



### How assessing Farm Sustainability could help Decision-Making

Belgian researchers have recently developed a methodology to measure the sustainable efficiency of small farms in the Flemish dairy sector. The results show that laggards in sustainability efficiency can be identified. The authors suggest that they could be the target of policies to improve sustainability in the farming sector. Overall, this tool could serve as a useful basis in decision-making.

In the 90s, the United Nations Conference on Environment and Development stated that the major cause of the continued deterioration of the global environment is the unsustainable pattern of consumption and production. However, moving towards sustainability requires reliable definitions and measurements. Regarding the difficulty of obtaining a clear definition of sustainability, researchers have developed several tools for measuring and promoting actual sustainability achievements. The methods developed so far either focus on a particular sustainable value or are applicable to multinational firms.

In this regard, Belgian researchers have developed a methodology to calculate the level of sustainability and efficiency of small farms. They considered three forms of capital costs, namely land use, labour, and farm capital. They also took into account two forms of environmental capital, namely nitrogen surplus and energy use. They collected data on these capital forms for 41 small dairy farms in the Flemish region, over seven years. They then calculated an indicator of sustainable efficiency for each of these farms and compared the value of the indicator between dairy farms.

The results are as follows:

- 22% of all farms have a high sustainable efficiency indicator for each year and can be considered as frontrunners. 30% have a low sustainable efficiency indicator and can be considered as laggards.
- Compared to the frontrunners, laggard farms have older farm managers, with a lower education level. They are also smaller and more dependent on support payments.
- Sustainable, efficient farms have both good economic and environmental performances.

The authors conclude that their methodology allows sustainability-efficient farms to be identified. In addition, the sustainability efficiency indicator has succeeded in describing some key factors that play a role in the sustainability of the farms. For example, the more a farm depends on support payments, the lower its sustainable efficiency. Their investigation also shows that economic performance may go hand in hand with environmental performance and highlights that they should not necessarily be seen as contradictory.

Given the fact that the European farming sector is mainly constituted of small farms, the scientists suggest that their methodology could serve as useful and good guidance for decision-making at European level. However, this method to identify the potential for improvement is applicable at the sector level only (e.g. dairy farming).

They also suggest that based on their results, farms with lower sustainability efficiency can be identified and could be the target of policies to improve their results, as well as of policies to improve the transition of their production assets to more efficient farms. By targeting the right group of farms, policies might be designed in a more effective manner, which may contribute to an overall improvement in sustainability performance. However, the authors highlight that support payments might not be the solution to move towards more sustainability.

**Source:** Steven Van Passel, Frank Nevens, Erik Mathijs and Guido van Huylbroeck (2007) "Measuring farm sustainability and explaining differences in sustainable efficiency", *Ecological economics* 62:149-161.

**Contact:** [steven.vanpassel@ugent.be](mailto:steven.vanpassel@ugent.be)

**Theme(s):** Agriculture, sustainable production and consumption.

**Opinions expressed in this News Alert do not necessarily reflect those of the European Commission**

**To cite this article/service:** "[Science for Environment policy](#)": European Commission DG Environment News Alert Service, edited by BIO Intelligence Service.