

## Farm adaptive business strategies in crisis management: COVID-19

Peter Gittins<sup>a,\*</sup>, Gerard McElwee<sup>b</sup>

<sup>a</sup> University of Leeds, UK

<sup>b</sup> University of York St John, UK

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### ABSTRACT

The global COVID-19 pandemic significantly impacted businesses worldwide, with rural businesses being no exception. This study examines the effects of the global crisis on upland farmers in England. It builds on the under-researched area of constrained rural entrepreneurship. Institutional theory is applied as a theoretical lens to understand how crisis events shape the constrained institutional contexts in which farm businesses strategically navigate. Using a qualitative, multiple case study approach, we explore how different farmers, traditionalist and entrepreneurial, have strategically responded to the aftermath of crisis-influenced constraints. Our findings highlight the importance of business strategy—particularly farm diversification—in helping farmers navigate these challenges. We provide a conceptual framework, the Farm Crisis Adaptation Framework, (FCAF) that theorizes farmer adaptation strategies in response to crisis situations. Our findings indicate a greater need for rural policymakers to help develop the strategic entrepreneurship skillsets of farmers—helping farmers to future-proof their businesses against uncertainties. Moreover, investment is needed in the local and regional economy, establishing a conducive environment supportive of farm development strategies.

### 1. Introduction

The COVID-19 pandemic caused great disruptions to industries globally, leading to chaotic periods and grave uncertainties for individuals and businesses in all sectors. The rural economy was no exception. This paper's concern is with the upland regions of England and examines the impact of COVID-19 on farming businesses. It focusses on the adaptive business strategies utilised in response to this challenging context to enable challenges both in the present and in preparation for future potential crises. This paper builds on our earlier rural studies work on constrained entrepreneurship in the Upland farm sector (Gittins et al., 2022; Gittins and McElwee, 2023). We use the COVID-19 crisis as a contextual framing to understand how upland farm businesses adapt and respond to periods of chaos, crisis, and other constraints.

Our research contributes to the emerging body of research on 'constrained rural entrepreneurship,' focusing on the barriers that prevent farmers from initiating and pursuing planned business strategies (Refai et al., 2024; De Rosa et al., 2023). Theoretically underpinning our work with Institutional Theory (North, 1990; Welter and Smallbone, 2011), we conceptualize and explore the 'Constrained Institutional Contexts' (CICs) shaping the competitive landscape and social worlds of farmers. We extend Refai and McElwee's (2022) work, utilising CIC as a

theoretical underpinning in the context of rural—as opposed to refugee—contexts. In utilising CIC as a theoretical framing, we respond to Suess-Reyes and Fuetsch (2016) and Fitz-Koch et al. (2018) calls for rural entrepreneurship/studies research to have stronger theoretical underpinnings. To date, there has been very limited research attention in the enterprise literature to upland farm contexts—despite their important economic, social and environmental contributions (Morris et al., 2017). Upland farming in England is a scarcely examined context, particularly when compared to crisis management studies that predominantly focus on corporate multinational enterprises and international settings.

This research develops prior rural enterprise studies in constrained contexts (Elkafrawi et al., 2022; Gittins and McElwee, 2023) and results in the creation of a conceptual model, the Farm Crisis Adaptation Framework, (FCAF) that theorizes how crisis events shape CICs and influence the strategic responses of both traditionalist and entrepreneurial farmers. This farmer heterogeneity has been overlooked in the rural enterprise and studies literature (McElwee, 2008a), as has 'rural' as a research context in the mainstream entrepreneurship literature, which has tended to focus on urban contexts (Fitz-Koch et al., 2018). We also provide insight into the nuances of business strategy in the context of farming businesses developing Gittins et al. (2022) work, empirically

\* Corresponding author.

E-mail addresses: [P.Gittins@leeds.ac.uk](mailto:P.Gittins@leeds.ac.uk) (P. Gittins), [g.mcelwee@yorks.ac.uk](mailto:g.mcelwee@yorks.ac.uk) (G. McElwee).

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showing how some of the strategies proposed in their typology are used in crisis situations. Farm diversification was found to play a pivotal role in helping entrepreneurial and traditionalist farmers respond effectively to crisis constraints—but in different ways (Ilbery, 1991; Vik and McElwee, 2011).

Adopting a qualitative approach, we offer a contextualized understanding of strategic entrepreneurship in rural settings. We apply McElwee and Smith's (2012) Farmer Segmentation Framework to build our conceptualization and underpin our six case studies. The central exploratory research question driving this research is.

- 'How are Upland farmers in England adapting and strategically responding to Constrained Institutional Contexts shaped by the COVID-19 Pandemic?'

Specifically, this work builds on previous Rural Studies research, theorizing how farmers fitting the more 'traditionalist' and 'entrepreneurial' farmer types have been impacted by and responded to, the CIC's influenced by the COVID-19 pandemic. Earlier conceptual research by Gittins et al. (2022) utilize a typology framework to explore farmer responses to a shifting CIC influenced by Brexit. This work highlights and illustrates how emergent crisis events, such as a global pandemic, influence the entrepreneurial and strategic responses of farm businesses. Moreover, it builds on Gittins and McElwee's (2023) work by looking beyond the notions of power dynamics, resource dependence, and relational dimensions between actors. Here, we emphasize the importance of external factors, such as the onset of a global crisis, in altering formal and informal institutional contexts. This, in turn, initiates varied operational and strategic responses among different farm businesses. We conceptualize this through the FCAF, which offers a novel perspective on these dynamics.

The paper is structured as follows. We provide some essential context for our research, contextualizing existing crises and constraints facing Upland farmers in England. Our literature review then positions this research within the interdisciplinary areas of rural studies, entrepreneurship, and crisis management literature. Following this, we outline our conceptualization of 'rural' and farm entrepreneurship, before introducing our theoretical framing. We then set out our qualitative methodology, detailing how our multi-method ethnographic approach featuring a multiple case study design allows us to answer our research question. Next, we present the key themes from our data and discuss the theoretical implications of these findings, theorizing how crisis events challenge and transform CICs and influence strategic decision-making and farm response mechanisms. We provide a conceptual model that illustrates this—useful for rural scholars exploring the nuances and intricacies of constrained contexts. We conclude by outlining our academic contributions, alongside discuss how policy support is needed to help farmers develop strategic entrepreneurship skills-aiding them in the future-proofing of their farm businesses against the only certainties in the upland farm sector, namely further chaos; crisis, and constraints.

## 2. The constrained farming landscape

### 2.1. Brexit and Farm policy in England

The UK farm sector is undergoing its greatest political transformation in recent history, moving away from the European Union's Common Agricultural Policy (CAP) towards a UK Domestic Agricultural policy, with England, Scotland, Wales, and Northern Ireland creating their own agricultural, environmental, and rural development policies. This change has direct consequences for farmers. One of the most significant changes for farmers in England is the removal of the Basic Payments Scheme (BPS), subsidies previously paid to farmers based on land ownership. The BPS will be phased out by 2027. Under the new policy, Environmental Land Management schemes (ELMs), farmers will be paid for the production of 'Public Goods.'

During the transition, proactive farmers will be analysing the long-term sustainability of their farming businesses—assessing how they will cope under a new system that rewards more environmentally sustainable models of production. Some might struggle under this new system, particularly the more traditionalist farmers, as they tend to be economically dependent on subsidies, with (in some cases) up to 90% of their annual profits comprising subsidy payments (Abboud, 2018). A lack of strategic thinking by farmers during the BPS phase-out could lead to business failure. The development of strategic, competitive, and entrepreneurial skills will likely be important in adjusting to these policy changes.

Farm diversification has become an increasingly important business strategy. About 68% of farms have adopted some form of diversification (GOV.UK, 2022). With diversified farms often demonstrating greater economic stability than their more specialized counterparts (Barnes et al., 2015). Indeed, rural policymakers often suggest farm diversification as a useful response to increasing socio-political industry constraints (Gittins, 2022). Other strategic options are possible, including intensification strategies, vertical integration, cost efficiency strategies, doing nothing, and leaving the sector (Smith et al., 2017).

### 2.2. COVID-19

In 2019, amidst the political uncertainties around Brexit, a new crisis emerged: the COVID-19 pandemic which created a new system of unknowns and uncertainties for farmers.

Valackienė and Virbickaitė (2011:322) in their paper on companies, defines a crisis as:

'the moment when a company faces difficulties and such a situation becomes dangerous for further company development.'

A crisis can be conceptualized in different ways and at different levels. A crisis is often something negative [although positives can later emerge] and results in individuals feeling despair. Crisis events can be widespread and can range in scale, from global crises impacting entire continents, to national, regional, and local crisis events. Indeed, there are numerous historic examples of crisis events that have impacted UK agriculture (see Brown, 1987). More recently, wars, Brexit, *Bovine Tuberculosis* and the loss of a beloved family member can all be conceptualized as crises event—being 'dangerous for business development.'

The COVID-19 crisis, a global event with international, national, and local ramifications, spread rapidly. Farmers found themselves embedded within an ongoing series of crises—each with its own set of constraints and challenges in addition to the pandemic. The pandemic disrupted norms, interrupting the routine flow of activities within the farming industry and sending some farmers into a period of crisis.

## 3. Conceptualizing the rural

There are different ways in which scholars can conceptualize rurality. Woods (2010) highlights two approaches to conceptualizing the rural: a functionalist perspective, which defines 'rural' through measurable factors like population density, proximity to urban areas, and topography. Secondly, a subjectivist view, which considers the subjective realities of rural individuals, focusing on feelings, perceptions, attitudes, and beliefs. We align ourselves with the latter subjectivist perspective, seeking to understand via *verstehen* (i.e., empathetic understanding) the 'present realities' (Maye et al., 2018) of farmers. In this context, geography and topography play a significant role in shaping farmers' present realities.

These landscapes, whether actively managed or untouched, play a crucial role in shaping socio-cultural identities. Features like natural springs, grasslands, and forested lands all support diverse rural enterprise activities. These [rural] environments impact the types of businesses which emerge and their dependence on local often [natural]

resources.

Korsgaard et al. (2015) differentiate between businesses that operate in rural areas without relying on local resources (Entrepreneurship in the rural) and those embedded within and dependent on distinctive rural resources (Rural Entrepreneurship). Many rural businesses fall within this first category. Farmers generally fall into the latter category, being intrinsically linked to their rural environment, though not all may be considered entrepreneurs.

### 3.1. Theoretical underpinning- constrained institutional rural contexts

We apply institutional theory as a theoretical lens to investigate the upland farming rural context (North, 1990; Welter and Smallbone, 2011). We draw on elements from both Original Institutional Economics (OIE) and New Institutional Economics (NIE) perspectives. Specifically, we incorporate (Hodgson, 2006) work, which highlights the importance of informal institutions such as cultures, traditions, and habits, and how these can shape the contexts in which rural businesses operate. Additionally, we incorporate the work of North (1990), who emphasizes the prevalence of formal institutions, including rules, regulations, and laws in structuring society.

We apply these theoretical perspectives via our exploration of ‘Constrained Institutional Contexts’ (CIC’s) (Refai and McElwee, 2022). Here we refer to the formal and informal contextual elements that can hinder, and subsequently constrain, planned business strategies. By ‘institutions,’ we mean the formal and informal structures that influence the contextual environment in which actors in our case, farmers, operate (Gittins et al., 2022). The formal environment encompasses the governing rules, regulations, and laws that individuals must comply with (Refai and McElwee, 2022). These human-imposed aspects attempt to govern social structures and are particularly well defined in developed economies, often enforced via legal and bureaucratic systems. North (1990:3) regards institutions as ‘the rules of the game.’ Examples of formal institutions in the context of our research include COVID-19-related legislation and restrictions imposed on society, along with the existing rules and regulations governing the UK’s agricultural industry.

However, when considering the institutional environment, the informal elements need to be considered. Indeed, North (1990) has been criticized by scholars for not being sufficiently clear in his separation between formal and informal institutional forces. North’s definition of ‘formal rules’ was restricted to legally imposed rules—those enforced via a legal system—omitting other important factors like social customs, moral beliefs, and language, all of which are important in governing social behaviour but not enforceable via a legal system. The informal environment includes unwritten norms, local cultures, habits, conventions, and behaviours that also govern social situations (Hodgson, 2006). These informal elements are less apparent and less well understood but play a crucial role in the orientation of social action. Strong informal institutional aspects influence the UK’s farming sector, with culture, family, heritage, and tradition shaping farmers’ social action.

The ‘Constrained’ aspect arises when formal and informal elements create barriers to social action, meaning an individual’s desire to act is blocked by specific reasons. For instance, the introduction of new policies may serve as formal institutional constraints, such as subsidy removal, which might have economic consequences for some. Informal institutions, like social norms, cultural values and beliefs, tradition, and unwritten rules and norms can lead to constrained contexts. Gittins and McElwee (2023) provide some illustrative case studies that suggest how tradition and seniority in farming businesses can constrain the entrepreneurial endeavours of younger farmers. Institutions can be seen as either constraining or conducive to entrepreneurial business strategies, metaphorically described by Gittins et al. (2022) as iron, velvet, or neutral cages. This perspective highlights the significant role institutions play in shaping [business] context, with Scott (1995) suggesting that ‘institutions are context.’

Utilising the CIC framework, we suggest how the pandemic has introduced new challenges to the upland farming sector in England, reshaping the context and analysing how farmers adapt to crisis constraints.

### 3.2. Conceptualizing farmers as Entrepreneurs

McElwee (2008a) defines farmers as individuals engaged in agriculture, including crop cultivation and livestock raising, for their primary source of income. However, the greening of farm policy has broadened farmers’ roles beyond conventional food production suggesting a need to reconsider the entrepreneurial role of farmers.

Traditional management theories are often ill-equipped when applied to rural SMEs (Gasson, 1973). For instance, theories in the realms of the strategic management literature are better suited for corporate large and multinational enterprise, not [rural] SME’s. Concepts such as Entrepreneurial Orientation have been applied to conceptualize farmers as entrepreneurs, focusing on risk-taking, proactivity, and innovativeness (Smith et al., 2021). But this perspective is seen as overly simplistic, these three aspects are not enough to determine a farmer as entrepreneurial or not.

We call for a broader, more detailed conceptualization using the Farmer Segmentation Framework (FSF). This framework facilitates a comprehensive analysis of farmers by considering Personal Characteristics, Business Characteristics, and Business Activities and Processes. It allows for the identification of entrepreneurial and non-entrepreneurial farmers, acknowledging the diversity within the farming sector (McElwee and Smith, 2012). By applying the FSF, we aim to build a nuanced understanding of farmers as entrepreneurs, supported by multiple case studies that highlight the FSF’s relevance to rural enterprise research (Gittins and McElwee, 2023; De Rosa et al., 2019). This approach highlights the value of FSF in capturing the heterogeneity of the entrepreneurial farmer types via the FSF. In Table 1 below, we outline the differences between the entrepreneurial and traditional farmer Ideal Types.

### 3.3. Farm business strategies

There are a range of strategic options that farmers can consider, with diversification receiving the most attention in the rural enterprise literature. Successfully implementing farm diversification requires strategic thinking capabilities, which not all possess. Other strategic

**Table 1**  
Farmer types (Gittins and McElwee, 2023).

Type of Farmer	Personal Characteristics	Business Characteristics	Business Activities and Processes
<b>Traditionalist Farmer Type</b>	Often older aged, farm owner, limited education, more likely to be male.	Often larger landowner, limited in terms of diversification (push), farm location is often selected through tradition, farm succession primogeniture.	Limited use of technology, no planned strategies/ reactive strategies, reliance on family and friends in support networks, low strategic thinking capabilities.
<b>Entrepreneurial Farmer Type</b>	Often younger, male or female, education and outside experience, tenant farmer.	Could be large or small, innovation and diversification strategies central (pull), location of farm selected on rationale logic.	Technology facilitates farm entrepreneurship strategies, high levels of strategic thinking capabilities, variety of support networks used outside of initial family and friends, clear business strategies.

options that can be pursued are (Smith et al., 2017).

- Growth by land acquisition
- Growth by livestock expansion
- Enhancing process efficiencies through technology and innovation
- Vertical integration
- Choosing not to change (doing nothing)
- Exiting the farm sector

These strategies demonstrate that a farmer's entrepreneurialism can manifest in various ways. Scholars should reconsider their perspectives on what constitutes a farmer entrepreneur, as diversification alone does not encompass the breadth of entrepreneurial activity (McElwee and Smith, 2012; De Rosa et al., 2019).

Entrepreneurial farmers often show a high level of strategic awareness and engage in strategic planning, pursuing planned business strategies (McElwee and Smith, 2012; De Rosa et al., 2019). Motivations to pursue these options might vary; for instance, with farm diversification, some farmers might be driven by financial necessity and others by opportunity. This might influence the type of activity they engage with, such as farm shop operations, contract farming, agri-tourism, renewable energy, forestry, artisan selling, and leasing land or buildings (Vik and McElwee, 2011). Diversification may require farmers to learn new skills, being especially challenging for traditionalist farmers. It should also be acknowledged that farm diversification is a broad term encompassing a variety of activities both on-farm and off-farm, as well as farm-related and unrelated. On-farm diversification involves using farm resources to support new activities, such as converting barns for non-farming purposes like weddings. Off-farm diversification refers to using skills to generate income outside the farm, such as doing contract sheep shearing on neighbouring farmers.

For entrepreneurial farmers, innovation, technology adoption, and the expansion of support networks are crucial for aligning farm business strategies with success. Gittins et al. (2020) and Bowen and Morris (2019) emphasize the importance of innovation and technology, finding that new technologies are readily available, but many factors (i.e., age, skillset) prevent successful adoption. Moreover, Arnott et al. (2021) and Khoshmaram et al. (2020) highlight the role of support networks. McElwee and Bosworth (2010) suggest entrepreneurial farmers broaden their networks beyond family and friends (typically used by traditionalist farmers) to include professional business advice.

Thus, farmers are heterogeneous social groups and will respond to crises in different ways.

### 3.4. Farmer responses to periods of crisis

The literature on crisis management has focused on corporate businesses' crisis plans, overlooking [rural] SME contexts. The focus has tended to be on economic recessions and natural disasters (Spillan and Hough, 2003; Budge et al., 2008; Irvine and Anderson, 2006; Soininen et al., 2012; Doern, 2011). Rural SMEs research, though limited, is growing since the pandemic. Some issues have been covered, such as infrastructure challenges (Phillipson et al., 2020), increased reliance on digital technologies (Morris et al., 2022), the shift to catering to online demands (Mastronardi et al., 2020), resilience in agri contexts (Darnhofer et al., 2016; Meuwissen et al., 2019), and labour shortages due to seasonal workforce disruptions (Aday and Aday, 2020).

While some relevant empirical work is published in the realms of the agri-tourism literature, showing how farmers have adapted through social media to accommodate local demand (Chin and Musa, 2021), and responded to crisis measures via coping strategies (Zanetti et al., 2022; Brune et al., 2023). These studies differ in terms of contextual focus, mainly concerning the realities of farmers in the developing regions of the world, with agricultural systems different that of UK upland farming. Much other research is of a conceptual nature, with a general lack of studies attempting to capture farmers' actual lived experiences

(Phillipson et al., 2020).

Our focus extends beyond agri-tourism, looking at a variety of diversification forms, such as farm shops, meat box schemes, and contract farming—indicating a broader scope of entrepreneurial responses to crises. It is contextualized to upland farming in England and empirically explores the lived experiences of farmers.

### 3.5. Literature gaps

Our research contributes to the above-identified research gaps by focusing on business adaptations and responses to the pandemic-influenced CIC. We analyse both entrepreneurial and traditional farmer impacts and responses, which we conceptualize via the FSF (McElwee and Smith, 2012). This farmer heterogeneity is overlooked in the rural enterprise literature. We highlight the unique institutional constraints specific to our study area, influenced by socio-political, geographical, and topographical factors. Moreover, we respond to Suess-Reyes and Fuetsch (2016) and Fitz-Koch et al. (2018) call for further rural enterprise and entrepreneurship theorization, applying institutional theoretical underpinning to expand the scant research on 'constrained rural entrepreneurship in UK agriculture' (Gittins et al., 2022). We also not only consider diversification strategies but also explore other business strategies in response to CIC.

## 4. Methodology

Data collection spanned from March 2020 to June 2022, capturing a wave of lockdown periods that allowed for the exploration of the challenges and responses of upland farmers in England to the pandemic. Drawing on an ethnographic approach, our study involved direct engagement with farmers in their daily environments to gather rich, contextual insights into the exogenous constraints and business strategies employed in response to these challenges (O'Reilly, 2009).

Guided by an interpretive paradigm, we critically and reflexively explore rural practices (Gaddefors and Anderson, 2019), an approach underutilised in entrepreneurship research (Packard, 2017). This approach enables us to capture the 'present realities' of farmers (Maye et al., 2018) and address the scarcity of interpretative approaches in the rural entrepreneurship literature (McElwee, 2008b).

Our study involves upland farmers from the North York Moors, the Forest of Bowland in Lancashire, the Cumbrian Lake District, and Exmoor National Park. In our multiple case study analysis, we aimed to capture both entrepreneurial and traditionalist farmer views (Gittins et al., 2022). Often, farmers interviewed in academic research are connected to formal networks established by researchers, attracting primarily entrepreneurial farmers who utilize broader networks beyond family and friends.

The research leveraged the insiders' positionality of the team members, including an active hill farmer and a researcher with farm and dry-stone walling expertise (McElwee and Gittins, 2024), aligning with our ethnographic method. We also combined our ethnographic data collection principles with a multiple case study design (Yin, 2009). Key benefits of a multiple case study design include its ability to facilitate analytical comparisons and distinctions beyond a single case study, allowing us to recognize the heterogeneity of farming businesses, models, and management styles. Our data collection techniques included (see Table 2 below): *ad-hoc* conversations, semi-structured interviews with both farmers and agricultural stakeholders (National Farmers Union, National Sheep Association, and Agriculture and Horticulture Development Board), an ongoing research diary, and photographs. The inclusion of stakeholder interviews added richness to our qualitative data. Agricultural stakeholders possess a broader knowledge base, including a greater understanding of market impacts, such as the effect of lockdown on commodity prices (e.g., beef and lamb), and were specialized in the areas of upland beef and sheep farming. While farmers live the realities at the farm gate, agricultural stakeholders offer a wider

**Table 2**  
Multi-methods approach.

Data collection instrument	Purpose	Number of transcripts, photos, documents, entries etc.	Timespan
<b>Semi-structured interviews</b>	To explore in- depth COVID-19 related challenges facing upland farmers.	(6) farmer cases created from twenty interviews. (10) agricultural stakeholder interviews.	March 2020–October 2020.
<b>Conversations</b>	To harness the ethnographic approach and utilize an industry insider positionality.	30 reflectional notes from conversations with various farmers and agricultural stakeholders.	June 2019–June 2022.
<b>Photos</b>	To visually capture the realities facing farmers.	800+ photos taken to capture the ‘realities’ of farmers.	January 2019–June 2022.
<b>Research diary</b>	To reflect on subjectivity within the research process, remaining attached and detached when required.	A minimum of 1 entry per week since starting the project.	January October 2021. 2022-

perspective on the industry.

This multi-method approach facilitated data triangulation, enhancing the credibility of our findings and allowed us to adapt to the research challenges during lockdown (Jowett, 2020). Table 3 below emphasizes this reflexive approach.

Interview questions, informed by the FSF, ranged from personal and business characteristics to the impacts of the pandemic on operations and strategies. This approach allowed for flexible, responsive questioning. Some questions included.

- “Tell me about yourself?” (Linking to personal characteristics)
- “Tell me about your farm business?” (Linking to business characteristics)
- “How’s business going?” (Understanding the present realities facing farmers)

As we delved deeper into the interviews, based on how conversations were progressing and also based on the findings from previous interviews, we asked follow-up questions.

- “Tell me about how the pandemic has impacted you?”
- “How have sales been affected?”
- “Have you had to adjust your business practices because of new regulations?”
- “What has been the priority for you during the pandemic?”
- “What was your business strategy before, and have you had to change it much because of the pandemic?”

By applying the FSF as an analytical lens and adhering to qualitative research standards (McElwee, 2008b; Kuehne, 2016), we ensured the trustworthiness and credibility of our results.

We followed Clarke et al. (2015) six-step approach: (1) data

**Table 3**  
Research diary excerpt.

“The pandemic means that our research methods have to be adjusted. It no longer feels right to conduct on-farm interviews given the restrictions on movement. Farmers are keyworkers and conducting on farm interviews exposes them to the virus. Adjustments need to be made. Instead, I will draw more on my ‘insider’ positionality, using only in-person interviews when working amongst other farmers, switching to phone interviews (as many farmers do not use computers). As I also work on the family farm and interact with upland farmers regularly, still using visual methods to try and capture the realities facing them.”(March 2020).

familiarization, (2) generate initial codes, (3) generate initial themes, (4) review themes, (5) define themes, and (6) produce the report. We began by manually transcribing the data, then generated initial codes related to monetary issues such as loss of work, reduced market prices, regulatory changes, changes to working patterns, traditional work moving online, and farmers’ responses to these issues. These broad codes were organized into sub-themes like ‘economic and social constraints,’ which contributed to the broader theme of ‘Impact and Adaptation within Constrained Institutional Contexts.’ The subsequent themes, sub-themes, and theoretical constructs provide a comprehensive view into the lived experiences of Upland farmers during the pandemic (see Table 4 below). We discuss them in the following section.

## 5. Findings and discussion

### 5.1. Introduction to upland Farmer cases

Below, six case studies are outlined from the empirical data (Table 5). We draw on the features of the FSF to provide this overview and give a brief outline of the key impacts and responses. Cases one, two, and six represent the more traditionalist farmer type, while cases three, four, and five are more entrepreneurial in nature.

In addition, we provide six written narratives to illustrate the realities facing our farmer cases during the pandemic. This is summarised in the box of cases below (Table 6), and we refer to these cases in our discussion.

### 5.2. Impact and Adaptation within constrained institutional contexts

John and Nick, identified in Cases 1 and 2, adopt a ‘traditionalist’ approach to farming, characterised by their longstanding resistance to change and lack of formal business strategies. Both older farmers have established their operations over many years and show little interest in innovation or new ideas. Their risk-taking is cautious, and they lack

**Table 4**  
Thematic table.

Themes	Sub-Themes	Relevant Theoretical Constructs
<b>1. Impact and Adaptation within Constrained Institutional Contexts</b>	<ul style="list-style-type: none"> <li>• Traditionalist mind-set.</li> <li>• Disruptive markets.</li> <li>• Contract farming.</li> <li>• Economic and social constraints</li> </ul>	<ul style="list-style-type: none"> <li>• Constrained Institutional Contexts.</li> <li>• Resilience and Adaptation.</li> <li>• Strategic Choices</li> </ul>
<b>2. Entrepreneurial Responses to Pandemic Constraints</b>	<ul style="list-style-type: none"> <li>• Direct Selling and catering to local economy</li> <li>• Agri-tourism constraints</li> <li>• Farm diversification challenges</li> </ul>	<ul style="list-style-type: none"> <li>• Entrepreneurial Alertness.</li> <li>• Diversification as a Response Strategy</li> <li>• Market Opportunities and Constraints</li> </ul>
<b>3. Pre-existing Limitations Amplified by the Crisis</b>	<ul style="list-style-type: none"> <li>• Regional and Infrastructural Challenges</li> <li>• Digital Divide and Skillset Gaps</li> <li>• Strategic Considerations for Diversification</li> </ul>	<ul style="list-style-type: none"> <li>• Digital Competencies and Infrastructure constraints-Strategic Decision-Making in Diversification</li> <li>• Resource Access and Dependence</li> </ul>

**Table 5**  
Farmer impacts and responses.

Case	Personal Characteristics	Business Characteristics	Business Activities and Processes	Main COVID-19 Impacts	COVID-19 Responses
1. John	70 years old Traditionalist farmer, owner, male, no formal education. Third generation farmer.	300-acre farm, Commercial beef and sheep. Farming with son. Off farm property rental. BPS recipient.	Lack of technology, friends and family network. No strategy.	Price volatility. Economic uncertainty	Do nothing. Wait until market prices recover.
2. Nick	72 years old, traditionalist farmer, male, no formal education. Owner. Third generation farmer.	200-acre beef and sheep farm. Leasing out land. BPS recipient.	Lack of technology, friends and family network. No strategy.	Price volatility. Cancellation/restrictions on social events. Social constraint.	Do nothing. Sell for poor market prices. Does not possess skillsets of resources to attend digital alternatives.
3. Gordon	70 years old, entrepreneurially orientated, male. Tenant. No formal education. Second generation farmer.	2000-acre farm, beef and sheep, direct selling business. BPS recipient.	Some technology use. Engaged in business advice network. Family is a driver for entrepreneurial activity.	Wool prices severely impacted due to lack of exports.	Purchasing wool from farmers at above market price than the British Wool Board, then engaging in direct selling.
4. Sarah	34 years old, entrepreneurially orientated, female farm entrepreneur. Tenant. Degree educated. First generation farmer.	200-acre, farm, beef and sheep, agritourism and events. BPS recipient.	Technology adoption, engaged in business advice networks, pursues entrepreneurial strategies.	Disruption to tourism and public focused diversification activities	Do nothing in the early stages, then respond to rise in demand during later stages of the pandemic (i.e., increased staycations).
5. Andrea	60 years old, female farmer. Owner. Degree educated. Second generation farmer.	350-acre farm, agritourism and direct selling. BPS recipient.	Strong social media presence, engaged in business advice networks.	Increased urban-rural migration, Local food supply chains	Direct Selling- supply demand during panic buying stage, attempt customer retention post pandemic.
6. Jonathan	48 years old, contract farmer. Male, tenant. College educated. First generation farmer.	120-acre farm, contract work (shepherding, tree surgery, stockmen, drystone walling). Receives no BPS entitlements.	Business minded, uses social media to build online presence.	Loss of contract work due to farmers wanting to limit human contact and protect families.	Do nothing and face temporary disruption. Attempt to find more work.

entrepreneurial alertness (Kürzner, 1979; Smith et al., 2021). Uninterested in enhancing their farm business’s economic value, they view farming more as a lifestyle than a business venture (Couzy and Dockes, 2008; Gittins et al., 2022).

Success in farming varies by perspective. For John, although his farm might not seem economically successful to others, to him, it is successful. He views farming as a lifestyle that fulfils his family’s needs, distinct from the growth and diversification goals of more entrepreneurial farmers. This approach, common among traditionalist UK farmers, prioritizes sustaining their lifestyle over financial gains (Pinto-Correia et al., 2015; Gittins et al., 2022). Contrary to the belief that economic motives drive all farmers, many, like John, aim simply to get by—their farm business strategy, once established, is to do nothing. Van der Ploeg (2014) notes that such traditionalist farmers tend to be more resilient and less affected by economic fluctuations than their more commercially driven counterparts.

During the pandemic, traditionalist farmers like John, who primarily ran commercial farm businesses with minimal diversification, faced a significant price drop as supply chains adjusted to market disruptions, particularly impacting their core income from livestock sales. John’s business strategy remained unchanged; he adhered to his typical reactive stance, characterized by a ‘do nothing’ approach (Smith et al., 2017). His all-year-round livestock breeding allowed him to wait for prices to stabilize before selling, an option not available to all farmers due to the depletion of resources such as feed and land over time, alongside contractual obligations. Supply chain shocks temporarily affected those needing to sell immediately. A senior NFU representative emphasized this reality:

“The issues we see all derive from the closure of the food service markets. Close to 50% of all the calories we consume are consumed outside of the home. If you see that market close overnight, you have all this product which must go through retail, butcher shops, and supermarkets. Realigning those supply chains is a challenge. We saw both beef and lamb prices under pressure. The closure of McDonald’s, for example, wow, as you can imagine, that really impacts the price of beef.”

This scenario illustrated how strategic choices made in the past have influenced—to a certain degree—challenges caused by the pandemic. For some farmers, this could be viewed as strategic. For others, it is mere serendipity.

John’s situation, benefiting from year-round calving and no contractual obligations, allowed him to hold onto his livestock until the market recovered. Nick, constrained by limited resources and contractual obligations, had no choice but to sell his beef cattle at low prices during the pandemic’s peak, stating,

“We sold most of our beef cattle right in the middle of the pandemic because that’s when they were due to go. So, we did sell at a really low price this year, which isn’t good, but that’s life.”

Despite this setback, Nick’s financial stability was partly salvaged through off-farm diversification, such as renting out a cottage, a strategy that also benefited John. John’s resilience, developed over years of farming’s inherent challenges:

“Farming is a way of life. It has its ups and downs, and this is certainly a down period, and I’m not just sure how long it will last. The way the prices are at the minute, those cows in the shed, I’ve bred them and fed them all year round, mucked them out every day, and if I sell them right now, they haven’t made me a penny. But that’s farming for you.”

Their experiences highlight the significance of resilience and adaptability, viewing COVID-19 as yet another obstacle to endure, like past crisis events, i.e., Foot and Mouth Disease outbreak, *bovine spongiform encephalopathy*, and the global financial crisis.

John’s livestock business structure and his access to critical resources, including livestock sheds, feed, labour, and the absence of contractual obligations, allowed him to wait for market recovery. Over the years, John gradually acquired physical resources, enabling him to withstand the pandemic’s challenges—effectively *battening down the hatches*. The availability of land, sheds, summer-harvested feed, and freedom from contracts mitigated his vulnerability to market fluctuations. For traditionalist farmers like John, mind-set and resource access are crucial in navigating uncertainties. While the impact of crises like

COVID-19 on farm businesses may be largely beyond control, maintaining a resilient mind-set is controllable. Other farmers highlighted this:

"I'm at the stage now where I'm not really bothered about these events. I've got enough fat on my back. If I were 40 instead of 70, the profit thing would be a far bigger burden on my mind. If I were to be hit by a bus tomorrow, I have enough fat on my back for my family to not have to worry."

This highlights the importance of both tangible resources and psychological readiness in navigating turbulent and chaotic periods.

Certain farmers, due to their stable financial standing, opt for a reactive 'do nothing' approach amidst crises (Gittins et al., 2022). Conversely, Jonathon, featured in Case 6, resorted to 'doing nothing,' out of necessity. He explains:

"I've only been able to work on one farm because the owner is vulnerable. I couldn't go and work on other farms due to the risk of cross-contamination. I've only managed to do one lot of clippings, and that's your dad's; I've lost a lot of income. It's been absolutely devastating."

**Table 6**

Box of cases.

Box of Case Studies
<p><b>Case 1, John: Resilience in Tradition</b></p> <p>John is the owner of a 300-acre farm in West Yorkshire, England. He is a third-generation farmer, having a livestock enterprise that consists of 120 breeding ewes and 80 head of commercial beef cattle. He is now seventy years old, and took over the farm in the early 2000s. He is now looking to scale back his role and commitment in the farm business, although he will never 'officially' retire. He believes when he stops working that's it.</p> <p>John is a livestock breeder serving the commercial end of the supply chain. His system is low input, relatively low stress, and changes very little. He runs a simple business, with no tourism-related diversification activities but does maintain a small proportion of his income from off-farm property rental—properties he inherited from his late father. He is 'traditional' in his mentality, viewing the farm as a lifestyle rather than a business. While economic rationality is important, it is not the sole driver of his decision-making. John has reached a comfortable financial position over his farming life, now reaching pension age and profiting well under the BPS era.</p> <p>His main concerns throughout the pandemic were threefold: 1) Keeping away from the general public to avoid contracting the disease. 2) Low market prices experienced during the pandemic. 3) Dealing with an increased number of walkers trailing through his farm during their '1 h per day of permitted exercise' (as depicted in Photograph 1).</p>
<p><b>Case 2, Nick: The Social Lifeline of Traditional Farming</b></p> <p>Nick manages a 200-acre farm in Lancashire. At 72 years old, he is very much a traditionalist farmer. Like John, he is older and very much resistant to much change and new ideas—unless forced to do so. He does most of the work by himself, which, he admits, has had a negative impact on his mental health. His low input business model allows him to farm his way.</p> <p>His main concern was isolation and the impact that it had on him. The only time he interacts with others is at livestock auctions and agricultural shows. The pandemic resulted in many of these events either being cancelled or, worse yet for him, digitalized. As an older farmer, Nick struggles with the complexities of many modern-day technologies. Engagement in these events was meaningful to Nick.</p> <p>In the midst of the pandemic, Nick also had to sell his livestock due to contractual obligations. Unfortunately, the timing of the sale was not ideal, forcing him to sell at a lower market price. Nick also owns a cottage in a nearby rural village that he rents out. This rental income, he admits, helped cushion the economic effects of the pandemic.</p>
<p><b>Case 3, Gordon: Entrepreneurial Ingenuity Amidst Adversity</b></p> <p>Gordon is a 75-year-old farmer from Lancashire who owns a 2000-acre farm. Both his wife and son are actively involved in the management activities. Gordon regards himself as an entrepreneur, stating, "you have to be entrepreneurial in this game if you want to survive as long as I have."</p> <p>For Gordon, age is simply just a number. Family plays an integral role in generating innovation and entrepreneurial ambition. Prior to the pandemic, Gordon and his son started a new business venture—an independent wool collection service. The essence of the business model involved buying and collecting wool from local farming communities—an alternative to farmers selling to the British Wool marketing board.</p> <p>Gordon would pay farmers a premium price for their wool and find new opportunities to sell, such as providing wool to local spinning groups. This largely unsuccessful venture (prior to the pandemic) was met with unprecedented levels of demand during the crisis.</p>
<p><b>Case 4, Sarah: Diversification's Double-Edged Sword</b></p> <p>Sarah's 200-acre farm is located in Exmoor. She decided to start a farming venture in her early thirties. Unlike the other farmers, she is much younger.</p> <p>While she is the active farmer, her husband works in a role outside of agriculture and supplements the farm income when needed. Tourism-related diversification is an important part of the farming business model, with unused barns and spaces being used to accommodate glamping, events, and weddings.</p> <p>It was the year prior to the pandemic when she decided to invest almost all of her savings into the agri-tourism diversification project. For Sarah, the pandemic impacts were detrimental. Restrictions on movement halted the UK's rural tourism industry, leaving Sarah with a significant loss in income. Without COVID-19 support grants and her husband's income, Sarah's farm business would have failed.</p>
<p><b>Case 5, Andrea: Meeting Demand Where Supply Chains Fail</b></p> <p>Andrea is a 60 year old farmer who runs a 350-acre farm is located in Exmoor National Park. Her husband handles the operational livestock husbandry duties, while Andrea focuses her attention on the diversified activities.</p> <p>One core aspect and revenue stream of the business is direct selling, rearing her cattle to slaughter and selling directly to the public through farm meat box schemes. The pandemic resulted in customers stockpiling goods, leaving many unable to carry out their weekly shop following supermarket stock outs. Via the meat box scheme, Andrea could capitalise on this increased demand that supermarkets could not fulfil.</p>
<p><b>Case 6, Jonathon: The Fragility of Farm Contracting</b></p> <p>Jonathon is a 48-year old part-time farmer who also runs a tree surgery business. He rents 120 acres of farmland, but the majority of his income comes from contractual farm work—outsourcing his skill sets to work on other farms in Lancashire.</p> <p>His farm contracting work includes stock handling, dry stone walling, fencing, labouring, and machinery driving. He does a lot of the manual farm work the owners cannot handle alone. He is dependent on the availability of work that other farmers are able to offer.</p> <p>For Jonathon, the pandemic was catastrophic to his business. One of the farmers he worked for contracted COVID-19 and ended up in the hospital, significantly impacting his farm business income. Indeed, this intensified as the pandemic worsened, with restrictions meaning that he could not move around to find new employment opportunities. Many farmers sought to retain work in-house to reduce the risk of contracting the disease.</p>



Fig. 1. Social Distancing in Rural Areas (Photograph Author generated).

measures such as social distancing, stay-at-home orders, travel limitations, and quarantine protocols led to significant social isolation for these farmers. A National Sheep Association representative highlighted the issue, noting:

"Farmers spend a lot of the year working alone. Many use the livestock market as their only source of social interaction. That might be the only time they interact with people all day, week, or month. If the livestock markets are closed due to the pandemic, then there could be issues. Before COVID-19, high suicide rates and mental health issues were already a big part of our media campaigns. I haven't seen any stats yet, but I know COVID will be troublesome for many farmers."

The pandemic disrupted the norms governing the upland farm sector, where farmers, accustomed to close-knit community interactions, suddenly found their usual social outlets—livestock markets, rural pubs, and agricultural shows—unavailable. These venues often provided their only social interactions. Influenced by the pandemic, digital barriers and social isolation were intensified (Phillipson et al., 2020; Lowther, 2022). Arnott et al. (2021) emphasize that conventional farmers derive significant social capital from family and friend interactions, which the pandemic's restrictions severely limited.

Additionally, the pandemic saw increased urban migrations to rural areas, introducing new constraints for traditionalist farmers who tended to avoid public-facing diversification efforts. This shift led to increased encounters with urban visitors, prompting actions like John's signage to remind newcomers of rural social distancing norms (Fig. 1). Conversely, increased urban-rural interactions were viewed as an entrepreneurship opportunity for entrepreneurial farmers (Jervell, 2011; McElwee, 2008a).

### 5.3. Resilience and entrepreneurial responses to pandemic constraints

Entrepreneurial farmers like Gordon, who engaged in direct selling, appeared to navigate the pandemic's market shifts better than traditional farmers, who faced unpredictable market conditions and price fluctuations. Gordon shares his experience with launching a direct-selling wool business, which saw a surge in demand during the pandemic:

"This wool job has taken off big time for us. I said it was worth a try, wasn't it, love? And she said she knew something else would come along. That's what has tended to happen with our business, and that's how we've managed to make it work and grow it to over 2000 ha. We see an opportunity, and we take it; if it doesn't work, it doesn't matter, and we'll just wait till the next one comes along."

Gordon's story exemplifies entrepreneurial alertness (Kirzner, 1979), innovation, and the significant role family support plays in building agricultural resilience and farm development (Jervell, 2011). This contrasts with the often accepted view that entrepreneurship declines with age (Lévesque and Minniti, 2011), showcasing how, in some cases, the farm family can be conducive to farm entrepreneurship strategies.

Entrepreneurial farmers' ability to adapt through direct selling or diversification, including farm shop ventures and meat box schemes, became particularly valuable amid supply chain disruptions and supermarket shortages. We build on Lever and Sonnino's (2022) findings, adding that farm diversification strategies can be useful in building local and regional food system resilience. The diversified activities allowed farmers to respond to shifting economic, societal and institutional changes brought on by the pandemic (Meuwissen et al., 2019) Andrea's experience with her meat box scheme signifies this:



“Honestly, we have never been busier with our meat boxes. Everybody was ringing us up. There was so much demand for local. It wasn’t about national food security anymore; it was about local food security. Some people really were unable to find food on supermarket shelves in those first few weeks.”

This finding highlights the importance of diversified farming activities in tapping into new local economic opportunities and reiterates the shift in focus from national to local food systems when facing threats to food security. The success of direct selling strategies suggests they could be pivotal in future crises that challenge commercial food supply chains. However, as more farmers shift from traditional productivist roles, the sustainability of their role as producers comes into question, raising policy considerations for local food production and food security during crises.

Further insights from our research align with Lokier et al. (2021), revealing that while some consumers initially perceived farm shops as expensive with generally limited options, the pandemic challenged these perceptions, leading to increased repeat business for farmers like Andrea, thus highlighting the pandemic’s role in altering consumer attitudes towards local food sourcing. The pandemic’s impact on farming businesses varied significantly over time, influenced by various changing restrictions and measures (i.e., formal institutions). For farmers diversifying into tourism, the journey was particularly turbulent during the early stages of the pandemic. Initial travel restrictions resulted in financial losses for those invested in agri-tourism. Yet, as restrictions eased, allowing for local and national travel, these farmers found entrepreneurial opportunities in the increased demand for staycations among UK residents.

The age of a farm business also played a crucial role in navigating these challenges. New entrant Sarah experienced the difficulties of launching an agri-tourism venture during the pandemic’s early stages:

“We had diversified into food events, like wood fire pizza, which all stopped [laughs nervously]. We’re okay for now, thanks to a reserve fund from my partner’s income, but we expect to feel the impact of lost income in a few months.”

Sarah’s reliance on off-farm income and COVID-19 support grants was essential for initial survival. However, investments made in resources and infrastructure just a year prior left her with limited cash reserves—symbolic of the ‘asset rich, cash poor’ scenario common among farmers. Fortunately, as travel restrictions lifted, opportunities arrived. Diversification allowed some entrepreneurial farmers to *pivot and prosper* in what might be chaotic scenarios for others.

#### 5.4. Pre-existing constraints amplified by the crisis

Interestingly, much of the constraints facing farmers during the pandemic were pre-existing. The pandemic magnified and amplified them. Upland areas face inherent limitations in economic opportunity and diversification options, due to their specific regional conditions. Henley and Morris (2019) emphasize the significance of considering local context and access to resources. One of the critical infrastructural limitations affecting entrepreneurial farmers in these regions is the lack of adequate broadband speeds and reliable phone services, a constraint experienced by Andrea:

“We have no mobile signal here. And all this Covid thing is really highlighting the problem. There’s no mobile signal, and our internet is about 1mb if we are lucky. Whereas I think most people’s is about 30mb now [laughs]. I was saying if we’re all going to go more towards the internet, which I hope we do, we’ve got to have that mobile internet and access.”

Despite Andrea’s eagerness to engage with online rural entrepreneurial networks, her efforts are constrained by the existing broadband infrastructure. The pandemic has amplified a need for farmers to enhance their digital skills. A shift towards online means for engagement

and to accommodate new demands, a lack of digital competencies among farmers—such as website presence, social media engagement, and data analytics—became prominent. These skills are essential for engaging with customers and understanding market trends, yet many farmers find themselves at a disadvantage due to this digital skills gap, an area that to date remains under-researched. One farmer shared their experience:

“We put a few cattle through the meat box every few, just locally to existing customers. More and more people were asking us if we could do this for them. It got to the point where we thought this is a real commercial opportunity. But we just didn’t have it in us to expand. I don’t know how to make a website or send meat up to Scotland or build a brand. It’s a lot to learn and I just don’t have the time or energy to do it.”

This finding highlights the importance of farmers developing ‘strategic entrepreneurship’ skillsets. A blend of entrepreneurship and strategy, so to speak. Such skillsets include the ability to plan and think long-term, while also being innovative and creative in response to shifting CIC’s. Developing an understanding of effective strategies, potential farm development strategies, and the requisite skills for successful implementation is critical. Diversification, when pursued, should be a strategic decision that leverages the farm’s strengths and aligns with family dynamics, rather than being pursued out of necessity. This was echoed in an interview with an NFU representative, who advocated that

“Diversification is not a silver bullet.”

#### 5.5. Theorizing constrained rural entrepreneurship during the COVID-19 crisis

Below we provide a conceptual framework, The FCAF theorizes the above discussions. It visualizes how the COVID-19 pandemic, situated within a storm of other crisis events, such as Brexit, climate change, and the industry’s economic pressures, present challenges and constraints for two different farmer types: Entrepreneurial and Traditionalist. It highlights how Entrepreneurial farmers, typically younger with significant operational costs and liabilities, are able to initiate ‘pivot and prosper’ strategies, seeking opportunities for growth even in periods of chaos, crisis, and uncertainty (McElwee and Smith, 2012). Their approach is marked by a readiness to adapt and diversify, provided they have the means. However, internal resource constraints and the availability of skilled labour, like family members, may limit their response.

But due to their stronger internal constraints and varied activities, entrepreneurial farmers can leave themselves exposed and vulnerable.

Traditionalist farmers are often more financially secure, with fewer debts, focusing on long-term challenges like succession and adjusting to policy changes. They are more likely to adopt a ‘batten down the hatches’ stance during crises, hoping that the business built over years of experience continues to weather future storms (McElwee and Smith, 2012). The model further incorporates McElwee and Smith’s (2012) FSF, integrating the layers into each farmer type. This segmentation aids in understanding the distinct operational and strategic approaches of Entrepreneurial and Traditionalist farmers outside of and during crisis periods. Institutional theory is applied to account for the formal and informal institutional shifts brought on by the pandemic, which reshape the business and social contexts in which farmers operate. The theory examines how formal constraints like travel restrictions and social distancing measures, alongside informal shifts such as changes in consumer behaviour and the rapid digitalization of markets, impact farmers. These institutional changes play a critical role in how farmers approach operational and strategic decision-making, alongside influencing the adaptive strategies of farmers used when experiencing crisis.

Overall, this framework (Fig. 2) allows scholars to theorize the constrained landscape in which upland farmers are operating within, considering not just the COVID-19 pandemic but an array of interlinked

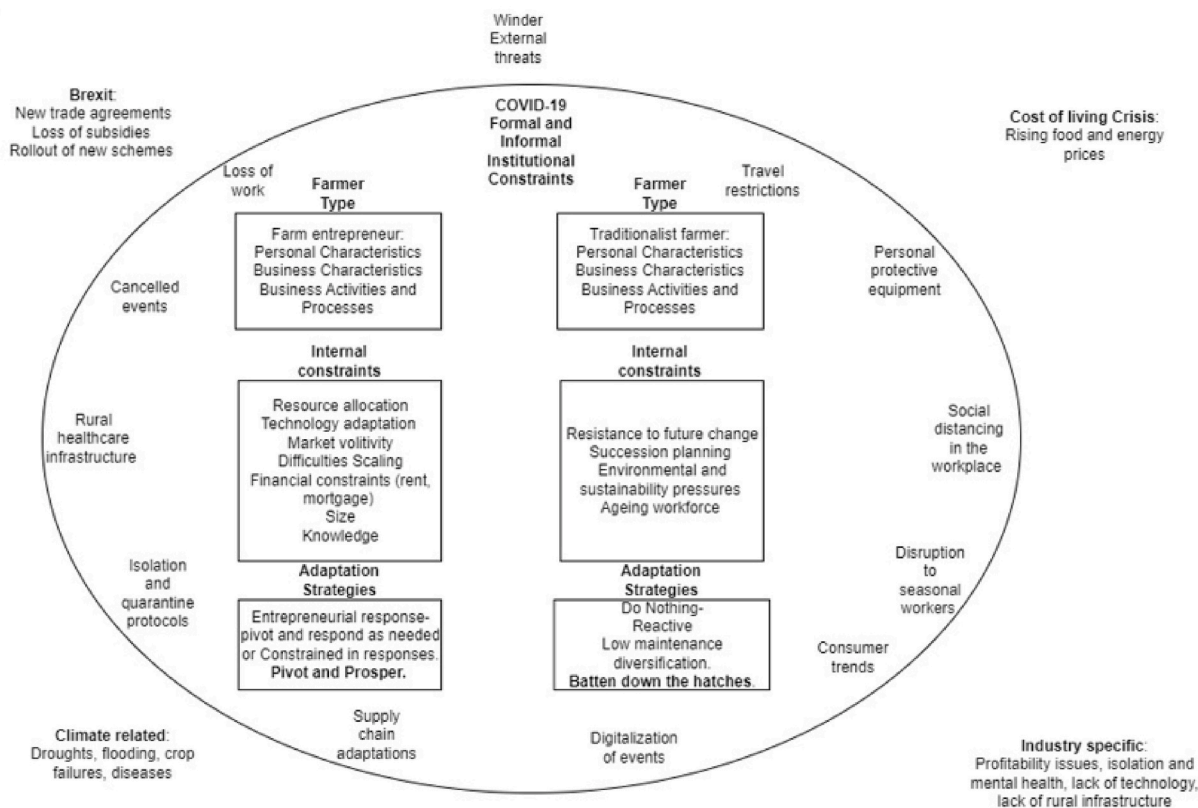


Fig. 2. Farm crisis adaptation framework (Author generated).

crisis events that collectively influence the CIC. It highlights how farmers’ responses to the pandemic are informed by their business operations and the broader institutional changes.

6. Contribution and conclusion

Our study analyses how some upland farmers in England have adapted to the CICs created by the COVID-19 Pandemic.

In terms of our theoretical contribution, we have engaged in what Sandberg and Alvesson’s (2021) term as ‘comprehending theory,’ we qualitatively explored the lived experiences of farmers through empirical data collection, resulting in the construction of six case studies, underpinned by the FSF (McElwee and Smith, 2012). We theorize the ‘entrepreneurial’ and ‘traditionalist’ farmer types’ responses to the CIC (Gittins et al., 2022). Our study addresses a gap in research on CICs in rural contexts, building upon prior works by Gittins and McElwee (2023), Gittins et al. (2022), and Morris et al. 2017). Our conceptual model, the FCAF, illustrates how crisis constraints impact farm business activities differently and initiate various strategic responses. Rural scholars can build on this research by using it to investigate the CICs of farmers. Our research has some synergy with existing research in the realms of agri-tourism (Chin and Musa, 2021; Zanetti et al., 2022), highlighting the effectiveness of this strategy during crisis situations. However, our findings caution against oversimplifying diversification strategies, recognizing that some types may leave farmers vulnerable to crisis impacts, nor is it within the capabilities of all farmers.

Our findings also highlight the need for targeted rural policies that promote enterprising skillsets and strategic thinking capabilities, enhance digital infrastructure, and develop sectoral crisis plans. We advocate for proactive crisis management discussions among rural policymakers, facilitating learning from past crises and preparing for future ones. While our study primarily focused on traditionalist and entrepreneurial farmer types, we acknowledge the existence of other farmer typologies, such as environmentally conscious and hobbyist farmers

(Gittins et al., 2022), which warrant exploration in future research.

In conclusion, our study points toward a need for proactive measures from rural policymakers to support rural entrepreneurship strategies, enhance sectoral resilience, and prepare for future crises. While funds like the Future Farming Resilience Fund support farmers during the BPS transition, it is essential to recognize the variety of crises farmers face, including environmental challenges, subsidy changes, disease outbreaks, and personal crises, as indicated in the FCAF. Beyond financial transitions, resilience funds should also develop enterprising skills, enhance strategic thinking, and establish strong digital infrastructure. Additionally, UK rural policy could adopt EU-like measures to improve sectoral resilience and support rural entrepreneurship. Broadening support at personal, farm business, and sectoral levels can create a more resilient rural economy, enabling farmers to better adapt to various challenges and crises.

Rural policymakers can aim toward creating a more conducive rural economy that can be leveraged by farmers and help them better adjust to the CIC. This approach is essential for ensuring the long-term prosperity of the sector.

CRedit authorship contribution statement

Peter Gittins: Writing – original draft, Methodology, Formal analysis, Data curation, Conceptualization. Gerard McElwee: Writing – review & editing, Methodology, Conceptualization.

Declaration of competing interest

None.

Data availability

Data will be made available on request.

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