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The ecological gap in the CAP

Ecological ambition and reality in the EU's agricultural policy
based on comparative content analysis of the *EU From Farm to
Fork Strategy* and the *CAP* program 2023–2027

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“IF MORE OF US VALUED FOOD AND CHEER AND SONG
ABOVE HOARDED GOLD,
IT WOULD BE A MERRIER WORLD.”

J. R. R. TOLKIEN

Table of Contents

I.	Introductory remarks	1
1.	Introduction	1
2.	Theoretical background	5
3.	Terminology	10
II.	Contextualisation	12
1.	The ecological impact of agriculture	12
1.1.	Greenhouse gas (GHG) emissions	14
1.2.	Other ecological impacts	16
1.3.	Non-ecological impacts	21
2.	The ecological impact of EU Agriculture	21
2.1.	Greenhouse gas (GHG) emissions	22
2.2.	Other ecological impacts	25
3.	The Common Agricultural Policy (CAP) of the EU	27
3.1.	Overview	27
3.2.	Structure	33
III.	Main part – Qualitative content analysis	37
1.	The two documents and their backgrounds	37
2.	Methodology – Qualitative content analysis based on Kuckartz	40
2.1.	Application of methodology	43
3.	The EU From Farm to Fork Strategy	45
3.1.	Illustration	45
3.2.	Category building	47
3.3.	Results of categorisation	51
4.	The new CAP 2023–2027	58
4.1.	Overview – The new CAP	58
4.2.	Category Building	63
5.	The two documents in comparison	69
5.1.	Illustration	69
5.2.	Results of categorisation processes and scientific literature – Inconsistencies and deficiencies of the CAP	71
IV.	Conclusion – The ecological gap in the CAP	96
V.	List of references	100
1.	EU Documents	100
2.	Literature	102
3.	List of Figures	111
VI.	Appendix	112
1.	Abstract (German)	112
2.	Abstract (English)	112

I. Introductory remarks

1. Introduction

In its latest report – the sixth assessment report from October 2021 – the International Panel on Climate Change once more states the unequivocal facts about the major global changes the global biosphere and climate are currently experiencing. On almost 4000 pages, leading climate scientists and ecologists from all around the world establish the scientific facts on the socioecological emergency situation in which humanity has manoeuvred itself into. The IPCC report emphasizes the exceptionality of this situation and its manifestations: “[t]he scale of recent changes across the climate system as a whole – and the present state of many aspects of the climate system – are unprecedented over many centuries to many thousands of years.”¹

It demonstrates the accelerating tendency of the global climate crisis and its ever increasing urgency with prosaic statements whose large-scale implications for planet Earth and present and future generations are almost impossible to truly comprehend, such as: “Each of the last four decades has been successively warmer than any decade that preceded it since 1850”², “Global surface temperature has increased faster since 1970 than in any other 50-year period over at least the last 2000 years”³ or “Many changes due to past and future greenhouse gas emissions are irreversible for centuries to millennia, especially changes in the ocean, ice sheets and global sea level”.⁴

As in the past, these statements are underscored with an abundance of comprehensive and convincing data and research. The report shows that from a scientific point of view, the evidence is overwhelming and the facts are clear. The question can no longer be whether humans are responsible for these global changes, but only to which extent – and how dramatically we have already altered and continue to alter our ecological and environmental surroundings and the biophysical foundations of the planet.

As a reaction to these unprecedented global changes and as the EU’s main effort to counter them, in December 2019 the European Union presented the **European Green Deal** which sets out the ambitious objective of making the EU climate-neutral by 2050.⁵ Owing to the

¹ IPCC, ‘Climate Change 2021. The Physical Science Basis. Summary for Policymakers’ (Sixth Assessment Report of the Intergovernmental Panel on Climate Change, 2021), p. 8.

² Ibid., p. 5.

³ Ibid., p. 8.

⁴ Ibid., p. 21.

⁵ European Commission, ‘The European Green Deal’ (Brussels, 2019), p. 4.

magnitude of said challenge, the Green Deal was not presented without a substantial degree of pathos - the president of the European Commission, Ursula von der Leyen, even went as far as describing the Green Deal as *“Europe's 'man on the moon' moment”*.⁶ Frans Timmermans, the Executive Vice President of the European Commission for the European Green Deal, in no less grandiose manner referred to it as a *“once-in-a-generation opportunity to embrace a green transition to build back better”* and as *“our collective road to recovery, for the people and the planet”*.⁷ As a result, expectations of the Green Deal were and still are extraordinarily high. To a large extent, the Green Deal and its success in delivering on its promises will be regarded as indicator for the credibility and sincerity with which the EU's promises on climate change mitigation – as expressed in the Paris agreement – and the ecological transition of its societies and economies can be taken.

One of the eight parts of the Green Deal is the **EU From Farm to Fork Strategy** which was presented in May 2020 and is one of the two documents at the core of this thesis. The From Farm to Fork Strategy (F2F Strategy) focusses on the socioecological impacts of EU food production and sets ambitious objectives to reduce them. It intends to determine deficiencies in EU food systems and present alternatives and possible solutions – whose identification is one of the research interests of this thesis. It shall be illustrated which agricultural problems the Commission identifies in the F2F Strategy and what it proposes to address them. In addition, it will also be shown that the F2F Strategy exhibits several blind spots and fundamental inconsistencies in itself.

Furthermore, it has to be emphasized that the Green Deal and its subchapters such as the F2F Strategy are primarily declarations of intent, not adopted sets of actual measures and policies – which is also the understanding in which they are approached in the course of this thesis. They can inspire and inform subsequently adopted laws but in themselves have no legally binding power. Therefore, the success of the Green Deal and the F2F Strategy depends on their implementation within the EU's policies and its funding programmes – such as the **Common Agricultural Policy (CAP)**. The latest **reform** of this agricultural funding program of the EU was adopted in November 2021 and is the second document at the centre of this thesis. Given its focus on systems of food production, the F2F Strategy naturally is closely connected

⁶ President of the European Commission Ursula von der Leyen quoted according to *Elena Sánchez Nicolás*, ‘Von der Leyen: “Green Deal is our man-on-moon moment”’, ‘EU Observer online’ (Brussels, December 2019).

⁷ *Frans Timmermans*, ‘Lecture “The European Green Deal, a stepping stone toward a sustainable future” at Tsinghua University, 26.11.2020’, ‘European Commission Homepage’ (2020).

to the CAP and should facilitate the ecological transition within it - in how far the F2F Strategy can actually deliver on its promises and effectively transform the EU's agricultural policy is one of the major research questions that should be answered. In order to address it, a **qualitative content analysis** based on Kuckartz will be conducted for both the F2F Strategy and the latest program of the CAP. The results of both analyses will then be juxtaposed and combined with insights from scientific literature in order to identify inconsistencies and deficiencies in the documents and within the EU's agricultural policy. Moreover, this juxtaposition shall illustrate whether the position papers of the Green Deal and the F2F Strategy are translated into a greener agriculture that is compatible with the planet's boundaries. Eventually, this thesis shall thus elaborate in how far the ecological ambition expressed in these documents actually changes EU politics on the literal ground.

According to Timmermanns, together with the Biodiversity Strategy⁸, the F2F Strategy shall *"point to a new and better balance of nature, food systems and biodiversity; to protect our people's health and well-being, and at the same time to increase the EU's competitiveness and resilience. These strategies are a crucial part of the great transition we are embarking upon."*

As can already be seen in Timmermanns' statement though, within policies and debates about the EU's agriculture, major underlying conflicts within the EU can be traced. Taking these into consideration, this thesis argues that the agricultural policy of the EU can be seen as a reflection of the inner conflict within EU politics. The CAP is a dynamic result of conflicts between geographically, economically and politically very different member states, between EU institutions (such as the Parliament and the Commission) and the member states and their institutions (such as the Council), between the underlying competing ideas of centralisation or re-nationalisation or between other contrarian political objectives such as ecological sustainability and economic competitiveness.

As shall be shown repeatedly in the following, in the context of the EU agricultural policy in particular the latter example of the apparent and increasingly vivid contradiction between the economic imperative of growth, jobs and produced quantities and the growing expectations of society (and in parts businesses alike) for resolute and ambitious climate action is relevant. While the former has long dominated the politics of the economic and monetary union that is the EU and still largely pervades its policies, including its agricultural policy, the latter is

⁸ Which is one of the Green Deal's eight chapters as well.

becoming ever more urgent with every new heat wave and flood catastrophe. Chapters II/1. and 2. will show that the EU agriculture is in a peculiar position in that regard: it is both a major contributor to the vast ecological destruction humanity causes and at the same time particularly susceptible – both economically and socio-ecologically – to the effects of said destruction in form of the climate crisis and the more frequent extreme weather events it causes.

Prior to that, remarks on the theoretical background of this thesis and several related political ecological approaches and relevant terms will be presented. These remarks will emphasize the understanding of agriculture on which this thesis is based upon and a related seemingly trivial, yet very influential and important realisation: that neither debates about the ways in which food is produced, processed and consumed nor these ways themselves exist in a vacuum or an apolitical environment, but, on the contrary, in a deeply politicized and ideologically charged environment – or as political ecologist Harriet Friedmann states following Karl Polanyi: *“Food and agriculture are superb lenses into tensions in the larger political economy because they express the contradictory commodification of the human (physiological) and natural (land) foundations of society.”*⁹

Following these introductory chapters, general remarks on the Common Agricultural Policy of the EU will be given, in particular its historical development and current structure. Due to the necessary complexity reduction and brevity, the former will intentionally be only a brief overview.

The main part then focusses on the qualitative content analysis of the two documents at the centre of this thesis: the From Farm to Fork Strategy and the new CAP program. First, a few remarks on the backgrounds of the documents will be given in order to contextualize them within the complex entity of EU politics (III/1.). Then remarks on the applied methodology, namely the category-based qualitative content analysis (QCA) based on Kuckartz, and the course of action of the QCA follow (III/2.). In order to integrate the results of the QCA into the broader research, they will also be contrasted with and supported by insights from scientific literature. It is thus also the ambition of this thesis to let the experts of academia and international research platforms such as the IPCC speak. Their high-quality research and the abundance of empirical values on both the environmental

⁹ Harriet Friedmann, ‘Discussion: Moving Food Regimes Forward: Reflections on Symposium Essays’, ‘Agriculture and Human Values’, 26 (2009), p. 6.

developments and agriculture's contribution to them shall be pointed out and contrasted with the two main documents of this thesis in order to identify their deficiencies and assess the adequateness respective inadequateness of current EU agricultural policy. In this way, chapter III/3. elaborates the results of the QCA of the From Fork to Fork Strategy – both visually and in text – with a special focus on identified inconsistencies and striking omissions while chapter III/4. focusses on the new CAP program adopted in November 2021. For the latter, first its major alterations are identified before explanatory remarks on selected policies are given.

The fifth chapter then juxtaposes the results of both the QCAs of the documents and the consulted literature in order to illustrate (III/5.1.) and identify the major inconsistencies and prolonged deficiencies of the EU's agricultural policy (III/5.2.) and in doing so, address the research questions set forth above. It will in especially be pointed out how both the F2F Strategy and the new CAP program ignore large-scale ecological impacts of EU food systems and thus perpetuate the externalisation of agriculture-related damage and the undermining of the EU agriculture's resilience.

At the end, concluding remarks will summarize the obtained results before the list of references and figures will provide the necessary bibliographical information.

2. Theoretical background

This thesis' observations are primarily informed by theoretical approaches of political ecology. Political ecology is a heterogeneous and interdisciplinary *“research field that seeks both to explain the power relations inherent to environmental problems and to transform them.”*¹⁰ Political ecological approaches acknowledge and emphasize the inherently political and conflictual character of humanity's relations with nature and the corresponding question of human appropriation of it as well as the distribution and deterioration of its resources.¹¹ They point out that it is not primarily “nature”/“the environment” itself that is in crisis but rather

¹⁰ Kristina Dietz, 'Political ecology', in A. Haroon Akram-Lodhi, Kristina Dietz, Bettina Engels, and Ben M. McKay, eds., 'Handbook of Critical Agrarian Studies' (Cheltenham/Northampton, 2021), p. 602.

¹¹ Dietz, 'Political ecology', p. 602f.; Kristina Dietz and Bettina Engels, 'Immer (mehr) Ärger wegen der Natur? – Für eine gesellschafts- und konflikttheoretische Analyse von Konflikten um Natur', 'Österreichische Zeitschrift für Politikwissenschaft', 43 (2014), pp. 78f., 81–84.

the relation between human societies and nature, the social construction of it and the ways of human intervention in it.¹²

Political ecological theorists highlight that many debates concerning the ways in which food is produced have a strong ideological background that is only to a certain extent based on facts – which is true for both the existing and dominant paradigms of industrialized high-performance agriculture and alternative, partly even (seemingly) utopian concepts and conceptions. They emphasize the highly political character and the social dimension of fundamental aspects of agriculture, such as the ownership of land and other means of production (human labour, animals, machines, seeds, agrochemicals etc.), the use and perception of land and nature, the permission (or potential prohibition) to pollute and harm water bodies, soils, air, flora and fauna or, eventually, the question of who is allowed and can afford the consumption of which products with their respective ecological effects¹³ – all of which are aspects that are influenced by and negotiated within the CAP. In this way, the EU agricultural policy strongly shapes constructions of nature and the way in which human interventions into nature happen in the EU. Therefore, disputes about its configuration and ecological consideration have to be regarded as conflicts about nature in a political ecological sense.¹⁴

More precisely, in the course of this thesis disputes regarding EU agriculture are contextualized in front of Harriet Friedmann's and Philip McMichael's concept of food regimes which stresses the political and economic circumstances in which the production and consumption of food are embedded. Friedmann defines a food regime as *"rule-governed structure of production and consumption of food on a world scale"*.¹⁵ In highlighting the relevance of this superordinate structure on everyday practices around food, the concept offers a *„structured perspective to the understanding of agriculture and food's role in capital accumulation across time and space. In specifying patterns of circulation of food in the world*

¹² Franziskus Forster, 'Imperiale Lebensweise, Food Regimes und die Agrarfrage: Zur Manifestation der imperialen Lebensweise im globalen Agrar- und Lebensmittelsystem' (University of Vienna, 2014), p. 13; Thomas Jahn and Peter Wehling, 'Gesellschaftliche Naturverhältnisse. Konturen eines theoretischen Konzepts', in Karl-Werner Brand, ed., 'Soziologie und Natur. Theoretische Perspektiven' (Opladen, 1998), p. 80f.

¹³ Saturnino M. Jr. Borras, 'Changes, Agrarian change and peasant studies: continuities and challenges – an introduction', 'The Journal of Peasant Studies', 36 (2009), pp. 10, 12f.; Jahn and Wehling, 'Gesellschaftliche Naturverhältnisse. Konturen eines theoretischen Konzepts', p. 80; Dietz, 'Political ecology', p. 602f.

¹⁴ Dietz and Engels, 'Immer (mehr) Ärger wegen der Natur? – Für eine gesellschafts- und konflikttheoretische Analyse von Konflikten um Natur', p. 79; Friedmann, 'Discussion: Moving Food Regimes Forward: Reflections on Symposium Essays', p. 6.

¹⁵ Harriet Friedmann quoted according to Forster, 'Imperiale Lebensweise, Food Regimes und die Agrarfrage: Zur Manifestation der imperialen Lebensweise im globalen Agrar- und Lebensmittelsystem', p. 52.

economy it underlines the agrofood dimension of geo-politics".¹⁶ According to Friedmann and McMichael, the current food regime relies on the further geographic extension of patterns of both food production and consumption (such as the high intake of meat) and the related appropriation of agricultural land and resources in countries outside the Western World¹⁷, in particular via *"incorporating new regions into animal protein chains (e.g., China and Brazil)"*.¹⁸ These extension processes have large-scale impacts on local societies and ecosystems, as will be elaborated below, and entail conflicts both on a local and a global scale. From a political ecological perspective, such conflicts about nature are not caused by independent changes within the environment but are socially produced and strongly influenced by social, political and economic power relations within human societies, such as the current food regime.¹⁹ They are thus not separable from the ideologies, hierarchies and power struggles within these societies but another arena for them²⁰: *"Political Ecology provides tools for thinking about the conflicts and struggles engendered by the forms of access to and control over resources. Its attentiveness to the power relations inherent in defining, controlling and managing nature suggests an alternative way of viewing the link between environment and political action."*²¹ Theorists such as James O'Connor particularly point out the formative character of capitalism for the current relations between humanity and nature. He points out the contradiction between the dependency of human societies on functioning ecosystems as foundations for human existence and the destruction of these very foundations through *"capitalism's economically self-destructive appropriation and use of [...] external nature or environment"*.²² For political-ecological theorists, it is these *"inherent ecological contradictions"*²³ of capitalism which are a major cause of the crisis-laden nature of contemporary human existence which political ecological perspectives can help us unravel.²⁴

¹⁶ Philip McMichael, 'A food regime genealogy', 'The Journal of Peasant Studies', 36 (2009), p. 140.

¹⁷ Harriet Friedmann, 'Paradox of Transition: Two Reports on How to Move Towards Sustainable Food Systems', 'Development and Change', 48 (2017), p. 1220f.; Forster, 'Imperiale Lebensweise, Food Regimes und die Agrarfrage: Zur Manifestation der imperialen Lebensweise im globalen Agrar- und Lebensmittelsystem', p. 52f.; McMichael, 'A food regime genealogy', p. 141f.; Philip McMichael, 'Food regimes and agrarian questions' (Halifax, 2013), p. 57f.

¹⁸ McMichael, 'A food regime genealogy', p. 142.

¹⁹ Forster, 'Imperiale Lebensweise, Food Regimes und die Agrarfrage: Zur Manifestation der imperialen Lebensweise im globalen Agrar- und Lebensmittelsystem', p. 16; Dietz and Engels, 'Immer (mehr) Ärger wegen der Natur? – Für eine gesellschafts- und konflikttheoretische Analyse von Konflikten um Natur', p. 78f.

²⁰ Dietz, 'Political ecology', p. 602.

²¹ Nancy Lee Peluso and Michael J Watts quoted according to Dietz and Engels, 'Immer (mehr) Ärger wegen der Natur? – Für eine gesellschafts- und konflikttheoretische Analyse von Konflikten um Natur', p. 79.

²² James O'Connor, 'Natural Causes. Essays in Ecological Marxism' (New York/London, 1998), p. 177.

²³ Dietz, 'Political ecology', p. 604.

²⁴ Forster, 'Imperiale Lebensweise, Food Regimes und die Agrarfrage: Zur Manifestation der imperialen Lebensweise im globalen Agrar- und Lebensmittelsystem', p. 14.

Via their interdisciplinary approach, they reveal that humanity is currently facing a crisis on many different levels - a multiple crisis. Specifying this term, Sebastian Klauke identifies four dimensions of the multiple crisis: 1. the crisis of the finance-dominated accumulation regime, 2. the socio-ecological crisis, 3. the crisis of reproduction and 4. the crisis of parliamentary democracy.²⁵ Matthias Krams points out the interconnectedness between these dimensions. According to him, a largely unjust distribution of wealth (social crisis) and the increasingly apparent ecological crisis put pressure on the dominant economic paradigm of the accumulation regime. The inadequate crisis response of the latter then delegitimizes the political system and in parts even strengthens authoritarian movements.²⁶ More precisely, the inaction of political systems all around the planet in the face of an ever aggravating existential ecological crisis raises legitimate doubts whether political systems which are strongly driven by economic interests and economic interest groups that have caused the endangering of the foundations of human life on planet Earth in the first place are willing let alone capable of conducting the necessary drastic transition to save these foundations.²⁷ This basic question is also fuelling the clash and contradiction between the current economic paradigm of profit maximisation and the need for drastic climate action which pervades the EU's current socio-ecological reform attempts.

The stated ecological crisis which is at the core of this thesis again manifests itself in several forms: Klauke distinguishes between the crisis of food supplies, the crisis of peasant agriculture and the multiple ecological crisis whose most influential aspect is the climate crisis with its already occurring and projected devastation.²⁸

The political ecological concept of the *“Imperial Mode of Living”* (*“Imperiale Lebensweise”*) of Ulrich Brand and Markus Wissen²⁹ emphasizes the interrelation between these dimensions and reveals their shared origin in the Western World's current patterns of production and consumption – of which the EU agriculture can be regarded as prime example.³⁰ These patterns of production and consumption – not only, but also of agricultural goods –

²⁵ Sebastian Klauke, 'Multiple Krise', in Jan Brunner, Anna Dobelmann, Sarah Kirst, and Louisa Prause, eds., 'Wörterbuch Land- und Rohstoffkonflikte' (Bielefeld, 2019), p. 253.

²⁶ Ulrich Brand and Markus Wissen, 'Imperiale Lebensweise. Zur Ausbeutung von Mensch und Natur im globalen Kapitalismus' (Munich, 2017), pp. 25–27; Mathias Krams, 'Die Klima- und Vielfachkrise der letzten Dekade. Dynamiken, Wechselwirkungen und Interventionsfelder', 'Kurswechsel', 4 (2018), pp. 67–71.

²⁷ Krams, 'Die Klima- und Vielfachkrise der letzten Dekade. Dynamiken, Wechselwirkungen und Interventionsfelder', p. 69f.

²⁸ Klauke, 'Multiple Krise', pp. 253, 256.

²⁹ Brand and Wissen, 'Imperiale Lebensweise. Zur Ausbeutung von Mensch und Natur im globalen Kapitalismus'.

³⁰ *Ibid.*, p. 26f.; Forster, 'Imperiale Lebensweise, Food Regimes und die Agrarfrage: Zur Manifestation der imperialen Lebensweise im globalen Agrar- und Lebensmittelsystem', pp. 6, 71.

continuously exacerbate the existing socioecological crisis and are based on externalisation processes of the large-scale damage they cause.³¹ Brand and Wissen point out that it is not only Western capitalist economies as systems that rely on these externalisation processes but that the average EU citizen with his or her everyday consumption decisions with or without intention inevitably contributes to and profits from these patterns, i.e., this mode of living.³² This makes them socially accepted, persistent and hegemonic, in the terminology of Antonio Gramsci whose hegemony theories are incorporated into the concept.³³ The ecological (and socio-economic) impacts of this mode of living are not settled or sustained by the producers or consumers, but are offloaded on ecosystems, the global climate and humans near or far the eventual consumption. Brand and Wissen particularly point out that vast parts of the caused damage are externalized at the expense of regions and people in the Global South.³⁴ To a great extent, this is also the case for EU agriculture as will be shown in chapters II/1. and 2. and III/5.2.1 and 5.2.2.

Furthermore, the Imperial Mode of Living goes hand in hand with accelerating processes of commodification and the appropriation of formerly non-monetarized resources (such as native forests or land that was used for subsistence farming).³⁵ The concept points out that these processes do not only affect the economic sphere but – in addition to ecological devastation – may also induce large-scale socio-cultural and political changes, for example through displacement in the course of land grabbing and internal rural-urban or international migration caused by the abandonment of subsistence farming.³⁶

This and other political ecological concepts thus emphasize that the effects of agricultural systems go way beyond farming itself.

³¹ *Ibid.*, pp. 62–65.

³² *Ibid.*, pp. 43–47, 66f.

³³ *Ibid.*, 43–45, 56, 70.; Forster, 'Imperiale Lebensweise, Food Regimes und die Agrarfrage: Zur Manifestation der imperialen Lebensweise im globalen Agrar- und Lebensmittelsystem', p. 6.

³⁴ Brand and Wissen, 'Imperiale Lebensweise. Zur Ausbeutung von Mensch und Natur im globalen Kapitalismus', pp. 51, 54, 121f.

³⁵ Borras, 'Changes, Agrarian change and peasant studies: continuities and challenges – an introduction', pp. 6, 12; Brand and Wissen, 'Imperiale Lebensweise. Zur Ausbeutung von Mensch und Natur im globalen Kapitalismus', pp. 52f., 115f.; Bettina Köhler, 'Kommodifizierung', in Jan Brunner, Anna Dobelmann, Sarah Kirst, and Louisa Prause, eds., 'Wörterbuch Land- und Rohstoffkonflikte' (Bielefeld, 2019), pp. 189, 191, 193.

³⁶ Borras, 'Changes, Agrarian change and peasant studies: continuities and challenges – an introduction', p. 12f.; Brand and Wissen, 'Imperiale Lebensweise. Zur Ausbeutung von Mensch und Natur im globalen Kapitalismus', pp. 112, 122f., 162f.; Forster, 'Imperiale Lebensweise, Food Regimes und die Agrarfrage: Zur Manifestation der imperialen Lebensweise im globalen Agrar- und Lebensmittelsystem', pp. 39–43, 47; Köhler, 'Kommodifizierung', p. 193f.

3. Terminology

In order to support comprehensibility and terminological precision, in the following further definitions will be given on selected fundamental terms that will occur repeatedly throughout the thesis.

Biodiversity

The United Nations define biodiversity as *“the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part: this includes diversity within species, between species and of ecosystems.”*³⁷

Climate Change mitigation and adaptation

Regarding climate change, two terms will frequently appear: climate change mitigation and climate change adaptation

The European Court of Auditors states that *“[t]he EU response to climate change is based on two strategies: mitigation and adaptation. Mitigation means reducing man-made greenhouse gas emissions or removing greenhouse gases from the atmosphere. Adaptation means adjusting to current or expected climate change and its effects.”*³⁸

Ecosystem

*““Ecosystem” means a dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit.”*³⁹

Food security

The Rome Declaration on World Food Security from 1996 defines that *“[f]ood security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life.”*⁴⁰

Food sovereignty

A related term that emphasizes the geopolitical and socioeconomic dimensions of food supply as well as its socioecological impacts is food sovereignty. It particularly highlights the role of

³⁷ United Nations, ‘Convention on Biological diversity’ (1992), p. 3.

³⁸ The European Court of Auditors, ‘Common Agricultural Policy and climate.’ (2021), p. 7.

³⁹ Ibid.

⁴⁰ World Food Summit, ‘Rome Declaration on World Food Security’ (Rome, 1996).

food producers and the human right to an adequate food supply. The 2007 *Forum for Food Sovereignty* defined the term as follows (extract): *“Food sovereignty is the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems.”*⁴¹

Organic farming

Organic farming is a specific way of farming. A study for the German Centre for Integrative Biodiversity Research defines it as *“a holistic approach based on the objective of closed nutrient cycles, the development of fertile soils, wide crop rotations, a limited animal density, animal friendly stable system and the absence of synthetic pesticides and chemical fertilizer”*⁴²

Organic farming is thus often – partly uncritically – presented as archetype of sustainable farming.⁴³

⁴¹ FAO, ‘Declaration of Nyéléni’ (Nyeleni, FAO Homepage, 2007).

⁴² Guy Pe’er, Sebastian Lakner, Robert Müller, et al., ‘Is the CAP Fit for purpose? An evidence-based fitness-check assessment’ (Leipzig, 2017), p. 38.

⁴³ Plank, Penker, and Brunner, ‘Ernährung klimasozial gestalten’, p. 148f.

II. Contextualisation

1. The ecological impact of agriculture

First of all, we need to clarify why agriculture in general and the Common Agricultural Policy of the EU in particular matters via determining – inter alia – how and to which extent agricultural systems worldwide and in the EU contribute to global ecological destruction and the climate crisis. In order to do this, we will first determine the ecological impact of global agriculture because the Common Agricultural Policy of the EU is embedded in a globally entangled market - it can thus neither be devised nor understood in isolation from this global system of competing and interdependent food systems around the world.⁴⁴ Secondly, a short overview of the specific ecological impact of EU agriculture will be given to underline the existing influence of EU agriculture on ecosystems in Europe and elsewhere and especially on the global, transboundary climate. In doing so, the agency of the EU, the relevance of the CAP and the ambition of its reform agenda shall be emphasized.

Studies assess that the current global food system creates hidden costs – both ecological and socio-economic – of around 12 trillion dollars, the majority of these costs being at the expense of the planet and the integrity of flora, fauna, soil, water and air, but also arising from their impact on human health and nutrition.⁴⁵ In most regards, there is still no turnaround in sight and the environmental pressures of agricultural systems (such as GHG emissions, land, freshwater and agrochemical use) continue to intensify.⁴⁶ Rockström thus speaks of *“the planet subsidizing the global food system at a level that probably exceeds its global market value”*⁴⁷, which means nothing less than that the ecological damage of the food system is higher than the market value of the whole food sector. In addition, political ecological theorists point out that it is a very problematic notion to put a price tag on the very foundations of human existence on planet Earth as they are irreplaceable and thus literally invaluable, despite attempts for the further commodification and economisation of nature and the essential “services” it provides us with.⁴⁸ Nevertheless, damaging agricultural

⁴⁴ Bernard Bourget, ‘The Common Agricultural Policy 2023-2027: change and continuity’, ‘European issues’ (2021), p. 4.

⁴⁵ Johan Rockström, Ottmar Edenhofer, Juliana Gaertner, et al., ‘Planet-proofing the global food system’, ‘Nature Food’, 1 (2020), p. 4; The Food and Land Use Coalition, ‘Growing Better: Ten Critical Transitions to Transform Food and Land Use’ (2019), p. 37.

⁴⁶ Marco Springmann, Michael Clark, Daniel Mason-D’Croz, et al., ‘Options for keeping the food system within environmental limits’, ‘Nature’ (2018), p. 520.

⁴⁷ Rockström, Edenhofer, Gaertner, et al., ‘Planet-proofing the global food system’, p. 4.

⁴⁸ Köhler, ‘Kommodifizierung’, p. 193.

practices are not only (involuntarily) subsidized by the planet, but also by states and supranational organisations such as the European Union. The IPBES estimates, that in 2015 *“agricultural support potentially harmful to nature amounted to \$100 billion in countries belonging to the Organization for Economic Cooperation and Development”*⁴⁹ alone. A major share of these harmful subsidies can be attributed to the European Union’s CAP.

As stated in the introduction, agriculture can be seen both as perpetrator and victim of the climate and ecological crisis.⁵⁰ On the one hand, *“food production is the first victim of environmental pressures arising in the Anthropocene”*⁵¹, as Rockström argues. In agreement, Hart states that *“[a]griculture is the economic sector most uniquely susceptible to changes in climate patterns with the impacts highly place- and crop- specific.”*⁵²

On the other hand, agriculture is one of the main influences on the global environment, as *“[a]gricultural expansion and intensification are key drivers of biodiversity and ecosystem services loss as well as climate change.”*⁵³ Altieri and Nicholls point out that the *“rapid expansion of agriculture and its disruption of wild ecosystems, combined with specific mechanized, genetic and agrochemical technologies have become a major force reshaping the biosphere”*.⁵⁴ The vast majority of these influences is contributing towards the transgressing of planetary boundaries⁵⁵ and in many instances, the eventual effects and the extent of damage done can hardly be predicted. For Rockström, *“the food system is the primary driver of our current Earth trajectory, which follows a path at risk of creating a cascade of interacting non-linear processes that propel the planet towards a radically different climatic state.”*⁵⁶

⁴⁹ IPBES, ‘The global assessment report on biodiversity and ecosystem services of the IPBES. Summary for policymakers’ (Bonn, 2019), p. 28.

⁵⁰ FAO, ‘Statistical Yearbook 2021. World Food and Agriculture’ (Rome, 2021), p. 39.; Umweltbundesamt, ‘Umweltschutz in der Landwirtschaft’ (Dessau-Roßlau, 2017), p. 9.

⁵¹ Rockström, Edenhofer, Gaertner, et al., ‘Planet-proofing the global food system’, p. 4.

⁵² Kaley Hart, Ben Allen, and Clunie Keenleyside, ‘The consequences of climate change for EU agriculture: follow-up to the COP21 - UN Paris Climate Change Conference’ (2017), p. 19.

⁵³ Guy Pe’er, Aletta Bonn, Helge Bruelheide, et al., ‘Action needed for the EU Common Agricultural Policy to address sustainability challenges’, ‘People and Nature’, 2 (2020), p. 306.

⁵⁴ Miguel A. Altieri and Clara I. Nicholls, ‘Agroecology and the reconstruction of a post- COVID-19 agriculture’, ‘The Journal of Peasant Studies’, 47 (2020), p. 882.

⁵⁵ Marit Rosol and Christoph Rosol, ‘Welt im Fieber. Zur Notwendigkeit einer globalen Agrar- und Ernährungswende in Zeiten des Anthropozäns’, in Manuel Schneider, Andrea Fink-Keßler, and Friedhelm Stodieck, eds., ‘Der kritische Agrarbericht 2021’ (Konstanz, 2021), p. 10.

⁵⁶ Rockström, Edenhofer, Gaertner, et al., ‘Planet-proofing the global food system’, p. 3.

1.1. Greenhouse gas (GHG) emissions

Some of the most influential, yet by far not the only harmful processes concern the emission of Greenhouse gases (GHG). The prime role of agriculture for GHG emissions and the resulting climate crisis can be underscored with convincing causal links and an abundance of comprehensive data.⁵⁷ However, due to the manifold ecological consequences of agricultural systems and processes, the complexity of ecosystems, the climate and the biochemical processes affected by agriculture, it is hard to assess the exact amount and share of GHG emissions of agriculture in one figure. Furthermore, industrialized agriculture is based on a multitude of emission-intensive means of production (such as agrochemicals) and processes (such as transport, packaging and cooling) whose substantial emissions are often not attributed to the eventual consumer in the agricultural sector, but to other economic sectors such as industry, commerce or transport.⁵⁸ It is also necessary to point out that various of these processes and means of production heavily rely on finite fossil fuels.⁵⁹ Adding to the difficulty of emission estimates, figures for agricultural contributions are in several instances (including in IPCC reports) indicated together with forestry and other land use activities (=AFOLU) or with food production as a whole (including emissions from the processing of food and the supply chain). In addition to that, evaluations of emissions are often based on self-reported and -attributed figures – for example by the EU itself – and in some instances may be intentionally or unintentionally downplayed (see remarks concerning this matter in the next chapter on the ecological impact of EU agriculture). This further adds to a certain measurement uncertainty which we have to consider accordingly throughout this thesis.

The IPCC tries to take these reservations into account and thus does not provide a singular figure, but a range for the likely share of AFOLU emissions: it estimates them to be between a

⁵⁷ See "Table 2: 'Relationship of main anthropogenic causes of climate change with agriculture', Hart, Allen, and Keenleyside, 'The consequences of climate change for EU agriculture: follow-up to the COP21 - UN Paris Climate Change Conference', p. 23.

⁵⁸ Magdalena Heuwieser, 'Geld wächst nicht auf Bäumen – oder doch? Wie die Natur und deren „Leistungen“ zu Waren gemacht werden' (Berlin, 2015), p. 18.; Martin Häusling, 'Kein Klimaschutz ohne Systemwechsel. Warum Konzepte wie »klimasmarte Landwirtschaft« und precision farming keine Lösung sind', in Manuel Schneider, Andrea Fink-Keßler, and Friedhelm Stodiek, eds., 'Der kritische Agrarbericht 2021' (Konstanz, 2021), p. 48. Häusling mentions the fact that around 1 % of worldwide energy consumption is used for the Haber-Bosch process to produce ammonia, which is largely used as agriculture fertilizer. Moreover, he argues that with many types of crops, fruits and vegetables, more than a third of used energy comes from the application of agrochemicals. *Ibid.*

⁵⁹ Krams, 'Die Klima- und Vielfachkrise der letzten Dekade. Dynamiken, Wechselwirkungen und Interventionsfelder', p. 68f. Philip McMichael, 'The World Food Crisis in Historical Perspective', in Fred Magdoff and Brian Tokar, eds., 'Agriculture and Food in crisis. Conflict, Resistance, and Renewal' (New York, 2010), p. 65.; David Pimentel, 'Reducing Energy Inputs in the Agricultural Production System', in Fred Magdoff and Brian Tokar, eds., 'Agriculture and Food in crisis. Conflict, Resistance, and Renewal' (New York, 2010), p. 241.

fifth (21 %) to over a third (37 %) of global GHG emissions.⁶⁰ In total numbers, the IPCC quantifies respective annual emissions at around 12 Gigatons of CO₂ equivalents for the years 2007–2016.⁶¹

For food production, the European Court of Auditors estimates that around a quarter of global greenhouse gas emissions stem from related processes of which around 80 percent originate in agriculture itself, as figure I shows.⁶²

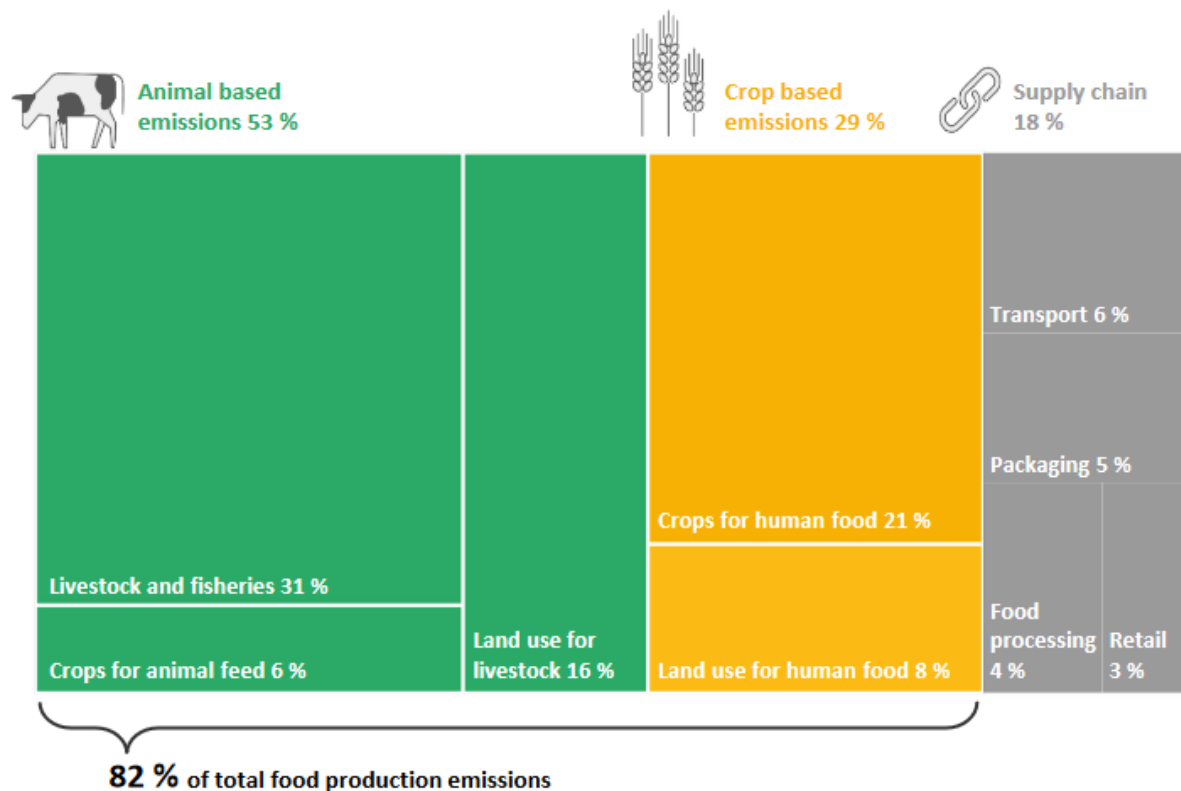


Figure I – Global greenhouse gas emissions from food production⁶³

This would mean that, according to this calculation, around 20 percent of global human emissions can be attributed to agricultural processes, including emissions of livestock and farmland needed both for animal feed and human food.

Contrary to negotiated climate targets, these agricultural emissions are estimated to have grown by 11 percent in the last 20 years.⁶⁴

⁶⁰ IPCC, 'Climate Change and Land. An IPCC Special Report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems. Summary for Policymakers' (2019), p. 10.

⁶¹ *Ibid.* For an overview on the development of agricultural emissions over the last decades, see Figure 11.2, "AFOLU emissions for the last four decades" in Pete Smith and Mercedes Bustamante, 'Agriculture, Forestry and Other Land Use (AFOLU)', in O. Edenhofer, ed., 'Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change' (Cambridge/New York, 2014), p. 820.

⁶² The European Court of Auditors, 'Common Agricultural Policy and climate.', p. 5.

⁶³ *Ibid.*

⁶⁴ FAO, 'Statistical Yearbook 2021. World Food and Agriculture', p. 39.

Of agriculture related GHG emissions, the most relevant are CH₄ (methane) and N₂O (nitrous oxide).⁶⁵ These gases are both emitted in smaller quantities but are drastically more potent greenhouse gases than the more prominently discussed Carbon dioxide⁶⁶ (nitrous oxide is 300 times more damaging than CO₂, methane 25 times⁶⁷). The IPCC calculates the share of AFOLU activities of total human emissions to be 13 percent of globally emitted CO₂, 44 percent of methane and a staggering 81 percent of nitrous oxide. For the second it states that “[s]trong, rapid and sustained reductions in CH₄ emissions would [...] limit the warming effect resulting from declining aerosol pollution and would improve air quality.”⁶⁸

As will be discussed in detail in the next chapter and a later one (III/5.2.2.) on continued deficiencies in the EU Common Agricultural Policy, livestock and related agricultural activities are by far the leading source of agricultural GHG emissions, both globally and to an even higher extent within the EU.

1.2. Other ecological impacts

Beyond GHG emissions and the pollution of the atmosphere, different forms of agriculture especially shape the way in which two of the most essential resources on Earth – land and fresh water – are used and affected. According to the IPCC Special Report on climate change and land, agriculture currently uses around half of the “global ice-free land surface” and accounts for around “70% of global fresh-water use”.⁶⁹ In total numbers, (in 2010) “the food system occupied 12.6 million km² of cropland [and] used 1,810 km³ of freshwater resources from surface and groundwater”.⁷⁰

Despite an enormously increased productivity, both the area and the percentage of land that is used for agriculture has strongly increased since the middle of the 20th century. According

⁶⁵ IPCC, ‘Climate Change and Land. An IPCC Special Report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems. Summary for Policymakers’, p. 10; Michael Hauschild, Philipp Weckenbrock, and Andreas Göttinger, ‘Ökolandbau – besser für das Klima? Über Landwirtschaft in Zeiten des Klimawandels und die Potenziale der Ökologischen Landwirtschaft’, in Manuel Schneider, Andrea Fink-Keßler, and Friedhelm Stodiek, eds., ‘Der kritische Agrarbericht 2021’ (Konstanz, 2021), p. 123.

⁶⁶ Tony Weis, ‘The Accelerating Biophysical Contradictions of Industrial Capitalist Agriculture’, ‘Journal of Agrarian Change’, 10 (2010), p. 317.

⁶⁷ Umweltbundesamt, ‘Umweltschutz in der Landwirtschaft’, p. 10.

⁶⁸ IPCC, ‘Climate Change 2021. The Physical Science Basis. Summary for Policymakers’, p. 27.; IPCC, ‘Climate Change and Land. An IPCC Special Report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems. Summary for Policymakers’, p. 10.

⁶⁹ IPCC, ‘Climate Change and Land. An IPCC Special Report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems. Summary for Policymakers’, p. 7f.

⁷⁰ Springmann, Clark, Mason-D’Croz, et al., ‘Options for keeping the food system within environmental limits’, p. 520.

to Smith, farmland (defined as cropland and pasture) increased more than a third from 1950 to 2005.⁷¹ This expansion of agricultural land “has come mostly at the expense of forests (largely old-growth tropical forests), wetlands and grasslands”⁷² and thus has far-reaching effects on the global biosphere.⁷³ Figure II specifies the different uses of global ice-free land, the respective shares and the extent to which agricultural purposes dominate global land use.

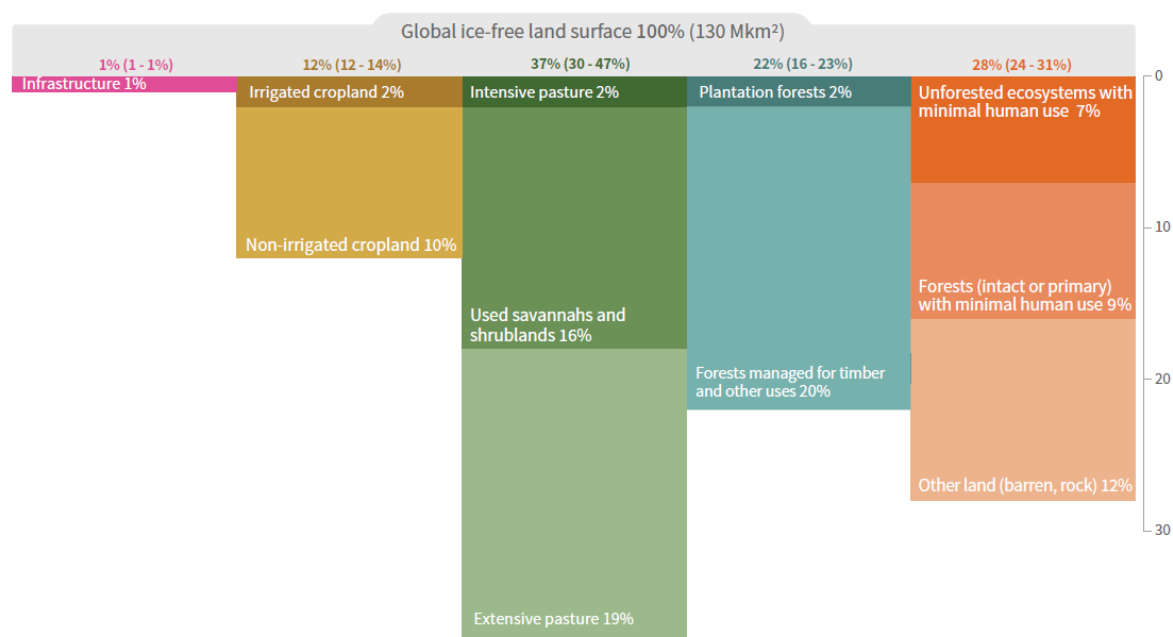


Figure II – IPCC Special Report on Climate Change and Land – Global land use in circa 2015⁷⁴

The high and ever-increasing usage of land is specifically problematic⁷⁵ due to the fact that the majority of agricultural use is not substantial, with soil degradation being a major and largely underestimated problem.⁷⁶ In combination with the continued heavy reliance of industrialized

⁷¹ Smith and Bustamante, ‘Agriculture, Forestry and Other Land Use (AFOLU)’, p. 837.
⁷² IPBES, ‘The global assessment report on biodiversity and ecosystem services of the IPBES. Summary for policymakers’, p. 12.
⁷³ Altieri and Nicholls, ‘Agroecology and the reconstruction of a post- COVID-19 agriculture’, p. 882.
⁷⁴ “The bar chart depicts shares of different uses of the global, ice-free land area. Bars are ordered along a gradient of decreasing land-use intensity from left to right”. IPCC, ‘Climate Change and Land. An IPCC Special Report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems. Summary for Policymakers’, p. 8.
⁷⁵ Schmidinger and Stehfest also argue that the ecological costs of agricultural products normally do not consider the potentially positive effects that an alternative usage of the land (e. g. as carbon sink or source of renewable energy) would have. Kurt Schmidinger and Elke Stehfest, ‘Including CO2 implications of land occupation in LCAs— method and example for livestock products’, ‘The International Journal of Life Cycle Assessment’, 17 (2012), pp. 968–970.
⁷⁶ Pe’er, Bonn, Bruelheide, et al., ‘Action needed for the EU Common Agricultural Policy to address sustainability challenges’, p. 306.; Weis, ‘The Accelerating Biophysical Contradictions of Industrial Capitalist Agriculture’, p. 316.

agriculture on finite fossil fuels, Philip McMichael thus speaks of the *"twin crises of peak oil and peak soil"*⁷⁷.

Besides pollution with agrochemicals, ammonia and nitrate (via manuring)⁷⁸, the IPCC identifies soil erosion as one of the major drivers of soil degradation: *"Soil erosion from agricultural fields is estimated to be currently 10 to 20 times (no tillage) to more than 100 times (conventional tillage) higher than the soil formation rate"*⁷⁹. This means nothing less than an extensive and continuous loss of arable land through current agricultural practices. The degradation of land is further exacerbated by similarly destructive developments regarding biodiversity and ecosystems, again with agriculture as one of the main drivers.⁸⁰ As the *Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)* states, humanity has become a *"global influence on life on earth, and has caused natural terrestrial, freshwater and marine ecosystems to decline"*⁸¹ Making things worse, the majority of land-use change and ecosystem losses has occurred and still occurs in the regions with the highest biodiversity, in the tropics.⁸² According to the *Food and Land Use Coalition*, the *"[c]urrent food and land use systems [...] are the leading cause of the continuing conversion of the world's tropical forests, grasslands, wetlands and other remaining natural habitats – and thus the main culprit of the ongoing "sixth extinction" of biodiversity."*⁸³

As figure III shows, this "sixth mass extinction" is happening at a staggering rate – especially considering geological time scales – which is *"at least tens to hundreds of times higher than the average rate over the past 10 million years"*⁸⁴ and is still accelerating.⁸⁵ Unfortunately, it

⁷⁷ McMichael, 'The World Food Crisis in Historical Perspective', p. 68.

⁷⁸ *European Commission*, 'Empfehlungen der Kommission für den GAP-Strategieplan Österreichs Arbeitsunterlage der Kommissionsdienststellen' (Brussels, 2020), p. 3.; Häusling, 'Kein Klimaschutz ohne Systemwechsel. Warum Konzepte wie »klimasmarte Landwirtschaft« und precision farming keine Lösung sind', p. 49; Friedhelm Stodieck, 'Das (noch) vorherrschende Agrarmodell erweist sich als nicht zukunftsfähig', in Manuel Schneider, Andrea Fink-Keßler, and Friedhelm Stodieck, eds., 'Der kritische Agrarbericht 2020' (Konstanz, 2020), p. 39.; *Umweltbundesamt*, 'Umweltschutz in der Landwirtschaft', p. 24f.

⁷⁹ IPCC, 'Climate Change and Land. An IPCC Special Report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems. Summary for Policymakers', p. 7.; IPBES, 'The global assessment report on biodiversity and ecosystem services of the IPBES. Summary for policymakers', p. 28.

⁸⁰ *Ibid.*, p. 7.

For a more detailed depiction of current destructive developments see *Ibid.*, 25, Figure 2, "Examples of global declines in nature, emphasizing declines in biodiversity, that have been and are being caused by direct and indirect drivers of change."

⁸¹ IPBES, 'The global assessment report on biodiversity and ecosystem services of the IPBES. Summary for policymakers', p. 24.

⁸² *Ibid.*

⁸³ *The Food and Land Use Coalition*, 'Growing Better: Ten Critical Transitions to Transform Food and Land Use', p. 12.

⁸⁴ IPBES, 'The global assessment report on biodiversity and ecosystem services of the IPBES. Summary for policymakers', p. 24.

⁸⁵ *Ibid.*, p. 26.

is expected to further accelerate as at the moment, as “[a]pproximately 25 per cent of species are already threatened with extinction in most animal and plant groups studied”.⁸⁶

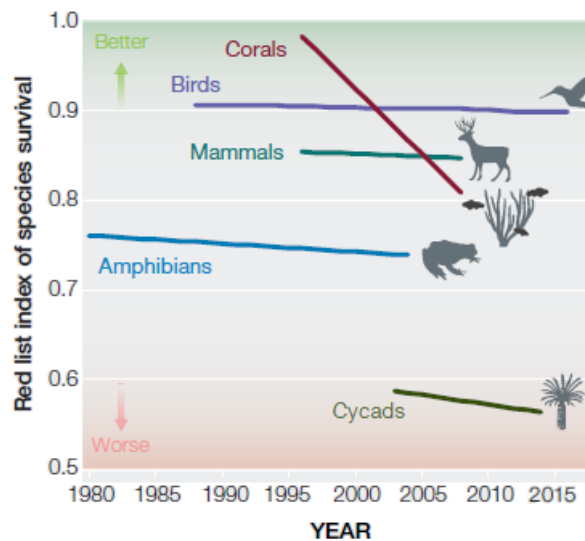


Figure III – Declines in species survival since 1980 (Red List Index)⁸⁷

In addition, agrobiodiversity (the genetic diversity of domesticated plants and animals) is decreasing as well because industrialized agriculture promotes “[b]iological simplification and standardization”⁸⁸ and thus, the usage of only a few selected and allegedly maximally optimized species. This is especially true for crops: the *Food and Land Use Coalition* estimates that the four most common crops – corn, potatoes, rice and wheat – nowadays provide around 60 percent of global caloric supply and that crop diversity fell by around 75 percent during the 20th century.⁸⁹

This massive decline in biodiversity poses an existential risk to current agricultural systems and global food security via undermining its resilience to a multitude of ever-exacerbating threats, including, but not restricted to climate change-induced extreme weather events such as droughts and floods, soil degradation or the occurrence of pests and pathogens.⁹⁰

⁸⁶ *Ibid.*, p. 25.

⁸⁷ *Ibid.*, p. 26.

⁸⁸ Weis, ‘The Accelerating Biophysical Contradictions of Industrial Capitalist Agriculture’, p. 319.

⁸⁹ *The Food and Land Use Coalition*, ‘Growing Better: Ten Critical Transitions to Transform Food and Land Use’, p. 42.

⁹⁰ Altieri and Nicholls, ‘Agroecology and the reconstruction of a post- COVID-19 agriculture’, p. 883f.; IPBES, ‘The global assessment report on biodiversity and ecosystem services of the IPBES. Summary for policymakers’, pp. 12, 25.; IPBES, ‘The global assessment report on biodiversity and ecosystem services of the IPBES. Summary for policymakers’, p. 12.; Rockström, Edenhofer, Gaertner, et al., ‘Planet-proofing the global food system’, p. 4. *The Food and Land Use Coalition*, ‘Growing Better: Ten Critical Transitions to Transform Food and Land Use’, p. 42; Carla Weinzierl, Franziskus Forster, and Julianna Fehlinger, ‘Hunger nach Profiten? Machtverhältnisse im Agrar- und Ernährungssystem’, in Attac, ed., ‘Konzernmacht brechen! Von der Herrschaft des Kapitals zum Guten Leben für Alle’ (Vienna, 2016), p. 134f.

As many experts have pointed out since the outbreak of the COVID pandemic, both intensive livestock farming and the expansion of agricultural areas into formerly wild ecosystems – often associated with livestock farming and its insatiable and ever-growing demand for animal feed as well – increase the risk of dangerous pathogens.⁹¹ Concerning large-scale industrialized livestock farms, Altieri and Nicholls point out that “[t]he practices at these industrial operations, where all animals are genetically similar, not only leave animals more susceptible to viral infections, but also sponsor the conditions by which pathogens can evolve to more infectious types.”⁹²

Besides the anthropogenically driven extinction of species and breeding of new pests, the large-scale degradation of ecosystems endangers essential ecosystem functions – such as pollinating, soil formation or carbon sinks⁹³: “Currently, [...] between \$235 billion and \$577 billion in annual global crop output is at risk as a result of pollinator loss.”⁹⁴ The continuous decline of pollinator populations alone thus threatens global food production to a hardly imaginable extent, as the EU also acknowledges.⁹⁵

However, the changes and intensification of water and land use and the exploitation of ecosystems did and do serve a purpose of course: the food availability for a quickly growing world population.⁹⁶ The IPCC points out that since 1961 “the per capita supply of vegetable oils and meat has more than doubled”.⁹⁷

⁹¹ Rosol and Rosol, ‘Welt im Fieber. Zur Notwendigkeit einer globalen Agrar- und Ernährungswende in Zeiten des Anthropozäns’, p. 8f.; Joachim H. Spangenberg, ‘Die Fledermäuse sind nicht schuld. Die Zerstörung von Naturgebieten und der Verlust an biologischer Vielfalt als eine zentrale Ursache für die Pandemiegefahr’, in Manuel Schneider, Andrea Fink-Keßler, and Friedhelm Stodieck, eds., ‘Der kritische Agrarbericht 2021’ (Konstanz, 2021), p. 210.; Magnus Wessel, ‘Corona verändert die Welt – oder auch nicht’, in Manuel Schneider, Andrea Fink-Keßler, and Friedhelm Stodieck, eds., ‘Der kritische Agrarbericht 2021’ (Konstanz, 2021), pp. 202f., 206f.

⁹² Altieri and Nicholls, ‘Agroecology and the reconstruction of a post- COVID-19 agriculture’, p. 882f.

⁹³ Weis, ‘The Accelerating Biophysical Contradictions of Industrial Capitalist Agriculture’, p. 316.; IPBES, ‘The global assessment report on biodiversity and ecosystem services of the IPBES. Summary for policymakers’, pp. 11, 37.

⁹⁴ IPBES, ‘The global assessment report on biodiversity and ecosystem services of the IPBES. Summary for policymakers’, p. 12.

⁹⁵ European Parliament, ‘Common agricultural policy - Strategic Plans - P9_TA(2021)0456, 23 November 2021’ (2021), p. 18.

⁹⁶ Helmholtz-Zentrum für Umweltforschung, ‘Das „Globale Assessment“ des Weltbiodiversitätsrates IPBES. Die umfassendste Beschreibung des Zustands unserer Ökosysteme und ihrer Artenvielfalt seit 2005 – Chancen für die Zukunft.’ (Leipzig, 2019), p. 7.; Tony Weis, ‘The global food economy: the battle for the future of farming’ (London/New York, 2007), p. 44f.

⁹⁷ IPCC, ‘Climate Change and Land. An IPCC Special Report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems. Summary for Policymakers’, p. 7.

Nevertheless, most researchers agree that processes of intensified agriculture increasingly undermine the very same productivity and food availability that they facilitated in the first place, putting food security at risk around the world.⁹⁸

1.3. Non-ecological impacts

The currently dominant food regime of highly industrialized and productive agriculture, of which the EU CAP is one of the systems with the highest yields, also has extensive effects on economies and societies that are not primarily ecological. Rockström describes them as social costs and states that the *"social costs of our current global food system are unprecedented in both inter-temporal and inter-regional scales"*.⁹⁹

As elaborated in the remarks on the theoretical background, it has far-reaching implications for socioeconomic questions such as the conditions and distribution of human labour, land and other means of production – i.e., seeds, water, agrochemicals (pesticides, fertilizers) and farm animals – both in a certain state as well as between states worldwide. Harriet Friedman thus argues that food regimes reshape *"cultures of farming and eating within [...] global constellations of power and property"*.¹⁰⁰

Besides that, agricultural practices strongly influence how many people can live from agriculture and the current food regime in this regard contributes to the enormous decline of farmers, both worldwide and especially in highly industrialized regions such as the European Union – as will in particular be elaborated in chapter III/5.2.8.

2. The ecological impact of EU Agriculture

The EU is both one of the major producers and one of the major consumers of agricultural goods – it is a *"net exporter of food"*¹⁰¹ [and] *a net importer of unprocessed farm products"*¹⁰², as the European Court of Auditors states.

⁹⁸ Gerald C. Nelson, Mark W. Rosegrant, and Amanda Palazzo, 'Food Security, Farming, and Climate Change to 2050: Scenarios, Results, Policy Options' (Washington, 2010), p. 87.; IPBES, 'The global assessment report on biodiversity and ecosystem services of the IPBES. Summary for policymakers', p. 12.

⁹⁹ Rockström, Edenhofer, Gaertner, et al., 'Planet-proofing the global food system', p. 4.

¹⁰⁰ Harriet Friedmann quoted according to Forster, 'Imperiale Lebensweise, Food Regimes und die Agrarfrage: Zur Manifestation der imperialen Lebensweise im globalen Agrar- und Lebensmittelsystem', p. 52.

¹⁰¹ Its main export products are dairy products, grain, meat (mainly poultry), beverages and processed food products. *The European Court of Auditors*, 'Opinion No 7/2018 concerning Commission proposals for regulations relating to the common agricultural policy for the post-2020 period', 'Official Journal of the European Union', 62 (2019), p. 10. Weinzierl, Forster, and Fehlinger, 'Hunger nach Profiten? Machtverhältnisse im Agrar- und Ernährungssystem', p. 143f.

¹⁰² *The European Court of Auditors*, 'Opinion No 7/2018 concerning Commission proposals for regulations relating to the common agricultural policy for the post-2020 period', p. 10.

Through this strong involvement in the world trade of agricultural goods, the EU is of paramount importance for agricultural markets, prices and producers worldwide.¹⁰³ With its role in the world market – which is based on both its own products (and exports) and its demand for certain imports – the EU has substantial economic (and political) influence on the production of agricultural goods worldwide and its ecological impacts, for example with regards to GHG emissions. Hence, the ways in which food is produced and consumed in the EU does not only have vast ecological ramifications themselves but influence the ecological standards and impacts of global food production and consumption.

In some limited domains, such as the usage of pesticides and fertilizers, EU agriculture produces better outcomes when compared to other world regions¹⁰⁴ and is indeed already a forerunner in combining highly productive yet ecologically responsible agriculture. In many other aspects however, the major ecological impacts of EU production and consumption are largely ignored as the CAP still *“supports a variety of practices contributing to wide-scale biodiversity loss, climate change, soil erosion and land degradation.”*¹⁰⁵ In particular the former two will be discussed in the following.

2.1. Greenhouse gas (GHG) emissions

As already stated, precise figures on GHG emissions can be a delicate matter which is even more true in the context of EU agriculture. The question whether certain emissions are attributed to a certain region or a certain economic sector is highly political as stakeholders may have an interest in understating actual emissions. Therefore, context and transparent definitions of categories are especially necessary. Most EU institutions and the respective documents – including the From Farm to Fork Strategy – base their calculations on IPCC guidelines and estimate the share of agriculture of total EU emissions at around 10 percent, of which again livestock production is responsible for around 70 percent.¹⁰⁶ As figure IV shows, this is also true for the European Environmental Agency, which estimates agricultural

¹⁰³ Pe'er, Lakner, Müller, et al., 'Is the CAP Fit for purpose? An evidence-based fitness-check assessment', p. 202; Weinzierl, Forster, and Fehlinger, 'Hunger nach Profiten? Machtverhältnisse im Agrar- und Ernährungssystem', p. 143f.

¹⁰⁴ See "Figure 15, Pesticide use by region" and "Figure 16, Pesticide use per cropland area by region", FAO, 'Statistical Yearbook 2021. World Food and Agriculture', p. 7.

¹⁰⁵ Pe'er, Bonn, Bruelheide, et al., 'Action needed for the EU Common Agricultural Policy to address sustainability challenges', p. 306.

¹⁰⁶ European Commission, 'A Farm to Fork Strategy for a fair, healthy and environmentally-friendly food system' (Brussels, 2020), p. 7.

emissions at approximately 386.000 kilo tons of CO2 equivalents or around 10 percent of total EU emissions.

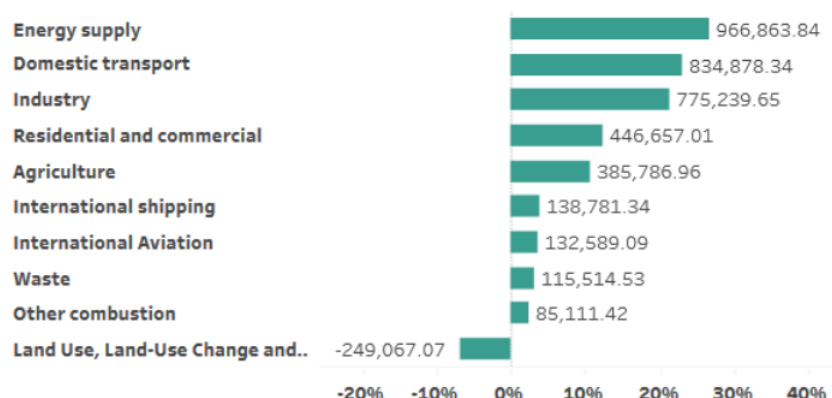


Figure IV – GHG emissions – sectoral shares in EU-27 in 2019 (in absolute kts of CO2 equivalents & in %)¹⁰⁷

However, the EU’s own Court of Auditors criticizes that these estimates do not take the impact of imported animal feed (with its substantial contribution to land-use change and deforestation abroad) into consideration.¹⁰⁸

Furthermore, in a meta study a team around Guy Pe’er found that “GHG sources included under the IPCC reporting category “agriculture” do, however, only represent about half of all agriculture-related emissions.”¹⁰⁹ Pe’er et al based their assumptions, inter alia, on life-cycle assessments which revealed that “total GHG emissions only of EU livestock production [were] thus 150-200% of the value reported under “agriculture””¹¹⁰, which, nota bene, ought to include all other agricultural emissions as well. Therefore, Pe’er et al estimate that **agriculture-related GHG emissions make up approximately 20 percent of EU emissions**, of which more than two thirds originate in the animal sector.¹¹¹ If we were to follow these findings and apply them to figure IV, agriculture would then position around the level of the second and third most emitting sectors (domestic transport and industry) which would considerably change the picture and further underline the overall relevance of the agricultural sector for climate change and respective emission reduction targets. As we have thus seen, the exact percentage

¹⁰⁷ European Environment Agency, ‘EEA greenhouse gases - data viewer’, ‘European Environment Agency - Official Homepage’ (2021). See also “Fig 1. “The share of emissions by type of activity in 1990 and 2014”. Anna Kijewska and Anna Bluszcz, ‘Analysis of greenhouse gas emissions in the European Union memberstates with the use of an agglomeration algorithm’, ‘Journal of Sustainable Mining’, 15 (2016), pp. 133–142.

¹⁰⁸ The European Court of Auditors, ‘Common Agricultural Policy and climate.’, p. 6.

¹⁰⁹ Pe’er, Lakner, Müller, et al., ‘Is the CAP Fit for purpose? An evidence-based fitness-check assessment’, p. 100.

¹¹⁰ Ibid., p. 101.

¹¹¹ Ibid., p. 102.; Hart, Allen, and Keenleyside, ‘The consequences of climate change for EU agriculture: follow-up to the COP21 - UN Paris Climate Change Conference’, p. 22.

of total emissions for which agriculture is responsible for is a controversial topic. Less controversial is the respective trend of agricultural emissions.

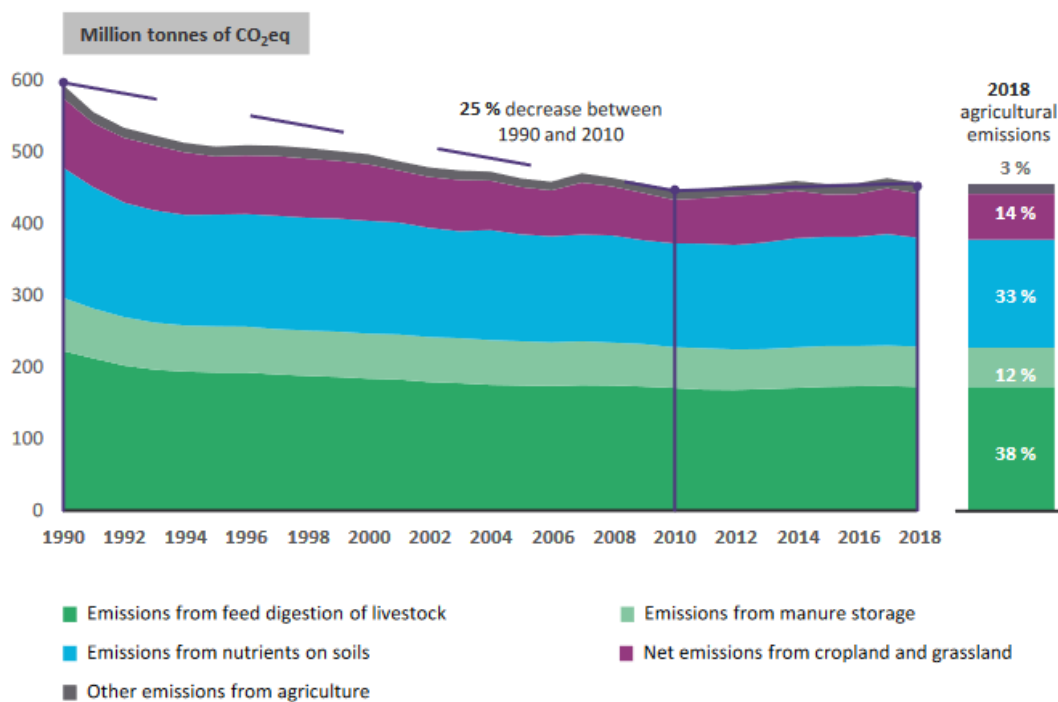


Figure V – EU-27 greenhouse gas net emissions from agriculture since 1990¹¹²

Here most analyses agree that, starting with 1990, emissions steadily yet slowly declined for around 15-20 years, but are basically unchanged ever since – as figure V shows. Projections of emission trends expect a similarly stagnant development up to 2030, with a minor decrease of 2.3 percent versus 2005.¹¹³

Due to the overall declining trend in EU GHG emissions, this means that the share of agricultural emissions of total EU emissions will continue to rise as, at present, “*there remains no clear decarbonisation agenda or GHG emission reduction targets for the agricultural sector at EU level*”¹¹⁴. This inactivity is especially surprising when considering that EU agriculture is to expect major impairments at the hand of climate change. According to the data of the IPCC and the FAO, Europe is warming the fastest and its Southern parts will be among the regions affected most by predicted declines in precipitation which will be further outlined in chapter III/5.2.4.¹¹⁵

With thusly growing urgency for climate action, it is a reasonable assumption that this will

¹¹² The European Court of Auditors, ‘Common Agricultural Policy and climate.’, p. 7.

¹¹³ Hart, Allen, and Keenleyside, ‘The consequences of climate change for EU agriculture: follow-up to the COP21 - UN Paris Climate Change Conference’, p. 86.

¹¹⁴ Ibid.

¹¹⁵ FAO, ‘Statistical Yearbook 2021. World Food and Agriculture’, p. 40f.

increasingly raise pressure and concerns on how the CAP can be aligned with and contribute to the more positive EU trend and its more ambitious overall mitigation efforts.¹¹⁶

2.2. Other ecological impacts

Besides GHG emissions, literature identifies a dramatic loss in biodiversity as one of the major ecological problems of the EU in general and the CAP in particular.¹¹⁷ The EU's Biodiversity Strategy of 2020, one of the chapters of the Green Deal as well, is proof of the magnitude of the problem and emphasizes its urgency:

"[N]ature is in a state of crisis. The five main direct drivers of biodiversity loss – changes in land and sea use, overexploitation, climate change, pollution, and invasive alien species – are making nature disappear quickly. [...]"

*In the last four decades, global wildlife populations fell by 60% as a result of human activities. And almost three quarters of the Earth's surface have been altered, squeezing nature into an ever-smaller corner of the planet."*¹¹⁸

The Biodiversity Strategy also acknowledges *"certain agricultural practices [as] a key driver of biodiversity decline"*¹¹⁹. These harmful agricultural practices are in parts still subsidized by CAP funds and include but are not limited to the intense usage of pesticides, excess fertilisation, the cultivation of monocultures, the pollution of land and water bodies with excess nutrients (specifically through livestock farming and manuring), soil sealing and land-use intensification and change, for example in form of the cultivation of wetlands and former natural habitats.¹²⁰

Despite the unanimous recognition of extensive biodiversity losses, monitoring and evaluation tools regarding biodiversity effects of agricultural practices (and regarding biodiversity in

¹¹⁶ Hart, Allen, and Keenleyside, 'The consequences of climate change for EU agriculture: follow-up to the COP21 - UN Paris Climate Change Conference', pp. 19, 86; Pe'er, Lakner, Müller, et al., 'Is the CAP Fit for purpose? An evidence-based fitness-check assessment', pp. 100, 102, 208.

¹¹⁷ Alliance Environnement, 'Evaluation of the impact of the CAP on habitats, landscapes, biodiversity' (2019), p. 159; Jesus Barreiro-Hurle, Mihaly Mariia Bogonos, Jordan Hristov Himics, et al., 'Modelling environmental and climate ambition in the agricultural sector with the CAPRI model. Exploring the potential effects of selected Farm to Fork and Biodiversity strategies targets in the framework of the 2030 Climate targets and the post 2020 Commo' (2021), p. 15; European Commission, 'A Farm to Fork Strategy for a fair, healthy and environmentally-friendly food system', p. 3f.; European Commission, 'Empfehlungen der Kommission für den GAP-Strategieplan Österreichs Arbeitsunterlage der Kommissionsdienststellen', p. 4.

¹¹⁸ European Commission, 'EU Biodiversity Strategy for 2030 Bringing nature back into our lives' (Brussels, 2020), p. 2.

¹¹⁹ Ibid., 7.

¹²⁰ European Commission, 'A Farm to Fork Strategy for a fair, healthy and environmentally-friendly food system', pp. 3, 6–8; Greenpeace, Birdlife International, and European Environmental Bureau, 'Does the new CAP measure up? NGOs assessment against 10 tests for a Green Deal-compatible EU Farming Policy' (2021), p. 5; IPBES, 'The global assessment report on biodiversity and ecosystem services of the IPBES. Summary for policymakers', pp. 12, 25, 28, 45; Pe'er, Lakner, Müller, et al., 'Is the CAP Fit for purpose? An evidence-based fitness-check assessment', pp. 82, 160; Guy Pe'er, Maren Birkenstock, Sebastian Lakner, et al., 'The Common Agricultural Policy post-2020.' (2021), p. iiif., 9, 40, 45, 55-58; Weis, 'The Accelerating Biophysical Contradictions of Industrial Capitalist Agriculture', pp. 319, 333.

general) remain underdeveloped, as experts repeatedly criticize.¹²¹ This problem of insufficient tools for monitoring and reliable data collection can be found throughout several aspects of the CAP as will be discussed later in chapter III/5.2.6. As one of the few EU-wide well-established indicators of biodiversity, the farmland bird index (FBI) shows a dramatic decline in bird diversity in the EU.¹²² According to its data, more than half (57 %) of EU farmland birds disappeared since 1980.¹²³

One of the major contributors to biodiversity loss is the high usage of pesticides, fertilizers and other agrochemicals and the excess of nutrients which lastingly harm flora and fauna of all sizes. The nutrient problem is specifically caused by strongly increased livestock numbers. The tendency for bigger animal herds has led to large quantities of liquid manure whose spread releases excessive amounts of nutrients (especially nitrogen and phosphorus) into the soil – with resulting detriments for soil, animal and human health.¹²⁴

Regarding agrochemicals, however, one has to point out that the EU and its CAP initiatives concerning this matter have already achieved a substantial reduction over the last decades. Between 1987 and 2007, fertilizer use more than halved in the EU which turned the EU in one of the regions with the lowest agrochemical usage.¹²⁵ Nevertheless, substantial further reduction is necessary in order to halt biodiversity loss and thus also strengthen the resilience of EU agriculture to climate change and its accompanying more frequent weather events.¹²⁶ Consequently, ambitious reduction targets were included in the From Farm to Fork Strategy: the overall use of pesticides shall be reduced by 50 percent, nutrient losses by 50 percent as well and the connected use of fertilizers by at least 20 percent by 2030.¹²⁷

¹²¹ Pe'er, Lakner, Müller, et al., 'Is the CAP Fit for purpose? An evidence-based fitness-check assessment', pp. 191, 223f.; Pe'er, Birkenstock, Lakner, et al., 'The Common Agricultural Policy post-2020', pp. 16, 82–84; Ilona Rac, Karmen Erjavec, and Emil Erjavec, 'Does the proposed CAP reform allow for a paradigm shift towards a greener policy?', 'Spanish Journal of Agricultural Research', 18 (2020), p. 10.

¹²² European Commission, 'Empfehlungen der Kommission für den GAP-Strategieplan Österreichs Arbeitsunterlage der Kommissionsdienststellen', p. 4.

¹²³ European Environment Agency, 'Common birds in Europe - population index', 'Indicator assessment. Abundance and distribution of selected species' (2010).

¹²⁴ Barreiro-Hurle, Mariia Bogonos, Himics, et al., 'Modelling environmental and climate ambition in the agricultural sector with the CAPRI model. Exploring the potential effects of selected Farm to Fork and Biodiversity strategies targets in the framework of the 2030 Climate targets and the post 2020 Commo', p. 50; IPES, 'Towards a Common Food Policy for the EU' Framing paper for the EU Food and Farming Forum 2018' (Brussels, 2018); Häusling, 'Kein Klimaschutz ohne Systemwechsel. Warum Konzepte wie »klimasmarte Landwirtschaft« und precision farming keine Lösung sind', p. 49.

¹²⁵ Pe'er, Lakner, Müller, et al., 'Is the CAP Fit for purpose? An evidence-based fitness-check assessment', p. 79. See also "Figure 15, Pesticide use by region" and "Figure 16, Pesticide use per cropland area by region", FAO, 'Statistical Yearbook 2021. World Food and Agriculture', p. 7.

¹²⁶ IPBES, 'The global assessment report on biodiversity and ecosystem services of the IPBES. Summary for policymakers', p. 12.

¹²⁷ European Commission, 'A Farm to Fork Strategy for a fair, healthy and environmentally-friendly food system', p. 6f.

A major reason for biodiversity losses also lies in land-use change and related soil degradation, which is a problem of highly undervalued ecological and economic importance. Estimates of the damage caused range from around a billion to a multiple of that with soil loss particularly being a problem in Southern and Eastern Europe.¹²⁸ Among the causes of soil degradation are the usage of larger machinery, over-irrigation, a decrease in ground cover on agricultural fields and rarer fallows – all as well sources of biodiversity losses.¹²⁹

We can thus conclude that current forms of agriculture in the EU in several ways contribute largely to a drastic decline in biodiversity. However, it is also important to note that “[t]he CAP is by no means the sole influence on biodiversity and landscape. Factors such as market conditions, social trends, climate and others also affect outcomes. Distinguishing the results of the CAP from those of such other factors is challenging, and not always possible”¹³⁰ – which again underlines the necessity of closer monitoring and evaluation mechanisms of CAP schemes.

3. The Common Agricultural Policy (CAP) of the EU

3.1. Overview

The common agricultural policy of the EU (back then still the EEC, the European Economic Community) was established with the Treaty of Rome in 1957.¹³¹ Since then, it is one of the most controversial domains of EU policy and, until this very day, the department of EU policy with the highest budget. In the year 2019, the overall CAP budget amounted to 54.4 billion € which equals around a third of the EU’s overall multi-annual financial framework (MFF), its budget.¹³² In comparison to the agricultural industry’s share of total EU GDP of only 1.3 percent, this endowment highlights the exceptional status of the CAP within EU politics and explains the conflict-ridden discourse about it.¹³³ Due to its high share of the EU budget, the CAP’s financial endowment is strongly dependent

¹²⁸ *The Food and Land Use Coalition*, ‘Growing Better: Ten Critical Transitions to Transform Food and Land Use’, p. 42. See “Figure 4.4.3: Map of soil loss rates in EU”. Pe’er, Lakner, Müller, et al., ‘Is the CAP Fit for purpose? An evidence-based fitness-check assessment’, p. 108.

¹²⁹ Weis, ‘The Accelerating Biophysical Contradictions of Industrial Capitalist Agriculture’, p. 319.

¹³⁰ *Alliance Environnement*, ‘Evaluation of the impact of the CAP on habitats, landscapes, biodiversity’, p. 27.

¹³¹ Pe’er, Bonn, Bruelheide, et al., ‘Action needed for the EU Common Agricultural Policy to address sustainability challenges’, p. 306; Lioba Weingärtner and Claudia Trentmann, ‘Handbuch Welternährung’, ed. Deutsche Welthungerhilfe E.V. (Frankfurt/New York, 2011), p. 71.

¹³² *European Parliament*, ‘EU agriculture statistics: subsidies, jobs, production (infographic)’, ‘Official Homepage of the European Parliament’ (2021),; Alan Matthews, ‘The CAP in the 2021-2027 MFF Negotiations’, ‘Intereconomics. Review of European Economic Policy’, 53 (2018), p. 307f.

¹³³ *European Parliament*, ‘EU agriculture statistics: subsidies, jobs, production (infographic)’.

on the general size of the MFF. The financial and political leeway of CAP programs thus considerably depends on the overall budget situation of the EU – as even the most ambitious CAP reform agenda requires the necessary financial means. Hence, the Brexit and the related withdrawal of Great Britain as the second largest net contributor to the EU and CAP budgets posed a particularly challenging task for the new CAP, as will be outlined below.¹³⁴ Furthermore, this special position in EU politics puts the CAP in the focus of public attention and makes its negotiation a complicated process reflecting the conflict-ridden character of EU politics with its permanent power struggles between different EU institutions and different political priorities. Above all, the fundamental conflict between largely supranationally orientated EU institutions (such as the Commission and the Parliament) and EU institutions representing the member states (such as the European Council) is of paramount importance for the CAP. National interests are especially pronounced in negotiations about the CAP as its payments make up a major of total funding that each member state receives from the EU.¹³⁵ It has to be emphasized that the CAP was established in a very different time with different challenges dominating its institutionalisation. These initial challenges are reflected in the CAP's initial five key objectives that – despite a multitude of CAP reforms over time – remain at its cornerstone:¹³⁶

- "a) to increase agricultural productivity by promoting technical progress and by ensuring the rational development of agricultural production and the optimum utilisation of the factors of production, in particular labour;*
- b) thus to ensure a fair standard of living for the agricultural community, in particular by increasing the individual earnings of persons engaged in agriculture;*
- c) to stabilise markets;*
- d) to assure the availability of supplies;*
- e) to ensure that supplies reach consumers at reasonable prices."¹³⁷*

¹³⁴ *Ibid.*, 307f., 310f.; Pe'er, Lakner, Müller, et al., 'Is the CAP Fit for purpose? An evidence-based fitness-check assessment', p. 34f.

For a more detailed depiction of the CAP funding, its contributors and recipients see "Figure 2.3.2: "Net-contribution of the EU Agricultural Guarantee Fund (EAGF), known also as Pillar I, by member states in 2015", Pe'er, Lakner, Müller, et al., 'Is the CAP Fit for purpose? An evidence-based fitness-check assessment', p. 34.

¹³⁵ Matthews, 'The CAP in the 2021-2027 MFF Negotiations', p. 310f.; Hannes Lorenzen, 'Wer keine Visionen hat, sollte zum Arzt gehen. Die Reform der europäischen Agrarpolitik – Blick zurück nach vorn', in Manuel Schneider, Andrea Fink-Keßler, and Friedhelm Stodieck, eds., 'Der kritische Agrarbericht 2021' (Konstanz, 2021), pp. 24–28; Pe'er, Lakner, Müller, et al., 'Is the CAP Fit for purpose? An evidence-based fitness-check assessment', p. 49f.; Matthews, 'The CAP in the 2021-2027 MFF Negotiations', p. 310.

¹³⁶ Weingärtner and Trentmann, 'Handbuch Welternährung', p. 71.

¹³⁷ Pe'er, Lakner, Müller, et al., 'Is the CAP Fit for purpose? An evidence-based fitness-check assessment', p. 30.

As these five objectives clearly show, at its foundation the first and foremost priority of the CAP was food security and self-sufficiency – a consequence of the years of scarcity and hunger during and after the Second World War which had devastated European agriculture.¹³⁸

On this account, the CAP initially promoted an agricultural system that focussed on quantity and stimulated production via high subsidies, specifically in the form of direct price support for agricultural products. This focus on agricultural self-sufficiency also implicated harsh protectionist measures such as tariffs and import bans in order to protect the recovering European farmers.¹³⁹

In the first two decades, this system was very successful in expanding food production. However, in the 1980s it experienced a major crisis, caused by an enormous overproduction and related high costs due to agricultural price support.¹⁴⁰ The CAP still guaranteed farmers the purchase of all agricultural products at fixed prices and thus had to store large amounts of excessive products which led to the infamous “*warehoused mountains of butter*”.¹⁴¹ Part of the solution for this was an increasingly export-oriented and -subsidized agricultural policy which helped to extend the market for EU/EEC agricultural products and strengthen its competitiveness – often at the expense of local markets and producers in the Global South that could not compete with the highly subsidized exports.¹⁴² Another recipient of produced surpluses was livestock farming respectively meat production. Surplus crops were more and more used as animal feed and – together with the extending market integration of agricultural resources in the Global South which also provided cheap fodder – increased the availability of meat and initiated the “*meatification of diets*”¹⁴³, the “*the radical shift of animal products from the periphery to the centre of human food consumption patterns*”¹⁴⁴ as Tony Weis defines it.

¹³⁸ Weis, ‘The global food economy: the battle for the future of farming’, p. 66.

¹³⁹ Heinrich Neisser, ‘Corner Stones of Foreign Policy Cooperation’, in Doris Dialer, Heinrich Neisser, and Anja Opitz, eds., ‘The EU’s External Action Service: Potentials for a one voice Foreign Policy’ (Innsbruck, 2014), p. 19; Pe’er, Lakner, Müller, et al., ‘Is the CAP Fit for purpose? An evidence-based fitness-check assessment’, pp. 33–35.

¹⁴⁰ Bourget, ‘The Common Agricultural Policy 2023-2027: change and continuity’, p. 1; Forster, ‘Imperiale Lebensweise, Food Regimes und die Agrarfrage: Zur Manifestation der imperialen Lebensweise im globalen Agrar- und Lebensmittelsystem’, p. 67f.

¹⁴¹ Weis, ‘The global food economy: the battle for the future of farming’, p. 66.

¹⁴² Forster, ‘Imperiale Lebensweise, Food Regimes und die Agrarfrage: Zur Manifestation der imperialen Lebensweise im globalen Agrar- und Lebensmittelsystem’, pp. 71, 73–75; Sophia Murphy, ‘Free Trade in Agriculture: A Bad Idea Whose Time Is Done’, in Fred Magdoff and Brian Tokar, eds., ‘Agriculture and Food in crisis. Conflict, Resistance, and Renewal’ (New York, 2010), pp. 108f., 118f.; Plank, Penker, and Brunner, ‘Ernährung klimasozial gestalten’, p. 144.

¹⁴³ Forster, ‘Imperiale Lebensweise, Food Regimes und die Agrarfrage: Zur Manifestation der imperialen Lebensweise im globalen Agrar- und Lebensmittelsystem’; Plank, Penker, and Brunner, ‘Ernährung klimasozial gestalten’, p. 143f.

¹⁴⁴ Weis, ‘The global food economy: the battle for the future of farming’, p. 17.

Major changes of the CAP were then introduced in the 1992 CAP reform which finally ended direct price support (see figure VI). The resulting price reduction was compensated for by the newly introduced direct payments for farmers.¹⁴⁵ The abolition of direct price support was also a result of enduring international criticism of these protectionist CAP measures which was especially voiced during the protracted Uruguay negotiations for a reform of the GATT (a global trade agreement which was the predecessor of today's WTO).¹⁴⁶

The CAP Reform-Path 1992-2020

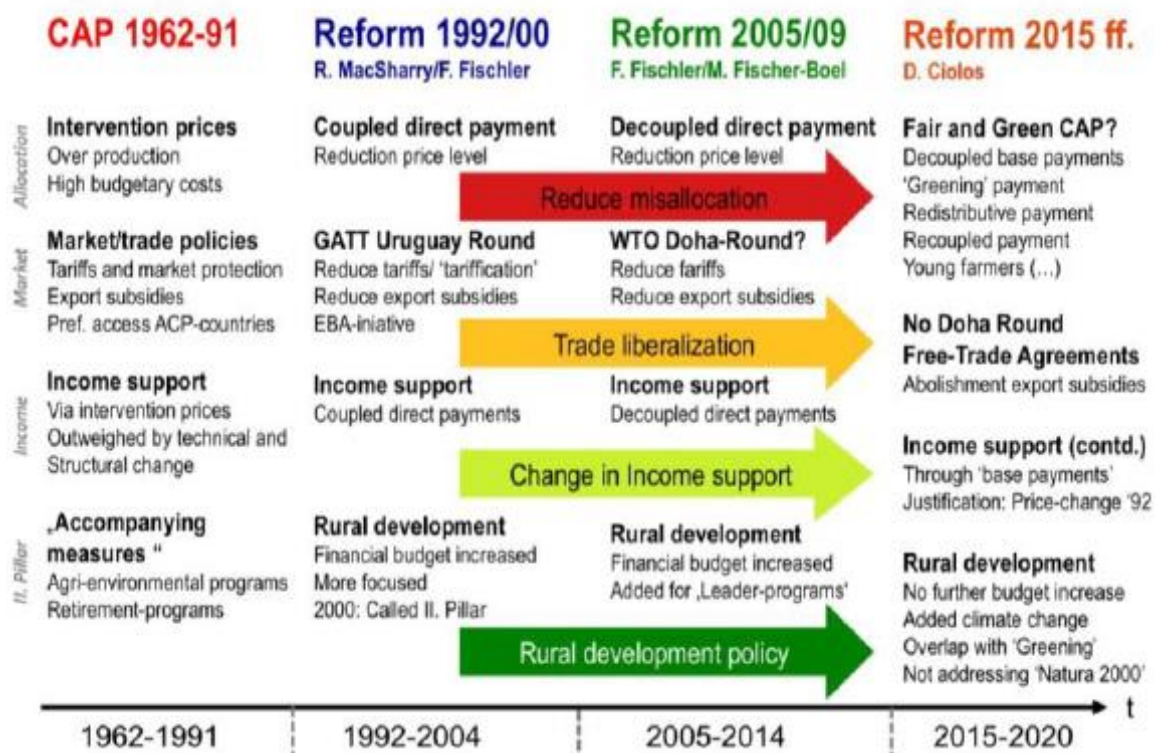


Figure VI - "Synthesis of the key components of the CAP's reforms"¹⁴⁷

The years 1999/2000 then saw the first major advancement of greening attempts of the CAP: the division into a pillar I for production support (which mainly continued existing economic measures) and a pillar II for rural development. This second pillar of CAP payments should primarily focus on non-productive aspects such as the support of small farms and especially the development of rural regions. Pillar II also included and expanded certain basic agro-environmental measures (first introduced in 1992, the predecessor of today's agri-

¹⁴⁵ Bourget, 'The Common Agricultural Policy 2023-2027: change and continuity', p. 1.

¹⁴⁶ Pe'er, Lakner, Müller, et al., 'Is the CAP Fit for purpose? An evidence-based fitness-check assessment', p. 33; Plank, Penker, and Brunner, 'Ernährung klimasozial gestalten', p. 144.

¹⁴⁷ Source: Sebastian Lakner et al, Pe'er, Lakner, Müller, et al., 'Is the CAP Fit for purpose? An evidence-based fitness-check assessment', p. 33.

environment-climate measures (AECM)) which compensated farmers for adopting more ecological agricultural practices.¹⁴⁸

The Fischler reform of 2005 then initiated a further decoupling of direct payments from production. In addition, certain minimal environmental standards were introduced as precondition for payments.¹⁴⁹ Hence, for the first time in CAP history, environmental aspects were not treated as praiseworthy, yet voluntary extra task, but as essential requirements for CAP funding. According to Hart, CAP negotiators gradually acknowledged the importance of environmental action since then, in particular regarding climate change¹⁵⁰: *"Prior to 2007, climate change was not a formal priority of agricultural or rural development policy in the EU. Developments outside the agricultural policy sphere progressively raised attention about the significance of climate change for the EU agricultural sector"*.¹⁵¹

Hart and other experts thus state that a general, slow but steady greening tendency of the CAP can be identified.¹⁵² This development also reflects societies' altered expectations from food and farming¹⁵³ and was finally officially taken into account by the re-definition of nine CAP objectives in 2018 which are:

- "1. to ensure a fair income to farmers;*
- 2. to increase competitiveness;*
- 3. to rebalance the power in the food chain;*
- 4. climate change action;*
- 5. environmental care;*
- 6. to preserve landscapes and biodiversity;*
- 7. to support generational renewal;*
- 8. vibrant rural areas;*
- 9. to protect food and health quality."*¹⁵⁴

Besides that, in 2013, the latest addition of a country (Croatia) to the EU and the programs of the CAP took place. Since 1995, the EU's enlargement process also meant that 16 additional,

¹⁴⁸ Ian Hodge, Jennifer Hauck, and Aletta Bonn, 'The alignment of agricultural and nature conservation policies in the European Union', 'Conservation Biology', 29 (2015), p. 1000f.; Pe'er, Lakner, Müller, et al., 'Is the CAP Fit for purpose? An evidence-based fitness-check assessment', p. 37.

¹⁴⁹ *Ibid.*, p. 33.

¹⁵⁰ Hart, Allen, and Keenleyside, 'The consequences of climate change for EU agriculture: follow-up to the COP21 - UN Paris Climate Change Conference', pp. 18–20, 23, 56, 60, 85f.

¹⁵¹ *Ibid.*, p. 56.

¹⁵² Guy Pe'er, Yves Zinngrebe, Francisco Moreira, et al., 'A greener path for the EU Common Agricultural Policy', 'Science', 365 (2019), p. 449.

¹⁵³ European Commission, 'Special Eurobarometer 440. Europeans, Agriculture and the CAP' (2015), p. 67.

¹⁵⁴ European Commission, 'Key policy objectives of the new CAP', 'Official Homepage of the European Commission'.

agriculturally in parts largely differing countries had to be incorporated into the CAP which inevitably entailed the necessity for CAP reforms.¹⁵⁵

Nevertheless, Hodge emphasizes its strong consistencies and the rigid perpetuation of an economic focus on agriculture: *“Although the CAP has been fundamentally reformed, its orientation and perspective remains agricultural. [...] The CAP is negotiated in a particular policy community, heavily influenced by agricultural interests.”*¹⁵⁶ He highlights the political-economic environment in which the CAP is negotiated which is largely shaped by major stakeholders and lobby groups mainly representing influential transnational corporations.¹⁵⁷ This strongly dominates and curbs ecological ambitions in the CAP from the outset and in general promotes a perpetuation of the current food regime and the status quo with its primarily economic orientation – in addition to peculiar national interests that are again often reflections of influential national agricultural stakeholders. This primacy of economic objectives is also evident in figure VII on the allocation of CAP funding to the new nine key objectives.

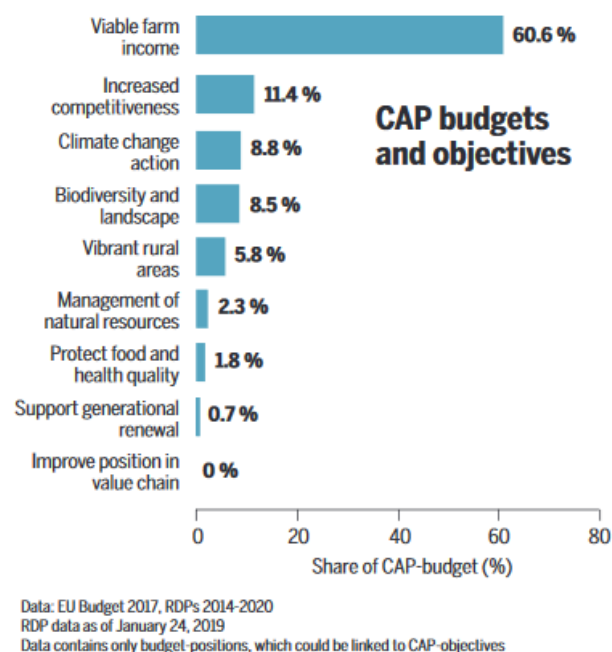


Figure VII – CAP budgets and objectives. Current division of the Common Agricultural Policy (CAP) budget linked to the new CAP objectives of 2018¹⁵⁸

¹⁵⁵ Pe'er, Lakner, Müller, et al., 'Is the CAP Fit for purpose? An evidence-based fitness-check assessment', p. 34f.

¹⁵⁶ Hodge, Hauck, and Bonn, 'The alignment of agricultural and nature conservation policies in the European Union', p. 1003.

¹⁵⁷ Lorenzen, 'Wer keine Visionen hat, sollte zum Arzt gehen. Die Reform der europäischen Agrarpolitik – Blick zurück nach vorn', p. 25; Pe'er, Zinngrebe, Moreira, et al., 'A greener path for the EU Common Agricultural Policy', p. 449f.

¹⁵⁸ Pe'er, Zinngrebe, Moreira, et al., 'A greener path for the EU Common Agricultural Policy', p. 450.

The resulting rigidity and lack of ecological ambition¹⁵⁹ that also pervade the new CAP program will be at the cornerstone of chapter III/5.2.3. They emphasize the CAP's position at the heart of various EU internal conflicts, such as the permanently negotiated and increasingly apparent antagonism between economic and ecological interests that is prevalent throughout the EU and in particular in the CAP.¹⁶⁰ Pe'er et al thus summarize that *"[t]wo relevant and somewhat conflicting discourses will undoubtedly affect the CAP: on the one hand, the current emphasis of the European Commission on jobs and growth, and on the other hand, rising expectations from society for fulfilling the EU's environmental commitments in terms of climate, air, water, and biodiversity."*¹⁶¹

Another longstanding conflict is the CAP-internal contradiction between its market-oriented objective of global competitiveness and the intended preservation of local farming, agricultural jobs and the rural area in the EU which will also become evident in the document analysis below (specifically in chapter III/5.2.8.). The CAP always had and continues to have to balance expectations that go beyond mere economic aspects. In addition, almost 10 million jobs are supported by the agrarian sector in the EU which adds another significant economic dimension as well and thus points out primarily economic conflicts of interests.¹⁶² These and other conflicts challenge the internal coherence of EU politics and especially the CAP which can be traced throughout its policies – and also its current structure and its two main pillars of funding.

3.2. Structure¹⁶³

In 2019, the allocation of funds towards the two main pillars of the CAP looked as follows: of a total of around 58 billion dollars, circa 44 billion (76 %) were allocated to pillar 1 (Income support and market measures) and 14 billion (24 %) to pillar 2 (Rural Development).¹⁶⁴ To put

¹⁵⁹ *The European Court of Auditors*, 'Common Agricultural Policy and climate.', p. 52.

¹⁶⁰ *European Commission*, 'Special Eurobarometer 440. Europeans, Agriculture and the CAP', pp. 33, 62, 67; *Hart, Allen, and Keenleyside*, 'The consequences of climate change for EU agriculture: follow-up to the COP21 - UN Paris Climate Change Conference', pp. 18–20, 56, 85f.; *Pe'er, Zinngrebe, Moreira, et al.*, 'A greener path for the EU Common Agricultural Policy', p. 449.

¹⁶¹ *Pe'er, Lakner, Müller, et al.*, 'Is the CAP Fit for purpose? An evidence-based fitness-check assessment', p. 35.

¹⁶² *European Parliament*, 'EU agriculture statistics: subsidies, jobs, production (infographic)'.

¹⁶³ For a concise overview of the structure and the tools of the CAP see "2.4 The CAP components", *Pe'er, Lakner, Müller, et al.*, 'Is the CAP Fit for purpose? An evidence-based fitness-check assessment', pp. 35–38.

¹⁶⁴ See also *Matthews*, 'The CAP in the 2021-2027 MFF Negotiations', p. 308f.; *Pe'er, Lakner, Müller, et al.*, 'Is the CAP Fit for purpose? An evidence-based fitness-check assessment', p. 35.

these figures into perspective, the EU's agricultural industry's estimated gross value added amounted to around 178 billion euros in 2020.¹⁶⁵

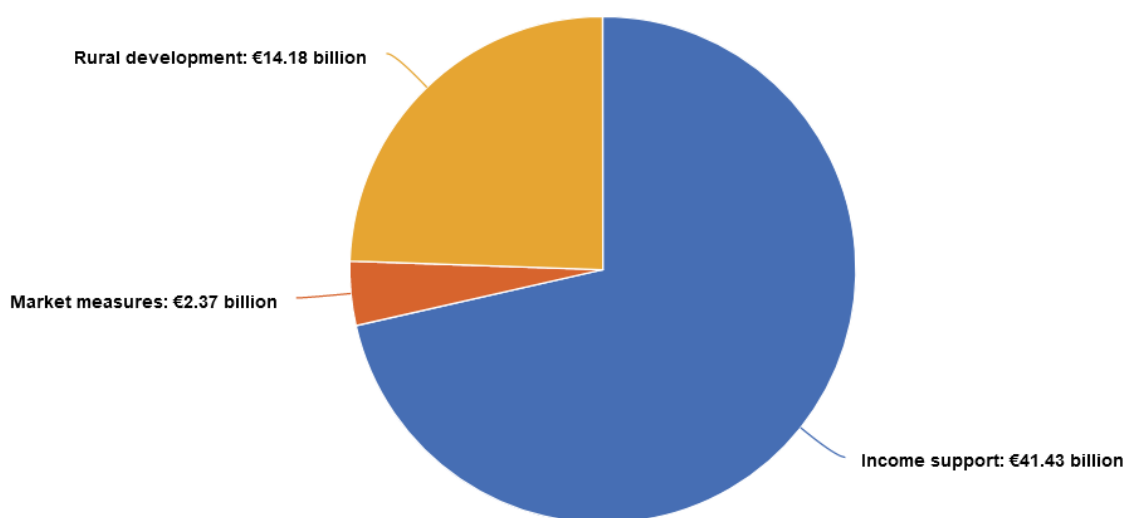


Figure VIII – Allocation of CAP funds in 2019¹⁶⁶

The last CAP program (2014–2020) introduced “inter-pillar flexibility” which means that member states can transfer certain shares of payments between the two pillars: 15 percent can be transferred from Pillar I to Pillar II and a maximum of 25 percent from the already lower endowed Pillar II to Pillar I.¹⁶⁷

Pillar I is mainly designated to farm income support and, to a minor extent, to market intervention measures and is processed by the European Agricultural Guarantee Fund (EAGF).¹⁶⁸ The majority of its funding is granted through direct payments (DPs) to farmers which are linked to the size of farms and several conditionalities – including certain environmental standards. In 2014, so-called “greening” schemes were added and since then are a precondition for 30 percent of direct payments. To comply with greening schemes, farmers must choose from several measures (such as crop diversification, protection of

¹⁶⁵ European Parliament, ‘EU agriculture statistics: subsidies, jobs, production (infographic)’.

¹⁶⁶ European Commission, ‘The common agricultural policy at a glance’, ‘Official Homepage of the European Commission’.

¹⁶⁷ Pe’er, Lakner, Müller, et al., ‘Is the CAP Fit for purpose? An evidence-based fitness-check assessment’, p. 35.

¹⁶⁸ Matthews, ‘The CAP in the 2021-2027 MFF Negotiations’, p. 307; Pe’er, Lakner, Müller, et al., ‘Is the CAP Fit for purpose? An evidence-based fitness-check assessment’, p. 35.; Pe’er, Zinngrebe, Moreira, et al., ‘A greener path for the EU Common Agricultural Policy’, p. 449f.

permanent pastures, buffer strips, fallow land, nitrogen-fixing crops and several more¹⁶⁹) in order to receive all available funds.¹⁷⁰

Furthermore, conditionalities for DPs include minimal regulations on animal and plant health, food safety and environmental aspects with the so-called cross-compliance (CC). CC regulations are institutionalized via two tools: statutory management requirements (SMRs) – which mostly consist of existing EU regulations on animal and plant health or the environment – and standards of good agricultural and environmental conditions (GAEC).¹⁷¹

In addition, pillar I also contains market measures, which represent around 2.5 billion of the 44 billion of its budget. These *“include rules on marketing of agricultural products, exceptional measures to prevent market disruption, specific sectoral programmes, measures in case of crisis in the agriculture sector and measures related to international trade”*.¹⁷²

Pillar II is financed via the European Agricultural Fund for Rural Development (EAFRD) and *“covers areas as diverse as farming and forestry, land use, the management of natural resources and economic diversification of rural communities. As a result, Pillar II includes an even broader range of instruments than Pillar I.”*¹⁷³ Its most important tools are the agri-environment-climate measures (AECM), subsidies for organic farming and Natura 2000 sites and instruments to support rural areas and animal welfare.¹⁷⁴ AECMs are designed by the member states, have to be approved by the Commission and should serve as compensation for income foregone through the application of more environmental-friendly practices.¹⁷⁵ The organisation of AECMs at member state level led to largely differing scopes of the respective national programs and an abundance of different schemes: *“There are probably over 355*

¹⁶⁹ For an overview of eligible measures see Pe'er, Lakner, Müller, et al., 'Is the CAP Fit for purpose? An evidence-based fitness-check assessment', p. 36.

¹⁷⁰ Bourget, 'The Common Agricultural Policy 2023-2027: change and continuity', p. 1; European Parliament and Council of the European Union, 'Regulation (EU) No 1307/2013 of the European Parliament and of the Council of 17 December 2013 establishing rules for direct payments to farmers under support schemes within the framework of the common agricultural policy and repealing Council Regulation', 'Official Journal of the European Union', 347 (2013), p. 613; Pe'er, Lakner, Müller, et al., 'Is the CAP Fit for purpose? An evidence-based fitness-check assessment', p. 36.

¹⁷¹ European Parliament, 'Common agricultural policy - Strategic Plans - P9_TA(2021)0456, 23 November 2021', p. 22. The European Court of Auditors, 'Common Agricultural Policy and climate.', p. 48.

¹⁷² Pe'er, Lakner, Müller, et al., 'Is the CAP Fit for purpose? An evidence-based fitness-check assessment', p. 36.

¹⁷³ Ibid., p. 37.

¹⁷⁴ Bourget, 'The Common Agricultural Policy 2023-2027: change and continuity', p. 3; Pe'er, Lakner, Müller, et al., 'Is the CAP Fit for purpose? An evidence-based fitness-check assessment', p. 37f; Pe'er, Bonn, Bruelheide, et al., 'Action needed for the EU Common Agricultural Policy to address sustainability challenges', p. 307.

¹⁷⁵ Hodge, Hauck, and Bonn, 'The alignment of agricultural and nature conservation policies in the European Union', p. 1000f.; Pe'er, Zinngrebe, Moreira, et al., 'A greener path for the EU Common Agricultural Policy', p. 449.

European Union-funded agrienvironment schemes, covering natural resources, biodiversity, and landscape quality”¹⁷⁶

As a result of that, certain overlaps between different schemes within the pillars or also between them exist – for example, incentives for fallow or buffer strips on fields are included in several schemes of both pillars (such as greening schemes of Pillar I and the AECM of Pillar II). This further adds to the general complexity and partly opaque clutter of competences which is a common point of criticism regarding the CAP.¹⁷⁷

In summary, there are two ways in which the CAP tries to encourage ecological transition: First, through compulsory regulations and cross-compliance: compliance with several minimum standards and practices with ecological impact is required to receive the full amount of direct payments for Greening measures, GAEC standards and SMRs. Secondly, through payments for voluntary, more ambitious ecological practices: extra payments via the agri-environment-climate measures (AECM) or the support for organic farming shall incentivize the transition to ecological farming practices. We can thus conclude that the CAP applies two approaches in its attempts for a more ecological agriculture: a compulsory regulating approach which is primarily relevant for payments of the higher endowed pillar I and a voluntary incentivising approach which is mostly covered by pillar II.

¹⁷⁶ *Ibid.*, p. 1001.

¹⁷⁷ Pe’er, Zinngrebe, Moreira, et al., ‘A greener path for the EU Common Agricultural Policy’, p. 451.

III. Main part – Qualitative content analysis

1. The two documents and their backgrounds

At the centre of this thesis are two documents with major relevance for both the near and distant future of the EU in general and the Common Agricultural Policy in particular: the EU From Farm to Fork Strategy and the new CAP program for the period 2023–2027.

In order to be able to compare and contrast these two documents, to identify its common goals and its contradictions, it is important to understand the very different character of the two documents. They originate in different parts of the EU, are negotiated by different stakeholders, have different positions in the EU's decision-making processes and should eventually serve different purposes and objectives.

As already briefly addressed, the **From Farm to Fork Strategy** is part of the European Green Deal, the EU's broad attempt to identify the most pressing ecological problems in the European Union which should steer it on a path towards achieving the EU's climate and emission reduction goals, especially its ambition for a climate neutral EU in 2050. The F2F Strategy is one of its eight policy areas and chapters (so is the EU Biodiversity Strategy which is also partly relevant for the CAP) and focusses on the ecological impacts of food production, processing and consumption in the EU. Besides that, the document to a certain extent also integrates social and economic perspectives but their general emphasis is on the ecological dimension – as this is also the case with this thesis, the ecological aspects will be at the corner of the analysis.

In the From Farm to Fork Strategy, the EU itself describes the two documents like this:

“The European Green Deal sets out how to make Europe the first climate-neutral continent by 2050. It maps a new, sustainable and inclusive growth strategy to boost the economy, improve people's health and quality of life, care for nature, and leave no one behind. The Farm to Fork Strategy is at the heart of the Green Deal. It addresses comprehensively the challenges of sustainable food systems and recognises the inextricable links between healthy people, healthy societies and a healthy planet.”¹⁷⁸

It is important to note that both the European Green Deal and the From Farm to Fork Strategy as part of it are mainly manifestations of the ecologically ambitious forces in the EU. They aim to underline the urgency and necessity of drastic climate action and to initiate a momentum

¹⁷⁸ European Commission, 'A Farm to Fork Strategy for a fair, healthy and environmentally-friendly food system', p. 2.

towards ecological transformation: *“The increasing recurrence of droughts, floods, forest fires and new pests are a constant reminder that our food system is under threat and must become more sustainable and resilient. [...] There is an urgent need to reduce dependency on pesticides and antimicrobials, reduce excess fertilisation, increase organic farming, improve animal welfare, and reverse biodiversity loss.”*¹⁷⁹

Within the already mentioned influential EU-internal contradiction between ecological and economic interests, the Green Deal and the F2F are thus clearly manifests of the former – which does not mean, however, that they are not strongly influenced by economic interests as well which is also emphasized by the F2F’s assessment of the *“transition to sustainable food systems [as] huge economic opportunity”*.¹⁸⁰

Both the Green Deal and the F2F Strategy are primarily projects of the European Commission and its ecologically more ambitious proponents and are only to a certain extent concerted with other European stakeholders such as the parliament and the member states.

One also cannot stress enough that neither the EU Green Deal nor the From Farm to Fork Strategy are concrete sets of measures. The F2F mostly has two focal areas: first, it is a thorough problem analysis that looks into a multitude of ecological problems related to agriculture. Secondly, it is a declaration of intent that determines specific overarching objectives and defines what a future EU agricultural policy has to be capable of – respectively what not.¹⁸¹ It is not, however, concerned with the actual measures and policies that should achieve these objectives – it does not specify HOW EU farming can transform into a system within the climate reduction targets and the planet’s boundaries. This is also the way in which the document is understood in the comparative content analysis (see figures X and XI): as evaluation of existing (mainly, but not entirely) ecological **problems** (main category 1 in the content analysis) within the CAP and as political commitment to certain **objectives** (main category 2 in the content analysis).

In contrast, the **new CAP program** is a document of EU legislation which defines a set of concrete **measures and tools** (main category 3 in the content analysis). It is the result of a complicated political and bureaucratic process to convert the political and

¹⁷⁹ *Ibid.*, 2f.

¹⁸⁰ *Ibid.*, p. 3.

¹⁸¹ Benny Haerlin, ‘How dare you? Landwirtschaft und Ernährung in Zeiten der Klimakrise – eine Ermutigung’, in *Manuel Schneider, Andrea Fink-Keßler, and Friedhelm Stodiek, eds., ‘Der kritische Agrarbericht 2021’* (Konstanz, 2021), p. 22.

economic interests of a multitude of different stakeholders with largely differing opinions into one legally binding document. The complexity and duration of the underlying negotiations can be emphasized by the fact that the CAP program initially should have covered the period from 2021–2027 and will thus now in fact enter into force with a delay of two years.¹⁸²

The CAP reform paper represents what is actually realized of the ecological ambitions expressed in the Green Deal and the respective agri-environmental objectives outlined in the From Farm to Fork Strategy. It is important to note that the authors of the CAP reform paper largely differ from the authors of the F2F Strategy – while the latter was primarily drafted by the European Commission and related bureaucrats and experts, the new CAP is the result of broad and protracted negotiations with amendments induced by the EU Parliament, the member states, various EU internal committees (such as the environmental and agricultural committees), social partners such as union representatives, farmers’ associations, economic lobby groups, and, to a minor extent, environmental groups.¹⁸³ It can thus be understood as manifestation of the fundamental EU internal and external conflicts and budgetary considerations and as a certain reality check for the ambitious ecological plans, the promising rhetoric and the lofty slogans of the official EU leaders as it shows what their factual results are.¹⁸⁴ It is important to bear this essential difference between the two documents in mind, both in order to understand their respective contents and in order to comprehend the way in which they are addressed in the content analysis.

The priority of the latter will be to identify in how far the new CAP program takes the insights of the F2F Strategy’s problem analysis and its definition of key objectives into account. Based on the content analyses and findings from scientific literature, it shall be highlighted which problems the new CAP tackles and which objectives it follows – and which it continues to disregard, respectively.

¹⁸² Bourget, ‘The Common Agricultural Policy 2023–2027: change and continuity’, p. 2.

¹⁸³ Caterina Carta, ‘The Diplomatic System of a non-state actor: the Commission’s entry into the diplomatic scene’, in Doris Dialer, Heinrich Neisser, and Anja Opitz, eds., ‘The EU’s External Action Service: Potentials for a one voice Foreign Policy’ (Innsbruck, 2014), p. 42f.; Pe’er, Zinngrebe, Moreira, et al., ‘A greener path for the EU Common Agricultural Policy’, p. 449f.; Priyanka Shankar, Thin Lei Win, and Ludo Hekman, ‘Exposed: How big farm lobbies undermine EU’s green agriculture plan’, ‘dw.com’ (October 2021),.

¹⁸⁴ Matthews, ‘The CAP in the 2021–2027 MFF Negotiations’, pp. 307, 310f.

2. Methodology – Qualitative content analysis based on Kuckartz

In order to accomplish this, the content analysis will methodologically rely on the qualitative content analysis (QCA) based on Kuckartz, more specifically his approach of category-based content-structuring content analysis.¹⁸⁵ At the centre of this method, processes of categorisation into a category system (= coding frame¹⁸⁶) of main categories and subcategories enable the necessary reduction of complexity and a systematic structuring of data - such as texts of a multitude of types (inter alia interviews, letters, newspaper articles or documents, as in the thesis at hand).¹⁸⁷

According to Kuckartz, categorisation can be inductive respectively data-driven (as Kuckartz calls it who criticizes the imprecision of the terms “inductive” and “deductive”¹⁸⁸) or concept-driven (“deductive”) and is in fact a combination of both approaches in most cases.¹⁸⁹ The latter also applies to the thesis at hand, as categorisation was primarily data-driven for main categories while the formation of subcategories was informed by literature as well and thus both data- and concept-driven. In general, Kuckartz’s approach is based on a procedure with five phases which are repeated in cycles. The procedure is schematically portrayed in figure IX which emphasizes the interconnectedness and reiteration of the various steps and its continuous link to the initial research questions:

¹⁸⁵ For a more detailed elaboration of this specific approach see *Udo Kuckartz*, ‘Die inhaltlich strukturierende qualitative Inhaltsanalyse’, in ‘Die inhaltlich strukturierende qualitative Inhaltsanalyse’, ‘Qualitative Inhaltsanalyse: Methoden, Praxis, Computerunterstützung’ (Basel, 2018), pp. 97–121.

¹⁸⁶ *Udo Kuckartz*, ‘Qualitative Text Analysis: A Systematic Approach’, in *Gabriele Kaiser and Norma Presmeg, eds.*, ‘Compendium for Early Career Researchers in Mathematics Education’ (Cham, 2019), p. 183.

¹⁸⁷ *Kuckartz*, ‘Qualitative Text Analysis: A Systematic Approach’, p. 182.

¹⁸⁸ *Ibid.*, p. 184f.

¹⁸⁹ *Kuckartz*, ‘Die inhaltlich strukturierende qualitative Inhaltsanalyse’, p. 97; *Udo Kuckartz*, ‘Kategorienbildung’, in ‘Kategorienbildung’, ‘Qualitative Inhaltsanalyse: Methoden, Praxis, Computerunterstützung’ (Basel, 2018), p. 95.

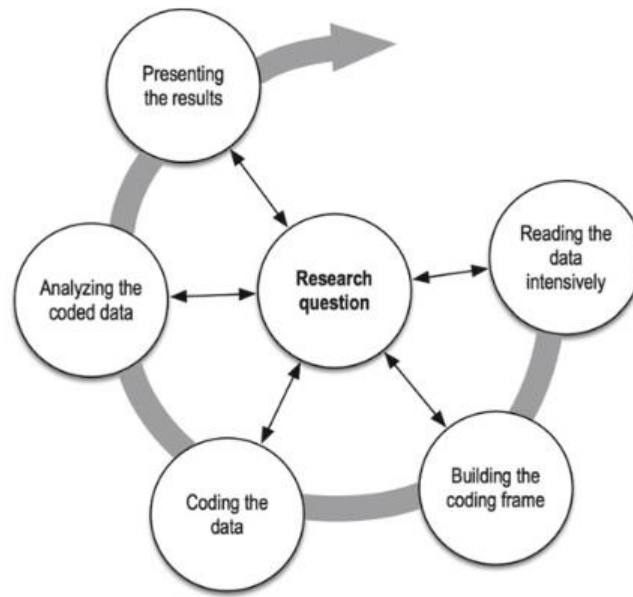


Figure IX – The five phases of qualitative content analysis¹⁹⁰

In the following, a short overview of these five steps will be given¹⁹¹:

1. Initial text work

At the beginning, a thorough yet open-minded lecture of the text enables the marking of relevant passages, a first summarisation and overview of its contents and primal links to the research questions. During this step, ideas and associations shall be noted, especially if data-driven categorisation is applied.¹⁹²

2. Formation of main categories

In the following, the first part of the category system/coding frame is defined: the main categories¹⁹³, in my case these eventually were *problems (F2F)*, *objectives (F2F)* and *New and reformed measures (CAP)*. There are several different types of categories, in the analyses at hand thematic categories were formed.¹⁹⁴

3. Coding data via main categories

In a next step, passages of the text are assigned to the main categories. According to Kuckartz, the research questions can act as guide to choose the most important parts as he suggests to

¹⁹⁰ Kuckartz, 'Qualitative Text Analysis: A Systematic Approach', p. 186. See also a similar, more detailed scheme (in German) in Kuckartz, 'Die inhaltlich strukturierende qualitative Inhaltsanalyse', p. 100.

¹⁹¹ For a more detailed explanation of the procedure see Kuckartz, 'Die inhaltlich strukturierende qualitative Inhaltsanalyse', pp. 100–111; Kuckartz, 'Kategorienbildung', pp. 83–86, also 86–95.

¹⁹² Kuckartz, 'Die inhaltlich strukturierende qualitative Inhaltsanalyse', p. 101.

¹⁹³ *Ibid.*, 101f.

¹⁹⁴ Kuckartz, 'Qualitative Text Analysis: A Systematic Approach'; Udo Kuckartz, 'Grundbegriffe und Ablauf qualitativer Inhaltsanalysen', in 'Grundbegriffe und Ablauf qualitativer Inhaltsanalysen', 'Qualitative Inhaltsanalyse: Methoden, Praxis, Computerunterstützung' (Basel, 2018), pp. 33–35.

*“leave those parts of the data uncoded, which are outside the focus of the research question”.*¹⁹⁵ In my case, this was relevant for certain parts of the From Farm to Fork Strategy, more specific segments on the role of commerce and systems of food distribution for the food system which is not entirely unrelated to agriculture, but nevertheless a different topic.

4. Formation of subcategories

After establishing the main categories, further readings advance the coding process and enable the inductive formation of corresponding subcategories to whom certain text passages are assigned (a certain text passage can be assigned to more than one category).¹⁹⁶ In doing so, subcategories are formed (“coded”) directly in relation to the text and the contained data via identifying patterns in the text - which is a strongly interpretative procedure based on the knowledge and expectations of the coder and hence not fully intersubjective, as Kuckartz points out.¹⁹⁷ Especially the formation of categories is largely based on the knowledge and expectations of the specific coder and hence features a distinctively subjective dimension. An important step in this phase is the repeated re-organisation of the category system: closely overlapping or inaccurate categories shall be re-defined or discarded in order to further refine the category system.¹⁹⁸

5. Juxtaposition of categories and presentation of results

Eventually, a juxtaposition of the established categories shall contrast the gained data and depict the most important insights in a concise way – tables, diagrams or illustrations can be of particular help here.¹⁹⁹

As stated above, these steps of QCA shall be repeated in several cycles in order to specify the eventual results until the category system seems “saturated” and stable.²⁰⁰ For the analyses in the thesis at hand, this particularly proved useful in order to refine subcategories. Via the incorporation of insights and terminology from literature, subcategories were further refined through the concept-driven approach.

¹⁹⁵ Kuckartz, ‘Qualitative Text Analysis: A Systematic Approach’, p. 195.

¹⁹⁶ Kuckartz, ‘Die inhaltlich strukturierende qualitative Inhaltsanalyse’, pp. 103f., 106f.; Kuckartz, ‘Kategorienbildung’, p. 84f.

¹⁹⁷ Kuckartz, ‘Kategorienbildung’, p. 72; Kuckartz, ‘Qualitative Text Analysis: A Systematic Approach’, pp. 189f., 195f.

¹⁹⁸ *Ibid.*, p. 85.

¹⁹⁹ Kuckartz, ‘Qualitative Text Analysis: A Systematic Approach’, p. 195f.

²⁰⁰ Kuckartz, ‘Kategorienbildung’, pp. 85f., 93f.; Kuckartz, ‘Die inhaltlich strukturierende qualitative Inhaltsanalyse’, p. 110f. However, Kuckartz points out that the category system is still not definite, as there is always the possibility for further adaptation due to the cycle character of QCA.

Besides the partly subjective character of QCA results, any form of categorisation and the aspired comparability and related loss of complexity inevitably also induce an inherent loss of information, as Kuckartz admits: *“On the one hand, information is lost due to the suppression of message characteristics that are present in the examined texts but are not of interest in connection with the present research question; on the other hand, information is lost due to the classification of the analyzed message characteristics.”*²⁰¹

I urge all readers to take these reservations into consideration throughout this thesis. In the following, I will sketch my attempts to observe them and my procedure regarding the applied categorisation processes.

2.1. Application of methodology

In general, there are two layers to the QCA of the two documents at the centre of this thesis. First, a QCA of the From Farm to Fork Strategy shall detect its main contents and its internal coherence. Through category-based content-structuring content analysis based on Kuckartz, we will identify the two main categories of problems and objectives as essential spheres in the text. Subsequently, corresponding subcategories are defined in order to systematically determine the problems and objectives which the F2F Strategy identifies. In the following juxtaposition, the relations between the two main categories and the corresponding subcategories shall be analysed. Combined with insights from scientific literature, we will in particular assess in how far identified problems are converted into consistent objectives and, as an overarching question, to which extent the F2F Strategy achieves internal coherence. For the latter, focus will be laid on objectives without corresponding problems and vice versa as these may indicate a lack of coherence and thus be especially interesting and relevant.

Secondly, the results of the analysis of the F2F Strategy will then be juxtaposed with the new CAP program and provide the basis for chapter III/5. Based on the understanding of the F2F as position paper, we will contrast the *objectives* (F2F main category 2) determined in the F2F Strategy with *new and reformed measures* (CAP main category 1) identified in the new CAP in order to assess in how far they concord. The focus here lies particularly on adapted and new measures and tools, as the F2F Strategy sets out objectives that have not nearly been achieved by existing policies. Hence, there is no reason to assume that the persistence of the status quo

²⁰¹ Kuckartz, ‘Qualitative Text Analysis: A Systematic Approach’, p. 184.

and the mere perpetuation of existing measures (without reform), that thus far have not been able to achieve the defined objectives, can now do so.²⁰² Therefore, measures were only included if they were newly introduced, explicitly expanded regarding its financial range or eligibility for farmers or explicitly extended regarding its geographic or geophysical scope.

In the respective main chapter III/5. - “The two documents in comparison” -, the results of the QCA will then also be brought together with insights of the literature research in order to comprehensively assess the potential of the CAP reform and its newly introduced and reformed measures for a greening of EU agriculture. In doing so, major inconsistencies and omissions of respectively objections to the new CAP program in particular and persisting insufficiencies of the CAP in general which the new program continues to disregard will be outlined.

²⁰² *The European Court of Auditors, ‘Common Agricultural Policy and climate.’, p. 49.*

3. The EU From Farm to Fork Strategy

3.1. Illustration

Figure X shows the juxtaposition of the identified main categories *problems* and *objectives* with their corresponding subcategories, divided into three, differently coloured sections explained below.

Next to each subcategory, a small green check mark or a red cross indicates the respective ecological focus or lack thereof of the subcategory (in a total of four cases, a black tilde indicates an ambivalent assessment). The criterium for this additional bit of information was whether a problem, objective or measure **primarily** concerns and/or impacts GHG emissions respectively the biosphere, be it via practical, social, economic or political changes. For example, the subcategory *dependency on outside-EU fodder* is not defined as having an ecological focus as in the F2F Strategy it is mainly assessed as a problem for the resilience of the EU food system, not due to the imports' ecological footprint and the thusly caused ecological destruction abroad. For several technological objectives, the causal relationship between them and ecological aspects was not substantiated in the document and thus no ecological focus was attributed.

One should further add that the listing in the illustration does not follow a specific ranking other than that it attempts to position closely related topics in proximity to each other (hence, subcategories such as *nutrient losses* and the *overuse of fertilizers* or the *overuse of pesticides* and *biodiversity loss* follow each other)

	Problems	Ecological Focus	Objectives	Ecological Focus
1. INTEGRITY OF FLORA, FAUNA, SOIL, WATER AND AIR	1. INTEGRITY OF FLORA, FAUNA, SOIL, WATER AND AIR			
	GHG emissions	✓	Reduction of GHG emissions <i>by at least 55% for 2030 (compared to 1990)</i>	✓
	Deterioration of soil fertility and water quality	✓	Preservation of soil and water quality	✓
	Nutrient losses	✓	Reduction of nutrient losses <i>via nutrient management action plan</i>	✓
	Overusage of fertilisers	✓	Reduction of usage of fertilizers <i>by 20% in 2030</i>	✓
	Overusage of antimicrobials	✓	Reduction of usage of antimicrobials <i>by 50% in 2030</i>	✓
	Overusage of pesticides	✓	Reduction of usage of pesticides <i>by 50% in 2030</i>	✓
	Biodiversity loss	✓	Safer plant protection methods and products	✓
			Preservation of biodiversity <i>EU Biodiversity Strategy</i>	✓
	Increasing threats to plant health <i>through Climate change and new pests</i>	✓	Improvement of seed diversity	✓
			Enhancement of resilience to pests	~
	Global deforestation for EU products	✓	Reduction of global deforestation for EU products	✓
	Animal welfare	✓	Better animal welfare legislation	✓
2. TECHNOLOGY			Promotion of organic farming <i>at least 25% of EU's agricultural land by 2030</i>	✓
	2. TECHNOLOGY			
	GHG emissions	✓	Promotion of carbon farming	✓
			Production of renewable energy	✓
	Antimicrobial resistance	~	Promotion of alternative plant protection methods	~
			Promotion of high-tech farming methods <i>such as precision farming & artificial intelligence</i>	✗
			Promotion of R&I on agricultural technology	✗
			Promotion of digital transformation of farms <i>via fast and reliable internet for farmers</i>	✗
			Promotion of data collection on farming and farms <i>via the Farm Sustainability Data Network</i>	✗
3. SOCIO- & POLITICO-ECONOMIC	3. SOCIO- & POLITICO-ECONOMIC			
	Necessity of raising sustainability standards worldwide	✓	Promotion of a more ecological agriculture in international relations <i>"Green Alliances"</i>	✓
			<i>Sustainability chapter in all EU trade agreements</i>	
	Food waste	✓	Reduction of food waste	✓
	High consumption of resources	✓	Promotion of recycling of agricultural resources <i>eg via recycling of organic waste into renewable fertilisers</i>	✓
	Dependency on outside-EU animal fodder	✗	Promotion of EU-grown plant proteins	✗
			Promotion of alternative feed materials <i>such as algae, insects or fish waste</i>	~
	Resilience of food system	✗	Introduction of Food crisis response mechanism <i>Increase resilience of food system against political and economic disruptions</i>	✗
			Climate change adaptation <i>Increase resilience of food system against extreme weather events</i>	~
	Insufficient true-cost pricing <i>Neglect of ecological externalities</i>	✓	Promotion of true-cost pricing <i>Tax incentives</i>	✓
			<i>EU sustainable food labelling framework</i>	
	Health-related problems of food	✗	Enhancement of customers' and producers' health	✗
			Promotion of a healthier & more plant-based diet <i>Nutrient profiles on food</i>	✓
	Insufficient and socially segregated access to quality food	✗	Increase affordability of food	✗
	Insufficient income for primary producers	✗	Higher incomes for farmers	✗
			New business opportunities for farmers	✗
			New jobs in primary production	✗
			Better working conditions for agri-food workers	✗
			Enhancement of EU's competitiveness	✗
			Economic profits and growth	✗
	Different levels of sustainability in member states	✗		

Figure X – Identified problems and objectives in the From Farm to Fork Strategy
(original illustration)

3.2. Category building

3.2.1. Main Categories

Before we will discuss the results of the QCA of the F2F Strategy, some brief remarks about the respective course of action and especially the process of categorisation shall enable the reader to retrace the methodology and comprehend the information in figure X. Initially, largely based on the research questions and thus mainly deductively five main categories were formed in the QCA of the From Farm to Fork Strategy²⁰³: 1. problems, 2. causes, 3. objectives, 4. policies and measures and 5. inconsistencies and omissions. During the iteration of the necessary QCA cycles, it soon turned out that categories 1 and 2 strongly overlap and are not distinctly and sensibly separable within the text passages. Besides that, the focus of the document turned out to be more on the identification of general problems, not necessarily on clear causation. Therefore, the category of causes was discarded and mostly merged in the main category of problems.

Category 4 of policies and measures also proved to be barely relevant for the F2F Strategy and was subsequently discarded for its analysis. This is primarily due to the already mentioned character of the document²⁰⁴ whose intent is simply not on the concrete realisation, but on the overall orientation of agriculture – in contrast to the new CAP which as legal document focusses on the implementation. Hence, policies and measures are at the centre and thus under a slightly changed name (*New and reformed measures*) the main category of analysis of the document on the CAP reform.

Inconsistencies and omissions (category 5) were identified throughout the documents but were not included in the juxtaposing illustration. However, they will be at the centre of the thesis' main chapter on the CAP's inconsistencies and deficiencies in a less formalized way.

3.2.2. Subcategories

In order to be defined as such, subcategories need a certain amount of terminological precision. Extremely vague terms such as “sustainability” or “(to reduce) environmental impact” simply do not offer enough insight and are also uncritically overused – as stated, the term “sustainability” with its various noun and adjective forms appears over 140 times (!) in the F2F alone. Terms like these were thus not incorporated or specified as in the case of the broad and uncritically used term “climate change” and especially attempts to mitigate it.

²⁰³ Kuckartz, 'Kategorienbildung', p. 83.

²⁰⁴ Kuckartz, 'Die inhaltlich strukturierende qualitative Inhaltsanalyse', p. 102.

During categorisation, it was divided into several, more specified terms which more accurately encompass the several dimensions of climate change mitigation such as: *reduction of GHG emissions, Reduction of global deforestation for EU products, Production of renewable energy, Promotion of carbon farming or Climate change adaptation (Increase resilience of food system against extreme weather events)*.

However, despite these efforts for terminological precision, a certain overlapping between subcategories²⁰⁵ proved to be inevitable and necessary in order to take the strongly interconnected nature of ecological processes into account.

In general, subcategories of the first dimension are largely based on the terminology used in the F2F Strategy and also reflect the vocabulary in chapters II/1. and 2. on the ecological impact of agriculture and the CAP. These chapters provide additional information on subcategories regarding GHG emissions, biodiversity, nutrients, fertilizers, pesticides, soil fertility or the resilience of the food system. Other subcategories were formed more concept-driven and might need further explanation which will be given in later chapters and for some subcategories directly in the following, in particular via referencing to text passages that were assigned to the selected subcategories. This should give further insights on the categorisation process and increase intersubjectivity as Kuckartz recommends²⁰⁶:

Insufficient true-cost pricing (problem)

The F2F Strategy acknowledges that pricing for agricultural goods does not comply with the concept of true-cost pricing which means that prices for food products do not adequately include *“their real costs in terms of use of finite natural resources, pollution, GHG emissions and other environmental externalities”*.²⁰⁷

Promotion of carbon farming (objective)

Carbon farming refers to *“carbon sequestration by farmers”* through *“[f]arming practices that remove CO₂ from the atmosphere.”*²⁰⁸ These practices include, inter alia, the plantation of cover

²⁰⁵ For example, the subcategories *Nutrient pollution, Overuse of fertilizers* and *Deterioration of soil fertility and water quality* are strongly interconnected and partly overlapping.

²⁰⁶ Kuckartz, ‘Qualitative Text Analysis: A Systematic Approach’, p. 196.

²⁰⁷ European Commission, ‘A Farm to Fork Strategy for a fair, healthy and environmentally-friendly food system’, p. 14.; Berit Thomsen, ‘Qualifizierter Marktzugang. Klimaschutz, Tierwohl und die soziale Frage – Konzept für eine neue Handelspolitik’, in Manuel Schneider, Andrea Fink-Keßler, and Friedhelm Stodieck, eds., ‘Der kritische Agrarbericht 2021’ (Konstanz, 2021), p. 64f.

²⁰⁸ European Commission, ‘A Farm to Fork Strategy for a fair, healthy and environmentally-friendly food system’, p. 5.

crops, the rewetting of drained wetlands, the (re-)conversion to grassland, afforestation on agricultural land or forms of conservation agriculture.²⁰⁹

Promotion of R&I on agricultural technology (objective)

As elaborated below, the F2F Strategy also promotes several technological fixes as solution for identified problems in the food system which were thus defined as corresponding objectives. Especially R&I (research and innovation) is planned to play a major role in the greening of EU food systems, largely promoted by the EU-wide research program *Horizon Europe*: “Under Horizon Europe, [the Commission] proposes to spend EUR 10 billion on R&I on food, bioeconomy, natural resources, agriculture, fisheries, aquaculture and the environment as well as the use of digital technologies and nature-based solutions for agri-food.”²¹⁰

Promotion of EU-grown plant proteins (objective)

One key objective of the agriculture-centred research under Horizon 2020 will be to “increas[e] the availability and source of alternative proteins such as plant, microbial, marine and insect-based proteins and meat substitutes.”²¹¹ This shall in particular reduce the dependency on imported animal feed as protein source for livestock.

Promotion of alternative feed materials, such as algae, insects or fish waste (objective)

Furthermore, the Commission requests to foster “alternative feed materials such as insects, marine feed stocks (e.g., algae) and by-products from the bio-economy (e.g. fish waste)”²¹² in order to reduce dependency on fodder imports.

3.2.3. Structuring

During the categorisation process, the defined subcategories of the main categories problems and objectives (and measures) were divided into three sections (as can be seen in figures X and XI) in order to highlight the multidimensional character of EU agriculture and its position at the intersection of ecological necessities, technological innovations, politico-economic interests and societal expectations which the CAP must balance. Corresponding to the

²⁰⁹ Pe’er, Birkenstock, Lakner, et al., ‘The Common Agricultural Policy post-2020.’, p. 61.; Jules Pretty, ‘Can Ecological Agriculture Feed Nine Billion People?’, in Fred Magdoff and Brian Tokar, eds., ‘Agriculture and Food in crisis. Conflict, Resistance, and Renewal’ (New York, 2010), p. 289.

²¹⁰ European Commission, ‘A Farm to Fork Strategy for a fair, healthy and environmentally-friendly food system’, p. 15.

²¹¹ Ibid.

²¹² Ibid., p. 7.

complexity of EU agriculture as a topic, these three sections have to be understood as highly interdependent and partly overlapping:

1. Integrity of flora, fauna, soil, water and air
2. Technology
3. Socio- and politico-economic

Section 1 (light green) includes most topics that are commonly regarded as ecological and in the wider sense concern “the environment”, or, more specifically, flora, fauna, soil, water and air as specified in the used rubric.

However, although ecological ambition was the starting point for the F2F Strategy, the areas it covers go beyond primarily ecological topics. The approaches of the F2F Strategy feature a strong technological optimism and thus portray several technological fixes and developments as crucial for a more ecological EU agriculture (2nd section – light blue).

Antimicrobials and GHG emissions turned out to be specific cases in this regard as they appear in both sections. This is due to the fact that the overuse of antimicrobials is an ecological problem as active ingredients of antimicrobials are a source of pollution and affect organisms in water and soil. Antimicrobial resistance, however, is primarily a human and technological problem as it affects the usage of one of the major technologies in human medicine, antimicrobials, and also the economic production of animal products for human demand. For GHG emissions, I wanted to emphasize the existence of two differing though within the EU and the CAP partly overlapping approaches. The first advocates a way of GHG reduction and climate change mitigation that is closely connected to a general demand for a more ecological society, economy and, in the context of the thesis at hand, food system within the ecological boundaries of the planet. The second calls for a way of mitigation that addresses GHG emissions as mere technical problem which can accordingly be solved via technological solutions and therefore is included in the second section.

Moreover, it is important to note that several objectives corresponding to ecological problems also include a distinct technological dimension, emphasizing the interdependent character of these sections which should be reflected.

The third section (light orange) of socio- and politico-economic dimension then takes the crucial significance of the food system for society as a whole into account – and especially the strong economic interests that pervade political decision-making processes on agriculture.

Again, objective-subcategories such as the *Promotion of alternative feed materials* clearly feature technological aspects as well.

3.3. Results of categorisation

What we see in figure X is that for the majority of identified problems, corresponding objectives are set out as well. This indicates a general, high degree of internal coherence which is not all too surprising given the character of the document as position paper whose authors were thus free to establish an internal logic in the document with only minor regard to practical constraints. It was hence to be expected that identified problems that are mentioned in the text are followed up by objectives and solutions tackling them. However, this of course in no way means that an identified problem is addressed adequately. In order to assess this, further scientific literature will be consulted on which chapter III/5.2. on Inconsistencies and deficiencies of the CAP will be based upon. In it, fundamental flaws of the current agricultural policy of the EU that are also present in the F2F Strategy and the new CAP will be elaborated.

In this chapter however, the focus will be on the F2F Strategy alone in which several inconsistencies could be identified via QCA. First, there are interesting examples of particularly technological and socio-economic objectives that are not based on identified problems. Thus, the document itself does not provide arguments for a set objective nor underline its actual necessity. This makes these objectives mentionable as they mark instances where underlying principles of the EU such as its market orientation are penetrating the ecological orientation of the Green Deal and the F2F Strategy. Secondly, the opposite was as well the case: in one instance a problem was merely identified but without giving any options for solution or improvement. Thirdly, several essential topics were not included at all and will be shortly addressed in this chapter and in more detail in chapter III/5.2.

3.3.1. “Objectives without a problem”

Technologization

As figure X shows, there are several objectives regarding technology and innovation for which clear links to identified problems in the food system are not established – *the promotion of high-tech farming methods, R&I on agricultural technology, digital transformation of farms and data collection on farming and farms*. They are evidence of an overarching, general

objective and means of the EU which is also incorporated into its agricultural policies: technologization. In the F2F Strategy, this is emphasized by the promotion of *“technological, digital, and space-based solutions to deliver better climate and environmental results”*. Technological progress and new innovations are seen as panacea for the multiple dimensions of the ecological crisis, without reflecting on the already massive human interventions in existing ecosystems and the resources needed for them – let alone space-based agricultural tools. Therefore, scientists in the IPES, the International Panel of Experts on Sustainable Food Systems, are very critical of this technological optimism:

“While there is undoubtedly scope for technological improvements, techno-fixes - ranging from data-driven precision agriculture to methanogen vaccines for ruminants - will not suffice to fix the environmental problems in food systems. Firstly, technological approaches to environmental problems often bring about positive changes in one dimension, at the expense of stationary (or even worsening) impacts on another front [...]. Historical / empirical experiences have also shown that reliance on capital-intensive technologies reinforces intensification and concentration in farming systems, thereby entailing trade-offs with other environmental concerns and undermining the prospects of wholesale transition towards different models”²¹³

According to the IPES, this high confidence can thus not only be problematic, but potentially even pose an obstacle to ecological change. In agreement to the IPES, Tony Weis sees *„a great risk of exaggerating human ingenuity and the capacity to engineer solutions, thereby capitulating to the prevailing political inertia and the false belief that it is more ‘realistic’ to manage the impacts than to make significant emission reductions.”²¹⁴* Moreover, cost-intensive technological solutions further exacerbate the already grave economic imbalance between farmers and between member states and their farming systems as only the more affluent can afford them.²¹⁵ Plans for farmers to turn their farms into *“advanced bio-refineries that produce bio-fertilisers, protein feed, bioenergy, and bio-chemicals”²¹⁶* hence seem largely unrealistic and inaccessible for wide parts of the EU farming community. Despite specific existing potential for ecological improvements, technological innovation thus has to be regarded as ambivalent objective.²¹⁷

²¹³ IPES, “Towards a Common Food Policy for the EU” Framing paper for the EU Food and Farming Forum 2018’, p. 28.

²¹⁴ Weis, ‘The Accelerating Biophysical Contradictions of Industrial Capitalist Agriculture’, p. 333.

²¹⁵ *Ibid.*; Häusling, ‘Kein Klimaschutz ohne Systemwechsel. Warum Konzepte wie »klimasmarte Landwirtschaft« und precision farming keine Lösung sind’, p. 49.

²¹⁶ European Commission, ‘A Farm to Fork Strategy for a fair, healthy and environmentally-friendly food system’, p. 6.

²¹⁷ Häusling, ‘Kein Klimaschutz ohne Systemwechsel. Warum Konzepte wie »klimasmarte Landwirtschaft« und precision farming keine Lösung sind’, p. 49.

Economic objectives

Similarly, several economic objectives²¹⁸ are not linked to identified problems in the agricultural system but are displays of the main orientation of the EU as economic community and its underlying capitalist ambition.

Bourget points out the general interconnectedness between EU systems of food production and the economic policy of the EU: *“It should be remembered that the CAP cannot be dissociated from other European policies, in particular from the European Union's trade policy. Indeed, the environmental, health, social and animal welfare requirements imposed on European farmers will only be bearable if they are also imposed on imports from third countries.”*²¹⁹

Nevertheless, the F2F Strategy remains largely silent on this topic and does not raise concerns over contradictions within EU policy – the EU's trade policy and its impact on farmers in the EU and abroad remain only a minor subject. Instead, it defines *“a global transition towards competitive sustainability”*²²⁰ without addressing the contradicting character of this term and what the pursuit of competitiveness as prime objective means for the preservation of ecosystems, ecological standards and objectives defined in the Strategy as well or for farmers' incomes in the EU.²²¹

This organisational blindness can be explained by the political character of the document and its ideological dimension that distinguishes it from a scientific and primarily evidence-based study. The document is rooted in the European Union's overall orientation towards a system of high competitiveness and the economic objective of global market shares²²² – fundamental principles which may outrank ecological or social considerations present among EU agriculture.²²³ Hence, trade with agricultural goods is per se regarded as desirable which ignores the potential loss of jobs in the EU and that even resulting ecological damages abroad also impair EU agriculture through global climate change.²²⁴

²¹⁸ *New jobs in primary production, Enhancement of EU's competitiveness and Economic profits and growth*

²¹⁹ Bourget, 'The Common Agricultural Policy 2023-2027: change and continuity', p. 4.

²²⁰ European Commission, 'A Farm to Fork Strategy for a fair, healthy and environmentally-friendly food system', p. 4.

²²¹ Weis, 'The Accelerating Biophysical Contradictions of Industrial Capitalist Agriculture', p. 317.

²²² European Commission, 'Commission staff working document Analysis of links between CAP Reform and Green Deal' (Brussels, 2020), p. 3; European Parliament, 'Common agricultural policy - Strategic Plans - P9_TA(2021)0456, 23 November 2021', p. 91f.

²²³ European Commission, 'Empfehlungen der Kommission für den GAP-Strategieplan Österreichs Arbeitsunterlage der Kommissionsdienststellen', p. 12; Forster, 'Imperiale Lebensweise, Food Regimes und die Agrarfrage: Zur Manifestation der imperialen Lebensweise im globalen Agrar- und Lebensmittelsystem', p. 71.

²²⁴ The Government Office for Science, 'Foresight. The Future of Food and Farming. Final Project Report.' (London, 2011), p. 166.

Based on a study of allegedly environmental agricultural policies in the EU, the Alliance Environnement concludes that ecological interests were only “*secondary to socio-economic concerns, such as strengthening the competitiveness of the agricultural sector.*”²²⁵ As a result, the striking contradictions between different interests in and of the EU’s agricultural policy, its environmental policy (and also its development policy²²⁶) and its trade policy are largely neglected and so is the respective pressure of EU imports on farmers in Europe and their jobs and of EU exports on farmers abroad.²²⁷ These major internal contradictions exist both within the EU’s agricultural policy – reflected, for example, in the nine key objectives²²⁸ (see chapter II/3.) – and in EU politics in general and further emphasize the heterogeneity of EU politics. They underline that the EU should not be understood as monolith, but as multifaceted amalgamation of partly largely contradicting interests and objectives. These contradictions in fundamental agricultural questions and the insufficiency with which both the F2F Strategy and the CAP reform approach them will be essential points of discussion in chapter III.5.

Promotion of organic farming

In figure X, the promotion of organic farming is not linked to a specific corresponding problem. However, this should **not** indicate that there was no problem that organic farming was suitable to tackle but rather that it is a more general approach and a systematic adjustment which does not only correspond to one single problem, but in fact several of the ones mentioned in section 1 – such as biodiversity loss, animal welfare, the overuse of pesticides and antimicrobials, new pests and climate-induced changes.²²⁹ The new CAP describes it as “*a farming system that has the potential to substantially contribute to the achievement of*

²²⁵ Alliance Environnement, ‘Evaluation of the impact of the CAP on habitats, landscapes, biodiversity’, p. 158.

²²⁶ Plank, Penker, and Brunner, ‘Ernährung klimasozial gestalten’, p. 144; Weinzierl, Forster, and Fehlinger, ‘Hunger nach Profiten? Machtverhältnisse im Agrar- und Ernährungssystem’, p. 143f.

²²⁷ Miguel A. Altieri, ‘Agroecology, Small Farms, and Food Sovereignty’, in Fred Magdoff and Brian Tokar, eds., ‘Agriculture and Food in crisis. Conflict, Resistance, and Renewal’ (New York, 2010), p. 253; Weingärtner and Trentmann, ‘Handbuch Welternährung’, p. 72f.; Weinzierl, Forster, and Fehlinger, ‘Hunger nach Profiten? Machtverhältnisse im Agrar- und Ernährungssystem’, p. 143f.

²²⁸ European Commission, ‘Key policy objectives of the new CAP’.; European Parliament, ‘Common agricultural policy - Strategic Plans - P9_TA(2021)0456, 23 November 2021’, p. 91f.

²²⁹ European Parliament and Council of the European Union, ‘Regulation (EU) No 1305/2013 of the European Parliament and of the Council of 17 December 2013 on support for rural development by the European Agricultural Fund for Rural Development (EAFRD) and repealing Council Regulation (EC) No 1698/2005’, ‘Official Journal of the European Union’, 347 (2013), p. 492; Hauschild, Weckenbrock, and Gattinger, ‘Ökolandbau – besser für das Klima? Über Landwirtschaft in Zeiten des Klimawandels und die Potenziale der Ökologischen Landwirtschaft’, pp. 122f., 125; Pe’er, Lakner, Müller, et al., ‘Is the CAP Fit for purpose? An evidence-based fitness-check assessment’, p. 38.

*multiple specific objectives of the CAP, and in particular to its specific environmental and climate-related objectives.*²³⁰

However, despite its undoubted positive effects in several ecological aspects, there are also critics of the Commission's ambitious goal of 25 percent of EU agricultural land under organic farming in 2030. Some fear that it contributes to a higher land consumption of agriculture due to lower productivity under organic farming²³¹ – which would further exacerbate the existing problem of the decline of arable land.

3.3.2. "Problems without an objective"

Different levels of sustainability in member states

The F2F Strategy acknowledges that within EU member states, there is an imbalance of both ecological standards and ambition within the EU member states: it wants to *"take into account [the] different starting points and differences in improvement potential in the Member States."*²³² However, it does neither define clear objectives in this regard nor offer potential solutions to this EU-wide imbalance besides mentioning already existing instruments such as the European Agricultural Fund for Rural Development (EAFRD) of CAP pillar II – instruments which have so far been largely insufficient to adequately address the issue.²³³

3.3.3. Further inconsistencies and omissions

It is important to note that not only the presence of a certain issue can be interesting: based on insights from scientific literature we can identify topics whose absence or at least wilful neglect is worth mentioning as well. Two of the most striking omissions and inconsistencies will be at the centre of chapter III/5.2. (namely, the externalisation of ecological damages and the effects of livestock farming) as these represent crucial deficiencies of the current EU agricultural policy and thus deserve thorough elaboration. Other mostly absent yet important topics will be pointed out in the following:

Carbon leakage

Despite the importance of the topic in the face of a global problem such as GHG emissions, the topic of carbon leakage is entirely omitted in the F2F Strategy. Carbon *leakage* "occurs if

²³⁰ European Parliament, 'Common agricultural policy - Strategic Plans - P9_TA(2021)0456, 23 November 2021', p. 37.

²³¹ Plank, Penker, and Brunner, 'Ernährung klimasozial gestalten', p. 148f.; Jon Entine, 'Europe's Green Deal "Farm to Fork" Plan: How Not to Grow Food Sustainably', 'European Scientist' (2020),.

²³² European Commission, 'A Farm to Fork Strategy for a fair, healthy and environmentally-friendly food system', p. 4.

²³³ Pe'er, Lakner, Müller, et al., 'Is the CAP Fit for purpose? An evidence-based fitness-check assessment', pp. 96–98.

*stricter environmental policies and a resulting reduction of emissions in some countries – the so-called implementing countries – leads to an increase of emissions in countries with laxer environmental regulation – the so-called non-implementing countries.*²³⁴ In some cases, additional emissions in non-implementing countries may even exceed the reductions in implementing countries, thus creating a negative overall effect.²³⁵

In a study on the *“potential effects of selected Farm to Fork and Biodiversity strategies targets”*, a research group of the *EU Joint Research Centre* estimates that more than half of the effected emission reduction would “leak” to the rest of the world in the form of increased emissions in non-EU regions.²³⁶ The F2F Strategy nevertheless largely neglects this challenge which stricter EU-wide rules on GHG emissions entails.²³⁷ Only in the European Green Deal, the Commission acknowledges the problem, though somewhat lukewarm: *“Should differences in levels of ambition worldwide persist, as the EU increases its climate ambition, the Commission will propose a carbon border adjustment mechanism, for selected sectors, to reduce the risk of carbon leakage.”*²³⁸ However, the first proposal for this mechanism from July 2021 does not include agricultural goods except for fertilizers – fodder and food imports will thus remain unaffected by it.²³⁹

Carbon pricing

Carbon pricing means practices that put a defined price on greenhouse gas emissions in order to set incentives to reduce them and in doing so, to the already mentioned ideal of true-cost pricing.²⁴⁰ It is regarded as one of the most effective tools in the fight against climate change.²⁴¹ The two most popular schemes for Carbon pricing are emissions trading schemes

²³⁴ *OECD Trade and Agriculture Directorate*, ‘Carbon Leakage and agriculture: a literature review on emissions mitigation’ (2021), p. 5.

²³⁵ *European Commission*, ‘Proposal for a Regulation of the European Parliament and of the Council establishing a carbon border adjustment mechanism’ (Brussels, 2021), p. 3.

²³⁶ *Barreiro-Hurle, Mariia Bogonos, Himics, et al.*, ‘Modelling environmental and climate ambition in the agricultural sector with the CAPRI model. Exploring the potential effects of selected Farm to Fork and Biodiversity strategies targets in the framework of the 2030 Climate targets and the post 2020 Commo’, p. 55f.

²³⁷ *Claudia Heidecke, Viktoriya Sturm, Bernhard Osterburg, et al.*, ‘Politikoptionen zur Reduzierung von Treibhausgasen aus der Landwirtschaft. Eine Analyse ihrer Wirkungen, Chancen und Risiken’, in *Manuel Schneider, Andrea Fink-Keßler, and Friedhelm Stodieck, eds.*, ‘Der kritische Agrarbericht 2020’ (Konstanz, 2020), pp. 75–77.

²³⁸ *European Commission*, ‘The European Green Deal’, p. 5.

²³⁹ *European Commission*, ‘Proposal for a Regulation of the European Parliament and of the Council establishing a carbon border adjustment mechanism’, p. 20.

²⁴⁰ *European Commission*, ‘A Farm to Fork Strategy for a fair, healthy and environmentally-friendly food system’, p. 14; *IPES*, ‘“Towards a Common Food Policy for the EU” Framing paper for the EU Food and Farming Forum 2018’, p. 16f; *Thomsen*, ‘Qualifizierter Marktzugang. Klimaschutz, Tierwohl und die soziale Frage – Konzept für eine neue Handelspolitik’, p. 64f.

²⁴¹ *Heidecke, Sturm, Osterburg, et al.*, ‘Politikoptionen zur Reduzierung von Treibhausgasen aus der Landwirtschaft. Eine Analyse ihrer Wirkungen, Chancen und Risiken’, pp. 75–78; *The European Court of Auditors*, ‘Common Agricultural Policy and climate.’, p. 53; *The Food and Land Use Coalition*, ‘Growing Better: Ten Critical Transitions to Transform Food and Land Use’, p. 212.

and carbon taxes. The OECD defines emissions trading schemes as *“an instrument that caps emissions to a pre-determined level and allocates emissions permits among agents (e.g. firms or farms) in sectors under the scheme, allowing these agents to trade permits.”*²⁴² In the last couple of years, the EU made cautious attempts towards the pricing of carbon in order to establish incentives for emissions mitigation and already in 2005 introduced such a scheme, the *EU Emissions Trading System* which today is *“by far the largest existing carbon market”*²⁴³. However, *“[a]griculture neither falls under the EU Emissions Trading System, nor is subject to a carbon tax”*²⁴⁴, as the European Court of Auditors criticizes. Despite the extended scope of the EU’s emission trading scheme the EU is hesitant to include the CAP into this existing Carbon pricing system or introduce measures that will increase the pressure for the benefit of emissions mitigation. One reason for this is the challenging measurement of emissions of a certain farm or even product which makes it hard to monitor the effect of a specific mitigation policy²⁴⁵ – the difficult measurement of emissions is further exacerbated by an overall lack of reliable monitoring and evidence-based decision-making within the CAP which will be at the centre of chapter III/5.2.6. Another is the fear of a decline in the competitiveness of EU farmers: through the higher costs of their agricultural goods which carbon pricing would cause (if introduced without respective countermeasures), imports would gain a competitive advantage through and carbon leakage might occur.²⁴⁶

This is in particular a common argument against carbon taxes. Carbon taxes set *“a price on carbon emissions that aims to internalise the associated negative environmental externalities”*²⁴⁷ In doing so, financial incentives are created to reduce carbon emissions during the production process in order to remain competitive. To avoid generally higher costs of production and the resulting products, the revenues of carbon taxes can be refunded to producers via other subsidies, ideally with further ecological incentives.²⁴⁸ However, neither

²⁴² *OECD Trade and Agriculture Directorate*, ‘Carbon Leakage and agriculture: a literature review on emissions mitigation’, p. 9.

²⁴³ *Smith and Bustamante*, ‘Agriculture, Forestry and Other Land Use (AFOLU)’, p. 865.

²⁴⁴ *The European Court of Auditors*, ‘Common Agricultural Policy and climate.’, p. 53.

²⁴⁵ *Heidecke, Sturm, Osterburg, et al.*, ‘Politikoptionen zur Reduzierung von Treibhausgasen aus der Landwirtschaft. Eine Analyse ihrer Wirkungen, Chancen und Risiken’, pp. 75–77.; *OECD Trade and Agriculture Directorate*, ‘Carbon Leakage and agriculture: a literature review on emissions mitigation’, pp. 7–9.

²⁴⁶ *Jayson Beckman, Maros Ivanic, Jeremy L. Jelliffe, et al.*, ‘Economic and Food Security Impacts of Agricultural Input Reduction Under the European Union Green Deal’s Farm to Fork and Biodiversity Strategies’ p. 27; *OECD Trade and Agriculture Directorate*, ‘Carbon Leakage and agriculture: a literature review on emissions mitigation’, p. 8.

²⁴⁷ *OECD Trade and Agriculture Directorate*, ‘Carbon Leakage and agriculture: a literature review on emissions mitigation’, p. 7.

²⁴⁸ *Anthony Giddens*, ‘The Politics of Climate Change’ (Cambridge/Malden, 2011), pp. 91, 151–156.; *Heidecke, Sturm, Osterburg, et al.*, ‘Politikoptionen zur Reduzierung von Treibhausgasen aus der Landwirtschaft. Eine Analyse ihrer Wirkungen,

the F2F Strategy nor the Green Deal envisage carbon taxes for agricultural products as desirable measures. The closest the EU Commission comes to call for a carbon tax is a maximally vague statement in the F2F Strategy according to which *“EU tax systems should also aim to ensure that the price of different foods reflects their real costs in terms of use of finite natural resources, pollution, GHG emissions and other environmental externalities.”*²⁴⁹ It is thus no surprise that carbon taxes remain largely ignored in the new CAP reform as well and that the planned carbon border adjustment mechanism does not include agricultural goods, as stated above.

The latter will be elaborated on in the next chapter.

4. The new CAP 2023–2027

4.1. Overview – The new CAP

The F2F Strategy defines certain ideas about a new CAP program:

*„It is clear that the transition must be supported by a CAP that focuses on the Green Deal. The new CAP [...] aims to help farmers to improve their environmental and climate performance through a more results-oriented model, better use of data and analysis, improved mandatory environmental standards, new voluntary measures and an increased focus on investments into green and digital technologies and practices. It also aims to guarantee a decent income allowing them to provide for their families and withstand crises of all kinds.”*²⁵⁰

In how far the new CAP can address them will be elaborated on the next pages.

The new CAP program for 2023–2027 is the result of protracted negotiations, mainly between the relevant EU institutions (primarily the European Commission and the Parliament, of the latter in particular the Committees “Agriculture and Rural Development” and “Environment, Public Health and Food Safety”) and the member states, both individually and collectively in the form of the European Council. Beyond these main protagonists, the CAP is influenced by a multitude of stakeholders attempting to influence the outcomes of negotiations in their favour.²⁵¹ For this specific CAP program, the distribution of a total of 270 billion € in subsidies

Chancen und Risiken’, pp. 75–77; OECD Trade and Agriculture Directorate, ‘Carbon Leakage and agriculture: a literature review on emissions mitigation’, p. 8.

²⁴⁹ European Commission, ‘A Farm to Fork Strategy for a fair, healthy and environmentally-friendly food system’, p. 14.

²⁵⁰ Ibid., p. 8.

²⁵¹ Hodge, Hauck, and Bonn, ‘The alignment of agricultural and nature conservation policies in the European Union’, p. 1003; Lorenzen, ‘Wer keine Visionen hat, sollte zum Arzt gehen. Die Reform der europäischen Agrarpolitik – Blick zurück nach vorn’, p. 25.

was negotiated that amount to around 54 billion € per year – a slight decrease compared to the 56 billion/year of the previous program which was made necessary by the Brexit.²⁵² As stated above, the program should initially have been a direct follow-up to the previous program which covered the usual seven-year period from 2014–2020. However, due to challenging negotiations – further complicated by the Brexit and the accompanying shortfall in the budget – and resulting delays, a two-year transition period for the years 2021 and 2022 was implemented in which the previous CAP program is continued by and large.²⁵³ But what will be different from 2023 on, what are the main changes in the new CAP?

In general, most assessments agree that the new program is largely a manifestation of continuities within the CAP: *“From a long-term perspective, the CAP for the years 2023 to 2027 is undeniably a continuation of previous programmes. [...] it is an evolution, not a revolution.”*²⁵⁴

Just as the CAP 2014–2020, which it is thus largely based on, the new CAP largely maintains the cornerstones of the EU’s agricultural policy which are presented in the contextualising remarks in chapter II/3. to which I thus like to refer for more information on the overall constitution and structure of the CAP.

For the context of the QCA and the comparison with the F2F Strategy however, it is not so much the many consistencies and the perpetuation of existing policies, but the selected, distinctly new and/or explicitly reformed measures which are of particular interest. As stated above, the criteria for the latter were that an explicit alteration of the financial, geographic or geophysical scope of a certain measure or of its eligibility for farmers was implemented in the new CAP. These measures represent the actual current reaction of EU institutions to a multitude of problems identified in chapter II/2. and in figure X and their attempts to fulfil articulated promises and ecological ambitions. Therefore, in the QCA it is these *new and reformed measures* whose potential to live up to the defined objectives in the F2F Strategy will be assessed on the following pages.

In general, there are three major areas of profound reform in the new CAP.

²⁵² Bourget, ‘The Common Agricultural Policy 2023-2027: change and continuity’, p. 2. Priyanka Shankar, ‘EU lawmakers pass Common Agricultural Policy deal — but green critics sound alarm’, ‘dw.com’ (Brussels, November 2021).

²⁵³ *Ibid.*, p. 2f.; Matthews, ‘The CAP in the 2021-2027 MFF Negotiations’, p. 311.

²⁵⁴ *Ibid.*, p. 4.

1. Increase in member states' competences – Introduction of national Strategic Plans

On several levels, the new CAP sees an increase of member states' competences, particularly through the new national Strategic Plans which *“shift responsibility for deciding on specific interventions and targets to the Member States”*²⁵⁵ and thus significantly change the operating process of agricultural funding: from now on, the EU Commission will only define the common framework for CAP policies, the member states then have to devise an annual strategic plan on how these policies will be implemented in a specific country. The annual character of the plans shall facilitate flexibility and a more immediate results-based approach. Agricultural journalist Magdalena Pistorius concludes that the *“the future CAP will offer more power to the 27 member states. By way of their national strategic plans (NSPs), EU countries will each individually outline and implement the new CAP at the national level. In other words: While the European Commission will be setting out the general direction of the future CAP, the “how” will be up to national administrations this time.”*²⁵⁶

However, the resulting increase in member states' power is a very controversial decision which drew broad criticism as will be discussed in chapter III.5.2.5. According to the legal text of the CAP reform, the Strategic Plans have to contain:

- “(a) the assessment of needs;*
- (b) the intervention strategy;*
- (c) the elements common to several interventions;*
- (d) the direct payments, interventions in certain sectors and interventions for rural development specified in the strategy;*
- (e) target and financial plans;*
- (f) the governance and coordination system;*
- (g) the elements that ensure modernisation of the CAP”*²⁵⁷

Strategic plans have to be evaluated and approved by the Commission and can then enter into force as the guideline to national implementation of EU CAP policies – however, one already identified weakness is that a rejection of a member states' strategic plan is not intended

²⁵⁵ The European Court of Auditors, 'Common Agricultural Policy and climate.', p. 11.

²⁵⁶ Magdalena Pistorius and Natasha Foote, 'Everything you need to know ahead of the CAP final vote', 'EURACTIV.com' (November 2021).

²⁵⁷ European Parliament, 'Common agricultural policy - Strategic Plans - P9_TA(2021)0456, 23 November 2021', p. 263f.

In summary, these new Strategic Plans shift large parts of the competences on drafting CAP interventions to the member states and can be regarded as a sort of renationalisation of CAP competences. During the negotiation processes for the new CAP, then-commissioner of agriculture Phil Hogan thus concluded that “[i]t will be Romania and not Brussels who will decide how to proceed”.²⁵⁸

As a result, the ecological ambition in the implementation of the new CAP is strongly dependent on the member states’ individual ambition – one practical example for that are the newly introduced eco-schemes.

2. Introduction of eco-schemes

Eco-schemes are new ecological measures which are linked to the direct payments under pillar I. As by 2025, 25 percent of a member state’s direct payments will have to be conditioned to eco-schemes (for the transition years 2023 and 2024, 22.5 percent are the requirement).²⁵⁹ It is worth mentioning that the share of 25 percent is the result of a compromise between the Commission and the Parliament on the one hand and the European Council respectively the member states on the other hand which vividly depicts the EU-internal conflicts on ecological ambition. While the former two demanded a share of 30 percent of direct payments, the latter aimed for 20 percent which resulted in the eventual 25 percent.²⁶⁰

In general, eco-schemes are intended as incentives for additional ecological ambition and should be paid for practices that go beyond minimum standards. Eco-schemes should thus work as complementary tool between the compulsory environmental minimum standards of Pillar I (as defined in the GAEC standards and the SMRs) and the more ambitious and voluntary AECMs of pillar II and should in particular function “as an entry point for more sophisticated, longer-term AECMs.”²⁶¹

Eco-schemes are the replacement of the “greening” measures of the previous CAP program and should take into account the shortcomings of these. The “greening schemes” proved to be largely ineffective “mainly because of a lack of targeting of the measures offered to farmers, which allowed them to modify their farming practices only marginally in order to benefit from the green payment”²⁶² They were for the most part paid for already existing practices without

²⁵⁸ Former Commissioner of agriculture Phil Hogan quoted according to *Bogdan Neagu*, ‘Hogan: EU member states will decide on agriculture innovation after 2020, not Brussels’, *EURACTIV.com* (September 2018).

²⁵⁹ *European Parliament*, ‘Common agricultural policy - Strategic Plans - P9_TA(2021)0456, 23 November 2021’, pp. 244, 247f.

²⁶⁰ *Bourget*, ‘The Common Agricultural Policy 2023-2027: change and continuity’, p. 2f.

²⁶¹ *Pe’er, Birkenstock, Lakner, et al.*, ‘The Common Agricultural Policy post-2020.’, p. 22.

²⁶² *Bourget*, ‘The Common Agricultural Policy 2023-2027: change and continuity’, p. 1.

real ecological ambition and hence did not function as incentive for a further greening of agricultural practices.²⁶³

Learning from these faults, eco-schemes *“should be used mainly as an instrument to support environmental needs and not mainly as an income support instrument”*²⁶⁴ According to the legal text of the CAP reform, the endowments of each scheme should *“reflect the level of ambition of the practices committed”*.²⁶⁵

To achieve this, the overall approach of the eco-schemes is also a different one: instead of a centralized, EU-wide list of concrete measures that are selectable for funding (as was the case with the greening scheme), each member state will devise a list of practices for its farmers from which they can choose. The member states’ lists have to be based on the seven areas of *“actions for the climate, the environment, animal welfare and combatting antimicrobial resistance”*²⁶⁶ which the Commission defined for that purpose with every practice covering at least two of the seven areas. The eligible practices can be chosen from a wider range and *“may include the enhanced management of permanent pastures and landscape features, the rewetting of peatlands, paludiculture²⁶⁷, and organic farming.”*²⁶⁸

As pointed out in the remarks on the Strategic Plans, for the eco-schemes the Commission is only setting a common regulatory framework for the implementation of CAP policies which is then primarily in the hands of the member states.

Eco-schemes will be compulsory for member states, but voluntary for farmers – it is thus up to each member state individually to devise eco-schemes that are both financially and operationally attractive enough for its farmers to be selected to the extent needed. Hence, eco-schemes try to move part of the burden of incentivising farmers to ecological transformation from the commission to the member states – again, a common point of criticism which will be further discussed in chapter III/5.2.5.

²⁶³ Pe’er, Bonn, Bruelheide, et al., ‘Action needed for the EU Common Agricultural Policy to address sustainability challenges’; Pe’er, Birkenstock, Lakner, et al., ‘The Common Agricultural Policy post-2020.’, pp. 44, 48.

²⁶⁴ Ibid., p. 22.

²⁶⁵ European Parliament, ‘Common agricultural policy - Strategic Plans - P9_TA(2021)0456, 23 November 2021’, p. 36.

²⁶⁶ For a list of the seven areas, see chapter III/4.2.1. and European Parliament, ‘Common agricultural policy - Strategic Plans - P9_TA(2021)0456, 23 November 2021’, p. 126.

²⁶⁷ Paludiculture means „wet“ agriculture, i.d.e, agriculture on peatlands and wetlands that have not been drained, and as such can save GHG emissions. Pe’er, Bonn, Bruelheide, et al., ‘Action needed for the EU Common Agricultural Policy to address sustainability challenges’, p. 309.

²⁶⁸ European Parliament, ‘Common agricultural policy - Strategic Plans - P9_TA(2021)0456, 23 November 2021’, p. 36.

3. Introduction of social conditionality

In addition to the already existing minimum standards regarding the environment and animal welfare, the CAP reform defines minimum standards regarding employment rights and occupational safety as condition for CAP payments.

This inclusion of a social dimension into the systems of conditionality for the first time can be regarded as the Commission's reaction to the appalling violations of labour rights on farms that have become public in the course of the COVID pandemic.²⁶⁹

The desired social conditionality shall be implemented via a new social conditionality mechanism, as elaborated in the next chapter, and enter into force in 2025 at the latest. Once more, it is mostly the member states who oversee the concrete implementation.²⁷⁰

4.2. Category Building

First of all, a few remarks on the document, its language and general tone and what we are actually talking about, when we refer to the CAP reform or the new CAP, seem necessary.

These terms refer to a legislative resolution of the European Parliament titled *“Common agricultural policy - support for strategic plans to be drawn up by Member States and financed by the EAGF and by the EAFRD”*.²⁷¹ This particular legal text was adopted by the European Parliament on 23rd November 2021 and consists of a total of 408 pages. However, one should mention that due to the peculiar way in which EU legislative texts are formatted, on average only around a third of a page is actually filled with text. In addition, the annexes make up around a sixth of the document. In total, one could roughly estimate that the document is around 100 normally filled pages long. Due to the legal character of the document, the text of the new CAP reform features an entirely different character than the F2F Strategy. It uses a very specific and complex language that is less intuitive and accessible and is organized along 160 articles whose order does not necessarily follow common expectations. The estimated

²⁶⁹ Altieri and Nicholls, 'Agroecology and the reconstruction of a post- COVID-19 agriculture', p. 893.; Bourget, 'The Common Agricultural Policy 2023-2027: change and continuity'; Friedhelm Stodieck, 'Strategien gibt es genug ... Entwicklungen & Trends 2020', in Manuel Schneider, Andrea Fink-Keßler, and Friedhelm Stodieck, eds., 'Der kritische Agrarbericht 2021' (Konstanz, 2021), p. 38f.

²⁷⁰ European Parliament, 'Common agricultural policy - Strategic Plans - P9_TA(2021)0456, 23 November 2021', p. 27.

²⁷¹ Ibid.

In fact, there are two more Parliament resolutions on the new CAP. However, these primarily concern financial and legal details of the reform and are thus not of further interest in the context of this thesis. See European Parliament, 'Common agricultural policy - amendment - P9_TA(2021)0458, 23 November 2021'; European Parliament, 'Common agricultural policy: financing - P9_TA(2021)0457, 23 November 2021' (2021).

100 pages of normal pages would thus still include an abundance of legal stipulations and provisions that are not directly related to the political content of the reform.

As stated above, the CAP reform policy paper is not about identifying problems or setting out vague objectives but as text of EU legislation implements actual, legally binding schemes of measures to tackle these. Therefore, the focus in the categorisation processes was on concrete measures and policies as well. Through the juxtaposition of these identified measures with objectives set out in the F2F Strategy, a graphic analysis of the documents' link and coherence shall be undertaken in chapter III/5.1.

Before we directly compare the documents, several terms and subcategories need short clarifications in order to ensure comprehensibility of the coded subcategories and of figure XI. Hence, short definitions of selected terms will be given in the following (based on the order in figure XI) – these definitions will mainly draw on the CAP reform document and provide examples of text passages that were assigned to a certain subcategory in order to also increase traceability of the categorisation processes. Most of the measures are relatively small regarding their scope and predominantly minor innovations or reforms – with the exception of the already mentioned eco-schemes and the new social conditionality – which thus emphasizes the assessment of the new CAP as evolution rather than revolution and as driven by continuities.

As in figure X, figure XI also shows an assessment of the subcategories' ecological focus. For the “new and reformed measures”, this assessment especially takes the respective intervention logic of the measure into account. Intervention logic is defined as *“the reasoning behind how a CAP instrument or measure has been designed to achieve its objectives. It involves a complex series of relationships between individual measures and each of the CAP's objectives.”*²⁷²

4.2.1. Main category New and reformed measures - subcategories

Eco-schemes

As already mentioned, there are seven areas of action to which eco-schemes can be assigned. According to the legislative resolution on the CAP reform, these seven (a to g) areas are:

“(a) climate change mitigation, including reduction of greenhouse gas emissions from agricultural practices, as well as maintenance of existing carbon stores and enhancement of carbon sequestration;

²⁷² Alliance Environnement, ‘Evaluation of the impact of the CAP on habitats, landscapes, biodiversity’, p. 17.

- (b) climate change adaptation, including actions to improve resilience of food production systems and animal and plant diversity for stronger resistance to diseases and climate change;*
- (c) protection or improvement of water quality and reduction of pressure on water resources;*
- (d) prevention of soil degradation, soil restoration, improvement of soil fertility and of nutrient management and soil biota;*
- (e) protection of biodiversity, conservation or restoration of habitats or species, including maintenance and creation of landscape features or non-productive areas;*
- (f) actions for a sustainable and reduced use of pesticides, in particular pesticides that present a risk for human health or environment;*
- (g) actions to enhance animal welfare or combat antimicrobial resistance”²⁷³*

For the category-based content analysis of the document, these areas were coded as subcategories in abbreviated form. In so doing, the long term for area (b) for example is shortened into the subcategory “eco-scheme b) Climate change adaptation and resilience improvement”. Again, one has to emphasize that this necessary reduction of complexity inevitably entails a loss of information as well.²⁷⁴

Exclusion of harmful irrigation from subsidies

In order to preserve water resources, the CAP reform defines an exclusion of harmful irrigation practices from CAP payments. Member states shall „*not finance investments in irrigation which do not contribute to the achievement, or the preservation, of good status of the associated water body or bodies*”²⁷⁵

Farm Sustainability Tool

To enhance a sustainable nutrient management, member states shall implement a Farm Sustainability Tool

- “which is any digital application that provides at least:*
- (i) a balance of the main nutrients at field scale;*
 - (ii) the legal requirements on nutrients;*
 - (iii) soil data, based on available information and analyses;*
 - (iv) data from the integrated administration and control system (IACS) relevant for nutrient management”²⁷⁶*

²⁷³ European Parliament, ‘Common agricultural policy - Strategic Plans - P9_TA(2021)0456, 23 November 2021’, p. 126.

²⁷⁴ Kuckartz, ‘Qualitative Text Analysis: A Systematic Approach’, p. 184.

²⁷⁵ European Parliament, ‘Common agricultural policy - Strategic Plans - P9_TA(2021)0456, 23 November 2021’, p. 52. See also *Ibid.*, 203-205.

²⁷⁶ European Parliament, ‘Common agricultural policy - Strategic Plans - P9_TA(2021)0456, 23 November 2021’, p. 29.

This should further help farms to increase both their agricultural and their environmental performance and reduce nutrient losses.

Reformed GAEC 8 on biodiversity and landscape

The new CAP program also brought a reform of GAEC (good agricultural and environmental conditions) standard number 8. As stated above, GAEC standards are minimum standards institutionalized as preconditions for CAP payments. GAEC 8 on biodiversity and landscape now makes a “[m]inimum share of at least 4 % of arable land at farm level devoted to non-productive areas and features” compulsory. The thusly promoted non-productive land shall enhance on-farm biodiversity.²⁷⁷ However, it is important to point out that the stipulated four percent are distinctively less ambitious than the ten percent of high-diversity land which were demanded in the EU Biodiversity Strategy²⁷⁸: *“To provide space for wild animals, plants, pollinators and natural pest regulators, there is an urgent need to bring back at least 10% of agricultural area under high-diversity landscape features.”*²⁷⁹

AKIS 2.0 - Agricultural Knowledge and Innovation System

The AKIS is part of the CAP’s advisory services and farming knowledge initiatives: *“‘AKIS’ means the combined organisation and knowledge flows between persons, organisations and institutions who use and produce knowledge for agriculture and interrelated fields.”*²⁸⁰

This system should promote research, facilitate knowledge exchange between farmers, farmer organisations, researchers and EU advisory services and function as a central hub for agricultural data, innovation, knowledge and research: *“Member States should integrate all public and private advisors and advisory networks within the Agricultural Knowledge and Innovation Systems (AKIS), in order to be able to deliver up-to-date technological and scientific information developed by research and innovation.”*²⁸¹ Through its facilitated knowledge exchange, farmers should be provided with information on a variety of topics such as channels of distribution, market demands or agricultural technology. Hence, an improved AKIS could

²⁷⁷ European Parliament, ‘Common agricultural policy - Strategic Plans - P9_TA(2021)0456, 23 November 2021’, p. 376.

²⁷⁸ Barreiro-Hurle, Mariia Bogonos, Himics, et al., ‘Modelling environmental and climate ambition in the agricultural sector with the CAPRI model. Exploring the potential effects of selected Farm to Fork and Biodiversity strategies targets in the framework of the 2030 Climate targets and the post 2020 Commo’, p. 15.

²⁷⁹ European Commission, ‘EU Biodiversity Strategy for 2030 Bringing nature back into our lives’, p. 7.

²⁸⁰ European Parliament, ‘Common agricultural policy - Strategic Plans - P9_TA(2021)0456, 23 November 2021’, p. 80.

²⁸¹ Ibid., p. 28.

contribute to a multitude of objectives, primarily in the technological and socio- and politico-economic dimension.²⁸²

Specific coupled income support for protein crops

Both the F2F Strategy and the new CAP regard the plantation of protein crops as essential to reduce the dependency on imported animal feed and thusly increase the resilience of EU agriculture and in particular its livestock farming.²⁸³ Under the new CAP program, “[m]ember States should be allowed to use an additional part of their financial ceiling available for direct payments to grant coupled income support specifically for the support of protein crop production in order to reduce the Union's deficit in this regard.”²⁸⁴

Risk management tools

In order to improve the resilience of farmers and support a stable foundation of their income, up to 3 percent of the direct payments which are allocated to a farmer can be paid for the farmer's investments into risk management tools. These include insurance schemes or income stabilisation tools.²⁸⁵

Voluntary capping and redistribution of direct payments

Based on the priorities pursued by a member state, it can put a cap on the annual direct payments which a specific farmer receives and redistribute the withheld funds to smaller and/or ecologically more ambitious farmers via sustainability schemes. The CAP reform defines the amount of 60.000 € per year and farmer as lower threshold for the applicability of the measure though any capping of payments is entirely voluntary and thus subject of the respective strategic plan of a member state.²⁸⁶

Complementary redistributive income support for sustainability

Another scheme aiming for a certain balancing effect between farmers is the complementary redistributive income support for sustainability. Via it, “[m]ember States shall ensure redistribution of direct payments from larger to smaller or medium-sized holdings”.²⁸⁷ Under the new CAP, at least 10 percent of a member states' direct payments have to be dedicated

²⁸² European Parliament, ‘Common agricultural policy - Strategic Plans - P9_TA(2021)0456, 23 November 2021’, pp. 28, 50, 80, 103.; Pretty, ‘Can Ecological Agriculture Feed Nine Billion People?’, p. 296f.

²⁸³ European Commission, ‘A Farm to Fork Strategy for a fair, healthy and environmentally-friendly food system’, p. 8; European Parliament, ‘Common agricultural policy - Strategic Plans - P9_TA(2021)0456, 23 November 2021’, pp. 38, 40, 130.

²⁸⁴ Ibid., 38.

²⁸⁵ European Parliament, ‘Common agricultural policy - Strategic Plans - P9_TA(2021)0456, 23 November 2021’, pp. 112, 207f.

²⁸⁶ Ibid., pp. 34, 108–111.

²⁸⁷ Ibid., p. 251.

to this scheme. Once more, the concrete implementation and the applied definition of sustainability and thus the criteria for eligibility for the redistributed funds is up to the member states and to be defined in their Strategic Plans.²⁸⁸

Social conditionality mechanism

A new mechanism which is to be developed in the member states' Strategic Plans is at the centre of the newly introduced social conditionality: *"Such a mechanism should link full receipt of CAP direct payments as well as [other CAP] payments [...] to the compliance of farmers and other beneficiaries with basic standards concerning working and employment conditions for farm workers and occupational safety and health"*.²⁸⁹ The implementation of such mechanism must be effected for the year 2025 at the latest.²⁹⁰

Rural business start-ups

Particularly in order to foster generational renewal and support young and new farmers, the scheme for rural business start-ups was extended. Member states are now allowed to allocate up to 100.000€ for new businesses of young and new farmers.²⁹¹ Further specifications shall be defined in the respective Strategic Plans in which member states can also set *"preferential conditions for financial instruments for young farmers, new farmers and other new entrants"*.²⁹²

²⁸⁸ *Ibid.*, pp. 33, 113f., 121f., 251f.

²⁸⁹ *Ibid.*, p. 26.

²⁹⁰ *Ibid.*, pp. 26f.

²⁹¹ *Ibid.*, pp. 48, 206.

²⁹² *Ibid.*, p. 48.

5. The two documents in comparison

5.1. Illustration

	Objectives	Ecological Focus	New and reformed measures	Ecological Focus
1. INTEGRITY OF FLORA, FAUNA, SOIL, WATER AND AIR	1. INTEGRITY OF FLORA, FAUNA, SOIL, WATER AND AIR			
	Reduction of GHG emissions <i>by at least 55% for 2030 (compared to 1990)</i>	✓	Eco-scheme a) Climate change mitigation <i>Reduction of GHG emissions and carbon farming</i>	✓
	Preservation of soil and water quality	✓	Eco-scheme c) Protection of water resources	✓
			Eco-scheme d) Prevention of soil degradation <i>Improvement of soil fertility</i>	~
			Eco-scheme f) Reduced use of pesticides	✓
			Exclusion of harmful irrigation practices from subsidies	✓
	Reduction of nutrient losses <i>via nutrient management</i>	✓	Eco-scheme d) Prevention of soil degradation <i>Improvement of nutrient management</i>	✓
	Reduction of usage of fertilizers <i>by 20% in 2030</i>	✓	Farm Sustainability Tool <i>For sustainable nutrient management</i>	✓
			Eco-scheme d) Prevention of soil degradation <i>Improvement of soil fertility</i>	~
	Reduction of usage of antimicrobials <i>by 50% in 2030</i>	✓	Eco-scheme g) Enhancement of animal welfare <i>Combat antimicrobial resistance</i>	~
	Reduction of usage of pesticides <i>by 50% in 2030</i>	✓	Eco-scheme f) Reduced use of pesticides	✓
	Promotion of safer plant protection methods	✓	Eco-scheme b) Climate change adaptation and resilience improvement <i>Plant diversity for stronger resistance to diseases</i>	~
	Preservation of biodiversity <i>EU Biodiversity Strategy</i>	✓	Eco-scheme e) Protection of biodiversity <i>Creation of landscape features or non-productive areas</i>	✓
			Reform of GAEC 8 on biodiversity and landscape <i>4% of arable land as non-productive elements</i>	✓
	Improvement of seed diversity	✓	Eco-scheme b) Climate change adaptation and resilience improvement <i>Improve plant diversity</i>	✓
2. TECHNOLOGY	Enhancement of resilience to pests	~	Eco-scheme b) Climate change adaptation and resilience improvement	~
	Better animal welfare legislation	✓	Eco-scheme g) Enhancement of animal welfare <i>Combat antimicrobial resistance</i>	~
	Reduction of global deforestation for EU products	✓		
	Promotion of organic farming <i>at least 25% of EU's agricultural land under organic farming by 2030</i>	✓		
	2. TECHNOLOGY			
	Promotion of carbon farming	✓	Eco-scheme a) Climate change mitigation <i>Carbon farming</i>	✓
	Reduction of usage of antimicrobials <i>by 50% in 2030</i>	~	Eco-scheme b) Climate change adaptation and resilience improvement <i>Improve animal diversity for stronger resistance to diseases</i>	~
			Eco-scheme g) Enhancement of animal welfare <i>Combat antimicrobial resistance</i>	~
	Promotion of high-tech farming methods <i>such as precision farming & artificial intelligence</i>	✗		
	Promotion of R&I on agricultural technology	✗	AKIS 2.0 <i>Knowledge exchange and research promotion</i>	✗
	Promotion of digital transformation of farms	✗		
	Promotion of data collection on farming and farms <i>via the Farm Sustainability Data Network</i>	✗	Farm Sustainability Tool <i>Data on soil and nutrient management</i>	
	Production of renewable energy	✓		

3. SOCIO- & POLITICO-ECONOMIC		
Promotion of EU-grown plant proteins	✖	Specific coupled income support for protein crops ✖
Introduction of Food crisis response mechanism <i>Increase resilience of food system against political and economic disruptions</i>		Risk management tools
Climate change adaptation <i>Increase resilience of food system against extreme weather events</i>	~	Eco-scheme b) Climate change adaptation and resilience improvement ~ <i>Increase resilience to climate change</i>
		Eco-scheme f) Reduced of pesticides ✓ <i>Reduction of harmful pesticides</i>
Enhancement of customers' and producers' health	✖	Eco-scheme g) Enhancement of animal welfare ~ <i>Combat antimicrobial resistance</i>
		Social conditionality mechanism ✖ <i>Link between CAP subsidies and minimal social standards</i>
		Voluntary capping and redistribution of direct payments ✖
Higher incomes for farmers	✖	Complementary redistributive income support for sustainability ~ <i>at least 10% of direct payments</i>
		Risk management tools ✖ <i>Income stabilisation tools; up to 3% of direct payments</i>
Better working conditions for agri-food workers	✖	Social conditionality mechanism ✖ <i>Link between CAP subsidies and minimal social standards</i>
Strengthen EU's competitiveness	✖	AKIS 2.0 ✖ <i>Knowledge exchange and research promotion</i>
New business opportunities for farmers	✖	
New jobs in primary production	✖	Rural business start-ups ✖
Promotion of a more ecological agriculture in international relations <i>"Green Alliances"</i>	✓	
<i>Sustainability chapter in all EU trade agreements</i>		
Reduction of food waste <i>by 50% in 2030</i>	✓	
<i>via public education initiatives & the EU Platform on Food Losses and Food Waste</i>		
Promotion of recycling of agricultural resources <i>eg via recycling of organic waste into renewable fertilisers</i>	✓	
Promotion of alternative feed materials <i>such as algae, insects or fish waste</i>	~	
Promotion of true-cost pricing <i>via tax incentives</i>	✓	
<i>and the EU sustainable food labelling framework</i>		
Enable ecological transition for all	✓	
Promotion a healthier & more plant-based diet <i>Nutrient profiles on food</i>	✓	
Increase affordability of food	✖	

Figure XI – Juxtaposition of objectives of the F2F Strategy and measures of the new CAP program (original illustration)

5.2. Results of categorisation processes and scientific literature – Inconsistencies and deficiencies of the CAP

5.2.1. Externalisation of ecological and socio-economic impacts

The current EU agriculture is based on extensive externalisation processes of the ecological and socio-economic damage which the production of EU agricultural goods cause – in particular livestock farming which is at the centre of the next chapter. Primarily through its trade policy and the import of agricultural goods, EU farming accesses resources, human labour and land abroad and incorporates them into the food system of the EU along the Imperial Mode of Living. Scientists therefore speak of the import of “virtual land” due to the demand for land abroad: *“Virtual land for European animal feed is predominantly provided by South American countries leading to deforestation, mainly in Brazil, associated to loss of biodiversity and ecosystem services as well as GHG emissions”*.²⁹³

The related ecological and socio-economic impacts are thus offloaded onto ecosystems, animals and humans in the producing countries, described by scientists as an *“exporting [of] the ecological footprint to other parts of the world”*.²⁹⁴ According to them, *“[e]cological impacts of the CAP and related EU trade policies become tangible when looking at the high global ecological footprint of EU consumption. The overall footprint in terms of area ‘used’ by the EU is twice its biocapacity”*.²⁹⁵

Economically, these impacts have to be regarded as externalities which means that the ecological and socio-economic costs of the EU’s appropriation and the related processes of incorporation are not included in the prices of the produced agricultural goods.²⁹⁶ The QCA and figure XI also show that there are no intentions to make prices reflect these various externalities as the new CAP does not include measures for true-cost pricing nor plans for carbon pricing.

As a result, agricultural products in the EU largely do not reflect their actual costs but entail a variety of ecological and socio-economic externalities that mainly accrue outside the EU - the

²⁹³ Pe’er, Lakner, Müller, et al., ‘Is the CAP Fit for purpose? An evidence-based fitness-check assessment’, p. 178.

²⁹⁴ Ibid., p. 223.

²⁹⁵ Ibid., p. 203.

²⁹⁶ The Food and Land Use Coalition, ‘Growing Better: Ten Critical Transitions to Transform Food and Land Use’, pp. 75–78; Thomsen, ‘Qualifizierter Marktzugang. Klimaschutz, Tierwohl und die soziale Frage – Konzept für eine neue Handelspolitik’, p. 64f.

German Environment Agency (Umweltbundesamt) thus speaks of a “*market failure through externalised environmental costs of agriculture*”.²⁹⁷

According to Tony Weis, these “[e]xternalities might also be understood as a vast series of implicit subsidies to cheap industrial food.”²⁹⁸ Hence, the productivity and global competitiveness of the EU CAP is to a large extent based on these externalized damage and related costs. This externalized damage includes, inter alia, land grabbing, resulting dispossession and displacement, the exploitation of cheap labour, the impairment of local producers and markets, losses in biodiversity, land-use change including deforestation – especially of native rain forests – and substantial GHG emissions.²⁹⁹ For the latter two, the Food and Land Use Coalition estimates that “[g]reenhouse gas emissions from tropical deforestation are now at least as large as total emissions from the European Union.”³⁰⁰ Of course one should emphasize that the EU is not solely responsible for tropical deforestation, but the scale of the emissions at stake underlines the urgency of the problem of these externalities. If deforestation alone causes as many emissions as the entire EU with all its countries, economic sectors and policies, then it is one of the key levers for climate action³⁰¹ – and what is more, also for the protection of biodiversity as deforestation largely affects regions with particularly high levels of biodiversity.³⁰² Therefore, it is clear that any political system with considerable ecological ambition and serious efforts to keep both its promises and its obligations on climate change mitigation such as the EU expressed in the Green Deal and the Paris Agreement has to regard the externalized effects of its food system as major priority. Nevertheless, the QCA of the F2F Strategy and the new CAP program showed that in neither of these documents, significance is attributed to the externalized damage caused by EU agriculture:

²⁹⁷ Original quote: „Marktversagen durch externalisierte Umweltkosten der Landwirtschaft“. Umweltbundesamt, ‘Umweltschutz in der Landwirtschaft’, p. 74.

²⁹⁸ Weis, ‘The Accelerating Biophysical Contradictions of Industrial Capitalist Agriculture’, p. 317.

²⁹⁹ Brand and Wissen, ‘Imperiale Lebensweise. Zur Ausbeutung von Mensch und Natur im globalen Kapitalismus’, p. 159f.; Forster, ‘Imperiale Lebensweise, Food Regimes und die Agrarfrage: Zur Manifestation der imperialen Lebensweise im globalen Agrar- und Lebensmittelsystem’; Weinzierl, Forster, and Fehlinger, ‘Hunger nach Profiten? Machtverhältnisse im Agrar- und Ernährungssystem’, pp. 148–151.

³⁰⁰ The Food and Land Use Coalition, ‘Growing Better: Ten Critical Transitions to Transform Food and Land Use’, p. 40.

³⁰¹ Chris Chancellor, ‘More farmers, better food. Why and how to put small-scale sustainable producers at the core of the new CAP’ (2019), p. 7; IPES, ‘“Towards a Common Food Policy for the EU” Framing paper for the EU Food and Farming Forum 2018’, p. 29; Schmidinger and Stehfest, ‘Including CO2 implications of land occupation in LCAs— method and example for livestock products’, pp. 968–970.

³⁰² IPBES, ‘The global assessment report on biodiversity and ecosystem services of the IPBES. Summary for policymakers’, p. 28; Smith and Bustamante, ‘Agriculture, Forestry and Other Land Use (AFOLU)’, p. 866f.

Figure XI shows that the new CAP program does not envisage any measures for the problems and objectives defined in the F2F Strategy concerning deforestation and the ambition for a global sustainable agriculture (see figure X sections 1 and 3). In addition, the F2F Strategy itself mostly features a tunnel vision on Europe and is thus already largely disregarding of damage caused by EU agriculture that occurs abroad.

As will be at the centre of the next but one chapter, the disregard for EU-caused ecological damage abroad displays a very short-sighted understanding of the global character of climate change and in particular neglect of the global interconnectedness of the multiple ecological crisis. With the destruction of ecosystems abroad, the EU also impairs the very foundations of its own agricultural system and climatic stability.

However, these processes of externalisation are not unintentionally overlooked by the EU and its trade and agricultural policies but are immanent to its economic orientation and the systems of food production under the currently dominant food regime of which the EU CAP is one of the most influential proponents.³⁰³ This particular food regime is characterized by the high and cheap availability and production of food at the expense of the environment, animals and humans, both in Western countries but especially in countries of the Global South.³⁰⁴ A strong imbalance between the former and the latter makes it possible for the EU (and other Western powers) to claim areas outside of Europe for the maintenance of its consumption patterns and the stated Imperial Mode of Living, specifically its high meat consumption as will be elaborated in the next chapter.³⁰⁵ Political ecological theories describe these processes as “*external land seizure*” (“*äußere Landnahme*”³⁰⁶) which in particular involves the commodification and monetarisation of land which prior to that was not integrated into world markets. Through these, a geographical extension – a “*stretching*” – of market processes into new world regions is enabled.³⁰⁷

These processes are attended by the “*restructuring of societal nature relations*”³⁰⁸ and through the mentioned externalities affect economies, societies and farmers in the Global

³⁰³ Forster, ‘Imperiale Lebensweise, Food Regimes und die Agrarfrage: Zur Manifestation der imperialen Lebensweise im globalen Agrar- und Lebensmittelsystem’, p. 71.

³⁰⁴ *Ibid.*, pp. 82, 87–91, 96; Weis, ‘The Accelerating Biophysical Contradictions of Industrial Capitalist Agriculture’, p. 317f.

³⁰⁵ Brand and Wissen, ‘Imperiale Lebensweise. Zur Ausbeutung von Mensch und Natur im globalen Kapitalismus’, pp. 49, 101f.; Forster, ‘Imperiale Lebensweise, Food Regimes und die Agrarfrage: Zur Manifestation der imperialen Lebensweise im globalen Agrar- und Lebensmittelsystem’, pp. 27–30.

³⁰⁶ Forster, ‘Imperiale Lebensweise, Food Regimes und die Agrarfrage: Zur Manifestation der imperialen Lebensweise im globalen Agrar- und Lebensmittelsystem’, p. 36f., also 39–43.

³⁰⁷ Köhler, ‘Kommodifizierung’, p. 193.

³⁰⁸ „*Restrukturierungen gesellschaftlicher Naturverhältnisse*“. *Ibid.*

South on various levels. *“Added to these [externalities] are the massive explicit subsidy regimes” – such as the EU CAP – “supporting industrial farmers in rich countries. Together, implicit and explicit subsidies have enhanced the competitiveness of industrial capitalist agriculture relative to more labour-intensive agricultural systems, reducing the prices earned by small farmers in many parts of the world.”*³⁰⁹

The EU as biggest importer and exporter of food products not only influences markets in the Global South by importing agricultural goods, but also by exporting its products.³¹⁰ Due to high subsidies and externalities, the prices of EU products are comparably cheap and give them a distorting market advantage over local products in the Global South. In this way, the CAP uses its market power to perpetuate the imbalance in trade relations in order to support its own production at the expense of local producers.³¹¹ It thusly represents a distinct obstacle to local food production and sustainable development and further exacerbates existing socio-economic problems in the Global South such as unemployment, poverty, a largely unequal distribution of wealth and hunger which is by no means a problem of the past as in particular Weingärtner and Magdoff point out.³¹² They highlight that the current food regime does not at all guarantee food security for everyone, despite its unprecedented productivity, and argue this with the extended food crises of 2008 which resulted in food revolts in dozens of countries, a third of which in countries with medium or higher income.³¹³ In 2019, approximately 700 million people (60 million more than in 2014) suffered from malnutrition and an additional 750 million people from food insecurity.³¹⁴

³⁰⁹ Weis, ‘The Accelerating Biophysical Contradictions of Industrial Capitalist Agriculture’, p. 317.

³¹⁰ European Commission, ‘A Farm to Fork Strategy for a fair, healthy and environmentally-friendly food system’, p. 11.

³¹¹ Forster, ‘Imperiale Lebensweise, Food Regimes und die Agrarfrage: Zur Manifestation der imperialen Lebensweise im globalen Agrar- und Lebensmittelsystem’, p. 82; Fred Magdoff and Brian Tokar, ‘Agriculture and Food in Crisis: An Overview’, in Fred Magdoff and Brian Tokar, eds., ‘Agriculture and Food in crisis. Conflict, Resistance, and Renewal’ (New York, 2010), pp. 17–25; Murphy, ‘Free Trade in Agriculture: A Bad Idea Whose Time Is Done’, p. 108f.; Plank, Penker, and Brunner, ‘Ernährung klimasozial gestalten’, p. 144; Weingärtner and Trentmann, ‘Handbuch Welternährung’, pp. 73–76.; Weis, ‘The global food economy: the battle for the future of farming’, p. 87.

³¹² Altieri, ‘Agroecology, Small Farms, and Food Sovereignty’, p. 253; Magdoff and Tokar, ‘Agriculture and Food in Crisis: An Overview’, pp. 9–11, 14f.; Weingärtner and Trentmann, ‘Handbuch Welternährung’, pp. 46, 50, 72f., 157.

³¹³ Magdoff and Tokar, ‘Agriculture and Food in Crisis: An Overview’, pp. 9–11; Pretty, ‘Can Ecological Agriculture Feed Nine Billion People?’, p. 297; Weingärtner and Trentmann, ‘Handbuch Welternährung’, pp. 46, 50, 157.

³¹⁴ Tobias Reichert, ‘Über Agrarpolitik hinaus: nachhaltige Ernährungssysteme als neuer globaler Ansatz?’, in Manuel Schneider, Andrea Fink-Keßler, and Friedhelm Stodiek, eds., ‘Der kritische Agrarbericht 2021’ (Konstanz, 2021), p. 97; Pretty, ‘Can Ecological Agriculture Feed Nine Billion People?’, p. 297.

In addition, both Krams and Weis emphasize the *“uneven responsibility for, and uneven vulnerability to, climate change”*³¹⁵ which will overproportionally increase the Global South’s susceptibility to crises of food security.³¹⁶

McMichael thus identifies a paradox regarding the current food regime *“that at the same time as it presents [itself] as the condition for food security, it immiserates populations through the exercise of monopoly power. The perverse consequence of global market integration is the export of deprivation, as ‘free’ markets exclude and/or starve populations dispossessed through their implementation, consigning people of the colonized hinterlands to an unseen, racialized under-consumption that has been a condition for metropolitan development and over-consumption.”*³¹⁷

Given the scale of these externalized socio-economic and ecological impacts of EU agriculture, their deliberate neglect has to be regarded as one of the key deficiencies of the CAP which is in no way new, but is perpetuated both by the F2F Strategy and the latest CAP reform.³¹⁸

5.2.2. Neglect of the socio-ecological costs of livestock farming

As stated repeatedly, a major share of externalized as well as EU internal ecological and socio-economic damage is caused by EU livestock farming in general and meat consumption in the EU in particular. For years respectively decades, scientists thus regard livestock farming as biggest lever of the CAP to contribute to a more ecological agriculture and higher ambition regarding climate mitigation and demand CAP incentives for a general extensive reduction of livestock.³¹⁹ They support their claims with an abundance of comprehensive and convincing data of which but a fraction shall be presented briefly in the following in order to underline the ecological impacts of livestock farming³²⁰:

- According to studies for the EU Directorate-General for internal policies, almost 60 percent of the EUs agricultural GHG emissions³²¹ are directly related to livestock

³¹⁵ Weis, ‘The Accelerating Biophysical Contradictions of Industrial Capitalist Agriculture’, p. 329.

³¹⁶ *Ibid.*; Krams, ‘Die Klima- und Vielfachkrise der letzten Dekade. Dynamiken, Wechselwirkungen und Interventionsfelder’, p. 69f.; Weingärtner and Trentmann, ‘Handbuch Welternährung’, pp. 50, 67f.

³¹⁷ McMichael, ‘Food regimes and agrarian questions’, p. 57.

³¹⁸ Pe’er, Lakner, Müller, et al., ‘Is the CAP Fit for purpose? An evidence-based fitness-check assessment’, pp. 207, 223.

³¹⁹ Pete Smith and Daniel Martino, ‘Agriculture’, in B. Metz and Et Al, eds., ‘Climate Change 2007: Mitigation. Contribution of Working Group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change’ (Cambridge/New York, 2007), p. 526.; Umweltbundesamt, ‘Umweltschutz in der Landwirtschaft’, pp. 24, 27f.

³²⁰ See also chapter II/1. & 2.

³²¹ As mentioned above, the quantification of emissions and the categorisation of emission sources can differ largely and, in some examples of official EU figures, even be misleading. Figure 2 in a report of the European Court of Auditors on the main sources of GHG emissions in EU agriculture shows an example for misleading information. It states that 50% of EU GHG

farming as they are caused by enteric fermentation (42.9 %; i.e., gases through digestion processes in animals - specifically cattle, both beef and dairy cattle) and manure management (15.4 %). Moreover, this figure does not even include emissions from the plantation of animal feed inside or outside the EU.³²²

- As already elaborated in chapters II/1. and 2., the IPCC demonstrates that livestock farming is in particular the main emitter of methane (44 %) and nitrous oxide (81 %), greenhouse gases with a potency multiple times higher than CO₂.³²³ Weis thus concludes that “[w]hen this atmospheric burden is aggregated, the growth in global livestock population emerges as one of the largest contributors to climate change”³²⁴
- For EU emissions as well, livestock emissions are of outstanding relevance as they do not follow the general trend of a steady but slowly decline of the overall EU GHG emissions: the European Court of Auditors states that in the EU emissions from livestock have not decreased between 2010 and 2018.³²⁵ Hence, the share of agriculture of total EU emissions increased.
- To achieve a reduction, the Court of Auditors clearly underlines the potential of livestock reduction: *“Reducing the livestock production would lower emissions from feed digestion and manure storage, but also from fertiliser used in feed production.*

emissions in agriculture stem from “livestock”, 36% from “Nutrients in soils and other” and 14% from “land use change”. However, the second category on nutrients also includes emissions from “manure applied by farmers or deposited by grazing cattle” which are obviously livestock-related practices and, thus, emissions. The actual share of livestock emissions is therefore significantly higher and seems to be deliberately indicated lower. The reasons for that can only be guessed, it does not seem to be all too far-fetched that this might be in order to at least partly cover up the EU’s inaction on the issue although this is of course entirely speculation. See *“Figure 2, Key sources of greenhouse gas emissions (in CO₂eq)”*. The European Court of Auditors, *Common Agricultural Policy and climate. Half of EU climate spending but farm emissions are not decreasing*, p. 6.

³²² See *“Figure 2: Agriculture GHG emissions by source (2014)”*. Hart, Allen, and Keenleyside, ‘The consequences of climate change for EU agriculture: follow-up to the COP21 - UN Paris Climate Change Conference’, pp. 22, 87. For a detailed depiction of the emissions per animal see *“Figure 9, Livestock emission sources in 2018”*. The European Court of Auditors, *Common Agricultural Policy and climate. Half of EU climate spending but farm emissions are not decreasing*, p. 18 and *Figure 11.15 – “GHG emissions intensities of selected major AFOLU commodities for decades 1960s–2000s”* (comparing different types of meat, animal products, grain and wood). Smith and Bustamante, ‘Agriculture, Forestry and Other Land Use (AFOLU)’, p. 851.

³²³ IPCC, ‘Climate Change and Land. An IPCC Special Report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems. Summary for Policymakers’, p. 10. For a more detailed list also see Panel 1, “Net anthropogenic emissions due to Agriculture, Forestry, and other Land Use (AFOLU) and non-AFOLU”, *Ibid.*, p. 12. See also Smith and Bustamante, ‘Agriculture, Forestry and Other Land Use (AFOLU)’, p. 22.; Umweltbundesamt, ‘Umweltschutz in der Landwirtschaft’, p. 26.

³²⁴ Weis, ‘The Accelerating Biophysical Contradictions of Industrial Capitalist Agriculture’, p. 317.

³²⁵ *The European Court of Auditors, ‘Common Agricultural Policy and climate.’*, p. 17.

*Reducing overall livestock production in the EU would lower greenhouse gas emissions within the EU.*³²⁶

- The share of livestock farming of global agricultural emissions is predicted to further increase. According to a study of Springmann et al for Nature magazine, animal products are both at present and even to a higher extent in projections for 2050 the main source of GHG emissions among food groups.

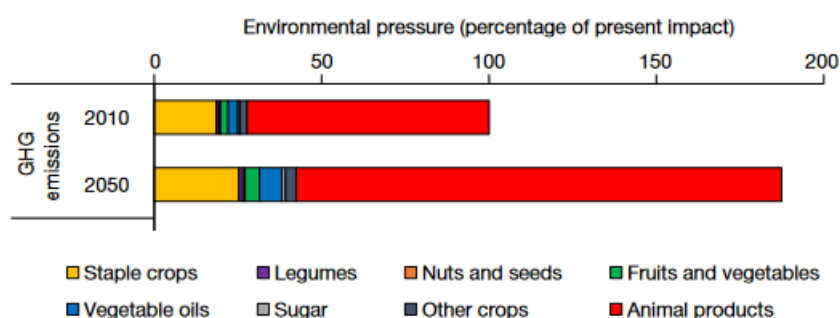


Figure XII – Environmental pressures through GHG emissions of various food groups³²⁷

- This increase is especially caused by a projected continuation of the increase in meat production which could be observed in the last decades. Since 1950, meat production has grown *“nearly fivefold by volume [w]hile the human population has more than doubled”*.³²⁸ For developments in the future, the Government Office for Science cites studies predicting *“increases in per capita consumption (kg/capita/annum) from 32 kg today to 52 kg by the middle of the century.”*³²⁹
- This projected increase is said to be related to “Bennett’s Law” which states that a per capita income growth leads to *“a decline in consumption of starchy staples and increase in consumption of meat”*³³⁰ and other socially desirable food products.³³¹

³²⁶ The European Court of Auditors, ‘Common Agricultural Policy and climate.’, p. 19.

³²⁷ Cut-out of “Figure 1, Present (2010) and projected (2050) environmental pressures on five environmental domains divided by food group”. Springmann, Clark, Mason-D’Croz, et al., ‘Options for keeping the food system within environmental limits’, p. 520.

³²⁸ Weis, ‘The global food economy: the battle for the future of farming’, p. 17. Also see “Figure I.I The meatification of diets worldwide”. Ibid., p. 19.

³²⁹ The Government Office for Science, ‘Foresight. The Future of Food and Farming. Final Project Report.’, p. 14. See also „Figure 11 – EU annual consumption per capita of animal products not declining”. The European Court of Auditors, ‘Common Agricultural Policy and climate.’, p. 21.

³³⁰ Nelson, Rosegrant, and Palazzo, ‘Food Security, Farming, and Climate Change to 2050: Scenarios, Results, Policy Options’, pp. 42, FN 9.

³³¹ The Government Office for Science, ‘Foresight. The Future of Food and Farming. Final Project Report.’, p. 164.

As the Imperial Mode of Living highlights, this alleged law is based on the Western food ideal and its constructed connection between affluence and meat consumption.³³²

- Besides GHG emissions, according to the Food and Land Use Coalition about 62 percent of arable are used for livestock farming. In contrast, the used land only provides about 17 percent of calories and 33 percent of total proteins produced.³³³

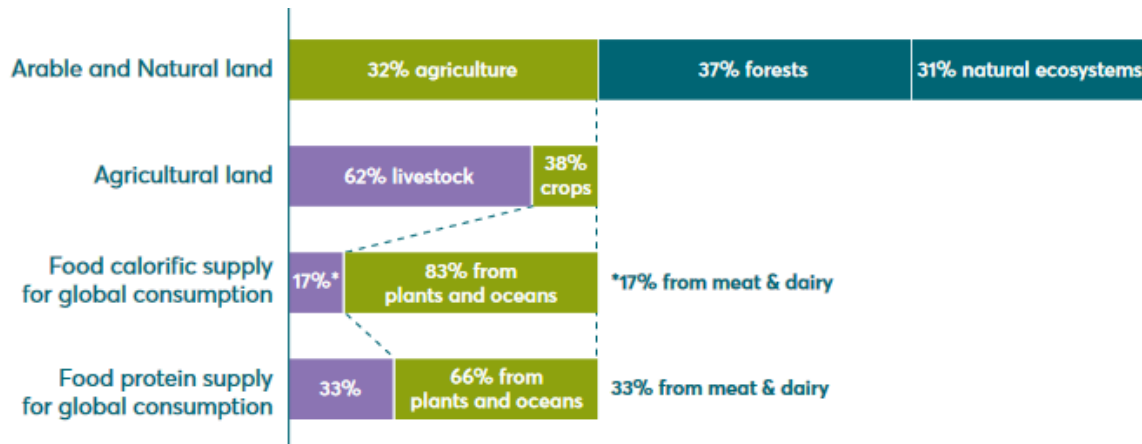


Figure XIII – Breakdown of agricultural land³³⁴

- Hence, dietary changes towards healthier, more plant-based diets would have the potential to free large areas of land and reduce emissions. According to the IPCC report, “dietary changes could free several million km² [...] of land and provide a technical mitigation potential of 0.7 to 8.0 [Gigatons in CO₂ equivalents], relative to business as usual projections”³³⁵ The enormous potential of dietary changes for climate change mitigation is also underscored by figures of Springmann et al: they estimate that up to 56 percent of GHG emissions could be reduced through a shift to healthier diets, compared to projections of the status quo.³³⁶

- In order to promote dietary changes, carbon pricing initiatives could make a substantial contribution: In a study of Smith et al, “[t]he mitigation potential of GHG-weighted consumption taxes on animal food products was estimated for the EU using

³³² Brand and Wissen, ‘Imperiale Lebensweise. Zur Ausbeutung von Mensch und Natur im globalen Kapitalismus’, pp. 101, 159–161.

³³³ The Food and Land Use Coalition, ‘Growing Better: Ten Critical Transitions to Transform Food and Land Use’, p. 40.

³³⁴ Cut-out of “Exhibit 9, Breakdown of global land area dedicated to food supply”. The Food and Land Use Coalition, ‘Growing Better: Ten Critical Transitions to Transform Food and Land Use’, p. 41.

³³⁵ IPCC, ‘Climate Change and Land. An IPCC Special Report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems. Summary for Policymakers’, p. 24.

³³⁶ Springmann, Clark, Mason-D’Croz, et al., ‘Options for keeping the food system within environmental limits’, p. 521.

a model of food consumption".³³⁷ The potential was estimated at a "7 % reduction of current GHG emission in European Union (EU) agriculture"

- In addition to land use and GHG emissions, a reduction of meat consumption could also reduce food competition. In their handbook on world sustenance, Weingärtner and Trentmann state that currently not even half of global grain production is actually used for human consumption. More than a third of it is fed to animals, with the rest (18 %) going into industry, agro fuels and energy or being lost.³³⁸
- Furthermore, the overconsumption of meat is a major contributor to obesity, which is most prevalent in Northern America, Oceania and Europe, and health-related costs.³³⁹

Despite this abundance of unequivocal scientific research and the problem's magnitude it underscores, neither the F2F Strategy nor the new CAP reform attribute any significance to livestock farming and its ecological impacts. Neither document includes any objectives or measures of reducing the number of livestock or the scale of meat consumption. Instead, the F2F Strategy focusses on the dubious objective of making livestock farming more sustainable: *"In relation to meat, that review should focus on how the EU can use its promotion programme to support the most sustainable, carbon-efficient methods of livestock production"*³⁴⁰ Instead of addressing the key determinant of the number of farmed animals, the Commission sets its hopes in technology once more: *"To help reduce the environmental and climate impact of animal production [...] and to support the ongoing transition towards more sustainable livestock farming, the Commission will facilitate the placing on the market of sustainable and innovative feed additives."*³⁴¹

However, agricultural researchers as well as the Court of Auditors outrightly slam these alleged technological fixes: *"In our review of studies, we found no effective and approved practices that can significantly reduce livestock emissions from feed digestion without reducing production [...] Many practices concerned with animal breeding, feeding, health and fertility*

³³⁷ Smith and Bustamante, 'Agriculture, Forestry and Other Land Use (AFOLU)', p. 867.

³³⁸ Weingärtner and Trentmann, 'Handbuch Welternährung', p. 52.

³³⁹ Altieri and Nicholls, 'Agroecology and the reconstruction of a post- COVID-19 agriculture', p. 893. FAO, 'Statistical Yearbook 2021. World Food and Agriculture', p. 33. See in particular "Figure 56. Prevalence of obesity in the adult population by region."

³⁴⁰ European Commission, 'A Farm to Fork Strategy for a fair, healthy and environmentally-friendly food system', p. 7f.

³⁴¹ Ibid., p. 7.

*management offer only a slow and marginal mitigation potential. Some of these practices encourage production expansion, and may thus increase net emissions".*³⁴² Again, the Commission's technological optimism is not substantiated by scientific research at all and straightforward rejected by its own Court of Auditors which clearly states that substantial GHG emissions are only possible with a reduction of livestock: *"However, the CAP does not seek to limit livestock numbers; nor does it provide incentives to reduce them. The CAP's market measures include promotion of animal products, the consumption of which has not decreased since 2014".*³⁴³

The Commission's promotion of mere technological solutions thus rather seems like wishful thinking or, worse, as deliberate distraction of the necessity of incisive measures and real change in production and consumption patterns.³⁴⁴ Given the scale of livestock farming's impacts, the ideas of the EU leadership can only be regarded as of primarily cosmetic nature. A major, as well largely untouched problem of livestock farming is its dependency of animal feed imports from overseas which cause massive ecological damage abroad, as stated in the previous chapter on externalisation.³⁴⁵

According to the IPES, a general specialisation process in EU agriculture – to which the CAP substantially contributed – has led to the *"disconnection between cropping systems and farm animals systems"*.³⁴⁶ This means that fewer and fewer farms are both farming livestock and crops and are thusly capable of feeding their animals primarily on self-produced animal feed.³⁴⁷ Instead, an increasing number of farmers depend on purchased and especially imported animal feed which led to an increase of *"the level of protein-rich feed imports [...] by more than 150 % from 1980-2010, helping to drive deforestation and major environmental consequences in third countries"*.³⁴⁸

³⁴² *The European Court of Auditors*, 'Common Agricultural Policy and climate.', p. 22. See also Reichert, 'Über Agrarpolitik hinaus: nachhaltige Ernährungssysteme als neuer globaler Ansatz?', p. 95.

³⁴³ *The European Court of Auditors*, 'Common Agricultural Policy and climate.', p. 19f. See "Figure 11 – EU annual consumption per capita of animal products not declining", *Ibid.*, 21.

³⁴⁴ IPES, "Towards a Common Food Policy for the EU" Framing paper for the EU Food and Farming Forum 2018', p. 28f.

³⁴⁵ Chancellor, 'More farmers, better food. Why and how to put small-scale sustainable producers at the core of the new CAP', p. 7; Pe'er, Lakner, Müller, et al., 'Is the CAP Fit for purpose? An evidence-based fitness-check assessment', p. 178; Plank, Penker, and Brunner, 'Ernährung klimasozial gestalten', p. 145.

³⁴⁶ IPBES, 'The global assessment report on biodiversity and ecosystem services of the IPBES. Summary for policymakers', p. 29.

³⁴⁷ Pe'er, Lakner, Müller, et al., 'Is the CAP Fit for purpose? An evidence-based fitness-check assessment', p. 76f.

³⁴⁸ *Ibid.*

In combination with a further increase in farmed animals this created a heavy reliance and dependence on imported animal feed and corresponding ecological damage in the Global South:

“[I]ntensive industrial livestock farming in the EU is built upon imports of animal feed inputs, such as soybean, from abroad. [...] Industrial soybean plantations in Latin America have driven the deforestation and degradation of globally important biomes such as the Amazon and Cerrado, threatening endangered species and fuelling the pace of global climate change. [...] The CAP, as well as international trade agreements, have contributed significantly to this scenario.”³⁴⁹

The QCA of the F2F Strategy showed that the dependency on animal feed imports is identified as a problem for which two objectives are set. However, the juxtaposition of the F2F Strategy and the new CAP showed that of these two set objectives only one translated into an actual CAP measure (see figure XI), the support scheme for the plantation of protein crops (see chapter III/4.2.1.) The other defined proposition of the promotion of alternative feed materials is not included in the CAP reform whatsoever.

Until now, EU planted protein crops remain a minor matter and experts once more point out that the respective attempts can only be insufficient if the key issue in the number of livestock is not addressed.³⁵⁰

The QCA further shows that the F2F objective of a nutrient profile system which should promote healthier diets is not further pursued in the new CAP.³⁵¹

Considering the manifold ecological impacts of the current system of livestock farming, the EU's inactivity and neglect on the topic is one of the most striking deficiencies of the CAP – and the moral implication of the billionfold suffering of animals at the hand of the EU food system and the system's contribution to the risk of pathogens and pandemics were not even discussed.³⁵²

Industrialized intensive livestock farming has large-scale negative effects on animals as it immanently implies obvious detriments to the five freedoms of animal welfare defined in the EU's legal framework. These freedoms include the freedom from 1. hunger and thirst, 2. discomfort, 3. pain, injury and disease, 4. fear and distress and 5. the freedom to express

³⁴⁹ Chancellor, 'More farmers, better food. Why and how to put small-scale sustainable producers at the core of the new CAP', p. 7.

³⁵⁰ *Ibid.*

³⁵¹ Plank, Penker, and Brunner, 'Ernährung klimasozial gestalten', p. 149f.

³⁵² Wessel, 'Corona verändert die Welt – oder auch nicht', pp. 202f., 206f.

normal behaviour.³⁵³ Nevertheless, animal welfare is not only largely disregarded in CAP measures but also under-researched which further emphasizes the low priority attributed to animal rights within EU agriculture: *“The lack of studies on CAP effects on the topic is somewhat surprising given the known, although not universal, negative relation between increases in the efficiency of animal production and a decline in welfare. Evidence suggests that there is an important gap between the public claim for increased farm animal welfare and current legislation and budgets.”*³⁵⁴

Based on the presented scientific results, we can conclude that an agricultural policy that convincingly aims for climate mitigation, socioecological sustainability (within the EU and outside), a human- and animal-friendly way of producing food and resilience to growing threats of climate change, pathogens and pests has to treat the vast ramifications of livestock farming as an essential priority. As the QCA and scientific literature clearly showed, this is not the case in neither the F2F Strategy nor the CAP reform document – quite to the contrary, livestock farming is almost entirely omitted in both documents and the current EU agricultural policy as a whole.

5.2.3. Lack of climate, ecological and biodiversity ambition

In accordance with the stated neglect of livestock emissions, the majority of researchers criticize the current EU’s agricultural policy for a general lack of ambition regarding climate change mitigation and environmental and biodiversity protection.³⁵⁵ Notwithstanding the repeatedly expressed priority of climate change mitigation for the EU, the orientation of the CAP is not at all in accordance with the rhetoric: *“Despite the Commission’s ambitions and calls for a greener CAP”,* the Court of Auditors states that the new CAP *“does not reflect a clear increase in environmental and climate ambition.”*³⁵⁶ Even for the more ecologically orientated Pillar II the Court has found that only 3.2 percent of its funds *“aimed primarily at reducing greenhouse gas emissions or promoting carbon*

³⁵³ Esther Snippe and Julia Dahm, ‘Animal welfare in the EU’, EURACTIV.com’ (November 2021),. Pe’er, Lakner, Müller, et al., ‘Is the CAP Fit for purpose? An evidence-based fitness-check assessment’, p. 133f.; Stodiek, ‘Das (noch) vorherrschende Agrarmodell erweist sich als nicht zukunftsfähig’, pp. 33f., 41f.

³⁵⁴ Pe’er, Lakner, Müller, et al., ‘Is the CAP Fit for purpose? An evidence-based fitness-check assessment’, p. 134.

³⁵⁵ Alliance Environnement, ‘Evaluation of the impact of the CAP on habitats, landscapes, biodiversity’, p. 159.; IPBES, ‘The global assessment report on biodiversity and ecosystem services of the IPBES. Summary for policymakers’, p. 14f.; Christian Rehmer and Phillip Brändle, ‘Vom Verwässern und Verbessern. Die Reform der EU-Agrarpolitik auf der Zielgeraden’, in Manuel Schneider, Andrea Fink-Keßler, and Friedhelm Stodiek, eds., ‘Der kritische Agrarbericht 2021’ (Konstanz, 2021), p. 43f.

³⁵⁶ The European Court of Auditors, ‘Opinion No 7/2018 concerning Commission proposals for regulations relating to the common agricultural policy for the post-2020 period’, p. 3.

sequestration.”³⁵⁷

In a study for the German Centre for Integrative Biodiversity Research, a research group thus comes to an unambiguous conclusion. They see *“no visible effect of climate action under the CAP on the EU's agricultural GHG emissions. [...] Clear and targeted measures that would effectively tackle climate change based on known reduction potentials are widely missing.”*³⁵⁸

Researchers as well as environmental organisations and EU institutions especially criticize the calculations of the EU according to which *“[f]orty percent of the CAP budget 2021–2027 [are] labelled as “climate friendly”, yet without appropriate measures targeting the largest greenhouse gas (GHG) emission sources, namely livestock production, which is still supported by coupled payments.”*³⁵⁹ Instruments defined as green are not *“systematically linked to any effective measure for greenhouse gas reduction or climate adaptation, thus lacking any justification of this statement. Instead, they even partly support practices and sectors with significant greenhouse gas emissions.”*³⁶⁰

The stated lack of ecological ambition is in particular explained by the dominance of economic interests. The CAP as such was primarily designed as economic program to foster food production in which it achieved impressive results – the greening tendencies in the last decades have so far only affected the fringes of it, the fight for a preservation of the EU and global environment is still nowhere near its focus.³⁶¹ Rac et al emphasize that *“the hierarchy of the policy's challenges or goals remains fundamentally the same as in the previous period[:]* 1. Economic; 2. Environmental and climate; 3. Socio-economic. Economic goals (farmers' incomes) retain primacy – before environmental and social goals and other, new, objectives”³⁶²

One result of the QCA of the new CAP program, displayed in figure XI, is its omission of any measures aiming for a better reflection of ecological damages in the prices of agricultural

³⁵⁷ The European Court of Auditors, 'Common Agricultural Policy and climate.', p. 52.

³⁵⁸ Pe'er, Lakner, Müller, et al., 'Is the CAP Fit for purpose? An evidence-based fitness-check assessment', p. 102.

³⁵⁹ Pe'er, Zinngrebe, Moreira, et al., 'A greener path for the EU Common Agricultural Policy', p. 450. See also The European Court of Auditors, 'Opinion No 7/2018 concerning Commission proposals for regulations relating to the common agricultural policy for the post-2020 period', p. 13.

³⁶⁰ Pe'er, Bonn, Bruelheide, et al., 'Action needed for the EU Common Agricultural Policy to address sustainability challenges', p. 307f.

³⁶¹ Lorenzen, 'Wer keine Visionen hat, sollte zum Arzt gehen. Die Reform der europäischen Agrarpolitik – Blick zurück nach vorn', pp. 25–27; Christian Rehmer, 'Zwischen Kuhhandel und Pokerspiel. Die Verhandlungen zur zukünftigen EU-Agrarpolitik', in Manuel Schneider, Andrea Fink-Keßler, and Friedhelm Stodieck, eds., 'Der kritische Agrarbericht 2020' (Konstanz, 2020), p. 51f.

³⁶² Rac, Erjavec, and Erjavec, 'Does the proposed CAP reform allow for a paradigm shift towards a greener policy?', p. 6.

goods – such as agriculture’s inclusion into existing emissions schemes or carbon taxes.³⁶³ The objective of the F2F that *“the most sustainable food also becomes the most affordable”*³⁶⁴ is thus not translated in policy whatsoever.

As the QCA has shown as well, it is often the complexity of EU decision-making processes – which especially for the new CAP once more led to protracted negotiations – in which existing ecological ambition, as partly expressed in the F2F Strategy, is diluted by economic interests and interest groups representing them³⁶⁵: *“The dominating influence of agricultural interest groups and the strong ‘productivist discourse’ have been found to actively weakening the policy design of environmental measures”*³⁶⁶

It is thus a result of these economic interests that not even at least partly ecological schemes within the CAP, such as cross-compliance rules or greening schemes, match the rising ecological ambition in EU’s society and the rhetoric of its leadership³⁶⁷. This is particularly striking as there is overwhelming scientific consensus that mitigating climate change is by far the most effective way to support the resilience of agricultural systems in the European Union – respectively that continuously insufficient action to do so endangers the resilience of the whole EU food system.

5.2.4. Undermining the resilience of EU agricultural systems

As a result of these deficiencies, scientists fear for the resilience of EU agriculture to both political and economic disruptions and more frequent extreme weather events.³⁶⁸ For the former, the already mentioned dependency on imports is a major impairing factor as well as the reliance on precarious labour which became evident during the COVID pandemic³⁶⁹ –

³⁶³ Smith and Bustamante, ‘Agriculture, Forestry and Other Land Use (AFOLU)’, p. 865.

³⁶⁴ European Commission, ‘A Farm to Fork Strategy for a fair, healthy and environmentally-friendly food system’, p. 4.

³⁶⁵ Alliance Environnement, ‘Evaluation of the impact of the CAP on habitats, landscapes, biodiversity’, p. 158.; Pe’er, Lakner, Müller, et al., ‘Is the CAP Fit for purpose? An evidence-based fitness-check assessment’, pp. 155, 162, 167.; Lorenzen, ‘Wer keine Visionen hat, sollte zum Arzt gehen. Die Reform der europäischen Agrarpolitik – Blick zurück nach vorn’, pp. 25–27.; Rehmer and Brändle, ‘Vom Verwässern und Verbessern. Die Reform der EU-Agrarpolitik auf der Zielgeraden’, p. 45f.

³⁶⁶ Ibid., p. 167.

³⁶⁷ The European Court of Auditors, ‘Common Agricultural Policy and climate.’, p. 49f.

³⁶⁸ John R Beddington, Mohammed Asaduzzaman, Megan E Clark, et al., ‘The role for scientists in tackling food insecurity and climate change’, ‘Agriculture & Food Security’, 1 (2012), p. 7.; The European Court of Auditors, ‘Opinion No 7/2018 concerning Commission proposals for regulations relating to the common agricultural policy for the post-2020 period’, p. 12.; Weingärtner and Trentmann, ‘Handbuch Welternährung’, p. 68f.

³⁶⁹ Altieri and Nicholls, ‘Agroecology and the reconstruction of a post- COVID-19 agriculture’, p. 893; Rehmer and Brändle, ‘Vom Verwässern und Verbessern. Die Reform der EU-Agrarpolitik auf der Zielgeraden’, p. 43f.; Rosol and Rosol, ‘Welt im Fieber. Zur Notwendigkeit einer globalen Agrar- und Ernährungswende in Zeiten des Anthropozäns’, p. 9.

hence, for Altieri and Nicholls *“COVID-19 has revealed the socio-ecological fragility of current industrial-globalized food systems.”*³⁷⁰

For the latter, drastic losses in biodiversity, a resulting higher susceptibility to climate change and insufficient mitigation efforts are the main drivers.

Underscoring this with an abundance of scientific research, the latest IPCC report in particular points out the large-scale impacts of climate change which are prognosticated to overproportionally affect parts of Europe when it comes to expected warming and the reduction in precipitation.³⁷¹ In agreement with the IPCC, a follow-up study to the Paris agreement in detail assesses the projected impacts on EU agriculture and concludes that almost entirely negative impacts are to be expected.³⁷² The scientific results thus unequivocally refute the popular misconception of predominantly positive effects in the EU due to a warmer climate. They also emphasize the relevance of every single ton of CO₂ and every tenth of a degree, as the IPCC states. Its reports repeatedly demonstrated the *“near-linear relationship between the cumulative CO₂ emissions and global warming”*³⁷³ and that *“every additional 0.5°C of global warming causes clearly discernible increases in the intensity and frequency of hot extremes, including heatwaves, and heavy precipitation, as well as agricultural and ecological droughts in some regions”*³⁷⁴ – including large parts of Southern and Eastern Europe.

Science thus clearly shows that the climate crisis is not a black or white question, but that there is a fine graduation within it which makes the specific degree of failure or success influential.

For Nelson et al, *“[c]limate change acts as a threat multiplier, making the challenges of sustainable food security much more difficult”*.³⁷⁵ In addition to insufficient climate action, Rockström points out that the CAP is a proponent of a food regime with a decade-long focus on productivity over sustainability which further increased the vulnerability of EU agriculture:

³⁷⁰ Altieri and Nicholls, ‘Agroecology and the reconstruction of a post- COVID-19 agriculture’, p. 887.

³⁷¹ IPCC, ‘Climate Change 2021. The Physical Science Basis. Summary for Policymakers’, pp. 5–9, 14, 17f.; FAO, ‘Statistical Yearbook 2021. World Food and Agriculture’, p. 40f.

³⁷² “Table 1: Summary of projected impacts of climate change on EU agriculture by EU region”. Hart, Allen, and Keenleyside, ‘The consequences of climate change for EU agriculture: follow-up to the COP21 - UN Paris Climate Change Conference’, p. 20.

³⁷³ IPCC, ‘Climate Change 2021. The Physical Science Basis. Summary for Policymakers’, p. 28. See “Global surface temperature increase since 1850–1900 (OC) as a function of cumulative CO₂ emissions (GtCO₂)”, *Ibid.*

³⁷⁴ IPCC, ‘Climate Change 2021. The Physical Science Basis. Summary for Policymakers’, p. 14.

³⁷⁵ Nelson, Rosegrant, and Palazzo, ‘Food Security, Farming, and Climate Change to 2050: Scenarios, Results, Policy Options’, p. 87.

*"The human pressures put on the entire Earth system are causing a rise in frequency and amplitude of extreme weather events and a reduction in ecological resilience. Occurring simultaneously with decades of agricultural research and development that focussed on enhancing productivity over building resilience, this has resulted in heightened vulnerability as monocultures designed to operate efficiently under stable conditions are not adapted to handle shocks and stress amplified by global change"*³⁷⁶

Weis shares this general criticism of the CAP's orientation and highlights additional ecological impairments caused by the current food regime and their impairing effect on the resilience of EU agriculture. He concludes that the current food regime provokes *"the deterioration of the very biophysical foundations of agriculture. These include the undervaluation of the damage associated with: soil erosion and salinization; the overdraft of water and threats to its long-term supply; the loss of biodiversity and crucial 'ecosystem services' (e.g. pollination, soil formation); and greenhouse gas (GHG) emissions."*³⁷⁷

In particular the ongoing losses of biodiversity which not only happen among wild species, but also among farm animals and crops, are a major factor for reduced resilience of agricultural systems: *"Reductions in the diversity of cultivated crops, crop wild relatives and domesticated breeds mean that agroecosystems are less resilient against future climate change, pests and pathogens"*.³⁷⁸

Besides a multitude of strongly interconnected ecological deteriorations, economic impediments to resilience such as the high dependency on imports are not solved, but rather aggravated by a combination of the current agricultural policy and a trade policy with general disregard for socio-ecological implications. Trade treaties such as MERCOSUR are expected to further weaken economic resilience and impair the respective marginal countermeasures of the CAP, such as the frail foundations of an EU soy industry.³⁷⁹

³⁷⁶ Rockström, Edenhofer, Gaertner, et al., 'Planet-proofing the global food system', p. 4.

³⁷⁷ Weis, 'The Accelerating Biophysical Contradictions of Industrial Capitalist Agriculture', p. 316.

³⁷⁸ IPBES, 'The global assessment report on biodiversity and ecosystem services of the IPBES. Summary for policymakers', p. 12, also 25.; *The Food and Land Use Coalition*, 'Growing Better: Ten Critical Transitions to Transform Food and Land Use', p. 42.

³⁷⁹ *Arbeitsgemeinschaft bäuerliche Landwirtschaft*, 'Optimum statt Maximum. Herausforderungen und Lösungsansätze einer zukunftsfähigen Ackerbaustrategie', p. 68f.; Ursula Gröhn-Wittern and Mireille Remesch, 'Freihandel vs. Agrarökologie. Über Widersprüche zwischen Freihandelsabkommen und der Umsetzung von Agrarökologie und bäuerlichen Saatgutrechten', in Manuel Schneider, Andrea Fink-Keßler, and Friedhelm Stodieck, eds., 'Der kritische Agrarbericht 2020' (Konstanz, 2020), p. 122; Thomsen, 'Qualifizierter Marktzugang. Klimaschutz, Tierwohl und die soziale Frage – Konzept für eine neue Handelspolitik', p. 62f.

5.2.5. Renationalisation

The new CAP program represents a definitive increase in the member states' relevance for the implementation of the CAP. Through the newly introduced national Strategic Plans, the member states' respective ecological ambition thus becomes an even bigger factor in the overall configuration of EU agriculture.³⁸⁰ However, researchers criticize that this dependency on member states could also provide them with further opportunities to dilute any attempts for real ecological change, given that it is currently often certain member states who impede more determined climate action on EU level.³⁸¹

This possibility is even more relevant as the EU's defined ecological objectives, including the ones in the F2F Strategy and Green Deal, are not legally binding for the most part which again is primarily the result of member states' resistance.³⁸² In addition, the corresponding CAP framework fails to equip the Commission with the necessary tools to ensure a minimum level of ecological ambition in the Strategic Plans.³⁸³ Already in the planning stages of the new CAP program, the Court of Auditors thus criticized that *"it is not clear how the Commission would [...] ensure sufficient ambition, given that there would be no quantified EU targets"*.³⁸⁴ Nevertheless, environmental organisations criticize that the stipulated review process of the member states' annual plans still does not include a *"mechanism to penalise countries if their CAP plan does not deliver on EU environmental objectives"*.³⁸⁵ In theory, the Commission would have the option to reject an insufficient plan. However, this instrument remains largely irrelevant as the agriculture commissioner, Janusz Wojciechowski, has already made clear that the Commission does not intent to make use of the option: *"I cannot even imagine or assume a situation where the Commission would, in a spectacular manner, reject a strategic plan prepared by the member states"*.³⁸⁶

³⁸⁰ Rac, Erjavec, and Erjavec, 'Does the proposed CAP reform allow for a paradigm shift towards a greener policy?', p. 1; *The European Court of Auditors*, 'Opinion No 7/2018 concerning Commission proposals for regulations relating to the common agricultural policy for the post-2020 period', pp. 3, 11, 13.

³⁸¹ Hart, Allen, and Keenleyside, 'The consequences of climate change for EU agriculture: follow-up to the COP21 - UN Paris Climate Change Conference', p. 96; Gerardo Fortuna and Natasha Foote, 'Commission bows to pressure to water down Green Deal ambitions in CAP plans', 'EURACTIV.com' (November 2021),.

³⁸² *Ibid.*

³⁸³ Pe'er, Birkenstock, Lakner, et al., 'The Common Agricultural Policy post-2020.', pp. 71f., 80f.

³⁸⁴ *The European Court of Auditors*, 'Opinion No 7/2018 concerning Commission proposals for regulations relating to the common agricultural policy for the post-2020 period', p. 13.

³⁸⁵ Greenpeace, Birdlife International, and European Environmental Bureau, 'Does the new CAP measure up? NGOs assessment against 10 tests for a Green Deal-compatible EU Farming Policy', p. 6.

³⁸⁶ EU's Agriculture Commissioner Janusz Wojciechowski quoted according to Natasha Foote, 'Commissioner: Rejecting CAP plans on basis of Green Deal alignment "unimaginable"', 'EURACTIV.com' (July 2021).

As a result, the Commission will be able to give feedback and recommendations on the member states' Strategic Plans but has basically no options to impose stricter ecological action. The Court of Auditors criticizes that this further increases the vagueness and lack of commitment of the EU's climate ambition as promises such as the 40 percent of CAP spending going to GHG emissions reduction are thus not facts, but largely depending on the member states' good will and ambition.³⁸⁷

Researchers in general expect that the granted agency in most countries will not be used for a more ecological agricultural policy and insights from the Court of Auditors for climate objectives in the previous CAP period of 2014–2020 support this assessment. Similarly to the new program, the lack of clearly defined respectively enforceable objectives and insufficient monitoring led to underwhelming results which are to be expected from the new framework as well. In fact, in a report on the implementation of national plans on the use of pesticides, even the European Commission itself comes to the conclusion that giving recommendations alone without being able to enforce them proves largely futile. Only 20 percent of the respective national plans satisfactorily included the Commission's feedback and developed a long-term strategy for its implementation.³⁸⁸ Hence, the decision of the EU to expand the member states' authority even contradicts its own experience which raises further questions to why the CAP reform stipulates it. Similarly, empirical values from studies on biodiversity policies suggest that economic interests dominate even more over ecological aspects when authority is mainly with the member states.³⁸⁹

In the upcoming CAP period, it will almost entirely be up to the member states whether a country chooses a more ambitious agricultural policy or perpetuates the largely unsustainable status quo. For the more ambitious states, researchers thus regard the new mode as additional option to improve their ecological performance for which enhanced subsidiarity makes sense.³⁹⁰ For states with less ecological ambition however, it will become more

³⁸⁷ *The European Court of Auditors*, 'Opinion No 7/2018 concerning Commission proposals for regulations relating to the common agricultural policy for the post-2020 period', pp. 3, 13.

³⁸⁸ *European Commission*, 'Report from the Commission to the European Parliament and the Council. On the experience gained by Member States on the implementation of national targets established in their National Action Plans and on progress in the implementation of Directive 2009/1' (Brussels, 2020), p. 18.

³⁸⁹ *Alliance Environnement*, 'Evaluation of the impact of the CAP on habitats, landscapes, biodiversity', p. 148; *Birdlife International*, 'CAP Strategic Plans: New assessment shows Member States fall short of saving nature', 'birdlife.org'.

³⁹⁰ *Giddens*, 'The Politics of Climate Change', p. 168f.; *Pe'er, Zinngrebe, Moreira, et al.*, 'A greener path for the EU Common Agricultural Policy', p. 451.

comfortable to avert undesired measures.³⁹¹ It can be assumed that this will further increase the gap between member states with differing ecological aspiration and thus EU-internal divergence.

Given the major influence of the member states' Strategic Plans, much will depend on the drafting process of the respective plans and especially its transparency and involvement of different shareholders.³⁹² Concerning these, experts warn of an even stronger dominance of economic interest groups, given that they now only have to convince one specific decision-making committee of a state, not a multitude of EU institutions and member states at once, which could lead to a race to the bottom regarding environmental restrictions.³⁹³ As a result, the increased importance of member states is primarily regarded as a major weakness of the new CAP with the immanent *"threat of renationalisation and destructive competition"*.³⁹⁴

In summary, it has to be stated that the increase in member states' authority is both poorly implemented and justified as contrary empirical values emphasize that the decision is not evidence-based whatsoever – which is a common point of criticism of the CAP overall though.

5.2.6. Lack of monitoring and evidence-based decision-making

The stipulated renationalisation of CAP policies is expected to further contribute to longstanding problems of the CAP: a lack of monitoring, evidence-based decision-making and the enforcement of existing policies.

The complex network of CAP and national policies which interfere in an already complex system in agriculture of both biophysical and socioeconomic processes would demand a thorough and adequate survey of multiple indicators in order to be able to evaluate measures and policies, assess their respective results, their contribution to goals set and thus the justification of allocated funds. However, based on an abundance of empirical values, researchers and EU supervisory bodies for decades identify and criticize the insufficient frameworks for monitoring results as well as needs as one of the major weaknesses of the

³⁹¹ Hart, Allen, and Keenleyside, 'The consequences of climate change for EU agriculture: follow-up to the COP21 - UN Paris Climate Change Conference', p. 96.; Fortuna and Foote, 'Commission bows to pressure to water down Green Deal ambitions in CAP plans'.

³⁹² Giddens, 'The Politics of Climate Change', p. 120f.; Lorenzen, 'Wer keine Visionen hat, sollte zum Arzt gehen. Die Reform der europäischen Agrarpolitik – Blick zurück nach vorn', pp. 25–28.; Rac, Erjavec, and Erjavec, 'Does the proposed CAP reform allow for a paradigm shift towards a greener policy?', p. 10.

³⁹³ The European Court of Auditors, 'Opinion No 7/2018 concerning Commission proposals for regulations relating to the common agricultural policy for the post-2020 period', p. 17.

³⁹⁴Original quote: "Die Gefahr einer Renationalisierung und eines destruktiven Wettbewerbs ist groß." Lorenzen, 'Wer keine Visionen hat, sollte zum Arzt gehen. Die Reform der europäischen Agrarpolitik – Blick zurück nach vorn', p. 26.

CAP.³⁹⁵ They emphasize the necessity of a massive expansion of monitoring in order to evaluate the effects of farming in general and specific CAP measures in particular regarding biodiversity, GHG emissions, the pollution of water bodies with nitrogen, antibiotics and pesticides, soil degradation and a variety of other important indicators of the ecological impact of agriculture.³⁹⁶ This is especially relevant to achieve robust ecological indicators that can be juxtaposed with the more easily quantifiable and obtainable economic indicators such as GDP, median income or changes in prices and present a stronger counterweight to the still dominating economic interests.³⁹⁷ This would not only be in line with scientific research but also reflect the CAP's defined objectives as well as the public's changed expectations of agriculture: *"Evidence suggests that a large share of the CAP budget is not sufficiently grounded in CAP objectives. [...] Moreover, new environmental objectives are considered relevant, both in the literature and by the public, but they remain insufficiently addressed. The public's priorities for agriculture differ from the CAP objectives."*³⁹⁸

This assessment is also supported by the Court of Auditors which criticizes the unconvincing evidence for the CAP's focus on primarily economic objectives and measures, such as general measures to further increase the income of all farmers, without a specific focus on the share of farmers who indeed suffer from low incomes.³⁹⁹ The court states that *"[w]hile the case for EU environmental and climate-change-related actions is strong, the data and the arguments used to support the needs assessment for farmers' income are insufficient."*⁴⁰⁰

Despite the stated strong evidence for robust climate action, the CAP framework still barely includes clearly defined and in particular quantified targets regarding the environment. This also applies to ambitious initiatives such as the Biodiversity Strategy or the F2F Strategy which on the whole have not been translated into binding and measurable targets in the new CAP. As a result, the intervention logic of CAP measures continues to only insufficiently reflect

³⁹⁵ Pe'er, Lakner, Müller, et al., 'Is the CAP Fit for purpose? An evidence-based fitness-check assessment', pp. 191, 223f.; Pe'er, Birkenstock, Lakner, et al., 'The Common Agricultural Policy post-2020.', pp. 82–84; Pistorius and Foote, 'Everything you need to know ahead of the CAP final vote'; Rac, Erjavec, and Erjavec, 'Does the proposed CAP reform allow for a paradigm shift towards a greener policy?', p. 10; The European Court of Auditors, 'Opinion No 7/2018 concerning Commission proposals for regulations relating to the common agricultural policy for the post-2020 period', pp. 3, 22.

³⁹⁶ IPES, "'Towards a Common Food Policy for the EU" Framing paper for the EU Food and Farming Forum 2018', p. 22; Pe'er, Birkenstock, Lakner, et al., 'The Common Agricultural Policy post-2020.', pp. iv, 45; Schmidinger and Stehfest, 'Including CO2 implications of land occupation in LCAs— method and example for livestock products', pp. 968–970.

³⁹⁷ European Commission, 'EU Biodiversity Strategy for 2030 Bringing nature back into our lives', pp. 15, 19f.; Pe'er, Lakner, Müller, et al., 'Is the CAP Fit for purpose? An evidence-based fitness-check assessment', p. 141.

³⁹⁸ Pe'er, Lakner, Müller, et al., 'Is the CAP Fit for purpose? An evidence-based fitness-check assessment', p. 179.

³⁹⁹ The European Court of Auditors, 'Opinion No 7/2018 concerning Commission proposals for regulations relating to the common agricultural policy for the post-2020 period', pp. 3, 6, 11f.

⁴⁰⁰ Ibid., 3.

ecological objectives and partly leads to measures that actively contradict each other.⁴⁰¹ In practice, this means that minor adaptations are often still enough to receive large quantities of CAP payments without substantial ecological improvements which also highlights that actual results are only insufficiently regarded as conditions for payments.⁴⁰² In summary, based on the review of almost 500 studies on EU agriculture, Pe'er et al identify

*“challenges for internal coherence resulting from a) competing interests between conservation and production, b) insufficient complementation and even direct competition between instruments both between and within the two pillars, c) lack of transparency due to the absence of clear indicators and targets, often resulting in non-transparent tradeoffs, d) lack of coherence between the CAP’s objectives and on-the-ground implementation by MSs.”*⁴⁰³

One of the most striking examples for this multiple failure of the CAP is the perpetuation of direct payments.

5.2.7. Perpetuation of direct payments

Related to the criticized disregard for empirical evidence as basis for decision-making is the (long-standing) criticism of direct payments as main share of total CAP funds – a practice that has been heavily criticized for decades and that the new CAP program nevertheless perpetuates for at least five more years, with only minor and mostly voluntary adaptations (see figure XI and chapter III/4.2.1.). The CAP’s continued disregard of the compelling empirical evidence against direct payments has of course also been noticed by researchers and is observed almost ironically: *“The wealth of knowledge on DP does not seem to influence the evolution of this instrument.”*⁴⁰⁴

As stated in chapter XX/3., direct payments (DPs) were introduced in 1992 as replacement for the abolished direct price support. Initially, they were only planned as transitional measure in order to mitigate the effects of the discontinuation of the price support scheme on farmers.⁴⁰⁵

⁴⁰¹ Pe'er, Lakner, Müller, et al., 'Is the CAP Fit for purpose? An evidence-based fitness-check assessment', pp. 112, 155.; Pe'er, Birkenstock, Lakner, et al., 'The Common Agricultural Policy post-2020.'; Rehmer and Brändle, 'Vom Verwässern und Verbessern. Die Reform der EU-Agrarpolitik auf der Zielgeraden', p. 44.

⁴⁰² Bourget, 'The Common Agricultural Policy 2023-2027: change and continuity', p. 1; Matthews, 'The CAP in the 2021-2027 MFF Negotiations', p. 307; Pe'er, Bonn, Bruelheide, et al., 'Action needed for the EU Common Agricultural Policy to address sustainability challenges', p. 307f.; Pe'er, Birkenstock, Lakner, et al., 'The Common Agricultural Policy post-2020.', p. 16.

⁴⁰³ Pe'er, Lakner, Müller, et al., 'Is the CAP Fit for purpose? An evidence-based fitness-check assessment', p. 155.

⁴⁰⁴ Ibid., p. 193.

⁴⁰⁵ Bourget, 'The Common Agricultural Policy 2023-2027: change and continuity', p. 1.

However, 30 years later direct payments are still by far the most important scheme of the CAP and make up around three quarters of overall CAP funding, in total around 41 billion € in 2019.⁴⁰⁶ Almost as old as the direct payment scheme itself are thus demands for its abolishment which are based on empirical evidence that clearly shows its ineffectiveness on almost every level:

“DPs have been shown to be ineffective toward all dimensions of sustainability. They are unevenly distributed (1.8% of recipients receive 32% of payments), leak toward land rents and nonfarmers, distort land markets, and fail to maintain reasonable incomes or to halt rural employment decline. Greening of DPs seems largely ineffective in terms of biodiversity conservation and climate change mitigation. [...] The choice to maintain the CAP’s structure and expand DPs ignores compelling evidence, public opinion, and published feedbacks on the initial CAP proposal, thus showing strong reluctance to change.”⁴⁰⁷

The heavy reliance on direct payments is neither effective nor efficient as they do not establish plausible links to the CAP’s objectives for the most part and consume the vast majority of its funds.⁴⁰⁸ So far, attempts to reform the scheme have largely failed, both regarding the social dimension in making its distribution more equal as well as the ecological dimension in mitigating the environmental damage of EU agriculture. As mentioned in chapter III/4., the new CAP reform only introduces small and expectably ineffective adaptations via the voluntary capping scheme and the very vague redistributive income scheme which in addition once more are strongly dependent on the implementation through the member states. For real progress in both dimensions, a major demand is the total decoupling of direct payments from farmed area which should especially address the striking imbalance of DP allocation – the European Commission conceded that less than 20 percent of CAP beneficiaries receive over 80 percent of direct payments.⁴⁰⁹ This imbalance provides large EU farmers with

⁴⁰⁶ European Commission, ‘The common agricultural policy at a glance’.

⁴⁰⁷ Pe’er, Zinngrebe, Moreira, et al., ‘A greener path for the EU Common Agricultural Policy’, p. 450f.

⁴⁰⁸ Pe’er, Lakner, Müller, et al., ‘Is the CAP Fit for purpose? An evidence-based fitness-check assessment’, pp. 48, 137, 220.

⁴⁰⁹ European Commission, ‘Working with Parliament and Council to make the CAP reform fit for the European Green Deal’ (2020), p. 5; IPES, “‘Towards a Common Food Policy for the EU’ Framing paper for the EU Food and Farming Forum 2018’, p. 20.

an enormous advantage on the world market and thus particularly distorts competition with farmers from the Global South.⁴¹⁰

Furthermore, decoupling DPs from area would open up opportunities for the intensified and targeted support of ecological high-ambition farmers. Therefore, both researchers and official authorities demand that DPs should cease to primarily function as income support but focus on fostering ecological and social ambition.⁴¹¹ The German Environment Agency calls for the compliance with stricter environmental laws and a limit on the number of livestock per hectare as preconditions for the allocation of direct payments for a more effective reduction of nutrient pollution, GHG emissions and losses in biodiversity.⁴¹²

Such stricter requirements and more targeted support would specifically help smaller and ecologically ambitious farmers and counteract ongoing concentration tendencies within EU agriculture.

5.2.8. The socio-economic decline of EU farming – perpetuation of concentration tendencies

The continuation of the direct payment scheme also has a substantial social dimension and perpetuates the strong concentration tendencies and social imbalance in EU agriculture. Empirical values show that it further opens the gap between the minority of affluent agricultural factories – the 20 % recipients with 80 % of funds – and the majority of smaller farmers of which some can barely make a living of farming. It thus exacerbates the social crisis among a substantial share of farmers and the quantitative decline of farming.⁴¹³

Bernard Bourget emphasizes the EU-internal conflicts that led to the decision of basically keeping the disputed scheme as it is: *“The Council again refused to make the capping and degressivity of direct payments proposed by the Commission for large farms compulsory. The race to enlarge farms will therefore continue and make it more difficult for farmers to set up outside the family.”*⁴¹⁴

⁴¹⁰ Murphy, ‘Free Trade in Agriculture: A Bad Idea Whose Time Is Done’, p. 108f.; Weis, ‘The global food economy: the battle for the future of farming’, p. 145.

⁴¹¹ Pe’er, Zinngrebe, Moreira, et al., ‘A greener path for the EU Common Agricultural Policy’, pp. 449–451.

⁴¹² Umweltbundesamt, ‘Umweltschutz in der Landwirtschaft’, pp. 28, 84f.

⁴¹³ Bourget, ‘The Common Agricultural Policy 2023-2027: change and continuity’, p. 2f.; Pe’er, Zinngrebe, Moreira, et al., ‘A greener path for the EU Common Agricultural Policy’, pp. 449–451; Rac, Erjavec, and Erjavec, ‘Does the proposed CAP reform allow for a paradigm shift towards a greener policy?’, p. 6f.

⁴¹⁴ Ibid., p. 3.

The mentioned race means ongoing concentration processes which reduce the number of farms, the number of farmers and the number of people that are employed in and can make a living of farming in the EU.

Connected with ongoing trends of technologization and automatization, farming has largely lost its former role as one of the major job sectors as a consequence. Between 2000 and 2012, the number of people that were employed in agriculture went down by a third in the whole of the EU, in some of the new states even by almost two thirds.⁴¹⁵

Similarly, Chancellor points out that “[b]etween 2005 and 2016, the number of farm holdings under 50 hectares (ha) fell by 29.4%. That represents just over 4 million holdings”⁴¹⁶, the majority of farms being lost in the new member states.⁴¹⁷

Regarding the size of farms, a strong imbalance can be identified: “very small farms (<5 ha) represent 66% of all farms and occupy only 6.2% of the total agricultural land, while large farms (>50ha) represent 7% of all farms and cover 68% of the total agricultural land.”⁴¹⁸

According to European Court of Auditors, this imbalance is further intensifying as it states a 22 percent decrease in farms from 2007 to 2013 and a simultaneous increase in size from 12.6 to 16.1 ha.⁴¹⁹ This is specifically relevant as EU agriculture is traditionally structured in small units compared to other highly competitive regions in North and South America, as Weingärtner points out.⁴²⁰ In addition, farming is still largely a family activity (three quarters of agricultural labour is done by family farms), this general decline of farming and the loss of the EU’s particular rural structure have extensive social implications for families, societies and especially for EU countryside.⁴²¹

These concentration tendencies are further intensified by CAP payments which are still partly coupled to farmed area and mainly favour larger farms as a study for the German Centre for Integrative Biodiversity Research showed: “Similarly, while the support per hectare decreases with farm size, the share of DP in farm income increases with farm size and stabilizes for farms

⁴¹⁵ Pe’er, Lakner, Müller, et al., ‘Is the CAP Fit for purpose? An evidence-based fitness-check assessment’, p. 75. See “Figure 4.2.9: Percentage change in number of persons employed in agriculture in EU MS during the period 2000-2012.”, *Ibid.*

⁴¹⁶ Chancellor, ‘More farmers, better food. Why and how to put small-scale sustainable producers at the core of the new CAP’, p. 9.

⁴¹⁷ Pe’er, Lakner, Müller, et al., ‘Is the CAP Fit for purpose? An evidence-based fitness-check assessment’, p. 68.

⁴¹⁸ *Ibid.* See “Figure 4.2.1: Farm sizes in the agricultural sector across three regions in the EU28, for the period 2005-2013.”, *Ibid.*, 69.

⁴¹⁹ The European Court of Auditors, ‘Opinion No 7/2018 concerning Commission proposals for regulations relating to the common agricultural policy for the post-2020 period’, p. 10.

⁴²⁰ Weingärtner and Trentmann, ‘Handbuch Welternährung’, p. 98.

⁴²¹ Pe’er, Lakner, Müller, et al., ‘Is the CAP Fit for purpose? An evidence-based fitness-check assessment’, p. 74.

above 100 ha. This means that smallest farm benefit less – if eligible at all to obtain CAP payments”⁴²² This highlights the role of agricultural policy as arena for social conflicts about the allocation of resources in the sense of political ecology.⁴²³ Researchers underline that the disregard of small farms is strongly counterproductive for ecological ambitions as small scale farming on average provides better results regarding biodiversity – in terms of both natural and seed diversity –, resilience, environmental impacts and resource conserving.⁴²⁴

Researchers thus criticize the CAP for its favouritism towards large agricultural entrepreneurs. However, this criticism is not restricted to farmers as the current EU agriculture also strongly favours agro-chemical transnational corporations (TNCs) which are pushing for a further intensification of these concentration processes and have tremendous market power. Weinzierl et al point out that 99 percent of worldwide poultry trade is controlled by only four corporations. Similarly, the top 10 pesticide producers control 95 percent of the world market.⁴²⁵ Within the EU, it is particular seed companies that strongly dominate the market, reduce seed diversity and thus agricultural resilience and adaptability to global change.⁴²⁶ This enormous market power is also putting pressure on CAP negotiations and creates dependencies within the food system.⁴²⁷

According to Tony Weis, “[a]gro-input and agro-food TNCs are at the heart of a series of transformative pressures decreasing the viability of small-farm livelihoods”.⁴²⁸ In order to protect its small-scaled structure and related resilience, researchers thus highlight that the EU agricultural policy would have to actively orientate its schemes towards small farmers – but in general does the very opposite.

⁴²² *Ibid.*, p. 137. See also Bourget, ‘The Common Agricultural Policy 2023-2027: change and continuity’, p. 3.; Plank, Penker, and Brunner, ‘Ernährung klimasozial gestalten’, p. 146.

⁴²³ Köhler, ‘Kommodifizierung’, p. 79; Weis, ‘The global food economy: the battle for the future of farming’, p. 125f.

⁴²⁴ Altieri, ‘Agroecology, Small Farms, and Food Sovereignty’, pp. 256–262; IPBES, ‘The global assessment report on biodiversity and ecosystem services of the IPBES. Summary for policymakers’, p. 29; Weingärtner and Trentmann, ‘Handbuch Welternährung’, pp. 53–55, 98–103; Weinzierl, Forster, and Fehlinger, ‘Hunger nach Profiten? Machtverhältnisse im Agrar- und Ernährungssystem’, p. 133f.; Weis, ‘The global food economy: the battle for the future of farming’, p. 16.

⁴²⁵ Weinzierl, Forster, and Fehlinger, ‘Hunger nach Profiten? Machtverhältnisse im Agrar- und Ernährungssystem’, pp. 139–141, 143.

⁴²⁶ IPES, “‘Towards a Common Food Policy for the EU” Framing paper for the EU Food and Farming Forum 2018’, p. 40; Weingärtner and Trentmann, ‘Handbuch Welternährung’, p. 103f.; Weis, ‘The global food economy: the battle for the future of farming’, p. 16.

⁴²⁷ IPES, “‘Towards a Common Food Policy for the EU” Framing paper for the EU Food and Farming Forum 2018’, p. 40; Lorenzen, ‘Wer keine Visionen hat, sollte zum Arzt gehen. Die Reform der europäischen Agrarpolitik – Blick zurück nach vorn’, p. 25; Weinzierl, Forster, and Fehlinger, ‘Hunger nach Profiten? Machtverhältnisse im Agrar- und Ernährungssystem’, pp. 139–141.

⁴²⁸ Weis, ‘The global food economy: the battle for the future of farming’, p. 44f.

IV. Conclusion – The ecological gap in the CAP

In the Anthropocene, “[h]umanity is a dominant global influence on life on earth”⁴²⁹ as the IPES states. Human systems of mobility, extraction, production and consumption exert massive pressure on global ecosystems and the global climate. As this thesis has shown, systems of food production in general and the EU agricultural system in particular are responsible for a multitude of ecological impacts and damage, both in the EU itself and in other parts of the planet which further endanger the resilience of EU and global food systems. On various levels, they contribute to the multiple crisis humanity is facing. As a consequence of this and given their extraordinary financial endowment via the CAP, it should not be up for debate that EU systems of producing food have to undergo a thorough transformation, but only in which way this transformation can be achieved most effectively to achieve a sustainable and productive system that can feed the world’s population within the planet’s boundaries.

Based on the content analyses of two essential documents of EU agriculture and extensive literature research, this thesis showed that the current EU agricultural system is nowhere near this objective. It was shown that major deficiencies of the current EU food system are largely ignored in the F2F Strategy and completely omitted in the new CAP. These deficiencies include the large-scale externalisation of ecological and socioeconomic damage caused by EU agriculture, in particular the neglect of the enormous socio-ecological impacts of EU livestock farming and related unhealthy, meat-based diets. Based on the political ecological concept of the Imperial Mode of Living, it was shown how the functioning of the resource-intensive EU patterns of food production and consumption relies heavily on this externalisation of their impacts. It was demonstrated how these patterns can only exist at the expense of the global biophysical foundations of human existence and thus of billions of people in the EU and especially outside that are impacted both by the multiple ecological crisis and the social impacts of the dominant food regime.

Based on category building for both documents, the qualitative content analysis revealed that these global impacts of the current EU agriculture are almost entirely ignored, both in the F2F Strategy and in the new CAP program. While the former partly acknowledges the problematic

⁴²⁹ IPES, “‘Towards a Common Food Policy for the EU’ Framing paper for the EU Food and Farming Forum 2018’, p. 24.

reality (in two specific subcategories), it is no exaggeration to say that the horizon of the CAP program ends at the EU's borders for the most part.

For specific ecological impacts in the EU, the F2F Strategy does at least admit problematic developments and sets partly indeed ambitious objectives to tackle them (specifically regarding the use of pesticides, fertilizers and antimicrobials). However, the juxtaposition with the new CAP program showed that these objectives are barely translated into actual policies. As chapter III/4. showed, the latest reform largely maintains the general structure and orientation of the CAP outlined in chapter II/3. Where it does not – as with the strengthened position of member states in the CAP – the changes fail to give reason for higher expectations regarding ecological transition as the adaptations are barely based on empirical values and harshly criticized by the majority of researchers.

In the bigger picture, the new CAP thus predominantly perpetuates the vast deficiencies of the EU's agricultural policy, above all the lack of climate ambition and the disregard for further destructive ecological impacts of the current food regime as chapters III/5.2.1. to 5.2.4 have shown.

As was emphasized throughout this thesis via the categorisation of the F2F Strategy and the new CAP program, various conflicts of interests pervade EU politics in general and specifically its agricultural policy. Political ecological approaches highlighted that these can be regarded as conflicts about nature and their influence on the often-contradictory nature of EU politics can barely be overstated. The QCA of the F2F Strategy showed that especially economic and technological objectives are not primarily responses to identified problems but rather manifestations of underlying beliefs and approaches within the EU – in particular its orientation towards global competitiveness, economic growth and profits. The latter contributes to the identified rigidity within the EU's agricultural policy and is especially manifested in the EU's trade policy which is a fundamental tool of the stated Imperial Mode of Living. Furthermore, the QCA and literature research revealed a strong technological optimism that pervades problem solving within EU agricultural policy and, as a result, the related approaches in the F2F Strategy and the CAP reform. It was shown that in fact, the current CAP does not even reflect its own nine key objectives besides the primarily economic and technological ones. As the identified inconsistencies and deficiencies of the current CAP underlined as well, this shows that economic interests still largely dominate agricultural policies and generally prevail over ecological or social considerations in case of conflicting

interests. Moreover, neither the F2F Strategy nor the CAP reform raise any doubts regarding the compatibility of the mentioned economic dogmata with the global necessity for sustainable economic and agricultural systems which has to be regarded as one of the fundamental flaws of the EU's current agricultural policy.

In addition to the discussed dangerous lack of ecological ambition and especially transition, major non-ecological yet ecologically relevant deficiencies of the CAP also persist, such as the urgent lack of proper monitoring and a disregard for empirical evidence in the decision-making processes – as can be seen in the continuation of the evidently deficient direct payment scheme. This scheme does not only contribute to insufficient climate action in agricultural policy but also to an intensification of the socio-economic decline of farming in the EU as chapter III/5.2.8 highlighted.

In general, this thesis showed that the F2F Strategy for the most part and the new CAP in its entirety fail to acknowledge the urgency and necessity for a fundamental reorientation of EU agriculture towards an agricultural system within the planetary boundaries. They primarily aim at cosmetic adaptations of which the more ambitious ones in the F2F Strategy are mostly discarded in the CAP reform. In doing so, the current CAP undermines the resilience of food production in the EU, as chapter III/5.2.4. elaborated. Besides the large-scale effects on food security in non-European countries, the current food regime and the EU's inaction to substantially change it thusly might even endanger food security in the EU in the long term. In a report on "The Future of Food and Farming", the Government Office for Science hence expresses *"a stark warning for both current and future decision-makers on the consequences of inaction – food production and the food system must assume a much higher priority in political agendas across the world. To address the unprecedented challenges that lie ahead the food system needs to change more radically in the coming decades than ever before, including during the Industrial and Green Revolutions."*⁴³⁰

Based on results of the QCA and the literature research, it was shown that the F2F Strategy as part of the Green Deal and the highly anticipated ecological ambition expressed in it remain a paper tiger for the most part, the F2F Strategy's vision of *"reconcil[ing] our food system with the needs of the planet"*⁴³¹ as far away as ever. Considering the hopes that were and still are

⁴³⁰ The Government Office for Science, 'Foresight. The Future of Food and Farming. Final Project Report.', p. 176.

⁴³¹ European Commission, 'A Farm to Fork Strategy for a fair, healthy and environmentally-friendly food system', p. 18.

placed in the Green Deal, the initial ambition with which it was presented – “*Europe’s man on the moon moment*” – and the financial and ecological relevance of the CAP, this failure to deliver on a greener CAP has to be considered a major let-down for proponents of a European Union which is in line with the Paris Agreement. It emphasizes that ambition and action should not be confused and in fact often may be worlds apart, even more so in a complex entity of conflicting interests such as the EU.

Taking all the discussed deficiencies into consideration, Tony Weis develops and demands a different holistic approach to agriculture and the funding systems supporting it:

“A very different conception of productivity would emerge, including a much greater range of measurable costs and ‘outputs’, if agricultural systems were designed with goals such as minimizing GHG emissions, soil erosion, toxicity, unhealthy food, violence and humanity’s overall footprint in the landscape and atmosphere, and maximizing soil conservation and the land space for forests, wetlands, carbon sequestration, soil formation, aquifer recharge, wildlife habitat and human recreation.

The need to radically restructure agriculture is at the very core [of] any hope of making the ‘human relation to the earth’ more ecologically sustainable.”⁴³²

As this thesis hopefully has shown, there would be an abundance of knowledge and ideas for a new EU agricultural policy that takes the ecological, political and socioeconomic circumstances into consideration and acts accordingly. However, it will in any case need the resolute will to close the gap between ambition and reality.

⁴³² Weis, ‘The Accelerating Biophysical Contradictions of Industrial Capitalist Agriculture’, p. 334.

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3. List of Figures

Figure I – Global greenhouse gas emissions from food production	15
Figure II – IPCC Special Report on Climate Change and Land - Global land use in circa 2015	17
Figure III – Declines in species survival since 1980 (Red List Index)	19
Figure IV – GHG emissions - sectoral shares in EU-27 in 2019	23
Figure V – EU-27 greenhouse gas net emissions from agriculture since 1990	24
Figure VI – Synthesis of the key components of the CAP's reforms	30
Figure VII – CAP budgets and objectives. Current division of the Common Agricultural Policy (CAP) budget linked to the new CAP objectives of 2018	32
Figure VIII – Allocation of CAP funds in 2019	34
Figure IX – The five phases of qualitative content analysis	41
Figure X – Identified problems and objectives in the From Farm to Fork Strategy	46
Figure XI – Juxtaposition of objectives of the F2F Strategy and measures of the new CAP program	69f.
Figure XII – Environmental pressures through GHG emissions of various food groups	77
Figure XIII – Breakdown of agricultural land	78

VI. Appendix

1. Abstract (German)

Angesichts einer sich stetig verschlimmernden globalen ökologischen Krise präsentierte die Europäische Union im Herbst 2019 den *European Green Deal*, der die EU bis 2050 klimaneutral machen und die Transformation ihrer Wirtschafts- und Gesellschaftssysteme sowie auch ihrer Lebensmittelproduktion einleiten soll. In Bezug auf letztere kommt vor allem der *EU From Farm to Fork Strategy (F2F Strategy)* als einem der acht Bereiche des Green Deals eine wesentliche Rolle zu. Die F2F Strategy soll einen Bauplan für die ökologische Transformation des EU-Agrarsubventionssystems, der *Common Agricultural Policy (CAP)*, bereitstellen und diese einleiten. Aufbauend auf Konzepten der politischen Ökologie und der Kategorie-basierten inhaltlich-strukturierenden Inhaltsanalyse nach Kuckartz legt die vorliegende Masterarbeit dar, inwiefern die ökologischen Ambitionen des Green Deals und der From Farm to Fork Strategy im veröffentlichten neuen CAP-Programm von Herbst 2021 tatsächlich Niederschlag finden. Durch eine vergleichende Gegenüberstellung dieser beiden Dokumente werden darüber hinaus wesentliche Schwachpunkte des neuen CAP-Programms und der EU-Agrarpolitik allgemein aufgezeigt; insbesondere die umfassende Externalisierung der weitreichenden Umweltschäden der EU-Landwirtschaft, ihre unzureichende Klimabilanz und ihr Beitrag zum anhaltenden Bauernsterben in der EU. Die Masterarbeit zeigt so auf, dass die ökologischen Ambitionen des Green Deals und der F2F Strategy nur geringfügig in eine grünere CAP münden und die aktuelle EU-Agrarpolitik weitestgehend nicht mit den Zielen und internationalen Vereinbarungen der EU-Klimapolitik vereinbar ist.

2. Abstract (English)

In the face of an ever-exacerbating global ecological crisis, the *European Green Deal* shall steer the EU on a path towards achieving the EU's climate and emission reduction goals and induce the green transformation of its economies and societies as well as its food systems. Regarding the latter, the *EU From Farm to Fork Strategy (F2F Strategy)* as part of the Green Deal should facilitate the ecological transition of the EU's agricultural funding program, the *Common Agricultural Policy (CAP)*. Based on political ecological approaches and category-based content-structuring content analysis (based on Kuckartz), the thesis at hand elaborates in how

far the ecological ambition expressed in the Green Deal and the F2F Strategy are reflected in the 2021 reform of the CAP. Via juxtaposing these two documents, major general inconsistencies and deficiencies of the current agricultural policy of the EU are identified, in particular the large-scale externalisation of the ecological impacts of EU agriculture, the continued lack of climate ambition within it and the perpetuation of long-standing shortcomings in the CAP such as insufficient monitoring and the socio-economic decline of farming in Europe. In doing so, the thesis points out that in the new CAP program, the expressed ecological ambition in the Green Deal and the F2F Strategy is only marginally translated into a greener agricultural policy and that the current CAP in general only insufficiently delivers on the EU's ecological promises and declarations.