

PROVIDE Project

Summary of final results

August, 2018

1. Objectives of the project

The objective of the PROVIDE project is to provide a conceptual basis and scientific evidence for improved incentives and policy options, as well as tools to support the "smart" provision of public goods (PGs) by the EU agriculture and forestry systems (AFS), in the light of trade-offs and conflicts associated with different future scenarios.

PROVIDE considered a wide range of public goods and bads associated with agriculture and forestry systems and governance mechanisms. The project used a transdisciplinary approach to address this issue in a multi-scale framework, working both at the EU level and at a case study level in 13 EU countries. The main results of the project are: (i) a renewed ("un-packed") conceptualization of the notion of public goods, (ii) an inventory of public good (and bad) provision in Europe, (iii) operational means for valuation and evaluation, (iv) a selection of evaluated governance mechanisms, and, finally, (v) a toolbox consisting of an operational framework to support the smart provision of public goods. Moreover, the project has set a starting point to establish a consolidated and hopefully long-lasting community of knowledge and practice.

2 Activities performed in the project

The project started with unpacking what stakeholders understand by 'public goods'. This was followed by an inventory and spatial mapping of public goods from EU agriculture and forestry systems and an identification of the economic rationales and governance options for incentivising the provision of such goods. These activities allowed the identification of public goods provision 'hotspots' around which valuation exercises have been carried out, yielding values for public goods and also building a data base for the analysis of value determinants in several regions and under a range of agricultural and forestry ecosystems.

In addition, innovative policy tools and mechanisms have been identified, together with their targets in terms of public goods provision, design, valuation criteria and context scenarios. The candidate mechanisms have been evaluated in the different hotspot areas, using a variety of models and approaches.

The outcomes of these activities have fed into the development of a framework and a corresponding toolbox to knowledge transfer to support the smart provision of public goods, consistent with the current needs of productivity, the bio-economy strategy and the needs of rural development. The toolbox development closely takes end-user needs and requirements at regional and European level into consideration.

All these processes have been co-developed with stakeholders in the Stakeholder and Experts Network of PROVIDE, which has involved about 200 people in touch or participating in 44 local and 4 EU-level workshops. Additionally, via social media channels (e.g. Facebook, LinkedIn) a network of over 1,500

people has been built around the project activities. This has facilitated co-construction and co-development of both the framework and research process. This is a key asset to support the toolbox development and the incremental development of it beyond the lifetime of the project, thereby maximizing the impact of PROVIDE.

3 Main results

❖ INNOVATIVE CO-CONSTRUCTION OF KNOWLEDGE – COLLABORATIVE RESEARCH

The initial unpacking of the public good concept by stakeholders revealed the diversity of perceptions of public goods related to the very different local specificities, the evolution of global issues (e.g. climate change) and the changing nature of the perceived agenda (e.g. world food needs and resources constraints), among others. This conceptualization served as the basis for identifying objectives of governance and policy-making regarding the provision of public goods. It was very clear that lay definitions of a public good often differed from economic theoretical definitions. This poses a challenge for policy makers.

The co-construction approach to the research process has been integrated throughout the project by involving a variety of stakeholders in each case study regions (CSR) in the definition of ‘hotspots’ for valuation, the design and evaluation of governance mechanisms and the development of the toolbox. Overall the co-construction process was highly valued by participants and partners. The approach facilitated stronger links between stakeholders and led to the development of detailed co-constructed knowledge with high relevance to each individual CSR.

❖ CONNECTION BETWEEN CONDITIONS, PRACTICES AND PUBLIC GOODS PRODUCTION: INVENTORY AND MAPPING

The mapping of public goods, carried out at the EU level and in CSR in 13 countries throughout Europe, shows a high diversity in provision, both in terms of specific public goods provided and the overall level of provision. Local mapping revealed extensive sources of information available on public good provision. Some types of public goods benefit from the availability of very good datasets or data bases, while others suffer from major knowledge deficits. The analysis of the results (of the inventory and mapping exercise undertaken with stakeholders allowed the identification of 20 hotspots. Those hotspots represent different types of discrepancy between public good demand and supply and can be summarized in 5 main groups:

- a) intensive agricultural areas with major trade-offs between public good resources and intensification processes;
- b) public goods at risk in areas of land abandonment;
- c) areas with strong demand for public goods with users from urban areas;
- d) low intensity-low income areas facing challenges in public good provision;
- e) forestry areas with trade-offs between certain public goods and timber production.

❖ **IMPROVED VALUATION OF PUBLIC GOODS**

The case study valuation exercises comprised 13 demand-side case studies and 15 supply-side case studies. Of these studies, eight demand-side and seven supply-side studies have been based on questionnaire survey methods, with around 4,400 responses from farmers, forest owners and private households. The results confirm a positive willingness by citizen to pay for public goods produced by EU agriculture and forestry. The amount that citizens were willing to pay for public goods provision differs significantly, depending on the public good, but also across areas and groups, showing the importance of segmentation of different demand components (e.g. into users and non-users). The results also showed that the current amount of financial contribution devoted by the CAP to public good provision is generally considered as acceptable by EU households (with more than 60% of citizens agreeing with the current level of expenditure devoted to that aim). The supply side valuation showed high heterogeneity of supply costs, further amplified by variations in the acceptability of different mechanisms. From a methodological perspective, a broad variety of valuation methods was used, from stated preference methods (choice experiments and contingent valuation), multi-criteria analysis (e.g. AHP), revealed preference methods (e.g. hedonic pricing), to cost/benefits accounting (avoided costs, pollution clean-up costs, etc.) and deliberative methods. The use of different methods helped greatly in exploring their relative advantages and disadvantages in the valuation of public goods provided by AFS.

❖ **DESIGN/EVALUATION OF GOVERNANCE MECHANISMS FOR DELIVERY OF PUBLIC GOODS**

The initial activities on the design of governance mechanisms generated shortlists of the mechanisms that have most potential to address the different PG issues in the CSRs, explicitly taking into account demand and supply-side related valuation results and context scenarios.

The participatory refinement and definition of final sets of mechanism for 17 case studies revealed that 3 main optimisation pathways for governance mechanism for improved public good provision are suggested: 1) to improve financial incentives; 2) to improve the orchestration of different and better mechanisms in mechanisms mixes; 3) to develop bottom-up approaches such as collective actions and embed them in existing regional network mechanisms such as the LEADER approach. The evaluation results showed that the effectiveness of financial incentives could be particularly enhanced by better targeting of management restrictions to the public good addressed, better targeting of the payment levels to actual costs and to appropriately balancing demand and supply of PGB, better definition of the target area of public good provision and therefore the area where mechanism are available, better definition of the target groups of farmers/foresters having access to the mechanism, or better identification and targeting to the users/beneficiaries and therefore the “buyers” of public good provision. Also shown in many studies, new and more performance-oriented schemes could replace classic linear area payments. Potential is particularly seen in private or public PES schemes, in direct contract agreements and in collective incentives, such as collective bonus for the implementation of conservation agriculture in a certain area, or agglomeration bonuses for areas devoted to nature conservation for biodiversity and pollination. From the evaluation studies dealing with the effectiveness of mechanisms mixes, it became obvious that such mixes are not only suited to enhance

public good provision, but particularly to stabilise the system of PG provision. While also here financial incentives represent keystones in the governance strategies, it becomes evident that the adoption of PG-friendly management strongly depends on supporting instruments, such as collaboration between stakeholder, market driven instruments, education and information and awareness building. As regards bottom-up approaches, such as collective actions and their integration into existing network structures, the evaluation studies showed that such approaches can have high potential, even if their organisation and implementation is not always easy. Collective approaches of governance and steering are strongly dependent on the commitment of the partners united under the approach and therefore only recommendable if compliance to the fundamental principles of collaboration are guaranteed.

❖ **EVOLVING FRAMEWORK AND TOOLBOX**

This activity aimed at the development of a PROVIDE policy support and knowledge transfer tool, which enabled the design, implementation and monitoring of policy and governance mechanisms as well as providing targeted information about good practice examples at regional level for an efficient, synergic provision of PGs through the toolbox. To achieve this objective, an initial investigation of existing tools and potential functionalities as well as stakeholders and end-users information and knowledge demands and needs was carried out. This conceptual development phase consisted of a review of the existing support tools and a series of workshops with European (2 WS) and regional level stakeholders (13 WS).

As a result, a range of needs was identified at the regional level, including (i) the relevant community of practice; (ii) type of information and content; (iii) quantitative data and information needs; (iv) generic knowledge needs (e.g., best practice examples, research results, databases, access to wider networks); (v) the role of the problem and decision-context; (vi) the collection and exchange of information as well as (vii) questions of bottom-up and/or top-down information/decision directions.

At European level, the following needs and demands were identified: (i) ex-ante impact assessment information; (ii) a need of information support at various levels (EU, MS, region); (iii) integration of different types of information in one tool; (iv) recognition of the need to consider the whole policy cycle (policy design; implementation; monitoring); (v) the use of good practice examples and scientific knowledge; (vi) recognition of available tools and avoiding redundancy; (vii) cooperation with EU-level stakeholder networks (e.g. EIP, focus groups, EUFRAS).

The toolbox is accessible via the website <http://provideknowledgeplatform.eu/>. It delivers smart and transferable solutions, mainly co-evaluated innovative policy tools and mechanisms, to meet a smart production of public goods, consistent with the current needs of productivity, bioeconomy strategy and rural development. The toolbox puts together an inventory of options, operational means for valuation and evaluation, and a selection of policy/sector mechanisms addressed in the five topic clusters and the categorized case studies. Research results and facts can be drawn from well comprehensible infographics.

4 Some insights for the CAP reform proposals

Result-based approaches make sense, as a way to encourage provision of PGs adapted to local demand and circumstances. Scale of analysis and types of PGs (local vs. global) need to be taken into account when devising mechanisms.

Developing typologies of agricultural systems with respect to public goods is important, which should take into account functional connections between agri-ecosystems, incentives and public good provision.

Trade-offs among PGs are inevitable and important and need explicit consideration in an holistic framework.

A mix of instruments is more important than promoting individual simple solutions.

Consistency between market and regulatory incentives is key, as well as connection with valorisation through the product value chain, where this is possible.

Participation is a complex process requiring building up capacity and support by evidence

Evidence is important but requires time and effort, as well as effective interpretation. Therefore a structured problem-solution-oriented knowledge platform can help in accessing evidence and good practice examples.

CONTACTS

Project coordination: **Davide Viaggi**, University of Bologna – Department of Agricultural and Food Sciences, e-mail: [**davide.viaggi@unibo.it**](mailto:davide.viaggi@unibo.it)

Project website: [**http://www.provide-project.eu/**](http://www.provide-project.eu/)

PROVIDE Knowledge Platform: [**http://provideknowledgeplatform.eu/**](http://provideknowledgeplatform.eu/)

Facebook: [**https://www.facebook.com/provideproject**](https://www.facebook.com/provideproject)

LinkedIn: [**https://www.linkedin.com/in/provide-project-eu-915888110**](https://www.linkedin.com/in/provide-project-eu-915888110)

Twitter: [**https://twitter.com/PROVIDE_EU**](https://twitter.com/PROVIDE_EU)