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Just transition frames: Recognition, representation, and distribution in Irish beef farming

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ABSTRACT

The concept of just transition has emerged as an important governance framework guiding sectors transitioning from unsustainable to sustainable practices and is most dominant in debates on the energy transition. This research, in contrast, explores if and how this framework can make sense of the challenges facing Irish beef farming. The sector is transforming in response to an intersecting range of social, environmental, and market pressures. Beef farmers are at the centre of this, yet little research has been conducted gathering their perspectives on the changing state of their livelihoods and their concerns for the future. Here, we use a novel methodological approach, drawing on the concept of framing as a strategic communication device to explore the perspectives of key actors in this sector and a multi-dimensional environmental justice framework to identify the elements of (in)justice present within frames. This novel just transition frames and functions model exposes how misalignment between powerful key actors, concerned with distributional matters, and beef farmers, concerned with declining social status, shifting identities, and under-representation is found to be contributing to conflict. We show how the application of this model can inform pathways to just and sustainable futures.

1. Introduction

On a wet, cold day in November 2019, farmers from all over Ireland travelled to Dublin, the capital city, to blockade the main roads with their tractors, immobilising traffic. This protest was not organised through the main representative body - The Irish Farmer's Association (IFA). Indeed, it appeared to take both Government and the IFA by surprise. The farmers carried placards reading: "No carbon tax" and "It takes twice the amount of carbon to produce a vegan burger than a beef burger." Clearly, there was a strong shared sentiment that environmental policies were a threat. With the government pledging to reduce agricultural emissions by 30% by 2030 (Government of Ireland, 2021), plans to transition the sector to sustainable pathways are emerging, yet there are strong indicators that the sector is already experiencing unplanned change, disruption, and conflict. This paper explores this discontent and how climate change policies can aggravate or respond to it through the application of a conception of just transition understood as an integrated justice-based framework for governing the transition to sustainable practices (Wang and Lo, 2021).

Just transition emerged as a grass-roots labour movement in the 1970s to mobilise workers and communities directly affected by environmental policies in the energy sector which resulted in the loss of livelihoods and employment opportunities (Ciplet and Harrison, 2020). Traditionally employed as a labour-oriented concept, trade unions and labour movements constructed this concept to argue that the benefits and burdens of the transition to enhanced environmental governance and protection policies should be fairly distributed (Cha, 2020; Smith, 2017). As Rosemberg (2010) notes, the just transition concept captures the social and economic complexities of transitioning economies to sustainability. This concept now forms a key component of the global policy architecture on transitions, marked by the International Labour Organisations' adoption of the Guidelines for just transition towards environmentally sustainable economies and societies for all and its inclusion in the Paris Agreement in 2015.

Recent scholarship has emerged to explore the linkages of this concept with established theories of climate, environmental, and energy justice (Heffron and McCauley, 2018). Theories of environmental and climate justice examine the normative implications of climate change and develop accounts of the moral principles necessary to guide the distribution of benefits and burdens of climate change and actions (Gardiner, 2010; Shue, 2014; Schlosberg and Collins, 2014; Schlosberg, 2013; Caney, 2014). Less examined, although of significant importance,

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are procedural elements of justice related to representation, participation, and recognition. Communities affected by planned climate adaptation and mitigation actions experience not only changes to economic landscapes and opportunities, but also to 'culture, community identity, and sense of place' (Wang and Lo, 2021:1; Cha, 2020). Thus, multidimensional accounts of justice that recognise the interconnections between distribution, participation, and recognition have emerged in conceptualisations of just transition as a wider, more holistic integrated governance framework (Schlosberg, 2013; Farrell, 2012).

As high income countries with established political constituencies, embedded vested interests, and dominant actors transition from unsustainable to sustainable economic systems, the just transition concept has emerged as a critical tool for building the social legitimacy necessary to implement climate adaptation and mitigation policies (Jafry et al., 2020). In the Irish and European contexts, the language of just transition features heavily in climate action plans and economic policy materials (Government of Ireland, 2019, 2021; European Commission, 2019); and in deliberations and negotiations with workers and communities concerning the energy transition from peat extraction to bog restoration in the indigenous energy sector. In 2021 it emerged as a dominant feature in Ireland's Climate Action Plan which outlines pathways for transitioning all sectors across the economy. It notes 'the development of plans to manage the sustainable environmental footprint of the beef and dairy sectors will be central to the achievement of [Ireland's] climate targets' (Government of Ireland, 2021: 161). However, it provides little insight into how the idea of just transition will be operationalised in the Irish beef farming sector.

There are an estimated 78,300 specialist beef farms in Ireland, accounting for over half of all Irish farms (CSO, 2017b). Ireland exports 90% of the beef it produces and in 2018 exported 579,000 tonnes at a total value of €2.5 billion, accounting for over 30% of total food and drink exports (Bord Bia, 2019). Beef farming is not only an important economic activity in rural Ireland, it is also embedded in the social and cultural fabric of rural communities, identities, and social structures (Hennessy, 2018). Irish mythology, music and poetry, such as the epic Táin Bó Cúailnge centring around the theft of a prized bull (Gribben, 1989), provides some insight into the centrality of this sector to the collective cultural imaginary and identity of rural Ireland. The agricultural landscape of Ireland is synonymous with its 'green' identity, and images of cows grazing on pastures are regularly used in tourism advertisements (Anderson et al., 2015).

However, beef farming in Ireland is facing challenging times, with a range of pressures acting upon it within the social, political, economic, and environmental spheres. Beef farmers are struggling economically, relying on direct payments from the European Union Common Agricultural Policy (CAP), which on average doubles their farm income (Donnellan et al., 2020). Most beef farms are classed as economically vulnerable, meaning that farm income alone does not remunerate family labour at the minimum wage of €20,129 per annum, thus requiring farmers to engage in off-farm work to supplement their income (ibid.). Multiple factors are putting pressure on the present system of conventional beef farming, including shifting seasons and extreme weather events (Hickey et al., 2018), competitive and declining markets, automation and technological innovation (Henchion et al., 2022), and COVID-19. Public opinion is also changing with some pointing to the harmful environmental and health effects of meat consumption (Hopkins, 2015; Willett et al., 2019), reducing consumer demand (Hocquette et al., 2018), and problematising the collective imaginary of beef farming communities. Government policy to reduce emissions in order to meet international commitments means that funding and support for the beef industry has been declining for some time (Gerber et al., 2013), and new policies focus on re-purposing agricultural land for forestry (Government of Ireland, 2019).

Surprisingly, although beef farmers are experiencing a shifting physical and economic landscape, the concept of just transition has scarcely been applied to this context by policy makers or by researchers (McCabe, 2019; Blattner, 2020). Ireland's Programme for Government policy document references 'just transition' 19 times in relation to the energy sector (Government of Ireland, 2020), but has little to say on how this concept may be relevant to the beef sector. These factors have all contributed to rising discontent within the beef farming community which erupted into street protests in 2019. These were sparked due to a perceived lack of transparency over how processors determine beef prices, which declined by 12.5% between the beginning of 2018 and mid-2019 (European Commission, 2020b). Processors are organisations, usually factories, that purchase cattle to process for human consumption. Thus, it is clear the sector is under pressure, and this is likely to continue in the coming decades (European Commission, 2020a).

With the emergence of protests, this paper examines the drivers of beef farmers' discontentment and how they, and other key actors, are perceiving the situation. Key actors are public and private, formal and informal organisations related to beef farming that have power to influence changes within the sector. We investigate how the sector is responding, and how key actors are framing the future of beef farming. In doing so, we contribute to theorising just transition processes through a novel model of just transition frames and functions that operationalises and illustrates how just transition frames of different key actors can be aligned, or not, and unpacking how misalignment leads to conflict. Frames and framing approaches are widely used in the study of social movements, but not commonly applied to just transition research (Cha and Pastor, 2022; Wang and Lo, 2021). Our model makes an original contribution to the study of transitions in the agricultural and beef farming sectors and can be used to support the design of policies and governance systems to guide in future sustainable climate action planning and implementation.

Definitions of frames and framing differ according to discipline. Here, frames refer to strategic communication devices used by key actors to steer solutions in their favour in deliberate framing processes (Benford and Snow, 2000). Drawing upon a conception of just transition as an integrated governance framework for justice, we explore the different experiences and perspectives of key actors across the domains of distribution, participation, and recognition. We apply the concept of frames, which are both interpretations of social and political issues and strategic communication devices for achieving a particular outcome, to analyse the qualitative data (Bach and Blake, 2016). Thus, we investigated the range of perspectives held by different actors, the key points of consensus and conflict between the actors (Klintman and Boström, 2004), and how these serve different functions: diagnostic, prognostic, or having an action-imperative (Benford and Snow, 2000). Framing gives insight into how key actors construct meaning around an emerging issue, and into challenges and possible futures being considered (Colville et al., 2013). Understanding how key actors are framing the future of beef farming will indicate how the sector could evolve, where resources are likely to be allocated, and who will be involved in shaping its future. Indeed, understanding how key actors are planning for the future is an essential concern for the possibility of a just transition for this sector.

2. Novel conceptual approach

2.1. Environmental justice and just transition

There is abundant literature on the application of environmental and climate justice theoretical frameworks when adapting agricultural systems to climate change, and in particular, in lower income less-developed locations with heavy dependencies on rainfed agriculture and subsistence farming (Borras Jr and Franco, 2018; Popke et al., 2016; Holland, 2017). Within these accounts, principles of justice are considered in relation to both procedural dimensions, concerning decision-making participants, processes and structures, and distributional dimensions, concerning how responsibilities, benefits, and burdens of mitigation and adaptation ought to be allocated (Paavola and Adger, 2002).

Schlosberg's (2012, 2013) account of climate justice pushes beyond material distributional and formal procedural matters, to consider non-material, situated socio-spatial and cultural factors that influence understandings and perceptions of justice. Embedded in a feminist constructivist epistemology, Schlosberg and Collins (2014) identify three interconnected dimensions of justice that require consideration. Firstly, the dimension of recognition is identified as a precondition for distributive justice that involves social respect for the identities and values of populations. Changes in economic activities affect not only income levels, but also social status, influence, and structures within communities. They can affect one's sense of belonging and purpose and are intimately linked to collective and self-identities (Fraser, 2000; Schlosberg, 2013). Secondly, the dimension of participation is identified as a key factor in developing relevant policies and practices that can build trust and ownership within communities-in-transition. Participation is closely linked to representation, as representation from organisations and elected individuals in policy-making processes allows citizens to participate in and be recognised by wider society (Wampler, 2012). Just participation principles would demand that all persons and communities affected by a policy and actions are consulted and that they are appropriately represented in decisions that affect them. Thirdly, the dimension of distribution is concerned with principles that can guide in the allocation of the responsibilities, benefits, and burdens of the planned actions. This three-dimensional approach provides a holistic governance framework and helps to capture distributive elements, which many transitions to date have focussed most heavily upon, and the socio-cultural, political and power dimensions of a transition. Each dimension is interconnected and interdependent. For Schlosberg (2013) and others (Wang and Lo, 2021) misrecognition is identified as a source of unequal distribution and exclusion from decision making fora. Misrecognition can take the forms of cultural domination, nonrecognition, or disrespect (Fraser, 2000). This has a direct bearing on distribution and representation - whose rights are recognised, and how rights and obligations are allocated, respected, and realised.

Recognising the interconnected and interdependent dimensions of justice gives rise to important ontological and epistemological implications in the operationalisation of just transition. Considerations of pre-existing inequalities, and embedded socio-political power relations influence whose voices are heard, whose experiences are valued, and whose testimony is given credibility (Fricker, 2013). These directly influence who is invited to participate, how representation is managed, what matters are deemed relevant for consideration, who benefits, and who carries the burdens of collective social cooperation. Climate action planning and policies are refracted through situated, locally embedded power structures and relations. Thus, an expansive conceptualisation of just transition as an integrated governance framework, encompassing considerations of distribution, participation, and recognition, is essential to ensure climate action policies achieve the objectives at which they aim.

At a minimum, all accounts of just transition argue that affected workers should be provided with new opportunities or retrained so that they are not made to bear the economic burden of the transition (Swilling et al., 2016; Abraham, 2017). However, there is increasing recognition of the need to engage more broadly with communities on the nature and scale of the transition, and the range of factors, including social and cultural norms, values, and structures, that will be affected (Jafry et al., 2020; Farrell, 2012).

The case of beef farmers in Ireland is of particular interest as key climate action planning for the sector is at a nascent stage (Government of Ireland, 2021). The degree to which the interests and voices of small beef farmers are represented within these political and policy deliberations is unclear. Yet, community engagement is critical to the successful implementation of government policies and action planning as communities are not passive recipients of policy changes. Research on civil society illustrates how communities influence change through social movements, which involve forming new organisations, civic action,

and advocacy (Cannon, 2020). Therefore, we turn to a concept from social movement research and issue framing to explore how the three domains of justice are framed and enacted by different actors, who use frames for sensemaking, communicating, and action planning.

2.2. Issue frames and framing

One of the main ways that research has come to understand social movements and the actors involved in bringing about social change is through the collective action frames and framing processes used to mobilise action (Benford and Snow. 2000). Issue framing is both a way of explaining the sensemaking that underpins different perspectives, as well as a device for deliberate communicative strategies (Cornelissen and Werner, 2014). Understanding how an issue is being framed by different actors allows for identification of where serious points of contention are arising and of possible compromises (Gray, 2004). Understanding the frames used by key actors is crucial as these can set actors on a particular course of action and blind them to alternatives, particularly in periods of disruption (Benner and Tripsas, 2012). Issue framing is particularly relevant to environmental concerns as conflicts can arise (Lele, 2018).

Key Actors use frames to shape what information is deemed relevant to the issue and not only affect the aspects of an issue that people care about, but also dictate the actors involved and where the issues play out (Rohlinger, 2002). Environmental issues, such as a just transition within the agricultural sector, are multidimensional, involving difficult and complex trade-offs, and by using a particular frame, key actors can focus attention on specific gains or losses to different stakeholders and gain support for their preferred outcomes (Fiss and Zajac, 2006). As defined by Shmueli, frames as strategic communicative devices help to 'persuade broader audiences, build coalitions or promote preferred outcomes' (2008: 2). It is not random how issues are presented or used by organisations and movements, rather they are 'framed' purposefully (Bach and Blake, 2016). Frames shape planning choices and often intend to influence public opinion (Dewulf et al., 2004) and are therefore highly relevant to processes of social change such as just transitions.

Frames can have diagnostic, prognostic, or action functions (Benford and Snow, 2000). The diagnostic function relates to how the actor is interpreting the issue and its causes, as in sensemaking (Colville et al., 2013); the prognostic element is a prediction for how the issue will evolve based on different framing efforts (Klintman and Boström, 2004); and the third element is an action message, or the solutions for which the actor is advocating (Vandenbussche et al., 2017). By combining these three frame functions with the tripartite conceptualisation of just transition, we have developed a model to investigate different perspectives involved in the transition, and whether they are used to diagnose or predict.

2.3. Just transition frames and functions model

By conceptualising the domains of justice as frames, we can explore each frame as a perspective that shapes and determines what ideas and solutions are included in each frame, and what is left out of a frame. The diagnostic function of a frame is how the actor problematises an issue, defining what the problem is that needs to be addressed. The prognostic function of a frame outlines what will happen from the perspective of that frame, which necessitates action. The action function is the corrective measures that actors think need to be taken in response to the problem, or transition planning. Thus, issues of (in)justice can happen within any of the frames. Table 1 further illustrates how the data will be analysed and categorised within this model.

The Just Transition Frames and Functions Model shows that the frame shapes how the problem is diagnosed, and what is the appropriate response to that problem. The problem of frame misalignment becomes clear in this model; a corrective action from one frame does not solve the problem of a different frame. For example, if state policy compensates

Table 1Just transition frames and functions model.

Functions: frames:	Diagnostic	Prognostic	Action
Distribution	The extent to which benefits and burdens of cooperative action and changes in production processes are shared fairly and appropriately by all actors in the value chain?	Risk of unfair distribution of burdens with benefits flowing to the most powerful actors.	Agreed fair principles to guide in the distribution of all benefits and burdens of cooperation;
Participation	Who is involved in deliberations and decision making on policies, processes, and distribution of the benefits and burdens of cooperative action; to what extent are participants in decision making and deliberative processes representative of all those affected by these decisions and actions?	Exclusion from relevant deliberative processes on matters concerning the effects of the industry; exclusion and marginalisation of voices of relevant populations	Participatory parity and explicit focus on the degree to which all those affected can participate in the action planning processes.
Recognition	What is considered relevant in deliberations? To what extent are social and cultural values and identities considered in deliberative actions and decision-making process? What social, economic, cultural, and environmental values and norms are affected by these processes, policies, and actions?	Loss of identity; loss of cultural heritage; end of a way of life; spill-over effects to the wider political economy of the community; declining rural lives and livelihoods	Recognition of the significance of social and cultural values and identities during change processes; protection of cultural heritage and supports for communities through change processes; engagement with affected populations during design, planning, implementation, monitoring and evaluation stages of change processes.

farmers for loss of livelihood by introducing re-forestation schemes for agricultural land, this does nothing to address the loss of identity as a beef farmer, and in fact many accentuate the problem. Likewise, advocacy to protect cultural heritage will not address the issue of loss of livelihood.

3. Materials & methods

Our research was guided by a constructivist epistemological approach whereby the situated experiences, perspectives, and values of the research participants were used to direct the research (Hesse-Biber, 2014). We began by mapping the landscape of key actors and beef farming communities to engage with the research. We used semi structured interview methods to explore the perceptions of key actors and beef farmers on changes and current issues in beef farming. We then applied the just transition frames and functions model to analyse the data.

Data gathering included retrieving publicly available documents from websites of key actor organisations, including government departments, semi-state bodies, and non-profit associations. These documents were first used to provide a contextual analysis of beef farming in Ireland, including demographics of beef farmers and details of recent protests. Documentary analysis focused on 18 texts produced and publicly shared by key actors as communication devices regarding the beef sector from 2018 to 2020. A key actor map was drafted from initial research and was further informed by interviews. We wrote up a thick description of the context, including the key actors' history and perspectives on beef farming.

Next, we conducted 13 semi-structured interviews between May and June 2020 to acquire insight into the perceptions and opinions of key actors and beef farmers to enrich the research (Bryman, 2016) with knowledge of the beef sector that could not be gained from documents. Interview participants were initially sourced through an open call in farming groups on social media. The criteria for participants consisted of involvement in the Irish beef sector and above the age of 18. In total, eight beef farmers (full and part-time) and five representatives of key actor organisations participated in the study. Only two of the respondents were women, reflective of the gender imbalance in the sector (CSO, 2017a). Ages of interviewees ranged from 32 to over 65. Interview questions were open but included: the future of beef farming, the challenges the sector is facing, actions for addressing the challenges, and the perspectives of key actors and their relative influence.

All interviews were conducted virtually and by telephone due to COVID-19 restrictions. Detailed notes were taken during the interviews and audio tracks were transcribed. Ethical approval for this research was obtained from our University Research Ethics Committee. Interviews were anonymised as P1 to P13; and data was stored separately from the anonymising key.

Data analysis took place in two steps. First, we listed out all organisations from our data and clustered them into seven groups of stakeholders based on their relationship with beef farmers. We used inductive reasoning to create the group categories that were grounded in the data. We selected 18 key actors to include based on size - those with the largest membership and those with the biggest market share. Next, we categorised the text materials according to the three JT frames: distribution, recognition, and participation, using deductive reasoning. Often entire key actor texts fit into the distribution frame, with minimal mentions of the other frames. Interview transcripts included a more balanced reflection of the three frames. We then categorised the data into frame function: diagnostic, prognostic, and action. All data sources had examples of the three functions. The diagnostic function was the reason given for the poor viability of beef farming; the prognostic function was how the actor saw the future of beef farming based on the diagnosis; and the action message was how the actor was planning to address the problem, including whether they were planning for transition. Finally, we used writing and discussion with inductive reasoning to analyse how the frames were interacting and the theoretical implications of the just transition frames and function model.

3.1. Shifting context of beef farming in Ireland

Beef farms are concentrated in North and West Ireland on land that is considered less favourable, meaning it is less fertile and hillier. As of 2019, the average size of a beef farm is 34 ha and the average income is $\[mathebox{\in} 11,537\]$ per annum, falling from an average of $\[mathebox{\in} 17,886\]$ in 2002 (Connolly et al., 2002; Donnellan et al., 2020). To place this into context of economic indicators in Ireland, the 2019 average industrial wage is $\[mathebox{\in} 40,283\]$ (Cha, 2020). There are 137,500 family farms in Ireland, and roughly 1.4% of agricultural land is certified organic (Cha, 2020).

Earnings per annum Percentage of cattle farmers (€) (Table 2).

Farming in Ireland is highly hereditary, with farms often staying in the same family for centuries (Byrne et al., 2013). Ownership also tends to be patrilineal (Shortall, 2004), with less than 12% of farms in Ireland owned by women, compared to the European Union average of 35% (Balaine, 2019). Although women participate in much of the farm work,

Table 2
Distribution of Irish beef farmer earnings (adapted from Donnellan et al., 2020).

<10,000	55%
Between 10,000 and 20,000 Between 20,000 and 50,000	23% 16%
>50,000	3%

they are 'barely acknowledged' and men are the common public representation of the Irish farmer (O'Hara, 1998: 2).

As noted above, beef farming has historically been important to the social and economic fabric of rural Ireland. Hennessy (2018) estimates that for every $\[mathebox{\ensuremath{\mathfrak{e}}}\]$ 1 output in the beef sector, there is a multiplier effect of $\[mathebox{\ensuremath{\mathfrak{e}}}\]$ 2.11 on the local economy, and that for every $\[mathebox{\ensuremath{\mathfrak{e}}}\]$ 1 in direct payments to beef farmers there is $\[mathebox{\ensuremath{\mathfrak{e}}}\]$ 2.8 output for the national economy. Cattle farming is also associated with the preservation of archaeological and historical sites, such as stonewalls in the west of Ireland (Cooper et al., 2009). Crowley (2017) found that Irish farming provides benefits for the wider community in facilitating social inclusion, and that family farming in particular can enhance community integration and benefit physical and mental health.

3.2. Rising discontent and protest

Evidence suggests there was rising discontent amongst Irish beef farmers, fuelled by their inability to make a viable living, which contributed to protests in 2019. Teagasc, the semi-state agriculture and food development authority, estimates that for farmers to break even on selling cattle, they would need to be paid ϵ 4.17/kg, yet they were receiving only ϵ 3.60/kg (Claffey, 2019). Low prices and a sense that beef-processors and retailers were taking an unfair share of profits fuelled the anger (Power, 2020). Trends for ϵ /kg of beef since 2008 have been volatile.

Commencing in late 2019, running through to early 2020, a series of protests erupted involving small farmers, outside the scope of existing representative bodies and governing institutions for the sector. Previously, negotiation, representation and collective action were primarily managed through the Irish Farmers Association (IFA). The 2019 protests, which included picketing of beef factories and demonstrations outside of Government Buildings, were led by a grassroots farmers' group called 'Beef Plan Movement' (BPM), which amassed over 20,000 members (Power, 2019).

According to their website, BPM was 'born in the hope of saving and rejuvenating beef farming in Ireland before its too late' with the objectives of regaining control of the animal from birth to slaughter and beyond, returning a cost of production price plus a margin as a minimum, and regaining respect. By the end of 2019, tensions were evident between the IFA and BPM for control of collective action and representation in this space (McGrath, 2019). BPM protests culminated in an 'Irish Beef Sector Agreement' in September 2019 and a Beef Taskforce was created by the Department of Agriculture, Food, and the Marine (DAFM) to ensure implementation of the agreement (DAFM, 2019). Although climate action was not an explicit focus of this movement, strong awareness of this emerging challenge was evidenced in the key messaging regarding carbon taxes in the protests. It is therefore necessary to unpack the range of challenges and how these relate to climate change and environmental policy.

4. Findings

4.1. Mapping key actors

Irish beef farmers manage a wide range of relationships and influences from different stakeholders and organisations. Mapping out the stakeholders with the farmer in the middle provides a visual illustration

of the pressures on and interests in this sector (see Fig. 1).

In Fig. 3, the 18 key actor organisations are numbered and connected to a circle indicating the group of stakeholders, which describes the relationship with the farmers. We elaborate on the role each group plays in relation to the beef farmer. For example, the group, large farming organisations, includes 1) the Irish Farmers' Association, 2) Macra na Feirme, and 3) Irish Cattle and Sheep Farmers' Association, the three largest organisations in the sector that act on behalf of beef farmers (see Fig. 4) (see Fig. 2).

4.2. Just transition frames and functions by key actors in Irish beef farming

All key actors recognised that the sector is facing an exceptionally challenging situation. All mentioning uncertainty but linked this to different causes. Climate adaptation was not mentioned by any key actors, but mitigation of emissions was noted as a growing challenge in the sector and most proposals mentioned were technological fixes such as anaerobic digesters. The main concern identified by the majority of key actors were the unequal and unfair forms of distribution between processors, large farmers, and smaller farmers. BPM emerged as a distinct grouping prioritising issues of participation and recognition, as well as unfair distribution within their public narrative. There were a diversity of perspectives both within and between groups. The interview data reflected the polarisation and emotion of the different opinions and experiences of farmers in a way that the key actors text documents did not.

4.2.1. KA distributive frame

All key actor organisations, except BPM, framed the future of beef farming as relating to markets and issues of unequal distribution across all three frame functions: diagnostic, prognostic, and action. The problem was framed as being poor prices for beef, and the solutions, such as higher cattle prices, protection of European Union markets, and new trade deals, were all market focused. Key actors refer to beef farming almost exclusively as an 'industry'. There was strong frame alignment amongst most key actors that issues of distribution, primarily economics and market growth, are the most important elements for the beef sector. Only fixes within the current system-at-large are being planned for.

Diagnosis: The most prevalent diagnosis by all key actors was that the problem facing beef farmers is market uncertainty and unfairness within the current value chains linked to asymmetrical power relations within the established governance institutions for the sector. The three most powerful key actors in terms of direct decision making and policy making are the DAFM, the Irish Government, and the IFA; they diagnosed the most fundamental problem for the sector as market uncertainty. The smaller key actors, including BPM, also noted the problem of uncertainty, but this wasn't the main issue for them; unfair value chains was the important problem to them within the distributive frame.

Prognosis: The problem of market uncertainty was predicted to worsen if policy measures were not taken. Threats mentioned were competition from non-European Union beef, negotiations on the European Union's Common Agricultural Policy (Pe'er et al., 2019), and reduced demand for beef due to associated negative environmental and health impacts.

Action: Most actions key actors advocated for were market fixes such as improved marketing and market diversification. Improved financial supports for farmers through new schemes and enhanced direct payments.

4.2.2. Key actors participation frame

Diagnosis: BPM emphasised issues of representation in their diagnosis, claiming that established farming organisations, namely the IFA, do not speak on behalf of beef farmers and that farmers have not been properly represented. BPM was mostly concerned with unequal representation with evidence of oversized influence and power that meat

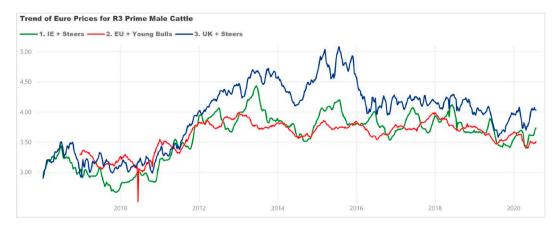


Fig. 1. Market prices for prime male cattle in €/kg. Green indicates Irish prices, red indicates European Union average prices and blue indicates UK average price (European Commission, 2020b). (For interpretation of the references to colour in this figure legend, the reader is referred to the Web version of this article.)

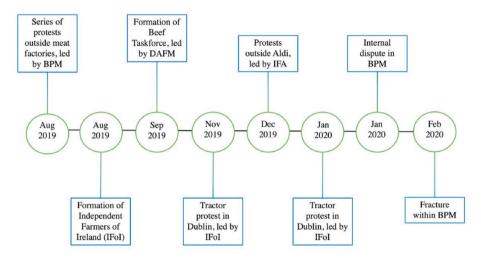


Fig. 2. Timeline of events surrounding the 2019 and 2020 protests.

processors hold in controlling market and prices resulting in unfair value chains.

Prognosis: BPM's prognosis for the sector, if it continues to ignore the voices and experiences of farmers, was dire. They predicted that smaller family farms would not survive, and that Irish beef farming would consist only of larger industrial farms. They argued that beef farming would die out as a way of rural family life.

Action: BPM's action message was that the sector needs to change its structure to give beef farmers more control over determining prices and amplify their voice in decision-making processes, a recommendation containing elements of distribution, recognition, and participation.

4.2.3. Key actor representation frame

The only key actor to include representation as an issue was BPM. They stated that the current system is not recognising the contribution of farmers, again highlighting, and blaming the huge influence that processors hold in controlling markets and prices. One of BPM's key aims is to regain *respect*, an issue of recognition, and control within the sector. They cite lack of adequate participation and representation as a key reason for farmer discontent, yet outline no plan to achieve this, beyond civic protests.

While all actors recognised the challenge of uneven and inequitable distribution, only the less powerful actors identified participation and recognition as important issues. We did not find any evidence that the more powerful groups of key actors saw recognition as a factor that required any consideration. There was simply no mention of loss of

cultural heritage, social status, or the role of beef farming in rural communities, which emerged as the most important issue to beef farmers

4.3. Perspective of beef farmers

4.3.1. Distribution

The theme of distribution was raised in all interviews, although not as the main focus, and all participants felt there was an unfair distribution of money, with processors receiving too much and farmers not getting their fair share. Although only a minority had heard the term 'just transition,' all participants felt that there is a lack of support for farmers who want to change to more sustainable practices, and that extra costs were being pushed upon the farmer.

4.3.2. Participation

Representation emerged as a key issue. A number of participants also remarked that there is a feeling of 'us', the beef farmers, versus 'them', the key actors. This relates to recognition of their needs in representation structures. All participants claimed that beef farmers are not truly represented by organisations such as the IFA. Four participants raised issues of distrust and opaqueness within key actors, "the real decisions are being made behind closed doors" (P4). Some noted that beef farmers are not listened to, claiming that "corruption in the main organisation causes these side groups [BPM] to spring up" (P8). While some expressed fears that "processors will try to separate farmers from their land" (P1), others

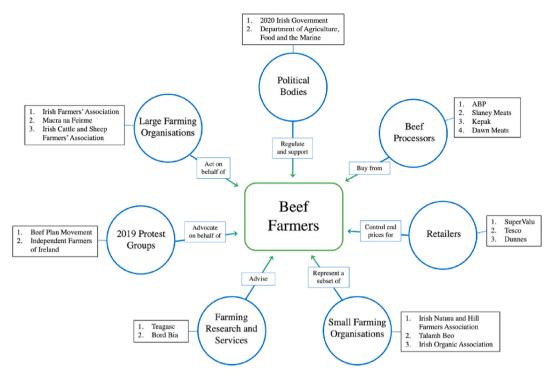


Fig. 3. Key actor map of the Irish beef farming sector. Groups of stakeholders, the circles, are shown with key actors numbered and listed within them. These are shown in relation to the key stakeholder, the beef farmer, and their respective primary actions concerning beef farmers.

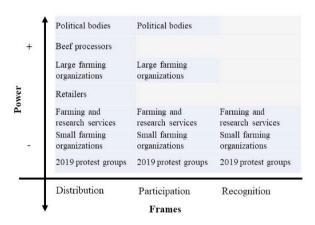


Fig. 4. Key actor groups: power and frames.

noted that "there is a lot of fear-mongering around processors. I am wary of them but don't think they are plotting to take over" (P10). A barrier to participation often mentioned was that there is no real opportunity to participate in the discussions concerning policies that directly impact them: "farmers are not present for discussions determining their futures" (P4). When asked about the Beef Taskforce, set up by DFAM in response to farmer protests, all felt it was not a place for true participation, being a "talking shop" (P4) or a "PR stunt" (P1).

Tradition versus change also emerged as a challenge, which was related to participation in that change. Participants differed over their willingness and ability to embrace change. The majority of participants were uncomfortable with changes in the sector, "I have always done things this way" (P4; P9). Others recognised that change was inevitable, "there is a willingness to change because you are done for if you don't" (P10). A small number were actively hoping for the system to change, saying the "system is broken" (P12) and that "the sector is in need of a radical overhaul and the traditional narrative is blocking change" (P11).

4.3.3. Recognition

Diagnosis: Beef farmers all spoke about ideas concerning recognition in order to diagnose the current challenging situation. They all expressed the key themes of powerlessness, 'under-representation', 'identity', and 'tradition versus change', all related to the idea of recognition, and a deep sense of unfairness in the value chain.

Some farmers expressed concerns over perceived asymmetrical power relations within the sector. All interviewees felt that processors have too much power and are exploiting beef farmers, "The suckler farmer is being treated like a cash cow and they will milk it until it's dead" (P4). Many stated feelings of powerlessness in decisions made concerning their livelihood, particularly regarding the burden of regulations imposed upon them, "We are under so much pressure from all the new rules and regulations, I can't keep up" (P9). They repeatedly raised the point that those in power do not listen to farmers, an issue of participation and recognition. One participant remarked that trying to get the government and IFA to listen "is like hitting your head off a brick wall" (P5). Participants felt a general lack of recognition and respect for the work they do and for beef farmers' contribution to the community, "the decline is bad for all rural Ireland not just farmers" (P5).

Identity emerged as an important theme across all interviews. Participants collectively noted that farmers continue to farm, despite low income, because of the tie they feel to the land and how this connects them to their culture, their community, and their families. Multiple participants explained that farming makes them feel connected to their family who farmed the land previously. Others saw 'being a farmer' as core to their identity and "who they are seen as within the community" (P1; P11). One participant likened farming to therapy and while many complained, only one considered not continuing. Others feared the shame of "being the one in the family to lose the land" (P4; P5), an issue of recognition with fear of losing social status and respect within the community. Participant 8 explained that "the land is like the spouse, and even if the relationship is not making them happy, they won't leave".

Their identity as farmer was the role they play in their communities, and how they relate to others. "I'm still a farmer I can still have the chats with my neighbours and down the pub, and after mass, and I'm still a

farmer. Okay I'm a teacher too, but I don't ever talk about the teaching job. When I'm in the mart or the pub I'll talk about what price I got for cattle and all of that, you know" (P3). Being a farmer was a key part of how they relate to others, and what they talk about with others.

Prognosis and action: Both key actors and farmers pointed to emerging trends indicating significant change in the sector over the coming decades. The two main emerging themes were firstly, decline and disappearance of small family farmers; and secondly, the need to move towards climate smart agricultural practices. Interestingly, in spite of the rhetoric and promise of a just transition embedded with government policy documents (Government of Ireland, 2020; DAFM, 2020), the majority of key actors did not suggest any need or intention to undertake transition planning. Most farmers, on the other hand, felt that the current system needs to change, "we have to shift the power balance" (P2), and that this should be managed to improve the distribution of benefits to farmers and greater recognition of the needs of farmers, "farmers need to get the respect back" (P1).

Regarding the decline and disappearance of small scale and family farming, two key drivers were identified. Firstly, demographic changes and migration patterns of younger generations from rural to urban areas, with little interest in working on family farms. Secondly, incentives seem to point to the sale of land and the emergence of large-scale industrialised farming practices. Over half of participants had very little hope for the future, "beef is haemorrhaging" (P5).

Despite the challenges and pessimism expressed regarding the future of this sector, half of the farmer respondents recognised the need for, and expressed a strong interest in, transitioning to environmentally friendly and climate smart agricultural practices. Two participants actively advocated for organic farming and increased supports for this through just transition planning and fair distribution practices, "farming is at a crossroads, it can either go further towards industrialisation or toward organics" (P10). The following shares a summary of findings mapped onto the just transition frames and functions model (Table 3):

5. Discussion

Mapping key actor narratives to the just transition frames highlights the mismatch in how beef farmers and key actors assess the current situation of beef farming. In short, the most powerful actors, Government and the IFA, are not addressing the issues that beef farmers consider most important: unfair power asymmetries leading to inadequate prices and general lack of support for small farmers. Key actors blame problems within the market as the reasons for the poor viability of beef farming. Even as protests, centred on issues of recognition and power differentials in the sector, blocked Ireland's capital on multiple occasions, the government did not mention these issues in its assessment of the sector. This is a form of misrecognition, whereby beef farmers do not participate as equal partners in, and their concerns are excluded from policy deliberations.

5.1. The power of distributive justice

In framing the main challenge facing the sector as a distributive matters and market-focused, key actors leave hidden the situated and embedded power structures and relations that determine whose voices are heard and what factors should be considered. As social status and cultural loss are not monetised commodities, their loss is not acknowledged. In their study of government strategic framing regarding closures of coal plants in Australia, Weller (2019) found that top-down framing of the closures as a 'market-issue' led to serious misrepresentation, side-lining of local interests and exacerbated inequality in affected communities. It should also be questioned how the market fixes proposed by the most powerful key actors in the Irish beef sector could lead to improved distributive outcomes for beef farmers without underlying power differentials first being addressed (Cook and Hegtvedt, 1986). From a Schlosbergian perspective, if recognition is a precondition for

Table 3Just Transition Frames and functions model.

Functions: Frames:	Diagnostic	Prognostic	Action
Distribution	Unequal distribution of benefits and burdens of social cooperation and the effects of climate action, with small farms carrying the greatest burdens and benefits flowing through to the most powerful actors including processors and large farms.	Benefits continue to flow to the most powerful actors. Financial and economic hardship likely to continue for small farmers; possible loss of land and livelihood; possible food insecurity and hardship; possible need to migrate contributing to rural social, economic, and cultural decline.	Ensure fair price for the product and a fairer distribution of the benefits across the supply chain. Support small farmers to transition to sustainable practices; Where viability of farms is no longer feasible, ensure fair compensation for financial and other losses; policies and programs to support re-training and alternative livelihoods.
Participation	Lack of representation in decision making of small farmers; representative bodies do not accurately represent the interests of all actors in the value chain and in some cases are felt to be deliberately excluding the voices of the most marginalised and least powerful farmers.	Absence of excluded actors results in decision making about the transition or change process to be inadequate or illegitimate in the eyes of those directly affected.	Ensure participation of all stakeholders in decision making. Create new representative bodies or address the problems with existing ones.
Recognition	Declining social status of small farms and farmers; shifting identities; decline of rural Ireland	Loss of cultural heritage; end of a way of life; sense of failure, powerlessness, and grief; increasing mental health and well-being concerns with small farming households and communities	Policy and programs to protect and celebrate cultural heritage. Acknowledge collective loss. Provide household and community psychosocial supports focused on coping mechanisms and well-being. Cultural and symbolic responses like memorials or artistic testaments.

distributive justice, and participation is central to the legitimacy of the deliberative process, then distributive decisions that ignore or leave hidden key concerns and key voices are likely to be resisted and rejected.

Historically, beef processors have a disproportionately higher amount of power and profits, while beef farmers rely heavily on subsidies. This system is also linked to overexploitation of natural resources, producing externalities including climate change and biodiversity loss (Altvater et al., 2016; Blattner, 2020). Under the current pressures, there are indications that this system is producing additional externalities such as loss of social status and cultural heritage, all of which contribute to a breakdown in social cohesion and rising discontent. Thus, it is in the political interest of powerful actors to acknowledge the non-market based, non-material effects of this transition. If the transition is to be just, it must move from a single-axis analysis of economic variables to a multi-dimensional examination of social, environmental, and cultural

factors.

5.2. Participation and recognition justice

As Fraser (2018) and Schlosberg (2013) argue, recognition is a precondition for other elements of justice. A key issue of recognition here is that the act of beef farming is intrinsically linked to identity for farmers, specifically male, rural, inheritors of the land, something raised repeatedly throughout interviews, yet not mentioned by key actors. This issue of recognition has been found in numerous studies on farming and identity (Brandth and Haugen, 2011; McGuire et al., 2013). The threats to the sector can be perceived as a threat to the very identity of beef farmers. Burton and Wilson (2006) found that many British farmers hold production-oriented identities in line with conventional Western farming, similar to many interviewees in this study. This raises questions about how well-received initiatives for retraining, whether to a different type of farming or new profession, would be. This is important given the focus on retraining and alternative livelihoods within just transition approaches (Jafry et al., 2020).

There is currently a stark mismatch between abstract commitments to the ideals of a just transition in the plans of the government and other powerful key actors, and the experiences of beef-farmers living through a period of substantial change. Distribution focusses on the 'what' of injustice and inequity intending to treat the symptoms of the poor state of beef farming, poor prices for producers, as dictated by the prevailing unequal system. Recognition and participation focus on the 'who', 'how' and 'why' of injustice and inequity, and question the underlying social, institutional, and cultural causes that lead to distributive injustices. The poor viability of beef farming and the discontentment of beef farmers will not be remedied with only distributive fixes. Underlying issues of recognition and increased opportunities for participation should be addressed simultaneously. Recognition is an often-neglected element of justice, and it is largely absent in key actors' frames.

6. Conclusion

As the urgent need to rapidly transition to climate resilient and sustainable development pathways bears down on the political systems of high-emitting states, understanding the various social, political, and cultural changes these will bring, is becoming increasingly important (Murphy, 2021). Through the applications of the just transition frames and functions model to the case of Irish beef farming, our research has highlighted the significance of loss of status, including identity, social life, and cultural heritage that may be experienced during a transition process. Significantly greater attention to recognition and representation is necessary to ensure that all affected by planned climate actions participate in deliberation processes to guide action, to build legitimacy and trust, and to ensure that no communities or constituencies are left behind. This study suggests that despite the political rhetoric, the concept of just transition has yet to be sufficiently developed or implemented in the context of climate action planning for Irish Agriculture. The continued focus on matters of distribution, market-based and economic instruments and indicators, fails to acknowledge the non-market based, non-material concerns and harms experienced by smaller beef farmers as they struggle to cope with the plethora of challenges they face. These challenges are likely to increase over time as climates change, communities adapt, and the drive towards sustainable production and innovation increases. Blending concepts and methods from social movement studies with an expansive account of just transition, the just transition frames and functional model offers an instrument to policy makers and advocacy groups to map out the different perspectives and gain understanding of each frame or perspective.

The just transition frames and functions model facilitates the analysis of the power dynamics, competing positions and perspectives of key actors and farmers across the three frames of distribution, recognition, and participation. It provides some insight into why beef farmers are

protesting. It also provides insight into what factors must be considered when operationalising a just transition approach. One key finding in our study points to the need for actors with the most power to apply a multidimensional framework to better appreciate the range of frames or perspectives, and the types of (un)fairness and (in)justice that can be experienced. How this might be encouraged is not considered in this study. However, deeper engagement with the emerging literature on responsible innovation (Henchion et al., 2022; Gremmen et al., 2019; van der Burg et al., 2019) and comprehensive governance frameworks to support sustainable transitions (de Boon et al., 2022) offer promising pathways for future research. The problem of narrow, siloed, single-axis approaches to innovation and transition processes offers the starting point for this body of research. As de Boon et al. note, 'approaches to (agricultural) innovation and transitions tend to specialise on a specific societal scale or sub-aspect of innovation or transition processes' (2022: 407). The need for wider, multi-dimensional frameworks, such as the just transitions frames and functions model, that can consider not only the economic dimensions, but wider ethical, social, cultural, political, and power dimensions, are necessary to avoid community conflict, social and cultural harm, and to build trust, ownership, and legitimacy among affected populations as they transition towards sustainable practices.

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References

Abraham, J., 2017. Just transitions for the miners: labor environmentalism in the ruhr and appalachian coalfields. New Polit. Sci. 39 (2), 218–240. https://doi.org/10.1080/07393148.2017.1301313.

Altvater, E., Crist, E., Haraway, D., Hartley, D., Parenti, C., McBrien, J., et al., 2016. Anthropocene or Capitalocene?: Nature, History, and the Crisis of Capitalism. PM Press, Oakland, United States.

Anderson, E., Bakir, A., Wickens, E., 2015. Rural tourism development in connemara, Ireland. Tourism Planning & Development 12 (1), 73–86. https://doi.org/10.1080/ 21568316.2014.965844.

Bach, D., Blake, D.J., 2016. Frame or get framed: the critical role of issue framing in nonmarket management. Calif. Manag. Rev. 58 (3), 66–87. https://doi.org/ 10.1525/cmr.2016.58.3.66.

Balaine, L., 2019. Gender and the preservation of family farming in Ireland. EuroChoices 18 (3), 33–37. https://doi.org/10.1111/1746-692X.12242.

Benford, R., Snow, D., 2000. Framing processes and social movements: an overview and assessment. Annu. Rev. Sociol. 2006, 611–639, 2000.

Benner, M.J., Tripsas, M., 2012. The influence of prior industry affiliation on framing in nascent industries: the evolution of digital cameras. Strat. Manag. J. 33 (3), 277–302. https://doi.org/10.1002/smi.950.

Blattner, C., 2020. Just transition for agriculture? A critical step in tackling climate change. Journal of Agriculture, Food Systems, and Community Development 1–6. https://doi.org/10.5304/jafscd.2020.093.006.

Bord Bia, 2019. Export performance and prospects, 2018-2019.

Borras, S.M., Franco, J.C., 2018. The challenge of locating land-based climate change mitigation and adaptation politics within a social justice perspective: towards an idea of agrarian climate justice. Third World Q. 39 (7), 1308–1325. https://doi.org/ 10.1080/01436597.2018.1460592.

Brandth, B., Haugen, M.S., 2011. Farm diversification into tourism – implications for social identity? J. Rural Stud. 27 (1), 35–44. https://doi.org/10.1016/j.jrurstud.2010.09.002.

Bryman, A., 2016. Social Research Methods, fifth ed. Oxford University Press.

Burton, R.J.F., Wilson, G.A., 2006. Injecting social psychology theory into conceptualisations of agricultural agency: towards a post-productivist farmer selfidentity? J. Rural Stud. 22 (1), 95–115. https://doi.org/10.1016/j. jrurstud.2005.07.004.

- Byrne, A., Duvvury, N., Macken-Walsh, A., Watson, T., 2013. Gender, Power and Property: In my own right. Working Paper Series. Working Paper. The Rural Economy Development Programme (REDP).
- Caney, S., 2014. Two kinds of climate justice: avoiding harm and sharing burdens: two kinds of climate justice. J. Polit. Philos. 22 (2), 125–149. https://doi.org/10.1111/ jopp.12030.
- Cannon, S.M., 2020. Legitimacy as property and process: the case of an Irish LGBT organization. Voluntas Int. J. Voluntary Nonprofit Organ. 31 (1), 39–55. https://doi.org/10.1007/s11266-019-00091-x.
- Central Statistics Office, 2017a. Census 2016 Profile 11—Employment, Occupations and Industry. CSO, Ireland. https://www.cso.ie/en/releasesandpublications/ep/p-cp11e
- Central Statistics Office, 2017b. Farm Structure Survey 2016. CSO, Ireland. https://www.cso.ie/en/releasesandpublications/ep/p-fss/farmstructuresurvey2016/da/fs/.
- Cha, J.M., 2020. A just transition for whom? Politics, contestation, and social identity in the disruption of coal in the Powder River Basin. Energy Res. Social Sci. 69, 101657 https://doi.org/10.1016/j.erss.2020.101657.
- Cha, J.M., Pastor, M., 2022. Just transition: framing, organizing, and power-building for decarbonization. Energy Res. Social Sci. 90, 102588 https://doi.org/10.1016/j. erss.2022.102588.
- Ciplet, D., Harrison, J.L., 2020. Transition tensions: mapping conflicts in movements for a just and sustainable transition. Environ. Polit. 29 (3), 435–456. https://doi.org/ 10.1080/09644016.2019.1595883.
- Colville, I., Pye, A., Carter, M., 2013. Organizing to counter terrorism: sensemaking amidst dynamic complexity. Hum. Relat. 66 (9), 1201–1223. https://doi.org/ 10.1177/0018726712468912
- Connelly, L., Finnerty, E., Kinsella, A., Quinlan, G., 2002. National Farm Survey 2001, p. 10255. Teagasc. https://www.teagasc.ie/rural-economy/rural-economy/publications/publications-and-reports/refereed-research-reports/.
- Cook, K.S., Hegtvedt, K.A., 1986. Justice and power. In: Bierhoff, H.W., Cohen, R.L., Greenberg, J. (Eds.), Justice in Social Relations. Springer, US, pp. 19–41. https://doi. org/10.1007/978-1-4684-5059-0_2.
- Cooper, T., Hart, K., Baldock, D., 2009. The Provision of Public Goods Through Agriculture in the European Union, Report Prepared for DG Agriculture and Rural Development, Contract No 30-CE-0233091/00-28. Institute for European Environmental Policy, London.
- Cornelissen, J.P., Werner, M.D., 2014. Putting framing in perspective: a review of framing and frame analysis across the management and organizational literature. Acad. Manag. Ann. 8 (1), 181–235. https://doi.org/10.5465/ 19416520.2014.875669.
- Crowley, C., 2017. An Evaluation of Kerry Social Farming. Available at: http://www.southkerry.ie/wp-content/uploads/2017/07/Kerry-Social-Farming-Evaluat ionReport-2017.pdf.
- de Boon, A., Sandström, C., Rose, D.C., 2022. Governing agricultural innovation: a comprehensive framework to underpin sustainable transitions. J. Rural Stud. 89, 407–422. https://doi.org/10.1016/j.jrurstud.2021.07.019.
- DAFM, Department of Agriculture, F.a.t.M, 2019. Irish Beef Sector Agreement, 15th September 2019. Agriculture House.
- Department of Agriculture, F.a.t.M, 2020. Ag. Climatise A Roadmap towards Climate Neutrality.
- Dewulf, A., Craps, M., Dercon, G., 2004. How issues get framed and reframed when different communities meet: a multi-level analysis of a collaborative soil conservation initiative in the Ecuadorian Andes. J. Community Appl. Soc. Psychol. 14 (3), 177–192. https://doi.org/10.1002/casp.772.
- Donnellan, T., Moran, B., Lennon, J., Dillon, E., 2020. National Farm Survey 2019
 (Agricultural Economics and Farm Surveys Department, Rural Economy
 Development Programme, p. 103. Teagasc. https://www.teagasc.ie/media/website/publications/2020/Teagasc-National-Farm-Survey-2019.pdf.
- European Commission, 2019. The European Green Deal. European Commission. https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en#documents.
- European Commission, 2020a. Farm to Fork Strategy. European Commission. https://ec.europa.eu/food/system/files/2020-05/f2f_action-plan_2020_strategy-info_en.pdf.
- European Commission, 2020b. Meat Market Observatory. European Commission. https://ec.europa.eu/info/food-farming-fisheries/farming/facts-and-figures/markets/overviews/market-observatories/meat en.
- Farrell, C., 2012. Just transition: lessons learned from the environmental justice movement. Duke Forum for Law and Social Change 4, 45–64.
- Fiss, P.C., Zajac, E.J., 2006. The symbolic management of strategic change: sensegiving via framing and decoupling. Acad. Manag. J. 49 (6), 1173–1193. https://doi.org/ 10.5465/amj.2006.23478255.
- Fraser, N., 2000. Rethinking recognition. N. Left Rev. 3, 107–117.
- Fraser, N., 2018. Recognition without Ethics? the Culture of Toleration in Diverse Societies, first ed. Manchester Univerity Press.
- Fricker, M., 2013. Epistemic justice as a condition of political freedom? Synthese 190 (7), 1317–1332. https://doi.org/10.1007/s11229-012-0227-3.
- Gardiner, S.M., 2010. Saved by disaster? Abrupt climate change, political inertia and the possibility of an intergenerational arms race. In: Future Ethics: Climate Change and Apocalyptic Imagination, first ed. Bloomsbury, pp. 83–106.
- Gerber, P.J., Steinfeld, H., Henderson, B., Mottet, A., Opio, C., Dijkman, J., Falcucci, A., Tempio, G., 2013. Tackling Climate Change through Livestock: a Global Assessment of Emissions and Mitigation Opportunities. Food and Agriculture Organization of the United Nations (FAO).
- Government of Ireland, 2019. Climate Action Plan.

- Government of Ireland, 2020. Programme for Government: Our Shared Future. Available at: https://www.greenparty.ie/wp-content/uploads/2020/06/2020-06-15-ProgrammeforGovernment_Corrected-Final-Version.pdf.
- Government of Ireland, 2021. Climate Action Plan: Securing Our Future.
- Gray, B., 2004. Strong opposition: frame-based resistance to collaboration. J. Community Appl. Soc. Psychol. 14 (3), 166–176. https://doi.org/10.1002/casp.773.
- Gremmen, B., Blok, V., Bovenkerk, B., 2019. Responsible innovation for life: five challenges agriculture offers for responsible innovation in agriculture and food, and the necessity of an Ethics of innovation. J. Agric. Environ. Ethics 32 (5–6), 673–679. https://doi.org/10.1007/s10806-019-09808-w.
- Gribben, A., 1989. 'The Role of the Ancient Irish Epic" Tain Bo Cuailnge" in the Sense of Local Cultural Identity in Contemporary North County Louth, Ireland'. University of California, Los Angels.
- Heffron, R.J., McCauley, D., 2018. What is the 'just transition'? Geoforum 88, 74–77. https://doi.org/10.1016/j.geoforum.2017.11.016.
- Hennessy, T., 2018. The Economic and Societal Importance of the Irish Suckler Beef Sector. Department of Economics. University College Cork.
- Henchion, M.M., Regan, Á., Beecher, M., MackenWalsh, Á., 2022. Developing 'smart' dairy farming responsive to farmers and consumer-citizens: a review. Animals 12 (3), 360. https://doi.org/10.3390/ani12030360.
- Hesse-Biber, S.N., 2014. Feminist Research Practice: A Primer, second ed. SAGE Publications, Inc.
- Hickey, K., Leahy, P., Kiely, G., Allen, M., Pasik, A., Hermida, L., 2018. In: 'The Meteorological and Climatological Context of the Fodder Crises in Ireland in 2012-2013'. EGU General Assembly Conference Abstracts, p. 19342.
- Hocquette, J.-F., Ellies-Oury, M.-P., Lherm, M., Pineau, C., Deblitz, C., Farmer, L., 2018. Current situation and future prospects for beef production in Europe—a review. Asian-Australas. J. Anim. Sci. 31 (7), 1017–1035. https://doi.org/10.5713/aias_18_0196
- Holland, B., 2017. Procedural justice in local climate adaptation: political capabilities and transformational change. Environ. Polit. 26 (3), 391–412. https://doi.org/ 10.1080/09644016.2017.1287625.
- Hopkins, P.D., 2015. Cultured meat in western media: the disproportionate coverage of vegetarian reactions, demographic realities, and implications for cultured meat marketing. J. Integr. Agric. 14 (2), 264–272. https://doi.org/10.1016/S2095-3119 [14]60883-2.
- Jafry, T., Mikulewicz, M., Helwig, K., 2020. Routledge Handbook of Climate Justice. Routledge, Taylor & Francis Group (First issued in paperback).
- Klintman, M., Boström, M., 2004. Framings of science and ideology: organic food labelling in the US and Sweden. Environ. Polit. 13 (3), 612–634. https://doi.org/ 10.1080/09644010142000229061.
- Lele, S.M., 2018. Rethinking Environmentalism: Linking Justice, Sustainability, and Diversity. The MIT Press.
- McCabe, S., 2019. 'How Can the Agricultural Sector Engage a Just Transition?'. Available at: https://www.tasc.ie/blog/2019/02/25/how-can-the-agricultural-sector-engage-a-just-tran/.
- McGrath, D., 2019. 'Explainer: Why Have IFA Protesters Blockaded a Major Aldi Distribution Centre in Naas?'. Available at: https://www.thejournal.ie/beef-protests-farmers-aldi-naas-4919268-Dec2019/.
- McGuire, J., Morton, L.W., Cast, A.D., 2013. Reconstructing the good farmer identity: shifts in farmer identities and farm management practices to improve water quality. Agric. Hum. Val. 30 (1), 57–69. https://doi.org/10.1007/s10460-012-9381-y.
- Murphy, S.P., 2021. Climate change and political (in)action: an intergenerational epistemic divide? Sustainable Environment 7 (1), 1951509. https://doi.org/10.1080/27658511.2021.1951509.
- O'Hara, P., 1998. Partners in Production? Women, Farm, and Family in Ireland. Berghahn Books.
- Paavola, J., Adger, W.N., 2002. 'Justice and adaptation to climate change'. Tyndall Centre Working Pap 23, 37.
- Pe'er, G., et al., 2019. A greener path for the EU Common Agricultural Policy. Science 365 (6452) 449-451. https://doi.org/10.1126/science.agx3146
- 365 (6452), 449–451. https://doi.org/10.1126/science.aax3146.

 Popke, J., Curtis, S., Gamble, D.W., 2016. A social justice framing of climate change discourse and policy: adaptation, resilience and vulnerability in a Jamaican agricultural landscape. Geoforum 73, 70–80. https://doi.org/10.1016/j.geoforum.2014.11.003.
- Power, J., 2019. 'Who Are the Beef Plan Movement?'. Available at: https://www.irishtimes.com/news/environment/who-are-the-beef-plan-movement-1.3997763.
- Power, J., 2020. An Independent Assessment of the Irish Beef Industry: Jim Power Economics. Available at: https://www.ifa.ie/wp-content/uploads/2020/03/Ji m-Power-Beef-Report-2020.pdf.
- Rohlinger, D.A., 2002. Framing the abortion debarte: organizational resources, media strategies, and movement-countermovement dynamics. Socio. Q. 43 (4), 479–507. https://doi.org/10.1111/j.1533-8525.2002.tb00063.x.
- Rosemberg, A., 2010. Building a just transition: the linkages between climate change and employment. International Journal of Labour Research 2 (2), 125.
- Schlosberg, D., 2012. Climate justice and capabilities: a framework for adaptation policy. Ethics Int. Aff. 26 (4), 445–461. https://doi.org/10.1017/S0892679412000615.
- Schlosberg, D., 2013. Theorising environmental justice: the expanding sphere of a discourse. Environ. Polit. 22 (1), 37–55. https://doi.org/10.1080/ 09644016 2013 755387
- Schlosberg, D., Collins, L.B., 2014. From environmental to climate justice: climate change and the discourse of environmental justice. WIREs Climate Change 5 (3), 359–374. https://doi.org/10.1002/wcc.275.
- Shortall, S., 2004. The broad and narrow: case studies and international perspectives on farm women's research. Rural Soc. 14 (2), 112–125. https://doi.org/10.5172/ rsj.351.14.2.112.

- Shue, H., 2014. Climate Justice: Vulnerability and Protection, first ed. Oxford University
- Smith, S., 2017. 'Just Transition: A Report for the OECD', Just Transition Centre. Swilling, M., Musango, J., Wakeford, J., 2016. Developmental states and sustainability transitions: prospects of a just transition in South Africa. Journal of Environmental Policy & Planning 18 (5), 650–672.
- van der Burg, S., Bogaardt, M.-J., Wolfert, S., 2019. Ethics of smart farming: current questions and directions for responsible innovation towards the future. NJAS Wageningen J. Life Sci. 90–91 (1), 1–10. https://doi.org/10.1016/j.nias.2019.01.001.
- Vandenbussche, L., Edelenbos, J., Eshuis, J., 2017. Pathways of stakeholders' relations and frames in collaborative planning practices: a framework to analyse relating and framing dynamics. Plann. Theor. 16 (3), 233–254. https://doi.org/10.1177/ 1473095215620150.
- Wampler, B., 2012. Participation, representation, and social justice: using participatory governance to transform representative democracy. Polity 44 (4), 666–682.
- Wang, X., Lo, K., 2021. Just transition: a conceptual review. Energy Res. Social Sci. 82, 102291 https://doi.org/10.1016/j.erss.2021.102291.
- Weller, S.A., 2019. Just transition? Strategic framing and the challenges facing coal dependent communities. Environment and Planning C: Politics and Space 37 (2), 298–316. https://doi.org/10.1177/2399654418784304.
- Willett, W., Rockström, J., Loken, B., Springmann, M., Lang, T., Vermeulen, S., Garnett, T., Tilman, D., DeClerck, F., Wood, A., Jonell, M., Clark, M., Gordon, L.J., Fanzo, J., Hawkes, C., Zurayk, R., Rivera, J.A., De Vries, W., Majele Sibanda, L., Murray, C.J.L., 2019. Food in the Anthropocene: the EAT–Lancet Commission on healthy diets from sustainable food systems. Lancet 393 (10170), 447–492. https://doi.org/10.1016/S0140-6736(18)31788-4.