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Emerging Policies and Contradictions in the EU: A Fair, Healthy and Environmentally Friendly Food System by 2030

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Within the European Green Deal, the Biodiversity and Farm-to-Fork strategies aim to combat biodiversity loss and foster a shift towards a sustainable food system by 2030. This text explores two controversies that emerged after their publication. Firstly, it delves into the academic debate surrounding the framings of food and the policy implications resulting from whether food is conceptualized as a commodity or a common good. Secondly, the war in Ukraine prompted controversial public debates on food security. While farmers and industry advocated for relaxing agroecological ambitions, thousands of scientists argued for maintaining them to ensure food security. These controversies can be seen as a litmus test for the resilience and adaptability of the Farm-to-Fork and Biodiversity strategies. The geopolitical crisis slowed but did not reverse the sustainability transition. In the next years, the ambition among EU member states' strategic plans will determine if the Common Agricultural Policy can serve as a pivotal lever for realizing the EU Green Deal's target of becoming the first climate-neutral continent.

Key words: Agro-food policies, sustainability transition, climate-neutrality, European Union, Ukraine war

1. Introduction

This exploratory contribution seeks to unravel recent agroecological developments and controversies in the European Union (EU), delving into the debates among farmers, industry and scientists on transformative policies embedded in the European Green Deal (EC, 2019). In the intricate landscape of European agricultural policies, the term "agroecology" stands as a beacon of sustainability. However, this seemingly straightforward concept is ensnared in a web of complexities that are briefly addressed in the next section.

(1) Agroecology: a vague and bridging concept

Due to the absence of a unified legal definition of agroecology in the EU, agroecology is heterogeneously conceptualized. The vagueness or flexibility in the term might, however, also support more holistic approaches. Thus, agroecology can also be seen as a bridging concept, similar to "eco-system services", that has the potential to bridge science and practice, but also natural and social aspects (Braat and de Groot, 2012; Davoudi et al., 2012). In contrast to organic farming that is rigorously regulated, the vague concept of agroecology might open up new ways of combining ecological and social knowledge for sustainable and equitable agro-food systems.

(2) The European Green Deal

In the context of agroecology, the EU regulates and incentivizes sustainable agriculture within the broader objectives of the European Green Deal (EC, 2019). Launched in 2019, the European Green Deal is a comprehensive policy initiative aiming for climate neutrality by 2050 (EC, 2019). The Farm-to-Fork (F2F) and Biodiversity (BD) strategies emerge as crucial policy instruments for implementing the Green Deal's vision within agriculture (EC, 2020a, 2020b).

(3) The Farm-to-Fork Strategy: a paradigm shift

At the heart of the agro-food transformative agenda is the Farm-to-Fork strategy, a policy innovation that transcends the traditional linear understanding of the

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food system (EC, 2020a). Published on May 20th, 2020, F2F envisions a systemic and circular view, recognizing the interconnectedness of agricultural practices, food production, and consumption (EC, 2020a).

One of the pivotal aspects of the F2F strategy is its commitment to breaking free from policy lock-ins by embracing an integrated approach that addresses not only agricultural concerns but also the environment, human health, and the equitable distribution of benefits along the entire supply chain (EC, 2020a). The targets set for 2030 are ambitious, including the halving of the use and risk of chemical pesticides, a 50% reduction in nutrient losses, decreased sales of antimicrobials for farmed animals and aquaculture, and the goal of 25% organic farmland (EC, 2020a).

(4) The Biodiversity Strategy

Published on May 20th, 2020, the Biodiversity Strategy complements the objectives of the Farm-to-Fork strategy. With a keen focus on the preservation and restoration of ecosystems, this strategy sets forth goals such as the legal protection of at least 30% of the EU's land and marine areas, the restoration of damaged ecosystems, and the promotion of landscape elements with high biological diversity on at least 10% of the land (EC, 2020b).

Subsequent sections will delve into the controversies arising from the F2F and BD strategies, the clash between differing framings of food, and the challenges posed by geopolitical events on ecological ambition in the context of debates on food security. In unravelling these controversies, we seek to shed light on the future trajectory of European agriculture, but also their adaptability in times of geopolitical crises.

2. Controversy I: food as a commodity or a common good?

In the evolving landscape of European agricultural policies, a theoretical controversy has emerged, encapsulated in the question of whether food should be framed as a mere commodity or also be recognized as a common good. At the heart of this debate is an exploration of how different conceptualizations of food shape policy options and influence the trajectory of sustainable food systems. Before delving into the controversy, it is crucial to comprehend the context of the European Scientific Advice Mechanism, in which it unfolds.

(1) Scientific Advice Mechanism

The European Science Advice Mechanism is characterized by a clear separation between state-of-knowledge reports and the policy recommendations by the Group of Chief Scientific Advisors. This should ensure independence, academic rigor, and impartiality.

In preparation for the F2F Strategy, the European Commission commissioned the European Network of Academies of Sciences to bring together a group of European scientists to synthesize the state of knowledge that can help Europe move towards a more sustainable food system in a fair and timely manner (SAPEA, 2020). The group of authors from eleven different countries covered a broad range of disciplinary backgrounds. Their report provided a comprehensive overview of the knowledge on sustainable food systems (SAPEA, 2020). The report, which inter alia also delved into the literature on various framings of food, provided the foundation for policy recommendations by the Group of Chief Scientific Advisors (GCSA, 2020) and the F2F strategy.

(2) Alternative framings of food

The Chief Scientific Advisors concluded that a transformative shift is imperative (GSCA, 2020). The proposed subtitle of their report encapsulates this shift—'moving from food as a commodity to food as more of a common good' (GSCA, 2020). The GCSA's conclusions imply a need for deep reforms in food policy that touch upon every part of the food system (Jackson et al., 2021).

The Chief Advisors built their recommendation on a section of the SAPEA report summarizing the literature on different framings of food. Framing' refers to the process of identifying and defining problems and the procedures for their solution (SAPEA, 2020). While frames are often taken for granted, they are rarely neutral in their political effects, reflecting underlying values which shape the problems to be

Table 1. Food as a commodity

Narrative Components	Possible Interventions	Action Points in the Farm to Fork Strategy (EC, 2020a)
• Meeting consumer demand • Global competitiveness • Early mover advantage • Sustainable intensification	• Support sustainable business innovations • Flexibility in administrative procedures and legislation • Encouraging product differentiation • Nudging initiatives to change consumer behavior	• Many regulations, CAP objectives for agroecology • Informed consumer choice: nutrition and sustainability labelling, origin indication • Improve the corporate governance framework • EU Code of Conduct on Responsible Food Business and Marketing Practices

Source: adapted from Jackson et al. (2021)

Table 2. Food as a common good

Narrative Components	Possible Interventions	Action Points in the Farm to Fork Strategy (EC, 2020a)
• Peer-governance embedded in regional terroir/needs • Common responsibility for sustaining natural and cultural heritage for food provision • Food dimensions negotiated in communities • Participation of citizen-consumer	• Rural-urban food coalitions linking farmers and population • Polycentric collaborative governance structures • Coordination to consider EU priorities and to foster learning	• Cooperation of primary producers, origin indication • Stakeholder debates • No new governance structures • Emphasis on consumers, not on citizens

Source: adapted from Jackson et al. (2021)

solved and potential policy responses (Jackson et al., 2021). They exclude particular options while making others appear more rational and reasonable. As a consequence, the frames used by certain groups may prevail over others, highlighting the importance of power asymmetries in the process of policy development (Jackson et al., 2021).

(3) Policy implications of different framings

The divergence in framings (food as a commodity or a common good) carries profound implications for policy development. Table 1 delineates the narrative components and associated innovations of a 'food as a commodity' framing and contrasts them with the actual action points listed in the Farm-to-Fork strategy (EC, 2020a).

The table highlights F2F measures that align with the framing of food as a commodity, including eco-schemes, farm advisory services as well as agri-environmental and climate measures and investments to address the Green Deal targets. The F2F strategy holds high expectations for informed consumer choice supported by sustainability labels as well as voluntary actions by the industry or retail sector.

In contrast, Table 2 presents the framing of food as a common good, emphasizing a shift in focus from consumers to citizens. This framing suggests polycentric collaborative governance structures, socio-institutional innovations such as food councils, and regional or urban food strategies. Polycentric governance structures could coordinate diverse bottom-up initiatives with EU-wide visions, targets, and co-financing, steering away from a system dominated by a few multinational corporations towards a diversity of regionally embedded food systems tailored to the natural and cultural characteristics and needs of European regions.

(4) Recommendations and policy outcome

The controversy encapsulates a clash of perspectives that extends beyond theoretical debates. Different framings emphasize certain policy options while downplaying others, thereby shifting responsibilities to specific groups or alleviating burdens from others. Comparing the recommendation (GCSA, 2020) with the actual action points defined in the F2F strategy,

Jackson et al. (2021) commended the strategy for its positive messages around shorter supply chains, support for organic farming and the promotion of a circular bio-based economy. But, they argue, it fell short in terms of addressing the social dimensions of food to tackle the inequalities and unsustainable practices that permeate the current food system. In other words, the authors doubt the strategy's success in reframing food systems in a way that would enable the development of a truly transformative, socially just and environmentally sustainable food policy and instead fear that a perpetuation of power dynamics might hinder transformative change. Thus, Jackson et al. (2021) imply that framings of food are not merely a theoretical exercise but a tangible force that could have been more effectively used for shaping the trajectory of European agricultural policies. The subsequent section will delve deeper into another, much louder controversy.

3. Controversy II: food security by lowering or increasing ecological ambition

On 24 February 2022, Russia invaded Ukraine in an escalation of a conflict that started in 2014. In the context of this largest attack on a European country since World War II, Ramani, S. (2023), a controversy arose around the question of whether to lower or increase ecological ambition in order to support food security and affordable food. This question was catalyzed by the Russian invasion destabilizing food supply and triggering disruptions in world market prices for commodities like wheat, maize, or oil seeds. The ensuing instability underscored the vulnerability of global food systems to geopolitical crises and posed a critical challenge for EU policymakers, demanding urgent action to safeguard global and European food security. The EU grappled with the need to balance ecological ambition with food security. The Nature Restoration Law and Sustainable Use Regulation, both integral components of the F2F and BD strategies, came under heightened scrutiny.

(1) Nature Restoration Law

This legislation aims at restoration measures, covering at least 20% of the EU's land and sea areas by 2030 (Council, 2023). Regarding agriculture ecosystems, the regulation requires member states to put measures in place aiming to achieve increasing trends in at least two of three indicators (Council, 2023):

the grassland butterfly index

the share of agricultural land with high-diversity landscape features

the stock of organic carbon in cropland mineral soil

The regulation also sets time-bound targets to increase the common farmland bird index at the national level (Council, 2023). However, compromises were made during the legislative process. The co-legislators agreed to provide flexibility to member states when rewetting peatlands (Council, 2023). The text sets targets to restore 30% of drained peatlands under agricultural use by 2030, 40% by 2040 and 50% by 2050, although member states that are strongly affected will be able to apply a lower percentage (Council, 2023). While a tough compromise was reached for the nature restoration law, the sustainable use regulation is still under debate at the end of Nov 2023.

(2) Sustainable Use Regulation

Focused on reducing the use and risk of chemical pesticides by 50% by 2030, the European Commission has proposed a new Regulation on the Sustainable Use of Plant Protection Products in June 2022 (EC, 2022a). In line with the EU's F2F and BD strategies, new measures shall ensure that all farmers and other professional pesticide users practice Integrated Pest Management, which focuses on pest prevention and prioritizes alternative pest control methods, with chemical pesticides only used as a last resort. The proposal includes a ban on all pesticides in sensitive areas as well as protected areas in accordance with Natura 2000 and any ecologically sensitive area to be preserved for threatened pollinators (EC, 2022a).

(3) Claims and counterarguments

The controversy surrounding the Nature Restoration Law and Sustainable Use Regulation fueled a barrage of claims and counterarguments between opponents and proponents. The following paragraphs

present two popular claims by opponents of the regulations and responses and counterarguments listed in an open letter signed by about 3,350 scientists (Pe'er et al., 2022).:

Claim 1: The new regulations will reduce yields and overall production, posing a threat to food security. The scientists provide the following evidence-based responses. Protecting and restoring nature, along with reducing the use of agrochemicals, is crucial for long-term production and food security. Climate change and biodiversity loss are identified as major risks to food security. Sustainable Use Regulation and Nature Restoration Law can contribute to sustainable agro-food systems by enhancing functional diversity in agricultural landscapes, supporting pest control and pollination, and reducing soil erosion.

Claim 2: These new regulations will kill jobs. The argument that the two regulations will lead to job losses is countered by evidence indicating that these regulations can create new employment opportunities and stimulate innovation (Pe'er et al., 2023). Structural changes and reduced demand for labor due to technological progress are identified as primary drivers of job losses in the agricultural sector. The sustainable use regulation and the nature restoration regulation, by supporting agroecological practices, can stimulate employment in the agricultural and food system sectors, preventing the collapse of jobs due to climate change and environmental degradation (Pe'er et al., 2023).

The scientists signing the open letter emphasize the importance of effective nature restoration and a shift towards sustainable use of pesticides to contribute to fast transitions towards sustainability. According to them, the EU can best contribute to global food security by addressing drivers of scarcity, such as high meat consumption and biofuel usage (Pe'er et al., 2023). Or as argued in another public letter by scientists (Pörtner et al., 2022): "We need a food system transformation—In the face of the Russia-Ukraine war, now more than ever".

(4) Intermediary policy outcome

The controversy, marked by intense debates and (dis-)information campaigns, culminated in a difficult compromise. In the short term, the EU responded to rising food market prices with emergency and humanitarian relief to those most in need in third countries and the EU (EC, 2022b). Furthermore, in a disappointing turn for agroecology, the possibility of a temporary exception emerged. The general rule stipulates that farmers receive green direct payments only if they allocate 5% of arable land to areas beneficial for biodiversity. The European Commission, influenced by the loud arguments of industry and farmer lobbies, loosened this existing agroecological standard, demonstrating the challenges in maintaining stringent ecological measures during times of crisis (EC, 2022b).

The Sustainable Use Regulation still is in the environmental committee of the European Parliament, with ongoing debates and discussions on mandatory national reduction targets and the prohibition of plant protection products in sensitive areas. The Nature Restoration Law, on the other hand, passed—after delayed votes, with a very thin majority and with substantial compromises (exceptions for agriculturally used peatlands and delayed implementation pending an impact assessment)—parliament in July 2023 and resulted in a provisional political agreement by the Council presidency and European Parliament representatives on November 22, 2023 (Council, 2023). The delay and the tough compromises highlight the nuanced nature of policy decisions in the face of conflicting interests and uncertainty in times of geopolitical crises.

The controversy discussed above underscores the intricate balance that policymakers must navigate between ecological ambition and the imperative of ensuring food security in globalized agro-food systems vulnerable to geopolitical crises. The Russian-Ukrainian war acted as a catalyst, bringing to the forefront the challenges of implementing ambitious ecological regulations in a rapidly changing geopolitical landscape. As the EU grapples with the aftermath of

this controversy, the subsequent sections will delve into the Common Agricultural Policy (CAP) and the Green Deal objectives, shedding light on the path forward for European agriculture.

4. Future EU trajectories

(1) The Common Agricultural Policy

The allocation of billions in EU taxpayers' money to the Common Agricultural Policy in the next years raises questions about the alignment of these financial flows with the overarching goals of the Green Deal, the F2F and BD strategies.

The F2F strategy, as a cornerstone of the European Green Deal, envisions a fairer, greener, and more performance-based Common Agricultural Policy for the period 2021–2027 (EC, 2020a; EC 2023). With about one-third of the EU budget, totaling 386.6 billion Euros, the Common Agricultural Policy (with 40% earmarked for climate action) addresses approximately 7 million farmers (EC, 2023). The implications of funding decisions reverberate through the entire agricultural sector and the success of the Green Deal (EC, 2019).

(2) Transition period and strategic planning

Presently, the EU is navigating a transition period with the extension of past provisions. The preparation for the new phase involves each Member State crafting a strategic plan tailored to local conditions while aligning with the objectives of the F2F and BD strategies (EC, 2023). They have to co-finance the payments and establish a robust monitoring and evaluation system. The European Commission is poised to publish an in-depth analysis of the 28 Strategic Plans' contribution to EU objectives before the end of 2023 (EC, 2023). The anticipation is that these plans will set the stage for the implementation of a fairer, greener, and more performance-based CAP after 2023.

5. Discussion and conclusions

In the context of the Green Deal's aim of a climate-neutral EU by 2030 (EC, 2019), the F2F strategy is positioned as an agroecological transformation representing a paradigm shift from the productivist agricultural policies shaped by the post-WWII experience of food scarcity towards a fair, healthy and environmental-friendly food system by 2030 (EC, 2020a). However, within two years of its publication, Russia's invasion into the Ukrainian rekindled fears of food insecurity, sparking a loud controversy. Therefore, the agroecological trajectories of the last few years unfolded at the intersection of geopolitical events, agroecological ambition, and the long-standing EU policy imperative to ensure food security. The controversies surrounding the Russian-Ukrainian conflict served as a litmus test for the resilience and adaptability of the F2F strategy and the broader Green Deal objectives. This loud controversy, marked by clashes between industry and farmer lobbying groups and scientists, revolved around the fundamental question of whether to postpone the agroecological transformation for the sake of immediate food security or to accelerate a systemic transformation to reduce dependence on fossil energy and chemical inputs. The intermediary outcomes of this controversy, with tough compromises made in response to industry and farmer lobby arguments, highlight the intricate balancing act policymakers face when navigating the intersection of long-term environmental ambitions and immediate social and economic concerns.

Parallel to the vocal disagreements, a academic debate on framings of food unfolded. This intellectual discourse sought to support a profound transformation by addressing lock-ins in a framing of food as a commodity that impede agroecological progress towards more socially and ecologically sustainable food systems. Policy interventions listed in the F2F strategy—so the argument by social scientists (SAPEA, 2020; Jackson et al., 2021)—are still shaped by a narrow conceptualization of food as a commodity and do not follow the recommendation of the Chief Scientific Advisors in shifting framings towards food as more of a common good. This academic debate on framings of food can provide the cognitive foundations for policy decisions that drive a deeper transformation of the food system.

The EU's ambitious goals, including climate-neutrality or the protection of 30% or land and marine areas, underscore the need for a holistic approach and paradigmatic changes that address ecological, social, and economic dimensions.

The future trajectory of EU agricultural policies hinges on the resolution of these debates and the alignment of policy decisions with the ambitious goals of the Green Deal, the F2F and strategies. The objectives include halving pesticide use, nutrient loss and antimicrobial use as well as 25% of farm land organically farmed (EC, 2020a) and 30% of land and marine areas protected by 2030 (EC, 2020b).

As the EU moves forward, the Member States' implementation of the Common Agricultural Policy will be a crucial barometer of their commitment to socially inclusive, just, and environmentally sustainable agro-food system transformations. The allocation of funds, the alignment of strategic plans with F2F and BD objectives, and the ability to overcome policy lock-ins will determine the success of the EU's vision for sustainable and resilient agro-food systems.

The future will reveal whether the EU can meet its target of becoming the first climate-neutral continent by 2050. The lessons learned from the controversies and debates of the past few years will shape the agricultural political landscape in the years to come. The commitment to sustainability and resilience was tested, but the potential for a sustainability transition remains within reach if bold decisions align with the transformative vision set forth by the European Green Deal.

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