

# REA

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## ITALIAN REVIEW OF AGRICULTURAL ECONOMICS

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## Editorial

Nowadays, change is one of the most characterizing elements of the primary sector. An evolutionary process has occurred in the last decades that has contributed to reshape the functions and roles of agriculture. It is not the first time that the Italian Review of Agricultural Economics (REA) raises the question of the impacts of these changes on the economic, environmental and social aspects of rural areas. Since its establishment 75 years ago, REA has published studies that analyse and debate on the outcomes of these changes that liven up rural areas. In recent years, the primary role of agriculture has been acknowledged by researchers and policy makers, being key for assuring food for the growing population in a globalized food system, where socio-political forces should be balanced.

The supply of food should satisfy the growing global demand in a way that is sustainable and driven by ethical values, moreover, linked to the management of waste, the protection of human rights, the search for circular models of production. The increasing role that agriculture must play in the management of the rural areas is to be added, at the same time, to this new and traditional functions.

An innovative vision of agricultural activity in planning and territorial protection is needed to face some important phenomena with global relevance, such as climate change, the management of fragile and internal territorial areas, the growing presence of agriculture in urban and peri-urban areas, the abandonment of agricultural land even in lowland areas, woody encroachment into abandoned land, to cite a few. That vision should endorse the social and cultural dimension of agriculture that has shaped rurality and society in most European countryside.

The European model of agriculture is characterized by positive externalities that create a unique, though fragile, multifunctionality. Despite its weaknesses, this model could be able to satisfy the needs of farmers, consumers and the society as a whole. In this context, the Covid-19 pandemic is a further element of change which

has modified, in a more or less structural way, consumption habits, the organization of local, national and international supply chains, the perception of rurality by the society, the innovation needs of all the actors involved in the food system. Such a scenario sets new and difficult challenges to the primary sector. To address those challenges, agriculture and rurality should undergo a «transition» process, to be able to guarantee food security and social justice. To that purpose, targeted and innovative public and private interventions are needed.

This is the complex and articulated scenario in which the new European agricultural policy for the period 2021-2027 is developing. The scope and depth of discussions relating to the next programming period are not different from those that other Common Agricultural Policy (CAP) reforms have animated. Besides, following an approach that could be defined as incremental, the new CAP is increasingly having to deal with the new and ambitious objectives that the European Union is setting with the Green Deal strategy in response to the challenges of a changing world economy and the risks associated with climate change. These challenges are also visible from the point of view of the agricultural economists. For each new European program, since 1962, the Italian Review of Agricultural Economics has been the place of election for the development and sharing of the debate between Italian and foreign researchers and policy makers. Also for the CAP 2021-2027, the Review has been faithful to its mandate and, thanks to the collaboration of the authors of the articles contained in this issue, which celebrates the 75<sup>th</sup> anniversary of its foundation, has tried to offer to the readers a broad picture of the peculiarities, challenges and tools that will characterize agricultural policies over the next six years.

The article by De Castro, Miglietta and Vecchio focuses attention on how the new CAP should support the competitiveness, sustainability and resilience of farming systems. The new CAP reform should also be based on a new model of CAP governance that is more focused on performance improvement, independent

decision-making and increased responsibility by Member States.

Baldock's article discusses how the CAP has chosen a much more moderate approach to environmental protection in comparison with the ambitions placed with the new vision of economic development of the Green Deal. The strategies to reconcile these not completely convergent positions are presented and discussed in the article.

In this changing programming approach, Frascarelli's article analyses the role of the First Pillar of the CAP and its more traditional intervention tool: the direct payments. This Pillar still has a fundamental role in the future programming period, also given the relevance of the allocated share on the CAP budget. Direct payments will aim at enhancing income support and fostering the provision of environmental public goods, thereby turning into a more strategic tool, compared to the current CAP framework. The environmental challenge closely linked to the goal of mitigation of climate change is a key element of the new CAP. Over the years, the strategies followed to reinforce the objectives described have been diversified as have been the variously courageous choices that the single Member States have made in line with the requirements of the European Commission.

Matthews' work analyses the environmental issue, highlighting different elements of the proposed green architecture in the future CAP and their implications for agriculture and land use. The article identifies the opportunities presented by the new CAP to reduce agricultural emissions, while increasing the removals in land use, land use change and forestry (LULUCF). The challenge, therefore, concerns the National Strategic Plans and the indications that the single Member States will give for reaching objectives such as net-zero emissions by 2050 or to contribute to climate change mitigation and adaptation.

The above mentioned «transition» is a difficult task for the agricultural and rural sector. In particular, the characterizing element of the new CAP is the need for a deep change in the processes, in the entrepreneurial culture and in the organization of the involved stakeholders, with the aim of increasing the resilience of such a complex system. This might seem self-contradictory, but it must be underlined that the new CAP identifies knowledge as the common denominator of change and resilience. This strategic and immaterial dimension is the focus of the article by Van Oost and Vagnozzi. Authors emphasise that the knowledge and innovation in the new programming phase must assume the form of intangible capital, developed by the Agricultural Knowledge and Innovation System (AKIS). AKIS actors (farmers, researchers and advisors, together with

the other actors) should closely cooperate to support the transition process of the agricultural sector and to generate tailored innovation via specific research projects. The article shows the achievements of the current CAP for fostering actors' interaction and describes how those achievements would be exploited and improved by the CAP post2020.

In the near future, agriculture and the rural areas will certainly have to face several challenges. This issue of the Italian Review of Agricultural Economics is focused on to the emerging debate about these challenges, which are the core interests of the journal. Thus, the Italian Review of Agricultural Economics celebrates the milestone of its 75<sup>th</sup> anniversary fully respecting the spirit of its founders.

We are grateful to the distinguished Authors, representing the academic and institutional world, for having contributed to this third issue of 2020. This has been a year characterised by unexpected events and difficulties, which have deeply influenced global growth perspectives, also by changing the relationships between sectors and actors inside the economy and by generating specific criticisms in the agricultural sector. Despite these difficulties, agriculture has shown its central and strategic role for the society and has demonstrated to be able to recover and to face relevant and complex challenges.

*Adele Finco, Mario D'Amico, Teresa Del Giudice,  
Andrea Povellato, Roberta Sardone*  
Editorial Board



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## The Common Agricultural Policy 2021-2027: a new history for European agriculture

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**Abstract.** Contributing to the ongoing debate on the future of European agriculture and rural areas, the study states that, in the light of the present historical contingency, the Common Agricultural Policy (CAP) will need to support the reconciliation between the target objective of competitive agriculture with that of a resilient agri-food system able to develop constant benefits for the entire EU community. Historically, flexibility has been the main incremental feature of the European CAP reforms. For the programming period 2021-2027, the European Commission has presented a completely new model of CAP governance characterized by less detailed rules and more attention to performance, which implies a greater freedom of action for each Member State, but also greater responsibility. The CAP has evolved over time and so today the criticized limits of the European intervention can be considered outdated.

**Keywords:** Common Agricultural Policy, European Green Deal, New Delivery Model, environment, climate change, value chain management.

**JEL codes:** Q15, Q18, O13, O21, O52.

### 1. INTRODUCTION

The challenges connected with land, food supply and agriculture are unavoidably central in the today's global agenda. Addressing these issues from various perspectives (economic, social and cultural, environmental, agronomic and climatic) is useful, but unfortunately a holistic approach, including the crucial issue of politics, is rarely adopted (De Castro *et al.*, 2013).

In recent decades, the European Common Agricultural Policy (CAP) has changed its skin several times, going through various stages that have gradually transformed its objectives and instruments. One of the features that has characterized and united the different reforms, starting from the Mac Sharry one up to the last proposal for the CAP 2020, has been the marked flexibility introduced to take into account the different needs of the individual EU Member States. The new CAP 2021-2027 seems to continue in this direction.

The first step of the path for the definition of the new CAP 2021-2027 took place on 2<sup>nd</sup> February 2017, when the European Commission launched



Fig. 1. Current CAP vs Future CAP.

CURRENT CAP	FUTURE CAP
Disharmonized policies bias towards productivism	Integrated policies multi-disciplinary research connected food-system actors
Unhealthy dietary trends increase NCDs related like obesity	Healthy diets and lower nutrition-diseases
Agriculture causes climate change and environmental impacts	Agriculture to protect environment
Ageing and male-skewed farmers' population	Renewed and diverse farmers' population

Source: adapted from Recanati *et al.* (2019)

a three-month public consultation to collect the views of European citizens on the post-2020 CAP. The results of the public consultation were presented on 7 July 2017 in Brussels, at the European Conference on the future of the CAP. Subsequently, on 29 November 2017, the European Commission presented the first official proposal document entitled *The future of food and agriculture*, in which the guidelines on the future of the CAP were communicated. In May 2018, the European Commission presented an ambitious proposal for an innovative Multiannual financial framework (MFF), aimed at incorporating rapid developments in the fields of innovation, economics, environment and geopolitics. Immediately after the MFF proposals, on 1<sup>st</sup> June 2018, the European Commission presented the legislative proposals on the CAP 2021-2027.

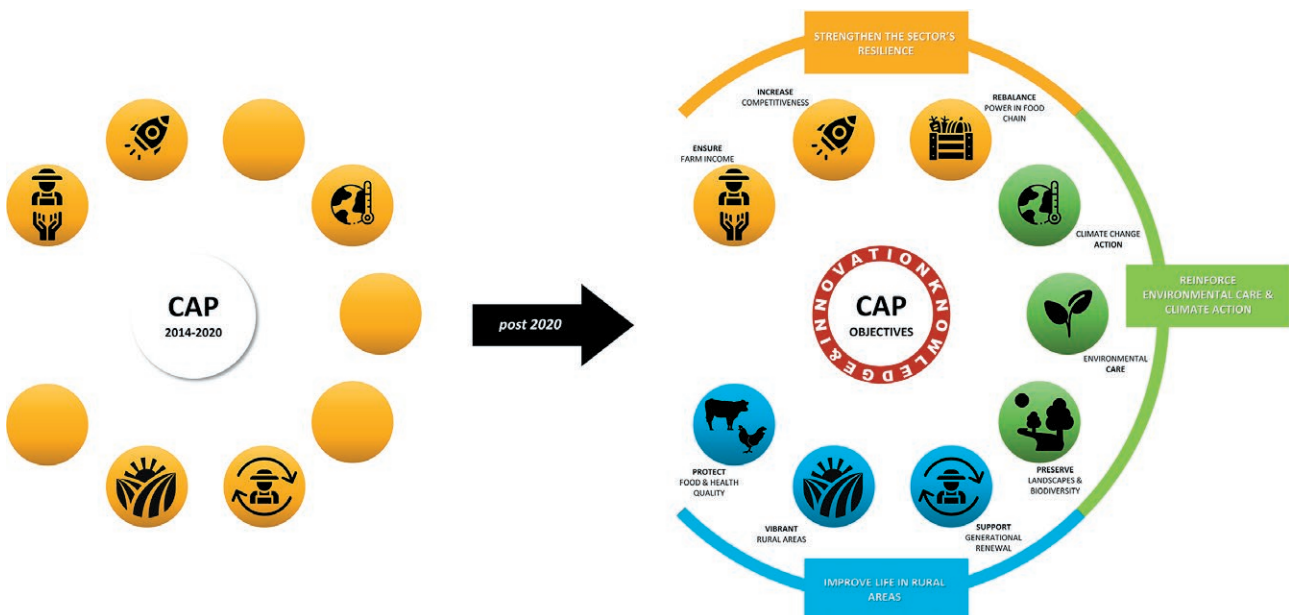
The European Commission proposals on the CAP have been traditionally inspired by three general objectives: promoting a smart, resilient and diversified agricultural sector that ensures food security; strengthening environmental protection and climate change action and contribute to the achievement of the EU environmental and climate objectives; and reinforcing the socio-economic fabric of rural areas.

The ongoing reform of the CAP has represented an opportunity to renew these objectives drawing from the scientific literature and its research directions (Recanati *et al.*, 2019). Studies vary in approach and perspective, but their policy recommendations are mostly common: the CAP should promote the European Union policy integration and multi-disciplinary research as key strategies to achieve food system sustainability targets (Fig. 1).

Starting from the three general objectives, nine specific objectives were identified, reflecting the economic, social and environmental importance of the new CAP. Among these, in addition to the traditional topics found in the CAP (income, competitiveness, sustainability, climate change, generational renewal), are new ones, such as value chains, ecosystem services, employment, bio-economy, digitization, nutrition and health (Fig. 2).

It can also be noted that among the nine specific objectives only some directly concern agricultural productivity, while all the others focus on environmental, social, territorial and health aspects related to the wider concept of agriculture and its sustainability. The promotion of knowledge and innovation represents a transversal objective, as well as that of a clearer and more effective CAP.

Fig. 2. Key policy objectives of the future CAP.





Since the objectives seem to be extremely detailed, the European debate on the CAP focuses mainly on how the new challenges can be faced and the aims achieved, going beyond the mere discussion regarding the enhancement and stabilization of farm income (Ciliberti, Frascarelli, 2018; Severini *et al.*, 2016).

## 2. A NEW PATH: THE GREEN DEAL

On 11 December 2019, the European Commission presented the Green Deal Communication (COM 2019, 640), a document that delineates an ambitious framework of measures aimed at making European society neutral in terms of greenhouse gas emissions by 2050. The cornerstones of this framework are: (i) a European emissions trading system, known as ETS (*European Emission Trading System*); (ii) a new momentum to be given to sustainable investments; (iii) a new framework of stimuli for research and development activities; (iv) and a fund to help the transition of areas affected by the inevitable negative distributional effects of the transition itself. Within the Green Deal framework, the European Commission is adopting a series of specific strategies, some of which directly concern the agricultural sector and rural areas, in particular the From Farm To Fork strategy, the Biodiversity Strategy, the proposal for a European climate law and a new Action plan to promote a circular economy perspective.

The CAP is directly called into question by the Green Deal. The proposed reform of the CAP for the period 2021-2027 establishes the obligation for Member States to clarify how their National Strategic Plans can achieve a more sustainable agriculture, ensure the environmental protection and fight against climate change (art. 92 of the proposal); the Green Deal Communication emphasizes the need for National Strategic Plans to fully reflect the ambitions of the Green Deal, the From Farm To Fork and the Biodiversity strategies, and to be assessed based on robust environmental and climate criteria.

Under the explicit request of the European Parliament (paragraph 58 of Resolution 2956/2019), the Commission has detailed the elements of consistency between the CAP legislative reform proposal and the objectives included in the Green Deal, highlighting how the nine specific objectives of the CAP proposal are conceptually in line with the expected contribution of food production systems and the economy of rural areas included in the Green Deal.

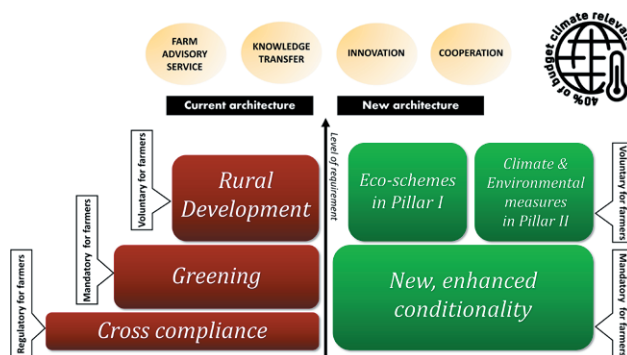
In particular, the proposal explicitly includes the following objectives: strengthening the contribution of agriculture to climate change mitigation and adapta-

tion; improving the management of natural resources used by agriculture - in particular soil, air and water; in order to promote the protection of biodiversity and the provision of ecosystem services by agricultural and forestry systems; promoting the sustainability of food production systems, consistent with society’s concerns about human health and animal welfare; and, reducing the imbalance of bargaining power along the supply chain, therefore improving the position of farmers. It is clear from reading the proposal how the horizontal nature of these issues is more pronounced than in the past and how the connections between the areas of intervention (direct payments, sectoral interventions and rural development) are greatly strengthened by the provision of a single national plan, explicitly aimed at making the interventions planned under the two pillars of the CAP complementary and synergistic. More in detail, the Commission notes the key role that will be played by the so-called «new architecture of the CAP», whose environmental and climate implications are multiple (Fig. 3).

The National Strategic Plans need to highlight the specific contribution to the achievement of environmental objectives included in other EU legislative acts, such as the 12 directives and regulations on biodiversity, water and air quality, greenhouse gas emissions, energy and pesticides (Annex XI of the proposal).

It should also be stressed that the proposal strengthens the obligation of Member States to allocate a share of resources to environmental and climate commitments. In the past, at least 30% of the funds of the second pillar had to be allocated to this sector, but now this allocation will need to meet stricter criteria. Unlike the current programming (2014-2020), compensation for agricultural areas with natural handicaps has been excluded, since it is believed that the link between this form of support and environmental and climate benefits is not direct. Following this approach, there is also a minimum share of expenditure of 20% that will need to be dedicated to

Fig. 3. The new architecture of the CAP.



improving the environmental and climate performance of farmers within the operational programs planned as part of the sectoral interventions dedicated to the fruit and vegetable sector. The Commission, while highlighting the link of consistency between the proposed CAP reform and the Green Deal guidelines, also indicates the opportunity to work on some elements to strengthen this link. In particular, the Commission focuses on two aspects. The first is the opportunity to provide for a mandatory minimum share of the CAP budget to be dedicated to the additional environmental commitments of the eco-scheme. Although the Member States are obliged to activate this component of direct payments, as it appears today the proposal does not provide for a minimum expenditure to be devolved to this measure. The second aspect is the opportunity to promote the improvement of animal welfare conditions and the reduction of the use of antibiotics on farms, issues to which Annex XI of the current text of the reform proposal does not refer. The Green Deal's ambitions are projected beyond the horizon of the new common financial framework (2021-2027) and the goal of strengthening the contribution of the agricultural sector to the European ecological transition will be one of the key drivers of future changes in the CAP. Further building blocks are destined to be added to the many that since the first CAP reform in 1992 have redesigned the face of the CAP, favoring its progressive integration with EU environmental policies.

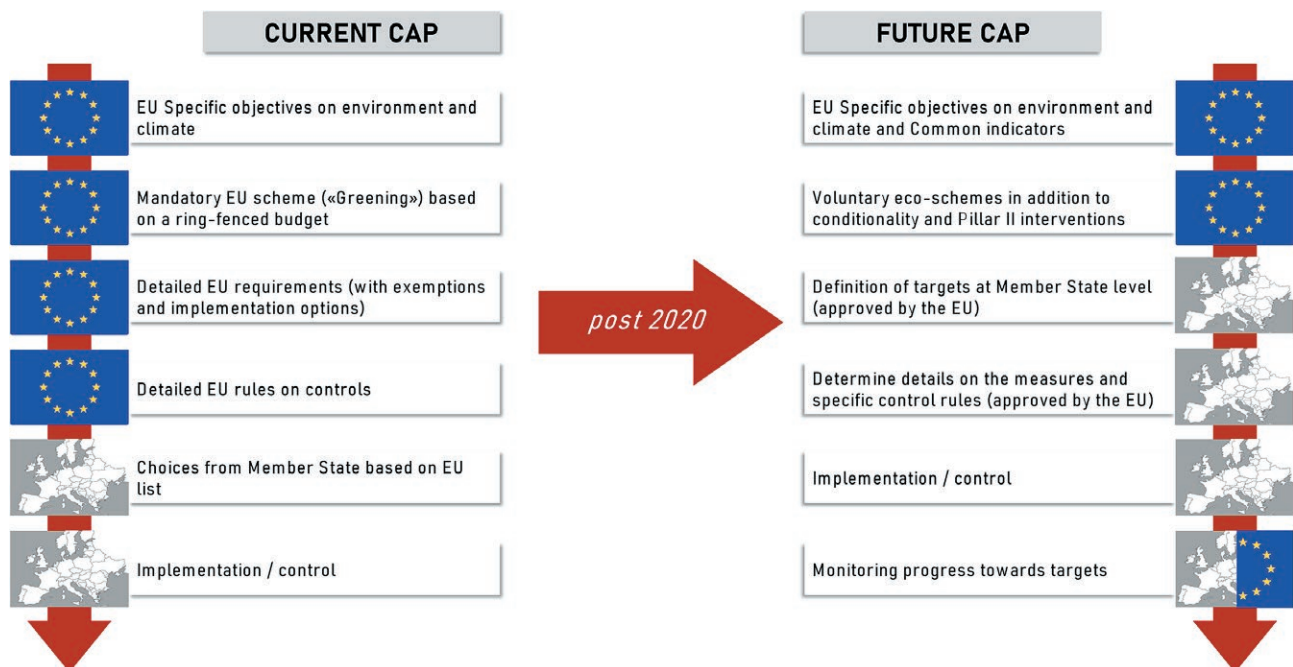
### 3. THE NEW DELIVERY MODEL

With the reform proposal of June 2018, the European Commission has presented a completely new model of CAP governance than in the past, more flexible and result-oriented, with less detailed rules and more attention to performance: with this approach, expressed both in the words of the outgoing Commissioner Hogan during the presentation of the proposal and in the statements that anticipate the proposal, Member States are given greater freedom of action, but also greater responsibility.

On the one hand, national governments are allowed to decide which is the best way to achieve the common objectives defined by the proposal. Since the major factors which lead farmers' participation in development programs are location and the farmer's socio-economic features (Capitanio *et al.*, 2011), adapting policy responses to the specific needs of different agricultural and rural contexts is primary. On the other hand, however, the proposal calls for the development of a single national strategic plan, with clearly identified and quantified objectives based on consolidated data and evidence. This approach involves both of the CAP pillars and should ensure synergy and complementarity between direct payments, sectoral interventions and actions in support of rural development.

This is the so-called *New Delivery Model* (NDM) that represents a key element of the new CAP. The

Fig. 4. The New Delivery Model.



NDM should facilitate the transition from a rule-focused approach (*compliance*) to a more result-oriented one, with a consequent rebalancing of responsibilities between the European Union and the Member States (Fig. 4). The expression used by the Commission is to move from a single approach for all to one more tailored to the specific characteristics of each Member State.

In concrete terms, this means that the EU defines a series of basic parameters (in terms of objectives, types of intervention and minimum requirements), while the Member States, within a common general framework, choose the most appropriate solutions for their specific contexts, to allow for, according to the ambitions expressed by the Commission, the maximization of their contribution to the objectives of the Union. Member States will have to equip themselves with a national strategic plan that includes both the interventions of the first pillar (direct payments and sectoral plans) and the second pillar (rural development), demonstrating the synergies and complementarities between the different interventions programmed. The Commission will have the task of evaluating and approving the National Plans based on the strategic priorities defined at the Community level and the targets for combating climate change that each Member State engages.

To date, the main role of the Commission has been to check the correctness of the programming and implementation processes. With the NDM, the role of the Commission becomes that of evaluator of completeness and effectiveness of strategic plans concerning national targets, with very limited prerogatives compared to the choices made by the Member States.

The motivations behind this choice are many and among these the most relevant have been identified in the need to increase the social acceptability of agricultural policy and the need to give it greater effectiveness, also given the progressive reduction of the CAP budget (Kiryłuk-Dryjska, Baer-Nawrocka, 2019). As pointed out by the European Court of Auditors (European Court of Auditors, 2017), there is an urgent need to adopt an approach that is greener, more documentable and more closely linked to performance and results. The increased flexibility granted to the Member States should ensure, thanks to the greater contextualization of interventions, a higher return on the resources invested in terms of benefits for European society. However, several analysts (Matthews, 2018) have highlighted how eventual deficits in institutional capacity or Member States' interest may produce opposite effects. The rules for the drafting of strategic plans are set out in Title V of the regulation proposal. One of the most challenging steps appears to be the involvement of the competent authorities for the envi-

ronment and climate, which should be directly and effectively part of the definition of environmental and climate aspects of the Plan (art. 94). Instead, the contents of the Plans are governed by articles 95 to 103 of the proposal. In particular, the plans must open with an assessment of the needs to be addressed concerning the nine specific objectives set out in the proposal. The needs thus identified must then be accompanied by solid well-detailed justifications, functional not only to explain the choices made but also to classify the same objectives by priority. This section of the Plan should also contain possible reasons for needs that may not, or only partially, be addressed by the Plan, even if this possibility is almost excluded for environmental and climate-related objectives.

The description of the intervention strategy will have to clarify the link between the proposed interventions (drawing from the menu of the regulations) and the objectives assumed by the plan, showing the coherence and complementarity of the selected actions. It is stressed that in this section it is necessary to make the environmental and climate architecture of the national plan explicit. In particular it should indicate the coherent framework that links, on the one hand, direct payments, measures included in the national eco-scheme, agri-environmental measures activated under the second pillar; and on the other hand, the national long-term environmental objectives established by environmental and climate change legislation. Further aspects that must necessarily be expanded on in the national plans concern the strategies for generational change and, in the case of activation of coupled payments and other sectoral interventions, the request is to justify the choice of the sectors identified and the proposed actions. Finally, the representation of how the national strategy intends to contribute to promoting an integrated approach to risk management is required.

It is also essential to describe in detail the system of conditionality. It is necessary to highlight how each of the standards of good agricultural and environmental practices will be put into practice and, in particular, how the choices made will contribute to the achievement of the specific environmental and climate objectives set out in article 6. Also, in this section, Member States will have to provide some detailed definitions for areas where the Commission wants to leave more room for manoeuvring in national strategies. In particular, explicit reference is made to the definitions of agricultural activity, agricultural area, eligible area, farmer, small farm and young farmer.

The national plans will need to be accompanied by precise financial planning of the interventions, which should be translated into a real financial plan, devel-

oped based on annual allocations, in which any transfers between pillars will need to be specified. Likewise, a detailed description of the system of governance and coordination that the Member States intend to adopt is required. This should include the control systems, sanction mechanisms and monitoring and reporting procedures, as well as the actions to be taken to simplify the CAP. Finally, the plan must describe how the Member State intends to modernize the CAP, clarifying – specifically – how the national plan will contribute to the development and dissemination of knowledge, including a description of the organizational structure of the AKIS (Agricultural Knowledge and Innovation Systems) and the ways in which it provides consulting and innovation services. To this is added the clarification of the strategy that will be used for the development of digital technologies in agriculture and rural areas to improve the effectiveness and efficiency of the CAP strategic plan interventions.

#### 4. THE NEW DELIVERY MODEL: BETWEEN THE STATE AND REGIONS

One of the issues that is attracting the attention of those working in the sector is how the NDM will operate in practice, especially concerning the competency management of the various authorities involved in governance. It is, in fact, a radical paradigm shift that implies a strong push for a review of subsidiarity and new ways to administer the programming and implementation of the CAP, both on the EU and national levels. In the situation of national systems in which the competences for agriculture and rural development are devolved to regional administrative areas, as in the case of Italy (but also Spain and Germany, which have similar models, each with its own characterizations) the situation is more complicated, both in terms of a legal basis and organizational aspects.

Regarding the former, several authors have highlighted how for the Member States, organized according to federal and regional systems, the form in which the National Plans will be approved could be detrimental for the execution of these same Plans. If the approval were to be adopted by the decision of the Commission, not by a delegated or executive act, the ability of central governments to govern the entire process could be questioned by the regional apparatus, which in our Country has primary competence in agriculture (García Azcárate *et al.*, 2020).

However, from an organizational point of view, the challenge lies in the ability of Member States to face a

radical cultural change in the agricultural policy planning process. The effort of strategic planning that is required calls into question analytical and coordination skills. A management approach to unite regional differences under a single scheme, including administrative coordination, will be an unprecedented effort for those involved, which will require substantial investment both in support of the preparation of strategic plans and in the organization of procedures and operational methods. In particular, the relationship between the State and Regions will need to find a new point of equilibrium, which will not be easy to establish and maintain over time avoiding procedures that allow for the possibility of contrasts and vetoes.

A key to reading that can facilitate the mediation process can be represented by the framework of the Green deal, which represents the beacon for the programming of all European funds for the next EU financial framework. The objectives set by the Union in the field of environment and climate change can constitute an anchor for Central Governments and Regions to configure a new overall structure of the programming of European funds, capable of encouraging greater integration and synergies than in the past and in which agricultural policy can find a role of absolute protagonist in the construction of a new approach to strategic planning. Awareness of this role and responsibility can act as a catalyser for creative, intellectual and democratic efforts (Erjavec *et al.*, 2018) which will be decisive given Europe's ambitions to fight climate change and the unprecedented economic crisis we are experiencing.

In addition to the transition to more result-oriented, rather than compliance-oriented, programming Italy also faces the challenge of composing, after years of the regions being the absolute protagonists in the field of rural development, a single national plan for the CAP. The management of these two factors will be decisive in determining whether we will soon have to deal with a modern agricultural policy, capable of responding to the challenges that the sector and rural territories are to face or whether, on the contrary, this ambition will be partly or completely compressed by the choice to move away from the status quo as little as possible.

The opportunity to integrate the choices on direct payments, sectoral plans and measures for rural development, into a single, coherent, design relying on unprecedented flexibility in the management of CAP resources, can be seized only if it is considered as building not a single program, but a «common» program with the ability to capture the needs of the agricultural sector and rural areas, translating them into policy responses consistent with the particular histori-



cal moment in which it falls. The impacts produced by the COVID-19 pandemic require, in fact, different attention than in the past towards the agricultural sector, which has assumed a new strategic nature, also in terms of national security (Coluccia *et al.*, 2021). This is a complex challenge that is articulated around some main knots: two have been identified here as decisive and around which many of the questions of method and merit that must be addressed to create an ambitious national program are focused.

The first is the natural resistance to changes that characterizes agricultural policy networks (Swinnen, 2015; De Rosa *et al.*, 2017) and agriculture particularly, given the consistency of the apparatus that administers the sector. As long as the political circuit that elaborates the proposals remains closed, the same inevitably tends to defend the status quo and so it becomes desirable to have external contributions aimed at promoting new visions of resource planning. One way may be to contaminate the decision-making process, starting from its first steps, with the best skills selected among scholars and professionals. This would allow for the starting of the process of sharing choices with stakeholders. Instead of starting, as traditionally required, from a request for consensus on a specific proposal, which then leads to negotiations on specific aspects, it would be possible to bring to the table a set of options and discuss the various alternatives. The debate should start from here, otherwise, the risk is to focus on the details, losing the perspective and extent of the change put into place with the new delivery model. This need is felt even more at this particular time when the attention of politics, administrative apparatus and other actors involved in the decision-making process is focused on the *Next Generation EU* initiative and very little space in the debate is reserved for the 2021-2027 programming. The hypotheses brought to the discussion would inevitably be accompanied by choices on the design of the intervention that are only partially negotiable, as otherwise the overall approach would be devalued. The NDM may imply a rebalancing of the weights between State and Regions in the management of resources allocated to rural development and this can naturally generate tension. In the same way, the approach chosen may imply a partial redistribution of resources between measures and territories and this may contribute and further fuel these tensions and make the defence of current prerogatives prevail over the opportunities for change. The resolution of this node will lead to an understanding of the form of the CAP national plan: (i) heading towards a plan made of national based on the current ones (risk management to give an example); or (ii) towards plans including

specific measures for the different regional contexts in which the objectives and instruments of intervention are nationally fixed, but the regional apparatus is responsible for the final steps. The wide heritage of experiences, more or less positive, that has settled at regional level in these three programming cycles (2000 - 2020) for rural development can be the basis from which to obtain the most effective formula to implement the national plan. A control room that integrates the most advanced skills of the regional departments also could be functional to promoting collaborative plots and mitigate the intensity of institutional competition. These reflections do not claim to provide the recipe for building the best possible national plan. They simply intend to share with the policymakers the idea that future programming will have a special nature, which requires, in order to achieve maximum efficiency, an innovative effort in the organization of consultation and decision-making processes.

## 5. CONCLUSION

On 21 October 2020, an agreement was reached within the European Parliament on the future of the new CAP. This agreement is particularly ambitious in terms of commitments that the European agricultural sector is undertaking to contribute to the EU's objectives facing climate change and towards environmental protection. With this decision, the CAP has become a founding pillar of the European Green Deal and embraces the challenges that were announced within the strategies on biodiversity and on food chain circularity (*From Farm To Fork* strategy). This premise is fundamental for clarifying the cutting remarks that, in spite of everything, have been launched towards this reform by a part of the environmentalist world. The CAP completely changed its structure and objectives, identifying the integration between agricultural and environmental policies as a priority. This is clearly visible in the agreement, whose magnitude is unprecedented in the long history of the CAP, which for the period 2021-2027 contains binding environmental commitments for the Member States and for farmers. The future foresees many changes compared to today and the value of these changes cannot be declassified through facade measures. Clarity and transparency could also help to re-establish the relationship with some environmental associations which have opposed to this reform agreement.

The reform introduces mandatory ecological schemes, which did not exist before; strengthens the environmental commitments for farmers, so-called enhanced cross-compliance; makes a massive invest-

ment in resources for rural development; and promotes climate and environmental measures. Choosing to allocate at least one fifth of the entire farmers' direct payments for eco-schemes means revolutionizing the system of direct payments in environmental terms. This decision, combined with further significant environmental commitments taken as a basic conditionality for farmers, gives an even stronger meaning to the European environmentalist choice: today environmental payments can be considered 90% green payments. Similarly, climate and environment measures within the rural development program, should absorb at least 30% of the available funding sources while at least 40% should be destined to cover expenses related to natural or other specific territorial restrictions.

These new elements offer a different interpretation of the CAP reform history, in which the path towards the integration of environmental and agricultural policies become better defined, structured and effective. From being tight in the double bond of having to «produce more food, and provide more services» for more and more people (De Castro *et al.*, 2011), CAP has evolved over time and so today the criticized limits of the European intervention can be considered outdated. Particularly in this historical contingency agricultural policy is called upon to support agri-food production systems as essential elements of national security, vitality of rural areas, supply proximity. With the new CAP reform, the European Union reconciles the objective of a vital agriculture with that of a resilient agri-food system able to develop benefits for the entire community.

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## Locating the CAP in an escalating green agenda

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**Abstract.** Since the advent of decoupling, the process of adapting the Common Agricultural Policy (CAP) to a rising set of environmental priorities has involved various approaches and technical adjustments, with most Member States inclined to move more slowly than the European Commission. The debate on the post 2020 incarnation of the CAP has revealed a continued preference for gradual adaptation which stands in contrast to the escalation of environmental ambition set out in the Commission's recent initiatives stemming from the Green Deal, including the Farm To Fork Strategy. Different ways of resolving this tension are discussed and some of the implications for the CAP and the related question of the distribution of EU funds to the Member States considered.

**Keywords:** agricultural policy, agriculture and environment, European Green Deal, Farm to Fork Strategy, climate policy, environmental public goods, CAP reform, EU budget.

**JEL codes:** Q150, Q180, Q58.

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### 1. INTRODUCTION: THE GRADUAL ASCENT OF ENVIRONMENT AS A CAP PRIORITY

The drivers of strategic development in the CAP have been various. Over the decades they have included the pursuit of improved farm incomes, the containment of EU expenditure, the curbing of surpluses and adjustment to EU enlargement. Externally, there have been pressures from trade partners and WTO disciplines.

The need to address environmental priorities and respond to environmental demands initially appeared as a peripheral concern in the 1980s. At a certain point, however it became a more strategic force. Arguably this was at the time of the «Mid-term Review» of the CAP in 2003, with the advent of mandatory cross-compliance and decoupling, clearly a significant step towards support for land management rather than production.

In the years that have followed, a pattern of incremental change has been negotiated, with the European Commission tending to promote rather larger environmental steps than the Member States or the European Parliament<sup>1</sup>.

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<sup>1</sup> This has not always been the case. For example, in the mid 1980s the European Commission initially was sceptical about permitting Member States to provide payments to farmers in «Environmentally Sensitive Areas» and for a time resisted allowing such schemes to qualify for part funding from the CAP.



Many of the adjustments that have been made have been concentrated in the second Pillar of the CAP, such as expanding or ear-marking budgets for environmentally focused measures. Under this approach expenditure under environmental headings increased substantially while the Member States retained a great deal of discretion in how far they gave priority to the environment in both the design and delivery of the measures they choose to implement.

The limitations of this model were apparent in the run up to the 2013 reform when the Commission surprised many observers by switching tack and proposing to introduce more substantive environmental obligations in Pillar 1 direct payments in a new system that would apply to all Member States and aim to cover most farmland. However, much of the environmental ambition of this configuration was drained out of the proposals by the time they were agreed by the co-legislators and a compromised system of «Greening» introduced. While the failings of this approach are sometimes exaggerated there is no question that it offered much less than originally intended and Member States took advantage of the scope available for applying environmentally undemanding measures (Hart *et al.*, 2017; European Court of Auditors 2017).

For the post 2020 CAP the Commission set out on a different course in the proposed regulations of June 2018. These combined some incremental advances in certain policy instruments, particularly the proposal for eco-schemes to supplant an element of direct payments in Pillar I, with a more radical departure from the past in the form of the new delivery model and associated governance system. This model transfers considerable further discretion and responsibilities to Member States and seeks to shift the emphasis of CAP interventions towards recorded «performance» and, ultimately, to results measured on the ground. A key aim was to tie the Member States into delivering against EU as well as their own priorities through the process of drawing up and approving CAP Strategic Plans. The environment and climate in particular were one of three, rather broadly framed, EU objectives to be addressed through national plans.

This new delivery model was received without enthusiasm by most Member States but has survived through the subsequent years of negotiation. The modest proposals to raise environmental ambition have fared less well.

## 2. THE GREEN DEAL: THE SHOCK OF THE NEW

Late in 2019, well before the CAP proposals could be agreed, there was a decisive change in the EU's objec-

tives, both to 2030 and beyond, as the Green Deal was adopted. This envisaged a low carbon, environmentally more sustainable and healthier Europe, building economic recovery and increased employment on a new footing. A firm quantitative target to achieve net zero carbon emissions by 2050 was put in place, requiring structural changes in Europe. Agriculture, food, biodiversity and changes to land management figured prominently in the elaboration of the Deal. A new direction of travel for the whole agri-food sector was proposed, including a strong emphasis on health and diet. While many of the details of how the vision is to be achieved are lacking, several quantified targets were set for 2030, including for reductions in the use of inputs and substantially expanded areas for biodiversity.

The Green Deal, the associated Farm to Fork Strategy, Biodiversity Strategy (European Commission 2020a and 2020b) and others still in the pipeline, accompanied by a developing series of climate policy advances, such as the 2030 Climate Target Plan, certainly shifts the level of environmental ambition upwards. As further elements are put in place, the level of performance that will be required of the sector is likely to become considerably higher. This is not only because of the reductions in inputs proposed, the expansion of areas for biodiversity and increase in the area of organically farmed land from around 8% of the total now to 25 % by 2030.

Additionally, on the climate mitigation side, an EU target of a 55% net reduction in GHG emissions by 2030, measured from a 1990 base (but including carbon sinks, mainly in forestry and agricultural land) was adopted by EU heads of state in December 2020. This will have consequences for policies impacting on agriculture and land use, such as the Effort Sharing and LULUCF<sup>2</sup> regulations. Greater reductions in emissions from agriculture and potentially much increased CO<sub>2</sub> with drawls on farmland, woodland and more natural areas will be required than those observed in recent years. This points to the need for a more integrated approach to steering rural land use and management, bringing together agriculture, woodland in various forms and restored habitats such as re-wetted peatland. Given the complex interactions between climate and land management policies, the Commission is considering the logical step of introducing a single Agriculture, Forestry and Land Use (AFOLU) sector which would have an integrated policy framework, including targets expected to apply at the national level (European Commission 2020c). If adopted, national reduction targets for the sector could be demanding in some Member States.

<sup>2</sup> Land Use, Land Use Change and Forestry.

In the light of this far reaching alteration in EU objectives, the 2018 CAP proposals look rather detached from the much larger and more joined up new framework being constructed around them, too close to the status quo and clearly pitched too low in environmental terms. They also seem precariously reliant on the willingness of national authorities to grasp the implications of the Green Deal and start to align the policies they will need to put forward in their CAP Strategic Plans in 2021/2022 to the new objectives that have overtaken those of the 2018 CAP. It is unclear how far the Green Deal strategies will have been elaborated into more concrete policies by then but at present the general approach is much more voluntary rather than binding on Member States so they may not feel direct pressure to reconsider their proposals from that direction.

The compatibility of the 2018 proposals with the Green Deal framework which now surmounts them has become a source of contention, not very surprisingly. A group of environmental NGOs mounted a legal challenge to the legitimacy of the proposals, arguing that they should be withdrawn and replaced with a new set aligning with the Green Deal. The Commission, by contrast, has argued that the new delivery model in particular allows Member States to adopt the necessary environmental measures if they wish to and aspects of the «green architecture» in the proposals, including tighter eligibility conditions and the new eco-scheme, can deliver substantial benefits.

However, this argument rested partly on the integrity of the 2018 proposals being maintained through the negotiations and to the point of adoption. This did not occur, since both the Council and the Member States pursued extensive modifications, many of them weakening the environmental provisions, including for the eco-scheme (IEEP 2020). By November this had become a source of considerable tension between the Commission and the co-legislators. Early in the trilogue process the Commission published a «Factsheet» stating that “the new CAP proposal is up to the task of delivering the Green Deal objectives in relation to agriculture, provided the European Parliament and the Council maintain the ambition and strengthen certain key elements of the proposals in order to align them with the Farm to Fork and Biodiversity Strategies”. The need to «achieve a minimum level of expenditure on eco-schemes» was stressed (European Commission 2020d).

An independent review undertaken for the European Parliament by authors from INRAE and AgroParisTech concluded that the June 2018 proposals required «major changes» to be compatible with the Green Deal objectives and underlined the dangers of pursuing a sta-

tus quo approach to the legitimacy of the CAP itself as well as to the environment (Guyomard, Bureau *et al.*, 2020).

### 3. THE GAP IN ENVIRONMENTAL AMBITION

Whilst there are significant differences between the positions of individual Member States, there is a large distance between the preferences of the established agricultural policy community, as represented in the Council and the AGRI Committee in the European Parliament on the one side, and the scale of measures likely to be necessary to deliver on the ambitions of the Green Deal on the other. This community appears unmoved by the Commission’s narrative that supporting the environmental transition must become more central to the CAP. Nor is there much appetite either to extend the CAP to embrace a more integrated land use dimension or to create closer linkages to food policy; presumably the more interwoven policy frame outlined in the Green Deal is to be achieved by other means. The negotiations were not concluded at the time of writing but it looked unlikely that either the Council or the Parliament would alter their positions greatly.

Some of the gap might be bridged as the Member States draw up their CAP Strategic Plans (CSPs), setting out the policy instruments they want to use and the distribution of funding between them. The policy goals of the Green Deal could be conveyed in a narrative that is more persuasive to actors in the Member States who will be designing national and regional policies. The Commission can apply pressure during the process of scrutiny and approval but it is not in a position to impose its preferences or to insist on particular targets. The negotiations will test both the new framework and the status of the Green Deal in agricultural ministries. It is quite possible that there will be significant differences in the level of alignment with the Green Deal between Member States and the coherence of the CAP as a means of pursuing Europe wide objectives will diminish, weakening the case for devoting a large share of the EU budget to the policy post 2027.

A number of other factors may influence the scale and shape of the gap in the next period, leading up to the proposals for the post 2027 CAP. The active participation of land managers is required to achieve the transition outlined in the Green Deal and the clarity of signals that society is determined to move in this direction and that coherent pathways are available will have an important part to play. Both the dialogue and the policy process will be advanced by the publication of more con-

crete proposals from the Commission and their accompanying impact assessments. Around 37 potential measures can be found in the Farm To Fork strategy alone. More concrete proposals accompanied by additional technical information and associated debates should reveal more clearly some of the adjustments that need to be made, the costs and benefits to be expected and the winners and losers in economic as well as social and environmental terms. This may sharpen the focus on the role of incentives to drive change and the potential need to aid those for whom adjustment is difficult or not possible under a «just transition» approach.

The case for substantive action in agriculture will be scrutinised in the Member States alongside other contributions such as the generally supportive INRAE/AgroParisTech analysis and the more critical report on the Farm To Fork and Biodiversity strategies from the Economic Research Service of the USDA, (Beckman *et al.*, 2020). This has suggested that the proposed reductions in inputs of land, fertiliser, pesticides and antimicrobials in the EU could result in a fall in output of between 7 and 12%, reduced trade and an increase in food prices. Further meta-analyses of impacts is likely to follow and, given the many interactive variables in play, a range of rather diverse conclusions would not be surprising. Assumptions about the availability and uptake of technologies to improve the environmental and economic performance of agriculture can have a significant influence on such estimates and knowledge is growing rapidly in this area, not least because of EU funding and initiatives such as the agricultural European Innovation Partnership (EIP-AGRI).

There will also be more opportunity to consider the implications of dietary change for the agriculture sector; in some areas this is moving quite rapidly prior to any interventions under the Green Deal umbrella. Pressures from the market could grow rapidly, not only because of changes in consumer tastes but also because of commitments increasingly being made by food processors and retailers. For example, Carrefour, one of the largest food retailers in Europe, recently announced that it wants to reduce the carbon emissions of the goods and services it buys by 30% by 2030, signalling an intention to put pressure on its 100 largest suppliers to make quantified reductions in their GHG emissions<sup>3</sup>. Meat consumption will continue to be in the spotlight with increased public attention on climate change and livestock farmers in particular are exposed to significant changes to their market in the coming decade. The extent to which beef and sheep producers contribute to the supply of environ-

mental public goods, one of the prime reasons for support for the sector, will be under increasing scrutiny and the scale of meat production considered sustainable in Europe may diminish (Buckwell *et al.*, 2019).

On the environmental side the case for a proactive public goods driven strategy remains strong and continued pressure can be expected. If Member States stick broadly to the status quo there is little chance of the key Green Deal targets being met without major drivers outside the CAP. For example, there is a proposed target of reducing nutrient losses, Nitrogen and Phosphorus, by at least 50% by 2030, with no reduction in soil fertility, potentially amounting to a 20% reduction in fertiliser use (European Commission 2020c). Meeting it should contribute to cleaner water, reduced pressure on biodiversity and some reduction in GHG emissions. Unlike some, this particular target falls within the ambit of the CAP, since it requires changing agricultural management and there has been a considerable history of policies seeking to incentivise this. However, while the trend has been to reduce phosphorous use, the overall nitrogen balance in the EU actually grew between 2009 and 2015 from 7.4 to 8.2 million tonnes (Eurostat data quoted in Guyomard, Bureau, 2020). Decisive and rather rapid measures are needed to meet this target and if these are not to take the form of CAP incentives on a considerable scale, then alternatives will be sought, including regulatory levers and alternative sources of funding.

In short, a combination of regulatory and other policy developments, pressure from the Commission, technical advances and changes in the supply chain and consumer choice may lead to more alignment of CAP measures with the Green Deal towards 2027 than during the negotiations on the post 2020 CAP. However, this is far from certain and if it does not occur, the case for constructing alternative approaches to meeting core EU goals for the rural environment will be strengthened. The rationale for a CAP that divides up a significant share of the EU budget according to increasingly historic factors, with diminishing value added beyond a general contribution to farm incomes, will be weakened greatly.

#### 4. THE CAP IS NOT THE ONLY ALTERNATIVE

Apart from the present CAP several alternative sources of funding for land management, agriculture and the transition to a more sustainable agro-food system can be imagined. One option would be to accelerate the movement towards subsidiarity in the sector and shift most responsibilities for funding to the Member States, accepting the diminution of the level playing field

<sup>3</sup> Further information available on the Carrefour website.

and the need for alternative means of distributing the EU budget in a politically acceptable way. The argument that collective EU goals for agriculture are fading away has been given impetus by the 2020 reform debate. Ironically, perhaps the Green Deal with its plans for a joined-up approach on a European level is the main counterweight to this narrative. It provides a set of common European objectives and case for sharing the responsibilities and costs, whilst adding a sense of urgency lacking from the CAP in recent years. New EU funding instruments more attuned to the Green Deal look more credible as a result.

One such approach would be to build up a substantive transition fund aimed at the whole agri-food sector to assist change over a decade or more whilst limiting expectations of the CAP. The creation of a new time limited fund of Euro 750 billion in the form of the Next Generation EU (NGEU) as a recovery strategy already shows new possibilities in this direction.

An initiative of this kind could be linked to another concept that is being advocated as an alternative to part of the CAP at least. The Green Deal has reinforced the arguments for a more expansive common food policy which could take a larger role in the supply chain as well as focussing on the established issues such as food safety, nutrition, labelling and public procurement. There is a clear need to address the consumption side of the Green Deal agenda but this has impacts on the supply side, farm incomes, technological choices, trade policy and other considerations. Amongst these considerations is the future trajectory for livestock production in Europe, where dietary, environmental and economic goals often are in conflict and animal welfare issues are due to be reviewed and standards probably strengthened. If the CAP remains too narrowly focused to grasp the full spectrum of these issues the linkages will need to be developed more actively in an alternative policy framework.

On the environmental flank, the Green Deal has set goals requiring large scale changes in agricultural management, in the direction of lower input use, greater biodiversity, fewer GHG emissions and increased efficiency. More farmland will be needed for ecosystem restoration and for carbon sequestration, reversing the current trend of decline in the EU's carbon sink, which may become a net source of emissions beyond 2030 without further action<sup>4</sup>.

This will require the deployment of incentives for land managers on a considerable scale and with greater weighting accorded to longer term changes in management and land use than to shorter term aspects of the

annual cropping cycle. It also points to the need for integrated approaches that address agriculture, various forms of woodland, degraded and restored peatland and other more natural ecosystems in a coherent fabric of policies stretching wider than the current CAP. A greater commitment to EU funding would allow the goals of the Biodiversity Strategy to be realised more rapidly, especially if it could be focused on the areas of greatest need. This could be achieved by a new dedicated EU nature fund or taken further and extended to become a Common Ecosystem Policy in the words of the German Advisory Council on Global Change (WGBU 2020), absorbing many of the functions of the CAP, but with a much firmer focus on the delivery of environmental public goods.

## 5. IN CONCLUSION

The EU's ambitions for the rural environment and a more sustainable food system have escalated at a time when the incremental approach to making such adaptations to the CAP has lost momentum. This puts the spotlight on alternative ways of pursuing the goals of the Green Deal, with new funding instruments being one of the options. These might maintain the flow of funds into rural areas but would involve a different distribution between recipients and between Member States, always a painful prospect given the role of the CAP in the allocation of the EU budget. To meet the goals of the Green Deal and the historic commitment to net zero emissions by 2050 will require more policy innovation than has yet emerged and at present this seems more likely to flourish outside than within the established CAP.

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## Promoting climate action in the future Common Agricultural Policy

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**Abstract.** Current projections indicate that agricultural GHG emissions are hardly expected to fall between 2017 and 2030 while the sink in the LULUCF sector is projected to decline. These trends call into question the feasibility of the Commission's roadmap to reach net zero emissions by 2050. Contributing to climate change mitigation and adaptation is proposed as one of the nine specific objectives in the future CAP. This paper discusses how Member States could use the opportunities presented by the new CAP to reduce agricultural emissions while increasing removals in the LULUCF sector. The Commission has prefigured changes in the EU's climate architecture that could give Member States greater incentives to prioritize climate action in their CAP Strategic Plans. A higher share of future CAP expenditure should also be allocated to climate action under the proposal for climate mainstreaming of the EU budget, although the effectiveness of this mandate is undermined by the poor quality of the metrics proposed. The different elements of the proposed green architecture in the future CAP are reviewed to highlight the scope for climate action, including the Commission's proposal for a carbon farming initiative. Ultimately, it will be up to Member States to determine the priority they intend to give to climate action in their CAP Strategic Plans.

**Keywords:** emissions, climate action, GHG mitigation, climate targets, climate mainstreaming, CAP reform.

**JEL codes:** Q18, Q54.

### 1. INTRODUCTION

Agricultural emissions in the EU27 amounted to 394 Mt CO<sub>2</sub>e in 2018 and accounted for around 10% of EU27 territorial emissions (EEA 2020). These emissions have fallen by 21% in 2018 compared to 1990. There was a sharp fall in emissions in the very early years of this period due to the collapse in cattle numbers in the former centrally-planned economies following the restructuring of these economies after the fall of the Berlin Wall in 1989. This was followed by a slow decline until 2012 after which emissions began to increase again. DG AGRI projects that agricultural emissions will decrease only very slightly between 2012 and 2030 in a business-as-usual scenario (European Commission 2019). This is consistent with the conclusions of the

European Environment Agency based on projections submitted by Member States that show no further significant reductions in agricultural emissions by 2030. Even with additional measures planned but not yet implemented in 2019, agricultural emissions are expected to fall by less than 5% between 2017 and 2030 (EEA 2019).

Agricultural emissions cover only emissions of methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O) from agricultural activities (apart from very small emissions of CO<sub>2</sub> from liming and urea application). Changes in CO<sub>2</sub> stocks as well as minor emissions of CH<sub>4</sub> and N<sub>2</sub>O associated with land use and land use change are reported, along with net emissions from forestry, in the Land Use, Land Use Change and Forestry (LULUCF) sector. For the EU27, croplands, wetlands but also grasslands are a net source of emissions, but because of carbon sequestration in forestry, the LULUCF sector is overall a net sink, removing around 263 Mt CO<sub>2</sub>e in 2018. The size of this sink has been falling in recent years, in part due to natural age-dynamics of the forest stock but also due to increased harvesting for biomass. The Commission has aggregated the information on future LULUCF projections submitted by Member States as part of their National Energy and Climate Plans. These show that around a third of the 2005 EU carbon sink could be lost by 2030, and that the LULUCF sector may even become a net emitter in the years after 2030 (European Commission 2020a). This spells serious trouble for the Commission's roadmap to reach net zero emissions by 2050.

The EU-wide objective to be a climate-neutral continent with net zero emissions by 2050 is the centrepiece of the European Green Deal launched by Commission President Ursula von der Leyen on taking up office in December 2019. This objective is given legal backing in the European Climate Law proposed by the Commission and, at the time of writing (November 2020) under negotiation in the co-legislature (European Commission 2020b). The Commission has further proposed an amendment to this Climate Law that would raise the EU-wide emissions reduction target in 2030 from a target of at least 40% reduction in gross emissions to at least 55% reduction in net emissions relative to the emissions level in 1990 as part of its 2030 Climate Target Plan (European Commission 2020c). It has also discussed changes in the EU's climate architecture that would be necessary to achieve such increased ambition. The options it has proposed have important implications for the way agricultural and land emissions are measured and integrated into the EU's climate regime.

The EU is also making changes to the framework of the Common Agricultural Policy (CAP) for the coming period. The Commission put forward legislative pro-

posals in June 2018 (European Commission 2018). The Commission proposal has three main ideas: a new delivery model and governance structure for the CAP; higher environmental and climate ambition to be implemented through a new green architecture; and greater fairness in the distribution of payments. Following agreement by the European Council on the budget allocation for the CAP in the next Multi-annual Financial Framework (MFF) 2021-2027 in July 2020, both the European Parliament and the Agricultural Council agreed their negotiating mandates for the trilogues on the Commission CAP proposal in October 2020. This will allow the CAP legislation to be approved in the first half of 2021 and to enter into force from 1<sup>st</sup> January 2023.

The governance structure for the CAP proposed by the Commission under the new delivery model will be performance-based rather than compliance-based. The Commission has proposed three general and nine specific objectives for the CAP. One of the three general objectives is «to bolster environmental care and climate action and to contribute to the environmental – and climate – related objectives of the Union». This is supported by a specific objective to «contribute to climate change mitigation and adaptation, as well as sustainable energy». Member States will draw up CAP Strategic Plans based on a SWOT (strengths, weaknesses, opportunities, and threats) analysis which should help them to assess and identify needs for each of the nine specific objectives, including the one on climate. For the environmental and climate specific objectives, the assessment should take account of the national environmental and climate plans emanating from a defined list of legislative acts. For the climate objective, this will include any targets established under the 2030 Climate Target Plan. Reducing agricultural emissions and increasing removals in the LULUCF sector are essential to the success of the EU's Green Deal ambitions. This raises the question how Member States could use the opportunities presented by the new CAP to address the challenges of «bending the curve» for agricultural emissions while increasing removals in the LULUCF sector.

Another element that will have a bearing on the climate ambition in the next CAP is the climate mainstreaming of the EU budget. Climate mainstreaming refers to the ambition that a certain proportion of the EU budget should help to meet the EU's climate targets and to ensure climate resilience. This share was set at 20% in the 2014-2020 MFF. The European Council endorsed an increase to at least 30% in the 2021-2027 MFF. Expenditure in the natural resources and the environment MFF heading has a key role in meeting this target. The European Council agreed that the share of



the CAP expenditure to be dedicated to climate action should be 40%. This can, in principle, give a further incentive to prioritising climate action in the next CAP.

This paper elaborates on how Member States can use the new CAP to promote climate action. Section 2 describes the climate policy framework for abatement efforts in the agriculture and land sectors. Section 3 describes how climate mainstreaming would apply to the CAP. Section 4 discusses the options that will be available in the new CAP to incentivise farmers and landowners to engage in emissions abatement. Section 5 provides a short summary and conclusions.

## 2. AGRICULTURE AND LAND USE IN THE EU CLIMATE ARCHITECTURE

Under the current 2030 climate framework, GHG emissions are regulated under three separate regimes with only limited interaction between them.

- The Emissions Trading Scheme (ETS) Regulation establishes a cap-and-trade system for the power and heavy industry sectors as well as aviation. This limits and reduces permitted emissions from these sectors over time.
- The Effort Sharing Regulation (ESR) regulates emissions from the transport, buildings, agriculture, waste and small industry sectors through individual national emissions ceilings and reduction pathways. For Member States with national emission reduction targets significantly above both the EU average target and their cost-effective reduction potential, there is a limited ability to transfer emissions allowances from the ETS regime to cover emissions generated in the ESR sectors. There are no EU-wide targets for reductions in agricultural emissions alone.
- The LULUCF Regulation sets a «no-debit» target for net emissions/removals from the agricultural land use and forestry sectors compared to how it would have evolved under existing land management practices. A LULUCF credit position based on this accounting can be only partially used to offset emissions under the ESR but a LULUCF debit position must be covered by using allowances available for the ESR sector of a Member State.

In its 2030 Climate Target Plan published in September 2020, the Commission put forward options that would significantly change this architecture and the incentives to pursue abatement in the agriculture and land sectors. First, it proposes to integrate road transport and buildings into the ETS sector, putting forward two possible models. In one model, road transport and

buildings are included in the ETS but also remain as ESR sectors covered by national reduction targets. The idea here is that the carbon price arising from inclusion in the ETS would provide an additional EU instrument to achieve the national emission reduction targets under the ESR. In the second model, they would be included in the ETS but removed from the ESR sector. In that option, agricultural emissions would become a much larger share of the remaining ESR sector. For the EU27, agricultural emissions are currently 18% of ESR emissions; this share would increase to 40% under the second model. As such, the national ESR reduction target would become almost a *de facto* reduction target for agriculture as it would no longer be possible to avoid reductions in agricultural emissions if the national reduction target were to be met. This model would also have very different consequences for individual Member States. The Commission proposes to decide between these two models in the upcoming impact assessment for both the review of the Emissions Trading System and the Effort Sharing Regulation.

Under the current LULUCF Regulation, credits and debits in the LULUCF sector are generated compared to a baseline assuming continuation of existing land management practices. Credits and debits using these policy-determined accounting rules are different to the emissions and removals reported to the UNFCCC and used in the EU's long-term strategy to achieve carbon neutrality by 2050. In the 2030 Climate Target Plan, the Commission proposes to remove this inconsistency and to allow the full net LULUCF sink to be included when looking at GHG ambition. The Commission emphasises that the current trend of a decreasing land carbon sink needs to be stopped and reversed, and that over time, the sector should do more. Increased flexibility between the LULUCF Regulation and the Effort Sharing Regulation would strengthen incentives for removals in the land use sector itself.

Finally, the Commission floats the idea of creating an Agriculture, Forestry and Land Use (AFOLU) sector with its own specific policy framework covering all emissions and removals of these sectors. The Impact Assessment notes that «A policy architecture that combines more explicitly both sectors into one legal instrument may ease designing efficient and effective policies in these sectors and better align them with EU agricultural policy instruments» (European Commission 2020d). Creating a combined AFOLU sector would require a novel policy approach that would (i) set national and sub-sectoral targets and benchmarks, (ii) create flexibility across the EU ensuring cost-effective incentives and mobilise the necessary financial resources, as

well as (iii) develop the certification of carbon removals. Under this proposal, the agriculture and land sectors would undoubtedly face more ambitious climate targets at Member State level than is the case today.

### 3. CLIMATE MAINSTREAMING OF THE CAP BUDGET

For the 2021-2027 MFF the European Council decided that 40% of the CAP budget should be allocated to climate action (adaptation measures to strengthen resilience as well as mitigation) as a contribution to its overall target of 30% for the whole MFF (the latter an increase from the initial Commission proposal of 25%). This 40% commitment is not legally binding but appears in the preamble to the draft Strategic Plan Regulation (Recital 52) which notes that «Actions under the CAP are expected to contribute 40% of the overall financial envelope of the CAP to climate objectives». It will be one of the parameters used by the Commission in evaluating and approving draft Strategic Plans submitted by the Member States.

The Commission's method to determine the climate relevance of CAP spending has been criticised by, among others, the European Court of Auditors (ECA, 2016; Matthews, 2020). The Commission adapted an existing OECD methodology called «Rio markers» that the OECD had developed to track climate-related development assistance expenditure. This called for the use of three categories: climate related only (100%); significantly climate related (40%); and not climate related (0%). The Court was particularly critical of the Commission assumptions that, due to cross-compliance conditions, 19.5% of direct payments were related to climate action and that 100% of Areas of Natural Constraint (ANC) payments could be counted towards climate action. It concluded that the Commission's methodology over-estimated the likely contribution of CAP spending to climate action.

Given the higher ambition level set for the climate relevance of CAP spending in the 2021-2027 period, there is a need for a robust measure of this contribution. The Commission has specified the methodology it intends to use in the draft Strategic Plans Regulation (art. 87). The Commission has partly taken account of the Court's criticism by reducing the weighting for ANC expenditure from 100% to 40%. At the same time, it will apply a weight of 40% to expenditure under the Basic Income Support for Sustainability and the Complementary Income Support measures to take account of the mandatory standards applied under enhanced conditionality. This represents a different interpretation of

how to apply the Rio markers approach than in the current programming period. It has the effect of increasing the climate weighting for this expenditure from 19.5% to 40%, even though the Court of Auditors had already criticised the 19.5% figure as too high. The Court repeated its criticism of this methodology in its Opinion on the Commission's CAP draft legislation (ECA 2018).

Setting a high indicative target for the share of CAP spending that should be related to climate action is intended to focus Member State priorities on this objective when drawing up their CAP Strategic Plans. However, the proposed metrics are not sufficiently focused on climate outcomes to be helpful in this respect. The European Parliament, in its negotiating mandate for the trilogues, has called on the Commission to «develop a science-based and internationally recognised common methodology for more precise tracking of expenditure on climate and environmental objectives, including biodiversity, and evaluate the estimated contribution of different intervention types, as part of the Mid-term Review ...». If adopted, this would ensure greater integrity in measuring the climate ambition of the next CAP.

### 4. CLIMATE ACTION IN THE NEW CAP

Under the new CAP, Member States will draw up CAP Strategic Plans that will set out the objectives they intend to achieve with their CAP budget and the instruments they will use. The Plan should set out an intervention strategy for each specific objective identified in the Plan. An intervention strategy would define targets for specific result indicators and related milestones, identify the interventions that contribute to achieving these targets based on sound intervention logic, and set out an appropriate allocation of financial resources.

For the climate specific objective, interventions will mainly be drawn from the revised green architecture proposed by the Commission comprising enhanced conditionality obligations to be respected by all recipients of CAP payments, new eco-schemes financed from Pillar 1 direct payment envelopes, and the well-known agri-environment-climate measures (AECMs) financed from Pillar 2 rural development programmes.

Enhanced conditionality builds on the cross-compliance requirements in the current CAP but also includes conditions currently supported by the greening payment (maintenance of permanent pasture, crop rotation, a minimum share of non-productive land). Some of the obligations contribute to climate objectives. These include GAEC (Good Agricultural and Environmental Condition) standards to maintain permanent grassland,

to ensure appropriate protection of peatland and wetland, a ban on burning arable stubble, to plant cover crops to avoid bare soil in sensitive periods, to rotate crops, and to allocate a minimum share of non-productive land. Many of these conditions are already part of the current CAP rules and will not necessarily lead to additional climate benefits. However, requiring appropriate protection of wetlands and peatlands is a new measure with potential climate benefits. The Commission proposals also specify crop rotation rather than crop diversification as required for the greening payment. They would also extend the requirement for a minimum share of non-productive land to all holdings and not just larger arable holdings as required for the greening payment. The Commission also added a requirement for payment beneficiaries to adopt nutrient management plans that could help to lower N<sub>2</sub>O emissions. However, these additional elements may not survive the trilogues as both Council and Parliament see these as excessively onerous obligations for payment beneficiaries to observe.

Eco-schemes are a new instrument and their potential to contribute to climate action remains to be tested. They can reward farmers for management practices contributing to environmental and climate objectives that go beyond the mandatory standards under enhanced conditionality. They will differ from similar measures supported by AECMs in Pillar 2 in that payments will be annual rather than part of multi-annual contracts, and payments will not necessarily be limited by the requirement that they should be based either on costs incurred or income foregone because of the practice. DG AGRI has highlighted four flagship eco-schemes – agro-forestry; agro-ecological practices such as organic farming, more sustainable land management practices, enhanced crop rotation, or more extensive grazing; precision farming; and carbon farming (ARC2020 2020). All these measures could also be supported in AECMs although it will not be possible to have the same schemes targeted at the same groups of farmers in both Pillars.

Carbon farming is defined by DG AGRI as a result-based system for CO<sub>2</sub>e removed or emissions avoided. Although proposed for support under eco-schemes by the Commission, many practices may be more suited to AECM multi-year contracts that can provide greater certainty to farmers. Practices that can help to increase carbon sequestration and reduce emissions include conservation agriculture (no ploughing and reduced tillage); soil cover with cover crops, trees, landscape elements; afforestation with native species to create a species-rich forest that is resilient, also to climate change; appropriate management of dried peatland (e.g. rewetting, rewet-

ting with paludiculture, higher water table); conversion of arable land to grassland; and grassland management, for instance switching to multisward grasslands.

Carbon farming will make an important contribution to reducing emissions from the AFOLU sector in future. For farmers, it offers a potential new source of revenue, either in the form of CAP payments or from private sector actors seeking to offset their emissions. Various pilot projects are currently underway to test the concept. However, there are significant challenges before an EU-wide scheme can become operational. There are questions around monitoring, verification, additionality, reversibility, transactions costs and ensuring accounting integrity. In the Farm To Fork Strategy, the Commission has promised to come forward with a carbon farming standard for certification purposes. Changes in the LULUCF rules such as the Commission has proposed in its 2030 Climate Target Strategy will also be necessary so that Member States can gain credit for initiatives that sequester carbon and are thus incentivized to introduce them.

## 5. CONCLUSIONS

The urgent need for climate action is underlined by the European Green Deal target to ensure a climate-neutral Europe by 2050. All sectors including agriculture and the land sector will be required to contribute to this goal. Without additional measures, agricultural emissions are unlikely to reduce by much under a business-as-usual scenario, whereas the land sink is projected to decrease. Incentives under the new CAP will be necessary to turn this disturbing prognosis around.

This will require changes in the treatment of agriculture and land use in the EU's climate architecture so that Member States have an incentive to give greater priority to climate action in the CAP. The Commission's proposal to integrate agriculture and LULUCF into a new AFOLU sector with its own reduction targets and rules could be a promising start. Strengthening the way in which climate mainstreaming is measured in the CAP would also contribute to this goal. Removing the limit on LULUCF credits that can be used to offset agricultural emissions and emissions from other sectors would also give Member States a greater incentive to act. A robust carbon farming standard for certification purposes will be essential, however, if LULUCF credits are to be credible elements of GHG accounting.

Member States also need, in addition, to be able to adopt appropriate instruments in their CAP Strategic Plans to achieve more ambitious targets. The new eco-

schemes potentially can encourage greater targeting of direct payments in Pillar 1 on climate action rather than pure income support. Member States also can make greater use of AECMs in Pillar 2 to encourage management practices that address climate mitigation and resilience. It is, however, up to Member States to decide on the priority they will give to climate action relative to the other eight specific objectives in the new CAP. This underlines the importance of putting the climate architecture in place that will ensure that greater efforts are made to pursue climate objectives in the new CAP than has been the case to date.

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## Direct Payments between Income Support and Public Goods

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**Abstract.** Direct payments maintain a fundamental role in the future CAP, since they still absorb a high share of the CAP budget. However, despite some confirmations (mainly related to internal convergence, types of interventions and the role of genuine/active farmers), several relevant innovations (e.g., a reinforced cross-compliance, new eco-schemes that replace the greening payments, a new capping model) are expected to affect their implementation and the way they contribute to achieving the CAP goals. The aim of this article is twofold. First, it analyzes the innovations that are going to be applied in relation to direct payments, following the two strategic objectives these public aids have been traditionally called to pursue: enhancing income support and fostering the provision of environmental public goods. Secondly, it focuses on three types of direct payments – basic income support for sustainability, eco-schemes, coupled payment – in order to provide indications on their greater effectiveness, with particular reference to the Italian case.

**Keywords:** Common Agricultural Policy, direct payments, flate rate, eco-schemes.  
**JEL codes:** Q18.

### 1. INTRODUCTION

Direct payments will play a key role in the future post-2020 CAP in order to ensure an income support to farmers and the supply of public goods, in line with the aim of promoting a resilient and smart agricultural sector.

The new post-2020 CAP classifies payments into two categories and six types<sup>1</sup>:

- decoupled: basic income support for sustainability, redistributive complementary support, complementary support for young farmers, climate and environment schemes (*eco-schemes*);
- coupled: coupled income support (coupled payments include also the specific payment for cotton which does not concern Italy).

In order to ensure a fairer and more efficient distribution of payments, the new CAP provides for:

<sup>1</sup>The optional possibility remains for the Member State to provide for a specific flat-rate payment for small farmers, replacing all direct payments, the definition of which must be reported in the national Cap strategic Plans.



- the sub-division of the ceiling into several payments for a more target-oriented support within the CAP;
- historical payments abolition with the aim to come to a uniform payment for all the eligible area or alternatively a solid convergence towards uniform payment;
- a redistributive payment to provide targeted support to small and medium-sized farms;
- abolition of *greening* payment, whose commitments are partly included in the cross-compliance policies;
- introduction of voluntary schemes for the climate and the environment (*eco-schemes*);
- mandatory *capping* of the total amount of direct payments taking into account the amount of work to avoid negative effects on employment;
- support for farmers who carry out an agricultural activity to «earn a living», re-proposing the principle of the «active» farmer.

The importance of direct payments became clear also in the Commission notice published on 29<sup>th</sup> November 2017<sup>2</sup> as they are considered to be an instrument to bridge the gap between farmers' income and those engaged in other sectors, to boost agriculture resilience as well as the compensation for the provision of public goods agriculture (Guyomard *et al.*, 2020).

## 2. BETWEEN INCOME SUPPORT AND PUBLIC GOODS

Recognising the role of direct payments in the new CAP is relevant and not trivial. Two objectives – income support and sustainability – have been constantly pursued in the history of the CAP, since 2003 (Fischler Reform) onwards, notwithstanding the uncoordinated use of a set of instruments, often confused and heavily influenced by path dependency and political mediations at sectoral and territorial level.

Based on these considerations, one may wonder if the direct payments confirmation may be widely shared and if these aids may be considered able to meet the future challenges.

Before trying to answer to these questions, a premise is necessary. The CAP reform is not the main driver of change for farms, and the impact among them is not uniform (Lobley, Butler, 2010). Many simulations and large amount of modelling have been unable to provide confirmation of the final effects of the reforms which – in most cases – were much «lighter» than the initial assumptions (Balkhausen *et al.*, 2008; Gorton *et al.*, 2008). All in all, CAP should not be considered the driving factor of all agricultural transformations.

Change is also driven by other factors, such as market dynamics, tax policies and trends of input prices (land, labor). In this regard, it is quite straight forward that the importance of these factors has steadily grown since the CAP gave farmers more freedom, by decoupling direct payments, dismantling sectoral policies and strengthening the second pillar (Matthews *et al.*, 2006).

Nonetheless, the CAP plays a great role and like all public policies, it must focus its resources and its interventions just in case of «market failures», in particular with regard to those goods and services for which *the market does not exist* (this is the case of public goods: environmental goods, biodiversity, landscape conservation, soil fertility, water quality, water resources-agricultural use, fight to climate change, rural development, etc.).

This solution is particularly beneficial in all those cases where, like in the agricultural practices, public benefits are obtained through multifunctional production processes. In these cases, the expediency consists of the connection between private good, remunerated by the market price, and public good, remunerated by the State.

The alternative would be much more expensive for the society, as to produce the aforementioned public goods (or to avoid public bads) an alternative programme to agriculture should be implemented by employing ecological workers, civil protection, firefighters, park workers, gardeners, etc.

## 3. THE CAP FOR THE REMUNERATION OF PUBLIC GOODS

The need for a common European agricultural policy aimed at «paying» the production of public goods and services to the primary sector has become increasingly evident in the evolution of the CAP. From MacSharry onwards, all the CAP reforms have always increased financial resources in favour of a more environmentally sustainable agriculture:

- the first agri-environmental measures arising with the *Mac Sharry* reform in 1992 were initially regarded with suspicion by farmers, but within a few years everyone began to know and adopt them;
- *Agenda 2000*, which put in place the second pillar of the CAP;
- the *Fischler reform* through cross-compliance, so that the direct payments also had to comply with environmental standards (SMR) and Good Agricultural and Environmental Conditions (GAEC);
- *Health Check* through the strengthening of the second pillar of the CAP and by allocating more

<sup>2</sup> European Commission, The Future of Food and Farming, COM(2017) 713, Brussels, 29.11.2017.

resources for specific agri-environmental measures (biodiversity, fight to climate change, water management, bioenergy);

- the CAP 2014-2020 through the *greening* payment on the first pillar and the enhancement of agri-environmental measures in the second pillar.

The post-2020 CAP provides further guidelines with regard to the compensation of public goods, through:

- enhanced compliance encompassing most of the greening commitments;
- the climate and environment scheme or eco-schemes;
- increased environmental measures in rural development policy.

Nonetheless, the environmental associations and many scholars (Matthews, 2020; Navarro, López-Bao, 2019; Pe'er *et al.*, 2019) were deeply disappointed by the choices about the CAP and have openly accused European politicians of betraying the objectives related to the environmental sustainability, especially after the expectations raised by the European Green Deal, by the «A Farm To Fork» strategy<sup>3</sup> and the «Biodiversity strategy»<sup>4</sup>.

On the ground of economy and economic policy, and having in mind what would be theoretically desirable in terms of efficiency and equity, the new CAP is disappointing; in that, its earlier promises are still far from being kept in terms of innovation and from providing a real drive towards a policy aimed at remunerating public goods and the positive externalities of agriculture. However, realistically taking into account how the «political compromise» works (Petit, 2020) and the complicated decision-making mechanisms<sup>5</sup> at stake, the post-2020 CAP can be considered as an acceptable compromise, which – although not fulfilling the initial ambitions – does not stray from the main objective of public goods compensation (Guyomard *et al.*, 2020).

The CAP progress in this field is consistent with the economic policy indications; if anything, the problem is the need to be more effective in terms of tools. To this end, this paper especially focuses on three types of direct payments (basic income support for sustainability, eco-schemes, coupled payment) in order to provide guidance on their greater effectiveness.

<sup>3</sup> European Commission, A Farm To Fork strategy for a fair, healthy and environmentally-friendly food system, COM(2020) 381, Brussels, 20.05.2020.

<sup>4</sup> European Commission, EU Biodiversity Strategy for 2030. Bringing nature back into our lives, COM(2020) 380, Brussels, 20.05.2020.

<sup>5</sup> The 2014-2020 CAP and the post-2020 CAP are the first reforms after the Lisbon Treaty, according to the legislative procedure of codecision between the European Parliament and the Council.

#### 4. BASIC INCOME SUPPORT FOR SUSTAINABILITY

Member States shall grant a basic income support payment in the form of annual decoupled payment per eligible hectare to *active farmers*.

The first innovation of the post-2020 CAP, to which adequate attention should be paid, is the new name of the basic payment<sup>6</sup>, reported in the proposed regulation as *Basic income support for sustainability*. This name clarifies and justifies the role of direct support to farmers: an income aid to remunerate farmers' contribution to sustainability. In other words, the new payment is an income support to bridge the gap between farmers' income and that of other sectors (Ciliberti, Frascarelli, 2018), increasing their resilience and taking into account that agriculture is a sector producing public environmental goods (Matthews, 2017; Engel, Muller, 2016). The support is therefore a remuneration for sustainability, outlined by the cross-compliance commitments. The new name *Basic income support for sustainability* therefore answers unequivocally to the detractors of direct payments (Sotte, 2017), by clarifying its purpose which is pursued in a uniform manner across the entire agricultural area of the Union.

The second innovation of the basic payment concerns the criteria for setting the amount which can be settled in two ways, at the discretion of the Member States:

1. as a uniform annual payment per eligible hectare, or rather a payment linked to the area, without entitlements;
2. allocating the support on the basis of aid entitlements (i.e., Member states can decide to continue granting basic income support on the basis of aid entitlements).

In other words, Member States can decide to move away from the Single Payment System (SPS) to the Single Area Payment System (SAPS).

The SPS needs to establish and manage individual aid entitlements, with the possibility of selling or renting; it is applied according to two models of entitlements allocation:

1. historical model, in force in 9 EU countries (including Italy)<sup>7</sup>, based on the allocation of the entitlements value considering historical references;
2. regional model, in force in 7 EU countries<sup>8</sup>, based on the allocation of uniform value entitlements at the regional level.

<sup>6</sup> European Commission, Proposal for a Regulation of the European Parliament of the Council establishing rules on support for strategic plans, COM(2018) 392, Brussels, 01.06.2018.

<sup>7</sup> The SPS with historical model has been adopted by Austria, Belgium, Greece, France, Ireland, Italy, Holland, Portugal and Spain

<sup>8</sup> The SPS with regional model has been adopted by Denmark, Finland, Germany, Luxembourg, Sweden, Malta and Slovenia.



The SAPS is a simplified income support scheme, proposed to Member States that joined the European Union in 2004 with the aim to ease the implementation of direct payments<sup>9</sup> in 2007.

Through the new post-2020 CAP, the EU offers the possibility to move away from the aid entitlements system to the uniform annual payment per eligible hectare (*flat rate*). The level of payment is obtained by dividing the country's annual financial envelope by its eligible agricultural area.

As an alternative to *flat rate* without entitlements, Member States may continue to grant basic income support on the basis of aid entitlements. In this case, the new CAP requires a process of convergence of historical payments.

Aid entitlements arose in 2005 with the decoupling under the Fischler reform, which had fixed the amount of support based on historical references during the period 2000-2002. Allocation of entitlements on historical basis had crystallized strong disparities between farmers and territories; however, at the same time, it was justified by the need to «acquire» the consent of farmers on a very radical reform as that of total decoupling was.

As early as 2005, Member States could choose between a historical model for allocating entitlements and a regional or uniform model (*flat rate*). Italy, along with 9 other Member States, had opted for the historical model, while the majority of Member States had adopted a regional flat-rate model.

With the *Health check* first, and then with the CAP 2014-2020, the EU has re-proposed the transition from payments based on historical data to «flat-rate» or uniform aid. In both reforms, Italy did not take the flat-rate option.

In the new post-2020 CAP reform, Italy has opted for the more conservative model, the so-called «Irish model» enabling a partial convergence in 2019, while maintaining the historical references of direct payments until 2020.

With the new post-2020 CAP, the same option is proposed again; the possibility of abolishing entitlements would be a real innovation for the direct payment scheme in Italy. The transition from historical payments to the flat-rate scheme, accompanied by the abolition of entitlements, offers two important advantages: justification and simplification.

In the long run, the historical model, based on previous rights, may be difficult to justify: it is not clear today, and even less tomorrow, why farmers who can

carry out similar agricultural activities shall receive different amounts of direct payments, creating inequalities in terms of competition. The fact that these payments derive from a different production situation during the period 2000-2002 does not justify the persistence of these differences.

The regional model (*flat rate*) foreseeing the abolition of entitlements offers many advantages: it allows to improve the accountability of the CAP towards European citizens, silence critics about the historical model of decoupling which «crystallizes and makes direct payments fully visible, weakening them from the point of view of their social and economic justification» (Henke, 2004), all the more so as they are linked to the – historical – *status* of farmer rather than to «virtuous» behaviours.

The abolition of entitlements strongly simplifies the management of direct payments, by abolishing the Entitlements Register as well as the transfer of entitlements which resulted in a high degree of complexity. Furthermore, payments without entitlements favour land and rental mobility (Ciaian, Kancs, 2012; Latruffe, Le Mouel, 2009; Ciliberti, Frascarelli, 2018) and stimulate market orientation through the abolition of high-value entitlements that may lead some farmers to «settle for» the support from the CAP (Frascarelli, 2019).

The only (weak) advantages to maintain entitlements are a gradual transition towards uniform support, without significant impact on income, and a higher support for some strategic sectors (milk, beef, durum wheat, olive tree).

In light of the clear predominance of the advantages related to the *flat rate*, a proposal for setting aside the historical references and moving towards a uniform payment was expected by the Commission, instead the choice has once again been left to the Member States (European Commission, 2018).

## 5. ECO-SCHEMES

The schemes for the climate and the environment (ecological schemes or eco-schemes) are another crucial matter of debate within the new CAP. They are delivered through an annual payment per hectare to farmers who voluntarily observe certain agricultural practices beneficial for the climate and the environment.

The voluntary option of the eco-scheme for farmers, but compulsory for the Member States, differs from the mandatory *greening* payment; however, it does not pay less attention to the environmental issue, but it expresses the desire to ensure Member States greater flexibility so as to align the environmental measures with the

<sup>9</sup> This scheme, adopted by all EU12 Member States, except Slovenia and Malta, replaces all direct payments with a single area payment (Pupo D'Andrea, 2014).

local needs and the real conditions of farmers. This new vision is also the result of the negative assessment on *greening* by the Court of Auditors that considers *greening*, as applied in the current programming, to be unlikely to significantly improve the performance of the CAP from the climatic and environmental point of view (European Court of Auditors, 2017).

Eco-schemes and the green architecture of the CAP in general have been reason of disagreements among the EU institutions as well as among the Members of the European Parliament and agricultural ministers, when they voted to reform the CAP, in the second-last week of October 2020. The Council of Agricultural Ministers approved to allocate 20% of the direct payment budget to the new eco-schemes, against the 30% requested by the European Parliament, and to allocate 30% of the resources of the second pillar to agri-climate-environmental measures, compared to the 35% requested by the MEPs.

The confrontation continued with stakeholders at European and national level, especially the environmental associations which asked for greater ambition in the environmental matters and strongly accused the choice to finance mostly a model of intensive agriculture and industrial breeding.

On the other hand, farmers' concern, with the new eco-schemes, regards the increase of adaptation costs and the reduction in the income support benefits<sup>10</sup>.

The accusations by environmentalists, on the one hand, are justified considering the role that should rightly distinguish the green component of civil society, but on the other hand, they are unjustified because they neglect the strong growth of the environmental orientation of the new CAP, through reinforced cross-compliance, the new eco-schemes as well as the increase in the number of environmental measures in rural development policy (Strambi, 2016).

The reluctance towards the greening of the CAP on the part of farmers is equally unjustified. Citizens-consumers pay increasing attention to environmental sustainability, health, ecosystems. European agriculture has every interest in meeting the expectations of citizens, both for internal and external reasons to enhance the competitiveness of European agri-food products worldwide.

On the domestic front, the most far-sighted position is embracing citizens expectations, building good, simple and effective eco-schemes (Cullen *et al.*, 2018), enhancing the environmental values already existing in

the European agriculture and creating new opportunities for green business<sup>11</sup>.

In this way, the CAP is defensible and can aspire to increase public resources (Guyomard *et al.*, 2020) and it represents a trade lever for agricultural and food products, not a constraint.

## 6. COUPLED SUPPORT

A particularly debated issue in the negotiations on the CAP and its application at the national level has always regarded coupled payments, as opposed to or in complementarity with decoupling.

This debate raises questions about the effectiveness of coupled payments.

The new post-2020 CAP endorses the importance of coupled support in favour of sectors that are valuable for economic, social or environmental reasons to face difficulties, improve competitiveness, their sustainability or their quality<sup>12</sup>.

It is interesting to note how the guidelines of the academic research, both in scientific works and in reports often debated by the community institutions, are diametrically opposed to those expressed by the political decision makers (Pupo D'Andrea, 2014).

The academic research agrees that coupled payments should be abolished, or at least limited in time, because they are ineffective with respect to the objectives for which they were designed, since they limit the freedom of farmers to produce or not. The academic research also highlights the undesirable effects derived from coupled payments due to the distortive consequences on production and on the market compared to the free market trend. In general, all pricing policies and/or coupled payments have proved to be inefficient with respect to the objectives for which they were conceived, including the prevention of land abandonment (Tangermann, 2011; Swinbank, 2012).

On the other hand, *policy makers* and agricultural and agro-industrial organizations have always looked

<sup>11</sup> Some occasions of green businesses are the following: carbon sequestration in agricultural soils (carbon farming) by farmers and foresters, agricultural practices rewarded through the CAP or other public or private initiatives (carbon market), advanced biorefineries that produce biofertilizers, protein feeds, bioenergy and biochemicals, production of renewable energy in anaerobic digesters for the production of biogas from agricultural waste and residues (European Commission, «A Farm To Fork Strategy»).

<sup>12</sup> Coupled support may be granted, at the discretion of the Member States, in the form of annual payment per eligible hectare or per eligible animal, up to a maximum amount of 10% of the ceiling for direct payments (13% for the Council of Agriculture Ministers), with a 2% increase for protein legumes

<sup>10</sup> The same criticisms were expressed in 2014 on *greening*, which later proved to have little impact for Italian farmers, if it were not for an excessive bureaucratic burden.

positively at maintaining coupled payments; in the post-2020 CAP, the more conservative positions, supported by the Council of agricultural ministers and agricultural organizations, have obtained an increase in the ceiling of coupled payments. In Italy, then, the debate shifts to the sectors where coupled payments are to be allocated, turning into a «highway robbery» aimed to attract political consensus in some sectors and territories.

In reality, justifications for coupled payment are limited to a few cases, for various reasons.

Decoupled policies are more effective in remedying «market failures», in particular by encouraging the public good for certain aspects of the agricultural activity and ensuring compensation for the positive externalities of which agriculture and farmers are producers (environment, landscape, hydraulic-agricultural structure), while a free market price system is not able to adequately remunerate (De Filippis, 1988).

The claims in support of the decoupling of agricultural policies are based on the commonly accepted belief that deregulated markets are more efficient than those subject to public intervention (Rizov, Pokrivcak, Caian, 2013)<sup>13</sup>.

In the debate on the CAP, the contributions of scholars and *think tanks* have always placed great emphasis on the abolition or drastic reduction of direct payments (coupled and non-coupled) of the first pillar of the CAP and on the introduction of payments aimed at the remunerating environmental services and supporting rural areas (Bureau, Witzke, 2010; Pe'er, Lakner, 2020; Jansson *et al.*, 2020)<sup>14</sup>.

In some studies (Bureau, Witzke, 2010) the possibility of using coupled payments is envisaged only if they are necessary to produce particular public goods and within the limits in which they perform this task.

In summary, the limitations of coupled policies are indisputable; therefore, the only cases in which coupled

payments may be justified are those in which production is associated with public goods. This is the case of support for extensive animal husbandry in the mountains (suckler cow, sheep and goat), where this type of agro-zootechnical production is the only one capable of guaranteeing a certain level of supply of public goods.

## 7. FINAL CONSIDERATIONS

The role and decisions on post-2020 direct payments confirm some of the past tendencies, but also contain relevant new features.

An important confirmation is the recognition of the role of direct payments amounting to about 40% of EU agricultural income (28% in Italy). Moreover, these aids are aimed at bridging (at least partially) the gap between agricultural income and income generated in other economic sectors; they represent a contribution to agricultural resilience and an important safety net for farmers' incomes and ensure agricultural activity in all regions of the Union, including areas subject to natural constraints.

The new name of the basic support, defined as *Basic income support for sustainability*, clearly and explicitly explains the role of direct support as income aid to remunerate farmers' contribution to sustainability.

The unpacking of payments is confirmed with the aim of granting more targeted, selective and flexible payments.

The abolition of the *greening* payment therefore does not imply that the environmental objectives of the CAP are being downsized; rather, they are strengthened, since the majority of *greening* commitments flow into the cross-compliance rules, and a new green component of the CAP gains momentum with the introduction of theeco-schemes, on the one hand, and the increase in the number of agri-climate-environmental payments of the second pillar, on the other hand.

However, the most important innovation would be represented by the possibility of introducing a uniform annual payment per eligible hectare, without entitlements, based on the model of the current Single Area Payment Scheme: it would allow to leave behind, once for all, the system and the underlying logic of payment entitlements.

In conclusion, the «heart» of the reform of direct payments in Italy, poised between a real change and a «watered down reform», is based on three main decisions to be taken when the CAP strategic plan will be approved: the basic support option «without entitlements», the agricultural practices to be included in the eco-schemes, the percentage and the sectors of coupled payment.

<sup>13</sup> However, it should be noted that the social consequences of agricultural market liberalization depend on the level and nature of competition and must be carefully evaluated (Russo, 2007). Many analyses on decoupling, in fact, ignore the problem of market power exercised by the intermediaries in the supply chain located downstream of the farms, despite the fact that there is now a substantial literature suggesting that agri-food markets are imperfectly competitive (Russo *et al.*, 2011). It is possible to demonstrate how, in the presence of market power, the decoupling of agricultural policies does not necessarily increase social welfare. However, minimum price system or coupled payments represent a less efficient solution than a policy based on the joint adoption of decoupled policies and interventions in favour of competition (Russo, 2007).

<sup>14</sup> Along the same lines, the European Court of Auditors stated its opinion on the CAP reform proposals (European Court of Auditors, 2012), focusing on the matter related to the effectiveness and efficiency of the instrument, arguing that countries deciding to apply coupled payments are asked to set clear and easily monitored objectives.

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# Knowledge and innovation, privileged tools of the agro-food system transition towards full sustainability

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**Abstract.** The two strategic documents for the future of Europe post 2020 (Green Deal) and agriculture in Europe (From Farm To Fork) recognize the important role of knowledge and innovation systems in accelerating change towards food sustainability. Researchers and advisors, together with the other actors of the Agricultural Knowledge and Innovation System, have the mandate to cooperate more closely to support all on this transition path. This includes stronger and more structured networking, increased information sharing and using digital tools to this effect. The proposed text aims to clarify how a systemic and interactive approach acts towards the above strategic aims in a more effective way, starting from what has already been achieved in this European programming period 2014-2020. A specific focus will be assigned to the EIP-AGRI initiative, to its first results and to its possible evolution.

**Keywords:** knowledge and innovation, AKIS, interactive approach, advisory.  
**JEL codes:** Q16.

## 1. INTRODUCTION

The promotion of knowledge and innovation will be a central effort of the future European policy continuing, broadening and fine-tuning the interventions already realized in this programming period.

The EC Communication (12/2019) «The European Green Deal» aims “to transform the EU into a fair and prosperous society, with a modern, resource-efficient and competitive economy where there are no net emissions of greenhouse gases in 2050 and where economic growth is decoupled from resource use”.

To realize this engagement the EU will have to maintain and increase its intervention in order to promote knowledge, new technologies, sustainable solutions, innovations. The next Research Framework Program, Horizon Europe, will address a significant portion of the budget (35%) to new solutions for climate and also other instruments will have the same priority. The approach pursued will not only be conventional but the actions will be systemic because they will promote cross-sector, multi-actor and interdisciplinary

nary work. Data useful for innovations should be easy to access and interoperable. The growth of human capital activating education and training will play a central role.

With reference to the agricultural, forestry and food sector, the EC has published a specific strategic document (05/2020), «From Farm To Fork» that describes the sectoral strategy. «The COVID-19 pandemic has underlined the importance of a robust and resilient food system» we read in the first paragraph of the document. Below, the main changes of the supply chain's components are proposed starting with the agricultural and forestry producers which have to reduce the use of chemical pesticides and nutrients (especially nitrogen and phosphorus), GHG emission, antimicrobial resistance (AMR) and to invest in circular bio-based economy, renewable energy, seed security and diversity, animal welfare, seed security and diversity, organic production. The food system must ensure sufficient and varied supply of safe, nutritious, affordable and sustainable food to people at all times. Also, all the other actors of the supply chain (food processors, food service operators and retailers) have to realize more sustainable productive processes and promote healthier consumer choices. It's important to empower consumers to make informed, healthy and sustainable food choices and reduce food loss and waste.

The above goals are numerous and difficult to achieve. Therefore, EC is aware that some instruments must be identified to support and address the change. «To enable the transition», the promotion of agricultural knowledge and innovation systems is a key factor. Agricultural Knowledge and Innovation Systems (AKIS) area complex field where research and innovation are in direct connection with practice and connections with farmers and operators are fostered through the support of other development factors such as farmers' organisations, advisors, education, digital tools, data and knowledge sharing. Central issues concerning the AKIS involvement focus on which approach allows more effective interventions and a quicker change of the agri-food practises towards sustainability.

The role of research, advisory services and education as multipliers of the socio-economic and technical development have been demonstrated by expert authors dating back to last century (Nitsch U., 1972, 1984; Ruttan V., 1982; Alston J., 1992; Rivera W.M., 1997; Esposti R., 2000). In the 21<sup>st</sup> century scientific studies have focused their attention on methods, tools and approaches to make the components of AKIS more useful to promote a real improvement and transformation of rural territories and farms.

The different analysis came to a common conclusion: the interactive approach to innovation is the most

effective both for understanding the needs of rural territories and farms and for promoting the adoption of innovation itself.

The central topics of this specific type of intervention (Giarè, Vagnozzi, 2019) are:

- the positive co-existence between innovation arising from research and innovation arising from practice (Ingram *et al.*, 2018);
- the importance of producing tailor-made innovations analysing the socio-economic context and farmers' problems/opportunities (Sewell *et al.*, 2017);
- the need to provide frequent interactions among different rural actors (Klerks *et al.*, 2012; Hermans *et al.*, 2015) in order to promote effective development actions.

The interactive approach to innovation has been adopted by the EU as from programming period 2014-2020, particularly in the European Innovation Partnership on Agricultural Productivity and Sustainability. This initiative has promoted many innovation projects (Operational Groups – OGs) in almost all European countries with the specific feature that the main actors of the knowledge and innovation systemwork together. The EIP AGRI is working very well with more than 1800 OGs already running or finished and up until 3200 planned by the end of the next 2 years.

Also, the current Research Framework Programme, Horizon 2020, has supported the approach mentioned above with two types of projects, the multi-actor projects and the thematic networks. Thematic networks are support and coordination activities with the aim to gather all the innovation results on a specific research topic and to put together the actors that are interested into the issues or opportunities concerning an agricultural productive sector or a specific rural territory. In multi-actor projects, researchers and practitioners co-create ready to use solutions to the needs of the farming and forestry sector.

The next programming period of the European policy will continue these formats under Horizon Europe and the post 2020 Common Agricultural Policy (CAP). Moreover, the EU has chosen the interactive approach for managing the entire intervention on knowledge and innovation for the forestry and AGRIFOOD sector by focusing on the Agricultural Knowledge and Innovation System (AKIS) with specific attention to the involvement of all the actors and to the promotion of effective relations and information flows among them.

The next paragraphs aim to describe this political line and the main instruments promoted in it.



## 2. A STRATEGIC APPROACH TO KNOWLEDGE AND INNOVATION FOR CAP POST 2020

The intervention promoted by the future Common Agricultural Policy (CAP) for agricultural knowledge and innovation has been designed considering the experience of the last seven years. Two lessons have been very important:

- the good results of the EIPAGRI initiative with its Operational Groups and of the Horizon 2020 with the multi-actor projects, which both have adopted a partnership-based approach to co-creation the innovation,
- the problematic performance of the farm advisors and in general of the other AKIS actors who hardly relate to each other.

So, the new CAP has chosen to adopt a systemic setting, clarifying that the AKIS system is the main driving force of the next interventions. The latest version of the CAP regulation proposal provides also a definition of AKIS: “AKIS means the combined organisation and knowledge flows between persons, organisations and institutions who use and produce knowledge for agriculture and interrelated fields (Agricultural Knowledge and Innovation System)” (art.3, k) in which the relationships and exchanges are pointed out.

The objective of modernising the sector by fostering and sharing of knowledge, innovation and digitalisation is defined as a cross-cutting objective. It is the way for promoting and speeding up all the other nine specific objectives related to the improvement of incomes and competitiveness; the promotion of actions for environmental care, preserving biodiversity, managing climate change; as well as the support of rural people, generational renewal and enhancing food quality and healthy diets.

In the next programming phase, the role of ICT is strengthened because it creates an enabling context for other technologies and opportunities. The digital technologies had an uneven spread in European regions especially in rural areas due to lack of infrastructure, but also due to farmers and agricultural operators’ limited skills. Therefore, AKIS actors should be address also helping to minimise a digital divide and make better use of the digital novelties.

The general choice of governance, to envisage a National Strategic Plan organizing all the CAP interventions, is consistent with the holistic approach of the AKIS. It requires from the EU Member States an analysis of the single system’s components and of the organizational set-up starting from the structural and operative needs up to the actions for improving knowledge

and innovation flows. The regionalized States will have to make a greater effort than the others to coordinate the reviews and the so-called «SWOT analysis», to identify the crucial points and to choose the main actions to be taken. However, it will be a positive commitment because they will have to select the specific regional needs resulting from local demands and implement the approaches, tools, rules and administrative procedures with a common agreement. This approach should reduce the fragmentation of the AKIS and respond to AKIS actors’ requests and needs. The latter, often having inter-regional structures/organization, sustain increases in costs and work time to comply to the different regional approaches or rules.

A special attention is directed by the CAP regulation proposal to the farm advisory services. These instruments for the rural development have been in the structural CAP since the last decades of the twentieth century, then, in the 2000s, they received less attention and, finally, they were fragmented from the rest of the AKIS in a separate system focusing on cross-compliance in the CAP programming phase 2007-2013. Advising is a key area of AKIS with the task of supporting farmers in the production and in the management of farm; the role that is most recognized to advisors is to be the link between research and farm especially in the innovation adoption. Now with the wider area of AKIS aims and functions, the farm advisors need to fulfil a great number of tasks and have different types of expertise, we can mention, just as an example, the advisors’ role in innovation brokering and in the animation of rural communities in building innovative projects (Menna *et al.*, 2020). The European Commission has stressed in the proposal regulation that the farm advisory services are an essential component of AKIS because in the current programming phase there is a limited use of the funding for advisory farm services in the Rural Development Program (Measure 2) and a too low involvement of the advisors in the EIP-AGRI Operational Groups’ projects. Moreover, in some European countries, including Italy, the farm advisors do not have an operational stability because they sometimes lack official recognition (legal or institutional) and/or the advisors are employed especially in private bodies (professional organizations, producers’ associations, groups of freelancers).

In the last year, this issue has been discussed in SCAR<sup>1</sup> AKIS working group (4<sup>th</sup> Report, 2019) and in European meetings of the EIP-AGRI Network (Van Oost, 2020) where some other specific considerations have been listed:

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<sup>1</sup> Standing Committee of Agricultural Research was instituted by the European Commission in the 1974

- it's necessary to go beyond advising as linear knowledge «transfer» and move on holistic and interactive advice targeted to the farm's and farmer's context;
- the advisory work is characterized by a wide variety of methods and tools (individual advice, group advice, training, workshops, demonstration etc.);
- advisors can also act as innovation brokers/facilitators, capturing farmers' needs and sharing innovative outcomes,
- the networking among advisors from regional to national and European level improve the flow of information and knowledge;
- the advisors' training is a central need especially on emerging issues such as digital techniques, soft skills for better interactivity, innovations for sustainability and climate change, generational renewal;
- the new advisor has to cover a range of new themes and instruments: whole value chain approach, bio-based chains, dialogue with society etc.;
- it's necessary to simplify administrative procedures and control systems aiming to the quality of advising.

The next political phase envisages the funding of a variety of types of intervention such as farmers' and advisors' training, demonstration, drawing up and updating plans and studies, exchange and dissemination of knowledge and information. Compared to the current programming period these actions can be used very flexible, and can be combined and organized together to reach the goals defined in the Strategic Plan.

As mentioned above, the European Innovation Partnership for the Agricultural Productivity and Sustainability is confirmed in the CAP post 2020, again with high EU co-financing rates. It is the European intervention that has realized the systemic and interactive approach to innovation better than others and increased the volume of practice-oriented knowledge in Europe.

The aims of the EIP AGRI will be the same but the proposal regulation highlights the methodological aspects clarifying that the tasks are: «to create added value by better linking research and farming practice», to connect all the actors of the innovation chain, to promote the adoption of the innovations by the farms and to collect the needs of rural territories and firms for promoting new research.

The main instruments are still the Operational Groups that have to widen and become more creative in their projects in the direction of the co-decision and co-creating and the involvement of relevant actors. Operational Groups can now also act across borders and receive pre-financing, which will help the weaker players, such as farmers and advisors, to start up innovative

projects. Best practices discovered in the current period will be able to apply, for example continuously bottom-up and open calls, financing the preparation step of the innovative project.

The knowledge and innovation component of the CAP will be also supported by the new European Framework Program of the research «Horizon Europe» that is adopted. The agricultural, forestry, food and natural resources have their funding in Pillar II «Global Challenges and European Industrial Competitiveness» and it is Cluster 6: «Food, Bioeconomy, Natural Resources, Agriculture and Environment» with an important financial allocation: 9 billion €. This cluster, in turn, is composed by seven intervention areas: Environmental Observation, Biodiversity and Natural Resources, Agriculture, Forestry and Rural Areas Seas, Oceans and Inland Waters, Food Systems, Bio-based innovation systems in the EU, Bioeconomy Circular Systems.

### 3. CONCLUSION

Knowledge and innovation have a key role to play in helping farmers and rural communities meet the future challenges. Although there is already a substantial amount of knowledge available and agricultural research delivers new advancements, this knowledge is fragmented and insufficiently applied in practice. The new CAP post 2020 will make advisors, researchers and CAP networks cooperate to provide for comprehensive innovation ecosystems at Member States' level delivering qualitative services. This will strengthen the Agricultural Knowledge and Innovation System in each Member State to structure knowledge exchange and foster innovation processes.

Well-functioning of the AKISs helps to speed up innovation throughout the EU, avoid duplication of efforts, save costs and strengthen the impact of EU/national/regional R&I funding. Supported by the EIP-AGRI and its innovative Operational Group projects as well as by the many Horizon Europe multi-actor projects, the stronger AKIS systems will even more increase the EU-added value. They will encourage not only locally adapted co-creation of knowledge and innovation but also initiate systemic cross-border exchanges of knowledge and innovation within the EU.

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