Is the CAP Fit for purpose?

An evidence-based, rapid Fitness-Check assessment

- Preliminary Summary of Key Outcomes

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1 Introduction and Background

The Common Agricultural Policy (CAP) was founded in 1957 under the Treaty of Rome, originally with the objective of consolidating food production and reducing food scarcity in Europe. Sixty years later, the CAP is still the largest policy area in the European Union (EU) with a share of nearly 40% of the EU's budget in 2016 (nearly €60 Billion/year). In addition to the five objectives defined in 1957 and confirmed by the treaty of the functioning of the European Union in 2009, the European Commission (EC) delineated three new overarching objectives of the CAP in 2010. While the latter objectives have not been officially constitutionalized, they were reflected in the last CAP reform. We therefore refer to all eight objectives as the CAP's official objectives (**Box 1**).

1.1 Objectives

The project has four overarching aims, namely

a) to compile evidence on the CAP's impacts on our society, economy and environment.
b) to assess whether the CAP fulfils its own objectives.
c) to assess the potential contribution of the CAP to meeting relevant Sustainable Development Goals (1, 2, 3, 6, 7, 8, 10, 12, 13, 15).
d) As an outcome of these three questions, and on the basis of a rapid scoping and evidence-gathering process, to offer a contribution to an evidence-based Fitness-Check of the CAP.

In the following we present some preliminary outcomes of the study. We clarify that some results may change as analyses proceed and/or additional evidence is gathered.

Box 1: The eight key objectives of the Common Agricultural Policy (CAP)

Article 39 of the Treaty of the functioning of the European Union (2009; own highlighting) "specifies that the objectives of the Common Agricultural Policy shall be:

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

The new objectives formulated by the European Commission in 2010 (EC 2010) are:

6. Viable food production, which includes e.g. the objective to contribute to farm incomes, improve the competitiveness of the sector or compensate for natural constraints;

7. Sustainable management of natural resources and climate action, which includes e.g. the support of the provision of environmental public goods, foster green growth through innovation, pursue climate change mitigation;

8. Balanced territorial development, which includes e.g. the support of rural employment, the promotion of diversification and improve the rural economy and to allow for structural diversity.

2 Background and Methods

We follow the EC's criteria for policy Fitness-Checks, by adopting six evaluation criteria for the CAP:

- **Effectiveness:** Have the CAP objectives been achieved or are they being achieved? Which significant factors contributed to or inhibited progress towards meeting the objectives?
- **Efficiency:** Are the costs reasonable and in proportion to the benefits achieved? One also considers other, comparable mechanism to achieve the same objective.
- **Internal Coherence:** Do the CAP instruments complement or conflict with each other in supporting its objectives, implementation and/or effects?
- **External Coherence:** Do other EU and international policies complement or conflict with the CAP in terms of objectives, implementation and/or effects?
- **Relevance:** Is the CAP relevant to the challenges as perceived by EU citizens, farmers and policy makers? Is it using (and supporting) the most updated criteria, tools and knowledge?
- **EU Added Value:** Does the CAP address challenges better than national-, regional- or local-level solutions?

While Fitness-Check processes usually consider also the views of civil society and stakeholders, our study focused only performing the desk-study component. We assume that stakeholder-engagement aspects are covered by the EU's public consultation and other conferences.

This project is based on a *rapid* process of scoping, evidence-gathering, and analysis. The approach closely follows the protocol devised for such processes, namely Collins et al. (2015): "The Production of Quick Scoping Reviews and Rapid Evidence Assessments: A How to Guide". While the guide recommends conducting a systematic review and meta-analysis, such a process requires much more time and workforce than available here. Hence, our purpose was to generate an overview of the extent of available knowledge, and to form a knowledge base that will allow addressing at least some of the key questions listed above.

We focused on scientific literature, with a prime emphasis on peer-reviewed publications. We covered both socio-economic and environmental aspects, aiming to the extent possible to achieve the most balanced knowledge base, both thematically and geographically. Our database only included publications that offer a direct evaluation of the CAP or its instruments. Reports were included when clearly including direct, relevant evidence. It was only due to time constraints that we could not place higher priority of identifying and extracting material from such sources.

The study was conducted between January and May 2017. We established an interdisciplinary scoping committee comprising 18 members; defined the key questions, evaluation criteria and SDGs to target; delineated the methods of literature search and a working protocol (including, e.g., inclusion and exclusion criteria) through a series of online meetings and two workshops; and constructed two databases. One database lists all identified publications that are potentially relevant for the assessment; while the second contains all key information gathered from an in-depth assessment of the relevant literature (a subset of the former list). Both databases are published and available online as of May 15, 2017 (https://idata.idiv.de/DDM/Data/ShowData/248). Our assessment included peer-reviewed scientific literature from 2006-2017 (i.e., after the Fischler-Reform of 2005). We only included literature that directly related to the CAP. Publications about agriculture in general, for instance, were excluded. Evidence was collated into the database either by our team, or via an online survey which was opened in March 2017. The call for evidence was spread among a large number of experts across Europe, and the online survey will remain open for evidence until the 15th of July 2017.

3 Preliminary results

3.1 Overview of the literature assessed

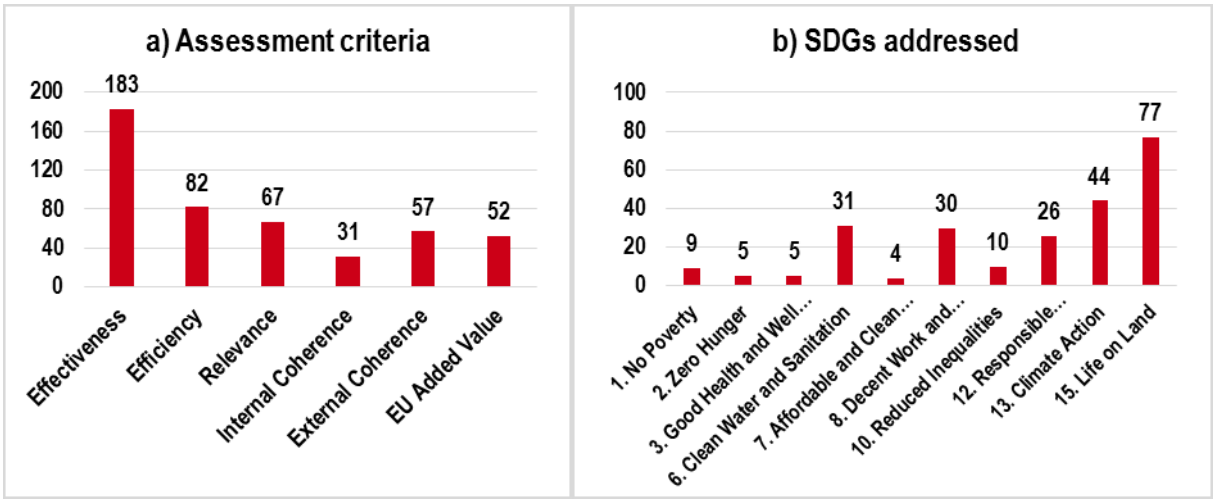

Figure 1: Number of studies in our database addressing a) the different Fitness Check assessment criteria and b) the relevant SDG.

As of June 2017, 587 publications were listed as potentially-relevant for the CAP's assessment. We assessed and harvested information from 275 of these publications into our in-depth database. These publications cover 26 Member States, as well as 30 studies on the impacts of the CAP on

countries beyond the EU and globally. 62 publications were inserted via the online call for evidence, from 48 contributors. **Figure 1** provides an overview of the database, showing that most publications addressed the criteria 'effectiveness' and 'efficiency' (Fig. 1a), whereas 'internal coherence' was least addressed by scientific publications. Thematically, the largest number of publications addressed SDG 15 'life on land' and SDG 13 'climate action' (Fig. 1b).

In the following sections we present some key preliminary findings regarding the Fitness-Check criteria, followed by an overview of the outcomes for some key SDGs.

3.2 Effectiveness

3.2.1 Environment

Our assessment indicated that some specific instruments show local and regional successes on biodiversity, ecosystem services, soil and water quality, but these do not reverse the overall, ongoing trends of agricultural intensification, abandonment, environmental degradation and biodiversity decline. The CAP has very limited effect on climate change mitigation, due to poor consideration of Greenhouse Gas (GHG) emissions relating e.g. to livestock farming and impacts on land-use change outside the EU, particularly through imported feedstock. Other global effects of the CAP due to the EU's footprint were overall negative as well. The impacts of the CAP on land-use, farm structure and management, and biodiversity has been very extensively studied but shows highly variable and complex outcomes, altogether indicating that the sustainability of European agricultural landscapes and biodiversity therein remain threatened. The largest bulk of literature relates to the effectiveness of Agri-Environment-Climate Measures (AECM), showing heterogeneous effectiveness but offering many examples of good implementation and good practice (reviewed e.g. in Batáry et al. 2015). Non-designated instruments, such as the effects of Direct Payments on biodiversity, are poorly studied.

The impacts of the CAP as a whole can be exemplified by **Figure 2**: Herbicide use is stable or even increasing in some EU countries, e.g. Estonia (+280%) and Poland (80%)(Fig. 2a); Fertilizer use declined in north-western EU Member States (Fig. 2b in yellow) but increased in the new Member States (in red). Biodiversity continues to decline, as demonstrated by the Farmland Bird Index (Fig. 2c), especially in new Member States (in red). Similar trends are found e.g. for butterflies (not shown here).

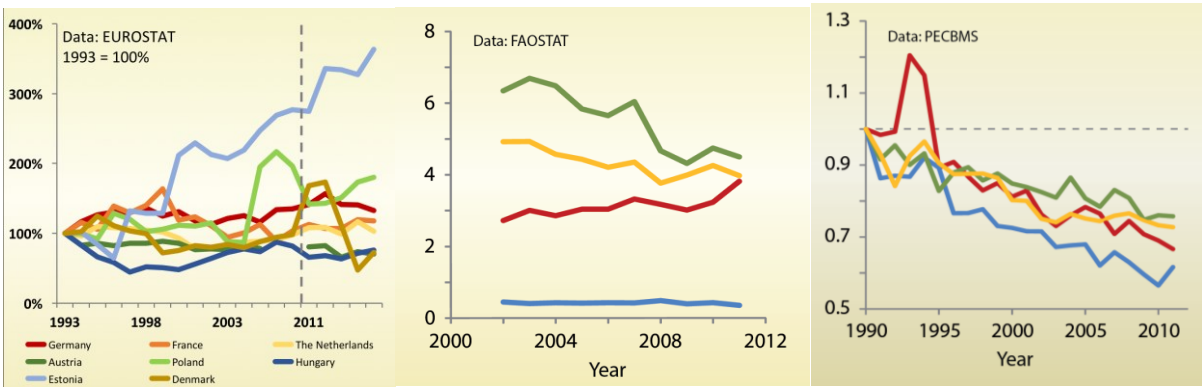

Figure 2:

A) **Use of herbicides in different EU countries 1993-2015**, with 1993 as the reference value (100%).
Source: Eurostat. **Notes:** 1) Values are relative. 2) There is a break in the figures on herbicide use between 2007 and 2011.

B) The Use of fertilizer across all EU countries 2000-2012, divided into four geographic regions. Values
Source: Pe'er et al. 2014, using data from FAOSTAT. **Notes:** 1) Numbers are given in million tons.

C) **Farmland Bird Index in Europe 1990-2012**.
Source: Pe'er et al.2014, using data from PECBMS. Note: values are relative to 1990 as a reference year.

3.2.2 Socio-economy

We found the CAP to have some positive effects on the income of EU farmers mainly through direct payments. Pillar II payments also contribute to balanced territorial development. However, direct

payments reduce farm efficiency and lead to dependence of farmers on subsidies. Additionally, inequities among beneficiaries are large, with 32% of the payments being made to 1.5% of beneficiaries. Green growth is supported in the form of organic farming, but the CAP notably also supports unsustainable farming sectors, with a disproportionate support of meat and dairy products.

Past reforms have successfully reduced global market distortions and allowing prices to follow global markets, but this entails exposing farmers to higher fluctuations and market risks.

We illustrate our findings with the following three examples.

A) **Market policy:** several reforms since 1992 have reduced intervention prices and market access to the European markets, and abolished export subsidies. **Figure 3** shows that wheat prices in Germany follow the world markets from 1992 onwards. The example demonstrates that EU prices in many areas and sectors (with the exceptions of sugar-beet and beef) are mostly integrated into international markets and prices, so that supply and demand meet on the international markets and prices are adjusted to the market rather than politically fixed. This can seemingly bring more market stability, but enhances market volatility in the European markets, exposing farmers to price volatility and market risks.

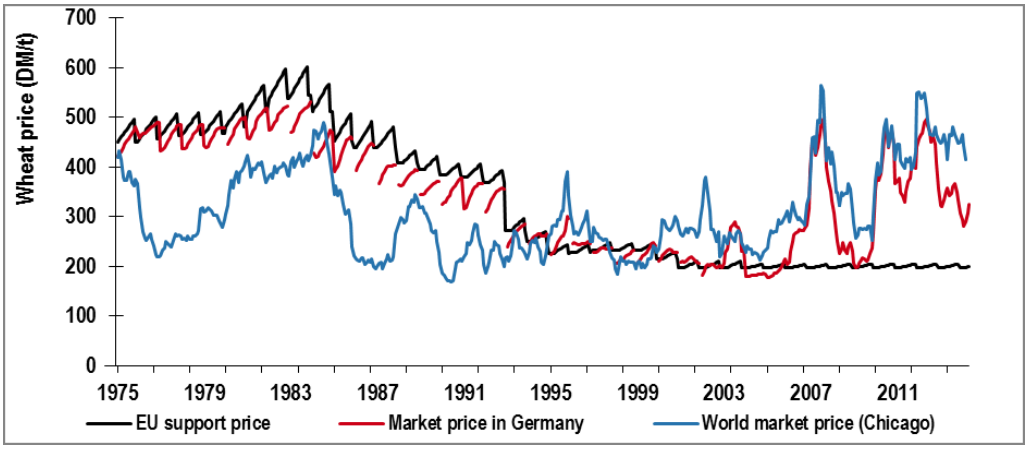

Figure 3: Wheat Prices in the EU & World market and the EU intervention prices (in DM/ton)
Source: data from von Cramon-Taubadel 2017, unpublished

B) **Income support: Figure 4** shows the average share of direct payments in farmers' profit ("net value added") across the EU Member States between 2007 and 2013. While countries associated with lower profit are also associated with higher share of profit from direct payments, the share is highly heterogeneous, ranging from 10 to 60% with an average of 25.7% for the EU-27 (Malta excluded). In some countries (like Slovakia, Ireland, Slovenia and Sweden), this share is above 40%, while the share of direct payments is low in countries like the Netherlands, Cyprus and Italy. Therefore, direct payments have a varied impact on farm net value added and therefore on income.

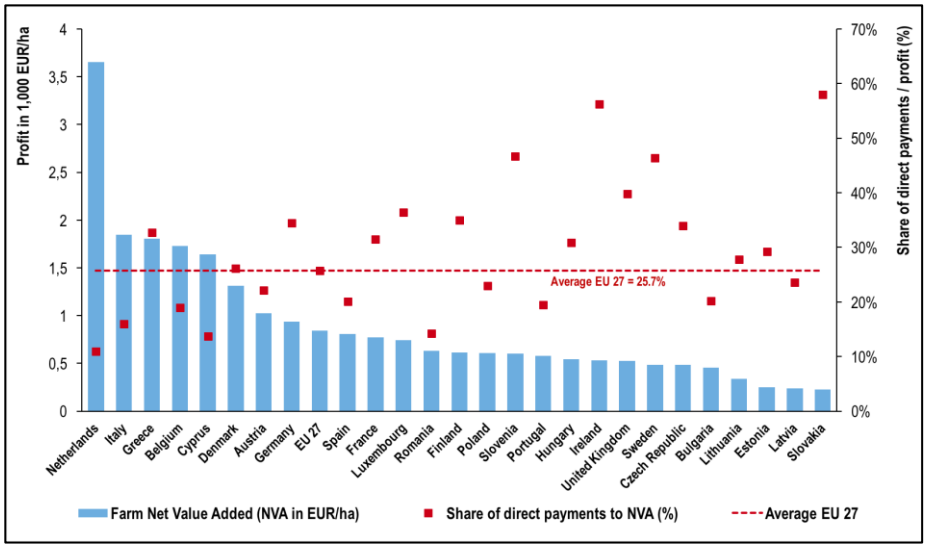

Figure 4: Average farm net value added and share of direct payments between 2007-13 in the EU

Source: Own calculations; Averages from public data base of Farm Accountancy Network (FADN) 2017

C) Productivity: The literature shows that direct payments affect production and productivity, but it is not possible to establish to which direction. Decoupling seems to have positively increased the effect of the CAP on productivity, but on the other hand direct payments also reduce farms' efficiency – potentially outweighing the first effect. However, the literature also has some shortcomings since many studies assume that direct payments are directly influencing productivity or efficiency, whereas in reality parts of the payments are likely used for private consumption.

3.3 Efficiency

3.3.1 Environment:

We found **strong evidence that the CAP is largely inefficient in terms of environmental investments versus benefits**. Firstly, the smallest proportion of budgets is assigned to the most effective instruments, as demonstrated in **Table 1**: the investment per ha in biodiversity is highest in EFAs, about three times lower in Agri-Environment-Climate Measures (AECM), and thirty times lower for grasslands in Natura 2000. The literature contests the potential effectiveness of EFAs; AECM have a mixed effectiveness; whereas Natura 2000 funds are dedicated to protecting biodiversity and can therefore be considered the most effective. Thus, there is an opposite relation between effectiveness and spending, forcing very low efficiency.

Secondly, effective instruments are either not implemented broadly enough or their effects are cancelled by other non-designated instruments, i.e., CAP mechanisms with other objectives. Administrative burdens and competition between instruments, where farmers can obtain somewhat the same support with or without adhering to environmental standards, hamper efficiency even further. The focus on farm rather than landscape level reduces the efficiency of environmental interventions too.

Table 1: Area and spending of the EU for different environmental measures 2017.

Policy measure	Ecological Focus Areas (EFA) (Pillar I) [1,2]	Agri-Environment & Climate Measures (Pillar II)	Natura 2000 (Grassland)[3]
Total public funds (Mio. EUR)	12,638	3,251	290
Agricultural Area (Mio. ha)	8.00	13.15	11.65
Funding per area (EUR/ha)	**789.89**	**247.17**	**24.89**

Source: Own presentation; Data from EU Commission 2015: p.31; EU Commission 2017a; EU-Commission 2017b; Eurostat 2010;
Notes: 1) We assume 30% of the EU national ceiling, and out of that, 50% to EFA among the three Greening measures. **2)** EFA-area before applying weighting factors as reported by the EU. **3)** Natura 2000 and Agri-environmental programs partly overlap in terms of area and funding.

3.3.2 Socio-economy

We found **evidence of low efficiency for most of the socio-economic aspects assessed**. For example, leakages of direct payments away from farmers, e.g. to land rental, entail that large proportions of direct payments do not support farmers. Payment distribution is inefficient as well: as an example for the case of income support, the distribution of direct payments among farm size classes can be summarized by the GINI-coefficient of inequality (**Figure 5**), showing heterogeneous and sometimes decreasing levels in old Member States (e.g. the Netherlands; Fig. 5a), compared to higher and sometimes even increasing levels of payment-inequities in the new Member States (Fig. 5b). We note, however, that the GINI coefficient requires careful interpretation since one cannot assume that every farmer has to receive exactly the same amount.

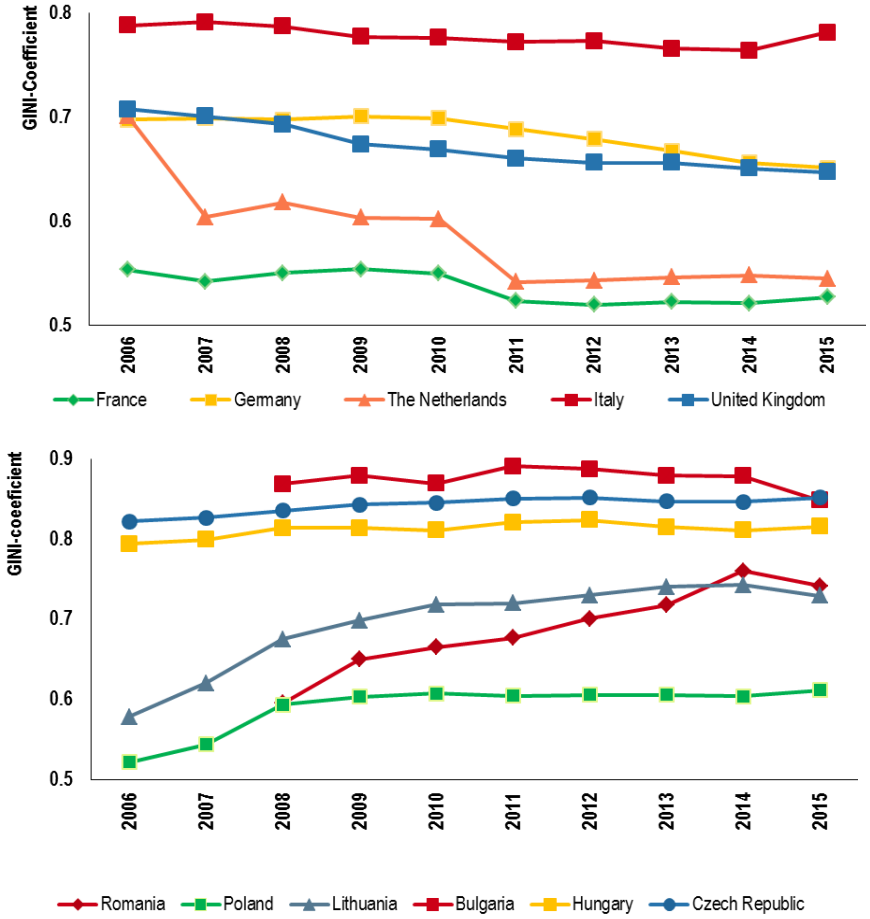

Figure 5: Heterogeneity in the distribution of direct payments within different farm-size classes in the EU 2006-2015, divided into a) old and b) new Member States.

Source: Own calculations based on data from the EU Commission 2007-2016. **Note**: The GINI coefficient is a measure of inequality, ranging from 0 to 1. A high value expresses a rather uneven distribution and a low value expresses a rather even distribution.

These results might be related in some countries (e.g. Romania) to the phasing in of EU direct payments, but it also relates to structural changes resulting from rapid intensification and shifts in farm sizes following the accession to the EU. These findings cast doubts over whether such an uneven distribution of direct payment is efficient towards the CAP's objectives on income, especially in new Member States and other regions where small farmers rely much more on direct payments. This example and others indicate low efficiency in addressing rural development disparities especially in the EU.

With respect to income support, the literature indicates that the EU Commission does not provide sufficient justifications and reliable indicators as to why and which farmers need income support and whether lump-sum income support is the most efficient means to an end. Various studies highlight a need to consider the economy of farm families and households, as well as actual capital, rather than merely farmers and incomes from agriculture, for a more reliable picture of the CAP's efficiency on achieving socio-economic goals including the reduction of territorial imbalances. Studies also indicate a limited capacity of the CAP to differentiate how payments relate to the actual income and wealth of land-owners, farmers and the actual workers in the agricultural sectors; and the extent of leakages of CAP payments to land rentals remains unquantified. In consequence, **income support within the CAP is inefficient and poorly justified.**

3.4 Coherence

Overall, both internal and external coherence are hampered by the CAP's multiple, often unclear objectives. This also results in a range of political conflicts.

3.4.1 Internal Coherence:

Studies identified in the review addressed coherence in terms of objectives and implementation, with the largest bulk addressing the latter. The literature identifies some potential complementarities between different CAP mechanisms, especially focussing on direct payments,

Agri-environment-and-climate measures (AECM), Cross Compliance (CC) and greening. However, the levels of complementarity and conflicting incentives produced throughout the implementation of the different CAP mechanisms vary across regional settings and thematic foci. The multitude of objectives, and an attempt to combine production and conservation objectives, has resulted in political conflicts and led to policy- and measure-designs that compromise effectiveness and/or efficiency. Overall the literature thus indicates on low internal coherence and a need for clear specification of indicators in all three dimensions of sustainability (economic, social and ecological) as well as a stronger and more systematic integration of political stakeholder groups as alternatives to watering down proposed solutions.

3.4.2 External Coherence:

The integration of new objectives and instruments into the CAP has produced some potential for synergies between policy areas (e.g. between the CAP and Cohesion Policy, organic farming sector, or N_2O reduction). By contrast, the interplay with other policies on the EU and national levels results in constraints in effectiveness and efficiency of policies. For example, areas designated as Natura 2000 receive only 1 to 2 % of CAP funds, while at the same time present reduced economic values to land owners by lowering land prices and limiting farming practices – indicating a significant remaining conflict between the CAP and the Nature Directives. Similarly, the EU's high environmental footprint, incentivised by European consumption (e.g. by feedstock production), conflicts with climate agreements and affects mostly developing countries.

Examining international trade and agricultural production in developing countries (i.e., coherence with Trade agreements and the Policy Coherence for Development), we identified complex interrelations and trade-offs. Decoupling direct payments and phasing out trade subsidies has reduced market distortions, stabilised markets at higher food prices and facilitated market access into the EU, with exporting middle-income countries as the main beneficiaries. On the other hand, poor consumers in developing countries are faced with higher food prices, product standards and reduced benefits from special trade preference agreements.

3.5 Relevance

Relevance was examined through the aspects of acceptance (by public and farmers) as well as the use, and uptake, of technology, new concepts and knowledge. The CAP can be considered relevant in terms of the support of technology and modernisation, and by adopting advanced instruments to monitor and control farmers. However, societal acceptance continuously diminishes and has reached exceptionally low levels. This can be highlighted by the Eurostat bi-yearly surveys (among circa 30,000 EU citizens each survey), indicating a sharp decline in the proportion of EU citizens listing the CAP as the most important result of the EU (**Figure 6**). Notwithstanding, this decline may also be associated to a more general decline in citizen support of the EU and its functioning as a whole.

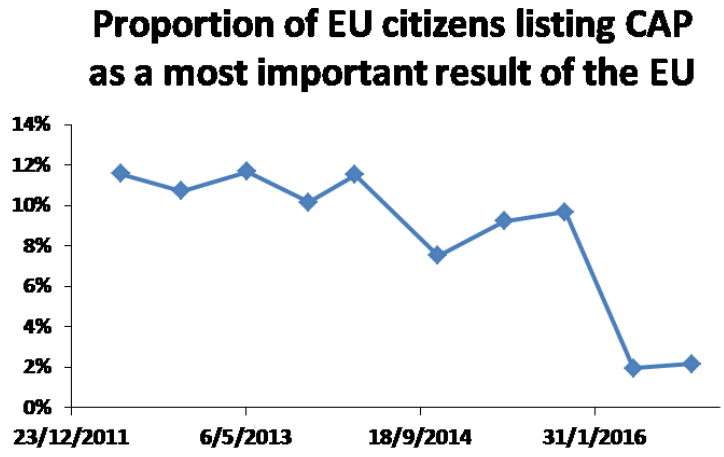

Figure 6: Proportion of EU citizens listing CAP as a most important result of the EU in the years 2011-2016. Source: Eurobarometer 2011-2016

Acceptance by farmers has declined as well, e.g. due to administrative burdens added over time and particularly in the last reform. Studies also indicate that some objectives have already been achieved, others no longer meet current challenges, and most relevant challenges are only partly fulfilled. We found no indication that food security is a major challenge in the EU or is likely to become one; neither any evidence on whether production needs to increase in many parts of the EU. The literature also indicated the CAP to have had very limited uptake of available knowledge, concepts and tools. For instance, the design of Ecological Focus Areas did not take up from the experience gained through AECM; integrated landscape management remains underdeveloped; and economic indicators (farmer income) do not reflect on farming-family incomes or overall wellbeing.

3.6 EU added value

We note that the topic of EU value added is difficult to assess, e.g. because a) of the lack of reference points, b) being part of the EU entails a set of policies, and c) the term "value" in itself is perceptual rather than factual. We assessed the EU added value by inspecting temporal changes (e.g. responses to CAP reforms), processes after accession to the EU, or the situation in countries in and out of the EU; as well as surveys and simulations assessing what may happen under hypothetical changes in the CAP (e.g. its abolishment). The CAP has some clear positive contributions on supporting farmers' fair standard of living and supporting territorial development, but it could do much better in adjusting to local contexts, particularly in the New Member States. There were mixed results for the environment, and no indication that the CAP delivers an economic added value.

3.7 Does the CAP support sustainable development goals?

Of the ten relevant SDGs, we found sufficient literature to address at least seven SDGs. Local successes obtained through specific instruments aiming to fulfil environmental targets, demonstrate an unfulfilled potential to address SDGs 6 (clean water), 13 (climate action) and 15 (life on land) – with local studies demonstrating positive outcomes, but global trends showing ongoing environmental degradation or even rapid declines especially in new Member States. Particularly with respect to climate (SDG 13), the export of land-use change and the overall high footprint indicate an overall incapacity to address climate change challenges. The CAP could be considered as partly capable of addressing SDG 1 (no poverty) and SDG 2 (zero hunger), but food security or extreme poverty are clearly not major issues in the EU. The CAP supports organic farming, thereby contributing to green growth (SDG 8), but also supports other, unsustainable farming systems. SDG 10 (reduced inequalities) is not addressed adequately due to the highly unequal allocation of payments, with 1.5% of beneficiaries receiving 32% of the payments (> 50,000 Euros/year) and 79% of the beneficiaries receiving < 5,000 Euros/year. The largest identified gaps relate to SDG 12 (responsible consumption and production) and SDG 3 (good health and wellbeing): the CAP is not well-designed to address the challenges of unhealthy diets, obesity and health issues relating to these, while animal products are over-proportionally subsidised. It also poorly addresses overall wellbeing of farmers (beyond farm economy) and other citizens, as well as the externalities and waste emerging from over-consumption. The number of publications addressing SDG 3, however, was notably low due to the indirect nature of these impacts and the lack of objectives or instruments to address these challenges – and with them, these two SDGs.

Our literature review also indicated an insufficiency of the CAP in addressing a range of global effects of the CAP, as well as animal welfare – an aspect that is clearly relevant from the perspective of many EU citizens.

4 Conclusions and key lessons

Preliminary conclusions

- The CAP shows mixed results with respect to effectiveness, but the local and regional successes do not scale up to the EU (and hence the CAP) as a whole.
- The EU has achieved some success in reforming its market policies, reducing market distortion and harmful effects on developing countries by phasing out price support. Notwithstanding, farmers in the EU are now more exposed to price volatility and market risks.

- Our results indicate the CAP to be highly inefficient in many areas and instruments, with particularly low efficiency with respect to the environment. Effective measures receive too little support, less effective measures are overly supported, and a disproportionately large support is given to unsustainable farming sectors. Payments with no environmental requirements undermine the efforts to address environmental challenges; and weak implementation by regions and member states leads to additional inefficiencies, partly facilitated by the flexibility given to Member States.
- Internal coherence is low. The CAP clearly needs a clear set of coherent, overarching, well-justified objectives as well as instruments and more reliable indicators aligned with them.
- Results on external coherence highlight a need for a systemic view on overlapping and interconnected policy fields. In this respect, the European Consensus on Development requires counterbalancing effects within and outside the EU. Assessing policy outcomes according to a transparent indicator base would make transparent possible synergies, trade-offs, winners and losers, and help guiding possible political adjustments.
- The CAP demonstrates low relevance in terms of its objectives and instruments, and its acceptance by both farmers and the public is exceptionally low.
- Monitoring and appropriate indicators to support policy assessment and outcomes are weak or missing.
- There is much knowledge and experience indicating how the CAP's effectiveness and efficiency could be improved, particularly with respect to environmental performance, but it is poorly taken up. For instance the design and implementation of the greening measures and particularly Ecological Focus Areas make little use of the experience gained from AECMs. There are also instruments and measures to reduce environmental impacts of agriculture in the EU and globally, but they are not applied broadly enough.

Key emerging lessons

- Addressing sustainability is critical from both socioeconomic and environmental perspectives. A coherent set of objectives and instruments to target sustainability in its broader sense is thus likely to enhance effectiveness, efficiency, coherence and acceptance of the CAP by the public.
- The impacts on small farm-holders and their response to the CAP are keys to understanding many cases of either success or failure of the CAP, both socioeconomically and environmentally.
- Greater emphasis on supporting multi-functionality and adaptive management has large potential for improving sustainability of the CAP. This would require upscaling from the current focus on single farms to a landscape- and community-level approach (e.g. through better spatial targeting and supporting collaborative actions).
- Better indicators are needed for both environmental and socio-economic purposes, and closer monitoring of these is essential.

Limitations and outlook

The exceptionally short time and limited resources to conduct this study entail a range of limitations. First, the study did not address a range of key issues such as impacts of forestry, the impacts on health, or the impacts emerging from standards and regulations. Secondly, literature searches concentrated mostly on peer-reviewed, scientific literature in English language, and only covered few reports and policy-documents. Our review also clearly shows that much local-to-national-level knowledge is still to be harvested. Finally, we identified a limited capacity of the scientific literature to address some key issues for this assessment. While Fitness-Check evidence typically covers the grey literature (report, legal documents etc.), it was beyond our capacities to do so within this project.

The breadth of literature indicates a need, but also the potential, of a broader evidence-based evaluation of the CAP and the gathering of recommendations, lessons learned and tools for optimization and conflict resolution. To this end, our call for evidence remains open until 15th of July 2017 (link at www.surveymonkey.de/r/RapidCapAssessment). The list of publications used for this assessment is publically available through https://idata.idiv.de/ and we welcome further studies and evidence. The authors shall strive to release the full report in autumn 2017.

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