and how to create an agri-food business that is more ecologically conscious.

Regarding the attraction, support and development of small farms in mountain areas is similar to that recorded in other parts of the country, with 2.78 hectares supported on average in projects in mountain areas and 2.32 ha / projects outside mountain areas in the mountain area, most beneficiaries own small farms., while most of the funding is accessed by large farms. In fact, 60% of the beneficiaries of subsidies in the mountain area own a farm of less than 50 ha.

The value of investments in farms with less than 50 ha represents 27% of the total financing in the mountain areas and only 3% of the total financing on the entire Romanian territory.

The data analysis indicates that small farms tend to be flexible and diversify in response to market demands, as they are not highly specialized in any one area. This self-consumptive tendency is reflected in their ability to adapt to changing environmental conditions without the practical encouragement of agri-environmental measures. Reducing energy consumption or reducing nitrate emissions (Table 2).

For developing countries such as Romania and Bulgaria, both pillars of the CAP are critical for agriculture, but with an emphasis on the first pillar. Compared to countries like Germany or France where ecological policies have been adapted to market requirements, we cannot help but make a clear distinction of the fact that not in all cases the agricultural policy takes precedence, but it is influenced by factors such as local culture, the low degree of

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adaptability through lack of sustainability information and more environmentally friendly farming practices, as he notes Safta A.S. et al (2024)

Table 2. Models for reducing nitrate emissions

United	Development tools goals
Reducing GHG emissions	Absolute reduction in time of GHG emissions in agriculture *, at farm or area level (unit: CO2 equivalent) Reduction of greenhouse gas emissions from agricultural activities relative to production farms
Sustainable, tangible and intangible investments Ensuring healthy organic agricultural products	Increasing efficiency in the production process at farm or area level (unit: energy per unit of product / hectare, emissions per unit of product / hectare) Efficient management of natural resources and maintaining a reduced impact of agriculture on natural resources (water, soil, air)
Sustainable, tangible and intangible investments Maintaining a good conservation status of biodiversity preserving areas of high natural value	Introduction of ecological technologies, standards or ecological practices in agricultural processes Preservation of the characteristics of rural areas and natural landscapes.
Land management Agricultural land management capacity	Changing land use patterns (towards sustainable land use) at the level of agricultural land (unit: hectare) Conversion of agricultural land to improve soil carbon sequestration

Source:Eurostat data ouner recherche http://www.worldbank.org

In this vision, the access to the funds offered through the Agricultural Policies differed in the EU countries, from which it follows that the measures supported by the CAP must be constantly updated according to the needs of farmers and according to the market situation at different times.

Adopted measures should be taken to close the existing gaps with the other countries, especially in the north-west EU (Galluzzo (2018) demonstrated the existence of a direct correlation between Single Area Payment Schemes and crop specialization.

Conclusions

Taking into account all the highlighted agricultural productivity pursued by agricultural policies in intense change, it can be observed that agricultural productivity is not directly related to the expenses related to the direct payments applied through the CAP, nor to the agricultural area used, respectively the coverage of agricultural land. Mitigating efforts towards the convergence of labor productivity in the EU-27 depends on factors such as: the promotion of precision agriculture, knowledge transfer and others.

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However, the volume of direct payment expenditure must be considered differently in less productive countries, mainly because a large share of the total population relies on subsistence agriculture. In this context, the allocation of the CAP budget becomes difficult to estimate. One of the components of the first pillar of the CAP is intended to provide additional support for compensating the costs of applying good practices and greening agriculture.

There is a good probability that agricultural systems will adjust to these demands thanks to the EU's right to include resource-efficient sustainability measures and remediation strategies into the Common Agricultural Policy. Furthermore, considering the current state of the climate and the emphasis on sustainability being built upon the three main pillars of economic, environmental, and social sustainability, we believe that any interference between these poles needs to be described as a living interdependence rather than at the level of a general strategy.

According to Popescu et al. (2021), the environmental benefits of such allocations will be reduced even from the initial costs. Therefore, our analysis suggests that in the first phase, since pollution levels could be controlled by measures to reduce pesticides and replace chemical fertilizers by switching to sustainable products and production, why not reduce these costs?

On the other hand, in the current circumstances, the interconditionality between benefits and costs must be kept in balance when achieving the objectives is to reduce pollution. We believe that the interference between them must be outlined as a living interdependence between the poles and not at the level of a generic strategy.

Research shows that the impact of environmental degradation tends to be concentrated among vulnerable groups and households. Air pollution by analyzing the consequences creates the premises for synergies related to activities at regional and rural level as many farmers are attracted to environmental protection programs. (Ramírez, P.B., et al colab. (2019)

Several pertinent studies have evaluated land use emissions using IPPC approaches in terms of greenhouse gas emissions from land use (Flynn et al., 2012; Don et al., 2012). According to Don et al. (2012), the lack of data makes it difficult to estimate the balance of GHG emissions for bioenergy crops. Additionally, annual energy crops like maize, wheat, and barley have low GHG efficiency because the production of raw materials compromises the CO2 savings associated with bioenergy. They suggested a revision of the plan to lower GHG emissions by better selecting the type of culture, increasing yield, and implementing improved culture management—exactly because there were insufficient information resources available (Nancu et al., 2022).

Concluding with the reduction of land use emissions is no longer an option, but a necessity in terms of contributing significantly to climate change. An image with direct answers to the negative impact of land use on air concentration as a result of incorrect land management, used crops, land conversion through changes in use on the one hand but also the size of organic farming and reduction of chemical fertilizers and pesticides in agricultural production. but a need in terms of contributing significantly to climate change. An image with direct answers to the negative impact

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Sustainable development strategies and options should evolve in relation to scientific research on sensitive issues of reducing greenhouse gas emissions, how agricultural sustainability and the state of land use emissions are evolving through sustainable land management. In recent years, Sustainable land management has grown in importance as a strategic objective for the EU and other organizations in recent years. Decision-makers need to be aware of what is going wrong and the effects that every land use choice has in order to manage the land more effectively. Greenhouse gas emissions are a worldwide phenomenon that have catastrophic impacts on the earth when it comes to the negative effects of land usage.

Therefore, in accordance with environmental requirements, farmers can benefit from funds allocated through levers adopted in EU regulations, bringing a benefit in reducing pollution through pesticide reduction measures and the replacement of chemical fertilizers, by switching to sustainable products and productions. By adapting faster to the measure of cross compliance, environmental costs, as indicated by Popescu et al. (2021) will be reduced even compared to the initial costs. Thus, it is once again shown that the CAP package places a high priority on alignment with environmental circumstances and transfers complete responsibility for environmental compliance to farmers. Setting goals for the effectiveness of an increasingly sustainable agriculture takes the needs of the environment and climate change into account.

Our findings demonstrate that no one farm model can minimize greenhouse gas emissions while maximizing food production, pasture biodiversity, and landscape openness. Nonetheless, there is a great deal of room to control trade-offs between these environmental factors and food production.

The study shows that raising sustainability targets is not only a requirement for agriculture policy but also a lever for efficiency; the convergence levers of the CAP vision transform necessity into reality. Consequently, it is imperative that an innovative framework be in place to assist producers in utilizing those levers and tailored solutions as they shift to more environmentally friendly business practices. Sustainable development of agricultural crops represents an important way to analyze the opportunities for decarbonisation and to promote climate-friendly principles in agriculture.

This research paper contributes to an explicit understanding of the CAP issues as a specific policy with a high impact on the Romanian agricultural system and the development of the rural community.We can say that the way in which research and innovation contribute

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through its influence to the development of constructive policies in the wider European Union can lead to the involvement of civil society, of all interested parties in the adoption of the best practices that provide a balance between environmental standards and long-term sustainability. PAC therefore aims to provide food security for EU citizens, but in a complex way that ensures sustainability. Therefore, the contribution of this study also consists in highlighting major issues related to the effects of the evolution of the common agricultural policy on Romanian agriculture in terms of accelerating good practices and sustainability policies.

References

Aznar-Sánchez, J. A, Piquer-Rodríguez, M., Velasco-Muñoz, J. F, & Manzano-Agugliaro, F. (2019). Global research trends on sustainable land use in agriculture. *Land Use Policy, 87*, 104069.

CES. (2008, July 9). *Opinion of the European Economic and Social Committee on The relationship between climate change and agriculture in Europe*, NAT / 384 Climate change and agriculture in Europe European Economic and Social Committee.

Common agricultural policy. Public consultation on experience with the first year of implementation of greening obligations under the Direct Payment Scheme (CAP). (2016). http://ec.europa.eu/agriculture/consultations/greening/2015_ro

Crowder, D. W., & Reganold, J. P. (2015). The financial competitiveness of organic farming on a global scale. *Proceedings of the National Academy of Sciences*, *112*(24), 7611-7616.

Common agricultural policy: Public consultation on the experience of the first year of implementing greening obligations under the Direct Payment Scheme (CAP). (2016). http://ec.europa.eu/agriculture/consultations/greening/2015_ro, https://www.ipcc.ch/publications_and_data/ar4/wg1/en/spmsspm-direct-observations.html.

Don, A., Osborne, B., Hastings, A., Skiba, U., Carter, M. S., Drewer, J., & Zenone, T. (2012). Land-use change to bioenergy production in E urope: implications for the greenhouse gas balance and soil carbon. *Gcb Bioenergy*, *4*, 372-391.

Environmental Protection Agency. (2014). *Environment Action Program to 2020*. https://ec.europa.eu/environment/action-programme/

European Commission. (2020). *A Farm to Fork Strategy for a fair, healthy and environmentally-friendly food system*. https://ec.europa.eu/info/sites/info/files/communication-annex-farm-fork-greendeal_en.pdf.

Evans, C., Artz, R., Moxley, J., Smyth, M., Taylor, E., Archer, N., Burden, A., Williamson, J., Donnelly, D., Thomson, A., Buys, G., Malcolm, H., Wilson, D., Renou-Wilson, F., & Pottset, J. (2017). *Implementation of an Emissions Inventory for UK Peatlands: Report*

the Department for Business Energy and Industrial Strategy (TRN860/07/2014). Center for Ecology and Hydrology. https: // ukair. defra.gov.uk/assets/documents/reports/cat07/1904111135_UK_peatland_GHG_emissions .pdf.

Fargione, J., Basset, S., Boucher, T., Bridgham, S., & Bridgham, R. (2018). Natural climate solutions for the United States. *Science Advances, 4(*11). http://dx.doi.org/10.1126/sciadv.aat1869.

Food and Agriculture Organization of the United Nations (FAO). (2020). *Global Forest Resources Assessments*. https://www.fao.org/forest-resources-assessment/en/

Galluzzo, N. (2018). Impact of the Common Agricultural Policy payments towards Romanian farms. *Bulgarian Journal of Agricultural Science*, *24*(2), 199-205.

Geiger, F., Bengtsson, J., Berendse, F., Weisser, W. W., Emmerson, M., Morales, M. B., Ceryngier, P., Liira, J., Tscharntkei, T., Winqvist, C., Eggers, S., Bommarco, R., Pärt, T., Bretagnollej, W., Plantegenest, M., Clement, L., Dennis, C., Palmer, C., Oñate, J., . . . Inchausti, P. (2010). Persistent negative effects of pesticides on biodiversity and biological control potential on European farmland. *Basic and Applied Ecology*, *11*(2), 97-105.

Food and Agriculture Organization of the United Nations. (2020) *Global assessments of forest resources*. http://www.fao.org/forest-resources-assessment/en/

Huang, J., Chen, Y., Pan, J., Liu, W., Yang, G., Xiao, X., & Zhou, L. (2019). The carbon footprint of different agricultural systems in China is estimated by various evaluation metrics. *Journal of Cleaner Production*, *225*, 939-948.

OECD. (2021, June 8). *Building Agricultural Resistance to Natural Disaster-Induced Disasters* [Reports]. https://www.oecd.org/unitedstates/publicationsdocuments/reports/

Pellerin, S., Bamiere, L., Angers, D., Beline, F., Benoit, M., Butault, J.-P., Chenu, C., Colnenne-David, C., De Cara, S., Delame, N., Doreau, M., Dupraz, P., Faverdin, P., Garcia-Launay, F., Hassouna, M., Henault, C.,Jeuffroy, M.-H., Klumpp, K., Metay, A., . . . Chemineau, P. (2017). Identifying the cost-reducing potential of competitive greenhouse gases in French agriculture. *Environmental Science & Policy*, *77*, 130-139.

Popescu L., & Safta, A. (2021). The role of phosphates in agriculture and highlighting key issues in agriculture from the perspective of climate change. *Economics of Agriculture*, *68*(4), 1001-1014. https://ea.bg.ac.rs/index.php/EA/index

Ramírez, P. B., Calderón, F. J., Fonte, S. J., & Bonilla, C. A. (2019). Environmental controls and long-term changes in carbon stocks in agricultural land. *Soil and Tillage Research*, *186*, 310-321.

Ruttan, V. W. (2019). *Sustainable agriculture and the environment: Growth prospects and constraints*. CRC Press. https://doi.org/10.1201/9780429047688

Volume 10 / Issue 1/ June 2024
DOI: https://doi.org/10.53486/2537-6179.10-1.11

Safta, A. S., & Popescu, L. (2024). Considerations regarding environmental performance from the perspective of the sustainability. *Environmental Engineering and Management Journal (EEMJ)*, *23*(3).

Sauerbeck, D. R. (1993). CO 2 emissions from agriculture: sources and mitigation potentials. *Water, air and soil pollution*, *70* (1-4), 381-388.

Food and Agriculture Organization of the United Nations. (2015). *Introduction to Organic Farming*. https://www.fao.org/3/ca4028en/ca4028en.pdf