

Knowledge deficits and challenges for climate action in Austrian agriculture: The Key Policy Questions

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Abstract –The Austrian agricultural sector is stipulated with the European Union’s target for climate neutrality by 2050. Furthermore, the Common Agricultural Policy (CAP) is currently under reform. Hence, we explore the prevalent knowledge deficits and challenges for national policymakers, farmers and scientists. We draw from the outputs of an online survey and a successive workshop with experts involved in national climate and agricultural policy-making. The aim was to identify and prioritise Key Policy Questions (KPQs) associated with policy measures and targets for climate action in Austrian agriculture. Research findings illustrate the challenges for increasing acceptance and knowledge transfer among the different societal spheres. Overall, the KPQ with respect to the effectiveness of the current CAP strategic plan and whether the therein proposed measures suffice to attain the targets is seen most pressing for the experts. Secondly, experts also highlighted the KPQ with respect to certification and monitoring in context of the European Commission’s plan to combine the forestry and agriculture sectors for greenhouse gas emissions accounting. The derived KPQs mirror well the currently ongoing policy processes and debates.

INTRODUCTION

Within its recently passed climate legislation, the European Union’s (EU) member states have committed to reach climate neutrality by 2050. In July 2021, the European Commission further presented the “fit for 55” package. Including 12 legislative proposals, this package aims to lead the way towards the 2030 interim goal to reduce the EU’s greenhouse gas (GHG) emissions by 55% compared to 1990. One of these proposals aims for amending the current Land Use, Land Use Change and Forestry Regulation. Accordingly, the agriculture and forestry sectors shall be combined into a joint land sector for purposes of GHG emissions accounting. The regulation foresees climate neutrality obligations for the newly created land sector by 2035 and sets a yearly carbon sequestration target of 310 million tons of CO₂ equivalents in the EU. These ambitions together with the current ongoing reform of the Common Agricultural Policy (CAP) challenges national policymakers with an urgent need for climate action framed by other challenges, perceived lock-ins and knowledge deficits.

We build on the results of a survey and a successive workshop with experts of the agricultural sector in Austria. Our research reveals the most pressing Key Policy Questions (KPQs) in the field of

climate change mitigation and adaptation in the Austrian agricultural sector. This serves the scientific community and funding agencies to better target their activities towards increasing impact and relevance, to create a comprehensive research agenda, and to foster science-policy interaction (cf. Turnheim et al., 2020).

MATERIAL AND METHODS

In December 2021, we conducted an online survey among 40 experts from ten Austrian organisations involved in climate and agricultural policy-making. Using a questionnaire, we aimed to gather information regarding the most important challenges and associated knowledge deficits with respect to the suite of existing and envisaged legislative and regulatory frameworks for climate action in Austrian agriculture. The experts could choose from 16 policy documents related to Austria to formulate their perceived knowledge deficits and important challenges associated with measures and targets for climate action raised in the individual policy documents. The experts were asked to answer from the perspective of farmers, policymakers and scientists, respectively. The online survey yielded 350 responses given by a total of 38 experts. The survey analysis was conducted following the principles of Mayring’s qualitative content analysis (Mayring, 2015). The survey data was analysed with a developed inductive category system. The derived categories, assigned to each response in the questionnaire, were then synthesised and translated into eight overarching KPQs. Survey results were used as input for an online workshop with the same experts on December 14th 2021. During the workshop, experts were again confronted with the suite of responses given in the online-survey and asked to prioritise by voting for a maximum of three of all the previously given answers. This research design enabled the formulation and prioritisation of KPQs expressed by the experts.

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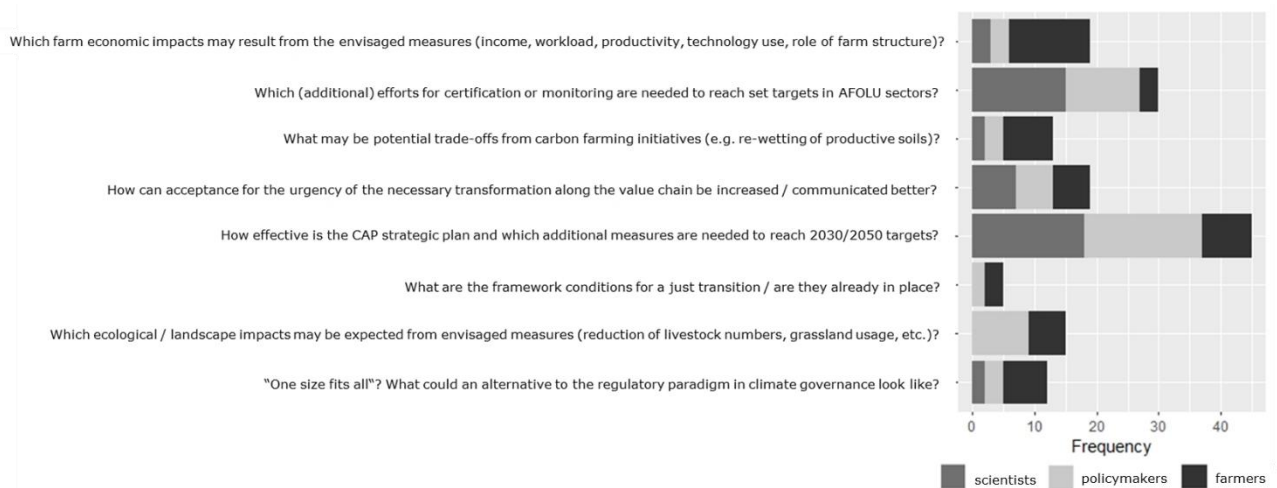


Figure 1. Key Policy Questions (KPQs) from three perspectives (scientists, policymakers, farmers): Bars indicate the number of votes given to each KPQ by the experts.

RESULTS

Survey answers about the specific knowledge deficits prevalent in relation to climate policy targets, depict different thematic foci and perspectives. Arguing from the farmers' perspective, experts mentioned a perceived lack of site-specific best-practice recommendations for mitigation and adaptation measures as well as uncertainty regarding funding and practicability of proposed measures. Arguing from the perspective of scientists, experts mentioned improved data availability and information flows to close a persistent gap in efficiency assessments for the proposed mitigation and adaptation measures. Arguing from the policymakers' perspective, experts mentioned knowledge deficits about potential interactions and trade-offs among the different policies.

In terms of the greatest challenges associated with imposed measures for climate action, the experts highlighted potential losses of income and higher workloads by arguing from the farmers' perspective. From the scientists' perspective, experts highlighted challenges associated with good and effective knowledge transfer. From the policymakers' perspective, experts identified the key challenge of creating acceptance for the envisaged measures among the relevant societal spheres and stakeholder groups.

The synthesis of the results yielded in eight KPQs, which were prioritised by the experts in the workshop (Fig. 1). We see that highest priority from a farmers' perspective was put on KPQ "Which farm economic impacts may result from the envisaged measures?". From a scientists' and policymakers' perspective, the prioritised KPQ is "How effective is the CAP strategic plan and which additional measures are needed to reach 2030/2050 targets?". This KPQ with a total number of votes of 45 is the most pressing according to the experts. Second most important KPQ is "Which (additional) efforts for certification and monitoring are needed to reach set targets in the sectors of agriculture, forestry, and other land use?".

DISCUSSION AND CONCLUSIONS

The resulting KPQs represent well the currently ongoing policy processes and debates. The research

was conducted at the same time as the national strategic plan for the CAP was being finalised. The given policymakers' perspective corresponds well to Plank et al. (2021), who state that policymakers' inaction regarding climate policy implementation are due to unpopularity of measures and that new communication formats are needed to bridge policymakers' knowledge gaps. Concerning the robustness of produced results, we are aware that derived KPQs may not fully cover the range of farmers', policymakers' and scientists' perspectives in the Austrian agricultural sector. However, we are confident that the group of experts was able to address and prioritise KPQs acknowledging different perspectives. These research results, especially the two most highlighted KPQs, will drive our subsequent research activities over the remaining MACSUR SciPol Pilot project period. We expect that this will increase impact and relevance of conducted research.

ACKNOWLEDGEMENT

This research was conducted within the FACCE-JPI MACSUR SciPol Pilot project. Austrian research activities are therein financed by the Austrian Federal Ministry of Agriculture, Regions and Tourism.

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