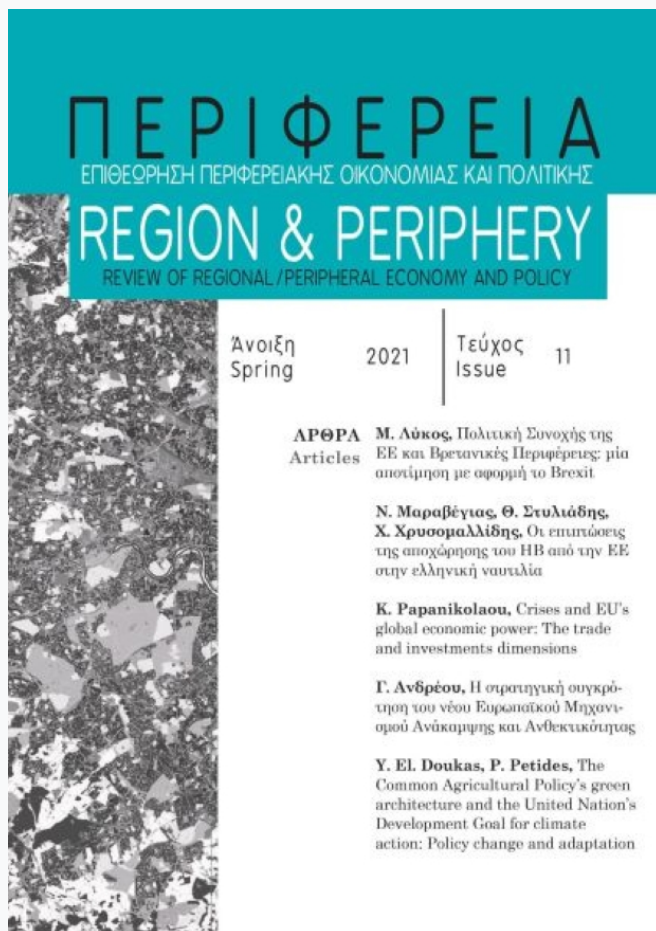


## Περιφέρεια

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**Η Πράσινη Αρχιτεκτονική της ΚΑΠ και ο Αναπτυξιακός στόχος του ΟΗΕ για την κλιματική δράση: Αλλαγή πολιτικής και προσαρμογή**

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## The Common Agricultural Policy's green architecture and the United Nation's Development Goal for climate action: Policy change and adaptation

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### Abstract

The paper examines how the environment and climate change issues were gradually upgraded within the policy-making framework of the Common Agricultural Policy and contributed to the formulation of the green architecture for European agriculture. The analysis is based on theories of policy change -mainly neo-institutionalism and historical institutionalism- within the multilevel governance framework. Also, the United Nation's development goal for climate action (SDG-13) is presented to show the change in the policy-making at the international level, to adapt to the climate change challenge. From the analysis, it is recognized that policy change seems to be redefining the historical path of the previous period within the EU and the global context.

**KEY WORDS:** CAP, UN, climate change, policy change, green architecture

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## Η Πράσινη Αρχιτεκτονική της ΚΑΠ και ο Αναπτυξιακός στόχος του ΟΗΕ για την κλιματική δράση: Αλλαγή πολιτικής και προσαρμογή

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### Περίληψη

Η εργασία επιχειρεί να εξετάσει πώς τα ζητήματα του περιβάλλοντος και της κλιματικής αλλαγής αναβαθμίστηκαν σταδιακά και ενσωματώθηκαν στη λειτουργία της Κοινής Αγροτικής Πολιτικής, συμβάλλοντας στη διαμόρφωση της πράσινης αρχιτεκτονικής για την ευρωπαϊκή γεωργία. Η ανάλυση βασίζεται στις θεωρίες της αλλαγής πολιτικής - κυρίως της νεοθεσμικής προσέγγισης και του ιστορικού θεσμισμού- μέσα στο πλαίσιο της πολυεπίπεδης διακυβέρνησης. Επίσης, παρουσιάζεται ο αναπτυξιακός στόχος του ΟΗΕ για την κλιματική δράση (SDG-13), ώστε να δειχθεί η αλλαγή στη χάραξη πολιτικής, στο διεθνές επίπεδο, και η προσαρμογή της απέναντι στην πρόκληση της κλιματικής αλλαγής. Από την ανάλυση προκύπτει, ότι η αλλαγή πολιτικής για το κλίμα και το περιβάλλον, φαίνεται να επαναπροσδιορίζει το ιστορικό μονοπάτι της προηγούμενης περιόδου, εντός της ΕΕ και διεθνώς.

**ΛΕΞΕΙΣ-ΚΛΕΙΔΙΑ:** ΚΑΠ, ΟΗΕ, κλιματική αλλαγή, αλλαγή πολιτικής, πράσινη αρχιτεκτονική

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## 1. Introduction

The Common Agricultural Policy (CAP) results in a wide range of costs and benefits among the Member States, leading to a contrast of priorities and expectations. It represents a significant distinction in distributing benefits among the various actors who participate formally or informally in its formulation since it is a common and essentially binding policy. National priorities, bureaucrats, sectoral interests, and other agriculture-related pressure groups are among them.

Additionally, the CAP combines social, economic, and environmental approaches to achieve a sustainable agriculture system in the European Union (EU). Hence, good environmental conditions support agricultural activities, allowing farmers to exploit natural resources, produce agro-food, and secure their income. As a result, the agricultural income supports farm families and rural communities, while agricultural production supports society (EC, 2021). Furthermore, agriculture is especially vulnerable to climate change, as weather conditions directly influence farming activities. On the other hand, agriculture can help mitigate climate change by reducing greenhouse gas emissions and sequestering carbon while preserving food production.

Also, the Paris Agreement expands on the UN Framework Convention on Climate Change, uniting all nations in the fight to reduce greenhouse gas emissions efficiently and enhance countries' capacity to establish resilience and respond to climate change impacts, including by ensuring adequate assistance for developing countries. With the early entry into force of the Paris Agreement and the effective introduction of the Katowice Climate Package, the world has reached a new period in its collective efforts to combat climate change, concentrating on urgently growing commitment and implementation at all levels of government, industry, and civil society.

The paper focuses on how environmental and climate change concerns were progressively elevated within the EU's CAP policy-making process, contributing to creating a green architecture for European agriculture. Within the EU's multilevel governance system, the research is focused on policy change theories, primarily neo-institutionalism and historical institutionalism. Also, the UN development goal for climate action (SDG-13) is presented to demonstrate the shift in policy-making at the international level to adapt to the climate change challenge. It is noted that the EU has signed up to new international commitments, like the UN-Paris Agreement, concerning actions to deal with climate change and sustainable development issues.

## 2. Theorizing Policy change

For several years, academic researchers have focused on the study of organizations and their interactions. Social theorists started to systematize this body of literature in the late nineteenth and early twentieth centuries. They concentrated on the organizational structure (i.e., bureaucracy) within society and the institutionalization caused by the “iron cage” that organizational bureaucracies build (Hall and Taylor, 1996). Until the 1950s, the study of political institutions dominated political science in the United Kingdom and the United States. This approach, often referred to as old institutionalism, focused on a comparative examination of the formal institutions of government and the state (Andreou, 2018). It was accompanied by a behavioral movement that introduced new theories on understanding policy-making and policy change, like positivism, rational choice theory, and behaviorism. The limited emphasis on institutions was abandoned in favor of analyzing people rather than institutions surrounding them. Institutionalism underwent a significant resurgence in 1977, thanks to an influential paper written by John W. Meyer and Brian Rowan. The revised formulation of institutionalism presented in this paper resulted in a dramatic change in how institutional research was carried out (Andreou, 2018). The following decade saw a flood of literature on the subject from a wide range of disciplines, including those outside the social sciences.

March and Olsen introduced the term “neo-institutionalism” in 1984. Kathleen Thelen and Sven Steinmo distinguished new institutionalism from old institutionalism, which was overwhelmingly based on detailed institutional narratives with little emphasis on comparative studies (Thelen and Steinmo, 1992). In their analysis, they pointed out that institutions exert an autonomous influence on political behavior and thus affect the outcomes of political processes. Neo-institutionalism primarily expressed a spirit of reaction to the then-dominant theoretical currents of behaviorism, especially the proposition that the basic premise of political analysis is observable behavior. Behavior cannot be understood without reference to the institutions in which it manifests itself. In other words, behavioral perceptions underestimated the actual extent to which institutions influence politics because they viewed political institutions as neutral fields in which political behavior is exercised rather than as factors that shape political behavior itself (Andreou, 2018). Historical institutionalists have concentrated on explaining institutional continuity, with one crucial point being that all political activities occur within a historical framework. History is viewed as something that influences future decisions, actions, and happenings rather than as a series of discrete events (Hall and Taylor, 1996). In this article,

emphasis is going to be placed on the concepts of “new institutionalism” and “historical institutionalism” and their interconnection with policy change defined as the incremental shifts in existing structures or new and innovative policies (Bennett and Howlett, 1992).

Despite its insistence on institutional consistency, historical institutionalism was soon confronted with the issue of institutional change. When examining the issue of policy change (or lack thereof), the literature on path dependency may be helpful (Pierson, 2000). Path dependency means that once established, the institutions have started down historically developed specific paths where the costs of turning around are exceedingly high (Levi, 1997). Institutions «lock in» and then grow within the paths of their dependency from the moment they are formed (Andreou, 2018). Therefore, the evolution of institutions and policies is guided by specific “trajectories,” including intentional and unintended (and/or unpredictable) consequences and inefficiencies. As a result of this lock, changing policies is usually tricky because institutions are sticky, and actors defend the current model because they represent the needs of their founders during their creation (even if it is suboptimal) (Greener, 2002). According to Pierson (2000), public policies and formal structures are typically structured to be challenging to alter because previous decisions foster policy continuity. The impact of the institutional environment develops as, over time, rational actors integrate into it, with the result that their strategic choices become more and more limited and more clearly delimited by systemic factors. Thus, institutional change may occur within a particular context, the scope, and characteristics affected by previous political and institutional decisions.

The analyses of historical institutionalism also addressed institutional change through the model of “punctuated equilibrium” (P.E.). For the most prolonged period of their existence, the institutions are in a state of equilibrium, operating according to their decisions at the time of their creation or according to the decisions taken at the last punctuation point. The PE highlights the importance of the institutional climate in influencing policy dynamics and future reform outcomes. Since institutions are designed to be strictly traditional, substantial change can only be derived exogenously, opening up opportunities for those (individuals and interest groups) pursuing policy innovation. Critical turning points intersect long periods of institutional stability and dependence on the historical trajectory. *Critical junctures* are defined as a short period when uncertainty about the future of an institution creates the conditions for the institution to be put by policymakers on a new course of development, where the choices of radical institutional change are visible and possible (Hall and Taylor, 1996). A critical juncture does not have to occur at a point in time where the im-

plications of the juncture can be discerned later. Instead, as Steinmo argues, the critical juncture occurs much earlier in the process, long before its effects are visible (Thelen and Steinmo, 1995). The term “short periods” means that the critical turning points last more minor than the period during which the institutions are trapped within their paths of dependence. During the turning points, the actors can make choices about the evolution of an institution and policies that should be introduced to cope with the new challenges.

As part of their systematic effort to tackle institutional change, Streeck and Thelen (2005) made several additions to the conceptual arsenal of the historic institution. Theories of institutional change can be theories of policy change, when ‘policies stipulate rules that assign normatively backed rights and responsibilities to actors and provide for their public, that is third party enforcement’ (Streeck and Thelen, 2005). Policies are institutions in the sense that ‘they constitute rules for actors other than for policymakers themselves, rules that can and need to be implemented and that are legitimate in that they will if necessary be enforced by agents acting on behalf of society (Streeck and Thelen, 2005). By distinguishing between the process of institutional change, which can be either incremental or abrupt, and the result of institutional change, which can bring about either continuity or discontinuity, they identified five different types of incremental change, either exogenous or endogenous. Firstly, displacement is the simplest version of institutional change, which refers to the gradual change in the content of the regulatory structures that make up the institution. Institutional arrangements are susceptible to change when existing structures are challenged or moved to the side in favor of new institutions and associated behavioral logics. Such transformations are often brought on by rediscovery or activation and the development of alternative institutional types (Streeck and Thelen, 2005). Layering constitutes the second category, entails active support of amendments, modifications, or revisions to an existing collection of institutions. Change occurs via differential paths: the implementation of new elements sets in motion dynamics that, over time, actively crowd out or usurp the old structure, whose domain shrinks in comparison to before (Streeck and Thelen, 2005). In this case, new rules and/or organizations are introduced alongside or on top of pre-existing ones. This is a common practice in states with high partisanship, where the government chooses to establish new systems and/or laws to “regulate” its party clientele without explicitly impacting state structures (Andreou, 2018).

If institutions do not adapt to changing political and economic environments, they can erode or atrophy in drift. Gaps in the rules may trigger it. Political cultivation will help to bring about change (Streeck and Thelen, 2005). Because this is a short adaptation of the institution to the changes of the external

environment, this neglect can be either intentional or not. In the process of conversion, institutions are redirected to new objectives, roles, or purposes. This could happen due to new environmental problems or shifts in power dynamics, or it could happen as a result of political competition over what roles and objectives an established institution could serve. Unforeseen consequences are expected, and change necessitates compromise as actors exploit ambiguities. For this form of transition, time is essential (Streeck and Thelen, 2005). Finally, exhaustion is a mechanism that contributes to failure, which distinguishes it from the other four shift cycles (Streeck and Thelen, 2005). The breakdown, on the other hand, is incremental rather than sudden. Exhaustion may occur when an institution's daily operations weaken its external preconditions and resources dwindle (Streeck and Thelen, 2005). Unlike in the case of drift, where the organization maintains its formal integrity while being increasingly dysfunctional, in the case of exhaustion, the activities that occur within the institution weaken its functioning.

In the context of public policy research, the contribution of ideas and learning to systemic change has been extensively studied. This viewpoint holds that much of political discourse is a phase of social learning manifested by public policy. More precisely, public policy (in time  $t_1$ ) emerges as a result of a learning process, with the previous (time  $t_0$ ) public policy exerting the most significant cognitive influence. As a result, public policy responds to the consequences of previous policies rather than explicitly to social and economic circumstances. Hall describes social learning as a process "The deliberate effort to change the goals or strategies of public policy in order to correspond with old knowledge and new facts. The fact that policy shifts as a result of such a mechanism indicates learning" (Hall, 1993). The specialists in the particular area of public policy who either work for the state or advise it from privileged positions at the interface of the bureaucracy and the intellectual pockets of society are the key players in this learning process. Social learning, as a change in public policy, is divided into three stages that correspond to an equal number of variables of its content: the overriding goals that guide public policy in a particular field, the public policy techniques or tools used to achieve the goals they, and the exact prices of these tools. Historical neo-institutionalists, who recognize that institutions reflect, structure, and reproduce unequal power relations, believe that both the creation and the change of an institution and/or policy are often the object and/or result of conflict between groups with different powers of influence (Andreou, 2018).

### 3. The UN's Climate Action goal for Sustainable Development

Climate change affects every region of the globe. The polar ice caps are melting, and sea levels are increasing. Extreme weather events and flooding are becoming more common in some regions, while extreme heat waves and droughts are becoming more common in others. According to the official United Nation (UN) metrics, between 1880 and 2012, the global average temperature increased by 0.85°C. To put this in perspective, every degree of temperature rise reduces grain yields by around 5%. Between 1981 and 2002, corn, wheat, and other significant crops experienced significant yield losses of up to 40 megatons per year due to a warmer environment. The seas have warmed, there is less snow and ice on the planet, and the sea level has risen. Between 1901 and 2010, the global average sea level rose by 19 cm as oceans expanded due to warming and ice melted. Since 1979, the Arctic's sea ice extent has decreased in each decade, with 1.07 million km<sup>2</sup> of ice loss per decade. Since 1990, global carbon dioxide (CO<sub>2</sub>) emissions have risen by nearly 50%. Emissions increased faster between 2000 and 2010 than in the previous three decades. It is still possible to restrict the rise in global mean temperature to two degrees Celsius above pre-industrial levels by implementing a broad range of technical steps and behavioral improvements. Significant structural and technical changes will increase the likelihood that global warming will not reach this level (U.N., 2021).

For that reason, the 2030 Agenda for Sustainable Development, which all U.N. Member States including the EU28 adopted in 2015, offers a shared blueprint for stability and prosperity for people and the world now and in the future. The 17 Sustainable Development Goals (SDGs) are centered at their heart, and they represent an immediate call to action for all countries in a global partnership. All countries accepted that eradicating poverty and other deprivations must be followed by policies that secure a sustainable agro-food chain, improve health and education, reduce inequalities, and promote economic growth while fighting climate change and protecting the oceans and forests. Each aim usually has 8 to 12 targets, and each target has between 1 and 4 metrics used to track progress against the goals. The goals are either “outcome” targets (to be achieved circumstances) or “means of implementation” targets (U.N., 2021). A variety of resources for tracking and visualizing progress against targets are available to help with monitoring. SDG-Tracker, an online publication released in June 2018, displays available data across all measures. Limiting global warming to 1.5 degrees Celsius will necessitate rapid, far-reaching, and unparalleled improvements in all facets of society, according to the Intergovernmental Panel on Climate Change (IPCC) in their 2018 Climate Report.



In paragraph 14 of the Agenda, climate change is identified as “one of the greatest challenges of our time,” with concerns that “its negative impacts threaten the capacity of all countries to achieve sustainable development.” Regarding Sustainable Development Goal 13 for Climate Change, the targets cover a wide range of issues surrounding climate action. There are five targets in total. The first three targets are “output targets”: Strengthen resilience and adaptive capacity to climate-related disasters; integrate climate change measures into policies and planning; build knowledge and capacity to meet climate change. The remaining two targets are “means of achieving” targets: To implement the U.N. Framework Convention on Climate Change; and to promote mechanisms to raise capacity for planning and management. The United Nations Framework Convention on Climate Change (UNFCCC) is the primary international, intergovernmental forum for negotiating the global response to climate change. Under this framework, Sustainable Development Goal 13 aims to increase all countries’ resilience and adaptive ability to climate-related hazards and natural disasters by identifying risks and opportunities caused by climate change.

In addition, climate change measures should be incorporated into national policies and plans so as to improve climate change mitigation, adaptation, impact reduction, and early warning education, understanding. Although greenhouse gas emissions are projected to drop about 6 percent in 2021 due to travel bans and economic slowdowns resulting from the COVID-19 pandemic, this improvement is only temporary (U.N., 2021). Once the global economy begins to recover from the pandemic, emissions are expected to return to higher levels. Countries should carry out the commitment made by developed-country parties to the United Nations Framework Convention on Climate Change to mobilize 100 billion dollars annually from all sources by 2020 to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation, and fully operationalize the Green Climate Fund (U.N., 2021). Countries promote mechanisms for building capacity in the least developed countries and small island developing states for successful climate change planning and management, emphasizing women, youth, and local and disadvantaged communities.

The COVID-19 pandemic in 2020 has triggered global disturbances in development and human activity, with some positive environmental effects in terms of GHG emissions. China, in particular, has seen a dramatic drop in coal-fired power station usage, owing to a 5% drop in national and global energy demand. Many areas of the world have seen a decrease in air pollution and NO<sub>2</sub> emissions into the atmosphere. The rates of COVID-19 outbreak are expected to have an impact on air quality along with climate variability, including latitude,

temperature, and moisture; this is only to support the importance of close surveillance, effective collaborative international communications, and early warning systems, and compatibility with SDGs for preparation, adaptation, and resilience. As a result of the COVID-19 pandemic, there has been a significant decrease in human activity and an economic crisis. As a result, greenhouse gas emissions are expected to fall by 6% by 2020. In this context, the estimated 6% reduction in emissions for 2020 is insufficient to meet the goal. When the limits imposed to combat the pandemic are lifted, emissions are expected to increase. As a result of the COVID-19 pandemic, the year 2020 has seen a decrease in the movement of climate crises, with a drop of 6% in CO<sub>2</sub> emissions reported this year and possibly up to 8%, the most significant year-on-year reduction on record. As a result, UNEP assists both investors and policymakers in funding and fiscal stimulus packages and prioritizing green and decent employment.

The Paris Agreement expands on the United Nations Framework Convention on Climate Change<sup>1</sup>, uniting all nations in the fight to reduce greenhouse gas emissions quickly and improve countries' capacity to create resilience and respond to climate change impacts, including by ensuring adequate assistance for developing countries. With the early entry into force of the Paris Agreement and the effective introduction of the Katowice Climate Package, the world has reached a new period in its collective efforts to combat climate change, concentrating us on urgently growing commitment and implementation at all levels of government, industry, and civil society (U.N., 2021).

The fact that most of the worst impacts of climate change are too severe and too rapid to be prevented by adaptation measures raised a new challenge that has emerged as a focal point during the Paris negotiations. In particular, the Paris Agreement recognizes that losses and damages of this nature must be addressed and seeks to find suitable answers. It states that loss and damage can take different forms—both as immediate impacts from severe weather and slow-rise effects, such as land loss at sea for lower islands with severe adverse effects for the agricultural production (Climate Focus, 2015).

While the NDCs of each Party may not be legally binding, the Parties are legally bound by technical expert analysis to monitor their progress towards the NDC and identify forms of reinforcement of their ambitions. The “enhanced accountability system for action and assistance” articulates Article 13 of the Paris Accord, which lays down harmonized monitoring, reporting, and verification (MRV) standards. Thus, developed and developing nations shall be subject to technical and peer review and report on their mitigation efforts every two years (Climate Focus, 2015). The Agreement acknowledges the different situations of specific nations and states in particular that professional expert reviews

recognize the unique reporting capabilities of each country (Van Asselt, 2016). In line with the above, the developing countries reaffirmed their commitments to mobilize \$100 billion a year on climate financing by 2020 at the 2015 Paris Conference, where the Agreement was discussed and decided to mobilize \$100 billion in climate finance per annum by 2025. The funds are for development mitigation and adaptation support. This money covers funding for the UNFCCC Green Climate Fund and a range of other public and private undertakings. Until 2025, new loans of \$100 trillion annually must be settled upon in the Paris Agreement (Roberts et al., 2021).

In contrast with the Kyoto Protocol and the Copenhagen Accord, the Paris Agreement constitutes a binding arrangement that brings all nations together for the first time in the multilateral climate change process to implement ambitious measures to address and accommodate climate change. The Paris Convention reiterates that developed countries should lead the way in providing financial support to less docile and needy countries while allowing for first-time volunteer contributions from other Parties. Mitigation requires climate financing because large-scale investments are needed to reduce emissions substantially. Climate finance is also critical for adaptation, as substantial financial resources are required to adapt to the adverse effects and mitigate the impacts of climate change. Countries created a more transparent structure with the Paris Agreement (ETF). In 2024, countries will report transparently on steps taken and progress made in climate change mitigation, adaptation initiatives, and assistance given or obtained under the ETF. It also specifies international protocols for reviewing submitted papers (UN, 2021).

Despite the minor benefits to pollution reductions brought on by the COVID-19 pandemic, SDG 13 continues to face several challenges. In the interest of economic stimulus, an estimated 6% decrease in global emissions and historic carbon emission reductions are also expected to recover to emission levels higher than the initial decline. Economic policy financing would most likely divert emergency funds generally allocated to environment funding, such as The Green Climate Fund and environmental policies, unless a focus is placed on green deals in redirecting monetary funds. Government lockdown controls are expected to ease, resulting in a rebound in transportation emissions. This is due to countries such as the United States lowering productivity levels and limiting environmental standard compliance. The United Nations Climate Change Conference U.K. '20, also known as COP26, has been postponed. This is yet another setback and reminder of how collective action has been placed on hold as nations worldwide recover from the pandemic's aftermath.

Climate change is widely recognized as a defining threat of our time, so, unsurprisingly, one of the SDGs (13) calls for “urgent action to tackle climate change and its impacts.” According to a meta-analysis of climate change impacts, 70% of studies show crop yield declines by 2030, with half of the studies showing 10–50% declines. Climate change is already affecting food systems, and agriculture is one of the most affected industries by climate change. Agriculture and associated land-use transition account for about a quarter of annual GHG emissions worldwide. If the global warming goal is not met, significant emissions reductions in food systems would be needed. As a result, achieving SDG 13 would necessitate numerous adaptation and mitigation actions in food systems. A significant challenge is that food systems are connected to many SDGs, and there are likely to be trade-offs among SDGs through food system behavior, with trade-offs becoming especially difficult in developing countries where climate change vulnerability is greatest. Transformative actions in the food system are critical for achieving SDG 13 and UNFCCC agreements, but actions must be carefully considered due to the likelihood of trade-offs between adaptation and mitigation, among other SDGs. The challenges are enormous, necessitating nothing less than a revolution of food systems, with exact behavior based on context. Food systems are changing in many ways, but many researchers argue that the transition must be much more significant in the coming years in order to ensure food security, climate change mitigation, and environmental sustainability. In addition, the Food and Agricultural Organization (FAO) is assisting nations in adapting to and mitigating the consequences of climate change by developing national climate plans and implementing research-based programs and initiatives, with a focus on smallholder agriculture and making rural communities’ livelihoods more robust (FAO, 2019).

#### **4. CAP and the challenge of climate change and the environment**

**G**ood environmental conditions support agricultural activities, allowing farmers to exploit natural resources, produce agro-food, and secure their income. As a result, agriculture’s revenue supports farm families and rural communities, while agricultural production supports society as a whole (EC, 2021). Furthermore, agriculture is especially vulnerable to climate change, as farming activities are directly influenced by weather conditions. Agriculture, by emitting greenhouse gases into the atmosphere, also contributes to climate change. Agriculture, on the other hand, can help to mitigate climate change by reducing greenhouse gas emissions and sequestering carbon while preserving food production. The CAP

therefore combines social, economic, and environmental approaches on the path towards achieving a sustainable system of agriculture in the EU. Further steps in this path are taken in the new CAP, as the EU has signed up to new international commitments concerning actions to deal with the climate change and sustainable development issues, which will be built around a new and more ambitious green architecture (EC, 2021a). But this was not always the case.

Preservation and protection of the environment were not included in the CAP founding principles, as there were other policy priorities. There was a gradual change in this perception that manifested itself in the early 1970s when environmental problems began to be politicized, and continued more vigorously in the 1980s with the so-called “Green Paper” on the prospects of the CAP, recognizing the great importance of environmental protection, the 1988 Communication on “Environment and Agriculture” and the handbook “The Future of Rural Society” highlighting the need to reduce destructive agricultural practices and turn to environmentally friendly production processes (Louloudis et al., 1999).

Also, due to the food scandals that erupted in the late 1980s and early 1990s and the negative environmental impact of the agricultural model promoted by the CAP, the consumer and environmental movement gradually began to grow and strengthen for policy changes. These endogenous pressures resulted in the significant reform of the CAP in 1992. Therefore, from 1992 onwards, environmental issues took a central place in the successive CAP reforms. The 1992 agri-environmental measures were an innovation, although the relevant budget expenditures were limited compared to the traditional CAP measures. This is the first significant attempt to subsidize agriculture as a source of production of environmental benefits. The Agenda 2000 that followed and the concept of the “second pillar” for Rural Development extended this idea (Doukas, 2011).

The Agenda 2000 reform package introduced the Rural Development Pillar in the CAP, emphasizing the environmental outcomes and the safe agri-food products. It has established the link between environmental protection requirements and direct payments to support producers. Member States were pressured to take appropriate environmental measures through a set of actions regarding the different activities taking place in the countryside but recognizing the central role of agricultural production. In addition, Member States were given flexibility in supporting farmers in conjunction with environmental measures and the imposition of possible sanctions to reduce or abolish support aid if they did not comply. The amounts of support that were ultimately not given to producers were transferred to the Member State’s rural development program (Doukas, 2018).

In addition, Member States should draw up comprehensive national or regional programs from a list of possible measures, of which environmental protection and climate action was a prerequisite. These measures strengthened actions to educate farmers on environmentally friendly processes to support less-favoured areas and exceptionally high ecological value forests. In addition, incentives were provided for the Member States to use part of this funding to promote more environmentally friendly production methods in the beef and milk sectors.

Cross-compliance was a mandatory requirement in the CAP's Mid-Term Review (MTR) in 2003, and it applied to all direct payments. Cross-compliance establishes environmental and other requirements that farmers must meet in order to obtain subsidies. Cross-compliance norms included statutory management requirements under Union law as well as criteria for excellent agricultural and environmental condition of land establishment (EC, 2021c).

During the last two decades, more efforts have been made through the CAP, based on the specific soil-climatic characteristics of each region, to motivate farmers to adopt more environmentally friendly practices in plant and animal production and to achieve the most efficient exploitation of natural resources by integrating new technologies across the framework of the production process (Doukas, 2018). Under the new CAP system, farmers receive the green direct payment (representing 30% of the direct payment budget) if they meet three required environmental criteria (soil and biodiversity in particular). Farmers must diversify their crops, conserve permanent grassland, and preserve biodiversity, as well as allocate 5% of arable land to areas that are conducive to biodiversity [Ecological Focus Areas (EFA)] (Doukas, 2014).

There are exemptions to the rules, depending on the individual situation—for instance, farmers with a large proportion of grassland, which is environmentally beneficial. At the national or regional level, EU countries determine the proportion of permanent grassland to agricultural land (with a 5 percent margin of flexibility). Furthermore, EU countries declare areas of permanent grassland that are environmentally sensitive. In these areas, farmers are unable to plough or convert permanent grassland. Also, the greening rules do not apply to farmers who opted for the small farmer's scheme for administrative and proportionality reasons. (EC, 2021d).

Furthermore, organic farmers automatically receive a greening payment for their farm because the nature of their production deems them to have environmental benefits. Other exemptions can apply, depending on a farmer's specific situation. Direct payments would be reduced for farmers who do not follow the greening laws. Given the scope of the greening criteria, such reductions reflect

the amount of hectares listed as non-compliant (Doukas 2014). As the green direct payment is compulsory, it can introduce practices that are beneficial for the environment and climate change on a large part of the utilized agricultural area. The aim is to set specific and measurable criteria, as experience to date has shown that the Cross-Compliance regime provides a relatively loose framework of rules, which one can easily disregard and, at the same time, presents significant weaknesses in terms of control mechanisms.

Nowadays, global population growth, urbanization patterns, depleted natural resources, and climate change-related agricultural production threats are putting much more strain on the agricultural sector around the world (Doukas, 2019). Furthermore, shifting rainfall patterns, increasing temperatures, seasonal variability, and extreme weather events such as heatwaves, droughts, storms, and floods are all being felt because of climate change across the EU, and especially in European agriculture. Severe climate change impacts, such as river floods, droughts, and coastal flooding, are putting human systems and habitats in Europe at risk. Even if some climatic changes will be beneficial to some northern European regions, the vast majority will be detrimental, affecting areas that are already experiencing environmental or other changes. A combination of different types of these impacts can intensify vulnerabilities in different regions. Agriculture will be most affected in the EU's southern and south-eastern areas. Agriculture must enhance its environmental performance by using more sustainable production methods, given the pressure on natural resources. Farmers must also respond to the threats posed by climate change and implement mitigation and adaptation strategies. One of the three key goals of the CAP is to promote sustainable natural resource management and climate change (EC, 2021b). Of course, European farmers, who work, produce, and invest in the broader European rural region, are the primary managers of the natural environment (Maravegias and Doukas, 2012).

Hence, according to the new operating framework of the CAP (2021-2027), the eligibility of direct payments depends on measurable environmental and climatic criteria. Thus, direct payments will depend on the achievement of environmental and climatic criteria, including the conservation of carbon-rich soils through the protection of wetlands, the sustainable management and improvement of water resources, and crop-rotation instead of crop diversification. To this end, each member state must develop applications to support producers or provide incentives for good agricultural practices. The further upgrade of environmental concerns is expressed financially by increasing the transfer of additional resources by 15%, from pillar 1 to pillar 2 for environmental and climate measures (EC, 2018a).

In line with the above framework, the new green architecture is much more flexible in its design and management, which is now entrusted to national authorities. It is planned to be structured in three strands which will include the new system of conditions, climate and environmental programs and agri-environmental and climate measures, which will be funded by the European Agricultural Fund for Rural Development (EAFRD) (EC, 2018b).

In addition, a key priority is to improve flexibility for MS to design rural development measures with an emphasis on adopting stricter criteria for safe food production and establishing rules for water quality protection, reducing pesticide use, and restriction of antibiotics. At the same time, an extensive incentive package is proposed to boost investment in the bioeconomy and improve living conditions in rural areas. Environmental and climate action envisages that at least 30%, nearly 23 billion euros, of the funding for the second pillar will be spent on climate and environmental measures, demonstrating the Commission's willingness to consolidate these priorities. Finally, integrated environmental management and tackling the effects of climate change are enhanced as synergies with other relevant EU policies and programs are improved (EC, 2018a)

## 5. Policy change and the CAP's Green Architecture

Historical institutionalism has been used to demonstrate how decisions by Member States' governments have limited their future behaviour and strengthened the independence and positions of supranational institutions. Leading speakers of historical institutionalism in the EU include Simon Bulmer (2009) and Paul Pierson (1996). They argued for the value of this approach to analysis and, as Bulmer puts it, the "description" of political activity and policy activities within the multilevel governance framework<sup>2</sup>. In particular, Bulmer supported and used the "governance regime" framework to analyze the EU at the level of specific policies of the subsystems.

The theory of rational choice institutionalism has been used primarily to explain the motivations of Member States' governments in the integration process and demonstrate the implications of different EU decision-making rules for the behaviour and influence of actors. In terms of the behaviour of governments, a characteristic feature of the rational choice analysis is that governments are actively participating in and delegating powers to the EU because in this way they derive several advantages, the most important of which are: reduced transaction costs through improved policy development, policy effectiveness, and policy compliance. It is based on the economic theory of rational behaviour. It satisfactorily interprets the positions taken over time by the various players in maintaining or reforming the CAP (Doukas 2011).



The CAP's implementation results in diverse costs and benefits among the Member States, creating conflicting priorities and expectations. Since it is a common and essentially binding policy, it creates a significant distinction in distributing benefits among the various actors who engage formally or informally in its formulation. National priorities, committee bureaucrats, sectoral interests, and other agriculture-related pressure groups are among them (Doukas and Maravegias, 2021).

Historically, CAP reform decisions have always been a bargaining chip between the Commission and the Council of Agriculture and Rural Development Ministers, which represents the interests of farmers in their countries and those exercised by the main trading partners (e.g., UN and the members of the World Trade Organization). Throughout the historical course of the CAP, it has been a rare occurrence for large interest groups to be represented in the decision-making process, which is especially true for consumer groups. However, some events in the late 1990s changed the data significantly.

As it turned out, after the major problems that arose and the panic that prevailed in cases such as the bovine spongiform encephalopathy crisis, the detection of dioxins in food in Belgium and the «foot and mouth disease», consumers' demands for higher safety standards and food quality have increased significantly, as have concerns about the impact of the CAP on the environment, animal health, and the adoption of practices for their proper treatment.

These demands, as expected, became more intense, along with the increase in the level of income in the EU Member States. However, even before the reform process, these concerns had grown and intensified out of fear of the above cases and remained a key priority for EU citizens. Regardless of how the CAP relates to these concerns, its political response has included raising these issues to the top of its agenda. The result was that, in countries such as Germany and Italy, the leaders of the Greens sought to attend the meetings of the relevant ministers, contributing to an effort to review and redefine the CAP. (Swinnen, 2001).

Also, at the level of pressure groups, farmers' professional organizations for almost three decades since the establishment of the CAP (1962-1992) were not threatened by other powerful groups promoting opposing positions and claims. However, due to food scandals and growing adverse environmental effects, consumer and environmental movements have been strengthened over time due to the European model of agriculture that created negative environmental consequences. As a result, they gradually increased their influence in the EU institutions (Doukas, 2018).

Moreover, while cross-compliance seems to be politically justified, its economic philosophy was not always clear. The problem was whether the introduc-

tion of new requirements for existing income support is an effective policy tool. Although this problem is beyond the scope of this analysis, let us consider the effectiveness of cross-compliance. For example, as we have shown, many researchers point out that direct payments were distributed according to agricultural policy objectives and not according to environmental objectives, thus linking two contradictory results and the lack of clear objectives of environmental policy. Indeed, farms that are entirely dependent on direct payments should not “coincide” with those that cause severe environmental damage.

It is essential to consider how the decisions were made concerning the distribution of the savings from direct payments, more specifically from farmers’ non-compliance. Indeed, because the Member States could withhold only 25% of the money raised through the implementation of cross-compliance, the incentive to implement an effective control mechanism at the state level seemed to be low. Once again, political rhetoric did not seem to be in line with political reality, which means that the pressures and concerns that the new “players” have brought to the fore could have been more critical for the reform process. However, they were an essential ally of the Commission in achieving its objective reform goals for the environment and food safety. On the other hand, the corresponding weakening of the producer’s pressure groups during the last two decades also played an important role. This evolution was the result of the gradual reduction of the rural population, in absolute numbers but also as a percentage of the total EU workforce (Doukas, 2011).

Another crucial turning point in the path-dependence of the CAP’s structure and implementation was the introduction of the Green Payment Scheme. That is the first time that the environmental compliance of the producers is measurable, and the criteria for them to receive the total amount of the direct payments is thoroughly defined. Lastly, the obligations of the EU according to climate action and the severe consequences of climate change through the entire agro-food chain forced for an even more discrete allocation of measurements within the new framework of the CAP for the period 2021-2027.

As can be seen from the above, the intention to create a green architecture is clear, embodying a stable and at the same time flexible framework aimed at “greening” the CAP. For many decades, CAP was severely criticized for the negative environmental impacts associated with its philosophy and mode of operation and contributed to the intensification of agricultural production and the depletion of natural resources. The new CAP strengthens the freedom of rational choice within a strict framework of joint commitments and objectives, with the predominant role of conditionality, i.e. linking funding to results, under the pressure of a reduced Budget. At the same time, with specific financial tools,

the CAP is trying to highlight and upgrade issues related to the environment and climate change. Planning to achieve these goals includes both pillars of the CAP, promotes synergies with other similar policies and enhances flexibility based on national priorities (Doukas, 2019).

## 6. Conclusions

Even though issues concerning the effect of economic activity and the agricultural production on the environment and climate change were in the public discourse for more than forty years, more action has been placed on the policy change and adaptation to deal with those challenges during the last two decades. In particular, the power of farmers is reduced, and at the same time, the consumer and environmental movement is strengthened on an international scale and within the multilevel governance framework of the EU. Also, nowadays, it is generally recognized that agriculture is especially vulnerable to climate change, as weather conditions directly influence farming activities. At the same time, by emitting greenhouse gases into the atmosphere, agriculture also contributes to climate change. Additionally, the EU has signed up to new international commitments concerning actions to deal with climate change and sustainable development issues. The most profound example is the UN- Paris Agreement, which constitutes the first-ever universal and legally binding global climate change agreement.

As a result, a new green architecture is promoted within the new CAP for the programming period 2021-2027. The Policy adapts against the new climate challenges, as the eligibility of direct payments will depend on measurable environmental and climatic criteria, including the conservation of carbon-rich soils through the protection of wetlands, the sustainable management and improvement of water resources, and crop-rotation instead of crop diversification. Also, environmental and climate action anticipates spending at least 30% of the second pillar's financing, or approximately 23 billion euros, on climate and environmental initiatives, underlining the Commission's readiness to consolidate these objectives.

Moreover, at the international level, in contrast with the Kyoto Protocol and the Copenhagen Accord, the UN- Paris Agreement constitutes a binding arrangement that brings all nations together for the first time in the multilateral climate change process to implement ambitious measures to address and accommodate climate change. Under the pressuring precept of measurable results, the Paris Convention reiterates that developed countries should lead the way providing financial support to less docile and needy countries

while allowing for first time volunteer contributions from other parties. As a result, climate finance has arisen as an essential pillar for adaptation because significant financial resources are needed to adapt to and mitigate the effects of climate change and large-scale investments are needed to reduce emissions substantially. This development demonstrates a policy change that seems to be redefining the historical path of the previous period.

## Notes

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1. In 1994, 192 countries ratified an international treaty -- the United Nations Framework Convention on Climate Change (UNFCCC), commonly known as “the Convention” -- to begin to consider what can be done to reduce global warming (mitigation) and how to cope with whatever temperature increases are inevitable (adaptation). A number of nations approved an addition to the treaty: the Kyoto Protocol, which has more ambitious (and legally binding) measures (OECD, 2021) In addition, The 15th session of the Conference of the Parties to the UNFCCC and the 5th session of the Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol took place in Copenhagen and was hosted by the Government of Denmark (UN, 2021).

2. “Multilevel governance entails a conception of the EU as consisting of ‘overlapping competencies among multiple levels of governments and the interaction of political actors across those levels’ Additionally, multilevel governance pulls the private sphere into the political. Together this leads to a loss of the so-called ‘gate-keeping role’ of the state, as the conventional representation via state executives is curtailed. Hence multilevel governance eradicates the traditional distinction between domestic and international politics”. (Aalberts, 2004 :24).

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