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Just Transition in agriculture and land use in Ireland: Stakeholder Dialogue on an Agenda for Action

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Introduction

Transition in agriculture and land use is highly significant for achieving Ireland's climate targets, water quality and biodiversity objectives as well as for advancing more sustainable and equitable socio-economic outcomes, particularly in relation to regionally equitable rural development.

This paper draws on the process and conclusions of an eighteen-month project by the National Economic and Social Council (NESC) that examined what could form the basis for a Just Transition in Irish agriculture and land use (NESC, 2023). As a deliberative council, NESC's advice on complex challenges is often underpinned by wide engagement and research.¹ The council itself had a particular interest

¹ As the national advisory body to the Taoiseach and Irish Government, NESC provides research, enables dialogue and provides advice to support Ireland's sustainable economic, social and environmental development. Council members are representatives of business and employers' organisations, trade unions, agricultural and farming organisations, community and voluntary organisations, and environmental organisations. Heads of government departments and independent experts are also represented. NESC was asked by government, as part of *Climate Action Plan 2021*, to conduct research and engage on how to support climate Just Transition in agriculture (Department of the Environment, Climate Action and Communications, 2021a). The authors of this paper are members of the NESC Secretariat.

in this project, as it includes farming, business, environmental, social and community and union representatives, among others. This paper provides an overview of the process of engagement with these stakeholders and outlines the framework of action identified by them for delivering a Just Transition in agriculture and land use, reflecting on the key role that dialogue played in that process.

The project built on earlier NESC work that had helped inform the development of a National Just Transition Framework, first set out in the *Climate Action Plan 2021* (Department of the Environment, Climate Action and Communications, 2021), understanding ‘Just Transition’ as prioritising and seeking to achieve a climate transition that is fair, equitable, and inclusive in terms of processes and outcomes (NESC, 2020). This work was undertaken in the context of recently set sectoral emissions ceilings as part of Ireland’s carbon budget process, and sectoral strategies, including the development of the *Bioeconomy Action Plan and Food Vision 2030* (Department of the Environment, Climate and Communications, 2022a; Department of Agriculture, Food and the Marine, 2021). While there was increased understanding of the emission targets that needed to be reached, and the principles of Just Transition had been set out in policy, the process of delivering both were not yet clear.

Given some of the unique characteristics of agriculture and land use in Ireland, transition in this sector is characterised by high levels of social, economic and political sensitivity. When it comes to climate action in Ireland, discussion around the role of the agriculture sector can be fraught (McCabe, 2019). Media coverage around agriculture and climate change on setting sectoral carbon budgets at the time pointed to a range of farming, economic and environmental concerns around climate mitigation actions and potential impacts of action and inaction (McGee, 2021; Beesley, 2021; Sweeney, 2022).

Widening the process of constructive dialogue and engagement among a wide range of stakeholders to explore how transition could be achieved provided a means of developing a shared and positive agenda. The process of achieving this included engagement with representative organisations (members of the NESC), other stakeholders and experts in a working group established to support the process and through consultation, including direct engagement with citizens, in particular, farmers and rural communities.

This was a novel sectoral approach to Just Transition in Ireland and the process of engagement was central to understanding the problem and identifying solutions.

Through the lifetime of the project, the conversation around transition in the sector shifted, with initial scepticism around the concept of Just Transition by some stakeholders evolving with the work, to the co-creation of a new shared understanding of what Just Transition within the agriculture and land-use system that was endorsed by the wide range of stakeholders involved in the NESC. The outcome of the process was the endorsement of a framework of action to deliver a socially inclusive, economically viable and environmentally sustainable agriculture and land-use sector.

The paper is structured as follows:

- (1) It situates the sectoral approach to Just Transition within the national approach to Just Transition.
- (2) It outlines the research approach.
- (3) It summarises the integrated framework of action.
- (4) It outlines the agreed policy recommendations.
- (5) It concludes with reflections on the overall process and outcome.

A Just Transition contribution: Agriculture and land use

With roots in the trade-union movement and with principles enshrined in the preamble of the Paris Agreement, the concept of Just Transition emphasises a transition that is socially equitable, economically viable and environmentally sustainable, realising opportunities while managing risks fairly (International Labour Organization, 2015; Intergovernmental Panel on Climate Change, 2022; NESC, 2020). The NESC's 2020 report, *Addressing Employment Vulnerability as Part of a Just Transition in Ireland*, defined Just Transition as one that is fair, equitable, and inclusive in terms of processes and outcomes (NESC, 2020). A Just Transition approach can provide an integrated, whole-system perspective on justice (procedural, distributive, recognition and restorative) that can help in identifying systemic solutions to address environmental and socio-economic concerns (Abram et al., 2022). The Intergovernmental Panel on Climate Change notes that mitigation actions that prioritise equity, social justice and inclusivity, among other key principles, lead to more sustainable outcomes, reduce trade-offs, support transformative change and advance climate-resilient development (Intergovernmental Panel on Climate Change, 2023).

Moore-Cherry et al. (2025) argue that while the term ‘Just Transition’ has proliferated in recent years, it remains deeply contested terminology. While there are some caveats in the concept and use of Just Transition, NESC sees its potential value as part of a social and economic lens through which to consider equity and fairness in the transition away from fossil fuels. However, a bespoke approach is needed for Irish climate policy, finding that no one-size-fits-all approach exists from research into international practice (Moore & Garvey, 2023).

Transition at the scale required in the agriculture and land-use system involves difficult choices and trade-offs and is therefore characterised by friction and disagreements over facts, values and diverging interests (Organisation for Economic Co-operation and Development (OECD), 2021a). Meaningful stakeholder participation can help to resolve the range of possible tensions in order to achieve societal consensus on policy priorities (Hepburn et al., 2020; OECD, 2021a; Verkuijl et al., 2022). Murphy (2022) identifies socially inclusive dialogue and participation as a key factor in developing relevant policies and practices that can build trust and ownership within communities in transition.

In Ireland, a Just Transition Framework, informed by NESC work, was first set out in the *Climate Action Plan 2021* (Department of the Environment, Climate Action and Communications, 2021). This had been preceded by government initiatives in the Midlands, including appointing a Just Transition Commissioner, delivering a Just Transition Fund and more recently, developing a territorial plan for the Midlands to direct support from the European Union Just Transition Fund (see Mandelli and Murphy, this edition). The government’s focus on Just Transition extends beyond the energy sector, and the Just Transition Framework is being progressively integrated into the annual climate action plan cycle and sectoral policy-making (Department of the Environment, Climate and Communications (DECC), 2023a). The four Just Transition principles set out in the framework are:

- (1) An integrated, structured, and evidence-based approach to identify and plan our response to Just Transition requirements.
- (2) People are equipped with the right skills to be able to participate in and benefit from the future net zero economy.

- (3) Costs are shared so that the impact is equitable and existing inequalities are not exacerbated.
- (4) Social dialogue to ensure impacted citizens and communities are empowered and are core to the transition process (Department of the Environment, Climate Action and Communications, 2021).

Just Transition principles, while valuable, had received relatively little practical application beyond the power sector in Ireland. The contribution of the work of NESC was to explore what Just Transition could mean in practice for a specific sector, beginning with a practical exploration of the types of changes required in practice, and exploring with stakeholders how scaling these up could be achieved in an equitable way. In this way, the work moved beyond broad principles to an applied, evidence-based and engagement focused approach on a sector-specific conceptualisation of Just Transition together with a framework for action to implement the principles in practice. While the contribution of the work was to a sectoral exploration of Just Transition, clear linkages were made from climate through to biodiversity and water, and from agriculture and land use through to energy (for example, renewable-energy generation as income diversification from land use). There was recognition from the outset, that both contextualising the challenge and recognising potential new opportunities would need to be wider than the agriculture sector.

Agricultural and land-use systems have several characteristics that distinguish the nature of transition compared to other areas of the economy (Baldock & Buckwell, 2021). In Ireland, these distinctive characteristics include the strategic importance of the sector to the economy, the extent and diversity of land covered by agriculture, the diversity of farm structures and the nature of the supply chain, as well as the wider social and cultural significance of the sector, which all taken together increase the complexity, uncertainty and political sensitivity of transition. Unlike other sectors undergoing transition, such as the energy sector, the agricultural and land system is made up of thousands of predominantly small family enterprises based in every part of the country. In addition, also unlike other sectors undergoing transition, where the focus has been on retraining and job losses as industries are phased out, transition in the agriculture and land system will principally rely upon thousands of individual farmers innovating and changing practices or land use, taking place across diverse soils, land types and production systems. Finally, unlike other sectors, the

agriculture and land-use sector is unique in the area of climate action as it is both a source of greenhouse gas emissions as well as a sink, which is a significant opportunity.

Engaging stakeholders in conceptualising Just Transition for the sector was important, as at the outset of the work, the term ‘Just Transition’ had negative connotations for some, particularly the sense of transition being ‘done to’ people or a sector and transition as associated with transitioning ‘out of’ certain activities.

Exploring these issues was a part of the engagement process, and by the end of the engagement processes, stakeholders had come to a collective understanding that defined a transition in agriculture and land use not as a transition *out* of agriculture, but a transition *into* making optimal use of our land and agricultural resources. The Just Transition at the heart of the NESC approach is something that would and should be done *with* farmers and rural communities, that should be opportunities-led as well as recognising and mitigating associated costs, and this is reflected in the interventions recommended. The work was important in building trust in a Just Transition in agriculture and land use in Ireland, but also in helping to strengthen the understanding of what transition means for sectors beyond energy.

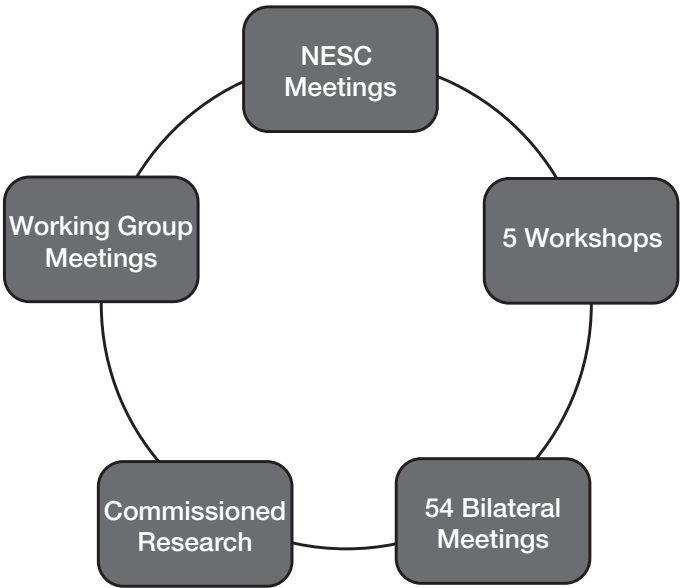
The research and engagement process

Over the course of this project, NESC researched and engaged directly with a wide range of stakeholders. Engagement included meetings of the council and a working group established to guide the research process (which included representatives of farming organisations, environmental organisations, trade unions, business and employers’ organisations, the community and voluntary pillar and independent experts), bilateral interviews with fifty-four informants, and a series of five workshops – four with farmers and rural communities and one with national stakeholders (see Figure 1). The workshops² focused on exploring the social, economic and environmental implications of the different practical measures for reducing emissions (including those set out in the *Climate Action Plan 2023* (DECC, 2022b), the Teagasc marginal abatement cost curve (Lanigan et al., 2023), and analysis and advice from the Climate Change Advisory Council), as well as stakeholders’ perspectives on their perceived feasibility, and the barriers and enablers to their widespread adoption.

² The workshops were facilitated by Second Nature.

A space was created for evidence-based and participative discussion, which brought different actors together to support a rich and productive set of discussions. In the context of the contested nature of the debate on transition in this sector, the open and participatory process was important to achieving agreed outcomes. It demonstrated that even on complex, ‘wicked’, politically sensitive issues, a shared and positive direction can be forged, with consensus developed on recommendations provided to government.

Figure 1: Engagement process



Abbreviation: NESC = National Economic and Social Council.

Stakeholders agreed that debate on agriculture and climate action has been unhelpfully polarised. In contrast to the polarisation that often marks public debate, focus group workshops with farmers indicated a willingness to engage with transition, and nearly all farmers indicated that they are prepared to go further and implement measures, but they need to be engaged and supported. Research and engagement supported detailed work by the working group and council to develop an integrated framework of action, which informed the council’s recommendations to government.

The next section outlines the key elements of this framework.

Integrated Framework of Action for a Just Transition in Agriculture and Land Use

NESC's consultation with farmers and other stakeholders focused on people's experience with a range of practical measures for reducing emissions, increasing carbon sequestration and improving biodiversity, and water and air quality.

NESC reviewed climate-action measures based on their social, economic and environmental impacts. Particular attention was given to the views of farmers on the barriers and enablers to the wider uptake of measures.

Measures for reducing emissions related to agriculture include: reducing chemical nitrogen use; increasing the adoption of protected urea; earlier finishing of beef cattle; reducing the age at first calving of suckler beef cows; improving animal breeding by focusing on low methane traits; extending organic farming; improving animal feeding; miscellaneous measures such as extended grazing and rolling out a methane-reducing slurry; as well as adding a slow-release bolus pasture-based feed additive, and mobilising recommendations of the Food Vision sectoral groupings; and supporting land-use diversification options for livestock farmers – such as anaerobic digestion, forestry and tillage to incentivise voluntary livestock reductions. Measures for land use, land-use change and forestry include increasing afforestation and harvested wood products, increasing cover crops and incorporation of straw, better management for mineral grassland for improved sequestration, and reducing management intensity of drained organic soils (Department of the Environment, Climate and Communications, 2022b, 2023a).

The basis of the integrated framework for action was categorising these measures into three broad categories to help frame interventions, acknowledging that efforts to deliver measures across all three categories will be needed to deliver necessary climate mitigation. Categorising measures was based on analysis drawing on the perspectives of the barriers and enablers to the wider uptake of these measures together with literature on the economic costs of each measure and the potential of each measure to have co-benefits (or risks) for water quality, biodiversity, air quality and climate adaptation. Based on this analysis, three main categories of measures were identified:

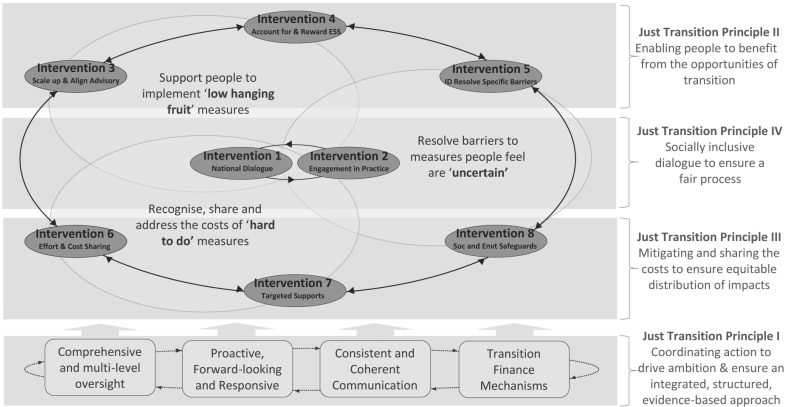
‘Low-hanging fruit’ measures: The measures that could be considered in this category are low-cost or cost-beneficial, have positive impacts on the wider environment and are broadly positively regarded by farmers. The types of measures that fall into this category are soil- and land-management measures such as nitrogen-use efficiency and incorporation of clover, and technical or efficiency measures for reducing emissions from livestock such as improved animal health and feeding measures. The key enablers are to support their wider uptake through skills and capacity-building, tailored advice and financial support.

Measures characterised by uncertainty: The measures that could be considered in this category are characterised by the perception among stakeholders that there are significant issues and challenges that need to be resolved to enable more widespread adoption. These may include policy barriers or inconsistencies, or for certain farm types, cohorts of farmers or regions, the barriers may be social, cultural or relate to uncertainty experienced by stakeholders. The types of measures that fall into this category include diversification options such as afforestation, on-farm renewable-energy generation or other opportunities in the emerging bioeconomy. Uncertainty does not signal a slower pace of response or hesitancy to act, but rather points to the need to address barriers and challenges through research, policy alignment and market interventions to reduce risk.

‘Hard-to-do’ measures: The measures that could be considered in this category are those where there are potentially high costs and, for some farmers, potentially high levels of income reduction and loss of livelihood. These include, for example, raising the water table on drained organic soils and voluntary livestock reductions. The key intervention points for this category are to recognise potential costs, and the willingness to commit to equitably share costs and to address them, compensating for losses in a transparent and formal manner.

Based on this analysis, an integrated framework for action was developed (see Figure 2). The framework starts with the three categories of measures (large white ovals) and identifies eight interventions (small shaded ovals) that will support their wider uptake in ways that are considered socially inclusive, economically viable and environmentally sustainable. Their alignment with the principles of Just Transition as articulated in Ireland’s framework for Just Transition is illustrated (in grey). Interventions need to be coordinated and driven by an effective approach to governance, which is identified (rounded rectangles at the bottom of the Figure).

Figure 2: Integrated Framework for Action



**Socially inclusive dialogue and participation:
Interventions 1 and 2**

Socially inclusive dialogue and participation are central to ensuring a fair process of transition. Ireland’s Just Transition Framework recognises this in the principles committing to social dialogue ‘to ensure impacted citizens and communities are empowered and are core to the transition process’ (Principle 4, *Climate Action Plan 2021* (Department of the Environment, Climate Action and Communications, 2021)).

Stakeholder involvement is important both in decision-making, where participatory processes of dialogue can help develop a shared national narrative and strengthen consensus, and, in the practice of transition itself, where fostering active participation in specific localities can bring together expertise, innovation and delivery in ways that people feel are inclusive (NESC, 2014; Hepburn et al., 2020).

Two interventions that are foundational for a Just Transition in agriculture and land use are therefore identified.

Intervention 1: Engaging a wide range of stakeholders in national dialogue on agriculture and land-use transition

While there is a ‘direction of travel’ indicated in Irish policy towards transition, areas of mixed messages and differences remain as to the scale of change and the implications of transition. Hepburn et al. (2020) emphasise national dialogue can support vertical and horizontal alignment across scales and sectors, and underline the

importance of clear and coherent communications on the evidence, nature and scale of transition to inform such a dialogue.

While public consultation is a regular part of agricultural policy, deeper and wider stakeholder dialogue on how to achieve climate action in agriculture and land use that is participatory and inclusive would support a frank, constructive and evidence-based approach to transition.

An inclusive process of dialogue that involves a wide range of stakeholders from across the agriculture and land-use sector, including farmers and rural communities, workers, supply chain actors, environmental stakeholders and consumers, would help to build a shared sense of collective purpose. Such a dialogue should be participatory, clearly communicate the scale of the change and explore with a wide range of stakeholders particularly those most impacted how to achieve transition in a fair and equitable manner. The focus of such a dialogue could be, for example, focused on the future of agriculture and food systems or the development of a multifunctional land-use framework for Ireland. It could build upon the National Dialogue on Climate Action (DECC, 2021), the National Climate Stakeholder Forum, Climate Conversations and the National Youth Assembly on Climate as well as on recommendations arising from Ireland's Citizens' Assemblies on Climate Action and on Biodiversity Loss (Citizens' Assembly 2016–2018, 2018; Citizens' Assembly on Biodiversity Loss, 2023).

It should be focused on the specific sectoral transition in the agriculture and land-use system, to envision and to explore the implications and priority actions to achieve a Just Transition, and to generate a shared sense of direction among all stakeholders. Potential opportunities for a national dialogue include a dedicated sectoral focus as part of the Just Transition Commission activities arising from the next phase of the land-use review or a new Citizens' Assembly or series of Regional Citizens' Assemblies.

Intervention 2: Supporting robust processes and institutions for local participation in the innovation and experimentation as part of transition in practice

There are over 130,000 individual farms with a wide variety of different land and soil types. Each farm is managed with unique skills, knowledge, experience and unique preferences and priorities for farmers and land managers of what they want from their land, farm business and household. National outcomes (such as emission

reduction, clean water, carbon sequestration) can have synergies or trade-offs with the multiple land functions and management prioritises at local level (Coyle et al., 2016; Schulte et al., 2015; Schulte et al., 2014). The active participation and engagement of farmers innovating and changing practice across a diversity of contexts is therefore fundamental to effective transition (EEA, 2019). Newell et al. (2024, p .9) highlight that ‘there is much greater scope to think creatively about citizen engagement in all aspects of transitions: not as post-hoc approval or information sharing, but active participation in the design, development, and implementation of action at all levels’.

Ireland has demonstrated significant leadership in fostering innovative place-based approaches that have successfully supported agricultural and land-use change in practice. The successful approach in the Burren Programme involved a hybrid model of results-based payments in combination with payments for capital works (Finn, 2020). Subsequent LIFE programmes, the Agricultural Sustainability Support and Advisory Programme (ASSAP) and many agriculturally focused European innovation partnerships similarly combine scientific evidence and advice with tailored catchment-level engagement and adaptive innovative approaches in close collaboration with farmers. Recognising the impact of such approaches, their use has widened, including informing the design of the new Agri-Climate Rural Environment Scheme. The effective and swift rollout of the Agri-Climate Rural Environment Scheme cooperation project model could be prioritised, ensuring sufficient financial and human resources and the necessary institutional changes to support an adaptive, farmer-focused approach. A dynamic interaction between national policy and processes with local place-based initiatives is important for both aligning local processes to national targets and ensuring that evidence-in-practice shapes future policy. The current land-use review is an opportunity to build on these initiatives, for example, through developing a multifunctional land-use framework that supports and enhances locally adapted, place-based approaches.

Participation and dialogue are the foundational elements of Just Transition, but they are not sufficient without a wider framework of action.

Interventions 3–5: Enabling people to benefit from opportunities of transition

Enabling people to benefit from opportunities is critical for a Just Transition. This reflects a core principle in the Climate Action Plan

Just Transition Framework, that ‘people are equipped with the right skills to be able to participate in and benefit from the future net zero economy’ (Principle 2, *Climate Action Plan 2021* (Department of the Environment, Climate Action and Communications, 2021)).

NESC consultation with farmers on the barriers to adopting measures suggests that enabling people to benefit from the opportunities of transition is not just about skills, but also about financial incentives and resolving barriers to the wider uptake of measures that farmers consider to be uncertain. This includes three areas of intervention: resourcing the necessary skills and advisory for new approaches to production or income diversification, aligning finance, in particular accounting for and rewarding sustainability of reducing emissions, increasing carbon sequestration and other ecosystem services, and action to reduce the uncertainty around land-use diversification.

Intervention 3: scale up and align the provision of skills, advice and research for transition

To benefit from the opportunities of transition, people need to be empowered with the necessary knowledge, skills and capacity to adopt new approaches or to consider more land-use or income-diversification options. In a Bord Bia Thinking House Survey, farmers identified knowledge supports or training (50 per cent) as the second highest ranked supports (after financial support) that they require (Bord Bia, 2022).

Ireland has a highly regarded food and agriculture research and advisory service, as well as excellent examples of peer-to-peer collaboration and exchange. Stakeholders emphasised the need for further alignment of advisory services, and the research and guidance they provide, with sustainability objectives as a core function, including the provision of specialist ecological advice at farm level.

Intervention 4: Account for and reward environmental sustainability and align financial incentives with transition objectives

Costs act as a barrier to transition, including costs for implementing measures or income foregone as a result of reduced intensity of use (ASSAP Coordinating Team, 2020; ASSAP Independent Review Panel, 2021; O’Sullivan et al., 2017). The Bord Bia Thinking House 2022 survey found most farmers (86 per cent) were willing to implement further changes to reduce emissions on their farms, with financial supports/grants being identified as the most common

(82 per cent) support that they expected to help them to do so (Bord Bia, 2022).

NESC consultation with stakeholders identified the misalignment of financial incentives as a key barrier to transition, and principally a systemic gap in accounting for and recognising the value of ecosystem services. While stakeholders acknowledged recent reforms of the Common Agricultural Policy to strengthen environmental outcomes, many emphasised the need for further alignment and improved monitoring and evaluation to better deliver environmental objectives and support farmers and farm enterprises transition to more sustainable approaches.

Results-based payments for ecosystem services have proven to be a successful approach in agri-environment schemes in Ireland, an area in which Ireland has demonstrated innovation and leadership and in which it has the potential to help support a Just Transition within the agriculture sector (Scott & Faulkner, 2023).

Progressing a framework for accounting for nature in Ireland would be valuable for agriculture and land-use transition (NESC, 2024) and would underpin results-based payment for ecosystem services as a potentially viable new business model for farming. This will require significantly increasing the financial resources from a variety of sources invested in rewarding farmers for protecting and enhancing ecosystem services. Sources of finance for result-based payments for ecosystem services could extend beyond the Common Agricultural Policy, from both public and private sources.

Intervention 5: Reduce uncertainty through greater policy coherence, addressing social or cultural barriers and state support to de-risk transition

There is a commitment in policy to agricultural diversification. *Food Vision 2030* signals actions aimed at a ‘making the sector more diversified, resilient and based on circular economy principles’ (Department of Agriculture, Food and the Marine, 2021, p. 6) and the potential of diversified sources of income is identified in *Climate Action Plan 2023* as a way to incentivise voluntary land-use change by livestock farmers into areas such as tillage, forestry and biomethane generation. Diversification is one of the eight priority actions in the *Teagasc Climate Action Strategy 2022–2030* (Teagasc, 2022).

NESC consultation explored stakeholder perceptions of barriers and enablers across the different transition measures, and a high degree of uncertainty was expressed around diversification measures.

This included socio-cultural barriers, policy inconsistencies and uncertainty about future markets for alternatives as the most significant barriers for adopting opportunities for diversification into areas such as forestry, renewable-energy generation and land-use change.

A strong message from stakeholders is that there are limits to the impacts of incentivising or supporting individual action, where barriers exist in the system that limit the widespread adoption of measures. The Centre for Marine and Renewable Energy (2017) emphasises the importance of understanding such barriers, highlighting that policymakers need to pay attention to the barriers to institutional and individual behavioural change. Understanding the social and cultural barriers better, aligning policies to bring more coherence to transition and reducing risks for farmers by creating more market certainty for income diversification are important steps for unlocking the potential of diversification.

Policy interventions can reduce uncertainty around diversification, to share risk and to guide investment. For example, NESC's work on wind energy highlighted the potential of energy co-operatives, following on from Ireland's strong history of co-operatives in agriculture, in bringing local communities and farmers together to have a significant, direct, financial stake in the project beyond land-lease payments and tax revenue (NESC, 2014). To support investment in the short term, a focus is needed on creating a market, de-risking and aggregating investments. A range of instruments can be used from tax credits, grants and loans to transaction enablers, interventions that facilitate investment from other actors but without direct state investment (OECD, 2021b). In the medium term, a focus on metrics and disclosure, transforming land-use sectors and aligning subsidies and incentives provides the enabling conditions (United Nations Environment Programme, World Economic Forum & The Economics of Land Degradation, 2021). LEADER funding could help to catalyse the development of circular bioeconomy value chains, and government support for new farmer-owned co-ops could enable engagement at the scale that will be required. Cooperative approaches could align natural capital, primary production and circular bioeconomy value chains for the sustainable mobilisation and valorisation of bioresources (Irish Bioeconomy Forum, 2022, p. 3).

Interventions 6–8: Recognising and mitigating impacts

Ensuring a fair and sustainable distribution of the impacts of transition is a key outcome of Just Transition. This reflects the Just Transition

principle that ‘costs are shared so that the impact is equitable and existing inequalities are not exacerbated’ (Principle 3, *Climate Action Plan 2021* (Department of the Environment, Climate Action and Communications, 2021)), which starts with the need to recognise potential costs in order to mitigate them.

Three interventions are identified:

Intervention 6: Effort-sharing so that costs of transition are shared more equitably

There is a wide range of stakeholders across the agriculture, food and land system, and supply chain, among whom the effort and costs of transition could be shared. This includes considering the distribution of effort among primary producers – where there are significant differences between regions, farm sectors and farm enterprises of different sizes and age profiles, as well as considering how to share the costs of transition among actors along the supply chain and consumers without widening existing inequalities.

This is perhaps the most challenging of considerations regarding how a Just Transition can be delivered, as it requires clarity on the extent of effort being shared, which is one of the most sensitive areas of transition, as well as identifying how the effort can be shared equitably. Effort-sharing fairness is only possible if the total effort that is to be shared is made and is enforced.

Effort-sharing among primary producers will be influenced by policy decisions and policy planning. The current approach focuses on incentivising individual, voluntary choice. More explicit attention is needed on effort-sharing at the collective level, particularly to ensure balanced regional development. Translating national targets to regional or local targets, with robust processes of stakeholder engagement and reflecting tailored land use together with balanced socio-economic development could be one tool for ensuring effort-sharing across regions.

The practices of supply chain actors (including processing, retail and marketing) significantly influence the sustainability of both production and consumption. Strong and supportive action by private actors in the market, including processors, retailers and input suppliers, could be a powerful driver of change (Baldock & Buckwell, 2021).

The establishment of the Office for Fairness and Transparency in the Agri-Food Supply Chain is an opportunity for more robust oversight to bring more transparency and fairness along the

agri-food supply chain. Robust data monitoring, reporting and verification covering all farms and suitable for inclusion in the national inventory is a core cross-cutting action that would support standards and certification, and underpin other transition measures (Food Vision Dairy Group, 2022). Integrating biodiversity, water and air quality data in addition to emissions data would provide a more comprehensive approach for reporting on agricultural production.

Ireland can build upon extensive experience already accumulated in this area, including Teagasc's annual national farm survey and the Bord Bia farmer feedback report. The further development of robust monitoring, reporting and verification of data on sustainability (including related to emission reductions and carbon sequestration, biodiversity, and air and water quality) should underpin robust standards and certification to support effort-sharing along the supply chain, including by increasing the financial incentives for farmers who demonstrate higher standards of sustainable production. This could be further supported by the development of public procurement policies and market incentive conditionality based on sustainability standards.

Intervention 7: Identifying and providing targeted financial supports to offset costs

It is important to acknowledge that there are costs associated with some measures of transition. Policy indicates an intention to incentivise voluntary action by making income and land-use diversification options attractive and therefore minimise these costs. More research is needed on the economic opportunities in transition, into areas of research such as paludiculture to support agricultural practices on re-wetted soils and addressing the barriers to diversification is also key (see Intervention 5).

Specific targeted support will also be necessary for people facing specific costs due to transition policies or measures, such as farmers managing soils on a lower intensity as part of raising the water table or choosing to reduce livestock as part of an exit scheme (such as the one proposed by the Food Vision Dairy Group, 2022). Common types of supports include compensatory payments, enhanced social security or regional transition funds supporting diversified local economies (Hepburn et al., 2020). While it is critical to tailor supports to those most vulnerable to the impacts of transition in order to leave no one behind, there may be particular contexts in which a wider set of

financial incentives are appropriate, including to those who are impacted but not particularly vulnerable.

The development of alternative income streams and/or financial compensation measures are essential considerations for mitigation options involving measures associated with income or output reductions. State support for transition has been common in the energy sector, for example, large-scale regional investments have been central aspects of the approach to supporting coal regions in Germany (Furnaro et al., 2021).

Targeted supports can also focus on strengthening collaboration across the sector in new ways, for example the European Carbon+ Farming Coalition, an initiative bringing together organisations and stakeholders representing every step of the food value chain under an effort to decarbonise the European food system, while maximising other benefits such as soil health and farmer resilience (EIT Food, 2021).

Further work is required to identify specific groups vulnerable to transition in agriculture and land use (among primary producers and along the supply chain, including workers and consumers). Targeted supports that can protect vulnerable groups should be co-developed to ensure that groups which are identified as vulnerable are adequately supported during the transition process.

Intervention 8: Establish and implement social and environmental safeguards

Transition measures, and in particular measures related to land-use change such as forestry and on-farm production of bioenergy and renewable-energy generation, can have positive co-benefits for biodiversity, and water and air quality, and can contribute to diversified rural communities, but can also have significantly negative impacts if not managed appropriately. Despite commitments to avoiding unintended consequences in many land-use policies, Ireland's biodiversity is worsening (Department of Culture, Heritage and the Gaeltacht, 2019; Duggan et al., 2022).

Equally, policy measures, investments or market-based interventions to support transition, such as those designed to financially reward ecosystem services, also have risks, including in relation to the potential for greenwashing. Measures to support an environmentally sustainable transition must pay due regard to the potential for unintended consequences for the environment and for communities impacted by large-scale land-use change.

Social and environmental safeguards are particularly important for traditional or large-scale forestry, given the scale of afforestation rates indicated by policy, and for the emerging bioeconomy which may create unintended social or economic consequences as a result of competing land use.

It is important to ensure there is policy coherence and synergy with other legal environmental obligations, to avoid negative socio-environmental impacts due to the climate actions carried out in agriculture and land use.

Systematic screening of projects and activities is important for identifying potential incoherence that can result in unintended consequences. This can be complex where there are multiple priorities, such as the need to increase afforestation, while also protecting and restoring vulnerable bird species and their habitats. However, safeguards, such regulatory compliance of environmental regulations, such as those protecting birds and habitats, should be enforced.

More robust screening of policies and measures of transition in agriculture and land use are needed, including the full implementation of existing standards together with further exploration of social and environmental safeguards as new business models, such as carbon farming, emerge.

Governing transition: Coordinating action and driving ambition

Delivering a transition in the agriculture and land-use system will require robust governance structures, policies and processes (Baker, 2009; de Boon et al., 2023). This is reflected in one of the climate action plan's Just Transition principles, that emphasises the importance of an 'integrated, structured and evidence-based approach to identify and plan our response' (Principle 1, *Climate Action Plan 2021* (Department of the Environment, Climate Action and Communications, 2021)).

Bringing about transformation in the agriculture and land-use sector is a non-linear, society-wide process, where interventions to alter one part of the system can produce costs and benefits elsewhere. Transitions disrupt established investments, jobs, behaviours, knowledge and values. This poses significant challenges for governance processes that have traditionally been more linear and siloed.

Four components are identified for fair and effective governance in the agriculture and land-use system. While many of the elements identified are already in place or emerging, there are opportunities for

Ireland to further develop them to enhance the coordinating action and ambition.

Comprehensive and multilevel oversight

Effective governance for transition needs to include comprehensive oversight of actions right across the relevant sectors, departments and agencies – to bring ‘horizontal’ coherence across different sectoral areas; as well as ‘vertical’ coherence between local and national structures.

A core overarching activity is to help develop a shared vision for transition in the food and agricultural system. This is a foundational element of governance, particularly when the vision is developed with strong stakeholder engagement, so it is an achievable, consensus-based transition pathway. In order to make a vision concrete, as well as incentivising action towards it, it is necessary to translate it into targets and plans, including setting appropriate timeframes for achieving it.

While the carbon budget and sectoral ceilings are crucial, in addition, there is a gap in ensuring horizontal coherence across sectors. Without this, it is likely that core targets and plans of agencies, for example related to agriculture and renewable energy, will not be aligned and may have different key performance indicators.

There is a robust national system of monitoring and reporting for greenhouse gas emissions, underpinned by economy-wide carbon budgets and sectoral emissions ceilings. Monitoring and reporting on the social, economic and environmental impacts of transition measures will also be important when considering equitable effort-sharing (Intervention 6), as well as highlighting the potential negative unintended social or environmental impacts (Intervention 8).

It is intended that the Just Transition Commission that will be established will also monitor the implementation of the Just Transition principles in the climate action plan and report on progress; commission research on sectoral impacts and mitigation solutions; and advise and support social dialogue processes to effectively integrate Just Transition considerations. Specific indicators will be developed to measure progress in relation to ensuring a Just Transition. There is value in widening the scope of monitoring transition, which could include (beyond greenhouse gases), biodiversity, air and water, as well as the socio-economic impacts, particularly regionally to reflect a Just Transition. It is important to develop data at this scale in support of

tailored approaches to transition. The commitment by government to develop Just Transition indicators outlined in the *Climate Action Plan 2023*, will support this.

Proactive, forward-looking and responsive

Foresight and anticipation together with a learn-by-doing, experimental approach should be part of an effective governance of transition in complex systems, so it is responsive to local contexts, and policy, regulation and advice can be tailored to reflect learning.

Firstly, the governance system will need to include anticipatory governance and horizon-scanning, which helps to mobilise the insights from foresight to reduce or avoid negative outcomes. This should include identifying climate risks, patterns and potential impacts for the agriculture and land-use system in Ireland, as well as distributional impacts from policy measures, to protect the most vulnerable groups and ecosystems.

Secondly, the policy and governance system needs flexibility to ensure it is responsive to scientific developments and learns from developments in practice, revising policy, regulations and incentives based on new evidence. A key challenge is to ensure locally appropriate transition planning, acknowledging the specific context of the place and challenges and past experiences and identifies place-sensitive opportunities (Moore-Cherry et al., 2022). Lessons can be drawn from how innovative place-based initiatives, such as the European innovation partnerships demonstrate farmer-led research, innovation and learning informing best practice and shaping policy direction under the Common Agriculture Policy Strategic Plan.

Consistent and coherent communications

Clearly, consistently and coherently communicating a whole-of-society vision for transition is an important role of governance for transition. Such communication shapes beliefs and attitudes, and it is important that communication is based on facts and upon plausible pathways for achieving targets. Inspiring narratives that inform and clearly communicate the benefits of transition are also important. In a report focusing on framing climate action in Ireland, NESC (FitzGerald, 2019) highlighted resilience-framing as a potentially positive frame for climate action in Ireland.

Conducting careful public information campaigns, monitoring public attitudes and behaviour can also be helpful for understanding changing attitudes and practices over time, informing policy-making.

There have been some effective recent public communication campaigns and monitoring of attitudes during Covid,³ for example, and the ‘Reduce your Use’ government campaign to encourage energy efficiency during the cost-of-living crisis.

Agriculture and land-use transition could be a valuable focus for future dedicated communications work covered by the Climate Communications Strategy coordinated by the Department of the Taoiseach, building on the Environmental Protection Agency’s Climate Change in the Irish Mind project, which includes nationally representative surveys providing rich insights into attitudes to transition, including identifying opportunities that could be accelerated (Environmental Protection Agency, 2024).

Transition finance mechanisms

The Common Agriculture Policy is a significant source of financial support for increasing the sustainability of the agriculture sector, but wider sources of funding are required to support the transition, and increase support for climate and biodiversity action. In Ireland, the focus of significant Just Transition resources has been directed on the use of peat in the energy sector and its workers and their communities in the Midlands. Ireland’s carbon tax and green-budgeting reforms will increase the availability and effectiveness of taxation revenue, an important mechanism to support action. The establishment of a Just Transition in Agriculture and Land Use Fund, consolidating available carbon tax revenues and other public resources could provide certainty and clarity on the supports for farmers in transition.

Agreed recommendations to government

Based on the analysis arising from the integrated framework of action, the NESC agreed a series of recommendations for government, with action across all areas taken together that can enable ‘low-hanging fruit’, ‘uncertain’ and ‘hard-to-do’ measures to be progressed to ensure a balanced, effective and fair approach to transition.

Recommendations focused on action across four of the key areas of the framework.

³ The Social Activity Measure, a behavioural study was led by the Economic and Social Research Institute in collaboration with the Department of the Taoiseach that recorded the public response to the risk of Covid-19 infection. Data from a nationally representative sample of 1,000 adults were collected every two weeks, with reports published until 2022 after thirty-six iterations (Lunn, 2022).

Firstly, recommendations on how social and inclusive processes can be enhanced, including:

- Undertaking a deep and wide process of further engagement with stakeholders to build a greater sense of shared direction for transition in the agriculture and land-use system (for example as part of the land-use review, or in a new Citizens' Assembly).
- Building on local and context-specific participation and experimentation in order to ensure that approaches that have been impactful at the local level are successfully scaled up nationally.

Secondly, recommendations on how people could be enabled to benefit from the opportunities of transition, including:

- Scaling up and more fully aligning farm advisory services with environmental objectives and ensuring that bespoke ecological expertise can be provided at farm level.
- Undertaking more research on the opportunities and implications of transition for workers in the supply chains and downstream activity associated with agriculture and land use.
- Accelerating work on accounting for nature.
- Significantly increasing the financial resources available from European Union, and public and private sources to reward farmers for protecting and enhancing ecosystem services.
- Working to reduce uncertainty around diversification options experienced by farmers and other stakeholders (including addressing policy incoherence, and sharing risk and guiding investment in emerging markets).

Thirdly, recommendations on how the approach to sharing and mitigating the costs of transition could be improved, including:

- Developing a strategy for effort-sharing based on additional investment in research, data, evidence and monitoring of the distributional impacts across the agriculture and land-use sector, and informed by new research to consider existing and potential effort-sharing mechanisms across the agriculture and land-use system.
- Developing more robust standards and certification to support effort-sharing along agriculture and land-use supply chains.

- Conducting and progressing an examination of the spectrum of supports for those vulnerable to transition in agriculture to ensure that no one is left behind.
- Performing more robust screening of policies and measures of transition in agriculture and land use, and greater compliance with regulations, to avoid unintended consequences.

Fourthly, recommendations on how the actions and interventions, and the overall governance of the transition in agriculture and land use can be coordinated, including:

- The work of NESC on Just Transition in agriculture and land use should inform and shape the next stages in the development of the land-use review.
- Agriculture and land-use transition should be a focus of current and future dedicated climate communications work.
- The agriculture and land-use system should be a priority focus for Just Transition of institutions, processes and resourcing in Ireland, notably in the work of the forthcoming Just Transition Commission.
- The establishment of a Just Transition in Agriculture and Land Use Fund, consolidating available carbon tax revenues and other public resources.
- The application of a Just Transition lens to climate adaptation in agriculture, forestry and other land use.
- Ensuring a wide scope in the monitoring of transition, including economic, social and environmental aspects and data at local scale in support of place-based transition.

Conclusion

This paper outlined a recent process for developing a tailored approach to planning and delivering Just Transition in the agriculture and land-use system, responding to the unique characteristics of the agriculture and land-use sector and the specific risks, opportunities and challenges this poses. Within the context of polarised debate on agriculture and land transition, this work has demonstrated the value of dialogue and engagement to develop a shared agenda.

Bringing a sectoral Just Transition focus beyond energy was a new approach in Ireland, requiring a careful process of engagement to sense-check the evidence and draw out the multi-stakeholder

perspectives required for a fuller understanding. While the focus was sectoral, key linkages were identified between the agriculture and land-use system and energy, as well as between climate action and action on water quality and biodiversity.

This work pointed to the key role of process together with the use of a wide range of evidence and literature across disciplines to help to provide a grounded and practical value to the conclusions. Transition in all sectors depend upon social acceptance. There are current and future opportunities to deepen processes of stakeholder engagement around Just Transition. The establishment of a Just Transition Commission in October 2024 was one of the recommendations in the report and followed on from the recommendations of a Just Transition Taskforce, which included NESC (DECC, 2023b). The commission provides an opportunity to enable greater stakeholder engagement around Just Transition on national and sectoral levels. Given the key role of agriculture and land use in the Irish economy and in climate mitigation, additional Just Transition scrutiny and engagement is warranted. Wider application of the process outlined in this work, as well as a tailored adaptation of the integrated framework guided by principles and underpinned by new governance and institutional arrangements could also have relevance to considering Just Transition in other sectors. Developing an inclusive process, beginning with an assessment of the practical measures of transition in order to discuss opportunities, barriers, impacts and governance with key stakeholders can be a useful approach with wider potential applications.

Insights from the NESC work on Just Transition in agriculture and land use, including the policy recommendations agreed with stakeholders have informed other policy processes since its publication, including the land-use review, phase 2, and further opportunities for deepening engagement on a Just Transition in agriculture and land use include the development of a nature restoration plan (which will involve stakeholder consultation in 2025) and engagement processes on policies, including *Our Rural Future* (under consultation in 2025) and the next national Common Agricultural Policy strategic plan (post-2027). This increased dialogue and engagement on climate, biodiversity and land-use policy development is a positive development that can bring key stakeholders together to respond to these critical challenges.

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