Private and Public Sustainability Mechanisms in Agri-Food Production:

A Comparative Analysis of Ireland & EU Agriculture

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1. Introduction

The European Green Deal (European Commission, 2019), the Farm to Fork Strategy (European Commission, 2020) and the recently published Strategic Dialogue on the Future of EU Agriculture (European Commission, 2024) are just some of the initiatives which aim to shape the future sustainability of EU agriculture. Historically in Ireland and the EU, emphasis was placed on economic and social aspects of agricultural sustainability, but policy objectives have now evolved to give environmental sustainability equal if not greater emphasis than the other two sustainability dimensions.

Faced with the need to meet a host of sustainability objectives, what are the tools that stakeholders across the agri-food sector have available to them? These tools can largely be defined as either government driven **public** mechanisms, such as regulation or financial support, or predominantly industry led **private** initiatives or innovations, such as labelling or certification of a production method to create a point of difference and achieve a product price premium.

This paper examines the public and private mechanisms, which can be harnessed to deliver sustainability, focusing in particular on the commonalities and differences that exist between them. It is in the interest of all stakeholders to better understand the strengths and limitations associated with public and private approaches. This paper argues that a mixed approach, which does not rely exclusively on public or private solutions, may provide the best pathway for progress.

It would be easy to place all of the responsibility for delivering a more sustainable agriculture sector at the farmers' door. However, this would ignore the necessary role of an array of other actors in the food supply chain, from input suppliers all the way through to customers. In considering how improvements in agriculture's sustainability can be delivered, it is therefore critical to understand that the actions of actors across the food chain are important influencers of the end outcome. Actors in the chain will have their own interests and will be motivated first and foremost to act in their own interest. Consequently, they may have different views on how sustainability should be delivered and may disagree on the factors or time scales that are relevant in their decision-making (Garcia-Gonzalez and Eakin 2019; Schoon, B. and Te Grotenhuis, R, 2000).

Recognising heterogeneity in agricultural systems is important in considering sustainability (Grau *et al.* 2013). Recognising how agriculture in Ireland differs from or has similarities with agriculture in other countries is a further important consideration in delivering improvements in the sustainability of Irish agriculture. There may be lessons to be learnt from approaches to enhancing sustainability in other countries, but there could also be drawbacks to replicating approaches in Ireland that are used elsewhere. This paper examines the initiative used in Ireland and a number of neighbouring countries.

In pursuit of a more sustainable agri-food sector, defining an end objective is important. i.e. maintaining Ireland's capacity to produce food, while recognising the need to do so in a way that balances economic viability, environmental stewardship and social equity over the long term. All dimensions of sustainability are important (Harwood, 2020).

2. Sustainability Mechanisms

In economics, the choice between private and public can be thought of as a choice between markets and governments. Wolf (1993) argues that the market is more efficient and more innovative, but can be a blunt mechanism which fails to take account of equity. By contrast, Wolf argues, government mechanisms offer the public a voice in shaping policy and its impact, but argues such mechanisms have flaws in terms of unwieldy bureaucracy and the potential for favouritism. Similarly, sustainability mechanisms can be considered as either private or public and can be evaluated in a like manner.

2.1 Sustainable dietary patterns

The key characteristic of private sustainability mechanisms are that they generally have minimal or no government involvement in their creation or operation. Instead, private initiatives are driven by industry or non-governmental bodies (NGOs). In agri-food production, private sustainability initiatives can be broadly categorised as follows:

- **Product Certification:** where producers must achieve particular quality criteria – a familiar example is Origin Green
- **Corporate Sustainability Initiatives:** where an individual business sets quantifiable sustainability targets and requires its suppliers to do likewise. Sometimes this may include public reporting of associated sustainability metrics.
- **Voluntary Standards:** where independent measurement, certification and labelling are available to interested parties – an example would be the UK Carbon Trust

The key advantage of private initiatives is that they **can be set up** and can evolve **relatively easily.** Private initiatives do not require legislation and therefore can be developed and can evolve, while avoiding the red tape and time delays typically associated with the delivery or amendment of legislation required for some public initiatives. Furthermore, **private initiatives can evolve** in response to changing market circumstances. In a competitive food production system, players should seek out opportunities to differentiate their business from competitors. Becoming more sustainable is one way to do this. Finally, private sustainability initiatives can be self-financing (not reliant on the taxpayer for support), in the sense that consumers may be willing to pay more for products with desirable sustainability attributes.

On the flip side, private initiatives also have drawbacks. Given that they are not grounded in legislation, they are **someway optional in nature.** This can mean that some actors adopt them and others do not. So private initiatives to deliver improvements may not achieve the blanket coverage that is possible when legislation is applied across the board. The public can also view private sustainability initiatives suspiciously, since they may **lack independent oversight** to verify any claims made regarding their impact. Finally, since sustainability claims can be used to attract new customers, there is the **temptation to turn a quick buck,** which could lead to

revision and reinterpretation of sustainability objectives or a narrow focus on a particular aspect of sustainability purely to attract new business – sometimes described as 'greenwashing'. Alternatively, if customers appear to lose interest in a particular sustainability attribute, it may be de-prioritised by other actors in the chain and the momentum for change is then lost.

Private initiatives have been criticised for a number of other reasons. Lambin and Thorlackson (2018) point to the diverse range of standards, which can lead to competition between them. They say that certain stakeholders may be included or excluded in their creation. They suggest that the lack of coordination between standards may ultimately force the public sector to step in to provide a form of governance.

2.2 Public Sustainabilities Mechanisms in Agri-food

As their name suggests, public sustainability mechanisms are led by government and typically involve policies or supports aimed at achieving compliance with a national or international policy objective. In agri-food production, public sustainability initiatives can be broadly categorised as follows:

- **Legislation:** Regulation encompassing particular sustainability goals with which actors in the sector **must comply.**
- **Financial Incentivisation:** This can be in the form of a subsidy or a support payment to reduce costs or enhance profitability, with the aim of persuading actors in the sector to behave in a way that could enhance sustainability.
- **Financial Support for Research:** where national or international funding mechanisms are used to improve sustainability through the development of new technology to either enhance income, reduce environmental impacts or to satisfy particular social objectives.

In contrast to the voluntary nature of private mechanisms, mandatory public sustainability mechanisms can be designed to have **blanket coverage** and apply to all actors. Given that they are often motivated by compliance with future targets, public sustainability mechanisms tend to have **long-term objectives,** which are less likely to dissolve with the passage of time. Finally, the hand of government can be used to enforce public mechanisms, to ensure compliance and hence their effectiveness.

On the flip side, the requirement for legislation in the case of government regulations or financial supports mean that implementation of public initiatives can only move at a pace determined by the political system. A change of government or changing government priorities can have an impact on the progression of legislation, while lobbying by interested parties can affect the nature, pace and scope of legislation (Patashnik, 2023). In addition, public mechanisms place a burden on the exchequer to cover the cost of financial supports or the cost of ensuring regulatory compliance. Finally, legislation, when either poorly drafted or implemented, can be perceived as unfair, while poorly designed incentivisation mechanisms can appear unattractive to those they are aimed and may fail in their objectives (Weersink *et al.*, 1998). The design of effective and efficient public sustainability mechanisms can be difficult, complicated and slow, if there is a need to take account of a range of diverse circumstances in order to avoid harsh outcomes or unintended consequences.

3. Public and Private Mechanisms: Shared Interests and Competing Interests among Stakeholders

In a prescient paper, Christy (1996) notes an increasingly tendency for policy questions to become interrelated, creating a requirement for multi-disciplinary analyses. He further notes that as agriculture becomes a smaller part of the economy, environmental and social concerns relating to agriculture will increasingly influence it.

Given the range of actors in the agri-food chain, understanding the perspectives and interests of stakeholder is critical to the design of effective sustainability interventions. Farmers, the food industry, policy makers and consumers may have interests that coincide or differ and which may promote or hamper the delivery of a more sustainable agri-food system (Saviolidis *et al.*, 2020).

Shared interests: The achievement of sustainability improvements in the agri-food system is aided by the fact that all stakeholders can perceive the **necessity to improve sustainability** over the long term (Saviolidis *et al.*, 2020). Equally, all should recognise that **improving sustainability costs money.** For example, given the current precarious financial position of many farmers, it is not realistic to imagine that they could absorb the cost of delivering significant improvements in environmental sustainability, without compromising their capacity to produce food and their economic sustainability. All stakeholders should agree on the need for the **development and deployment of new technologies** to enhance sustainability.

Competing interests: By contrast, there are areas of diverging stakeholder interests also. There will be a tendency for policy makers to favour **rigid regulation, good governance** and an **accountability** framework to demonstrate outcomes in return for exchequer spending. This will create tensions with farmers and food processors focused on **practical considerations** that in their view may require a degree of **flexibility** and **"common sense"** in regulatory design, implementation and enforcement. There may be differing perspectives also between policy makers and farmers when it comes to the **speed of delivery** of some sustainability outcomes. While taking a **long-term perspective,** policy makers will also be keen to see evidence of short-term progress, particularly with the urgency now attached to aspects of environmental sustainability. Farmers will point to the fact that it takes time to effect change and that the delivery of improved environmental sustainability cannot come at the expenses of their short-term economic and social sustainability. They will emphasise that their **survival in the short-term** is a requirement to allow them **deliver in the long-term.** Tait and Morris (2020) provide a detailed discussion of the tension between models of sustainability that are ecologically focussed and those that adopt a wider definition of sustainability.

4. Sustainability: Some Important Characteristics of Irish Agriculture

While the Irish agri-food sector is subject to the same broad policy framework that can be found in other EU Member States, this does not mean that the sector in Ireland faces all of the same challenges found elsewhere in the EU. A few important factors, which characterise Irish agriculture, are detailed below.

Environment: Climate, soil characteristics, tradition and policy have combined to deliver the agriculture sector which now operates in Ireland. Ireland's low population density gives it a natural food export capacity. This food export capacity is concentrated in bovine agriculture, a significant greenhouse gas emissions source, which is now the subject of intense policy focus. Water quality and biodiversity loss are other key concerns associated with bovine agriculture.

Economic: While some parts of Irish agriculture have a strong track record in innovation and technology adoption, other parts do not. Only some elements of Irish agriculture are in a strong financial position. While bovine agriculture dominates in Ireland, there are deep contrasts between dairy farming, which is generally highly profitable, and beef farming, which in general is not. While parts of Irish agriculture can be characterised as intensive, much of Irish agriculture is extensive. A significant share of farming in Ireland is part time and made feasible by off-farm employment. The export focus of Irish agriculture means that the main customers for Irish food are located in other countries. It is difficult to see how Irish consumers' preferences can significantly influence the sustainability of Irish agriculture, which means that in the Irish case, mechanisms other than domestic consumer demands need to be relied upon to influence the sector.

Social: Ireland's history has created a strong attachment to land and as a result land ownership changes very slowly. The age profile of farmers is high. The strength of the wider economy, a high level of educational attainment in farming families, declining farm family size and low farm incomes, are among the factors impeding generational renewal.

Considering these factors in the design of an effective strategy to address sustainability is critical.

5. Comparative Analysis: Ireland vs. Europe

5.1 Ireland

Public Mechanisms: Irish agriculture faces challenges across the environmental, economic and social dimensions. In Ireland, much of the effort with respect to sustainability improvement in the past reflected the economic and socially focused objectives of the CAP. Support payments primarily addressed the issue of economic sustainability, essentially tackling low farm incomes. More recently, reflecting evolving CAP and other policy priorities, there has been a widening of the focus of policy to include environmental concerns (eco schemes, organics). Several explicit quantifiable targets now exist requiring actions to address environmental sustainability, (GHGs, ammonia, nitrates/water quality) but there are no such quantitative targets with respect to economic and social sustainability.

Private Mechanisms: The best known of these is Origin Green, which, while voluntary in nature, is regulated by Bord Bia through its assessment system. A feature of Origin Green is that it aims to secure a price premium and largely has an orientation toward markets outside of Ireland. This is perhaps unsurprising given the remit of Bord Bia and the export capacity in some of the main agricultural sectors in Ireland. Some Irish supermarkets pursue local sourcing from suppliers via local farming partnerships. Some sell imperfect fruit and vegetables, which previously would have been diverted to food waste. Some supermarkets also have a commitment to a net zero supply chain.

5.2 Beyond Ireland

Beyond Ireland, other countries in Europe also use a mix of public and private sustainability initiatives. Their deployment in Ireland is not radically different to how they are used elsewhere in Europe. However, the mix of approaches used in countries across Europe and the areas of emphasis are not uniform.

UNITED KINGDOM

Public Mechanisms: Having left the EU, the UK has signalled a preference for performance based environmental payments to deliver environmental public goods and a more sustainable agricultural system, particularly in England (Grant and Greer, 2023). There is also a new emphasis on innovation and productivity improvement in agriculture. It is not yet clear how the recent change in government in the UK might affect this planned policy shift. Right now, it looks set to continue. It would represent a major change from the CAP style system. There have been tensions between UK farmers and the UK government, with respect to food imports into the UK. Farmers argue that they are subject to unfair competition from lower priced imports produced with fewer regulatory requirements, implying they are less sustainable.

Private Mechanism: UK supermarkets are a powerful force shaping UK agriculture, setting standards to which suppliers must comply. UK produced foods sell at a premium to imported foods, but there are tensions between farmers and supermarkets regarding lower priced imported products. A major point of difference between agriculture in Ireland and the UK is that the UK is a substantial net food importer. This means that UK farmers are largely producing food for domestic UK consumers. This in turn means that UK consumers and UK supermarkets can exert a significant influence on the sustainability of food production in the UK. Initiatives focus on a range of sustainability objectives, such as animal welfare, waste reduction and the support of sustainable farming practices. The Red Tractor label is used by retailers to signal high animal welfare and environmental standards. Some supermarkets also use carbon labelling. Supermarket commitments to a net zero supply chains are also a feature.

FRANCE

Public Mechanisms: Farmers are encouraged to adopt practices that are supportive of biodiversity, reductions in pesticide use, better soil health and lower greenhouse gas emissions. There is a specific target for an increased area of organic farming, with associated financial support. Legislation has been enacted to promote fairer pricing for farmers. Short supply chains and direct selling are also encouraged, as are reductions in food waste. There are also policies to support agro-forestry and the protection of pollinators. Public-Private partnerships are used to boost research capacity.

Private Mechanism: Supermarkets operate a range of local and organic sourcing mechanisms. There are also supermarket initiatives to reduce food waste and to sell imperfect fruit and vegetables. Farmer partnerships and support for organic conversion is also provided through specific contracts with farmers. Organic and Eco labels are also used to influence consumer choices. Labelling is used to signify products produced with environmentally friendly farming practices. Supermarkets are also focused on carbon reduction along the food chain and reduced chemical input usage.

GERMANY

Public Mechanisms: As in other countries, there is government support in Germany for local production and direct selling. A target has been set for growth in the area of organic agriculture. Financial support is provided for organic farmers. Integrated Pest Management is promoted as a means to reduce pesticide use. Regulations exist to reduce fertiliser usage in support of better water quality. A GHG reduction target has been set for the agriculture sector. There is an initiative to improve soil health and animal welfare standards. Financial support for research has targeted precision agriculture and climate resilient crops. The production of renewable energy is also seen as an important contribution which farmers can make to deliver a more sustainable economy.

Private Mechanism: There is a wide range of initiatives in Germany, such as the promotion of local and regional products by supermarkets. Organic and biodynamic products are prominent on some supermarket shelves. Contracts are available to farmers who adopt organic or sustainable farming practices. Eco labelling and organic certification are commonplace.

THE NETHERLANDS

Public Mechanisms: The Netherlands has had a difficult experience in the last few years in implementing public sustainability mechanisms. Dutch agriculture, like Irish agriculture has a very substantial export capacity. However, significant environmental concerns have emerged in the Netherlands. The previous Dutch government aspired to a more circular agriculture sector to better manage nutrient use. Reducing nitrogen emissions was made a priority and this has been controversial, since it required a reduction in animal numbers. Government support has been provided to deliver technical solutions to reduce greenhouse gas emissions. A more recent change in government was in part motivated by demands from farmers for a reversal of some of these policies.

Private Mechanism: Some supermarkets emphasise the sourcing of local and organic products from Dutch farmers. Partnerships with farmers who use sustainable production techniques are also used. There are also initiatives to support farmers who farm in a way that is supportive of biodiversity. Fair pricing initiatives focus on rewarding farmers financially.

6. Conclusion

As Wolf (1993) highlights, the choice between public and private is a complex one and should not be seen as binary. He highlights the pros and cons of public and private interventions to deliver outcomes. It is not necessary to rely exclusively on public or private sustainability initiatives. Both have strengths and weakness and, depending on the circumstances, they may substitute or complement each other (van der Ven and Barmes, 2023).

Looking at the countries included in this analysis, there are greater similarities in terms of public sustainability mechanisms since the associated sustainability objectives derive from policy objectives that largely originates at EU or global level. Private initiatives by their nature are more country-specific, given that they are established at business or NGO level. Looking across Europe, the identified priorities in terms of agricultural sustainability objectives also exhibit differences and this can possibly be attributed to the prioritisation of particular sustainability objectives in each country's agriculture sector.

Society needs to consider the pros and cons of public and private initiatives in making decisions about how to deliver sustainability improvements. Achieving such improvements requires buy in from stakeholders along the supply chain, which may require compromise where interests

conflict. Specific contextual factors relating to agriculture in Ireland should be considered in making choices about the suitability of various interventions. The fact that most of the consumers of Irish food products are in export markets is an important distinction between Ireland and neighbouring countries.

The current prominence of the agri-food sector's environmental sustainability in public discourse is understandable, but stakeholders should not lose sight of the importance of economic and social sustainability objectives, if a balance across all three strands of sustainability is to be achieved.

References

Christy, R.D., (1996). *Markets or government? Balancing imperfect and complementary alternatives*. American Journal of Agricultural Economics, 78(5), pp.1145-1156.

European Commission (2019). *Communication from the Commission to the European Parliament, the European Council, the Council, The European Economic and Social Committee and the Committee of the Regions*. The European Green Deal. Brussels, 11.12.2019 COM(2019) 640 final.

European Commission (2020). *Communication from the Commission to the European Parliament, the European Council, the Council, The European Economic and Social Committee and the Committee of the Regions A Farm to Fork Strategy for a fair, healthy and environmentally-friendly food system* Brussels, 20.5.2020 COM (2020) 381 final.

European Commission (2024). *A shared prospect for farming and food in Europe: final report of the Strategic Dialogue on the future of EU agriculture*. https://agriculture.ec.europa.eu/document/download/171329ff-0f50-4fa5-946f-aea11032172e_en?filename=strategic-dialogue-report-2024_en.pdf .

Garcia-Gonzalez, J. and Eakin, H., (2019). *What can be: stakeholder perspectives for a sustainable food system*. Journal of Agriculture, Food Systems, and Community Development, 8(4), pp.61-82.

Grau, R., Kuemmerle, T. and Macchi, L., (2013). *Beyond 'land sparing versus land sharing': environmental heterogeneity, globalization and the balance between agricultural production and nature conservation*. Current Opinion in Environmental Sustainability, 5(5), pp.477-483.

Grant, W and Greer, A., (2023). *How has UK agricultural policy changed since Brexit?* (Accessed: 12 October 2024).

Harwood, R.R., (2020). *A history of sustainable agriculture. In Sustainable agricultural systems* (pp. 3-19). CRC Press.

Lambin, E.F. and Thorlakson, T., (2018). *Sustainability standards: Interactions between private actors, civil society, and governments*. Annual Review of Environment and Resources, 43(1), pp.369-393.

Patashnik, E., (2003). *After the public interest prevails: The political sustainability of policy reform*. Governance, 16(2), pp.203-234.

Saviolidis, N.M., Olafsdottir, G., Nicolau, M., Samoggia, A., Huber, E., Brimont, L., Gorton, M., von Berlepsch, D., Sigurdardottir, H., Del Prete, M. and Fedato, C., (202). *Stakeholder perceptions of policy tools in support of sustainable food consumption in Europe: policy implications*. Sustainability, 12(17), p.7161.

Schoon, B. and Te Grotenhuis, R., (2000). *Values of farmers, sustainability and agricultural policy.* Journal of Agricultural and Environmental Ethics, 12, pp.17-27.

Tait, J. and Morris, D., (2000). *Sustainable development of agricultural systems: competing objectives and critical limits*. Futures, 32(3-4), pp.247-260.

van der Ven, H. and Barmes, D., (2023). *The uneasy marriage of private standards and public policies for sustainable commodity governance*. Business Strategy and the Environment, 32(8), pp.5161-5173.

Weersink, A., Livernois, J., Shogren, J.F. and Shortle, J.S., (1998). *Economic instruments and environmental policy in agriculture*. Canadian Public Policy/Analyse de Politiques, pp.309-327.

Wolf Jr, C., (1993). *Markets or governments: Choosing between imperfect alternatives*. Mit Press.