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Glass, Jayne; McMorran, Rob; Currie, Mags; McKee, Annie J; Pinker, Annabel; Reed, MSR; Meador, JE; Markantoni, M

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Translating community resilience theory into practice: a deliberative Delphi approach

Jayne Glass^{a*}, Rob McMorran^a, Margaret Currie^b, Annie McKee^b, Annabel Pinker^b, Mark Reed^a, Elliot Meador^a, Marianna Markantoni^a.

* corresponding author (ORCID ID: 0000-0002-7683-0428)

^a Rural Policy Centre, Department of Rural Economy, Environment and Society, Scotland's Rural College (SRUC), Peter Wilson Building, Kings Buildings, West Mains Road, Edinburgh EH9 3JG, UK, jayne.glass@sruc.ac.uk

^b Social, Economic and Geographical Sciences Group, The James Hutton Institute, Craigiebuckler, Aberdeen AB15 8QH, UK.

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Author contributions

Glass, Jayne: writing - original draft (lead). **McMorran, Rob:** writing - review and editing (equal); conceptualisation (equal); methodology (equal); investigation (equal); project administration (equal). **Currie, Margaret:** writing - review and editing (equal); conceptualisation (equal); methodology (equal); investigation (equal); project administration (equal). **McKee, Annie:** writing - review and editing (equal); conceptualisation (equal); investigation (equal). **Pinker, Annabel:** writing - review and editing (equal); investigation (equal). **Reed, Mark:** writing - review and editing (equal). **Meador, Elliot:** investigation (equal). **Markantoni, Marianna** - investigation (equal).

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Abstract

Despite the availability of important theoretical insights that could enhance the resilience of rural communities to complex challenges, there is a paucity of guidance on how to apply these insights in practice. This paper therefore presents and assesses a deliberative research process using the Delphi technique to elicit expert knowledge from 22 academics, community practitioners and policy makers working in roles related to community resilience delivery in rural Scotland. The participants co-produced an operational framework for community resilience, with support from researchers who facilitated the three-stage, interactive process. The methodology enabled participants to work together in an iterative and inclusive manner, culminating in the collective development of a conceptual framework consisting of eight resilience-enabling factors and corresponding criteria for monitoring change, which can be used to plan practical action and provide feedback to enable ongoing adaptation. The process also produced an in-depth understanding of participants' perceptions of rural community resilience, identified key factors that enable or impede rural community resilience, analysed the potential to assess community resilience, and explored scale-related issues. The paper explores the implications of this framework for those working to make rural communities more resilient and reflects on the benefits and wider application of this type of research approach for developing shared understandings of complex concepts.

Keywords: community resilience, Delphi technique, deliberative research, rural, transdisciplinary, Scotland

Word count: 8,099 [excluding abstract and references]

Introduction

'Community resilience' is a term used in a range of contexts with varying emphases and interpretations. This has led several authors to consider whether community resilience relates to the 'readiness' of communities to respond to sudden events, or whether it can encompass both disaster response and other factors, such as long-term decline and/or demographic change (e.g. Zurek et al. in press). While the 'readiness' of communities may refer to the ability of a system to accommodate disturbances without experiencing changes to the system (Robinson 2019), there are several 'other factors' to consider. For example, how communities can adapt to change (Wilson et al. 2018), the timing of policies to increase community resilience (Wilson 2013), and the extent to which specific land management practices can affect a community's ability to adjust decision-making pathways towards resilience (Kelly et al. 2015). In response to this debate, Zurek et al. (in press) have proposed a three 'Rs' definition of resilience that encompasses 'robustness', 'recovery' and 'reorientation', emphasising the need to move beyond adaptation to maintain existing outcomes, to consider more fundamental transformations in the structure, organisation and outcomes of systems in response to change. Despite this variation in interpretations, it has become generally accepted that community resilience is strongly related to the *capacity* of a community to absorb change or disturbance and adapt or transform the functions of the community in response (e.g. Magis 2010, Fischer and McKee 2015, Wilson et al. 2018, Robinson 2019).

Although a well-researched topic, it remains unclear what makes some communities more resilient than others (Wilson 2010, Steiner 2016, Markantoni et al. 2019) and this conundrum has received attention in rural community research (e.g. Magis 2010, Matarrita-Cascante et al. 2017, Fischer and McKee 2017). For example, authors such as Imperiale and Vanclay (2016) have advocated more analysis of how resilience can be operationalised in rural areas to address this gap. In Scotland, where this research is focussed, like many similar countries, there is little operational detail about how to increase the resilience of rural communities and to understand why some communities are more resilient than others, despite a supportive policy environment surrounding community resilience. This paper therefore responds to this gap in understanding by developing a novel and practical framework for translating rural community resilience theory into practice, to provide practical options that communities can use to increase their resilience to complex challenges and drivers of change.

At the heart of our approach is the recognition that communities should be able to influence decisions that affect their lives (see the Aarhus Convention (UNECE 2001) and Dean (2017)). Consequently, there has been significant interest in participatory processes from both practitioners and academics over many decades (e.g., Arnstein 1969; Dryzek 1990; Young 2002; Cornwall 2008; Eversole 2012). From this, it is clear that to deliver outcomes that are deemed successful by the majority of participants, participatory processes need to have certain characteristics. They should be carefully adapted to the contexts in which they take place (e.g. Kochskämper et al. 2017; Plummer et al. 2017), be responsive to changing contexts, needs and priorities over time, adapt the level of engagement to the purpose of the decision-making processes (Reed et al. 2018), and be perceived to be fair through the use of procedures that give participants control over the process and outcomes (Thibaut and Walker 1975). Processes should also be free from bias and prejudice (Leventhal 1980) and accessible to everyone, transparent and have a right of appeal (Pops and Pavlak 1991), be inclusive of the needs and rights of other species, people or future generations (Bell 2014), and fairly

represent all relevant interests and voices (Reed et al. 2018; Bell and Reed 2021). This requires effective management of power dynamics, a recognition of the values of participants and their epistemologies, and genuine deliberation between participants in which they can form, make and adapt their arguments (Dryzek 1990).

We define deliberation (after Habermas 1989; Daniels and Walker 1996; Bessette 2001; Abelson et al. 2003; Patel et al. 2007; Elwyn 2010; Kenter et al. 2014; Muradova 2021) as a process of: i) searching for and acquiring information, gaining knowledge (by learning), perspective-taking (actively imagining others' experiences, perspectives and feelings) and forming reflective and reasoned opinions; expressing reflective reasoning (not exerting power/coercion) through dialogue; identifying and critically evaluating options that might address a problem; and integrating insights from deliberation to determine a preferred option, which is well informed and reasoned. Indeed, Kenter et al. (2014) showed that deliberation of environmental decisions can: help participants identify links between social and ecological systems, making competing social versus environmental priorities explicit; make their transcendental values more explicit, which then helps guide the preferences they subsequently express; and shape each other's preferences through argumentation, in the search for a single group outcome.

Recognising that participatory approaches offer scope for communities to self-define resilience (Markantoni et al. 2019), the Delphi technique was used in this research due to its potential as an iterative and deliberative technique which uses a participatory process. By adapting the application of a Delphi technique to incorporate face-to-face, iterative and inclusive interactions, we argue that this maximises the deliberative potential of the approach. Specifically, the paper explores the potential for this type of deliberative Delphi approach to navigate challenges associated with developing a framework for applying the concept of community resilience across spatial and temporal scales, exploring why some rural communities are more resilient than others, and examining how community resilience can be interpreted and applied in practice. The paper also reflects critically on the benefits and challenges when using the Delphi technique in this type of research process.

Research context: rural community resilience and capacities

Community resilience requires a degree of 'bounding' and/or a multiplicity of approaches to capture the complexity and multi-faceted nature of the concept. One approach which offers potential is the identification and assessment of existing capacities which may predict a community's ability to respond or 'bounce back' from shocks (e.g. Middlemiss and Parrish 2010, Sherrieb et al. 2010). Capacities can be examined through the lens of interchangeable capital assets, where a community's capacity can be defined by its access to natural, social, physical, financial and social capacity, with its adaptive capacity defined in part by its capacity to transform assets from one class to another, for example using social capital to get access to physical assets or liquidating natural assets to generate financial capital (Campbell et al. 2002). Community resilience can also be explored through an assessment of *potential* capacity factors, which may foster resilience (Matarrita-Cascante et al. 2017). Alternatively, Reed and Fazey (2021) distinguish between learning, strategic and leadership capacity when defining the capacity of academic communities, and Reed (2022) discusses impact potential as the latent capacity of these communities to generate beneficial outcomes, based on

their connectedness to networks from which they may be able to identify future opportunities. Wenger-Trayner and Wenger-Trayner (2020) argue that such potential capacity can be systematically built through the creation of safe spaces from which communities and other stakeholders can learn from each other. In a rural context, community resilience places particular emphasis on the collective nature of a response to shocks (Cheshire et al 2015), with the development of positive capacities found to be self-reinforcing (Skerratt 2012). The success of interactions between people therefore plays an important role in fostering community resilience (for further discussion of the importance of capacities in this context, see Fischer and McKee 2017).

Developing an approach to applying community resilience concepts in practice is a process that requires critical self-reflection, with a range of theoretical insights that can inform decisions and influence outcomes. For example, decisions must be made about how to define community resilience in any given context, identify the key criteria which determine resilience (e.g. capacity factors), and determine the temporal and spatial scales for investigating resilience in practice. Community resilience is a process that occurs over time (i.e. to develop capacity), and this temporal aspect of resilience has often been overlooked in many short-term research projects (Franklin et al. 2011). To some extent, community resilience has also been misplaced in terms of spatial scale: communities are often researched as stand-alone entities in a manner that neglects the importance of cross-scalar relationships, actor networks and relational aspects to community capacity and resilience (Chelleri et al. 2015, Quinlan et al. 2015).

In an attempt to tackle these challenges, a number of community resilience assessment tools have been developed (Sharifi, 2016). These commonly seek to define and measure environmental, social, economic, physical and institutional factors that promote community resilience, help communities better understand how they interact with complex socio-ecological systems, and/or benchmark communities against each other or track changes in resilience over time (Barkham et al. 2014; Arbon et al. 2012; Sellberg et al. 2015). However, the assessment of communities in isolation has been highlighted as a key limitation of community resilience assessment in Sharifi's (2016) review of tools. Although the review included assessments that are relatively broad in scope and include multiple dimensions and scales of resilience, it also revealed that many approaches to assessing community resilience are developed in a relatively top-down manner, with participatory approaches needed to address the aforementioned challenges.

Investigating dynamic community resilience processes is therefore likely to require consideration of community development at the local level over time in response to change and existing capacity, which makes the development and implementation of a common framework for resilience challenging. In their work on four related projects in New Zealand, Fielke et al. (2018) noted this challenge when applying a common resilience framework across multi-scalar case studies with different objectives. Nonetheless, their framework highlights the potential for participatory research to facilitate a structured conversation about the impacts of policy decisions, as well as understand differences and similarities across projects and/or communities in term of resilience outcomes.

Community resilience policy in Scotland

The term 'resilience' first appeared in UK policy documents in the early 2000s, with the focus on addressing the threats posed to all communities by terrorist disruption or humanitarian emergencies (Brassett and Vaughan-Williams 2015). In Scottish Government policy, community resilience has also

been interpreted as a community's ability to respond to, and recover from, emergency situations. For example, the aim of the Scottish Government's Resilience Division Framework for community resilience is:

"Communities, individuals and organisations harnessing resources and expertise to help themselves assess and understand risk, take appropriate measures to prevent, prepare for, respond to and recover from emergencies, in a way that complements the work of the emergency responders" (Scottish Government 2017a, p. 2).

However, resilience has also been described in Scottish policy as "the capacity of an individual, community or system to adapt in order to sustain an acceptable level of function, structure and identity" (Scottish Government 2012, p.3). There appears some confusion, even within policy contexts.

Increasing the resilience and empowerment of local communities, particularly in rural areas, has become an important Scottish political and policy focus, evidenced by the Community Empowerment (Scotland) Act 2015 and a national outcome which includes the vision that "we live in communities that are inclusive, empowered, resilient and safe". There has also been an increased emphasis on citizen participation in the co-design and co-production of services (Steinerowski and Woolvin 2012), which are considered imperative for community resilience at both the UK and Scottish levels (Farmer et al. 2012, Markantoni et al. 2019).

While this approach to public policy appears to create opportunities for strengthened local democracy, asset-based community development and place-based community action (Markantoni et al. 2019), the extent to which community resilience should be left to communities themselves has been debated. For example, versions of resilience have been used to facilitate "archetypal governmental technologies of neoliberalism [and] government at a distance" (Welsh 2014, p.16). Mackinnon and Driscoll Derickson also note that resilience is achieved "at the expense of certain social groups and regions that bear the costs of periodic waves of adaptation and restructuring" (2012, p.254). They go on to state that this is put into effect through the application of 'top-down' policies that place the onus on communities and places to take the lead. While some top-down direction from the state level may be required (Coaffee et al. 2008), it has also been recognised that community resilience is most effective when there is a well-organised and networked community sector (Revell and Dinnie 2018) and/or communities with strong social ties and a network of community anchor organisations (Markantoni et al. 2018).

The potential for resilience to be strengthened through enhanced community capacity building and empowerment through managing their own assets is already well-documented (e.g. Skerratt 2013; Mc Morran et al. 2014; Rennie and Billing 2015; Fischer and McKee 2017; Combe et al. 2020). Nevertheless, rural communities in Scotland face a range of challenges, including demographic decline, high levels of deprivation in some areas, agricultural decline and the impacts of climate change (SRUC 2008; Copus and Hopkins 2018). There also remains uncertainty in relation to the impacts of Brexit and the Covid-19 pandemic on key sectors such as agriculture and tourism, which are dominant in rural areas (Moxey and Thomson 2018; HIE 2020; Currie et al. 2021). Such issues attest to the multiple pressures operating on rural communities, pointing to the ambivalences and limits of 'resilience' discourses.

Using Delphi to translate rural community resilience into practical action

Delphi forms and applications

We used the Delphi technique to understand the perceptions of resilience and co-produce an operational framework in a deliberative and participatory manner. We also reflected critically on the advantages and disadvantages of using this method to represent the conceptual complexity of community resilience and the challenges involved in applying the concept in practice.

The Delphi technique is a methodology used across a range of fields to engage a panel of experts in a collective approach to solving a complex challenge (Linstone and Turoff, 1975). Described as an “efficient, inclusive, systematic and structured approach that can be used to address complex issues”, it is an established method in a range of disciplines, including medicine, social policy and tourism research (Mukherjee et al. 2015, p.1097). Typically, the Delphi technique aims to achieve a consensus of expert opinion, with a key feature of the process being the feedback of results and subsequent responses of participants to bring about quantitative convergence towards an overall solution, decision or prediction (Novakowski and Wellar 2008). The technique normally uses an anonymous survey distributed to a ‘panel’ of participants and occurs over two or more ‘rounds’ to allow participants to see their responses compared with others, and then make changes where appropriate (Kuo et al. 2005). While this approach is valuable for issues that require a decision to be made, or elicit ‘yes/no’ answers or scores, this type of Delphi has been criticised for failing to allow detailed discussion of the issue in question (e.g. Hasson et al. 2000; Briedenhann and Butts 2006).

As a result, the Delphi technique has increasingly been used as a social research technique that aims to explore disagreements, generate and understand alternate scenarios, or elicit the breadth of view relating to a policy. Hasson and Keeney (2011) have classified these alternative uses of the Delphi technique respectively as: argument, scenario, and policy, with the consensus approach described in the previous paragraph termed a ‘decision Delphi’. Rather than focussing on reaching a consensus, a ‘policy’ Delphi has been used instead to explore consensus and disagreement surrounding uncertain policy issues within an informed group, as well as to identify potential solutions to policy problems (Frewer et al. 2011). This approach focuses on identifying various options, rather than making one decision. As a result, panel members are provided with options for consideration, explorative and deliberative discussions are encouraged, and researchers attempt to present solutions to complex, policy-relevant challenges based on the input of the group.

In a policy Delphi, as in a decision Delphi approach, the researcher analyses participants’ responses to the survey rounds and feeds back the analysis to the panel, providing them with the opportunity to reconsider their responses continually, based on reviewing the ideas and perspectives of other participants. The multiple rounds of feedback and input allow the researcher to highlight key areas of consensus or disagreement for feedback to participants and further input, thereby creating a reflective process capable of integrating a wide range of viewpoints and knowledge types (Powell 2003, Hung et al. 2008). The anonymous nature of the approach ensures that powerful groups or individuals cannot dominate the process and the expertise and experience of all participants is independently captured (Keeney et al. 2001). A policy Delphi was used in this research as it was most appropriate to ensure a safe space for reflection and exploration of the panel’s views on the wide range of capacities and other factors related to community resilience.

Shared iteration and reflection: the Delphi panel

A critical aspect of the formation of a Delphi panel is to ensure that the members have high levels of experience and interest in relation to the topic being considered (Donohoe 2011). Interest is particularly important as high rates of attrition (drop-out) in between the rounds is common. The selection of panel members can affect the degree of objectivity and overall quality of the results. Therefore, including a balanced range of expertise and perspectives is also imperative (Kenyon et al. 2008).

To determine key factors that influence community resilience and explore the potential to for community resilience policy makers and practitioners to operationalise the concept, the Delphi panel organised for this research required input from across a wide range of perspectives and expertise. The following groups of stakeholders were identified as being most relevant and interested:

- i. Academics and consultants with interest/expertise in rural community resilience;
- ii. Community development practitioners/representatives of non-governmental organisations (NGOs); and
- iii. Policy/decision-makers.

A purposive sampling approach was used to form the panel. First, a stakeholder analysis was conducted to develop a matrix of relevant candidates, based on their interest and influence in relation to rural community resilience (as described in Reed et al. 2009). The matrix was based on a review of relevant academic material, contacts known to the research team, web searches related to relevant organisations, and snowballing with key contacts. Specifically, the search focused on participants with expertise in (one or more of) community development, community resilience and community resilience assessment, policy mechanisms to support and assess community development, community planning, sustainability, and rural development.

Thirty participants were identified and invited to participate, with those with the highest levels of interest/influence approached initially and asked to identify other participants that had not been captured in the matrix. The final panel comprised 22 members from a range of backgrounds and with a range of expertise: eight academics from universities in Scotland and the UK, the Netherlands, Australia and Japan; 11 community development practitioners/representatives of NGOs in Scotland; and three policy/decision-makers from the Scottish Government and Highlands and Islands Enterprise. The size of the panel was chosen so it was manageable in terms of facilitating the process and allowing for potential attrition.

The research process

The process comprised three rounds that were conducted in 2017-2018: a scoping, semi-structured interview (Round 1); a follow-up interview to discuss a written summary of the results of Round 1 (Round 2); and a facilitated workshop (Round 3). All participants completed the first two stages of the process and 14 attended the final workshop. The approach used in each round is explained and justified in more detail below.

The use of an interview in the first round of a Delphi process has been advocated by other researchers as a useful way to explore options and ideas with each panel member in some depth, and to reduce potential attrition due to the increased commitment to the process as a result of

engaging directly with the researcher(s) in the first stage, rather than via a written survey (e.g. Kenyon et al. 2008, Glass et al. 2013). The interview provided an opportunity for each panel member to discuss their views on rural community resilience and allowed the researcher to explain the rationale for the research and the approach. The interview guide was based on a review of current academic and policy literature on rural community resilience, conducted as part of the research. The guide also included the potential for applying community resilience in practice and scale-related factors (see Table 1).

[Table 1 here]

The responses to the Round 1 interview questions were analysed and a synthesis report was shared with the panel members. The report comprised a combined feedback and questionnaire which elicited the main themes related to panellists' responses in Round 1 and illustrated these with direct, unattributable quotes. The report included a set of enabling and constraining factors for community resilience that had been identified by the panel members in that first stage. The ten questions included in the report focussed on areas of conflict and consensus emerging from the results of Round 1 and formed the basis for the interviews conducted in Round 2. This enabled panel members to provide further comments on these specific areas.

The following themes were covered in the questions: meanings of community resilience; key enabling and constraining factors; whether criteria for putting community resilience into practice are useful; who should monitor how community resilience is put into practice; whether community resilience should be linked with policy and planning processes; how communities should be defined in relation to community resilience; the relative importance of local and external factors; and spatial and temporal scales for applying community resilience. Thematic qualitative analysis of the responses to Round 1 and Round 2 was carried out by a pair of researchers in both instances to facilitate greater objectivity and allow for cross checking of findings.

A final set of questions was posed to the panel in the Round 3 workshop, based on the responses submitted in the previous stages. Panel members were brought together face to face for the first time during the process and they engaged in small group discussions to explore key areas of divergence/tension arising from the earlier stages of the Delphi process. Although not a typical element of a policy Delphi, which generally maintains anonymity throughout, facilitating interactive, deliberative dialogue at the end of the process allowed the application of the framework to be explored in more detail. Other studies have used a similar approach, noting how this modification can make the overall process highly co-operative and effective (Graefe and Armstrong 2011). This included discussion of the potential for transformations within resilient communities, how to account for variation in community capacity when applying the framework, and how policy/practice can recognise the multi-faceted nature of community resilience. The workshop was designed to allow for conflict to be explored in greater depth, using case study examples. Groups rotated around tables to discuss the different themes, with a researcher facilitating the discussion at each table. Findings were analysed thematically and presented to participants in a short report.

A framework for practical action

Underpinning perceptions and understandings of rural community resilience

In the Round 1 interviews, the conflict between rural community resilience as a response to shock events *versus* long-term community capacity building was frequently discussed by panel members. Some were concerned that the term ‘resilience’ was limited to the emergency management of catastrophic incidents, such as flooding, whilst ignoring other ‘everyday’ and gradual processes of change. They pointed out the risk that this negates communities’ agency – their capacity to be proactive and influence change, as well as respond to ‘emergencies’. As one panel member emphasised, resilience is about:

“[...] sensing the change, being able to adapt and being in charge of decision-making. [Resilience] doesn’t have to do with shock events. It is more systemic and fundamental than that.”

In general, panel members described the process of rural community resilience both in terms of encompassing responses to emergency/catastrophic events (e.g. fire or flood), *and* slow change over time (e.g. long-term socio-economic decline). It was emphasised that some changes to rural communities may not be negative but might require local capacity to take account of them and respond. Similarly, how communities respond to emergencies or crises was seen to depend partly on the nature/scale of the threat. Panel members also noted that, while planning for emergencies can support greater resilience, addressing resilience in terms of emergency response may frame discussions in the negative, rather than encouraging positive pathways for change.

There was agreement that rural community resilience should not just be about communities adapting to a crisis or returning to ‘business as usual’ after an emergency. Instead, a resilient community must have the capacity to take advantage of opportunities and to “create the change proactively”, as one panel member explained. This demands a more inclusive understanding of resilience that recognises active long-term responses to gradual, systemic processes of change and persistent problems.

In response to the Round 2 summary document, panel members agreed that the concept of resilience is useful to help understand change and uncertainty within communities. As one panel member noted, “it gives a number of common headings and a number of common concepts that communities can find useful”. Specifically, it helps communities to “overcome silo-thinking and project-based approaches that can lack connectivity”. As another panel member explained:

“Communities can’t be passive and just wait for something to happen. You need to be able to anticipate and plan where possible.”

It was also noted that the multi-dimensional aspects of resilience can build synergies between different community actors/activities and help to capture the negative and positive - the emergency response and the everyday response. The importance of co-ordination in resilience thinking was emphasised by panel members. For example, one explained the need for:

“co-ordination with other communities, to know what they are doing, but also the agencies who are best placed to support them through this – not least through community planning”.

Similarly, another panel member emphasised that rural community resilience in practice need not mean ‘smaller’ or ‘less’ government, or self-sustaining communities. Instead, it should imply “a productive and constructive collaboration between communities and government bodies, in which the latter are adaptable, accountable and local”, enabling localities to control their own future. This introduced a positive and novel dimension to the term, with a resilient rural community considered to be an empowered and independent community.

Despite this positive narrative, several concerns and reservations were raised in Round 2 about the use of the term ‘resilience’ as applied to rural communities. Specifically, resilience often overlaps in its interpretation with other concepts, such as sustainability. Therefore, some panel members felt that perceiving resilience as transformative would provide the concept with a clear direction of travel over time and help to identify explicit goals. One panel member noted how:

“[r]esilience can be seen as working within the existing system, and just changing some aspects of it, but still maintaining the same goals, as in economic growth. Or actually [what we want is] transformation that is saying ‘what goals do we want to get to?’”

It was also noted that resilience is understood differently by communities and policy makers. However, both approaches were seen as equally important, with the challenge being in taking a joined-up approach to deliver both kinds of resilience. As one panel member explained:

“...the tension is if you are just taking an emergency perspective then you are not understanding the links and developing the links, between the wider community capacity aspects and therefore you are missing opportunities, and you are potentially going to reduce resilience more than you are going to improve it through emergency management...”

The resilience frame was seen by some as bringing clarity to the connections between issues that impact on a community’s resilience. Described by one as “community development with bells on”, it was seen as an important, ongoing process with no defined end point. Panel members also acknowledged that rural community resilience may be a more useful concept for those working in the public sector than for communities on the ground. For example, one panel member argued that:

“for communities it doesn’t matter what term is used, as what is needed is action to solve local problems”.

There was agreement during Round 1 that the most effective way to define communities is for them to define themselves. Panel members noted how communities tend to be bound by a common sense of purpose, with spatial communities often consisting of many smaller micro- or fringe-communities, and/or communities of interest with varying degrees of overlap, allegiances, or conflict between them. In Round 2, self-definition of communities was explored in more detail in the context of ‘bounding’ communities in relation to assessing or applying resilience as a framework for community development. As one panel member explained:

“I think if communities are going to define themselves, then in that definition they also need to recognise those communities of interest as well [...] in their self-assessment. It’s not just

about geographical thinking [...] communities of place are made up of lots of different communities, so you need to involve as many of those different communities of interest as possible”.

Concerns were raised about equality in capacity building for community resilience, with another panel member describing how “the people that don’t have the resources are the ones that suffer the most, invariably”.

The workshop in Round 3 confirmed the findings from earlier rounds, with participants agreeing that resilience is understood and enacted differently by different stakeholder groups, which requires an agreed, adaptable and holistic understanding for applying and operationalising resilience. As one panel member explained in the workshop:

“[it is important to have] regular consultations and ‘check-ins’ with local residents and community organisations about issues affecting them [so it is possible to] gauge where people are at”.

Resilience-enabling factors

Recognising the concerns in the literature about capacity building and access to community resources, panel members were asked in Round 1 to identify factors that enable and/or constrain rural community resilience. In the Round 1 report, presented to panel members in Round 2, a set of enabling and constraining factors was developed by the researchers, based on the analysis of the Round 1 responses. Eight factors were identified and grouped under three themes: (a) community capacity, collective governance and networks; (b) community assets, infrastructure and enterprise; and (c) demographics, health and wellbeing, and the environment.

In Round 2, panel members were asked to consider each of the eight factors in more detail and specify whether they felt that the factors adequately captured what enables and constrains rural community resilience in practice. In general, all panel members were comfortable with how the factors were presented in themed groups. However, additional factors were noted, and the relative importance of the factors was discussed. Panel members also emphasised the importance of environmental dimensions to the development of long-term community resilience and a need to move away from prioritising economic development. As one panel member explained:

“[...] maybe there should be a real strong push to changing that overarching goal to community resilience as opposed to just economic growth. And without doing that, we are all just going to fall [back] the whole time, because there is going to be that slipping back to economic growth assumption”.

Following the feedback from panel members in Round 2, the list of enabling factors was revised by the researchers and is presented in Table 2. Although the factors were presented as ‘enabling and constraining’ factors in Round 1, the Round 2 responses favoured a cohesive set of eight enabling factors, and while recognising the constraining aspects, these are not explicit. The factors relate to both formal, organised community groups (e.g. community trusts, community councils, etc.) and the wider community. The factors listed in Table 2 are accompanied by some illustrative quotes from panel members to provide more insight to their development.

Concerns relating to the unequal underlying capacities of different communities were reinforced during the Round 3 workshop, with panel members highlighting the needs: i) to ensure communities have the ability to identify their needs, aspirations and visions for the future (e.g. through capacity support, community spaces etc.); and ii) for innovation on the part of wider stakeholders/enabling bodies to ensure an equitable approach to support provision across communities (e.g. supporting community asset acquisitions etc.).

[Table 2 here]

Assessing resilience?

During Round 1, panel members recognised that measuring rural community resilience in practice is likely to be challenging, although many felt it was possible to some extent and worthy of exploration. Panel members highlighted the need for any measures to have a strong underlying rationale, to ensure communities are motivated to implement them and experience real benefits from doing so.

Panel members raised issues that can be grouped into two themes: guidelines and potential formats of measurement; and specific criteria for assessment. For the former, panel members agreed that any assessment process within the rural context should be simple and based on well-defined, measurable outcomes. It should also “fit into a wider, action-oriented process”, as one panel member suggested, while no one urged the avoidance of “something additional to what’s going on already”. A flexible and place-specific approach was deemed to be important, incorporating an element of choice about which criteria are most relevant to a specific community. Finally, there was consensus that there is potential to learn from existing frameworks, including scenario planning, community surveys, interviews, focus groups, community mapping, and public meetings. Specifically, panel members referred to the Building Stronger Communities Framework (Scottish Community Development Centre 2012) and the Place Standard (Scottish Government et al. 2017b).

Following the analysis of the Round 1 responses, a draft set of measurable criteria for rural community resilience was developed by the researchers and presented to the panel in Round 2, when the views of panel members were explored in more detail. Although there was some agreement that assessment could contribute to community development, the majority were uncertain about the need for resilience assessment even if they did not disagree with the potential benefits.

One panel member noted that, because communities are so different, it would not be possible to assess resilience systematically across different communities to allow for direct community comparisons in an objective manner. Collectively, panel members agreed that assessing or evaluating rural community resilience would be complex and multi-faceted, which led them to identify some overarching requirements for any approach that may be developed. These included the need to provide clarity on what is to be assessed, meaningful measures that mean the same thing to different people, a holistic approach that is not limited by a set of indicators, clear timelines that allow reflective practice, and a balance between local input and external verification.

Following the analysis of the Round 2 interviews, the list of potential community resilience assessment criteria was modified and expanded. The resulting list is presented in Table 3, with each group of measures corresponding directly with one of the eight enabling factors shown in Table 2.

[Table 3 here]

Despite the identification of the criteria in Table 3, panel members expressed concerns relating to the use of these criteria in a formal assessment process. In particular, some warned of the danger of relying on existing data for assessment processes, particularly data sets that, “don’t really fit, or which you shoe-horn into a certain perspective”. Critically, panel members also expressed uncertainty about the purpose and beneficiaries of conducting an assessment of resilience and several warned that many communities would be unlikely to engage in a process without a clear end goal, particularly if there were no supporting resources available (both to carry out the assessment and to implement any outcomes/findings).

The majority agreed that any assessment should be linked clearly with existing policy and planning processes, although there was no clear consensus on how this might happen in practice. A framework for community resilience was perceived as potentially useful for local authorities to incorporate within their strategic planning processes and to aid the work of Community Planning Partnerships, as well as linking with other tools like the Place Standard (as mentioned earlier) or Health and Social Care Partnerships. However, there was little support for assessment as an additional, formal element of the existing planning system. As one panel member explained: “it is more important that the planning system is integrated into the assessment, rather than the other way around”.

In Round 3, concerns remained among some panel members in relation to direct assessment of community resilience, with the application of community resilience seen as more functional and ‘useful’ where criteria can be applied in a flexible, locally-led and place-based way which complements a well-resourced community planning process. As a result of the divergent opinions on the relevance/usefulness of assessing community resilience that emerged in the earlier rounds, the workshop discussion focussed instead on how the framework developed during the process could be used effectively in policy. The role of embedded anchor organisations (such as development trusts) in implementing the framework of enabling factors (in Table 2) was repeatedly identified, including through nurturing established networks and creating formal and informal community networks and accessing and harnessing effective community leaders.

The importance of scale

Linked to the enabling factors listed in Table 2, there was agreement that rural community resilience cannot be achieved without both local capacity and the support of external bodies. Panel members referred to a need to balance between local and external actors to avoid conflicts of interest. As one panel member commented: “the quality of the relationships between the communities, different community bodies, and public bodies is critical to community resilience”. There was strong support for external and statutory bodies playing an enabling role while also providing financial and other support to communities via guidance and examples of best practice. In that manner, these external

bodies would be seen to “support the learning and action process for communities, but not dictate and shape that”.

In Round 3, those attending the workshop agreed that the responsibility for emergency planning and everyday capacity-building should not be wholly assumed by individual communities, with partnership working and shared responsibilities critical to strengthening capacity for resilience. The spatial scale of assessment was also discussed in Rounds 1 and 2, with agreement that an assessment should be based on a geographic community of place (“every single community will have its own story”), while taking into account the key actor networks that extend past the boundaries of that place and influence the criteria.

In Round 3, participants noted the importance of temporal aspects, including how gradual change and innovation is critical for capacity building and, ultimately, transformation of services delivery, for example. Communities were viewed as being in a process of continual change and evolution, in response to wider socio-political changes, which requires both fast and slow responses and continual adaptation, as well as new spaces for fostering engagement and innovation.

Discussion

The research developed shared understandings of rural community resilience and how that relates to operationalising the concept for the purposes of policy and decision-making. Previous attempts to measure community resilience have highlighted a range of challenges, including limited environmental dimensions, a lack of consideration of resilience over longer timescales, assessment processes developed in a ‘top-down’ manner, and assessments that are not linked formally or informally to pre-existing planning processes. These challenges reflect many of those identified throughout this process. In practice, rural communities face the ongoing challenge of ensuring a degree of consistency (for example, in service delivery, demographics, etc.) against the need for change (for example, to adapt to climate change, leaving the European Union, etc.). Conceptually, this research highlights the tension that exists in the application of the resilience concept in terms of whether a resilient approach requires preservation of existing practices within familiar paradigms (for example, the economic growth model) or a more transformative approach.

Understandings of rural community resilience were underpinned by ideas of trust, power, responsibility, capacity, social capital, self-determination, adaptability, and transformation. Trust was particularly important, with panel members acknowledging that trust needs to be engendered via a deliberate relationship-building strategy, whereby local authorities and statutory bodies recognise the ways in which they can build relationships with communities, in more than transactional ways. Specifically, this related to a perceived need for a shift away from top-down funding and support delivered to achieve pre-defined policy objectives, towards the building of long-term relationships and partnerships between communities and public bodies, in which communities were empowered and able to exercise genuine agency and influence, independent of Government influence or priorities (e.g. challenging policy narratives and assumptions that economic growth should be the goal of community resilience). The idea that community resilience requires empowerment is not new (see Fischer and McKee 2017; Revell and Dinnie 2020), but the centrality of agency and independence of action has been less emphasised in the community resilience

literature. Rather than diverting attention from questions of power, our findings resonate with Welsh (2014) that these instead need to be placed upfront. Barrios (2014) notes how the characteristics of communities can be significantly shaped by their interaction with government agencies and disaster relief organisations, and urges such organisations to take the emergent and relational nature of communities into account when enabling them to recover from disasters. Brendtro et al. (2001) included independence in a list of values that can underpin community resilience, and Magis (2010) emphasised the importance of communities being able to make free choice and act independently as a key component of community resilience. Although our findings resonate with these calls, they emphasise the potential for communities to be given agency and independence, whilst also collaborating on an equal footing with government agencies to achieve community resilience. As such, the emphasis on trust building in this research was as much about communities learning to trust government agencies as it was about these agencies trusting communities to manage their own affairs without the need for top-down, 'paternalistic' guidance from government. Cairney and Wellstead (2020) define trust simply as, "a belief in the reliability of other people, organizations, or processes" but perceptions of reliability and trustworthiness may be influenced by a range of cognitive biases, as people use heuristic shortcuts, including both evidence-based and potentially prejudicial evaluation, to assess the trustworthiness of people and organisations they do not know, based on their prior knowledge and experience (Kahneman and Tversky 2013). Perhaps as a result, panel members emphasised individualism and community divisions among a range of barriers to communities being able to identify their own needs and circumstances clearly enough to enable collective community action.

The panel members identified critical challenges and points of tension relating to the definition of rural community resilience, both from practical and theoretical perspectives. In particular, the panel members' contributions echoed existing research that has found that community resilience as a concept lacks a clear, agreed and cohesive definition, with different types of stakeholders defining and perceiving the concept in different ways (see Zurek et al. (in press) for a review of definitions used by different academic and practitioner communities). While 'emergency' interpretations of community resilience are reflected in the resilience rhetoric in current Scottish Government policy, panel members preferred to note the importance of 'everyday' resilience, whereby communities have the ability to respond to gradual change over longer timescales. This is akin to Biggs et al.'s (2015) emphasis on managing slow variables and feedback in their principles for building resilience in social-ecological systems. These discourses, whilst different, are interconnected and each involves different sets of actors, motivations and constraints. Critically, this research has revealed that a definition of rural community resilience that focuses on incremental adaptation to slow-onset stressors would demand broader, bottom-up processes of response, not the top-down, command and control approach more typically associated with the management of emergencies/disaster response.

Throughout the Delphi process and the subsequent analysis of panel members' responses in the subsequent rounds, the outcomes and points of tension have also highlighted the challenges of assessing community resilience in a manner that would allow for comparisons to be made across communities. The variability in interpretations of the concept, the importance of non-quantifiable criteria, and the variability in underlying community capacity to develop resilience, also suggest that accurate and comparative measurement of the concept is likely to be very challenging in practice. This may be particularly challenging for evaluating resilience as a form of reorientation or

transformation, as proposed by Zurek et al. (in press). When communities make more radical changes in response to change, for example transitioning from retail to service and community oriented offerings in town centres or transforming a local economy from manufacturing to tourism, there will always be winners and losers. Whether such changes are viewed as beneficial or not will vary depending on the perspectives of different members of the community (c.f. Reed et al.'s (2021) emphasis on perception in their methodological framework for evaluating impact). Having said this, the community resilience enabling factors and assessment criteria proposed in Tables 2 and 3 do not define specific outcomes sought by communities. Instead, they emphasise the breadth of factors that should be considered in any transformation process, and by using the proposed assessment criteria, it should be possible to assess more radical transformations in a holistic way, including an assessment of trade-offs between different enabling factors.

Although it may be challenging to use the framework for comparative assessment between communities, it is adaptable and may be used as a checklist or menu to facilitate an approach that is tailored to local contexts or identify communities that require tailored support/action. This potential to tailor to the local context is particularly important because communities vary considerably in their capacity to build resilience, because different communities are influenced by local, place-based dynamics and differing regional/national political and economic circumstances. This reflects the findings of previous work that resilience is related to the development of positive capacities at the community level (Fischer and McKee 2017). This variability across communities requires consideration and innovation on the part of external actors to ensure an equitable approach when providing support for rural community resilience actions. In that way, the expertise and responsibility for emergency planning and everyday capacity-building should arguably not be wholly assumed by individual communities. Applying a framework such as the one developed in this research therefore requires a flexible, non-bureaucratic approach, which is capable of adapting to localised specificities and which does not become an added burden for communities.

Conclusion

The contributions of the panel members in this research indicate that transformative understandings of resilience may offer greater potential to create shared action and create resilient communities, by providing a framework for community preparedness over the long-term, enabling communities to think critically about the goals they wish to achieve. In response, the framework developed here allows the concept to be put into practice in different local contexts, where it can be tailored to suit local needs and priorities. In particular, the inclusion of bonding social capital (as an enabling factor) and the use of conflict resolution, mediation techniques and inclusion (as assessment criteria) should enable different perspectives to be voiced and managed as part of any transformation process. The framework also suggests a need for a balance of local/external actors to avoid conflicts and ensure sufficient local empowerment. Cross-scalar relationships between communities and external stakeholders are also vital. Importantly, the framework of enabling factors and criteria was developed in an iterative manner by a range of actors with expertise and understanding of rural community resilience in theory and in practice, and so these complexities were discussed and incorporated into the framework, based on practical experience working with communities. As such,

the framework signposts the transformative potential of capacity building for community resilience. It offers a tool for community-led resilience, contributing to empowerment pathways and community agency, but with a critical eye on neoliberal political agendas.

The Delphi process, as a deliberative and participatory methodology, enabled research participants to consider and take into account multiple complexities and ambivalences associated with resilience as it manifests discursively in policy documents and academic literature. At the same time, the Delphi process also opened up a space for participants to address how resilience may support communities in engaging with the long-term development of community capacity and responding to future transformations. Our application of the Delphi approach included the methodological innovation of bringing panel members together face to face in the workshop for deliberation. These concluding discussions enabled the participants to discuss the importance of bounding resilience (capturing the depth and complexity of the concept), the challenges associated with comparative assessment, and place-based applications of the framework, helping coproduce many of the most important conclusions of the research.

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Table 1: Question themes and discussion prompts for Round 1 interviews

Themes	Questions/prompts
Perceptions and meanings of resilience	<ul style="list-style-type: none"> – What does community resilience mean to you? – How does this concept relate to your work? – Relevance of resilience to disaster response and/or capacity to respond to gradual change.
Factors that influence the resilience of a rural community	<ul style="list-style-type: none"> – What factors enhance/constrain resilience in rural communities? – Examples of communities experiencing specific enhancing/constraining factors.
Putting the concept into practice	<ul style="list-style-type: none"> – Can the resilience of a community be measured? – Are there criteria for community resilience, and who should define these? – Who should carry out an assessment, and how? – Should/can the assessment of resilience be linked with policy and planning process (if so, how)?
Scale-related factors	<ul style="list-style-type: none"> – Over what spatial and temporal scales should community resilience be applied and developed? – How important are 'local' factors (e.g. community capacity, assets, etc.) as opposed to 'external' factors (e.g. regional and national networks, policy drivers, etc.)? How can these factors be accounted for?

Table 2: Eight enabling factors for community resilience developed from the panel's responses to Rounds 1 and 2

Enabling factor	Description
Theme A: Capacity, collective governance and networks	
A1. Community capacity and participation, bonding social capital	<i>Skills, internal capacity and expertise: "you need actual skills or the ability to bring in skills"</i> . Capacity inequalities can affect the ability of communities to develop resilience.
	<i>Collective community action: Active collaboration is needed for change to occur, "the ability of communities to be able to identify their own needs and their own circumstances, and to be able to act on them"</i> . Barriers include: individualism, inequality; lack of confidence; lack of intergenerational networks; community divisions.
A2. Adaptable governance and planning (responsiveness)	<i>Adaptable, motivated leadership: People driven to achieve community outcomes; "it is about going out and engaging people, finding out what some of the issues are [and] guiding a process"</i> . Barriers include an underdeveloped sense of community direction and/or risk-averse/inward-looking leaders.
	<i>Future thinking and planning: Collective sense of community direction – "a well-delivered community plan serves as a good basis for change"; spaces for shared learning and sufficiently-resourced community bodies. Local-level processes of preparedness to identify needs and be able to act on them.</i>
A3. Community connectivity and wider networks, bridging social capital	<i>Strong community networks, communication and connectivity: Connections to other communities and organisations, e.g. local authorities, public bodies, and private organisations; agreement on a shared local vision. "Unless you include the wider network you can't capture 'true resilience'". Trust and patience on all sides.</i>
	<i>Sufficient capacity within public institutions (including local authorities) and alignment of policy and regulatory frameworks: Clarity in requirements of institutions, legislative and regulatory systems, managed expectations. "[There is a] mismatch of expectations of larger agencies."</i>
Theme B: Community assets, infrastructure and enterprise	
B1. Community empowerment – control of assets and funding	<i>Community control of assets and the ability to generate financial capital and/or control community budgets: Asset ownership builds confidence, facilitates community bodies and networks, avoiding change being imposed. Removal of paternalism of some organisations; "let go and trust communities"</i> .
B2. Community infrastructure	<i>Robust infrastructure and services that enable and empower the community: Particularly transport, health, social care, education, housing, digital infrastructure and communication. Ability of community to influence provision of these services/systems. "An entrepreneurial response to the challenges of [infrastructure provision]"</i> .
B3. Enterprise and economic performance	<i>Local-level entrepreneurship, involvement in social enterprise, and economic diversity: Strong economic performance and a diverse business base/private sector; integrate existing skills within the community with service delivery opportunities. "You need actual skills or the</i>

	<i>ability to bring in skills."</i>
	<i>Sufficient access to finance/capital: For investment in new businesses and community activities. Financial capacity/expertise with proactive attitudes. "We need to look at all the economic activity in the community."</i>
Theme C: Demographics, health and wellbeing, the environment	
C1. Demographics, health and wellbeing	<i>Community composition: Inclusive and diverse community, including people in work, out of work, of different classes, genders and ages. "Inclusive community trusts or other organisations." Barriers include out-migration, ageing/demographic decline.</i>
	<i>Retention of youth and opportunities for young people to contribute: Sustainable educational infrastructure as a community focus and asset. "[it is about] how you enable opportunities for young people to contribute to the community."</i>
	<i>Individual and collective health and wellbeing: Necessary to respond to change, including mental wellbeing, overcoming issues of loneliness, community cohesion and connection. "Issues around mental health need to be acknowledged."</i>
C2. Environmental aspects	<i>Environmental consciousness and an understanding that "community capacity is not only based on economic growth": Emphasis on opportunities for community engagement with the natural environment. Existing use of and emphasis on renewable energy, and sustainable land use and land management.</i>

Table 3: Rural community resilience assessment criteria developed from the responses to Rounds 1 and 2

Enabling factor	Potential criteria
A1. Community capacity and participation, bonding social capital	<ul style="list-style-type: none"> – Number of community organisations/groups per head of population/household – Number of community anchor organisations (engaging in service delivery with assets, staff and capacity to respond) – Community skills audit – Examples of conflict resolution and approaches to mediation – Community confidence levels – Opportunities to be involved in community activities (inclusion)
A2. Adaptable governance and planning (responsiveness)	<ul style="list-style-type: none"> – Existence of a community management/resilience plan (and assessment of quality) – Cycle of planning (regularity) – Process of planning
A3. Community connectivity and wider networks, bridging social capital	<ul style="list-style-type: none"> – Number of identifiable community leaders – Number of formal strategic partnerships – Number and scale of established working relationships with other communities, public bodies and/or non-governmental organisations (local, regional, national, etc.). – Complexity of community-external networks (network mapping)
B1. Community empowerment – control of assets and funding	<ul style="list-style-type: none"> – Number of assets/area of land under community control (ownership and/or management) – Amount of funding under community control (£) – Use of participatory budgeting
B2. Community infrastructure	<ul style="list-style-type: none"> – Number of community spaces for engagement/community working (and description) – Number of community or partnership renewable energy projects – Number of challenges relating to transport or energy infrastructure (and description)
B3. Enterprise and economic performance	<ul style="list-style-type: none"> – Number of new businesses and associated infrastructure – Growth and diversification of existing businesses (e.g. turnover, jobs, new products and markets) – Diversity of employment by sector – Rates of unemployment/underemployment – Average income/income inequalities – Existence of enterprise initiatives
C1. Demographics, health and wellbeing	<ul style="list-style-type: none"> – Community age and gender profile – Extent of ethnic diversity – Extent of retention of youth and returnee profile – Community health metrics – School roles and attainment rates – Levels of dependency and marginalised groups
C2. Environmental aspects	<ul style="list-style-type: none"> – Opportunities for environmental engagement – Extent of community greenspace (parks, woodlands, etc.) – Uptake of energy efficiency measures (e.g. transport, housing) – Sustainable transport – Green energy infrastructure – Environmental quality (e.g. review of wider assessments of air and water quality, pollution levels etc.)