Industrial Hemp Conference

Economic Sustainability and Diversification in Irish Agriculture: The Role of Hemp

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Introduction

In the dynamic landscape of Irish agriculture, achieving economic sustainability is increasingly critical. As of 2023, the average family farm income in Ireland was just under €20,000, with significant variations across different agricultural systems. This paper explores the drivers behind the need for economic sustainability and diversification opportunities within the sector, emphasising the potential role of hemp cultivation.

Drivers of Economic Sustainability

Agronomic and Natural Resource Conditions

The agronomic landscape in Ireland is diverse, significantly influencing farm income. Dairy and tillage farms emerge as top earners, with dairy farms leading the way due to favourable soil and climatic conditions. In contrast, dry stock farmers face lower income levels, highlighting the disparity across systems. For example, while dairy farms might generate incomes exceeding €75,000, dry stock farmers often earn less than €10,000 annually. This variability highlights the need for tailored economic strategies to enhance farm viability.

Market-Based Drivers

The agricultural sector in Ireland is subject to high market volatility, with fluctuating input costs and product prices. Conventional agriculture lacks price guarantees, leading to income instability. For instance, tillage farms, which had an average income of €21,000 in 2023, experienced significant fluctuations with incomes ranging from €21,000 to €73,000 over recent years. This volatility necessitates diversification to stabilise farm revenues and reduce risk exposure.

Policy Reform

The Common Agricultural Policy (CAP) serves as a cornerstone for agricultural practices and policies within the European Union, including Ireland. It aims to balance critical objectives such as ensuring a fair standard of living for farmers, stabilising markets, securing food supply, and promoting sustainable agricultural development. Recent reforms to the CAP reflect a heightened focus on integrating economic and environmental objectives, addressing challenges like climate change and environmental degradation. For the 2023-2027 period, the CAP emphasises environmental

sustainability by encouraging practices that enhance biodiversity, reduce greenhouse gas emissions, and promote soil and water conservation. Carbon sequestration is a pivotal component of these efforts, with the CAP rewarding practices contributing to this process, thereby supporting both economic viability and environmental sustainability.

The Farm to Fork strategy, part of the European Green Deal, aims to establish a fair, healthy, and environmentally-friendly food system. It sets ambitious targets to reduce chemical fertiliser use by 20% and pesticide use by 50% by 2030, while also promoting organic farming and improved animal welfare. Hemp aligns well with these goals due to its low chemical input requirements and its ability to enhance soil health, making it a sustainable alternative for farmers considering crop diversification.

Furthermore, the CAP encourages diversification as a means to improve farm incomes and reduce dependency on single-crop systems, promoting economic resilience. Hemp's versatility, with applications ranging from fibre to seeds and oil, makes it an attractive option for such diversification efforts. The CAP also supports the adoption of new technologies and innovative practices to boost productivity while minimising environmental impact, providing funding for research and development to discover and implement sustainable agricultural practices, including those related to hemp cultivation.

For Irish agriculture, CAP reforms offer opportunities and challenges. They provide a structured framework and financial incentives for farmers to adopt sustainable practices and diversify their operations, though they also necessitate adaptation to new regulations and market conditions. Hemp cultivation presents a viable pathway for Irish farmers to meet CAP objectives, with its low input requirements and environmental benefits offering a suitable match for sustainable farming practices. Additionally, the increasing demand for hemp products, fuelled by growing awareness of sustainability and health, presents new market opportunities for Irish producers. By leveraging these reforms, Irish agriculture can enhance its sustainability, resilience, and competitiveness, with hemp potentially playing a significant role in achieving economic viability and environmental responsibility.

Structural Drivers

The structural composition of Irish farms poses challenges and opportunities for diversification. The average age of farmers approaches 60, raising concerns about their willingness to adopt new practices. Additionally, farm size and viability are crucial. Less than a third of farms were economically viable in 2023, with 41% relying on off-farm income and 21% categorised as economically vulnerable. This demographic trend necessitates innovative solutions to encourage diversification among older farmers.

Policy Context

Ireland’s Climate Action Plan, which sets ambitious targets to reduce agricultural greenhouse gas emissions by 25% by 2030, underscores the critical role of diversification in achieving these goals. Among the various strategies, hemp cultivation emerges as a particularly promising avenue, offering both environmental and economic benefits. The European Union's emphasis on high-value crops and bioeconomic initiatives further aligns with this strategy, providing a supportive framework for hemp's integration into the agricultural landscape. Hemp’s inherent characteristics, such as its ability to thrive with minimal reliance on chemical fertilisers and crop protection products, make it a sustainable alternative to traditional crops like cereals, which are notable for their heavy use of such inputs. This attribute is particularly relevant in the context of the EU's targets for reducing agricultural chemical use.

Moreover, hemp's relevance extends to Ireland's recently published bioeconomy strategy, released in December 2023, which emphasises the development of a sustainable and circular economy. The strategy highlights the importance of leveraging natural resources efficiently and promoting crops that contribute to environmental sustainability and economic resilience. Hemp fits seamlessly into this vision, offering multiple applications across industries, from textiles and construction to food and biofuels, thereby supporting the transition to a bio-based economy. By incorporating hemp into the agricultural mix, Ireland not only addresses climate action targets but also advances its commitment to fostering a robust bioeconomy. The cultivation of hemp thus represents a strategic intersection of climate action, agricultural diversification, and bioeconomic advancement, positioning Ireland as a leader in sustainable agricultural practices.

Economic Viability and Diversification

The economic viability of farms in Ireland remains a critical issue. According to the 2023 data from the Teagasc National Farm Survey, only about 30% of farms are considered economically viable. These farms successfully remunerate family labour at the average agricultural wage and achieve a 5% return on investment. This viability criterion provides a benchmark for assessing the financial health of farming operations.

Ireland boasts approximately 85,000 farms that meet the threshold for inclusion in the National Farm Survey. These farms represent a diverse array of agricultural activities, from dairy and tillage to livestock and mixed farming operations. However, it's important to note the existence of over 48,000 farms with a standard output of less than €8,000. These smaller farms fall outside the survey's scope, yet they constitute a significant portion of the agricultural landscape. Their exclusion from the survey means that their economic challenges and diversification needs might not be fully captured in the annual national statistics.

The economic challenges faced by Irish farms are multifaceted. Many farms rely heavily on direct payments from the European Union’s Common Agricultural Policy (CAP). These payments, averaging €100 per hectare, provide essential support but also highlight a dependency that can threaten long-term sustainability.

Diversification offers a strategic pathway to reduce this dependency and enhance economic resilience. Introducing alternative crops like hemp can create multiple revenue streams, supporting farm incomes and mitigating risks associated with traditional agricultural practices. Hemp, for instance, can be utilised for fibre, seed, and oil production, catering to various markets. Its lower input requirements, particularly in terms of fertilisers and pesticides, make it an attractive option for farmers seeking to reduce costs and environmental impact.

The Role of Hemp in Diversification

Hemp presents a promising opportunity within the circular bioeconomy. Its cultivation requires lower inputs, such as nitrogen, compared to conventional crops, making it an environmentally sustainable option. Hemp’s versatility, from textiles to biofuels, offers diverse revenue streams. However, significant investment in processing infrastructure and market development is required to

unlock its full potential. Collaboration with stakeholders and policy support will be essential to scale hemp production and integrate it into existing agricultural systems.

Research Needs and Data Gaps

To fully realise hemp's potential, comprehensive research is essential. Key areas include:

- **Economic Potential**: Quantifying cost savings and income potential from hemp compared to traditional crops.
- **Market Demand**: Analysing domestic and international demand for hemp products to guide production and marketing strategies.
- **Environmental Benefits**: Assessing carbon sequestration and soil health improvements associated with hemp cultivation.

Addressing these gaps will provide the evidence needed to drive investment, shape policy, and support the transition to sustainable farming practices.

Conclusion

Diversification through hemp cultivation offers a potentially promising pathway to enhance the economic sustainability of Irish agriculture, if the data gaops and research needs are realised. By addressing research needs, investing in infrastructure, and fostering collaboration, Ireland can position itself as a leader in sustainable agriculture, meeting both economic and environmental objectives.