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Structural uncertainty in the scientific evaluation of the Strategic Plan of the Common Agricultural Policy in Spain

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The evaluation of the PEPAC in a context of institutional uncertainty

The Common Agricultural Policy (CAP) is one of the public policies with the greatest capacity for territorial transformation in Europe (Clemente-Orta et al., 2026). In the 2023–2027 period, a key innovation has been introduced: each Member State must define explicit environmental, social and economic objectives within its national Strategic Plan (PEPAC), and demonstrate their fulfilment through direct evaluation systems, thereby reinforcing a performance-based governance framework (Heyl et al., 2026). These direct evaluation systems rely on the use of biodiversity indicators measured at field and landscape scales in areas where CAP measures are implemented, following standardised protocols compatible with national monitoring schemes and supported by spatially explicit information on land use, agricultural practices and environmental variables. Numerous studies have in fact pointed out that the environmental and social effectiveness of the CAP largely depends on the existence of robust monitoring systems and on the integration of scientific knowledge into its implementation (Kleijn et al., 2011; Díaz and Concepción 2016; Navarro & López-Bao 2018; Díaz et al., 2021, 2026; Pe'er et al., 2022; Guyomard et al., 2023; Pérez-Granados 2025a, b). In the absence of such mechanisms, evaluation has tended to focus on administrative or formal compliance indicators, rather than measuring real impacts on biodiversity, ecosystem services or rural socio-economic viability (Pardo et al., 2020; Guyomard et al., 2023; Clemente-Orta et al., 2026).

In this context, in 2022 an agreement was signed between the Ministry of Agriculture, Fisheries and Food (MAPA) and the Spanish National Research Council (CSIC), leading to the creation of the Interdisciplinary Thematic Platform (PTI) AGRIAMBIO (https://pti-agriambio.csic.es/presentacion-pti-objetivos/) (España, 2022), aimed at providing scientific support for the evaluation of the PEPAC (Torre et al., 2024). The Platform was designed to develop a science-based monitoring and evaluation system for the environmental and social objectives of the CAP in Spain, including the definition of indicators, the development of harmonised monitoring protocols, the analysis of the effectiveness of green architecture measures, and the integration of administrative, ecological and socio-economic information into a common analytical framework. In addition, PTI AGRIAMBIO promoted training, dissemination and adaptive improvement of eco-schemes and agri-environmental measures in order to enhance the socio-environmental effectiveness of the CAP. This initiative adopted a multidisciplinary approach, recognising that the evaluation of agricultural policies must integrate ecological and social dimensions in order to reflect the multifunctionality of agroecosystems (Díaz et al., 2021; Pe'er et al., 2022). Surprisingly, the agreement was not renewed by the Ministry with no official explanation for this decision, despite the Ministry's emphasis on publicising the importance of scientific collaboration with the CSIC (https://redpac.gob.es/evento/jornada-agricultura-y-ciencia-un-dialogo-necesario-para-una-agroalimentacion-prospera), which has forced the slowdown or suspension of ongoing work.

An evaluation system under construction: scientific progress

During the duration of the agreement, progress was made in several lines of work related to the scientific evaluation of the PEPAC. These activities are currently at different stages of development, ranging from completed assessments and published protocols to ongoing analyses and tools still under construction. The main lines of work related to the biodiversity goals of the PEPAC are summarised below: (see pti-agrimabio.csic.es/presentacion-pti-objetivos for the remaining goals, socioeconomic and related to carbon sequestration in agricultural soils):

1. Completed. Ex-ante evaluation of the Plan and its multilevel governance (national and regional), analysing the extent to which PEPAC actions incorporate the available knowledge on the relationships between agricultural practices and biodiversity. To

date, only the actions aimed at mitigating negative trends in farmland birds' conservation (PEPAC need 06.02) have been formally evaluated, revealing differences among measures in the extent to which current ecological knowledge was incorporated and in their expected effectiveness for farmland bird conservation (Pérez-Pozuelo et al., 2025).

2. Completed. Development and publication of evaluation protocols designed to rigorously compare biodiversity indicator values (birds, pollinators, herbaceous plants and species protected under the Birds and Habitats Directives) in fields or landscapes where PEPAC measures explicitly aimed at their improvement are implemented, with appropriate controls (Clemente-Orta et al., 2025a–f; González-Pulido et al., 2025). The protocols seek to make use of existing databases, proposing and applying additional sampling point selection procedures in order to achieve the objectives of a comprehensive evaluation of the PEPAC at both national and regional levels.

3. In progress. Analysis of the partial information available, cross-referencing spatially explicit databases provided by research groups and NGOs with data on farmers' uptake of PEPAC measures (González-Pulido et al., in press). These analyses aim to evaluate whether the spatial allocation and uptake of the measures are consistent with their environmental objectives and with the distribution of biodiversity of conservation concern.

4. In development. Design of relational software and analytical tools aimed at integrating administrative information (aid applications, land uses and declared practices), biodiversity indicators, ecosystem services (carbon sequestration) and socio-economic variables into a common framework, in order to facilitate the spatio-temporal evaluation of the effects of the PEPAC. This tool has not yet been fully implemented and requires institutional continuity to become operational.

Overall, this type of work is particularly relevant in the current CAP context, where results-based evaluation requires monitoring systems that are reproducible, interdisciplinary, robust and operational across different agricultural settings (Díaz et al., 2026). The fact that several components of this system are still in progress or under development highlights the importance of institutional continuity to ensure that the evaluation framework becomes fully operational during the current programming period.

Scientific continuity and agri-environmental governance

The lack of renewal of the agreement endangers the planned start of bird, pollinator and herbaceous plant surveys in spring 2026, resulting in another year without monitoring records. These surveys were to be coordinated within the PTI AGRIAMBIO framework, which provided the institutional structure linking the scientific community with the Administrations responsible of PEPAC evaluations, as well as the technical and organisational support required to implement the monitoring protocols at national scale. Without this framework, the implementation of field surveys will depend on fragmented initiatives without a common design, making it difficult to ensure temporal continuity, data comparability and integration with administrative information. Although some scientific work may continue within academia, the disappearance of a coordinated institutional framework may have several significant consequences:

1. Institutional discontinuity may hinder the temporal comparability of data, reducing the capacity to detect ecological and socio-economic trends that are only visible in long-term series.

2. The absence of a stable structure for collaboration between the Administrations and the scientific community may weaken adaptive management processes. The PTI AGRIAMBIO was designed to function as a science–policy interface to ensure the use of harmonised indicators, common protocols and shared databases. Without such a structure, the evaluation risks reverting to administrative or sectoral approaches, based either on results hard of impossible to integrate at the required country scale, or on reporting measure uptake or compliance indicators, rather than on the ecological and socio-environmental goals of the PEPAC.

3. There is a risk that the evaluation of the PEPAC may shift back towards more administrative or sectoral approaches, reducing the interdisciplinary integration required by the CAP's own green architecture. In this sense, the interruption of the agreement does not only affect ongoing scientific work, but also the capacity of the evaluation system to operate as originally designed within the results-based governance framework of the CAP.

Conclusions

The end of the MAPA–CSIC agreement marks a critical moment for the scientific evaluation of the PEPAC in Spain. Beyond the Spanish case, this situation reflects a broader challenge for European agricultural governance: the need to consolidate stable infrastructures that connect scientific research, policy design and territorial decision-making (see e.g. Guyomard et al., 2023; Heyl et al., 2026). Moreover, the current CAP programming period (2023–2027) requires Member States to report in 2028 on the degree of achievement of the objectives set out in their Strategic Plans (European Commission 2026). The interruption of the institutional framework behind this evaluation introduces the risk that Spain may reach this milestone with significant information gaps, while other Member States could present more comprehensive and comparable analyses. It should be recalled that the CAP architecture itself provides for European funding dedicated to the monitoring, evaluation and technical assistance of Strategic Plans, recognising that results-based governance requires investment in robust monitoring systems. The absence of institutional continuity not only compromises the scientific quality of the evaluation, but also the efficiency in the use of the public resources allocated for this purpose.

Author contributions

Gemma Clemente-Orta: Conceptualisation, Writing – original draft, Review and editing. Laura González-Pulido: Writing, Review and editing. Juan Flores-Olivos: Writing, Review and editing. Mario Díaz: Conceptualisation, Writing, Review and editing.

Data and code availability

This article does not use datasets. The authors declare that they have no conflicts of interest.

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